



32D12SW0101 2.3132 HARKER

2.3132

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REPORT ON A GEOLGOCIAL SURVEY

MATHESON CLAIMS

HARKER-1

PROJECT 839-08

NTS: 32 D/12

AMAX MINERALS EXPLORATION

Timmins, Ontario

Timmins, Ontario

October 1979

Brian Williamson

Geologist

SUMMARY

Lack of outcrop on the property makes exact geological interpretation impossible. Drill hole and geophysical data indicate a series of intercalated mafic and pyroclastic rocks underlie the claim group striking in an east-west, north-west direction.

INTRODUCTION

A group of seven claims was staked in the name of Amax Potash Limited in December 1979 as an extension to a previously staked claim group (see Gentleman and Roussain, 1978).

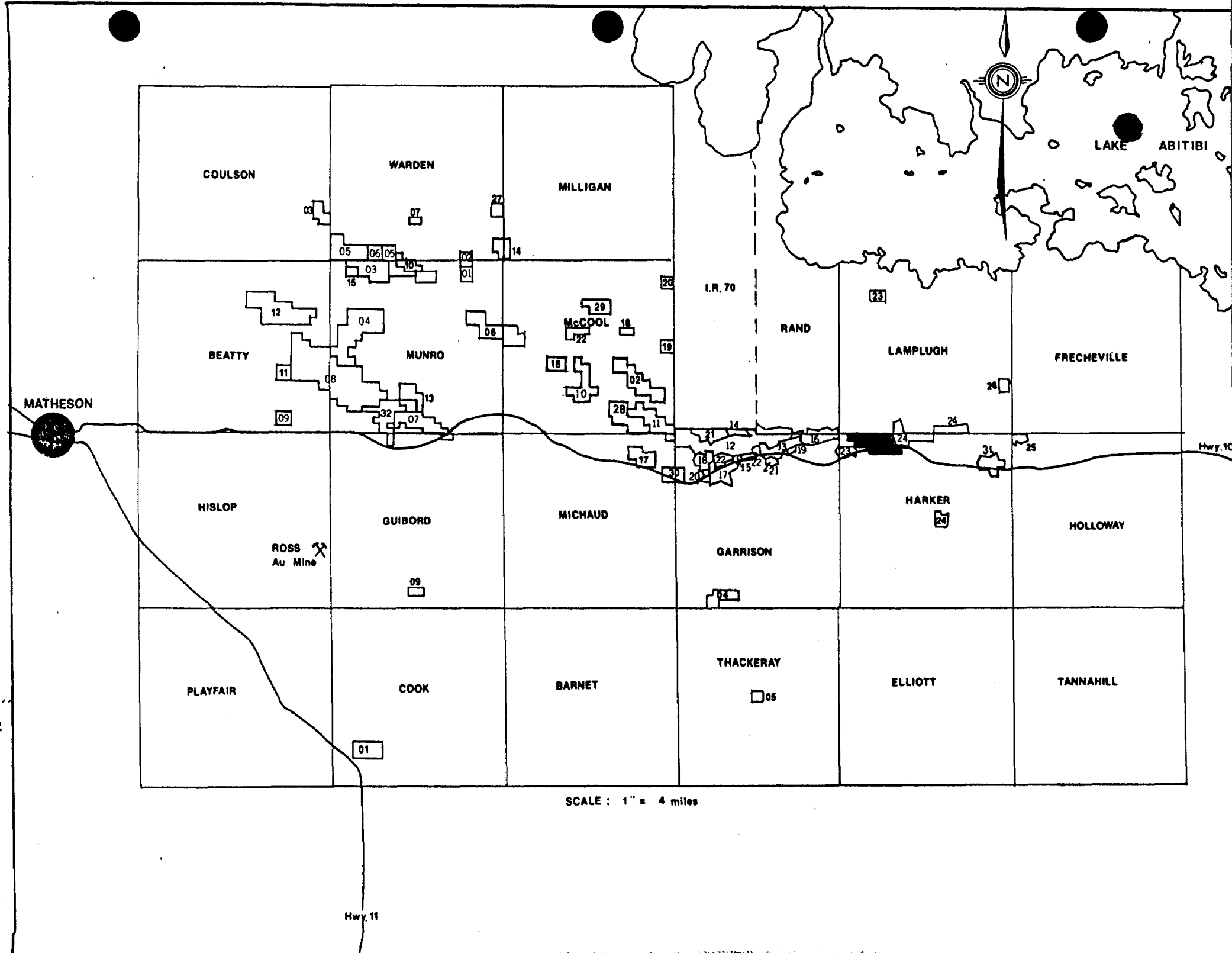
This report describes the methods and findings of a geological and prospecting survey done on the extension claims in July, 1979.

LOCATION AND ACCESS

The property is located in Harker township, Larder Lake Mining Division, being in the north west corner, north of the 5 mile post on the west boundary and essentially west of the 4 mile post on the north boundary of the township. Access is available by truck along highway 101 which cuts the property at a point 17.6 km (11 miles) east of Perry Lake Lodge, and by old logging roads which run north and south off of the highway through the property.

TOPOGRAPHY AND RESOURCES

The topography of the area is one of thick undulating sand plain, forming flat plains and low hills. Past drilling in the area indicates an overburden thickness of approximately 30-35m. The area has been clear cut about 10-20 years ago, and is covered with bare or grassy sand patches, poplar saplings, and thick alder bush. Several gullies are present, with intermittent creeks draining into the Ghost River, which flows roughly north east through the centre of the property.

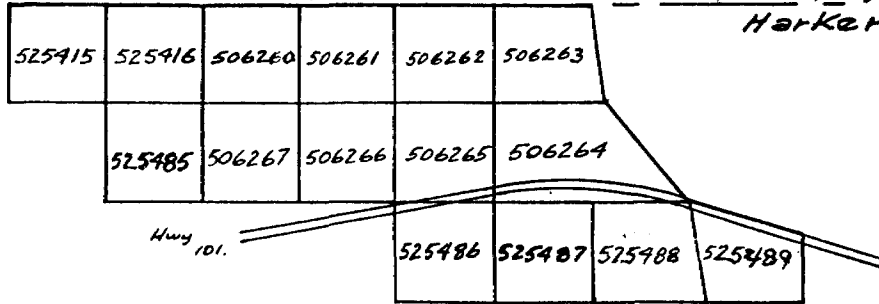


5M

4M

Garrison Twp.

Lamplugh Twp.
Harker Twp.



CLAIM MAP
Project 839-08

HARKER-1
Harker Township

1" = 1/2 mile

FIG.

PREVIOUS WORK

Observed in Field:

Evidence of past exploration was seen in the presence of old claim posts and the occasional picket from a grid cut by Canadian Johns-Manville Co. Ltd. in 1973 (ref: Gentleman and Roussain, 1978).

Assessment Files:

Compilation maps of past work filed with the mining recorder's office show fairly extensive work on and about the present claims, in exploration for asbestos, including magnetometer, electromagnetic and diamond drilling by Canadian Johns-Manville Co. Ltd. and by Hunch Mines. Additionally, Satterly (1951) shows parts of the present property to have been held by Dale Gold Mines Ltd. for gold exploration.

SURVEY METHOD

The property was traversed at intervals of 125m by Brian Williamson and Tony Makuch (as shown on Map 1, Geological Map) using the pace and compass method. All claim posts, geological and topographic features are correctly located. A set of 1:31640 stereo air photographs flown by Amax in the spring of 1978 were used for additional control.

GENERAL GEOLOGY

Harker township lies in the central portion of the Abitibi Greenstone Belt. The geology of the area is dominated by the Ghost Range Syncline (a folded succession of mafic to felsic volcanic rocks and ultra-mafic rock of uncertain origin) which lies within one km south of the property. South of the fault, the bedrock consists of mafic volcanic flows, intruded by granite plutons (from Satterly, 1951).

PROPERTY GEOLOGY

Due to the thick blanket of overburden, no outcrop was found during the course of the survey. Past drilling on claim L-506263 has indicated the presence of mafic volcanic flows, felsic tuffs and intercalated volcanoclastic rocks (Gentleman and Roussain, 1978), and ultra-mafic rock to the west of claim L-525485.

CONCLUSIONS AND RECOMMENDATIONS

Due to the absence of outcrop, no recommendations can be made based on geology. It appears from past drilling that the property is underlain, at least in part, by mafic volcanic flows and felsic pyroclastic rocks. It is suggested that ground geophysical surveys (H.E.M. and magnetometer) be conducted, and that diamond drilling follow if favourable results ensue.

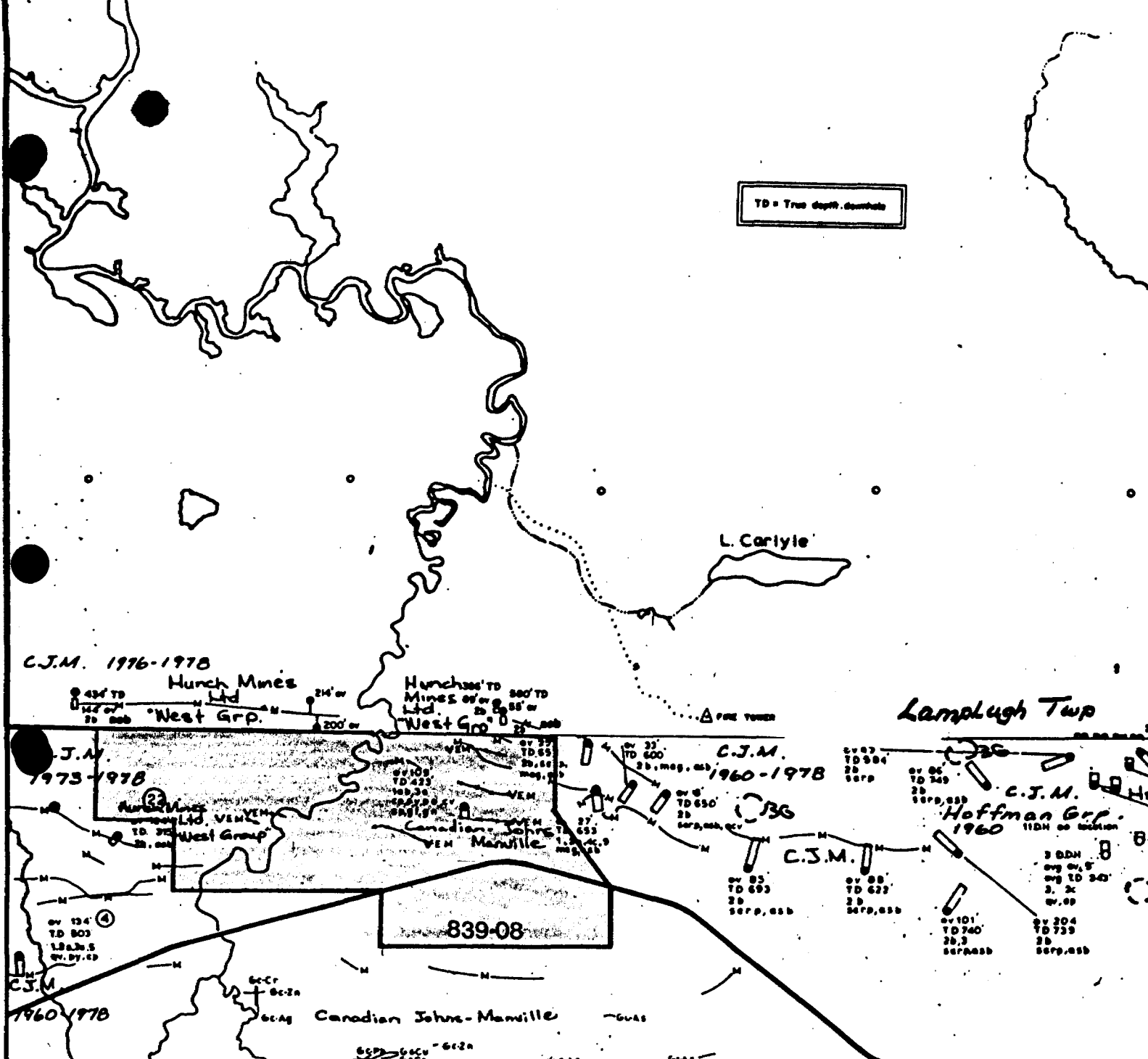
Timmins, Ontario
September 1979

Respectfully submitted,

Brian Williamson.

Brian Williamson
Geologist

TD = True depth complete



Lampugh Twp

839-08

2.3132

MATHESON CLAIMS

COMPILATION

HARKER - 1

839-08

NTS: 32-D-5, 12

Fig. 3

1" = 1/4 mile

LEGEND



-  EM Conductor
-  DDH (w direction)
- po Porphyry
- py Pyrite
- gr Graphite
- mag Magnetite
- qcv Quartz Carbonate Vein
- cp Calcopyrite
- Outline of 839-08

TABLE OF FORMATIONS

CENOZOIC

Recent: Swamp and stream deposits
Pleistocene: Glacial drift, gravel, sand and clay

-----Unconformity-----

PRECAMBRIAN

Proterozoic: Diabase dykes - 2 generations

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

Lamprophyre dykes

-----Intrusive contact-----

Archean: Discordant gabbro bodies

-----Intrusive contact-----

: Layered gabbro-peridotite sills

-----Intrusive contact-----

: Volcanics - Rhyolite, rhyolite agglomerate
and tuff, and associated chert
- Andesite, basalt; as pillowed and
massive flows, individual flows
separated by flow breccia
- Ultramafic flows - showing
spinifex texture

-----Faulted contact-----

: Sediments - Greywacke, argillite, arkose,
conglomerate

LIST OF REFERENCES

Gentleman, S. and Roussain, R.J. (1978)

Report on Geological Survey, Matheson
Claims, Project 839-08, Amax Minerals
Exploration,

Satterly, J. (1951)

The Geology of Harker Township,
Ontario Department of Mines,
Vol. LX, Part VII, 47 pp.

APPENDIX A

SCHEDULE OF CLAIMS

PROJECT 839-08

Claim Group	Township	Number	Claim Numbers	Recording Date
839-08	Harker	15	L-506260	March 23, 1978
			L-506261	March 23, 1978
			L-506262	March 23, 1978
			L-506263	March 23, 1978
			L-506264	March 23, 1978
			L-506265	March 23, 1978
			L-506266	March 23, 1978
			L-506267	March 23, 1978
			L-525415	December 14, 1978
			L-525416	December 14, 1978
			L-525485	December 14, 1978
			L-525486	December 22, 1978
			L-525487	December 22, 1978
			L-525488	December 22, 1978
			L-525489	December 22, 1978



Ontario

839-08

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
Township or Area Harter
Claim Holder(s) Amex Potash Limited
Survey Company _____
Author of Report Brian Williamson
Address of Author 255 Algouemi Blvd. W. Timmins Ont.
Covering Dates of Survey August - September 1979
(linecutting to office)
Total Miles of Line Cut _____

MINING CLAIMS TRAVERSED
List numerically

- L - 525486 ✓
(prefix) (number)
- L - 525487 ✓
- L - 525488 ✓
- L - 525489 ✓
- L - 525415 ✓
- L - 525416 ✓
- L - 525485 ✓

If space insufficient, attach list

SPECIAL PROVISIONS CREDITS REQUESTED

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 (20) dn

Geochemical _____

DAYS per claim

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

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

DATE: October 5/79 SIGNATURE: [Signature]
Author of Report or Agent

Res. Geol. L.D. Qualifications 2,3400 ✓ in this file

Previous Surveys

File No.	Type	Date	Claim Holder

TOTAL CLAIMS 7

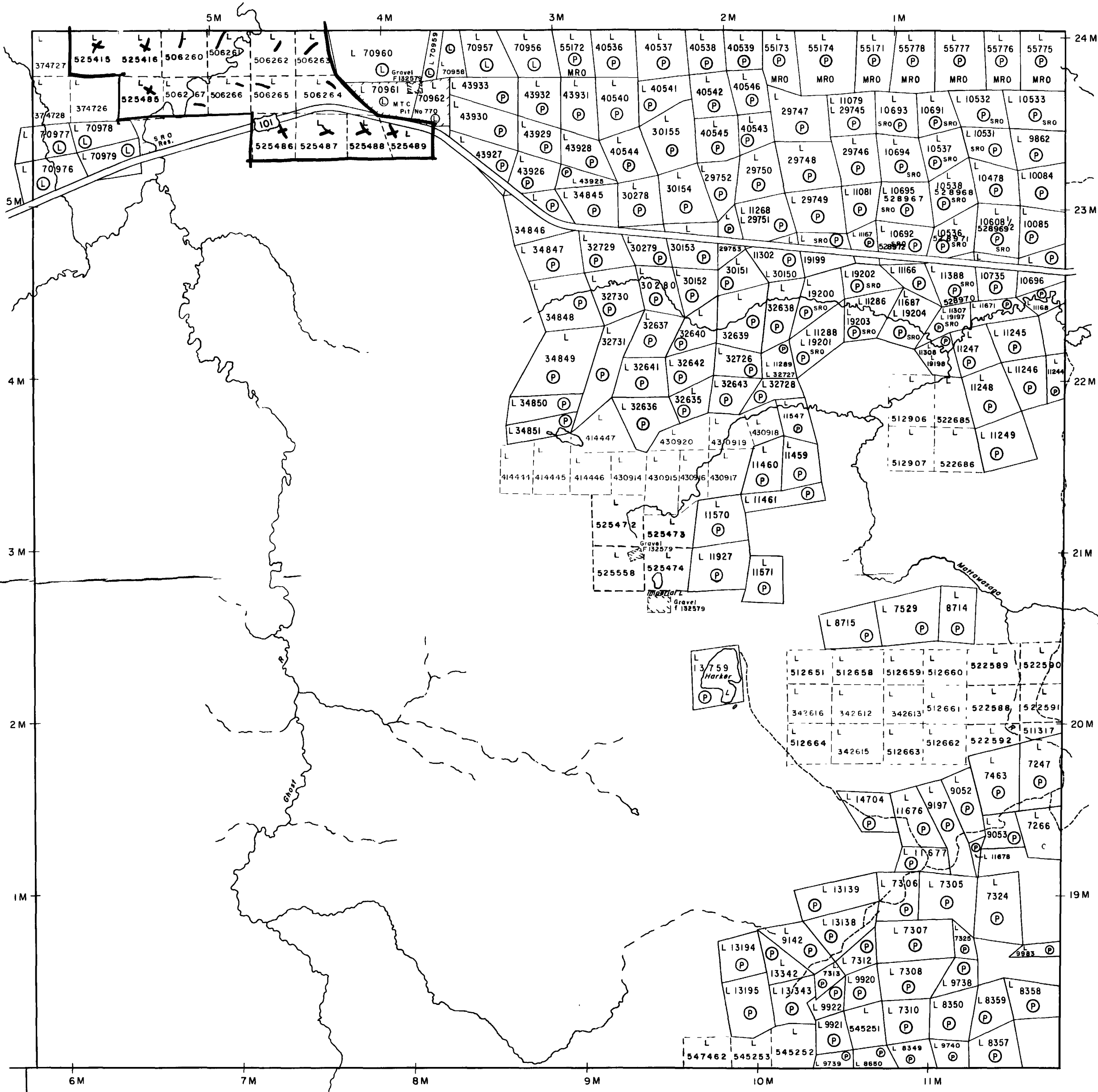
LAMPLUGH TWP. M-358

THE TOWNSHIP
OF
HARKER

DISTRICT OF
COCHRANE

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
- PATENTED S.R.O.

NOTES

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

DATE OF ISSUE
NOV 29 1979
SURVEYS AND MAPPING
Branch

PLAN NO. **M-353**
ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

GARRISON TWP. M-349

HOLLOWAY TWP. M-356

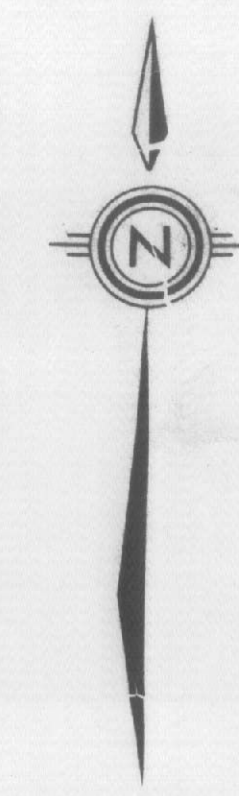
ELLIOTT TWP. M-347



LEGEND

-  outcrop
-  geological contact
-  inferred geological contact
-  fault
-  pillows with top determined-inclined, vertical, overturned
-  road
-  old, overgrown road
-  township boundary
-  edge of swamp
-  swamp
-  claim post located
-  old post
-  land survey post
-  shaft, pit, trench
-  diamond drill hole - direction unknown
-  diamond drill hole (DDH) direction known
-  Radem cross-over
-  quartz carbonate veining
-  traverse line

Scale: 1cm=50m



RJR

AMAX POTASH LIMITED
 GEOLOGICAL SURVEY
 MATHESON PROJECT
 HARKER-1, 839-08

DRAWN BY B.M. DATE Sept. 12.79
 SCALE 1cm=50m NTS 32-D-12
 22-D-5

TWP LINE (POSITION APPROX)



210

17.5 to Parry
 Hwy. 101
 839-08

