



010

REPORT ON A GEOLOGICAL SURVEY

RECEIVED

NOV - 5 1982

MINING LANDS SECTION

MAC-2

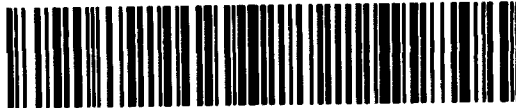
PRICE 035-05

NTS: 42-A-6/3

AMAX MINERALS EXPLORATION

Timmins, Ontario
August, 1982

S. Davies



	<u>Page</u>
SUMMARY	1
INTRODUCTION	2
LOCATION AND ACCESS	2
TOPOGRAPHY AND RESOURCES	2
PREVIOUS WORK	
From Assessment Files	3
Found In Field	3
SURVEY METHOD	3
REGIONAL GEOLOGY	4
PROPERTY GEOLOGY	4
CONCLUSIONS AND RECOMMENDATIONS	5

LIST OF FIGURES

FIGURE 1	LOCATION SKETCH	After Page 2
FIGURE 2	COMPILATION SKETCH	After Page 4
FIGURE 3	CLAIM SKETCH	After Page 5

LIST OF TABLES

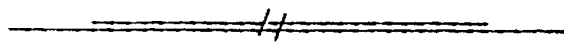
TABLE 1	TABLE OF FORMATIONS	After Page 4
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LIST OF APPENDICES

APPENDIX A	SCHEDULE OF CLAIMS	After Page 5
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LIST OF MAPS

MAP 1	GEOLOGICAL SURVEY MAP	Back Pocket
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SUMMARY

During June of 1982, a geological survey was performed on four (4) claims in central McArthur township, District of Timiskaming, Ontario.

The property is underlain by mafic metavolcanics (basalt) which is intruded by gabbro.

The airborne electromagnetic survey conducted in 1980 outlined two (2) anomalies on the property.

It is recommended that detailed ground geophysics be conducted to delineate future diamond drill hole targets.

INTRODUCTION

A detailed geological survey was carried out on a group of four (4) claims in McArthur township during June of 1982. The claim numbers are P-618272-75, and are recorded in the name of Amax of Canada Limited.

The property covers two (2) electromagnetic anomalies located during a helicopter-borne survey carried out by Amax in August of 1980.

LOCATION & ACCESS

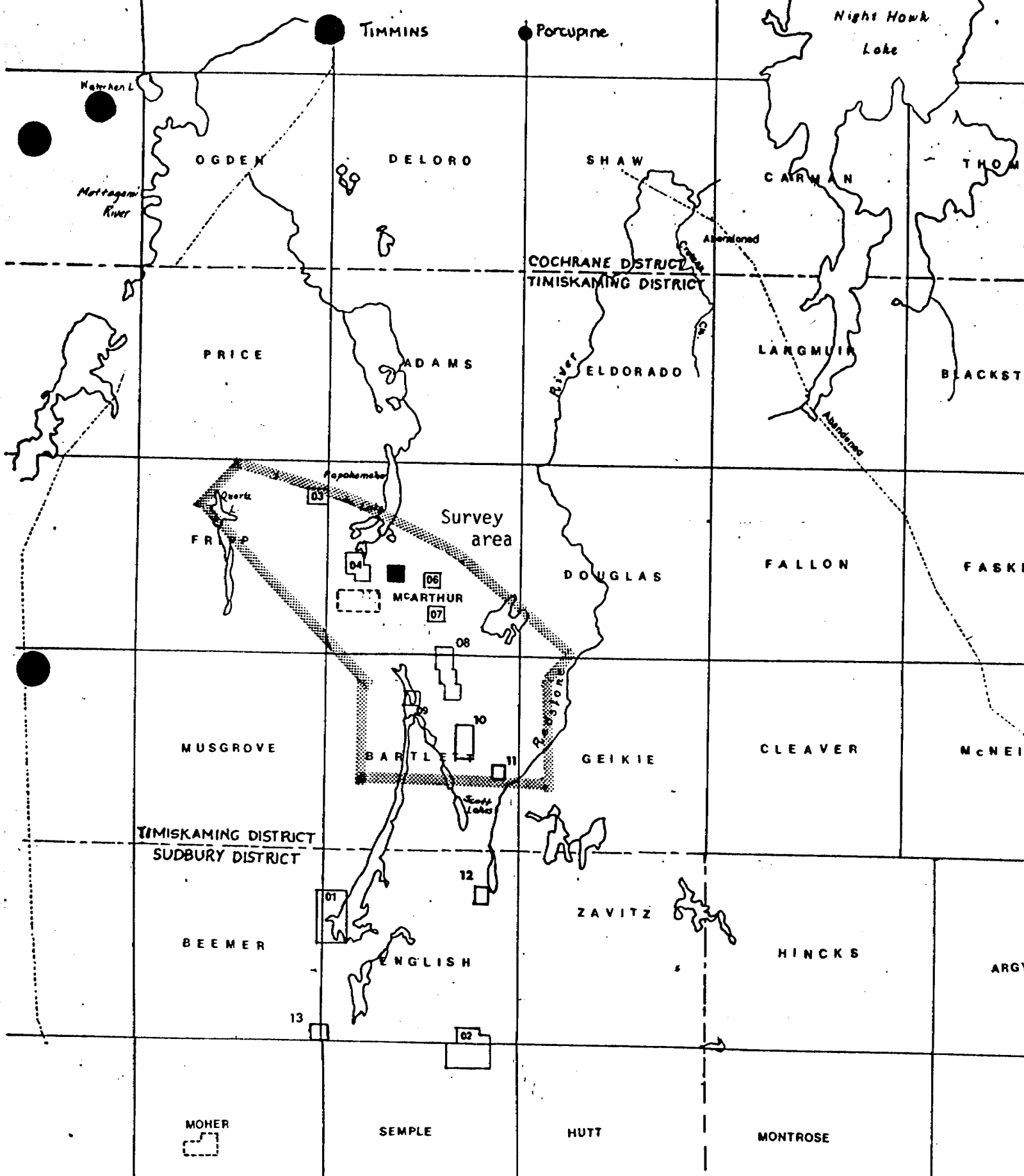
The group of four (4) claims is situated in central McArthur township in the District of Timiskaming, Ontario.

An old trail crosses the south-western claims. This trail can be reached by driving approximately 2.5 km north along a logging road. The logging road exits east off Papanomeka Lake road at the McArthur-Bartlett township line.

TOPOGRAPHY AND RESOURCES

The relief of the property is high with a series of ridges running north-south, east of Mountjoy River.

The western claims are covered predominantly by swampy ground.



LOCATION SKETCH
 Project 035-05, Mac-2
 Scale: 1:250,000.

Scale 1:250,000

Vegetation consists of pine and poplar in the eastern claims and alder swamp in the west claims.

Water for diamond drilling is available from the Mountjoy River which runs through claim P-618273 and from the small lake in P-618274.

PREVIOUS WORK

From Assessment Files

Abitibi Asbestos, 1973, ran magnetic and electromagnetic geophysical surveys on the property. They recommended two (2) holes, neither of which were drilled.

Found in Field

None

SURVEY METHOD

The survey was performed by S. Davies and L. de St. Jorre during June of 1982. Air photos at a scale of 1" = 1/4 mile and air photo blow-ups at a scale of 1:5,000 were used as control while mapping.

Traverse lines were run using pace and compass at 125 metre intervals across the claims.

REGIONAL GEOLOGY

Early Precambrian (Archean) metavolcanic and plutonic rocks underlie most of the area.

Two cycles of volcanism are recognized, each consisting of a lower unit of ultramafic metavolcanics, an overlying unit of mafic metavolcanics and an upper unit of intermediate to felsic metavolcanics.

A pre-tectonic, layered gabbroic sill and minor felsic epizonal intrusions are largely confined to the lower sequence of metavolcanics.

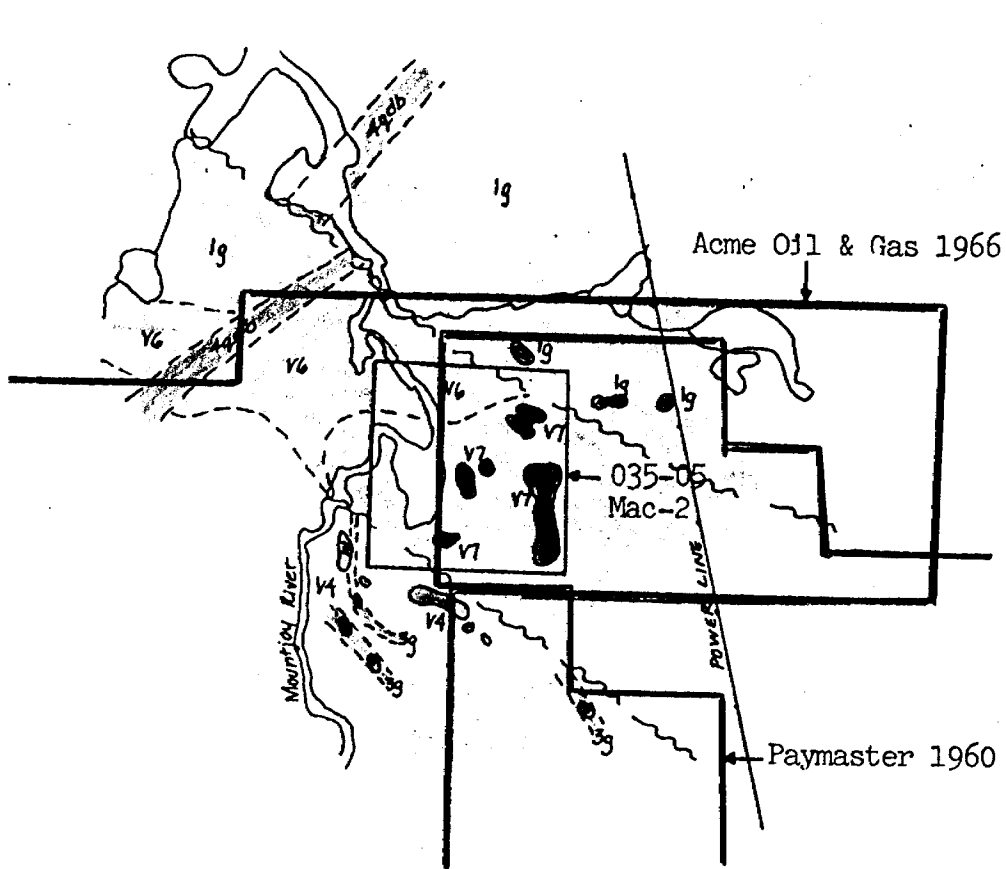
Late tectonic stocks of granodiorite and monzonite were emplaced within the metavolcanic-metasedimentary succession. The lower sequence of mafic and ultramafic metavolcanics was intruded by a large complex granitic batholith composed of at least three separate intrusive phases.

Diabase dykes are numerous and are not confined to a specific metavolcanic sequence.
















The major structural features in the area consist of a domal structure in Geikie township that is flanked by large synclines to the north and south, and numerous north-trending faults which are probably part of the Onaping Lineament.

PROPERTY GEOLOGY

The property is situated on the south margin of a



LEGEND

- V4  Dacite
- V6  Andestite
- V7  Basalt
- lg  Granite
- 4qdb  Quartz Diabase
- 3g  Gabbro
-  Fault - inferred
-  Geological Contact - inferred
-  - observed
-  Outcrop
-  Acme Oil & Gas 1966 - Geophysics
-  - 2 holes drilled; hit I.F.
-  Paymaster 1960 - E.M. & mag. surveys
-  - 6 holes drilled for Fe in I.F.
-  - 3 holes drilled for Ni in peridotite

AMAX MINERALS EXPLORATION

PROJECT : Price (035)
 GROUP : 035-05, Mac-2
 TOWNSHIP: McArthur
 SURVEY : Compilation
 DATE : August 1982
 SCALE : 1" = 1/2 mile

TABLE OF FORMATIONS

PHANEROZOIC

CENOZOIC

Quaternary - Pleistocene and recent

-----Unconformity-----

PRECAMBRIAN

LATE PRECAMBRIAN, MIDDLE PRECAMBRIAN - Olivine, quartz diabase

Huronian Supergroup

Cobalt Group

Gowganda Formation: Greywacke, arkose, conglomerate

-----Unconformity-----

EARLY PRECAMBRIAN (ARCHEAN)

Mafic Intrusive Rocks

Diabase

-----Intrusive Contact-----

Felsic Intrusive Rocks

-----Intrusive Contact-----

Metamorphosed Mafic and Ultramafic Rocks

Gabbro, serpentized peridotite, quartz gabbro

-----Intrusive Contact-----

METAVOLCANICS AND METASEDIMENTS

Intermediate to Felsic Volcanics:

Tuff, breccia, massive to pillowed flows, interlayered
siltstone, greywacke

Mafic Metavolcanics:

Massive and pillowed flows, tuff, volcanic breccia,
pyroclastic rocks

Ultramafic Metavolcanics:

Serpentinized peridotite; spinifex texture flows,
tuff, carbonatized peridotite

large porphyritic granodiorite pluton which intrudes the Lower Volcanic Group.

The majority of the bedrock consists of fine to medium grained, massive basalt. Pillow basalts were found in P-618275 but tops could not be determined. The basalt was poorly foliated.

Two gabbroic intrusions were found trending approximately north-east. They are very fine grained, slightly magnetic in places but not conductive.

Mineralization was very minor ($\ll 0.5\%$), consisting of disseminated pyrite in the mafic metavolcanics.

CONCLUSIONS AND RECOMMENDATIONS

The property is located on the margin of a granitic pluton in contact with mafic metavolcanics.

The airborne geophysical conductor was not explained by the geological survey.

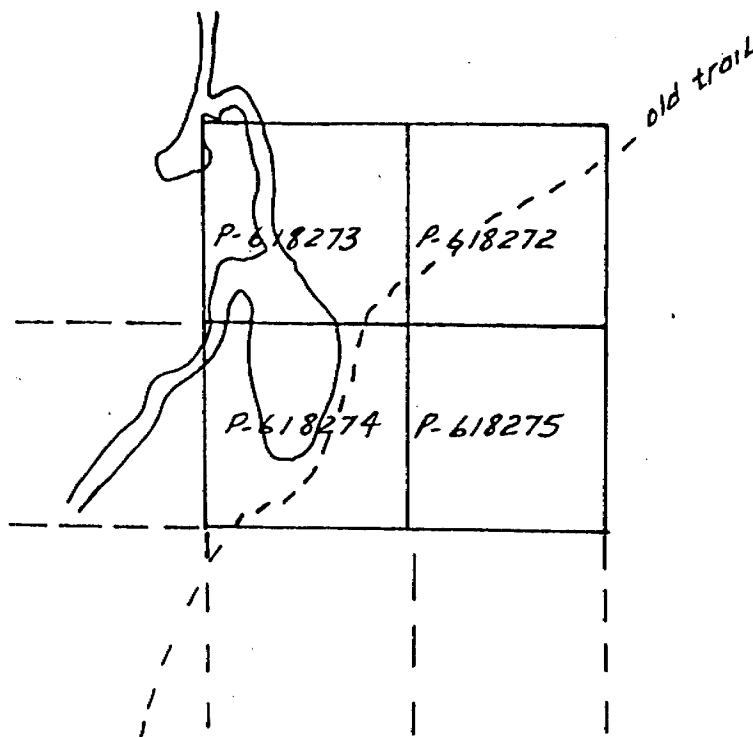
It is recommended that detailed ground geophysical surveys should be conducted to delineate future diamond drill hole targets.

Respectfully submitted,

S. Davies

S. Davies

Timmins, Ontario
August, 1982



McARTHUR Twp.

CLAIM SKETCH

Project 035-05

MAC-2

McArthur Township

Scale: 1" = $\frac{3}{4}$ mile

APPENDIX A

SCHEDULE OF CLAIMS

PROJECT PRICE

035-05

Claim Group	Township	Number	Claim Numbers	Recording Date
Mac-2	MacArthur	4	P-618272	May 25, 1981
035-05			P-618273	May 25, 1981
			P-618274	May 25, 1981
			P-618275	May 25, 1981

DECLARATION

I, Joseph A. MacPherson, of the City of Sudbury, in the Province of Ontario, with a mailing address of 255 Algonquin Blvd. West, Timmins, Ontario, do hereby declare:

1. I am a geologist employed by Amax of Canada Limited, with offices at 255 Algonquin Blvd. West, Timmins, Ontario.
2. I completed an honours B.Sc. programme (geology) in 1980 at Laurentian University in Sudbury, Ontario.
3. I did personally set forth the facts as outlined in this report and did conduct or supervise, or review, the work contained herein.
4. I do not have, nor do I expect to have, any interest in the properties held by Amax of Canada Limited.


Joseph A. MacPherson

Dated at Timmins, Ontario

JAN 28 1983

Jan 26/83

OFFICE OF THE PROVINCIAL CO-ORDINATOR

Mining Lands Comments

- no qualifications - qualifications are shown for the project supervisor - acceptable

To: Geophysics

Comments

Approved Wish to see again with corrections Date Signature

To: Geology - Expenditures *W/R Kustrea* 5-1180

Comments

Approved Wish to see again with corrections Date *March 18/83* Signature *CKustrea*

To: Geochemistry

Comments

Approved Wish to see again with corrections Date Signature

To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

2.5172

1983 07 25

2.5172

Mr. William L. Good
Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

RE: Geological Survey on Mining Claims P 618272 et al
in the Township of McArthur.

The Geological Survey assessment work credits as listed
with my Notice of Intent dated June 30, 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 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: (416)965-1380

R. Pichette:mc

cc: Amax of Canada Limited
255 Algonquin Blvd. West
Timmins, Ontario
P4N 2R8

cc: Resident Geologist
Timmins, Ontario



1983 06 30

Recorded Holder
AMAX OF CANADA LIMITED

Township or Area
McARTHUR TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic _____ days	P618272 - 73
Magnetometer _____ days	P618275
Radiometric _____ days	
Induced polarization _____ days	
Section 86 (18) _____ days	
Geological _____ 20 days	
Geochemical _____ days	
Man days <input type="checkbox"/> Airborne <input type="checkbox"/>	
Special provision <input checked="" type="checkbox"/> Ground <input checked="" type="checkbox"/>	
<input type="checkbox"/> Credits have been reduced because of partial coverage of claims.	
<input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	
77(16)	

Special credits under section ~~86(15)~~ for the following mining claims

15 days credit: Geological
P618274

No credits have been allowed for the following mining claims

not sufficiently covered by the survey Insufficient technical data 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 86(18)-60:



Ministry of
Natural
Resources

July 15/83

Your file:

1983 06 30

Our file: 2.5172

Mr. William L. Good
Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

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

R. Pichette:mc

cc: Amax of Canada Limited
255 Algonquin Blvd. West
Timmins, Ontario
P4N 2R8

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

Encls:



Ministry of
Natural
Resources

Notice of Intent
for Technical Reports

1983 06 30

2.5172

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.

366

1982 11 12

2.5172

Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

We have received reports and maps for a Geological Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims P 618272 et al in the Township of McArthur.

This material will be examined and assessed and a statement of assessment work credits will be issued.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1380

DW:sc

cc: Amax of Canada Limited
Timmins, Ontario
Attn: Sandra Davies.



MINERALS EXPLORATION
(A Division of AMAX OF CANADA LIMITED)

255 Algonquin Blvd. West
Timmins, Ontario
P4N 2R8

Telephone: (705) 264-5247

Our File: 035-05

November 4, 1982

Mr. F. W. Matthews,
Ontario Ministry of Natural Resources,
W1617, Whitney Block,
Queen's Park,
Toronto, Ontario.
M7A 1W3

RECEIVED

NOV - 5 1982

MINING LANDS SECTION

Dear Sir:

Re: Mining Claims P.618272 et al.,
McArthur Township

Enclosed herewith please find two (2) copies of a report along with accompanying plan concerning a Geological Survey which was carried out over a total of four (4) contiguous mining claims located in McArthur township, northeastern Ontario.

A Report of Work concerning this survey has been filed with Mr. William Good, Mining Recorder for the Porcupine Mining Division.

Thank you.

Yours truly,
AMAX OF CANADA LIMITED

Rosemary Tittley
Rosemary Tittley (Mrs.)
Land Recorder

Encs. 2

c.c. K. Clemis/E. Barclay, Toronto



GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL
TECHNICAL DATA STATEMENT

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) Geological Survey

Township or Area McArthur

Claim Holder(s) Amax of Canada Limited

Survey Company Amax Minerals Exploration

Author of Report Sandra Davies

Address of Author 255 Algonquin Blvd. W., Timmins, Ont

Covering Dates of Survey June 1982
(linecutting to office)

Total Miles of Line Cut _____

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
P	618272
P	618273
P	618274
P	618275

If space insufficient, attach list

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

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

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

DATE: Sept. 1, 1982 SIGNATURE: Sandra Davies
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

TOTAL CLAIMS 4

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: Fixed transmitter Shoot back In line Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION

RESISTIVITY

Instrument _____

Method Time Domain Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

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 _____

