R. A. MacGREGOR, P.ENG.

Report on Magnetometer and VLF-EM Surveys, Hearst and McFadden Townships, Ontario

Introduction

Linecutting, followed by Magnetometer and VLF-EM surveys were carried out across the lake and islands of Larder Lake in Hearst and McFadden townships. The surveys on the lake were carried out on the ice in late March and early April 1976 and on the islands during May 1976. The surveys were tied together by common base stations. The results are shown on the plans in the back pocket.

Location, Access and Ownership

The property is located on the common boundary between Hearst and McFadden townships near the 4 mile post. The claims are numbered L 396 187 to 396 197 inclusive, L 396 205 to 396 210 inclusive, L 407 268 and L 447 160 to 447 165 inclusive and are recorded in the name of Colex Explorations Inc.

Access is by way of Larder Lake from the town of Larder Lake approximately 6 miles west.

Previous Exploration

Previous work on Island 'CC' consisted of 4 diamond drill holes put down in 1946. Core logs are on file in the Privincial Geologist's office in Kirkland Lake. The core itself has been destroyed.

On Big Pete Island a number of pits have been found which were put down at an unknown date.

Geology

The two main islands are underlain by volcanic rocks. Island 'CC' is composed of rather spectacular agglomerates. The clasts are up to 2-3 feet in diameter and composed of rocks ranging from quartz porphyry to ultramafic. They are cut by feldspar porphyry and lamprophyre dykes. A large outcrop of feldspar porphyry in the centre of the island may be a plug.

Big Pete Island is largely underlain by andesite with some narrow bands of felsic tuffs. On the south west part of the island there is an ultramafic outcrop which may be intrusive.

Survey Procedure

Base lines were cut along the centre of the two main islands at approximately N 30° E. Cross lines were run at 400 foot intervals normal to the base lines. A tie line was also run on the ice between the two islands. All the lines were chained and picketed at 100 foot intervals.

Magnetometer readings were taken with a Sharpe MF-1 fluxgate magnetometer at 50 foot intervals. The looping method was used for control of diurinal variation. In this method a base station is selected and readings taken along lines describing a loop, arriving back at the starting base station in less than two hours. A second loop is then started using either the same base station or another which is tied to the previous loop. Readings are then corrected for diurinal variation by assuming the time between readings is the same and distributing any variation equally among the intervening readings. No correction was applied less than the accuracy of the base station reading.

A VLF-EM survey was carried out using a Crone Radem instrument set to the signal from Annapolis Maryland (21.4 KH_z). Readings were taken at 100 foot intervals using the procedure outlined in Appendix I. The looping method was used for control of variation, the same as described for the magnetometer survey excepting that the time was noted for each station.

Results and Conclusions

Magnetometer

The magnetics are relatively flat with only a few local magnetic highs. These are probably due to narrow bands of iron formation in the valcanics.

VLF-EM

There are a number of strong cross-overs on Big Pete Island without magnetic correlation. These may warrant ground checking.

The most interesting is a cross-over in the lake west of Big Pete island at 8+00 and 9+00NW on Line Z4SW. It appears to coincide with a 900 gamma magnetic anomaly.

Respectfully submitted

R. MacGregor

June 29, 1977

R. A. MacGregor, P. Eng.

R. A. MacGREGOR, P.ENG.

020

Report on Geochemical and VLF-EM Survey Hearst and McFadden Townships, Ontario

Introduction

Linecutting, soil sampling and VLF-EM surveys were carried out on two islands in Larder Lake and adjacent lake area in the spring of 1977. Soil samples were analysed for copper, nickel and zinc.

Location, Access and Ownership

The property is located in Hearst and McFadden townships near the 4 mile post, Larder Lake Mining Division, District of Temiskaming Ontario. The claims covered are numbered L 396 187 to L 396 188; L 396 190; L 396 192; L 396 194 to L 396 195; L 396 207 to L 396 210; L 407 268 and L 447 163 to L 447 164 inclusive and are recorded in the name of Colex Explorations Inc.

Access is by way of Larder Lake from the town of Larder Lake approximately six (6) miles west.

Previous Exploration

Previous work on Island 'CC' consisted of 4 diamond drill holes put down in 1946. Core logs are on file in the Provincial Geologist's office in Kirkland Lake. The core itself has been destroyed.

On Big Pete Island a number of pits have been found.

Geology

The two main islands are underlain by volcanic rocks. Island 'CC' is composed of rather spectacular agglomerates. The clasts are up to 2-3 feet in diameter and composed of rocks ranging from quartz porphyry to ultramafic. They are cut by feldspar porphyry and lamprophyre dykes. A large outcrop of feldspar porphyry in the centre of the island may be a plug.

Big Pete island is largely underlain by andesite with some narrow bands of felsic tuffs. On the south west part of the island there is an ultramafic outcrop which may be intrusive.

Survey Procedure

Base lines were cut along the centre of the two main islands at approximately N 30° E. Cross lines were run at 400 foot intervals normal to the base lines. A tie line was also run on the ice between the two islands. All the lines were chained and picketed at 100 foot intervals.

A VLF-EM survey was carried out using a Crone Radem instrument set to the signal from Cutler Maine (17.8 KH_z). Readings were taken at 100 foot intervals using the procedure outlined in Appendix I.

Sampling Procedure

Samples were taken from the 'B' horizon at 100 foot intervals along lines cut at a spacing of 400 feet. The samples were obtained by an auger at depths which are marked on the soil survey plan. Samples were placed in plastic bags and numbered in the field. They were then shipped to a laboratory. The samples were dried, screened to -80 mesh, decomposed by hot aqua regia and analysed for copper, nickel and zinc by atomic absorption at Assayers Limited, Rouyn, Quebec.

Results

The results of analysis in p.p.m are shown on the enclosed maps. In selecting threshold values the results of a geochemical survey by the Ministry of Natural Resources in Haliday and Midlothian townships was used as a guide for samples analysed by atomic absorption. This survey covers an area with very similar if not identical geology.

Copper

Weakly anomalous values seem more numerous than would be expected from the M.N.R. survey. One high value of 375 p.p.m. at 1 + 00 S.E. on line 16 S.W. on Big Pete Island is near an old pit.

Nickel

Nickel values are uniformly low on Big Pete Island. On Island 'CC' there are a number of anomalous values which reflect the presence of ultramafic flows.

Zinc

Zinc values are uniformly higher than might be expected from the M.N.R. survey on both islands. One particu-

Early high value of 1677 p.p.m. at 9 + 00 N.W. on Line 8 S.W. on Big Pete Island is near an outcrop showing sulphides.

VLF-EM

The cross-overs found using the Cutler station on Big Pete Island essentially confirm those also found using the Annapolis station. These should be followed up by a more discriminating EM method and by surface prospecting.

Conclusions

The soil over the mafic volcanic rocks of Big Pete Island seems anomalously high in copper and zinc. A number of cross-overs are shown by VLF methods and sulphide showings are known. Further prospecting is indicated.

August 9, 1977

Respectfully submitted

R. A. MacGregor

File 2.2446

Ontario

Ministry of Natural Resources

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPEND
FACTS SHOWN HERE NEED NOT
TECHNICAL REPORT MUST CONTAIN INTI

32D04SE0101 2.2446 MCFADDEN

900

Type of Survey(s) Magnetometer and VLF-EM

Township or Area Hearst and McFadden

Claim Holder(s) Colex Explorations, Inc.
134 Palace Drive, Sault Ste. Marie

Survey Company same

Author of Report R. A. MacGregor

Address of Author 603 Queen Street East, Sault Ste. Marie

Covering Dates of Survey 03/23/76 - 06/29/76
(linecutting to office)

Total Miles of Line Cut 11.5 miles

SPECIAL PROVISIONS CREDITS REQUESTED		DAYS per claim
ENTER 40 days (includes line cutting) for first survey.	Geophysical	
	--Electromagnetic	20
	--Magnetometer	see sheet
	--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 _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: June 29/77 SIGNATURE: R MacGregor
Author of Report or Agent

Res. Geol. _____ Qualifications 2.1102

Previous Surveys

File No.	Type	Date	Claim Holder

OFFICE USE ONLY

MINING CLAIMS TRAVERSED
List numerically

(prefix) (number)

see attached sheet

If space insufficient, attach list

TOTAL CLAIMS 24

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS -- If more than one survey, specify data for each type of survey

Number of Stations Mag - 833 VLF - 782 Number of Readings Mag - 833 VLF - 782

Station interval 100 feet Line spacing 400 feet

Profile scale 1" = 40°

Contour interval 500 gammas

MAGNETIC

Instrument Sharpe MF-1

Accuracy -- Scale constant 5 gammas on lowest scale

Diurnal correction method Corrected in time along a loop from base station

Base Station check-in interval (hours) 2 hours or less

Base Station location and value Various on base line

ELECTROMAGNETIC

Instrument Crone Radem

Coil configuration Not applicable

Coil separation Not applicable

Accuracy ± ½°

Method: ☒ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency Annapolis, Maryland 21.4 KHz (specify V.L.F. station)

Parameters measured Dip Angle of the resultant Field

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION RESISTIVITY

Instrument

Method ☐ Time Domain ☐ Frequency Domain

Parameters -- On time Frequency

-- Off time Range

-- Delay time

-- Integration time

Power

Electrode array

Electrode spacing

Type of electrode

MINING CLAIMS TRAVERSED

Claim	Days/Claim Magnetometer	VLF-EM
L 396 187	20	20
L 396 188	20	20
L 396 189	20	20
L 396 190	20	20
L 396 191	20	20
L 396 192	20	20
L 396 193	20	20
L 396 194	20	20
L 396 195	20	20
L 396 196	20	20
L 396 197	20	20
L 396 205	40	20
L 396 206	40	20
L 396 207	20	20
L 396 208	20	20
L 396 209	20	20
L 396 210	20	20
L 407 268	20	20
L 447 160	40	20
L 447 161	40	20
L 447 162	40	20
L 447 163	20	20
L 447 164	20	20
L 447 165	40	20

File 2.2446*

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

RECEIVED
AUG 15 1977
PROJECTS UNIT

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 ~~Geochemical, VLF-EM~~

Township or Area ~~Hearst & McFadden~~

Claim holder(s) ~~Colex Exploration Inc.~~
134 Palace Drive, Sault Ste. Marie, Ont.

Author of Report ~~R. MacGregor~~

Address ~~134 Palace Drive, Sault Ste. Marie, Ontario~~

Covering Dates of Survey ~~03/23/77 - 08/9/77~~
(linecutting to office)

Total Miles of Line cut 4.8

SPECIAL PROVISIONS CREDITS REQUESTED

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

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
--Electromagnetic	20
--Magnetometer	
--Radiometric	
--Other	
Geological	
Geochemical	40

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

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

DATE: _____ SIGNATURE: _____
Author of Report or Agent

PROJECTS SECTION L.D.

Res. Geol. _____ Qualifications _____

Previous Surveys _____

Checked by _____ date _____

GEOLOGICAL BRANCH

Approved by _____ date _____

GEOLOGICAL BRANCH

Approved by _____ date _____

OFFICE USE ONLY

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)	
~~L 396~~	187	1/2 ✓
✓ L	396 188	1/2 ✓
L	396 190	✓
L	396 192	✓
L	396 194	✓
L	396 195	✓
L	396 207	✓
L	396 208	✓
L	396 209	✓
L	396 210	✓
L	407 268	✓
L	447 163	
L	447 164	

If space insufficient, attach list

TOTAL CLAIMS 13.

Show instrument technical data in each space for type of survey submitted or indicate "not applicable"

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations 95 Number of Readings 97

Station interval 100 feet

Line spacing 400 feet

Profile scale or Contour intervals 1"=40°
(specify for each type of survey)

MAGNETIC

Instrument

Accuracy - Scale constant

Diurnal correction method

Base station location

ELECTROMAGNETIC

Instrument Crone Radem

Coil configuration Not applicable

Coil separation Not applicable

Accuracy + 1/2 °

Method: ☒ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency Cutler Main 17.8 KHz
(specify V.L.F. station)

Parameters measured Dip angle of the resultant field

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION -- RESISTIVITY

Instrument

Time domain Frequency domain

Frequency Range

Power

Electrode array

Electrode spacing

Type of electrode

SELF POTENTIAL

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) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken 13

Total Number of Samples 189

Type of Sample Soil
(Nature of Material)

Average Sample Weight 1/2 lb

Method of Collection Auger

Soil Horizon Sampled 'B'

Horizon Development Fair to Poor

Sample Depth 10"-20"

Terrain Steep and Rocky

Drainage Development Poor - islands

Estimated Range of Overburden Thickness 0 - 3'

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis -80 mesh

General

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☒
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others

Field Analysis (_____ tests)

Extraction Method

Analytical Method

Reagents Used

Field Laboratory Analysis

No. (_____ tests)

Extraction Method

Analytical Method

Reagents Used

Commercial Laboratory (_____ tests)

Name of Laboratory Assayers Limited

Extraction Method hot aqua regia

Analytical Method atomic absorption

Reagents Used

General

2.2446

1983 12 07 Our File: 2.2446

Mining Recorder
Ministry of Natural Resources
4 Government Road East
P.O. Box 984
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

RE: Geopbysical (Electromagnetic) Survey on Mining Claims L 396207 et al in the Hearst and McFadden Townships.

The Geophysical (Electromagnetic) Survey assessment work credits as listed with my Notice of Intent dated November 15, 1983 have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1380

R. Pichette:sc

cc: Colex Explorations Inc
Sault Ste. Marie, Ontario

cc: Resident Geologist
Kirkland Lake, Ontario

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario

Ministry of Natural Resources
Ontario

Technical Assessment Work Credits

File 2.2446

Date | Mining Recorder's Report of Work No.

Recorded Holder: COLEX EXPLORATIONS INC

Township or Area: HEARST AND MC FADDEN TOWNSHIPS

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	L 396207 to 210 inclusive 447163-64
Electromagnetic 13 days	
Magnetometer ____ days	
Radiometric ____ days	
Induced polarization ____ days	
Other ____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological ____ days	
Geochemical ____ days	
Man days ☐ Airborne ☐	
Special provision ☒ Ground ☒	
☒ Credits have been reduced because of partial coverage of claims.	
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

☐ not sufficiently covered by the survey ☐ Insufficient technical date filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Section 77(19)—60:

828 (83/6)

Ministry of Natural Resources

Ontario

Nov. 30/83

Your file:

Our file: 2.2446

1983 11 15

Mr. George J. Koleszar
Mining Recorder
Ministry of Natural Resources
4 Government Road East
P.O. Box 984
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact Mr. F.W. Matthews at 416/965-1380.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1316

for R. Pichette:mc

Encls:

cc: Colex Explorations, Inc
134 Palace Drive
Sault Ste. Marie, Ontario
P6B 5H5

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario

845

Ministry of Natural Resources

Ontario

Notice of Intent

for Technical Reports

1983 11 15

2.2446

An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on his record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted direct to the Lands Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.

Ontario

Ministry of Natural Resources

Notification of recording of assessment work credits

Recording Office
4 Gov't Road East
Kirkland Lake, Ontario
P2N 1A2

Lands Administration Branch
Mining Lands Section
Ministry of Natural Resources
Room 1617, Whitney Block
Queen's Park, Toronto
M7A 1W3

Date of recording of work: September 15, 1977

Recorded holder: Colex Explorations, Inc.

Address: 134 Palace Drive
Sault Ste. Marie, Ontario

Township or Area: Hearst & McFadden

Type of survey and number of Assessment days credit per claim	Mining claims
Geophysical	20 days each:
Electromagnetic as listed days	L-396207 to 396210 inclusive, L-447163 & 447164.
Magnetometer ____ days	40 days each:
Radiometric ____ days	L-396187 and 407268.
Induced polarization ____ days	
Section 86 (18) ____ days	
Geological ____ days	
Geochemical ____ days	
Man days ☐ Airborne ☐	
Special provision ☐ Ground ☐	

Notice to recorded holder:

☒ Survey reports and maps in duplicate be submitted to the Lands Administration Branch, Toronto within 60 days from the date of recording of this work.

☐ Reports and maps are being forwarded to the Lands Administration Branch with this letter.

Mining recorder

c.c. Colex Explorations, Inc.
Attention Robert A MacGregor

2.2446

R. A. MACGREGOR, P.ENG.
MINING ENGINEER
134 PALACE DRIVE
SAULT STE. MARIE, ONTARIO
--
TEL. (705) 949-4250

February 23, 1983

Projects Branch
MINISTRY OF NATURAL RESOURCES
Rm. 1617, Mining Lands Section
Whitney Block
Queen's Park
TORONTO, Ontario

Dear Sirs:

Re: Mining Claims L396209 and L396210
McFadden Township

My records show that on September 15, 1977 20 days EM work was recorded on these two claims. The report was submitted to you prior to this in August of 1977 and I received notice you received same dated August 17, 1977 - file No. 2.2446. I also have a notice you received some prior reports on July 13, 1977 with the same file No. 2.2446. To date I have received nothing further, either as to approval, reduction or cancellation of this work. Perhaps the two reports became confused with the same file number.

Would you please check your records and advise, as I will shortly require a certificate of work for these claims.

Yours very truly

R.A. MacGregor, P. Eng.

RAM/jh

c.c. Mining Recorder
Kirkland Lake, Ontario

Mining Recorder was called on Mar 10th/83 will send copies of approval letter to him.

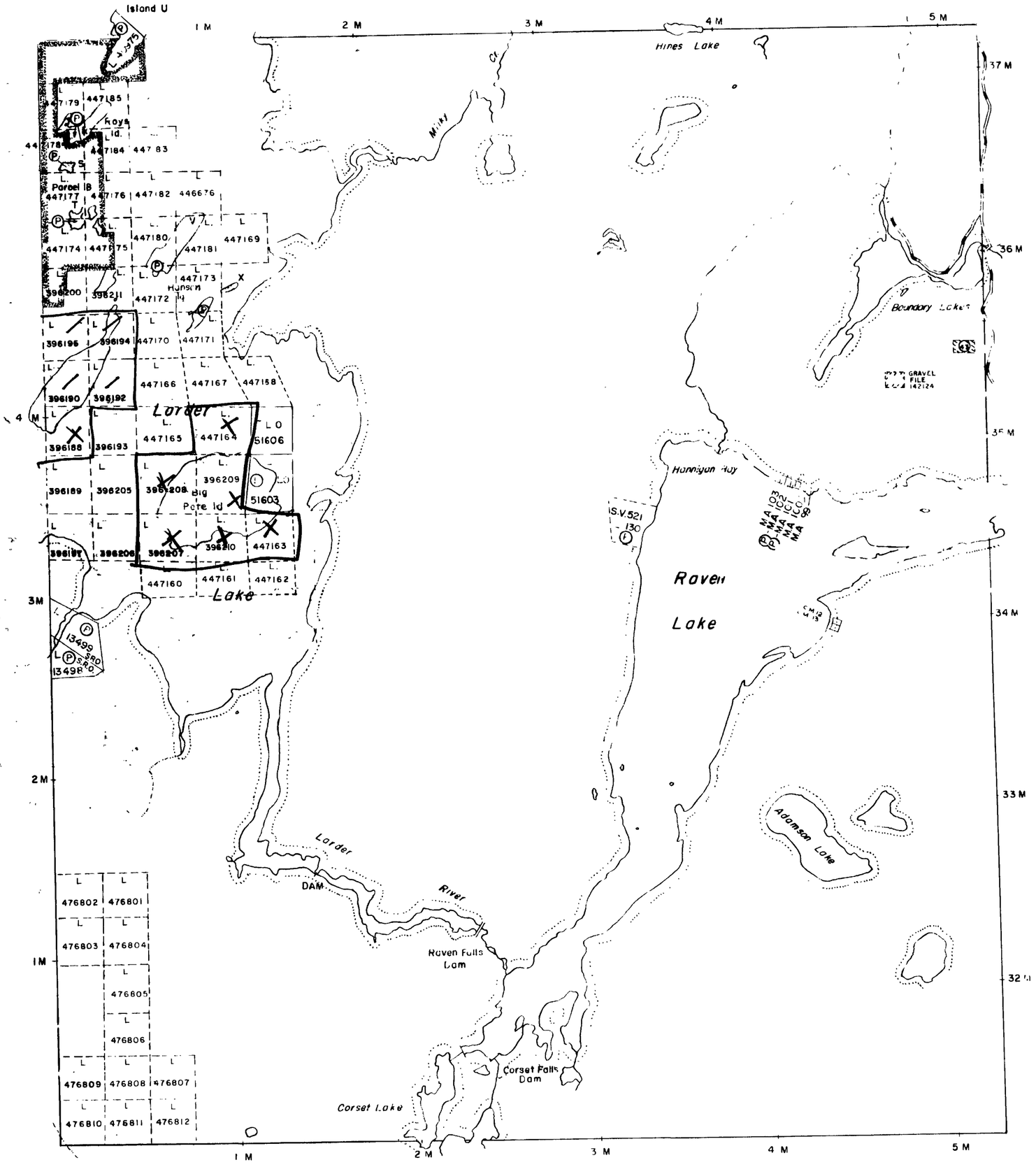
— according to record sheets of
R. A. MacGregor — claims
L 396207 to 210 & 447163-64
were not approved for the
Cutler, Maine survey
(The rest have been approved

Ray.

Return to
AFRO - once
approval has
been sent out

	Em
396207	3/4
208	1/2
209	V
210	1/2
447163	3/4
164	3/4
	13 3.25
6x20	(13)
5.25	

McGarry Twp.



THE TOWNSHIP
OF 2.2446*

McFADDEN

DISTRICT OF
TIMISKAMING

LARDER LAKE
MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	C.S.
LEASES	(L)
LOCATED LAND	Loc.
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	C.

NOTES

400' Surface rights reservation around all lakes and rivers.

L.O. 12010 shown thus:

Areas withdrawn from
43 of the Mining Act (

Order No.	File	Date	
(43) W 52/74	142124	15/10/74	S.R.O.

1 geochem
F.M

DATE OF ISSUE
AUG 16 1977
SURVEYS AND MAPPING
BRANCH

PLAN NO.- M.368

MINISTRY OF NATURAL RESOURCES

32D04SE0101 2.2446 MCFADDEN

200

McVITTIE TWP. M-370

McELROY TWP. M-366

McFADDEN TWP. M-368

SKEAD TWP. M-387

THE TOWNSHIP
OF

2.2446*

HEARST

DISTRICT OF
TIMISKAMING

LARDER LAKE
MINING DIVISION

SCALE: 1-INCH ·· 40 CHAINS

LEGEND

PATENTED LAND	● or (P)
CROWN LAND SALE	C.S.
LEASES	(L)
LOCATED LAND	Loc.
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	C.
PATENTED S.R.O.	

NOTES

400' Surface Rights reservation along the shores of all lakes and rivers.

Township of Hearst lies entirely within the CORPORATION of the TOWNSHIP of LARDER LAKE. File: 129282.

Staking of mining claims within the Town of Larder Lake shown thus [redacted] subject to Sec 37(b) of the Mining Act (R.S.O. 1970).

geochem
EM

DATE OF ISSUE
AUG 16 1977
SURVEYS AND MAPPING BRANCH

PLAN NO. M-354

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

McGarry Twp.

Hearst Twp.

Rattray Twp.

PROVINCE OF QUEBEC

Island U

Roys Ld.

Parcel 18.

Hunson Lk.

Lake

Big Pete L.

Hires Lake

Milky

Boundary Lakes

GRAVEL PIT FILE 142124

Hannigan Bay

Raven Lake

Lorder DAM

River

Raven Falls Dam

Corset Falls Dam

Corset Lake

Adamson Lake

1 M 2 M 3 M 4 M 5 M

37 M 36 M 35 M 34 M 33 M 32 M

THE TOWNSHIP OF 2.2446

McFADDEN

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

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

NOTES

400' Surface rights reservation around all lakes and rivers

L.O. 12010 shown thus:

Areas withdrawn from 43 of the Mining Act (

Order No	File	Date	
(43) W52/74	142124	15/10/74	S.R.

DATE OF ISSUE
JUL 12 1977
SURVEYS AND MAPPING BRANCH

PLAN NO - M.368

MINISTRY OF NATURAL RESOURCES

32D04SE0101 2.2446 MCFADDEN

McVITTIE TWP. M-370

McELROY TWP. M-366

McFADDEN TWP. M-368

SKEAD TWP. M-387

THE TOWNSHIP OF 2.2446

HEARST

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

SCALE: 1-INCH ·· 40 CHAINS

LEGEND

PATENTED LAND	● or (P)
CROWN LAND SALE	C.S.
LEASES	(L)
LOCATED LAND	Loc.
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	C.
PATENTED S.R.O.	

NOTES

400' Surface Rights reservation along the shores of all lakes and rivers.

Township of Hearst lies entirely within the CORPORATION of the TOWNSHIP of LARDER LAKE. File: 129282.

Staking of mining claims within the Town of Larder Lake shown thus [redacted] subject to Sec. 37(b) of the Mining Act (R.S.O 1970).

DATE OF ISSUE
JUL 12 1977
SURVEYS AND MAPPING BRANCH

PLAN NO. M-354

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

GEOCHEMICAL SURVEY

HEARST & McFADDEN TOWNSHIP

SCALE 1"=400'

1"=40°

DECOMPOSITION - HOT AQUAREGIA

ANALYSIS - ATOMIC ADSORTION

Depth in inches
Analysis

ZINC IN P.P.M.

ANOMALIES

- WEAK 61-100 P.P.M.
- MODERATE 101-200 P.P.M.
- STRONG OVER 200 P.P.M.

REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO

N

HEARST TWP.
McFADDEN TWP.

B.L.

24 NE
20 NE
16 NE
12 NE
8 NE
4 NE

ISLAND 'CC'

LARDER LAKE

LINE O

4 SW
8 SW
12 SW
24 SW
28 SW
32 SW
36 SW

16 NE
12 NE
8 NE
4 NE

BIG PETE ISLAND

4 SW
8 SW
12 SW
16 SW
20 SW
24 SW
28 SW
32 SW
36 SW
40 SW

GEOCHEMICAL SURVEY

HEARST & McFADDEN TOWNSHIP

SCALE 1"=400'

1"=40°

DECOMPOSITION - HOT AQUAREGIA

ANALYSIS - ATOMIC ADSORTION

Depth in inches

Analysis

NICKEL IN P.P.M

ANOMALIES

- ○ WEAK 76-150 P.P.M
- ● MODERATE 151-300 P.P.M
- ● STRONG OVER 300 P.P.M

N

HEARST TWP.

McFADDEN TWP.

B.L.

24 NE

20 NE

16 NE

12 NE

8 NE

4 NE

ISLAND 'CC'

LARDER LAKE

LINE O

4 SW

8 SW

12 SW

16 SW

20 SW

24 SW

28 SW

32 SW

36 SW

40 SW

BIG PETE ISLAND

REGISTERED PROFESSIONAL ENGINEER PROVINCE OF ONTARIO R. A. MacGREGOR

GEOCHEMICAL SURVEY

HEARST & McFADDEN TOWNSHIP

SCALE 1"=400'

1"=40°

DECOMPOSITION - HOT AQUAREGIA

ANALYSIS - ATOMIC ADSORTION

COPPER IN P.P.M

ANOMALIES

- ○ WEAK 26-50 P.P.M
- ● MODERATE 51-100 P.P.M
- Ⓢ STROG OVER 100 P.P.M

MAGNETOMETER SURVEY
HEARST & MCFADDEN TOWNSHIPS
SCALE 1"=400'

INSTRUMENT: SHARPE MF-1
READINGS IN GAMMAS
CONTOUR INTERVAL - 500 GAMMAS

N

REGISTERED PROFESSIONAL ENGINEER
A. G. MACGREGOR
PROVINCE OF ONTARIO

Base Line
Tie Line
Line O
Island 'CC'
Lardier Lake
Big Pete Island
HEARST TWP.
McFADDEN TWP.

24NE
20NE
16NE
12NE
8NE
4NE
12SW
16SW
20SW
4SW
8SW
24SW
28SW
32SW
36SW
40SW
29SW

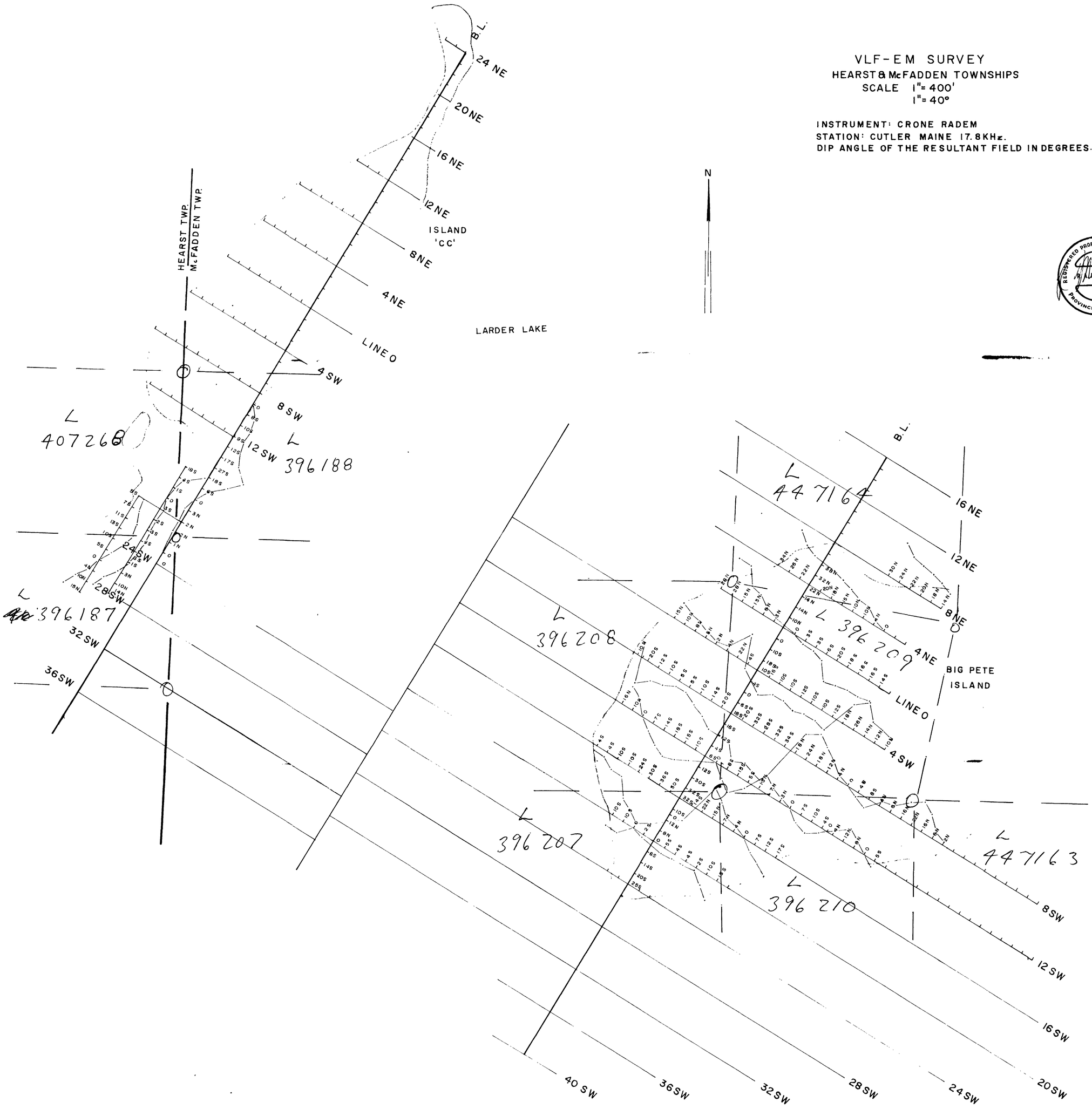
396195
396190
396194
396191
396192
396193
396188
396189
396205
396208
396209
396196
396197
396206
396207
396210
407268
447165
447164
447163
447160
447161
447162

VLF-EM SURVEY

HEARST & McFADDEN TOWNSHIPS
SCALE 1"= 400'
1"= 40°

INSTRUMENT: CRONE RADEM
STATION: CUTLER MAINE 17.8KHz.
DIP ANGLE OF THE RESULTANT FIELD IN DEGREES.

REGISTERED PROFESSIONAL ENGINEER
M. A. MacGREGOR
PROVINCE OF ONTARIO



VLF-EM SURVEY
HEARST & MCFADDEN TOWNSHIPS
SCALE 1"=400'
1"=40°

INSTRUMENT: CRONE RADEM
STATION: ANNA POLIS, MARYLAND 21.4 KHz
DIP ANGLE OF THE RESULTANT FIELD IN DEGREES

N

REGISTERED PROFESSIONAL ENGINEER
W.A. McGREGOR
PROVINCE OF ONTARIO

HEARST TWP.
McFADDEN TWP.
LARDER LAKE
Island 'CC'
Big Pete Island
Tie Line
Base Line
Line 0

396195 396194 396190 396191 396192 396188 396193 396189 396205 396208 396209 396206 396207 396210 396196 396197

447164 447165 447163 447162 447161 447160

407268

24NE 20NE 16NE 12NE 8NE 4NE
4SW 8SW 12SW 16SW 20SW 24SW 28SW 32SW 36SW 40SW