



42A06NE0415 2.4328 DELORO

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REPORT ON A GEOLOGICAL SURVEY

RECEIVED

NOV 27 1981

MINING LANDS SECTION

DELORO-5

PROJECT 1043-15

NTS: 42-A-6

AMAX MINERALS EXPLORATION

Timmins, Ontario
October, 1981

J. MacPherson
Geologist

SUMMARY

During late May of 1981, a geological survey was performed on a group of three (3) claims in north east Deloro township, in the District of Cochrane, Ontario.

The property is underlain by felsic to intermediate volcanics with interflow sediments including minor iron formation. A major fold striking east-west and plunging to the west is present on the property.

The area in which a 1/2oz/ton assay of silver was located will be extensively re-mapped and sampled. The results of this will determine what, if any, further work is to be done on the property.

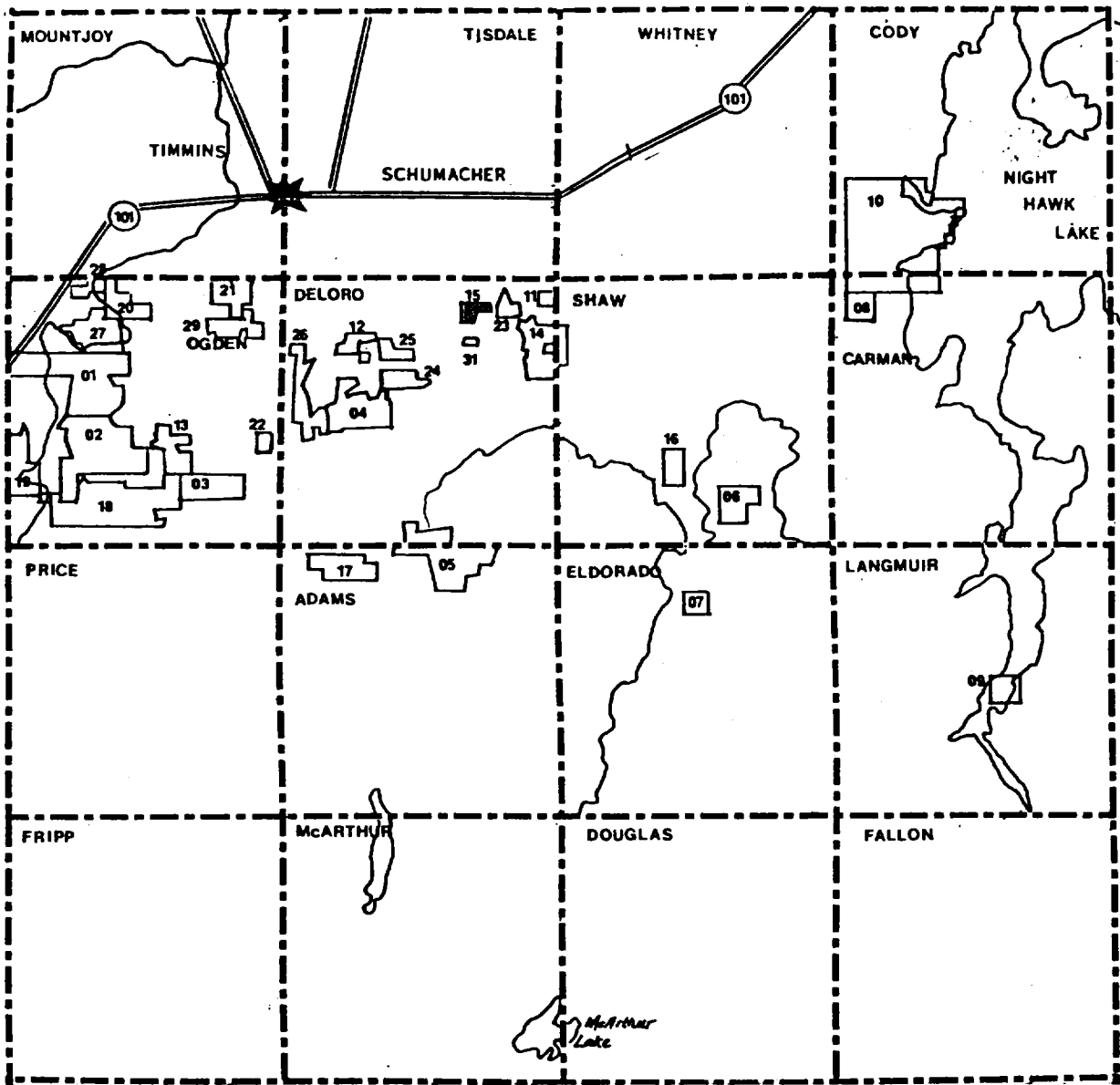
INTRODUCTION

During late May, 1981, a detailed geological survey was carried out on a group of three claims located in north east Deloro township. The claim numbers are P567046 - 48, and are recorded in the name of Amax of Canada Limited.

The geology of the property is interpreted to be that of the Upper Deloro Group, south of the Porcupine-Destor Fault.

LOCATION AND ACCESS

The group of three (3) claims is situated in the north east part of Deloro township in the District of Cochrane, Ontario.



LOCATION MAP
 Project 1043-15

DE LORO-5
 1" = 4 miles

Tisdale Twp.

Lot 5

Lot 4

Lot 3

Deloro Twp.

South Porcupine River

P567046

P567047

P567048

5M

N

CLAIM MAP

Project 1043-15

DELORO-5

Deloro Township

1" = 1/4 mile

The property is located 2.5 kilometres due south of the Dome Mine. It can be reached via a network of gravel roads leading south and then east from the old Buffalo Ankerite Mine property.

TOPOGRAPHY AND RESOURCES

The relief on the property is moderate. The outcrop ridges are cut by narrow north-south gullies. Outcrop exposure is about 5%.

Vegetation consists of poplar with some birch and spruce on the ridges, and alders in the gullies.

The Porcupine River to the north as well as small streams in the gullies would be adequate sources of water for diamond drill programs.

PREVIOUS WORK

No evidence of previous work was found in the assessment files.

In the field, one trench was found on the iron formation at Post #2 of claim P-567047. No gold values were obtained from assays of grab samples taken from the trench and dump.

SURVEY METHOD

The survey was performed by J. MacPherson and D. Messenger

TABLE OF FORMATIONS

CENZOIC

Quaternary

Recent

Swamp and stream deposits

Pleistocene

Till, clay, sand, gravel

Unconformity

PRECAMBRIAN

Mafic Intrusive Rocks

Olivine diabase, quartz diabase

Intrusive Contact

Huronian Supergroup

Gowganda Formation, Cobalt Group

Arkose, wacke, argillite, conglomerate

Unconformity

ARCHEAN

Mafic Intrusive Rocks

Diabase

Intrusive Contact

Felsic Intrusive Rocks

Quartz feldspar porphyry, granite, diorite, granodiorite

Metamorphosed Mafic Intrusive Rocks

Gabbro, quartz gabbro

Intrusive and Gradational Contact

Metamorphosed Ultramafic Intrusive Rocks

Serpentinized diorite, peridotite

Intrusive Contact

METAVOLCANICS AND METASEDIMENTS

Metasediments

Conglomerate, lithic wacke, iron formation

Metavolcanics

Felsic Calc Alkalic metavolcanics

Massive, fine-grained flows, tuff, lapilli tuff, breccia

Mafic Calc-alkalic metavolcanics

Massive, fine-grained flows, pillowed flows, tuff, lapilli tuff and breccia, sheared, carbonated pyroclastics

Tholeiitic Metavolcanics

Massive to medium grained flows, pillowed flows and flow breccia, minor tuff, lapilli tuff and breccia

Komatiitic Metavolcanics

Peridotite, olivine spinifex, carbonate and talc alteration

during late May, 1981. Air photographs at a scale of 1:30,000 and air photo blow-ups at a scale of 1:5,000 were used as control while mapping.

The property was mapped at 400 foot intervals along lines run by pace and compass.

REGIONAL GEOLOGY

The volcanic rocks of the Timmins area consist of the Older Deloro Group and the younger overlying Tisdale Group.

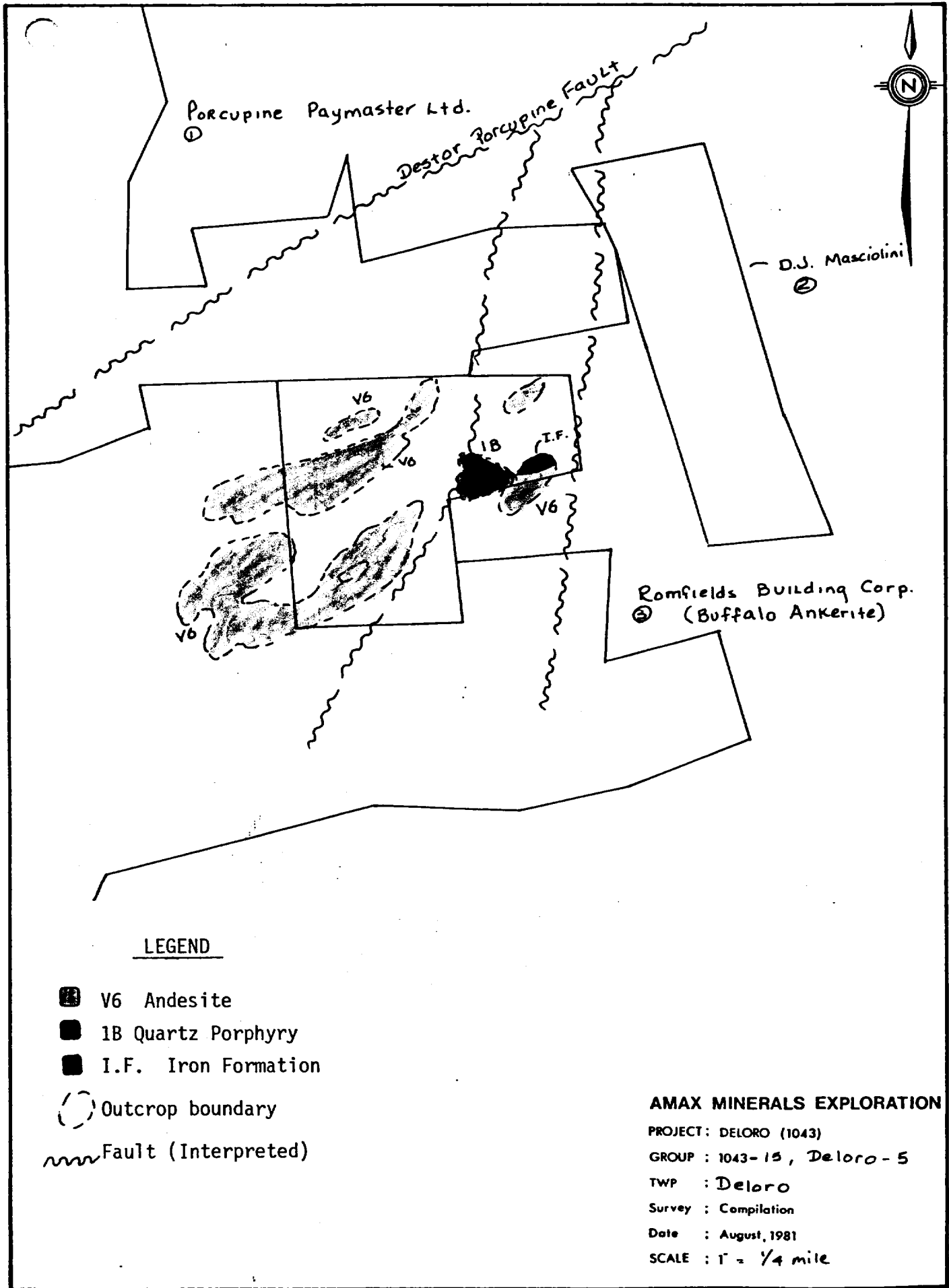
The Deloro Group is confined to a large domal structure centred in Shaw township. It grades from andesite and basalt flows in the lower portion to dacite and rhyolite pyroclastics near the top. Oxide iron formation is the marker horizon which can be used to separate the two groups of rocks. A major change in volcanism marks the beginning of the Tisdale Group, the Lower Volcanic Formation of which is marked by serpentized ultramafic flows.

The Destor-Porcupine Fault is the major structural feature in the area, along with the Porcupine Syncline to the north and the Shaw Dome to the south.

PROPERTY GEOLOGY

The property is situated in rocks of the Deloro Group just south of the Porcupine-Destor Fault.

Felsic and intermediate flows with interflow sediments



LEGEND

- V6 Andesite
- 1B Quartz Porphyry
- I.F. Iron Formation
- Outcrop boundary
- ~~~~ Fault (Interpreted)

AMAX MINERALS EXPLORATION
 PROJECT: DELORO (1043)
 GROUP : 1043-15, Deloro-5
 TWP : Deloro
 Survey : Compilation
 Date : August, 1981
 SCALE : 1" = 1/4 mile

are present on the property. There is an overall grading from mafic to felsic flow from south to north. The sediments are generally siliceous and are medium-grained. Pyrite may be present in pods in the sediments. An assay of ore from these pods returned trace gold, 17.4ppm. silver and 0.3% zinc.

Contact areas between the sediments and volcanics are moderately sharp.

A large fold is present on the property. Its axis runs east-west and the fold appears to plunge to the west. The nose of the fold is exposed in the central part of the property. It is in interbedded arkosic sediments and then intermediate flows. Foliation measurements swing through 180° moving from the north side to the south side of the outcrop. North of the fold, the rocks dip north, while south of the fold, the rocks dip to the south.

Other than the silver assay mentioned above, there were no significant assays obtained from the property.

CONCLUSIONS AND RECOMMENDATIONS

The property geology consists of a series of felsic to intermediate flows with clastic interflow sediments. A large fold is present on the property. This strikes east-west and plunges west.

The only interesting mineralization was found in sulphide pods in the sediments. This was in the form of trace Au, 17.4ppm. Ag. and 0.3% Zn.

It is recommended that the property be retained. The area of the silver assay should be extensively re-sampled. Once

this is completed, further work may be contemplated, depending on the results.

Timmins, Ontario
October, 1981

J. MacPherson
J. MacPherson
Geologist

APPENDIX A

SCHEDULE OF CLAIMS

PROJECT 1043-15

Deloro-5

Claim Group	Township	Number	Claim Numbers	Recording Date
1043-15 Deloro-5	Deloro	3	P-567046 P-567047 P-456048	April 18, 1980 April 18, 1980 April 18, 1980

December 14, 1981

2.4328

Office of the 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.567046 et al, in the Township of Daloro.

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

J. Skura/bk

cc: Joseph MacPherson
Timmins, Ontario

cc: AMAX Minerals Exploration
Timmins, Ontario
Attention: Rosemary Tittley

November 23, 1981

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NOV 27 1981

MINING LANDS SECTION

Mr. F. W. Matthews,
Ontario Ministry of Natural Resources,
W 1617, Whitney Block,
Queen's Park,
Toronto, Ontario.
M7A 1W3

Dear Sir:

Enclosed herewith please find two (2) copies of a report on a geological survey which was carried out on the below listed contiguous mining claims located in Deloro township, along with their respective survey plans.

P-567046

P-567047

P-567048

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

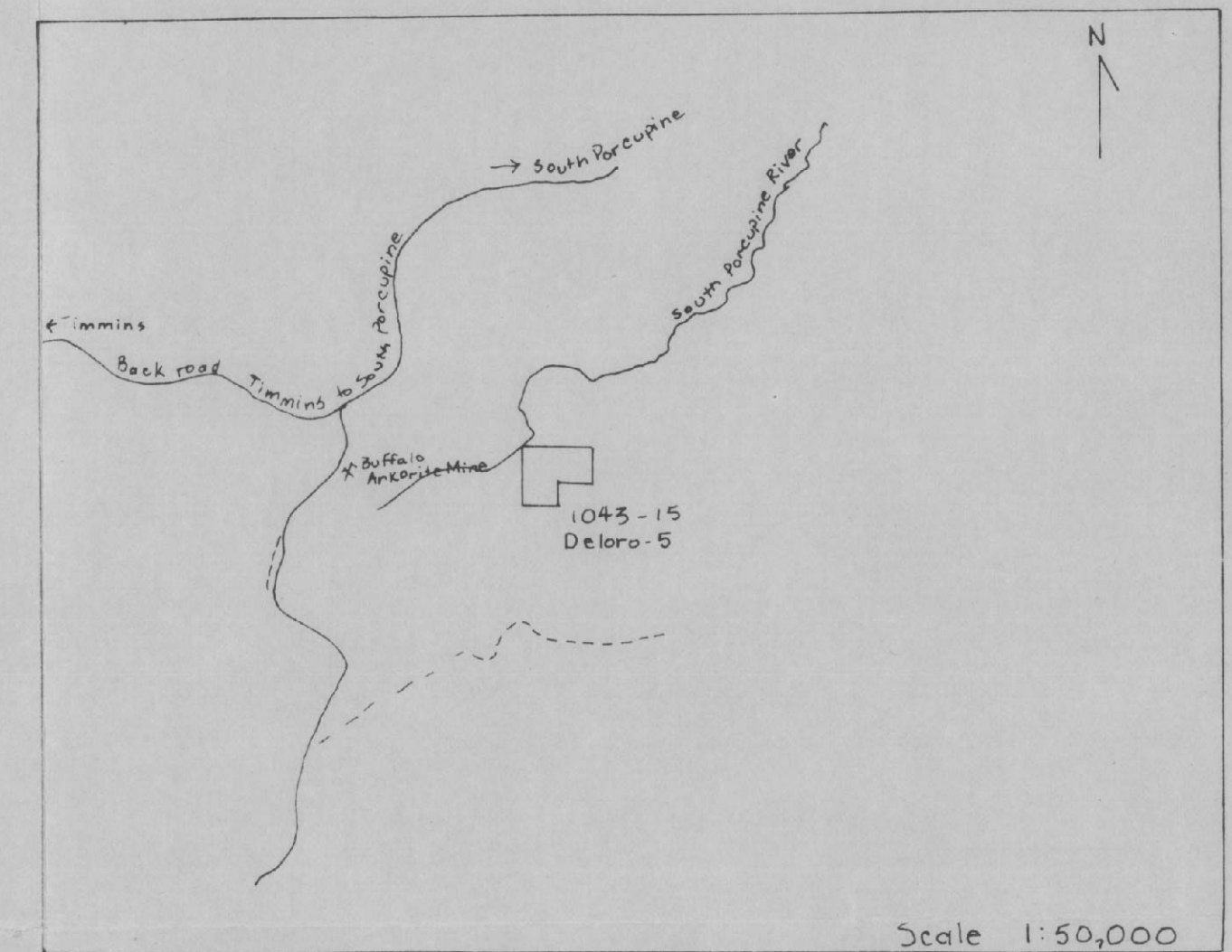
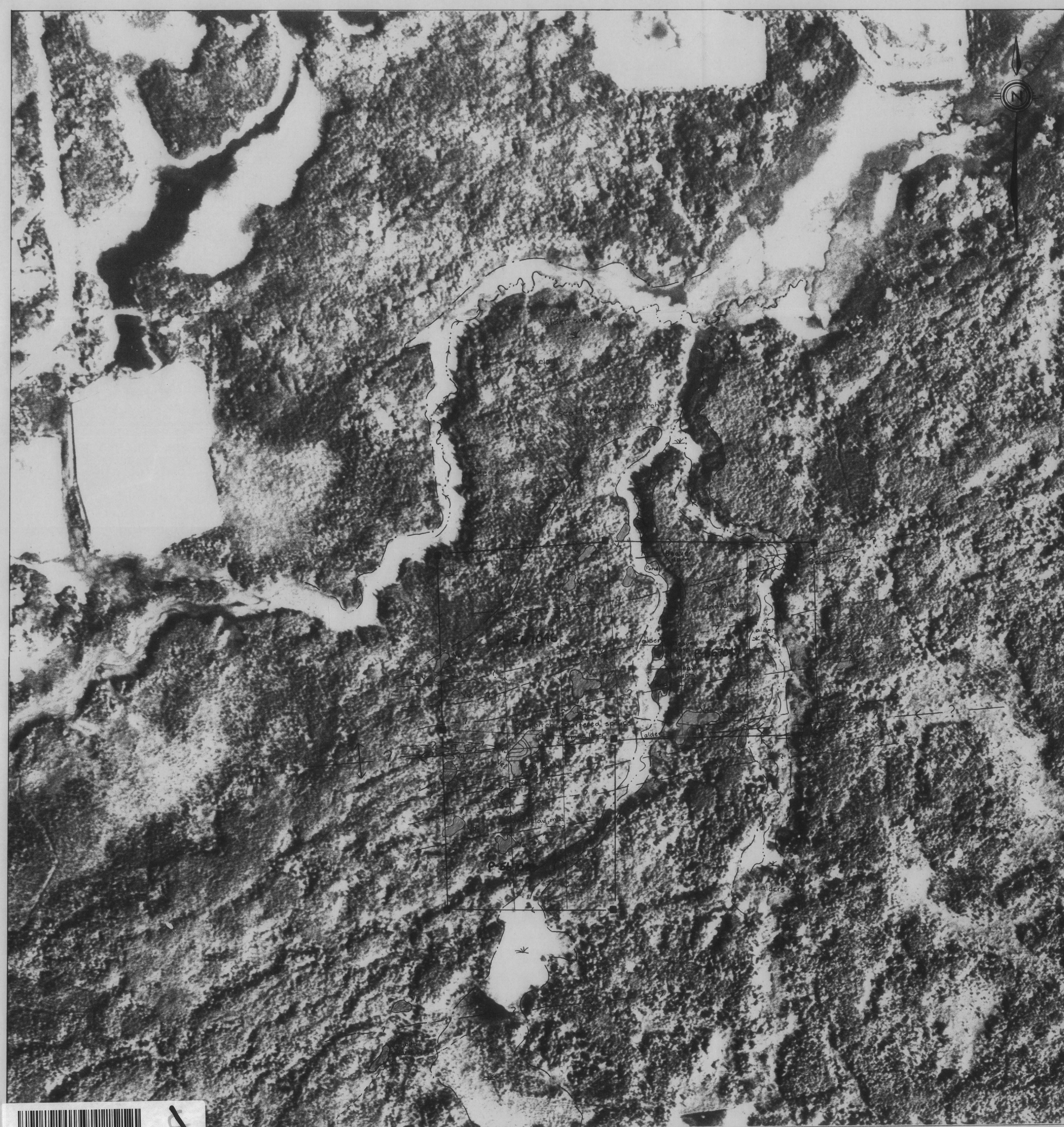
Thank you.

Yours truly,
AMAX OF CANADA LIMITED

Rosemary Pittley
Rosemary Pittley (Mrs.)
Land Recorder

Encs. 2

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



Scale 1:50,000

INDEX MAP

LEGEND

VOLCANIC ROCKS

- V₄ Dacite
- V₆ Andesite
- V₇ Basalt
- V₉ Intermediate Tuff

SEDIMENTARY ROCKS

- S Undifferentiated Sediments

SYMBOLS

- Py Pyrite
- QV Quartz Vein
- IF IRON FORMATION
- ↔↔↔ Foliation - inclined
- ↔↔↔ dip unknown
- ↔↔↔ Fold axis, plunge indicated
- ↔↔↔ Fold axis, position interpreted
- Outcrop boundary
- Claim post located
- ⊗ Claim post, location assumed
- Trench
- Traverse line
- ⊙ Swamp
- ⊙ Beaver Pond
- Stream
- - - Bush road

AMAX MINERALS EXPLORATION

GEOLOGICAL SURVEY

DELORO-5, 1043-15
 Deloro Township
 District of Cochrane

SCALE: 1:5,000

NTS: 42-A-6
 To Accompany Report by *J. MacPherson*
 June 1981
 Timmins Office

2.4328

