



42A11SE0449 2.4040 WHITNEY

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REPORT
ON THE
GEOPHYSICAL SURVEYS
ON MINING CLAIM
P-577602
FOR
RIO ALTO EXPLORATION LIMITED
WHITNEY TOWNSHIP, ONTARIO

RECEIVED

JUL 31 1981

MINING LANDS SECTION

INTRODUCTION

A combined magnetometer-electromagnetic survey has been carried out on part of Robert Rousseau claim in Whitney Township, Ontario. The survey was completed during the last half of May 1981.

The subject of the program is to locate specific geological or geophysical conditions favourable to the deposition of base metals or gold.

PROPERTY LOCATION AND ACCESS

The property consists of one mining claim numbered P-577602.

The claim in Whitney Township is located in Concession V, southeast quarter of the north half Lot 11.

Timmins, Ontario, a mining community is situated six miles southwest of the property.

The property is accessible by motor vehicle, from Timmins, along a good secondary road leading northward for a distance of six miles, thence northwestward for about 2 miles.

GEOLOGY

The general geology of the area is shown on Map 2046 published by the Ontario Department of Mines 1963.

Rock exposures on adjoining ground and in the south east part of the claim suggest the claim is underlain by Keewatin volcanics consisting of coarse grained basalt, fragmental and fine grained amygdaloidal and pillowed basalts.

SURVEY METHODS AND INSTRUMENT DATA

The geophysical surveys were conducted along north-south picket lines at 400 foot intervals as shown on the accompanying maps.

The equipment used in the V.L.F. electromagnetic survey was the Geonics E.M.-16 system. The V.L.F. method uses the radiation from powerful military radio transmitters at low frequencies as primary signals as opposed to portable transmitters in the conventional E.M. methods.

The instrument has two receiving coils and the parameters measured are:

- (1) The vertical in-phase component.
- (2) The vertical out-of-phase component
(quadrature component)

The interpretation of the results uses the relative measurements of these two parameters and it is possible to outline such poor conductors as sheared contacts, breccia zones, faults, and alteration zones, as well as the good sulphide conductors. Because V.L.F. anomalies are produced by a wide range of geological affects, profiles tend to show a complex «cluttered» pattern and additional assistance is required to distinguish trends. By the use of the Fraser method of filtering tilt angle profiles, the readings are converted into contourable data and it is that data that are plotted on the accompanying map No. 1.

The magnetic survey was carried out over the same network of lines using an MF-2 Fluxgate magnetometer. The magnetometer measures the vertical component of the earth's magnetic field. Readings were taken at 100-foot intervals. These are plotted as gammas on a separate map No. 2 after correction for diurnal variation. All conductor axes have been plotted on the magnetic map to aid in the interpretation.

RESULTS OF THE GEOPHYSICAL SURVEYS

A. Electromagnetic Survey:

The results of the electromagnetic survey are shown on Map No. 1. An examination of the map shows short conductive zones with a general northeast to east strike.

The main conductor along the east boundary of the claim, continues to the east. This conductor is caused by the pipe line.

Two weak east trending conductors of one line are probably associated with conductive overburden.

B. Magnetic Survey:

An examination of Map No. 2 with the magnetic survey results, show a general magnetic background where not influenced by the pipe line.

CONCLUSIONS AND RECOMMENDATIONS

The magnetometer survey does not show a variation which might indicate a geological boundary.

The good conductive zone at the northeast corner of the claim is a surficial conductor that represents the pipe line.

It is recommended that the geophysical surveys be completed during the winter months when the flooded area along the west part of the property is accessible.

A geological assessment of the reported gold showing should be carried out to determine if the occurrence is associated with a major geological feature.

Respectfully yours,

PROSPECTING GEOPHYSICS LTD.



D. M. ROSS, P. Eng.

Val d'Or, Quebec
July 27, 1981



42A11SE0449 2.4040 WHITNEY

900

2.4040

August 27, 1982

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

Dear Mr. Good:

Re: Geophysical (Magnetometer and Electromagnetic) Survey
on Mining Claim P 577602, in the Township of Whitney

The Geophysical (Magnetometer and Electromagnetic) Survey
assessment work credits as shown on the attached statement
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
Telephone: (416) 965-1316

/em

Encl.

cc: Mr. Robert Rousseau
Timmins, Ontario

cc: Mr. D. Ross
Val D'Or, Quebec

cc: Resident Geologist
Timmins, Ontario

January 26, 1982
Your file: 2.4040

Mr. E.F. Anderson, Director
Land Management Branch,
Ministry of Natural Resources
Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3

Re: Electromagnetic Survey submitted on Mining
Claim P.577602 in the Township of Whitney.

Dear Sir:-

Re: Electromagnetic Survey submitted on Mining Claims
P.568896, P.576512 and P.577602 in the Township of Whitney, enclosed
are the maps, in duplicate, with signatures showing the following
requested information:

a) Key map showing the location of the
Property with respect to Township
boundaries.

b) VLF maps showing Frequency and Trans-
mitter station.

RECEIVED c) R_m values on VLF maps.

FEB 15 1982

MINING LANDS SECTION

Yours truly,

PROSPECTING GEOPHYSICS LTD.,



David Ross,

DR/cg

January 19, 1982

2,4040

Prospecting Geophysics Ltd.
114 Villeneuve Street
Val D'Or, Quebec
Attention: David Ross

Dear Sir:

Re: Electromagnetic Survey submitted on Mining Claim
P.577602 in the Township of Whitney.

Enclosed are the maps, in duplicate, for the above-mentioned Survey. In order to complete your submission, please supply the following:

- a) All maps need signatures.
- b) A key map showing the location of the property with respect to township boundaries.
- c) V.L.F. map needs Frequency and Transmitter Station information.
- d) V.L.F. map need readings shown.

Also enclosed is a copy of the requirements for the "Qualifications of the author of Geotechnical Survey reports submitted for assessment work credits." Please submit a brief resume of your qualifications for our records.

For further information, 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

A. Barr/bk

Encl.

cc: Mining Recorder
Timmins, Ontario

cc: Robert Rousseau
Timmins, Ontario

GEOTECHNICAL REPORT APPROVAL

MINING LANDS COMMENTS:

no qualifications
- no key maps



MR. R. BARLOW

- maps need signature
- no key map
- VLF Mining Freq. & Transmitter status info
- VLF map needs raw readings

DATE:

Dec 3/81



APPROVED

SIGNATURE:

R. Barlow



WISH TO SEE AGAIN WITH CORRECTIONS



MR. C. KUSTRA

[Handwritten signature]

DATE:

APPROVED

SIGNATURE:

WISH TO SEE AGAIN WITH CORRECTIONS



DR. I. THOMPSON

DATE:

APPROVED

SIGNATURE:

WISH TO SEE AGAIN WITH CORRECTIONS



RETURN TO F. W. MATTHEWS, ROOM 6452 WHITNEY BLOCK (5-1380)

August 6, 1981

2.4040

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

Dear Sir:

We have received the reports and maps for a Geophysical
(Electromagnetic) survey submitted under Special Provisions
(credit for Performance and Coverage) on mining claim P. 577602
in the Township of Whitney.

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

S. Halperin/bk

cc: Robert Rousseau
Timmins, Ontario

PROSPECTING GEOPHYSICS LTD. GEOPHYSICAL & GEOLOGICAL SURVEYS
114 VILLENEUVE STREET, VAL D'OR, QUEBEC TELEPHONE 824-3910

July 28, 1981.

Mr. E.F. Anderson, Director
Land Management Branch,
Minister of Natural Resources
Whitney Block - Room 6450
Queen's Park
Toronto, Ontario

RECEIVED

JUL 31 1981

MINING LANDS SECTION

Dear Sir:-

Enclosed herewith are two copies of
geophysical reports for your approval in submitting assessment
requirements for claims in Whitney Township, Ontario.

Yours truly,

PROSPECTING GEOPHYSICS LTD.



David Ross, P. Eng.

DR#cg
Encls.



Ontario

577602

Ministry of
Natural
Resources

Notification of recording
of assessment work credits

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

RECEIVED

JUN 23 1981

MINING LANDS SECTION

Date of recording of work: June 1, 1981
Recorded holder: Robert Rousseau
225 Ross West
Address: Timmins, Ont.
Township or Area: WHITNEY TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining claims
Geophysical	P-577602
Electromagnetic <u>40</u> days	
Magnetometer _____ days	
Radiometric _____ days	
Induced polarization _____ days	
Section 86 (18) _____ days	
Geological _____ days	
Geochemical _____ days	
Man days <input checked="" type="checkbox"/> Airborne <input type="checkbox"/>	
Special provision <input type="checkbox"/> Ground <input checked="" type="checkbox"/>	

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.

J. Penblay
Mining recorder
c.c. Robert Rousseau

Aug 3

HOYLE TWP. M-287

THE TOWNSHIP OF
OF
WHITNEY

DISTRICT OF COCHRANE

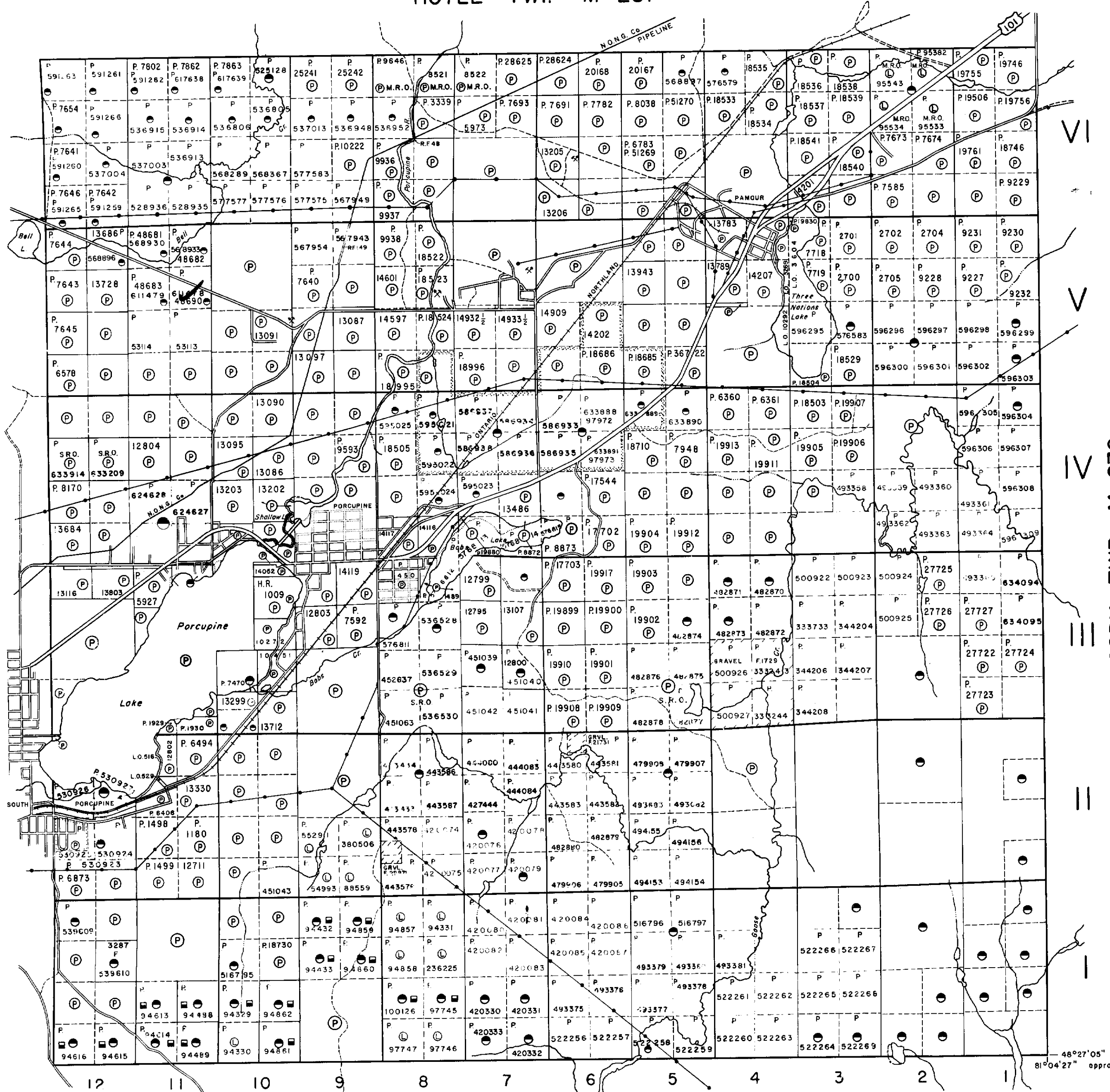
PORCUPINE MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

TISDALE TWP. M-315

CODY TWP. M-270

SHAW TWP. M-311



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 (—)
- S.R.O. PATENTED (—)
- M.R.O. LEASED (—)

NOTES

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

This township lies within the Municipality of CITY of TIMMINS.

No disposition of sand and gravel on lands north of O.N.Ry., from May 8, 1964 until further notice. Form D.O.M. file 550.13

Any restakings within stippled area in Lots 5,6,7,8 Con 4 and 5 subject to rights and privileges granted to Pamour Porcupine Mines Ltd. for tailings disposal.

DATE OF ISSUE
APR - 5 1982
Ministry of Natural Resources
TORONTO

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

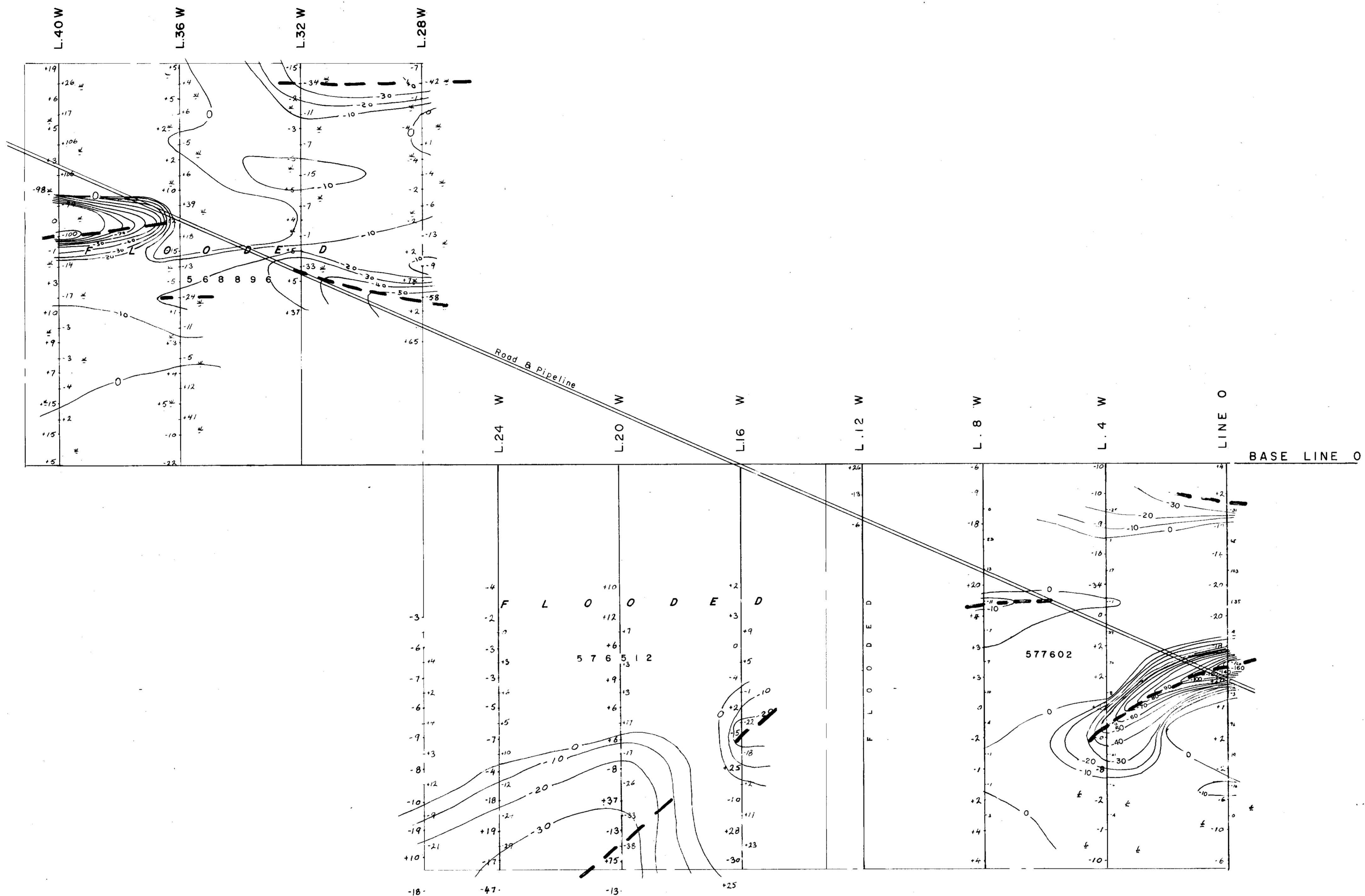
Date 10th. JULY 1974 (Rev.)

M.319

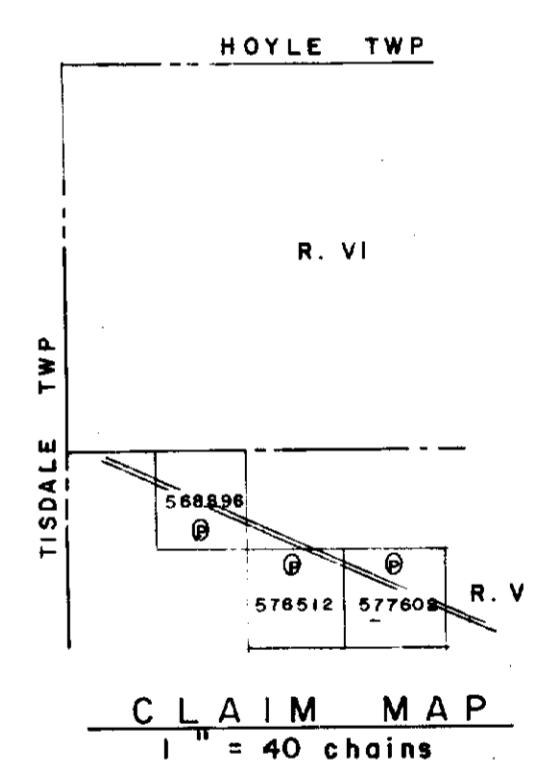


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111155



R. V



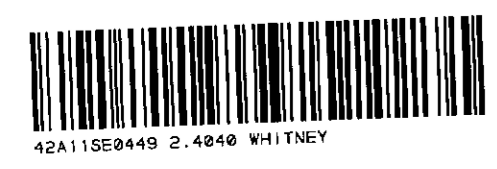
- LEGEND**
- 12 VERTICAL IN-PHASE COMPONENT
 - 10 FRASER REDUCTION VALUES
 - 8 CONTOUR INTERVAL
 - 6 ELECTRICAL CONDUCTOR
 - 4 INSTRUMENT USED GEONICS EM - 16
 - 2 ROAD
 - ± SWAMP

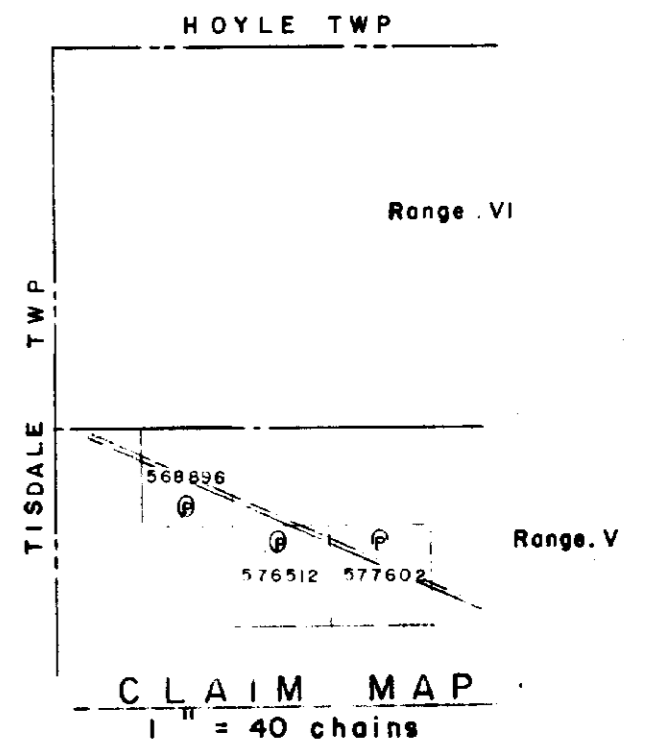
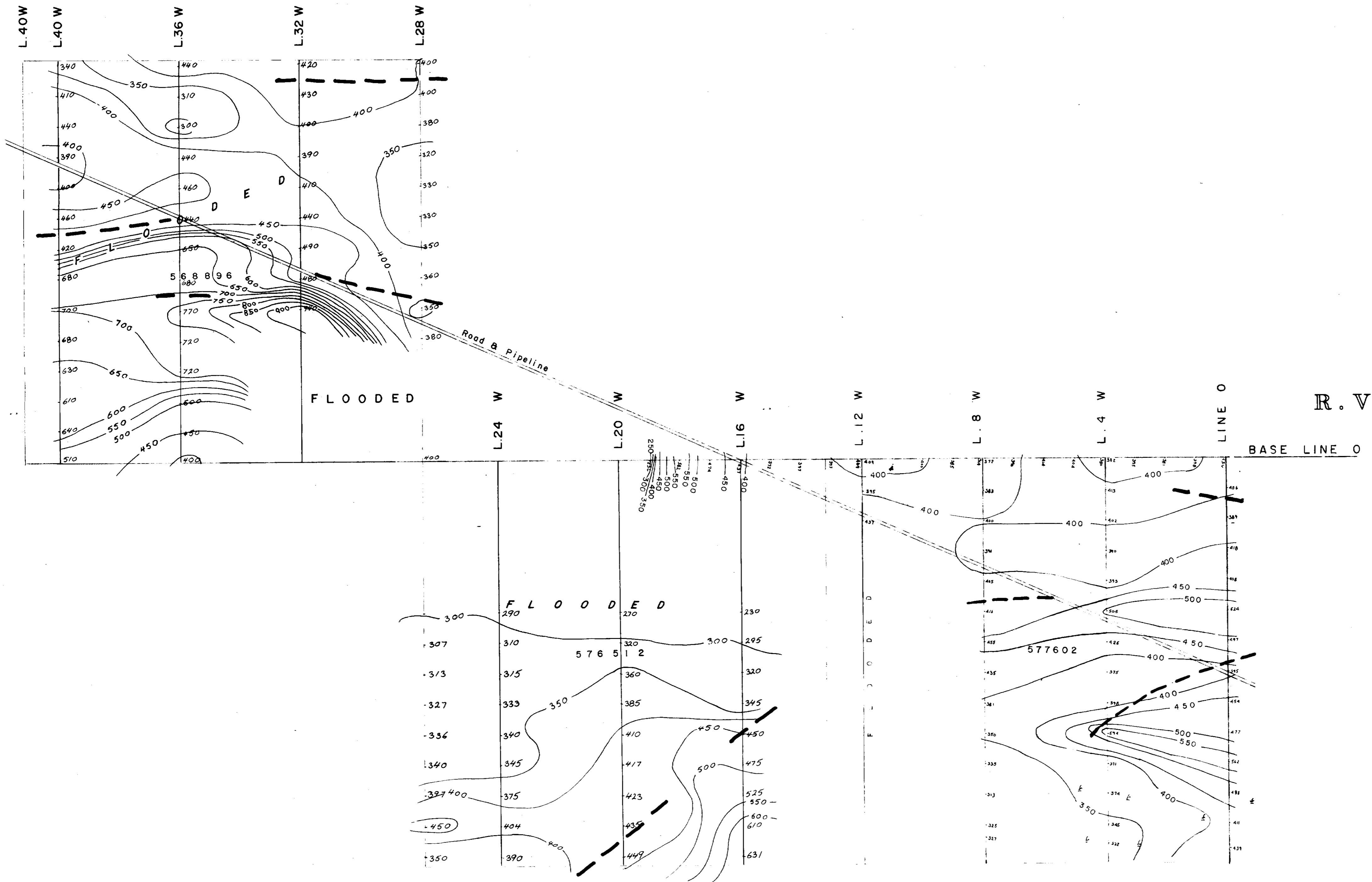
D. M. Ross



Note: Cutler (NAA) station used at 17.8 KHz

TYPE OF WORK		ELECTROMAGNETIC SURVEY.	
CLIENT		RIO ALTO EXPLORATION LTD.	
PROJECT	AREA	WHITNEY TWP ONT.	
SCALE		1" = 200 ft.	DATE
PROSPECTING GEOPHYSICS LTD.			JUNE 1981
DRAWN BY		AD	MAP OR SHEET NO.
			1





LEGEND

- MEASUREMENT STATIONS ALONG PICKET LINES
- RECORDED READINGS OF EARTH'S TOTAL MAGNETIC FIELD
- READINGS ARE 59,000 PLUS PLOTTED VALUES
- MAGNETIC CONTOUR
- ELECTRICAL CONDUCTOR
- ROAD
- ⊕ SWAMP
- INSTRUMENT USED: PROTON BARRINGER GM 122

D.M. Ross
 REGISTERED PROFESSIONAL ENGINEER
 D. M. ROSS
 PROVINCE OF ONTARIO

MAGNETOMETER SURVEY.

RIC ALTO EXPLORATION LTD.

PROJECT AREA: **WHITNEY TWP. ONT.**

SCALE: **1" = 200 ft.** DATE: **JUNE 1981**

DRAWN BY: *AD* SHEET NO: **2**

