



42A038E0017 0P91-007 ZAVITZ

010

**GEOPHYSICAL
REPORT
ON
TWO GRIDS
IN
ZAVITZ TOWNSHIP**

BY: RAYMOND LASHBROOK

JANUARY 29, 1992



42A038E0017 0P01-007 ZAMTZ

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 - 1 VLF MAP**
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 - 2 MAX-MIN MAPS**

- MORAY LAKE GRID - 2 MAGNETOMETER MAPS**
 - 2 MAX-MIN MAPS**

INTRODUCTION

The Zavitz Property consists of 39 contiguous claims located in the south and east sides of the township.

The property has undergone various exploration projects by different companies over the years.

This geophysical report deals with 2 grids covering a portion of the property. The 2 grids have been called the Dexter Lake grid and the Moray Lake grid and will be discussed separately for the geophysical portion of this report.

Recommendations are made for additional work based on the current survey results.

PROPERTY

The Zavitz Property consists of 40 contiguous claims numbered:

1024341 - 1024345	5
1117915 - 1117916	2
1117923	1
1117925 - 1117929	5
1118800	1
1118803 - 1118808	6
1118813 - 1118818	6
1118820 - 1118826	7
1118867	1
1126195 - 1126199	5

39

LOCATION AND ACCESS

The property is located in the south central and along the eastern side of Zavitz Township approximately 60 kilometres south of Timmins and 50 kilometres west of Matachewan.

Access is via good all weather bush roads from Timmins, South Porcupine and Matachewan. The Grassy River Road connects Zavitz Township with the Shining Tree road (highway 560).

PREVIOUS WORK

Portions of the property have been explored by various mining companies since 1964 when Norman McBride, prospecting for Voyager Explorations Ltd., uncovered a massive sulfide zone containing low copper grades.

An excellent account of the previous work, especially in the Moray Lake grid area, can be found in the files of the Ministry of Northern Development and Mines in the Timmins office and in the Toronto office. These files are numbered T3330 and T2675.

GENERAL GEOLOGY

The area has been mapped by E.G. Bright and assistants in 1967 (Report #231, Ferrier Lake - Canoeshed Lake Area) and later was included in a report #171 Geology of the Peterlong Lake Area in 1978 by D.R. Pyke.

The property is located in the lower volcanic formation and the middle volcanic formation of the Upper Volcanic Group as defined by Pyke.

It is underlain to the south by felsic volcanics of the Upper formation of the Lower Volcanic Group. Felsic, intermediate, mafic volcanics and related tuffs and sediments underly the rest of the property of the Upper Volcanic Group.

Generally the rocks strike in an east-west direction. In the vicinity of the Voyager showing the magnetics suggest some folding and contortion of the magnetic po-py units.

In the Moray Lake area a small syenite stock intrudes the sequence. Minor syenitic, granitic and diabasic dykes intrude the property.

Airborne anomalies and drilling has shown that an east-west trending graphitic-pyritic unit may extend across the south side of the property although it is discontinuous in places.

LINECUTTING

Two grids were cut on the property:

- (a) Dexter Lake Grid - a 1.3 kilometre east-west baseline was established along the north side of a small lake north of Dexter Lake.

Lines every 100 metres were cut north and south for a total of 21.8 kilometres.

Stations were marked every 25 meters along the line.

- (b) Moray Lake Grid - this grid was re-established from an earlier grid. Some lines were extended to claim boundaries. Lines were established every 100 metres and some 50 metres lines were cleaned and rechaind.

Line 100 North was extended south west to intersect the Dexter Lake Grid at L100N 5+40W and BL '0', 4+85E.

A total of 11.7 kilometres of grid was cut.

GEOPHYSICAL SURVEYS

The Dexter Lake Grid had mag-vlf and max-min 11 surveys performed over it while the Moray Lake Grid had mag and max-min surveys.

The grids will be discussed separately.

DEXTER LAKE GRID

Magnetics base station was established at L '0' baseline '0'. All data was reduced according to this value.

The magnetic map indicates a general east-west strike to the underlying rocks. General background is between 58300 and 58400 gammas.

Three magnetic high trends occur on the grid. The north zone is approximately 150 metres wide and is centered between 200N to 300N. A break in this trend is noted on lines 0 and 1W. Maximum intensity is 59451 gammas. The east portion of this anomaly has good correlation with a vlf anomaly. This suggests that in part the anomaly is probably caused from sulfides (po-py).

Mafic to ultramafic volcanics with minor disseminated magnetite is suggested as the cause of this anomaly.

The middle magnetic anomaly is centered between 400 and 600 metres South from lines 5E to 4W and extending in both directions. Maximum reading was 60309 gammas. A series of ultramafic flows are the probable cause of this anomaly.

The most southerly magnetic anomaly lies along the south boundary of the property. It extends from L5E to 4W and beyond. It is broken into 2 zones, probably faulted and offset between lines 0 and 1E.

Maximum value recorded was 61488 gammas.

A vlf conductor flanks the south contact of this anomaly. It is probable that this zone is caused from ultramafic flows or a sill. The conductor is probably caused by resistivity contrasts between the ultramafic and the mafic metavolcanics, weak serpentinization and minor sulfides along the south contact.

ELECTROMAGNETIC VLF

The electromagnetic survey was conducted using Cutler, Maine with a frequency of 24.0 Khz as the transmitting station. Readings were taken every 25 meters. Profiles of the readings were plotted along with the Fraser Filter.

Numerous conductors were found generally running east-west.

The conductor at 200 - 250N from lines 1E to 4E has a very good magnetic correlation. It is probable that sulfides are in part responsible for the anomaly.

Airborne anomalies are located just to the west of the most northerly set of anomalies.

A long conductor extends from 4E to 8W across the grid and from 50 to 250 meters south of the baseline. There is only minor magnetic correlation. This anomaly however is probably the same as the airborne anomaly. Graphite and pyritic tuff are the probable source for the conductors.

A set of semi-continuous anomalies exist from line 4W to line 3E and 350 to 450 south. These anomalies also have magnetic correlation or flank the magnetic high. The cause of the anomaly is probably sulfides in and along mafic volcanics flows.

The most southerly anomaly crosses the property from line 5E to line 4W and appears to flank the highest magnetic anomaly. This anomaly is probably caused from the difference in resistivity between the ultramafic (mag anomaly) and the surrounding rocks. There may also be some serpentinization and/or sulfides along the contact.

MAX-MIN

The max-min survey located several anomalies on both the 444Hz and 1777Hz frequencies all correlative with the vlf conductors.

Strong responses were found on line 5W, 100S and line 3W, 275S. Neither have magnetic correlation. All other anomalies usually show a slight negative increase in the in-phase and a larger positive to negative out of phase response.

CONCLUSION

The combined mag-vlf-max-min surveys has resulted in the location of numerous anomalies.

Most appeared to be in areas of deep overburden or under the lakes.

The mag-em coincident anomalies are probably caused by sulfides (po-py) either disseminated or massive with or without minor magnetite.

Other mag anomalies are probably ultramafic flows or intrusions, none appearing high enough to be caused by iron formation.

RECOMMENDATIONS

The following program is recommended as follow-up to the geophysical program.

- (a) The property should be mapped and prospected paying particular attention to the anomalies (mag and Em)
- (b) Stripping in the areas of L3W, 275S and L5W, 100-125S may be possible as this area lies on the side of a hill and outcrop could possibly be close.
- (c) A soil or humus geochemistry survey be performed over the conductor areas. This may guide the later drilling of these anomalies.
- (d) A diamond drilling program will ultimately be required to explain all of the above anomalies.

MORAY LAKE GRID

MAGNETOMETER SURVEY

The magnetometer survey defined a general west to northwest trend to the underlying rocks. The magnetics define a strong zone of approximately 100 metres wide that sub-parallel the baseline.

Maximum values of 61930 gammas on L '0' just west of the baseline is caused by massive po-py mineralization. This zone also shows an excellent max-min anomaly. Other magnetic highs do not show as a max-min conductor and are therefore probably caused from magnetite.

A magnetic high in the southeast corner of the group is probably caused by a peridotite intrusion.

MAX-MIN SURVEY

The max-min survey picked up an excellent conductor on the baseline at L '0'. This is the massive sulfide zone. Other conductors are weak on both frequencies and usually show a weak in-phase response and a weak out of phase response. These responses are along the magnetic trend and are probably due to sulfides.

CONCLUSIONS

The mag/max-min survey shows coincident responses along a magnetic trend south of the baseline. These responses are in part due to disseminated and massive sulfides.

RECOMMENDATIONS

The following program is recommended as a follow-up to this survey.

- (a) prospect, sample and map the property
- (b) conduct a soil or humus geochemical survey to cover all of the magnetic and max-min anomalies.
- (c) drilling should be performed beginning at the Voyager holes that encountered the Cu-Au mineralization and working slowly south-east along this zone.

CERTIFICATE

I, RAYMOND LASHBROOK DO HEREBY DECLARE THAT

- (A) I HAVE A 30% INTEREST IN THE PROPERTY**
- (B) I GRADUATED FROM HAILEYBURY OF MINES IN 1969 AND HAVE BEEN PRACTICING MY PROFESSION EVER SINCE**
- (C) I OWN A COMPANY CALLED LASHEX LTD WHICH PERFORMED GEOPHYSICAL WORK ON THE PROPERTY**
- (D) I RESIDE AT 973 PINECREEK ROAD, R.R.#1, CALLANDER, ONTARIO, P0H 1H0.**

*Ray Lashbrook
Jan 29/92*

M-943

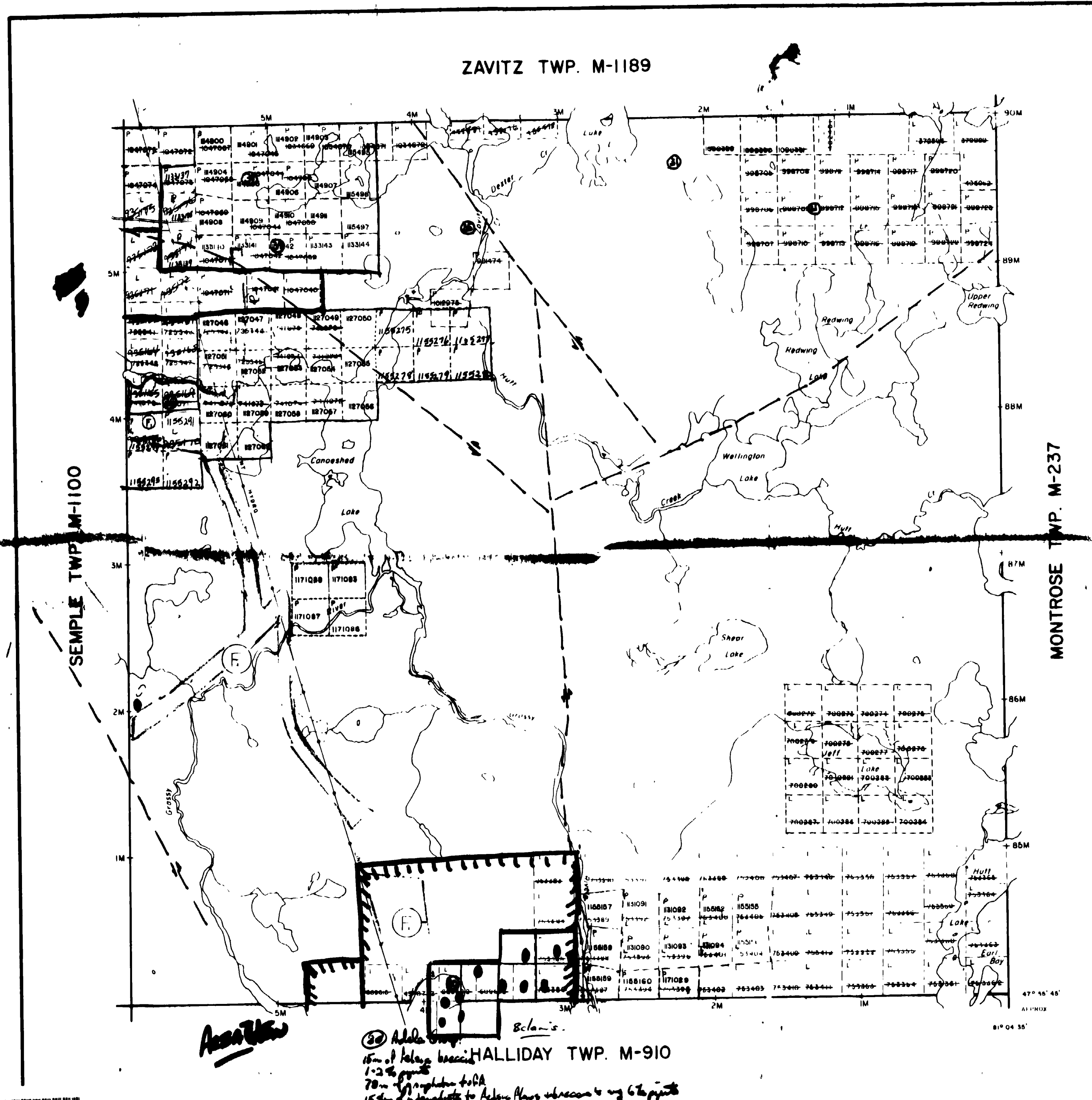
HUTT TWP.

M-943

HUTT TWP.

M-943

ZAVITZ TWP. M-1189



SEMPLE TWP. M-1100

MONTROSE TWP. M-237

NOTES

400 surface rights reservation along the shores of all lakes and rivers

(F) THIS TWP. IS SUBJECT TO FOREST ACTIVITIES IN 1990 FURTHER INFORMATION AVAILABLE ON FILE.

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON

LEGEND

PATENTED LAND	(P)
LEASE	(L)
LICENSE OF OCCUPATION	(L.O.)
CROWN LAND SALES	(C.S.)
LOCATED LAND	(Loc)
CANCELLED	(C)
MINING RIGHTS ONLY	(MRO)
SURFACE RIGHTS ONLY	(SRO)
HIGHWAY & ROUTE NO.	(Hwy)
ROADS	(Road)
TRAILS	(Trail)
RAILWAYS	(Rail)
POWER LINES	(Power)
MARSH OR MUSKEG	(Marsh)
MINES	(Mines)

used only with summer or port locations or when space is limited

TOWNSHIP OF
HUTT

DISTRICT OF
SUDBURY
PORCUPINE #18

MINING DIVISION
SCALE 1 INCH = 40 CHAINS (1/2 MILE)

DR R NOBLE
DATE MAY 5, 71
PLAN NO **M-943**

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

Asst. Secy

(F) *Adela Camp*
15m of heavy basalt
1-2 m of igneous
70m of sandstone & siltstone
15m of sandstone to Adela Pass + section to my 6 to points
2nd Adela Pass, 1st my only, no 1st my camp
Adela Pass + Adela Pass + Adela Pass

Belan's

HALLIDAY TWP. M-910



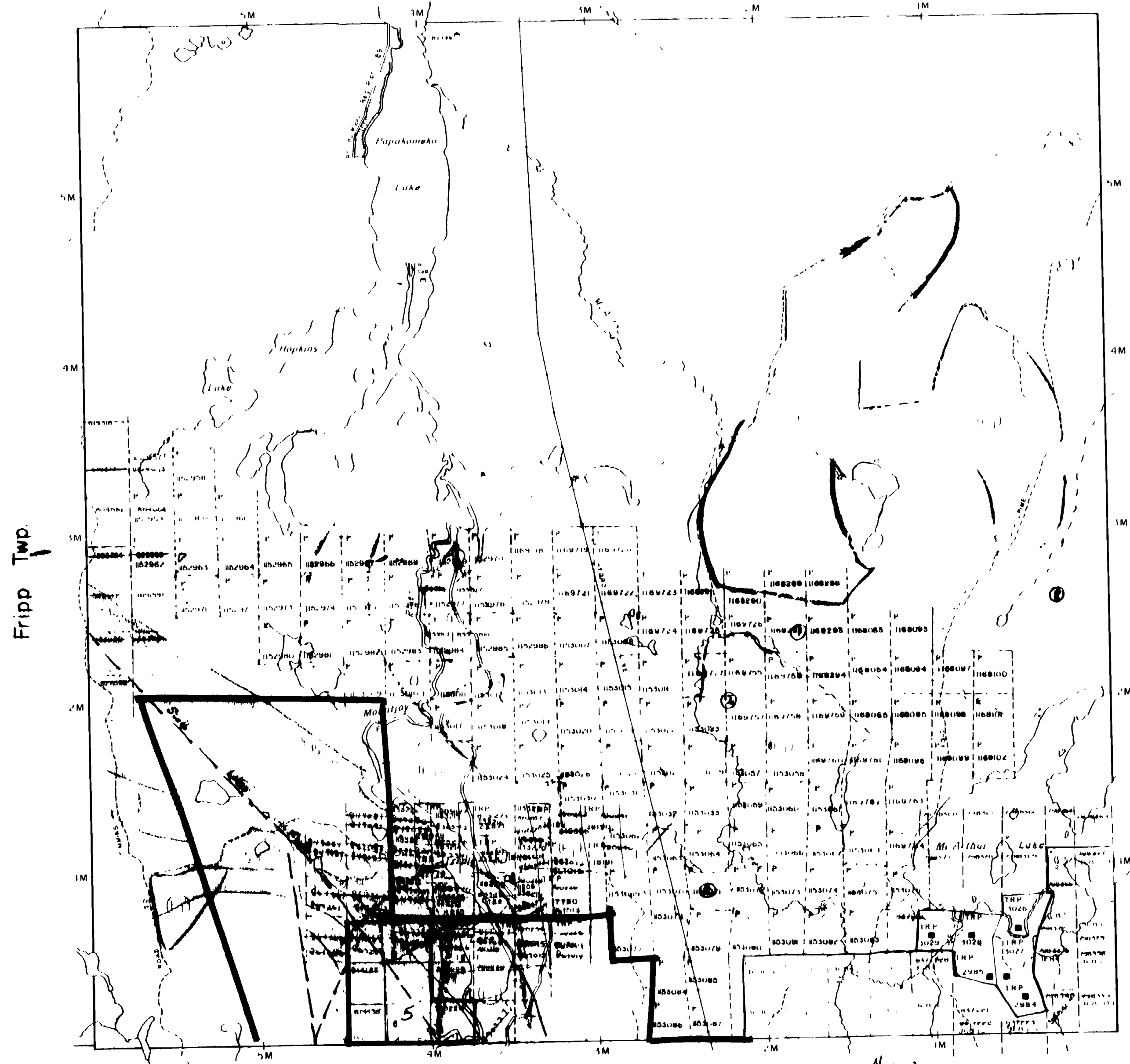
REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

- M R O MINING RIGHTS ONLY
- S R O SURFACE RIGHTS ONLY
- M S MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File

Adams Twp



Bartlett Twp.

5/ H. Habat reported
 24 samples assay 9.00 to 9.20 g/t (35-40 Au)
 mineralization associated with quartz quartz-carbonate
 and chlorite zones 13 g-66.00
 2 town resident geologist 1957 recommended more sampling.

LEGEND

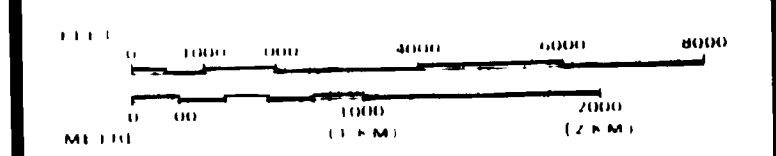
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- OTHER ROADS
- TRAILS
- SURVEYED LINES
- TOWNSHIP, RANGE LINES, ETC.
- LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES
- LOT LINES
- PARCEL BOUNDARY
- MINING CLAIMS, ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKELG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT SURFACE & MINING RIGHTS	●
SURFACE RIGHTS ONLY	○
MINING RIGHTS ONLY	◐
LEASE SURFACE & MINING RIGHTS	◑
SURFACE RIGHTS ONLY	◒
MINING RIGHTS ONLY	◓
LICENCE OF OCCUPATION	◔
ORDER IN COUNCIL	◕
RESERVATION	◖
CANCELLED	◗
SAND & GRAVEL	◘

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6 1913 VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970 (L.P.A.) 180 SEC. 63 SUBSEC. 1

SCALE 1 INCH = 40 CHAINS



TOWNSHIP

McARTHUR

MNR ADMINISTRATIVE DISTRICT

TIMMINS

MINING DIVISION

PORCUPINE

LAND TITLES / REGISTRY DIVISION

TIMISKAMING



Ministry of Land Management
 Natural Resources Branch
 Ontario

Date FEBRUARY 1985

Number
G-3227

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES AND ACCURACY IS NOT GUARANTEED. THOSE WHO WISH TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.



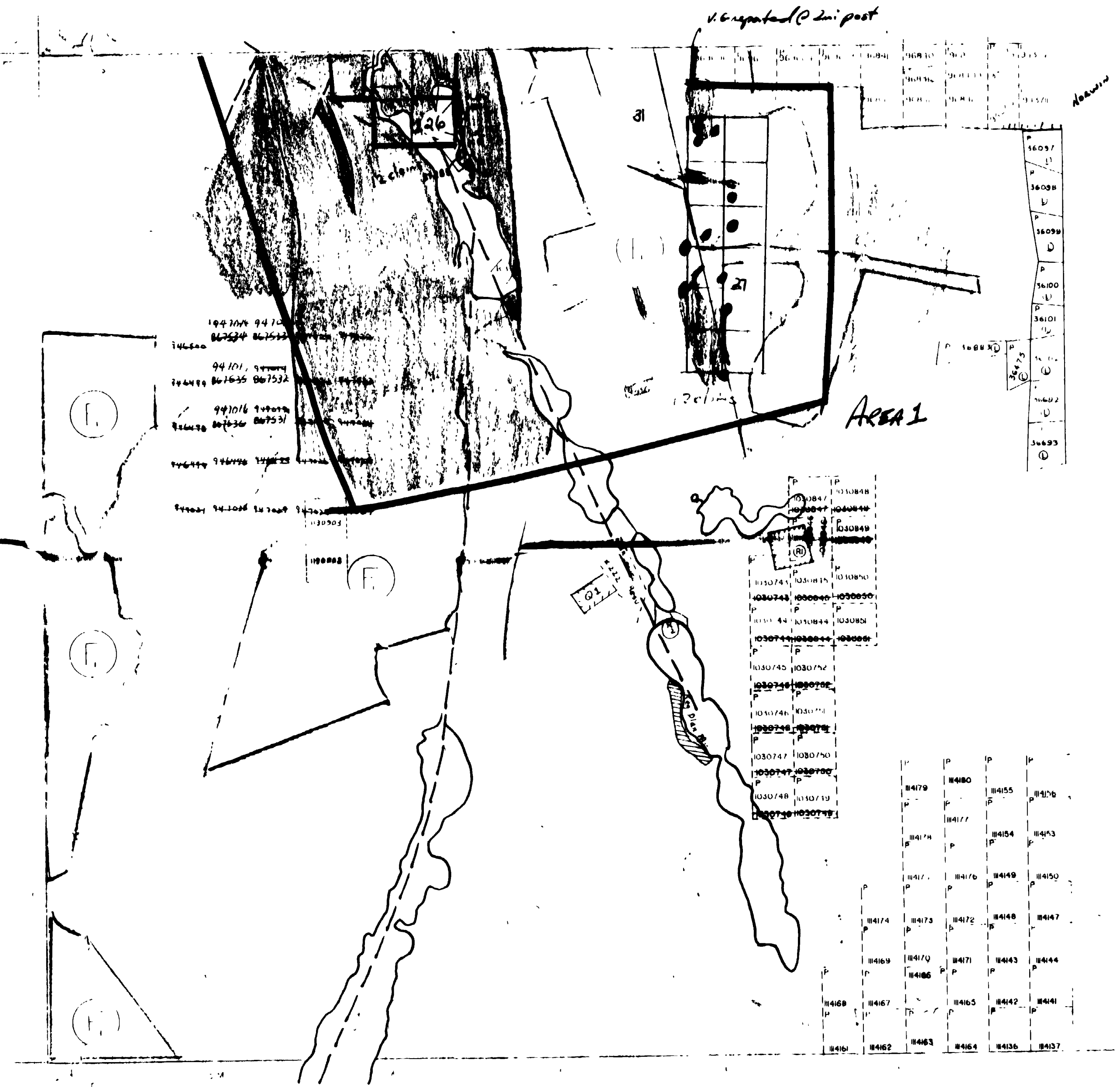
OP91-587

SHINDIGTIG Area
@ INST Anon and Map 81394

26/ S&A Mc Avenue Street

31/ Texas Gulf
270' x 10' Low Point
Trench on Gold

27/ 6.2% Cu over 2.5' pit



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(F) THIS TWP IS SUBJECT TO FOREST ACTIVITIES IN 1990. FURTHER INFORMATION AVAILABLE ON FILE.

AREAS WITHDRAWN FROM DISPOSITION

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(C)			PROPOSED GRAVEL PERMIT AREA	JUNE 25/86

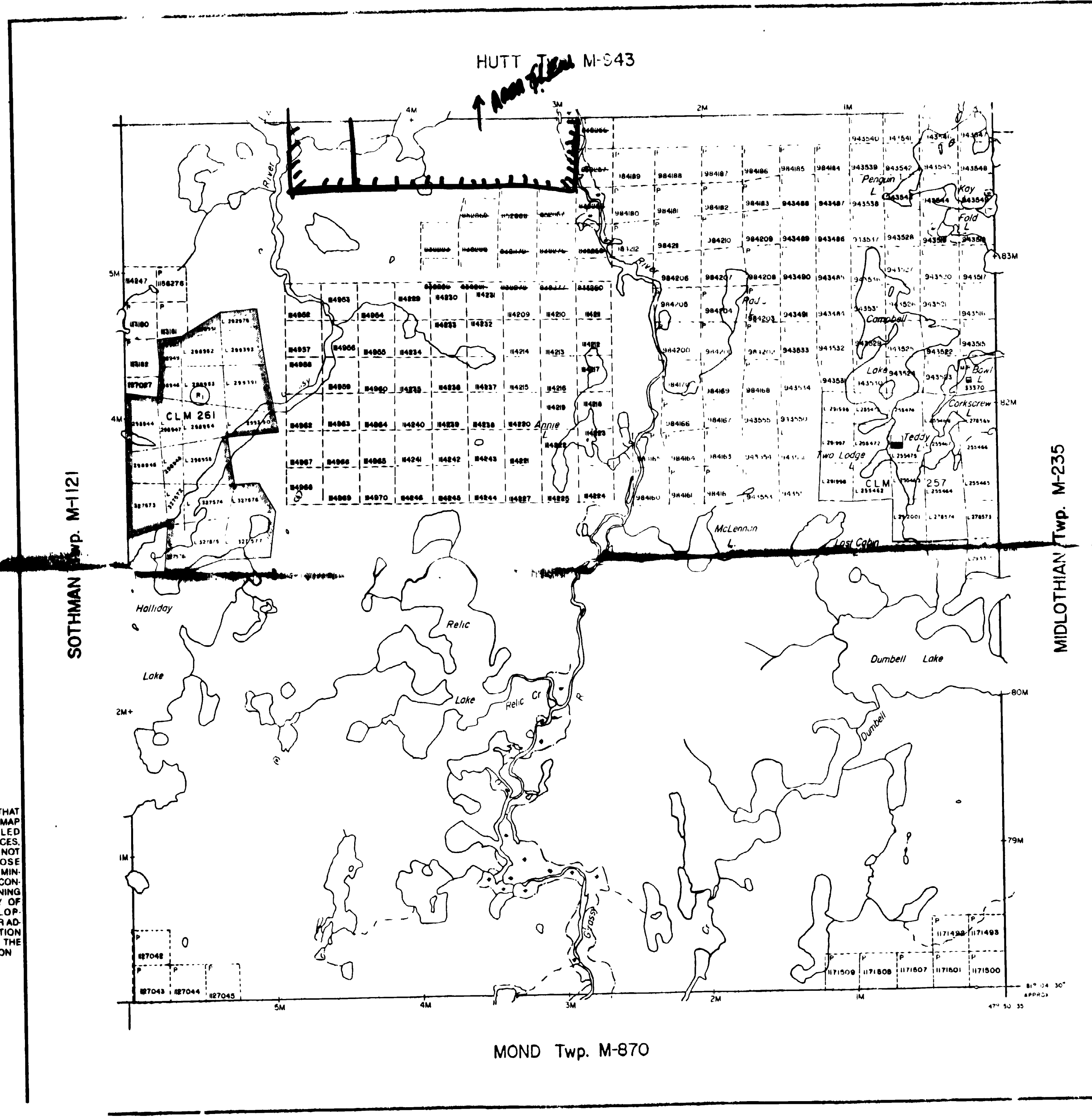
Received July 21/86
Checked July 21/86 FF 118

MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH



01E-10

PWT YADJIAH



HUTT Twp. M-943

SOTHERMAN Twp. M-1121

MIDLOTHIAN Twp. M-235

MOND Twp. M-870

NOTES

MAR 6 1931

AREAS WITHDRAWN FROM DISPOSITION.

M.R.O. - MINING RIGHTS ONLY
 S.R.O. - SURFACE RIGHTS ONLY
 M.S. - MINING AND SURFACE RIGHTS

DESCRIPTION	ORDER NO.	DATE	DISPOSITION	FILE
(1)	NRW48/84	FEB. 28/84	M.A.	

M.A.

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DISPOSITION OF CROWN LANDS

- SURFACE AND MINING RIGHTS
- MINING RIGHTS ONLY
- LEASE, SURFACE AND MINING RIGHTS
- SURFACE RIGHTS ONLY
- MINING RIGHTS ONLY
- LICENCE OF OCCUPATION

HIGHWAY & ROUTE NO

ROADS

TRAILS

RAILWAYS

POWER LINES

MARSH & MUSKEG

MINES

*used only with summer resort locations or when space is limited

TOWNSHIP OF

HALLIDAY

DISTRICT OF
SUDBURY

PORCUPINE
MINING DIVISION

SCALE: 1 INCH = 40 CHAINS (1/2 MILE)

RWN
DATE FEB 27

PLAN NO M-910

MINISTRY OF NATURAL RESOURCES

ONTAIRE

SURVEYS AND MAPPING BRANCH

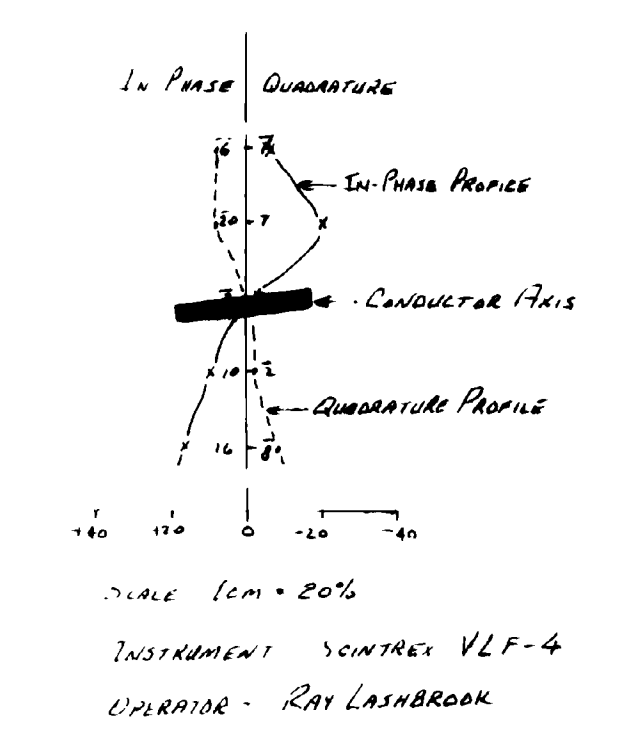
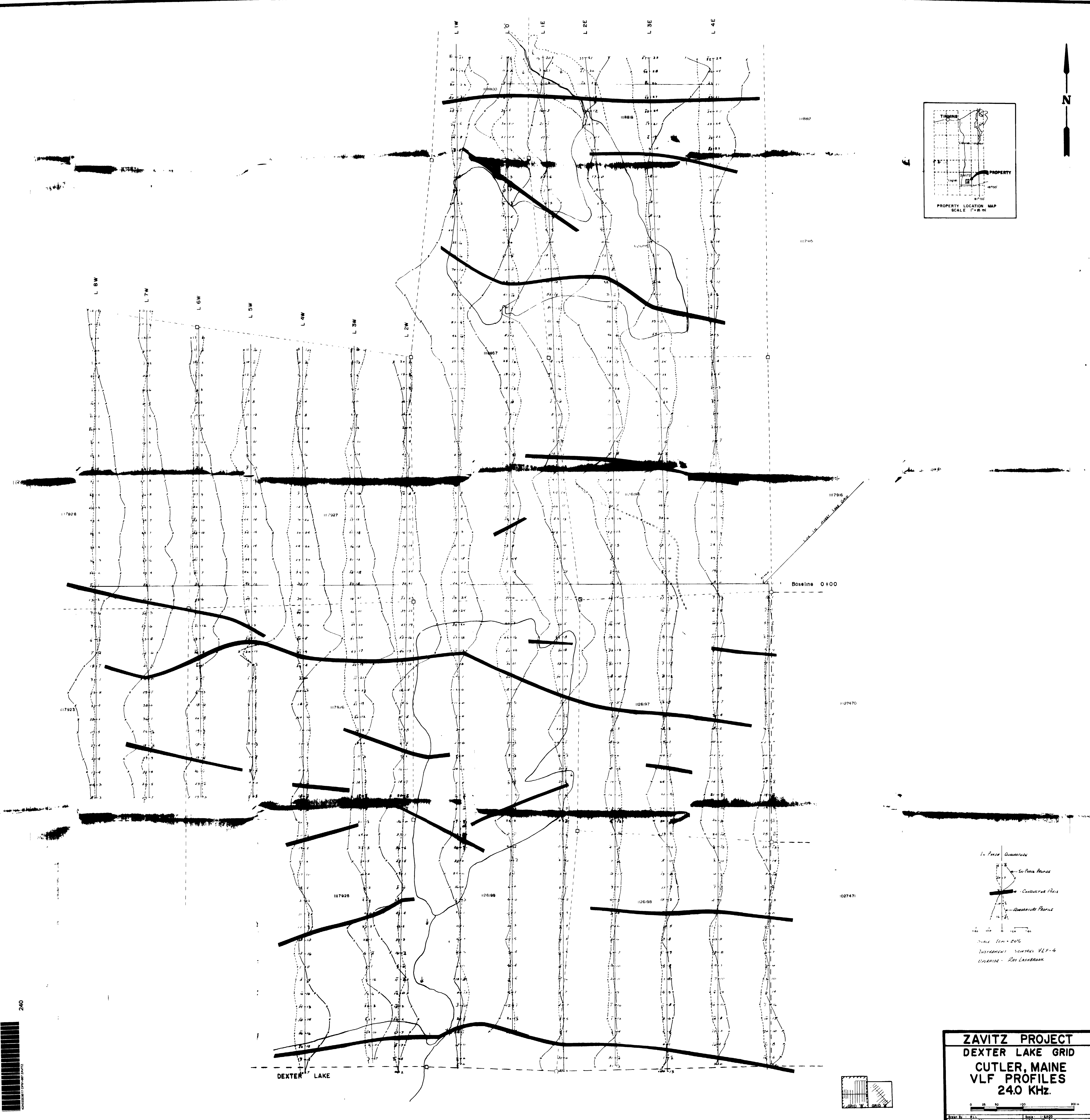
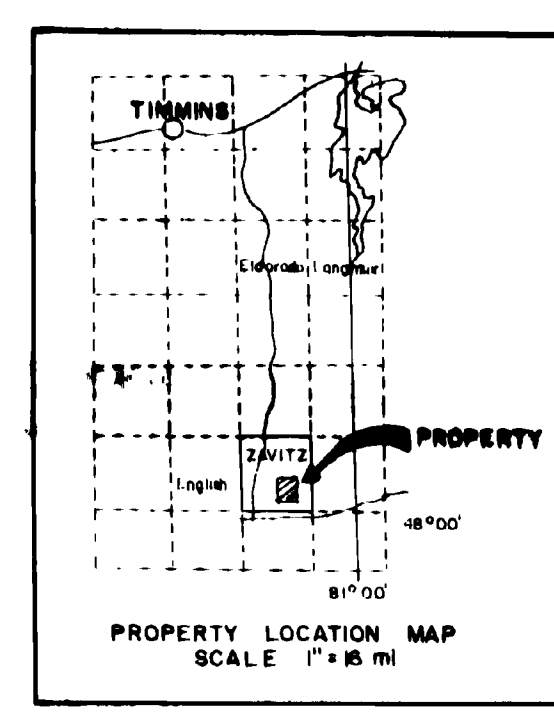
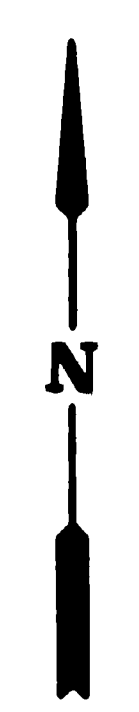
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HALLIDAY TWP.

01E-10

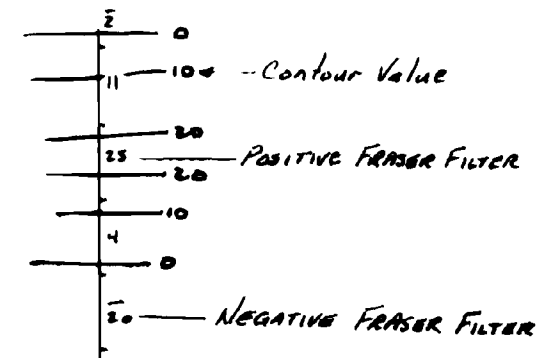
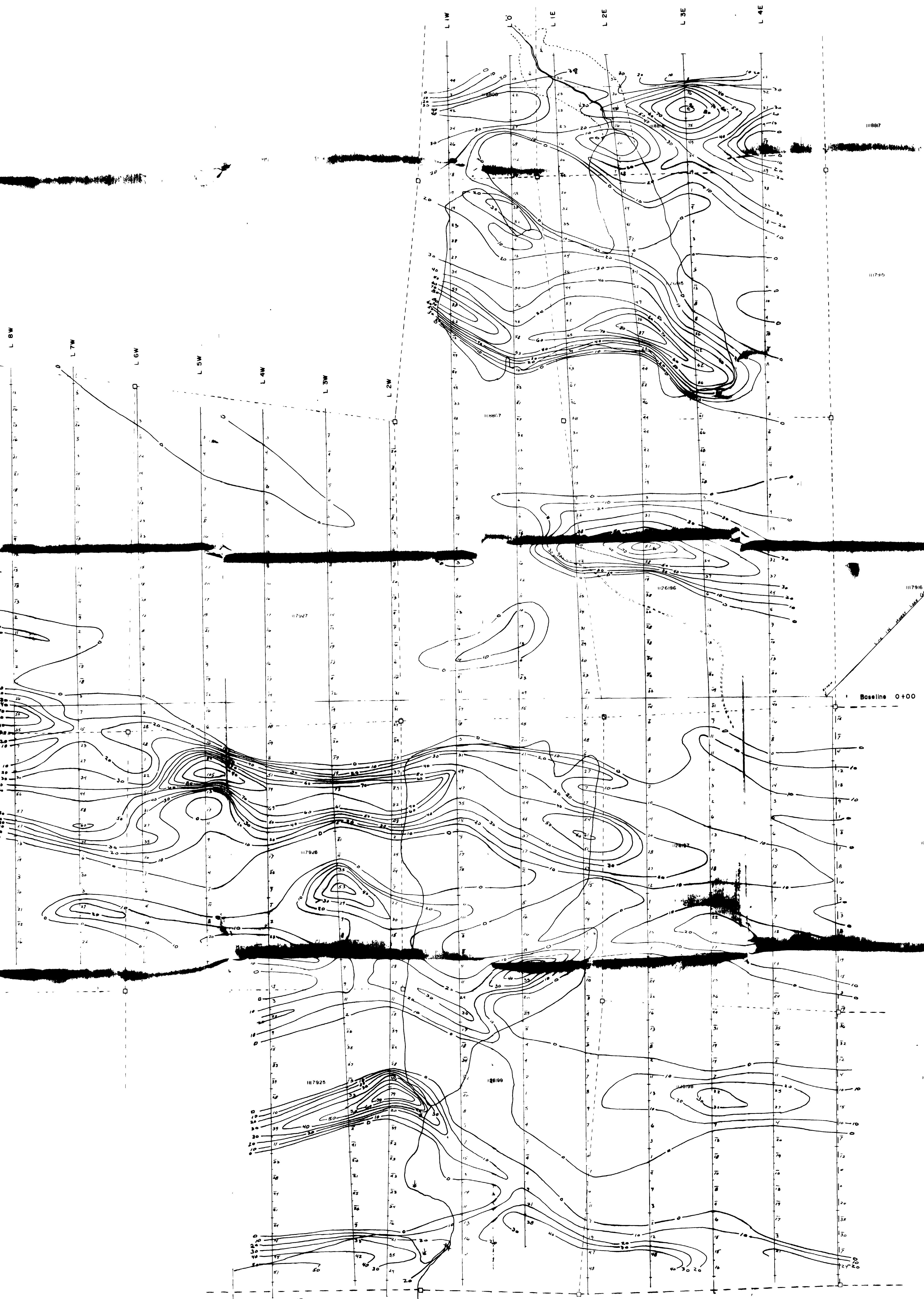
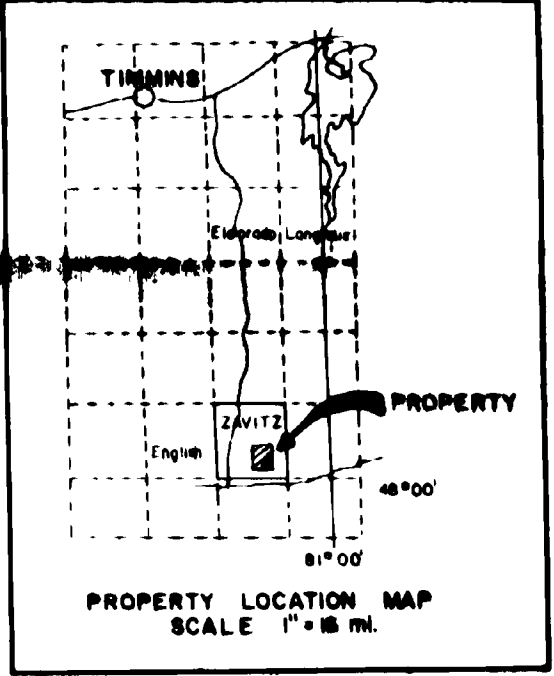
OP91-679



ZAVITZ PROJECT
DEXTER LAKE GRID
CUTLER, MAINE
VLF PROFILES
240 KHz.

Scale: 1" = 100'
Date: 11/19/80
Sheet: 48-2-3



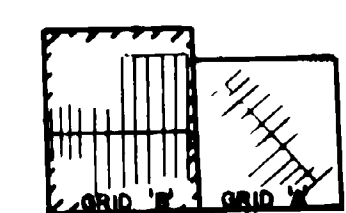


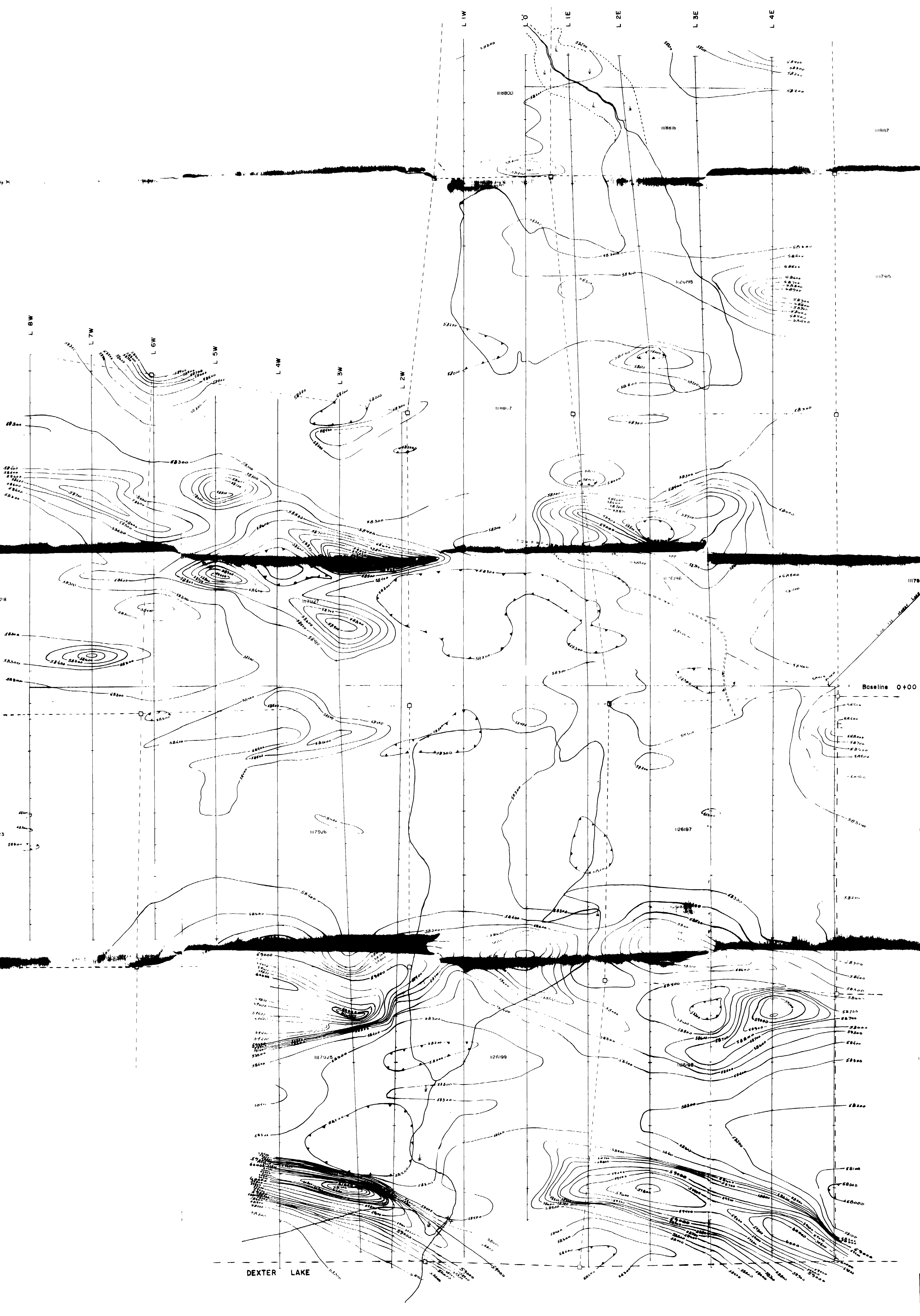
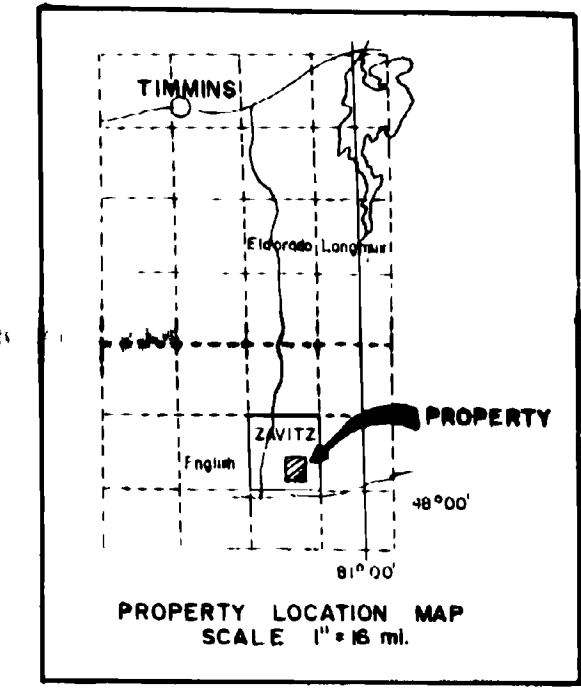
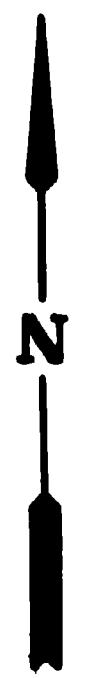
ZAVITZ PROJECT
DEXTER LAKE GRID

FRASER FILTER
24.0 KHz



DEXTER LAKE

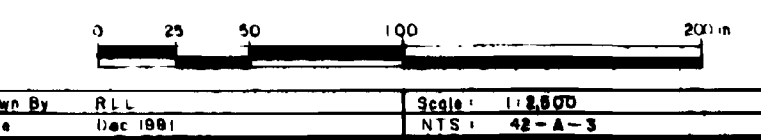




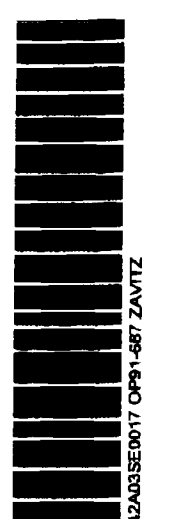
Contour Line
--- Contour Value
--- Magnetic Depression
--- Magnetic Anomaly

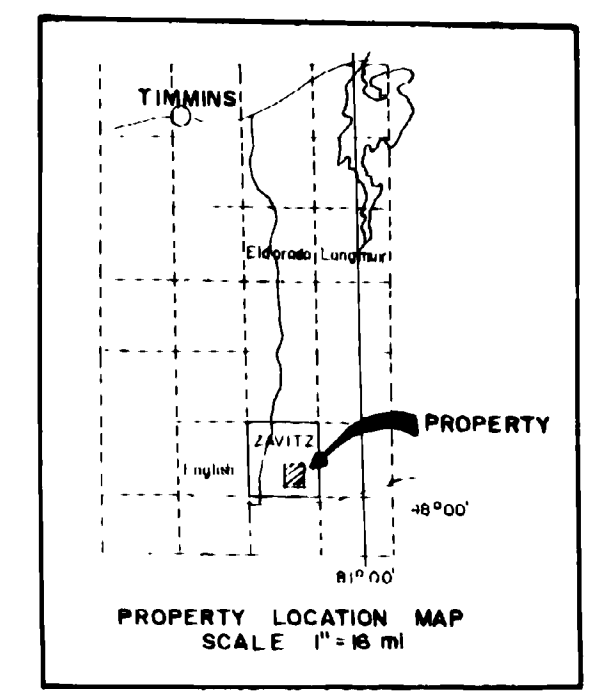
DEXTER LAKE

ZAVITZ PROJECT
DEXTER LAKE GRID
MAGNETOMETER
CONTOURS



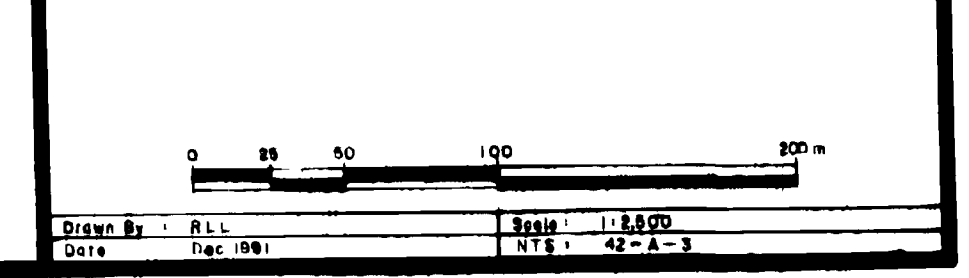
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Date: 11/20/60

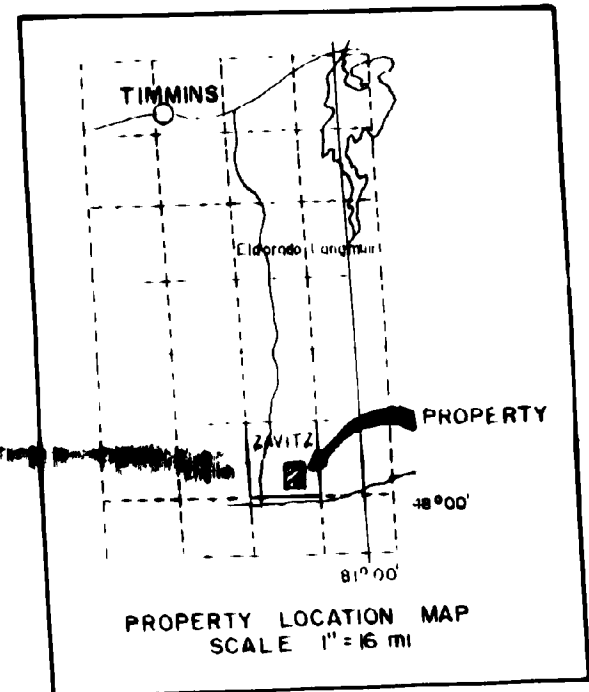




▲ PULSE STATION BL'0' L'0'
BASE VALUE 58350 Gauss
INSTUMENT - SCINTREX IGS-2 MP-4
OPERATOR - R. LAMARCA
BASE STATION - SCINTREX MP-4

**ZAVITZ PROJECT
DEXTER LAKE GRID
MAGNETOMETER VALUES**





L 8W

L 7W

L 6W

L 5W

L 4W

L 3W

L 2W

L 1W

L 1E

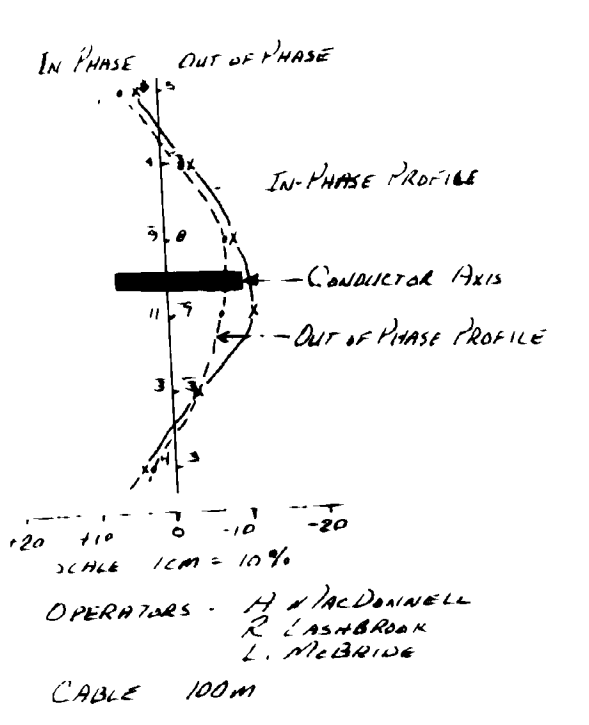
L 2E

L 3E

L 4E

Baseline 0+00

DEXTER LAKE

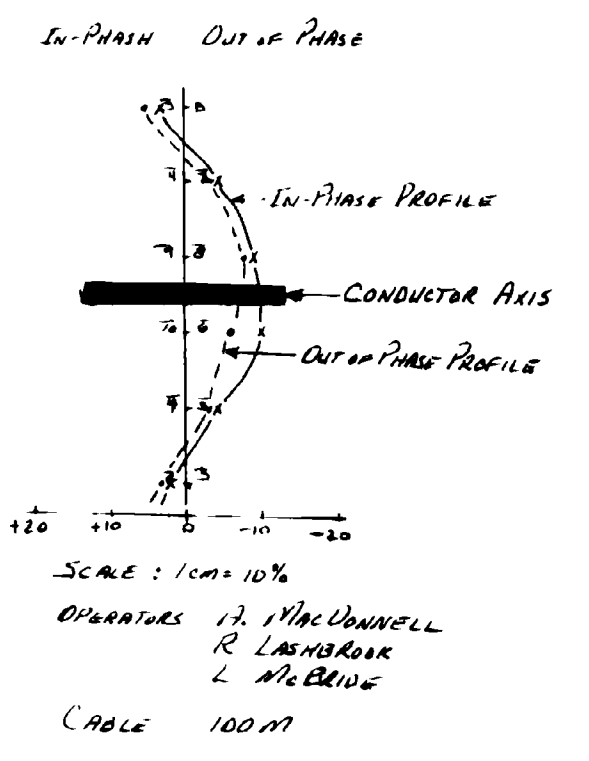
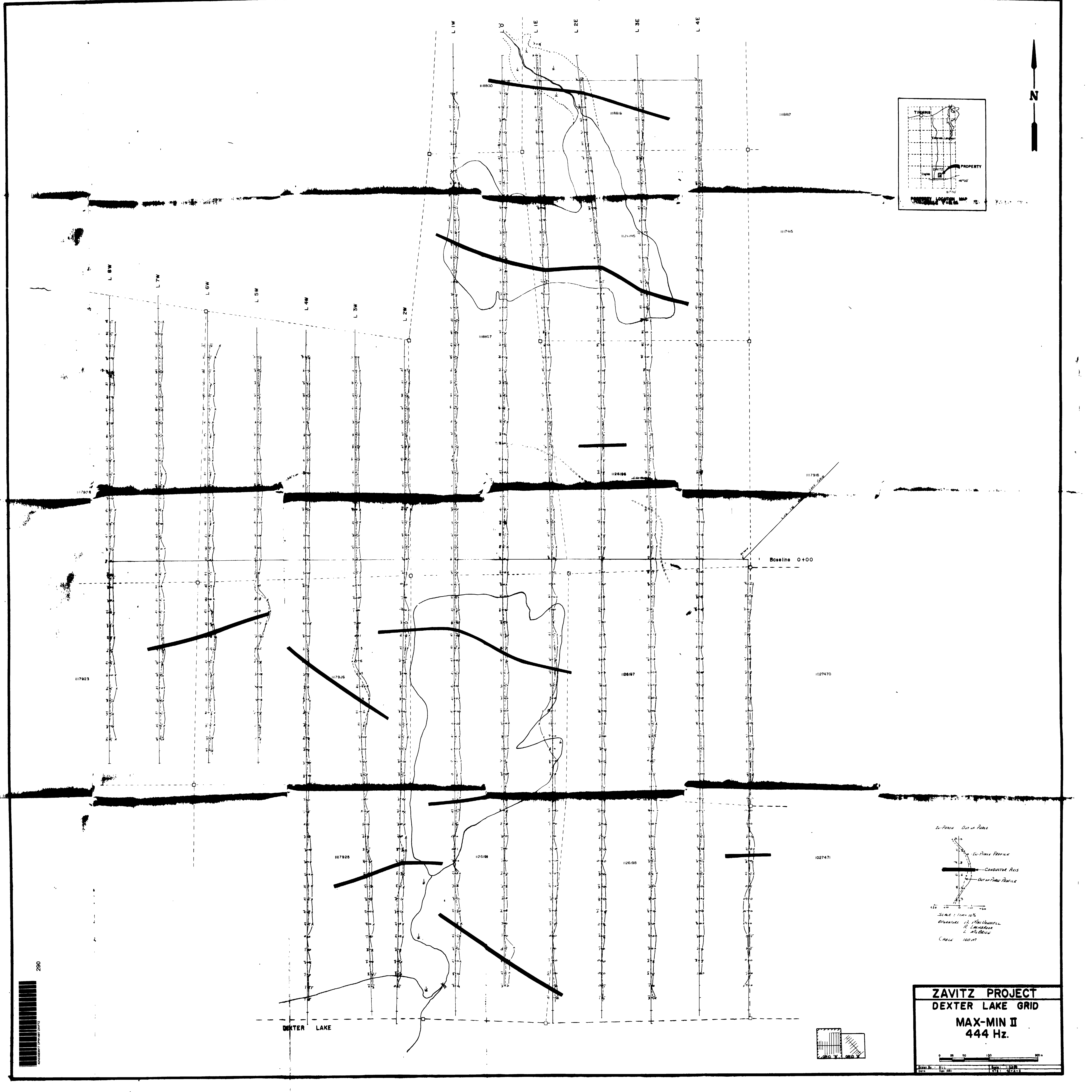
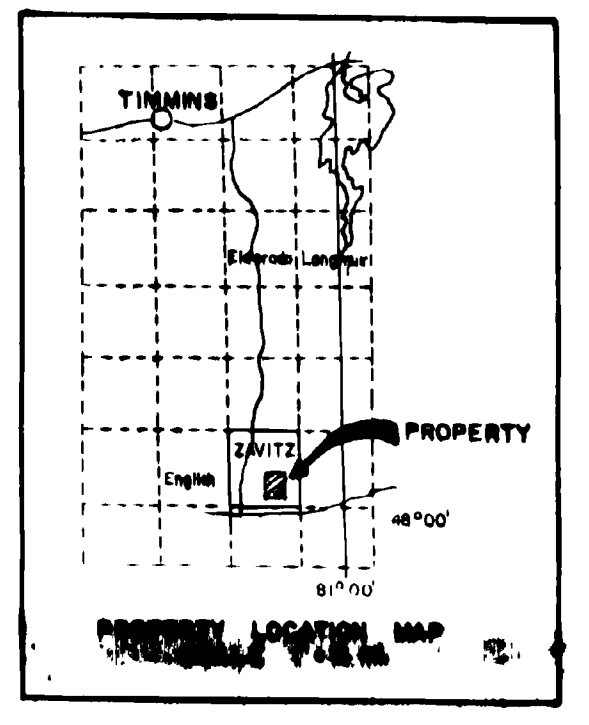


ZAVITZ PROJECT
DEXTER LAKE GRID
MAX-MIN II
1777 Hz.

DATE: 11/10/77

280



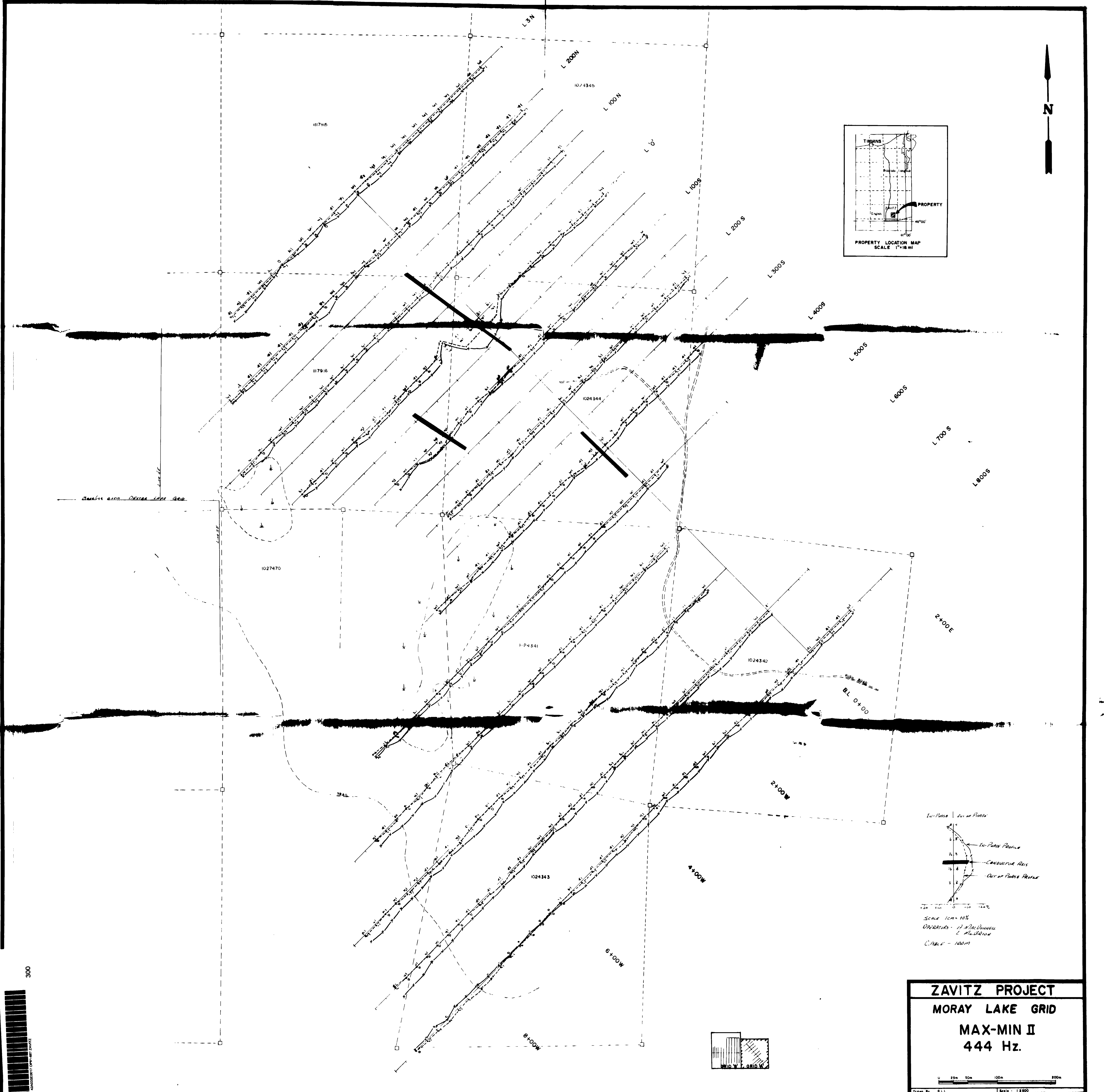
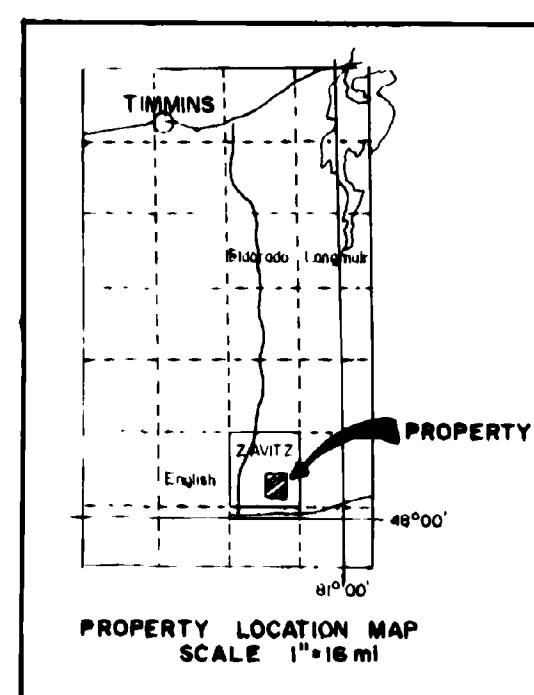


ZAVITZ PROJECT
DEXTER LAKE GRID
MAX-MIN II
444 Hz.

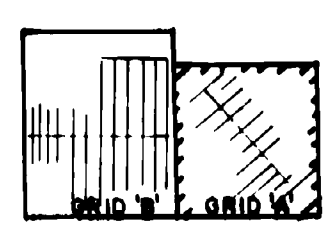
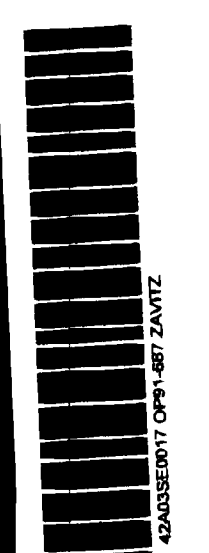
0 25 50 100 200'

DATE: 11/11/11
BY: [Signature]





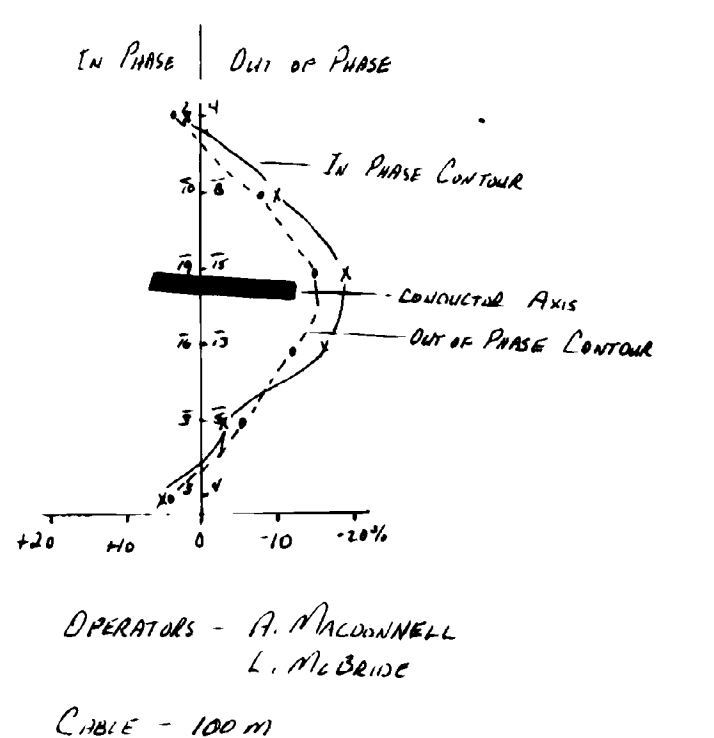
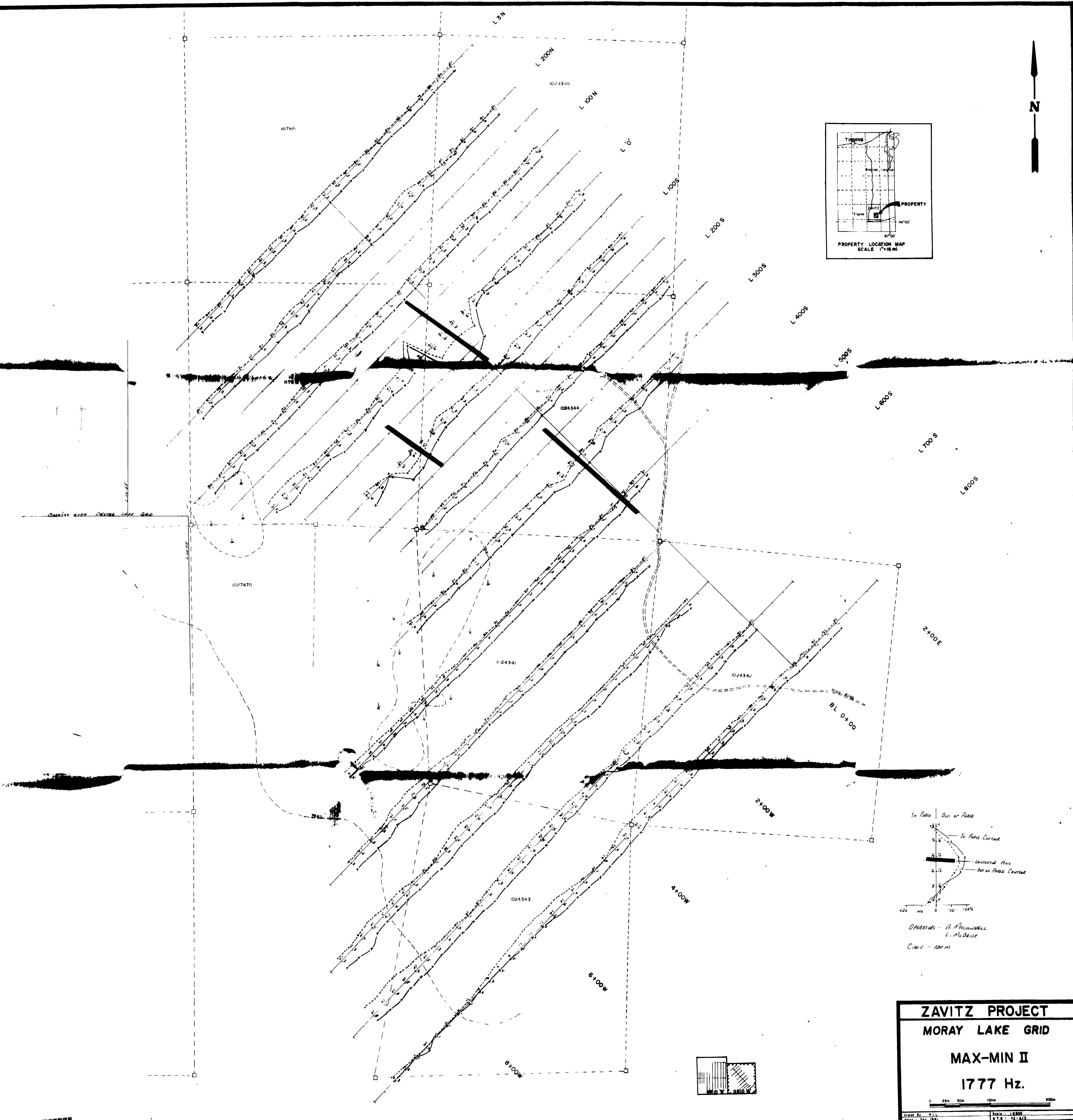
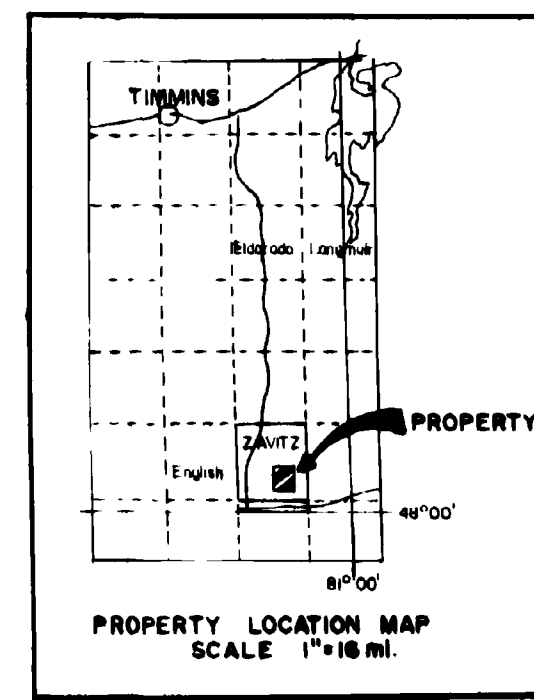
300



ZAVITZ PROJECT
MORAY LAKE GRID
MAX-MIN II
444 Hz.

Scale 1cm=10%
 OPERATOR - J. McQuinn
 DATE - 10/01/01

Drawn By: R.L.L. Scale: 1:800
 Date: Dec 1991 S.T.S. - 42-A/3

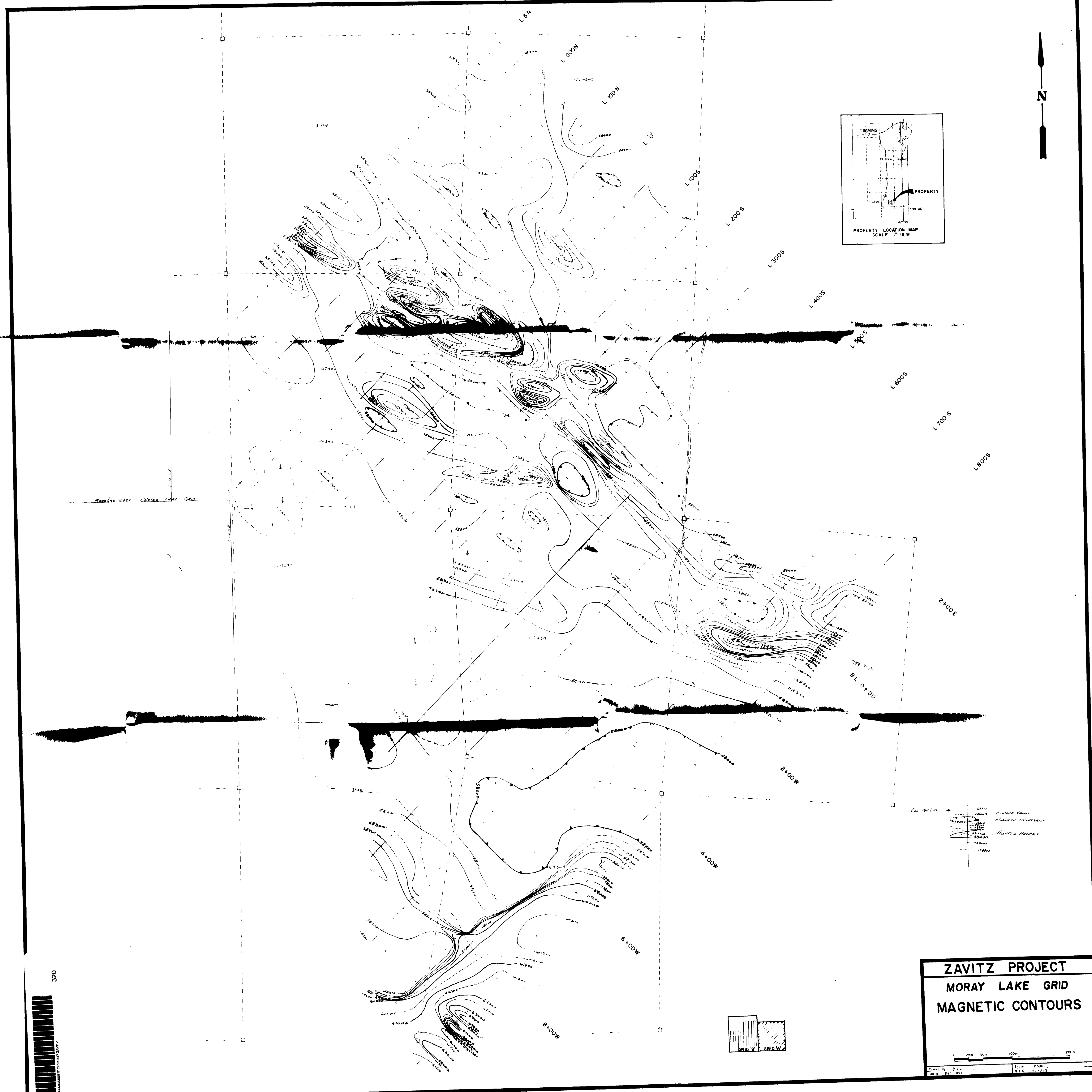
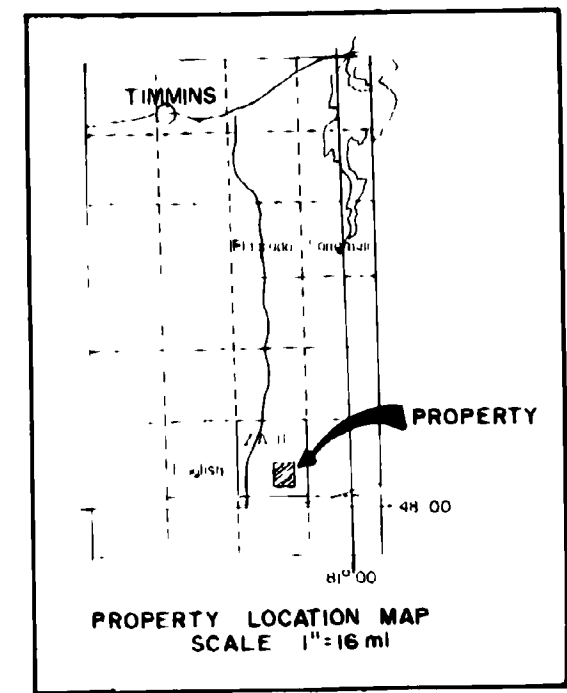


ZAVITZ PROJECT
MORAY LAKE GRID
MAX-MIN II
1777 Hz.

0 25m 50m 100m 200m

Drawn By: H.L.L. Date: Dec 88
 Scale: 1:300
 N.T.S. 42-A/3





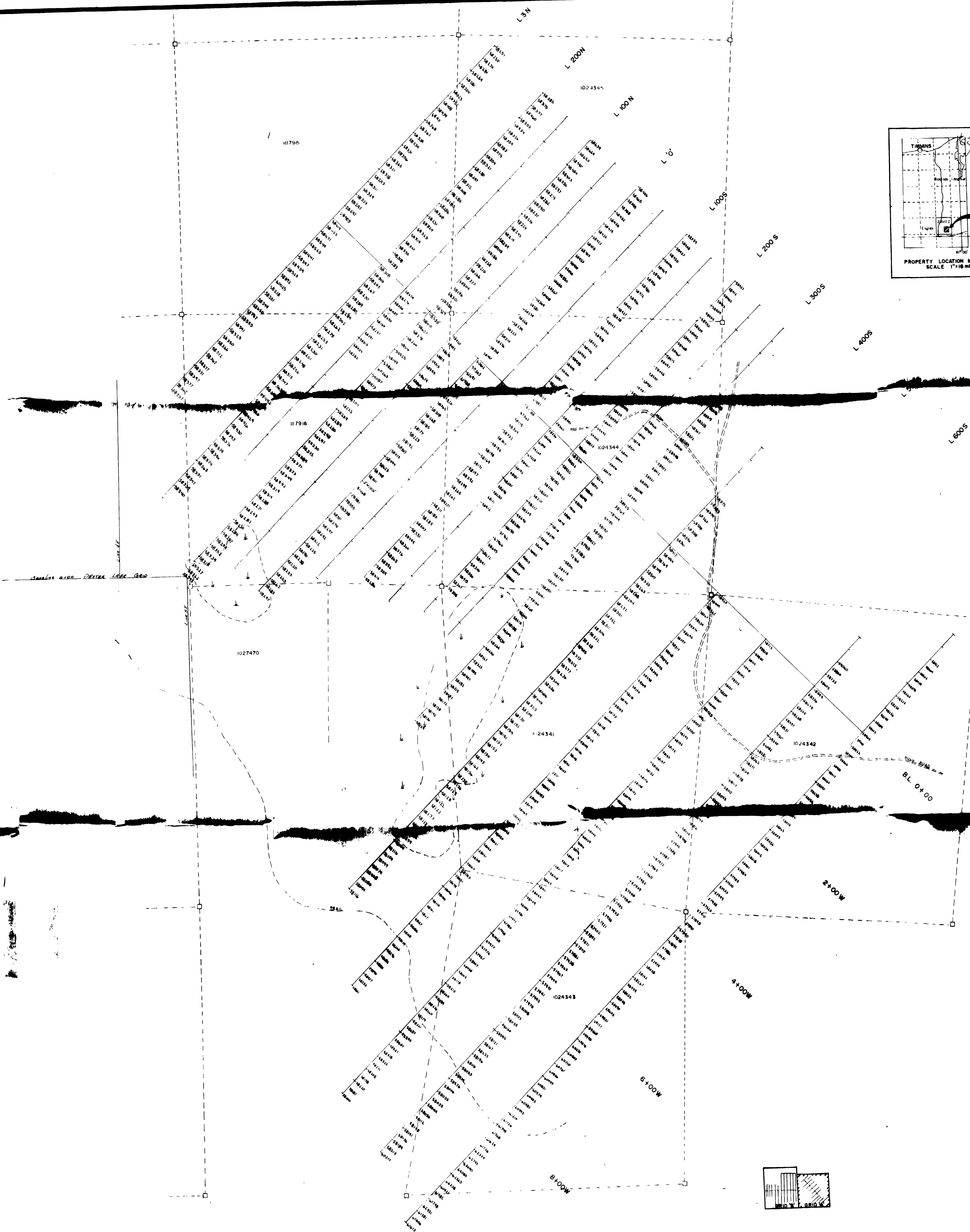
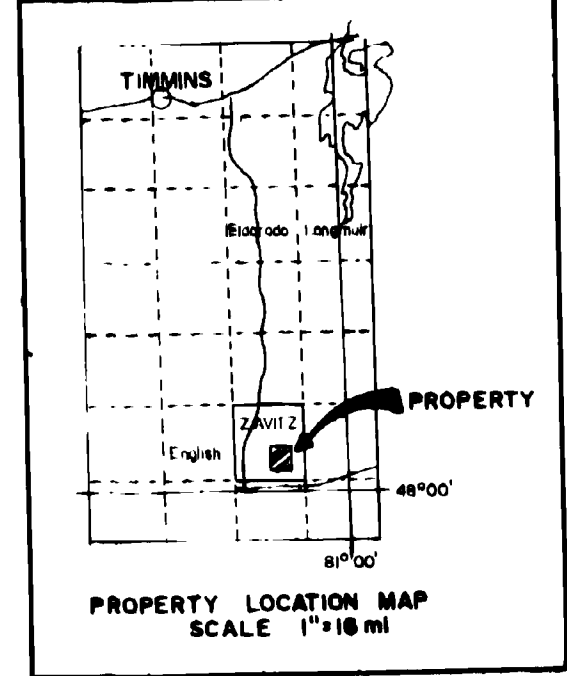
ZAVITZ PROJECT
MORAY LAKE GRID
MAGNETIC CONTOURS

Scale 1:2500
Drawn By: H.L.
Date: Dec 1981

25m 50m 100m 200m

GRID 3 GRID 4





Base Station - Grid 71' BL 0' L 0'
 Base Value - 48310 GAMMAS
 INSTRUMENT - FIELD - SCINTREX IGS-1, MP-4
 Base - SCINTREX IGS-2, MP-3
 OPERATOR - R. Lashbrook

ZAVITZ PROJECT
MORAY LAKE GRID
MAGNETOMETER
VALUES

0 25m 50m 100m 200m

Drawn by: R.L.L. Date: 12/20/01
 011-001-101 100-0-01-01

330

