REPORT

ON

RADEM V.L.F. SURVEY

DOME-04

TOMMYHOW AREA

N. W. ONTARIO

PROJECT 729 - 04

AMAX MINERALS EXPLORATION

R. J. ROUSSAIN

APRIL 22, 1976

INTRODUCTION

This report covers an electromagnetic (V.L.F.) survey carried out over sixteen (16) contiguous claims in the Whitebirch Lake area on the west side of Lake Nipigon, Thunder Bay Mining Division. The claims covered form part of a larger group referred to as Dome-1. The claims surveyed are tabulated below.

TB 358031	TB 358212	TB 366154	TB 366159
TB 358032	TB 358213	TB 366155	
TB 358033	TB 358214	TB 366156	
TB 358034	TB 358215	TB 366157	
TB 358211	TB 366153	TB 366158	

The above claims were recorded on January 30, 1973 following as A.E.M. survey.

PREVIOUS WORK

The above claims were previously held by Dome Exploration in 1972, presumably as a result of an A.E.M. survey. Dome did complete ground geophysical surveys and are known to have held properties adjacent to the present Amax claims.

GEOLOGY

The general geology of the Tommyhow area is comprised of a small belt of Archean Meta volcanics, apparently folded along an E-W axis (see ODM Map P. 326). The central portion is predominantly felsic volcanics, with the outer margins predominantly andesitic.

Field mapping of the claim group by Amax reveals the geological setting on the claim group to consist of rhyolitic and dacitic volcanic units with some pyroclastics.

The south-central portion of the property appears to be underlain by more basic volcanics, described as andesite.

SURVEY DESCRIPTION

The Radem survey was carried out on cut lines turned off at 400' intervals from a base line extending through the long axis of the property.

A total of 9.6 miles of line were surveyed with stations read at 100' intervals, with fill-in readings at 50' and 25' intervals when significant variations were observed.

The survey was carried out by Amax Potash employees G. Lauzier and L. Britt, during the period August 11 - 23, 1975.

A total of 711 Radem stations were taken over the 9.6 miles of line surveyed.

DATA PRESENTATION

All of the geophysical data is presented at a scale of 1" = 400' superimposed on the survey grid with the claim locations and numbers.

The Radem dip angles and horizontal field strength values are plotted along the traverse read at profiles of 1" = 20^{o}. Because several different background field strength settings were used contouring of the H.F.S. values was not carried out.

DISCUSSION OF RESULTS

The Radem surveys were conceived as an aid to mapping and determining the length and attitude of the various stratigraphic horizons known to be present on the property.

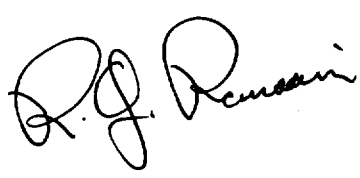
The present survey revealed a number of long parallel conductors striking in an east-west direction, which conform to the basic pattern as obtained with the magnetic survey. Due to the shallow overburden and strong response obtained with the Radem, all of these anomalies are thought to originate in the bedrock.

North-south faulting has off-set many of the longer zones, giving them a disjointed appearance.

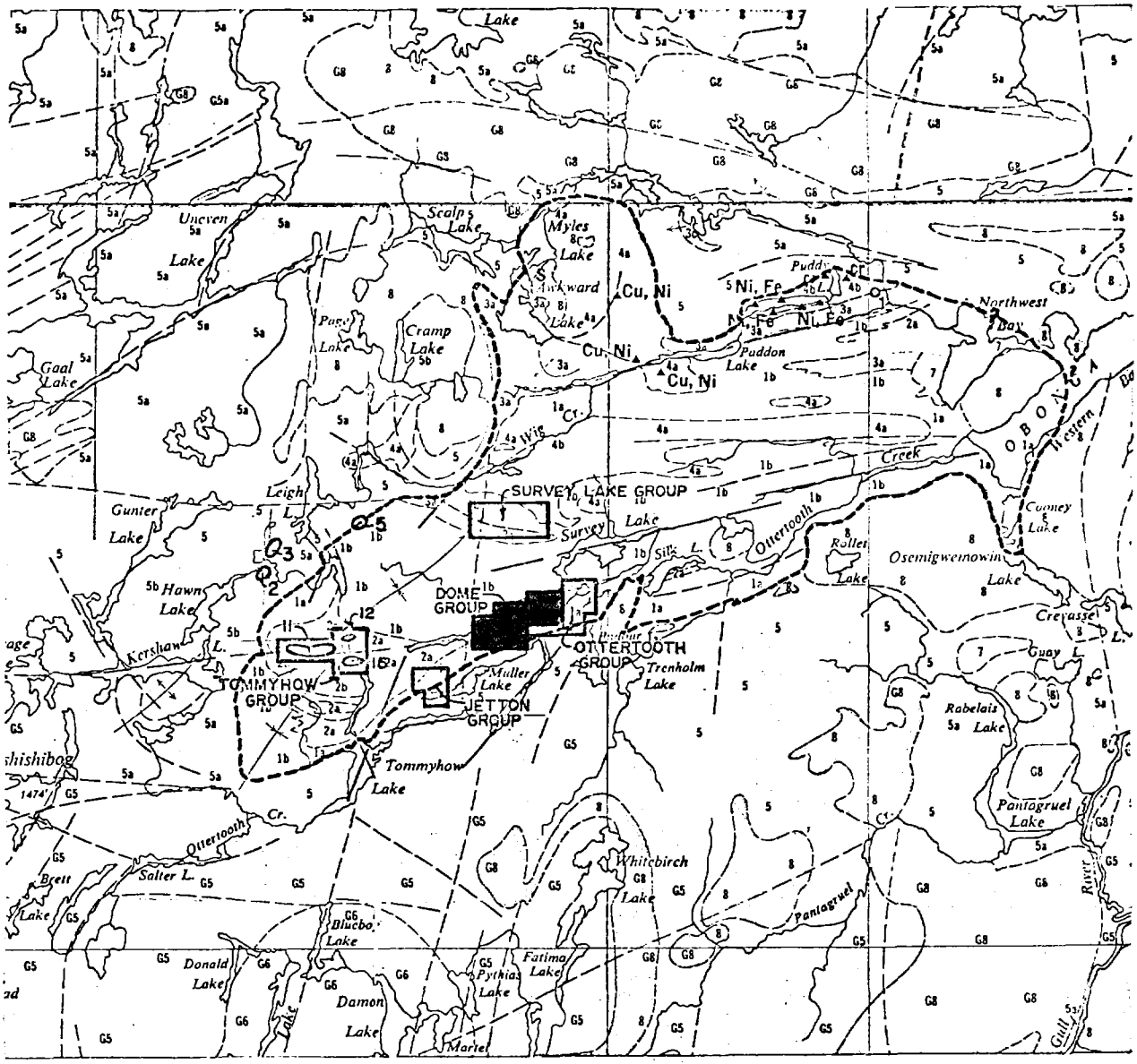
CONCLUSIONS AND RECOMMENDATIONS

Results of the Radem V.L.F. survey were successful in outlining and delimiting additional conductors not detected by the other electromagnetic surveys previously carried out by Amax on the same grid.

Detail lines of horizontal loop electromagnetic over the Radem responses obtained on lines 60W, 52W and 28W would aid in the interpretation of the Radem data as a comparison to the previous C.E.M. survey.



R. J. Roussain



LOCATION MAP

AMAX EXPLORATION INC.

GEOLOGY INDEX MAP

TOMMYHOW AREA

SCALE: 1 INCH = 4 MILES

TO ACCOMPANY SUMMARY REPORT

BY G. LAUZIER DATE OCT./75 N.T.S. 52H13

2944 — DD logs - ~~17, 16~~ 10 - 17

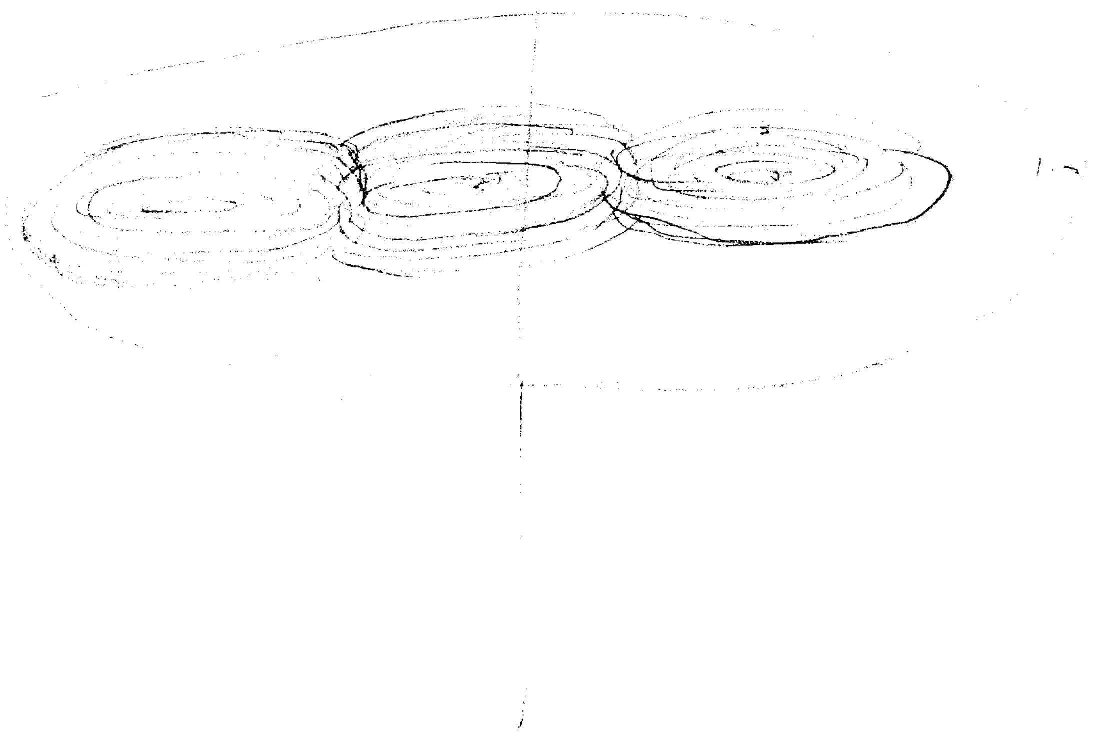
~~[illegible]~~

2.2094

2.2056

2.1709

2.1400



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900

GEOPHYSICAL – GEOLOGI
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: Radem V.L.F.

Township or Area: Whitebirch Lake Area

Claim holder(s): Amax Exploration Inc.
255 Algonquin Blvd. West, Timmins.

Author of Report: R. J. Roussain

Address: 255 Algonquin Blvd. West, Timmins

Covering Dates of Survey: August 11 - 23, 1975
(linecutting to office)

Total Miles of Line cut:

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	

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

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

DATE: April 15, 1976 SIGNATURE: R.J. Roussain
Author of Report or Agent

PROJECTS SECTION (.) see attached sheet 63.2531

Res. Geol. _____ Qualifications also on this file

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)	
TB	358031	2/3 NC
TB	358032	✓
TB	358033	✓
TB	358034	1/2
TB	358211	✓
TB	358212	✓
TB	358213	✓
TB	358214	1/2
TB	358215	1/2
TB	366153	✓
TB	366154	1/2
TB	366155	1/2
TB	366156	1/3
TB	366157	1/3
TB	366158	1/3 NC
TB	366159	✓

Area of claims not covered = 4 1/16

20 x 16 = 320 ÷ (16+4) =
16 days per claim

TOTAL CLAIMS 16

If space insufficient, attach list

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

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations 711 Number of Readings 1422

Station interval 100' - 50' - 25'

Line spacing 400'

Profile scale or Contour intervals 1" = 20°
(specify for each type of survey)

MAGNETIC

Instrument

Accuracy - Scale constant

Diurnal correction method

Base station location

ELECTROMAGNETIC

Instrument Crone Radem

Coil configuration Vertical

Coil separation Infinite

Accuracy 2° per scale division

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

Frequency Seattle, Washington
(specify V.L.F. station)

Parameters measured Dip angle and field strength

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

Puddy Lake Area - M.2920

Kashishibog Lake Area - M.2799

Pangloss Lake Area - M.2943

Holinshead Lake Area - M.2631

89°45' 89°30' 49°52'30"

49°45'

43' 42' 41' 40' 39' 38' 37' 36' 35' 34' 33' 32' 31'

52' 51' 50' 49' 48' 47' 46'

11M 10M 9M. 8M 7M 6M 5M 4M. 3M.

KG ROSS LINE 1922 surv by MERIDIAN

Ottertooth

Tashayhow L.

Goosander Cr.

Goosander Creek

Goosander Lake

Robelais Creek

Upper Robelais Lake

Whitebirch Lake

Whitebirch

Damon

Fatima L.

Pantagruel

Stinking Creek

AREA OF 2.2094

WHITEBIRCH LAKE

DISTRICT OF THUNDER BAY

THUNDER BAY 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.

NATIONAL TOPOGRAPHIC SERIES 52H13

PLAN NO. M.2944

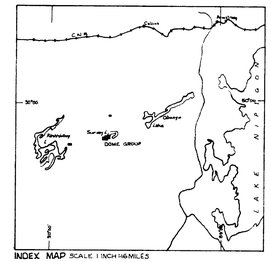
ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

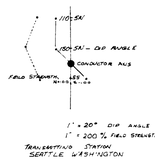
52H13SE0005 2.2094 WHITEBIRCH LAKE

200

b.k.

497893





AMAX EXPLORATION INCORPORATED	
TYPE OF SURVEY: RADEM	
AREA: TOMMYHOW - DOME GROUP	
LOCATION: NORTH WESTERN ONTARIO	
SCALE: 1 INCH = 400 FEET (400 300 200 100 0 400 800)	
DRAWN BY: K C G	DATE: AUGUST, 1975
OPERATOR: R J P	REVISED:
MAP No:	N.T.S. No.: 52 H 13
TO ACCOMPANY: SUMMARY REPORT	
BY: G. LAUZIER	DATE: OCTOBER, 1975

2.2694