



41P16SE0022 2.2826 GENOA

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TEXASGULF CANADA LTD.

GEOPHYSICAL REPORT

ON

GENOA 66

N.T.S. - 41-O-16

RECEIVED

OCT 31 1978

MINING LANDS SECTION

October, 1978

Douglas Londry

TEXASGULF CANADA LTD.

GEOPHYSICAL REPORT

ON

GENOA 66

N.T.S. - 41-0-16

INTRODUCTION:

The following is a report on geophysical work carried out on a claim block held by Texasgulf Canada Ltd. in Genoa and Marion Townships. The block consists of five claims numbered as follows:

P499837 - P499839 inclusive

P500438

P500446

LOCATION AND ACCESS:

The property straddles the Marion-Genoa Township line northeast of Oldscamp Lake. The area is accessible by float aircraft from Gogama, 30 miles to the east, to Oldscamp Lake.

GENERAL GEOLOGY:

The property covers a portion of the Woman River Iron Formation which runs from the southwest corner of Heenan Township 14 miles north-east to Northcott Bay on Rush Lake. Overlying the iron formation to the north are intermediate to basic volcanics and underlying the formation to the south are intermediate and acid volcanics. Younger granite and diorite intrusions are present in all the rock types.

The eastern portion of the iron formation is described by Goodwin, 1965 (Geology of Heenan, Marion and the Northern Part of Genoa Townships,

G.R. No. 38, O.D.M.) as "several thin discontinuous bands composed mainly of chert, siderite and pyrite together with their alteration products. When two or more parallel bands are present the upper stratigraphic bands are predominately cherty whereas the lowermost stratigraphic bands commonly contain carbonate and sulphide minerals and their alteration products".

PREVIOUS WORK:

Interest in the Woman River Iron Formation began at the beginning of the century as a possible source of iron. Drilling in 1921 disclosed the occurrence of galena, sphalerite and chalcopyrite associated with the formation. In 1928 and 1929 a lead-zinc showing on the claim to the east of the claim 500446 was drilled.

In 1950 Central Sudbury Lead-Zinc Mines Limited tested the same showing with twenty-three drill holes. Their best intersection averaged 3.97% pb and 7.58% Zn over 35 feet. A magnetic survey was also carried out at this time.

In 1957 the same company, their name changed to Stackpool Mining and Holding Corporation Limited, ran magnetic and electromagnetic surveys on claims 499838 and 499837, and to the east of claim 500446. They drilled fifty holes along 14,000 feet of the iron formation including that found within the Texasgulf claim block.

SURVEY DESCRIPTIONS:

Magnetic, horizontal loop and V.L.F. surveys were carried out on grid lines covering the five claims. The base line was cut parallel to the iron formation and cross lines were cut at 400' intervals. Readings were taken every 100' along these lines and every fifty feet in anomalous areas.

The magnetic survey was run with a Geometrics G816. This instrument is a proton precession magnetometer which reads the earth's total magnetic field. Base stations were established every 400 feet along the base line and time lapsed between base station readings was kept under one hour.

The horizontal loop survey was run with an Apex Max Min II at a frequency of 1777 Hz. The coil separation used was 400'. A 100' coil separation was used for detail work.

The V.L.F. readings were taken with a Crone Radem, using Cutler Maine as the transmitter station.

SURVEY RESULTS:

E.M. Surveys -

The E.M. results have been plotted on three maps at a scale of 1"=200' and profiled.

The horizontal loop survey, using a 400' coil separation outlines two broad conductive zones, striking almost east-west.

The southern zone runs from 300 south on Line 5600 east to 300 north on Line 2400 west. The 100' detail shows two strong parallel conductors within this zone. This is also illustrated in the V.L.F. results. The conductivity varies over the length of the zone but is generally quite high. The dip is hard to determine in most cases because of the influence the two conductors have on each others profile. The single anomaly on Line 800 east has a steep dip to the north. On Lines 1200 east and 1600 east a third conductor is present. The conductors do not show up on Line 5200 east, possibly due to intrusions.

The northern zone runs from approximately 500 north on Line 5600 east to 800 north on Line 3200 east. Conductivity improves towards Line 3200 east however is much poorer overall than the southern zone.

Although no horizontal loop detail work was completed, the V.L.F. results again show two parallel conductors within the zone. The two radem anomalies on Lines 1200, 1600 and 2000 west at about 700 north and 900 north may be the western expression of this zone.

MAGNETIC SURVEY:

The magnetic results have been plotted on a map at a scale of 1"=200' and contoured every 1000 gammas.

The map is characterized by strong discontinuous anomalies coincident with the southern E.M. zone. These highs would appear to reflect concentrations of magnetite within the iron formation.

The conductors in the north zone do not have corresponding mag highs however there is a horizon of high magnetic susceptibility stratigraphically just below the conductors.

COMMENTS:

The southern E.M. zone was the target of the extensive drilling carried out in the 1950's by Stackpool Mining. No further geophysical work is warranted in this area at this time.

To determine the width of the conductors in the northern zone, detailed horizontal loop with a shorter coil separation should be carried out. This area should also be checked geologically.

October, 1978

Douglas Londry
Douglas Londry



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) GEOPHYSICAL
Township or Area MARION/GENOA TOWNSHIPS
Claim Holder(s) TEXASGOLF CANADA LIMITED
PO. BOX 175, SUITE 5000, COMMERCE COURT, TORONTO
Survey Company SAME AS ABOVE
Author of Report DOUGLAS LUNDY
Address of Author P.O. BOX 1140, TIMMINS, ONTARIO
Covering Dates of Survey MAY, 1978, - AUGUST 1978
Total Miles of Line Cut 6.07 MILES

MINING CLAIMS TRAVERSED
List numerically
MAG 1/3 not covered 499838 1/4
1/4 P 499839 1/4
1/4 NLP 499837
P 500446
P 500438
TOTAL CLAIMS 5

SPECIAL PROVISIONS
CREDITS REQUESTED
Geophysical DAYS per claim
--Electromagnetic 60
--Magnetometer 20
--Radiometric
--Other
Geological
Geochemical

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)
Magnetometer Electromagnetic Radiometric
(enter days per claim)

DATE: OCT. 30/78 SIGNATURE: Douglas Lundy
Author of Report or Agent

Res. Geol. L.D. Qualifications 2.2289

Previous Surveys
Table with columns: File No., Type, Date, Claim Holder

OFFICE USE ONLY

If space insufficient, attach list

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS - If more than one survey, specify data for each type of survey

	MAG	VLF	H.E.M		MAG	VLF	H.E.M
Number of Stations	509	509	509	Number of Readings	509	509	400' 473 100' 157
Station interval	100' 50' DETAIL		100' 50' DETAIL		Line spacing 400'		
Profile scale	VLF - 1" = 20"		H.E.M		1" = 25%		
Contour interval	MAG - 1000 gammas						

MAGNETIC

Instrument GEOMETRIC GB16

Accuracy - Scale constant ± 1 gamma

Diurnal correction method BASE STATIONS ESTABLISHED EVERY 400' ALONG BASE LINE BY LOOPING - BASE STATIONS READ

Base Station check-in interval (hours) 1 hour

Base Station location and value LINE 5600 EAST 0+00 N 59530 GAMMAS

ELECTROMAGNETIC

Instrument CRONE RADEM MAX MIN II

Coil configuration HORIZONTAL LOOP

Coil separation 400' 100' DETAIL

Accuracy ± 1 DEGREE ± 1%

Method: Fixed transmitter Shoot back In line Parallel line

Frequency COTLER MAINE 1777 HZ

(specify V.L.F. station)

Parameters measured DIP ANGLE IN PHASE AND QUADRATURE COMPONENTS OF SECONDARY FIELD AS A % OF PRIMARY FIELD

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION RESISTIVITY

Instrument _____

Method Time Domain Frequency Domain

Parameters - On time _____ Frequency _____

- Off time _____ Range _____

- Delay time _____

- Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

THE TOWNSHIP

OF

2. 7826

GENOA

DISTRICT OF
SUDBURY

PORCUPINE
MINING DIVISION

SCALE: 1-INCH 40 CHAINS

McOWEN TWP.

MARION TWP. (M.853)

DESROSIERS TWP. (M.759)

ERIC TWP. (M.789)

LEGEND

PATENTED LAND	Ⓟ
CROWN LAND SALE	C.S.
LEASES	Ⓛ
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	Ⓞ

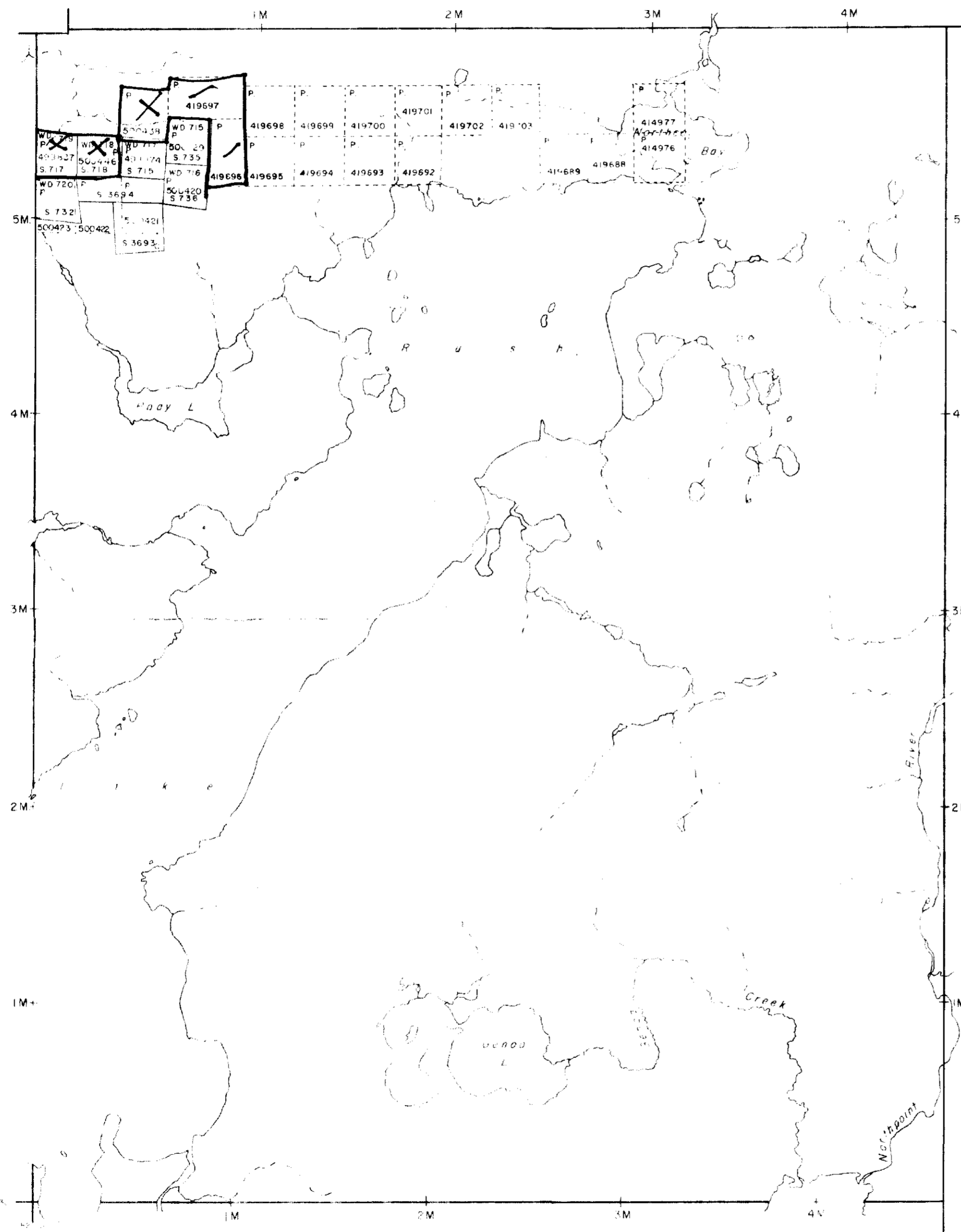
NOTES

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

DATE OF ISSUE
NOV - 1 1978
SURVEYS AND MAPPING
BRANCH

PLAN NO. **M.833**

MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH



THE TOWNSHIP
OF 2. 2826

MARION

DISTRICT OF
SUDBURY

PORCUPINE
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	Ⓟ
CROWN LAND SALE	C.S.
LEASES	Ⓛ
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 - 1978
SURVEYS AND MAPPING
BRANCH

PLAN NO. **M. 853**

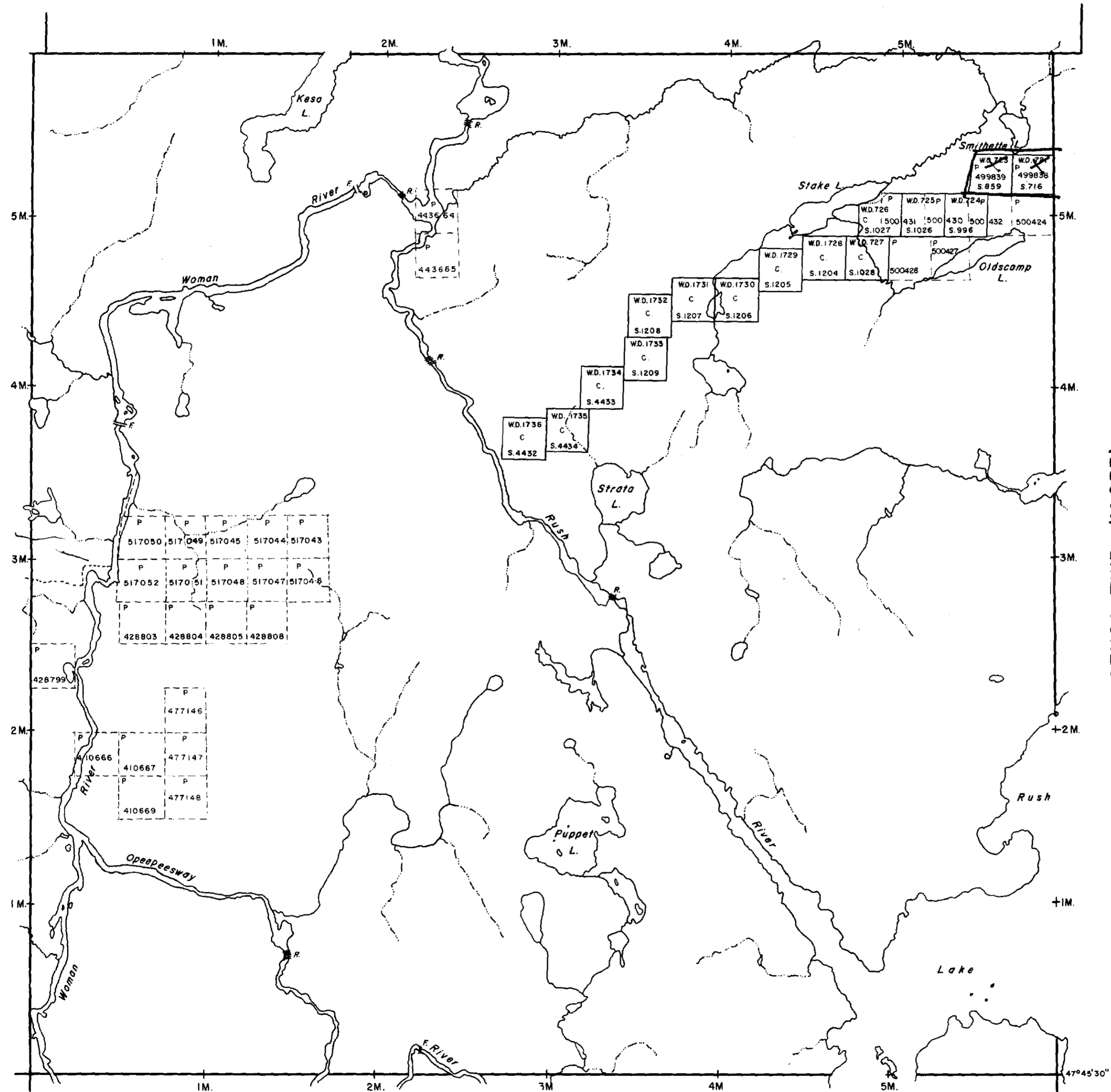
ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

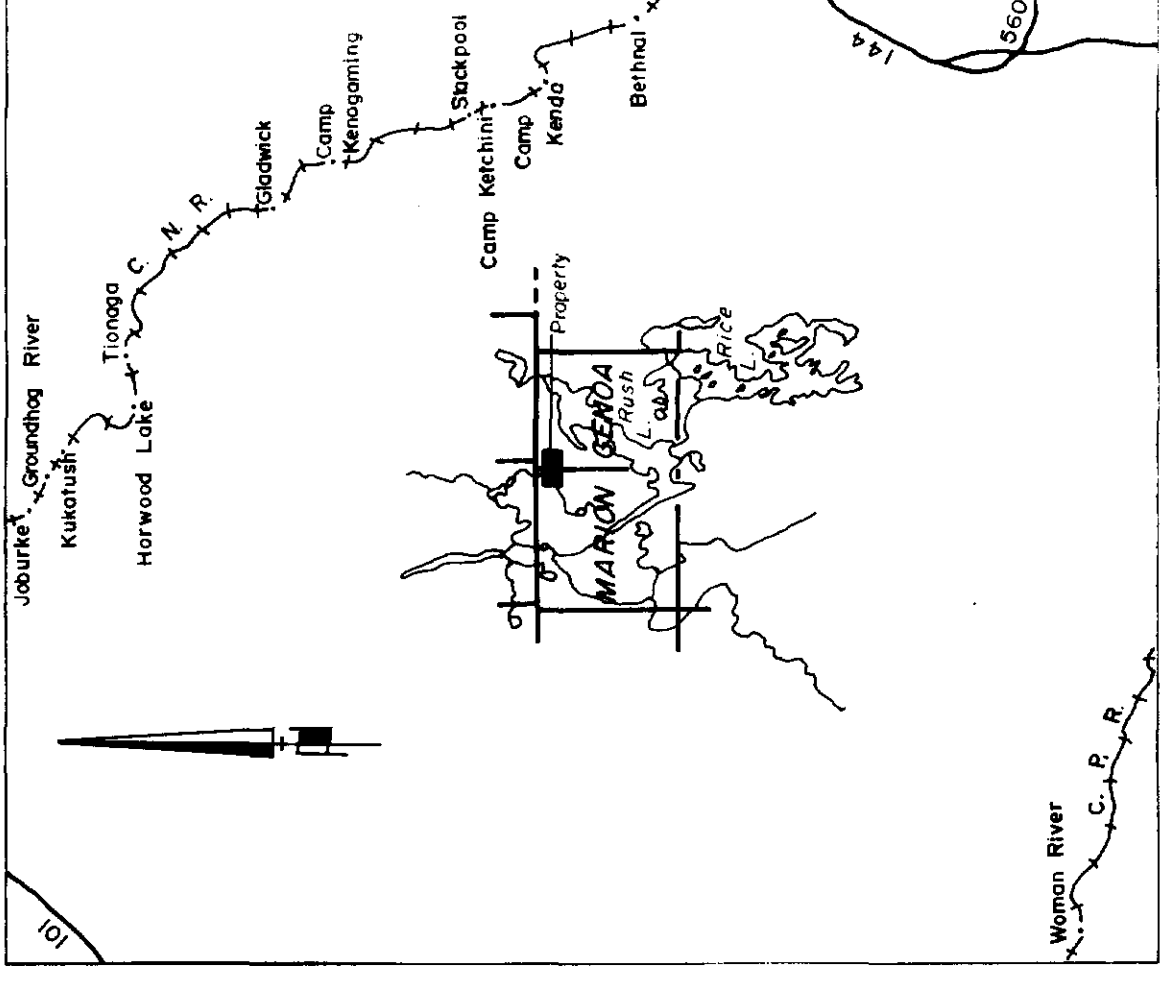
DALE TWP

HEENAN TWP (M.925)

GENOA TWP (M.833)

MALLARD TWP (M.849)





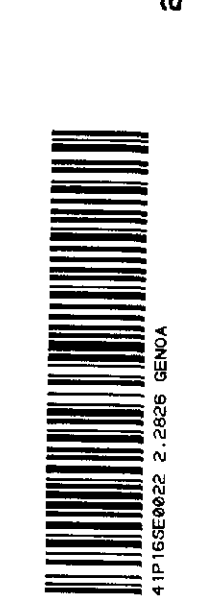
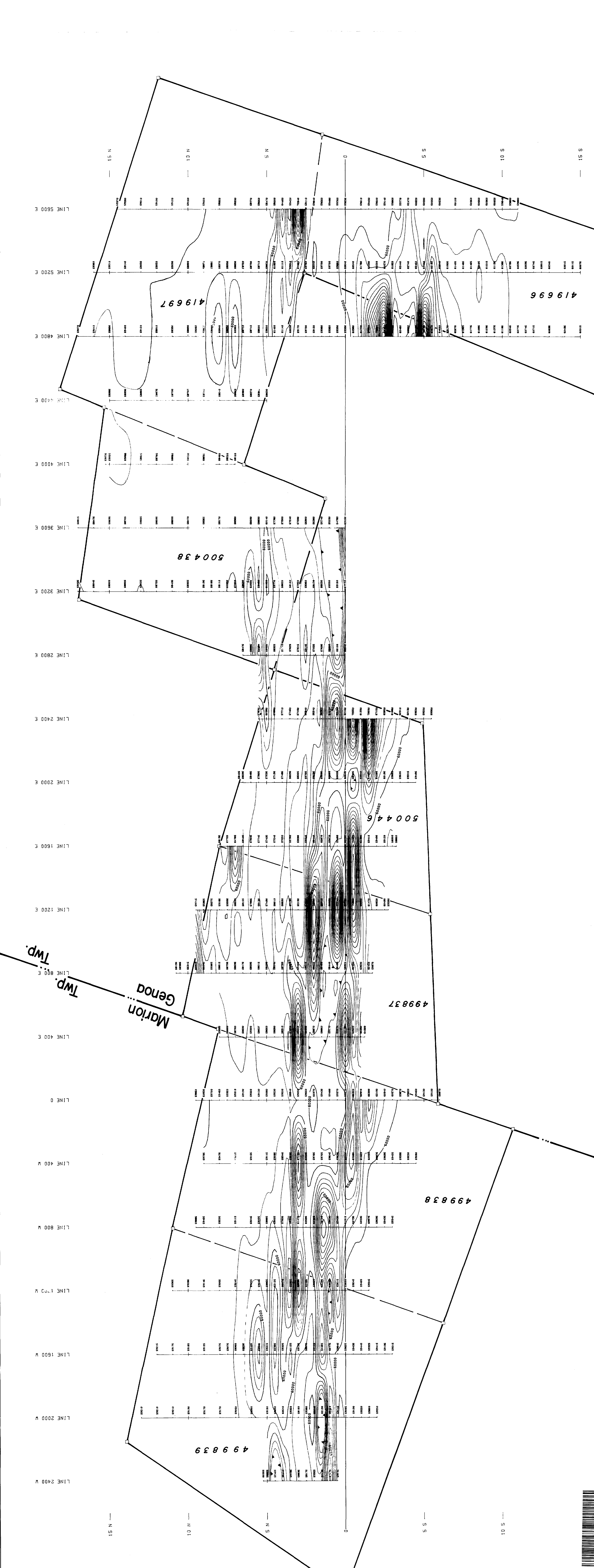
TEXASGULF INC.
 MAGNETIC SURVEY
 MARION66
 PROJ. #60
 NTS:41016
 DATE 1978
 SIGNED BY *D. J. ...*

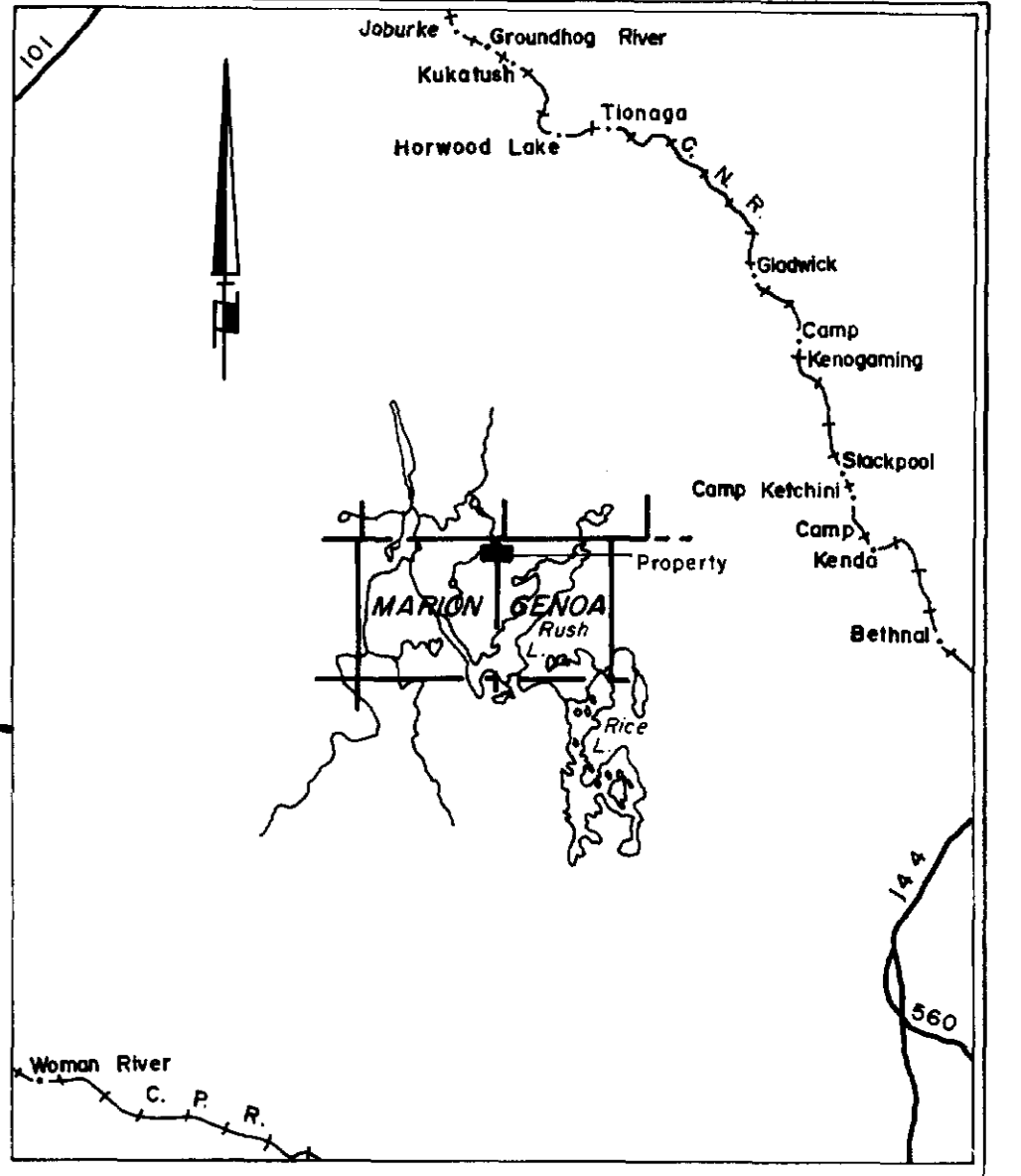
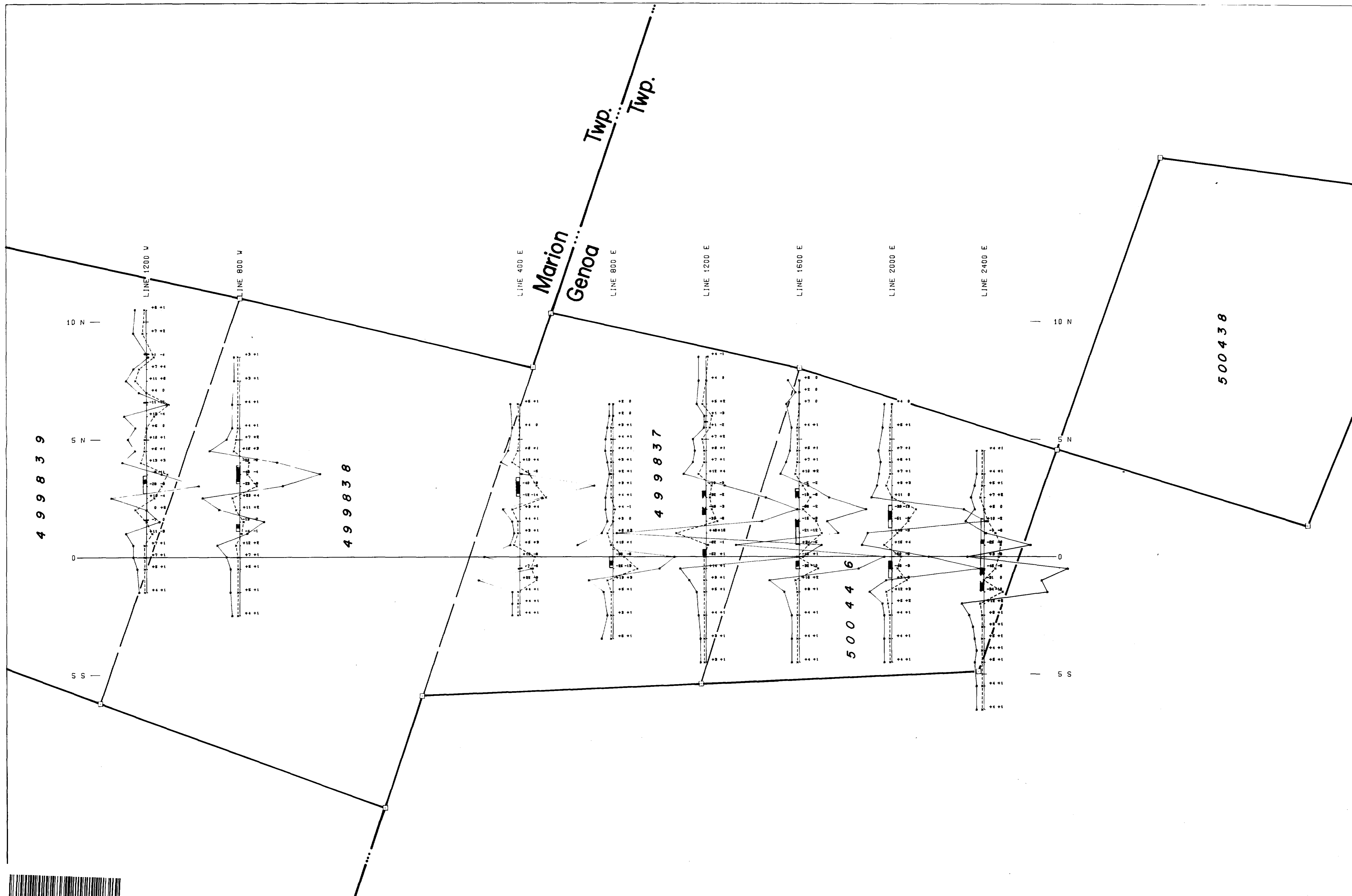
INSTRUMENT : GEOMETRICS 0836
 TYPE : PROTON PRESSION. TOTAL FIELD
 READINGS IN GAMMAS
 ▲ MAGNETIC BASE STATION

LEGEND

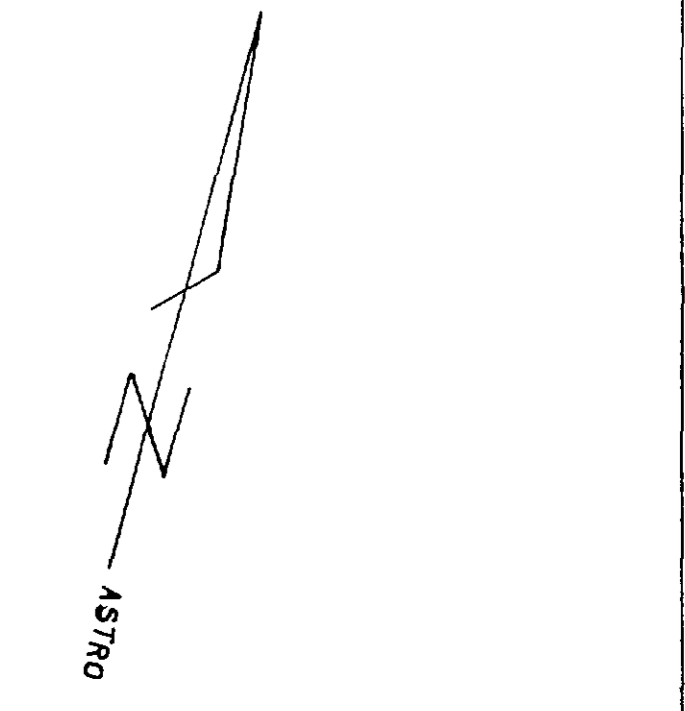
ASTRO

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 FEET





KEY MAP Scale : 1" = 8 miles

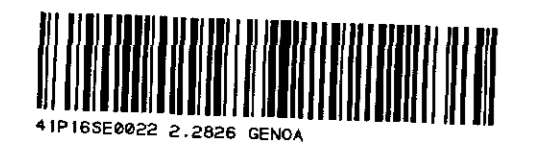


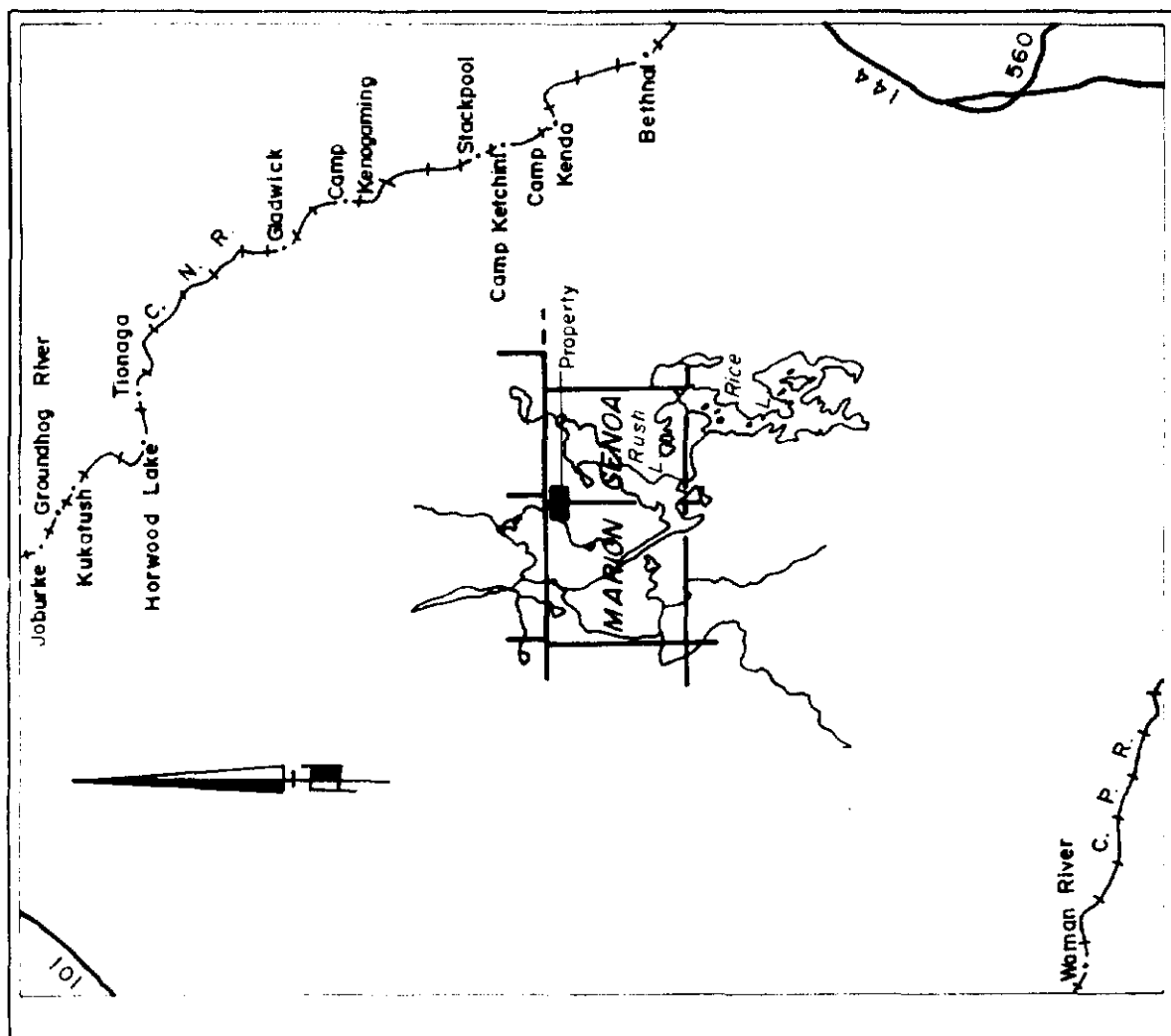
INSTRUMENT : APEX PARAMETRICS MAXMIN II
 FREQUENCY : 1777 Hz
 COIL SPACING : 100 FEET
 PROFILE SCALE : 1" = 25'

← + READINGS - READINGS →

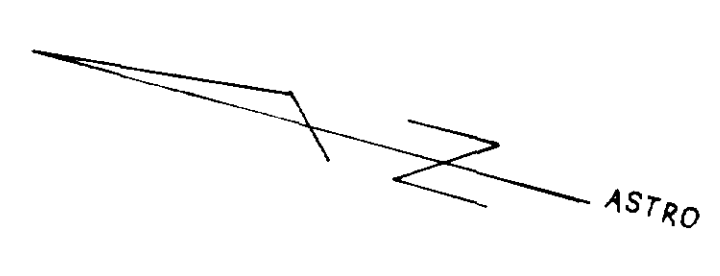
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 FEET

TEXASGULF INC.	
HORIZONTAL LOOP SURVEY	
MARION 66 DETAIL	
NTS: 41016	PROJ. #60
WORK BY <i>Douglas J. ...</i>	DATE 1978





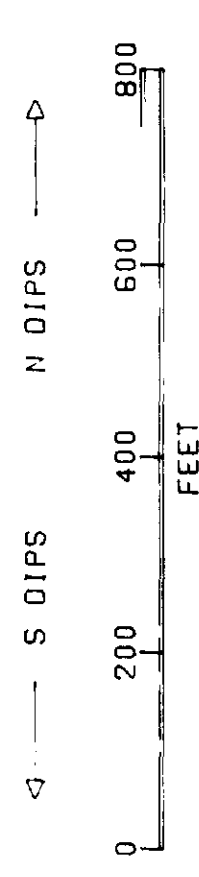
KEY MAP Scale: 1" = 8 miles



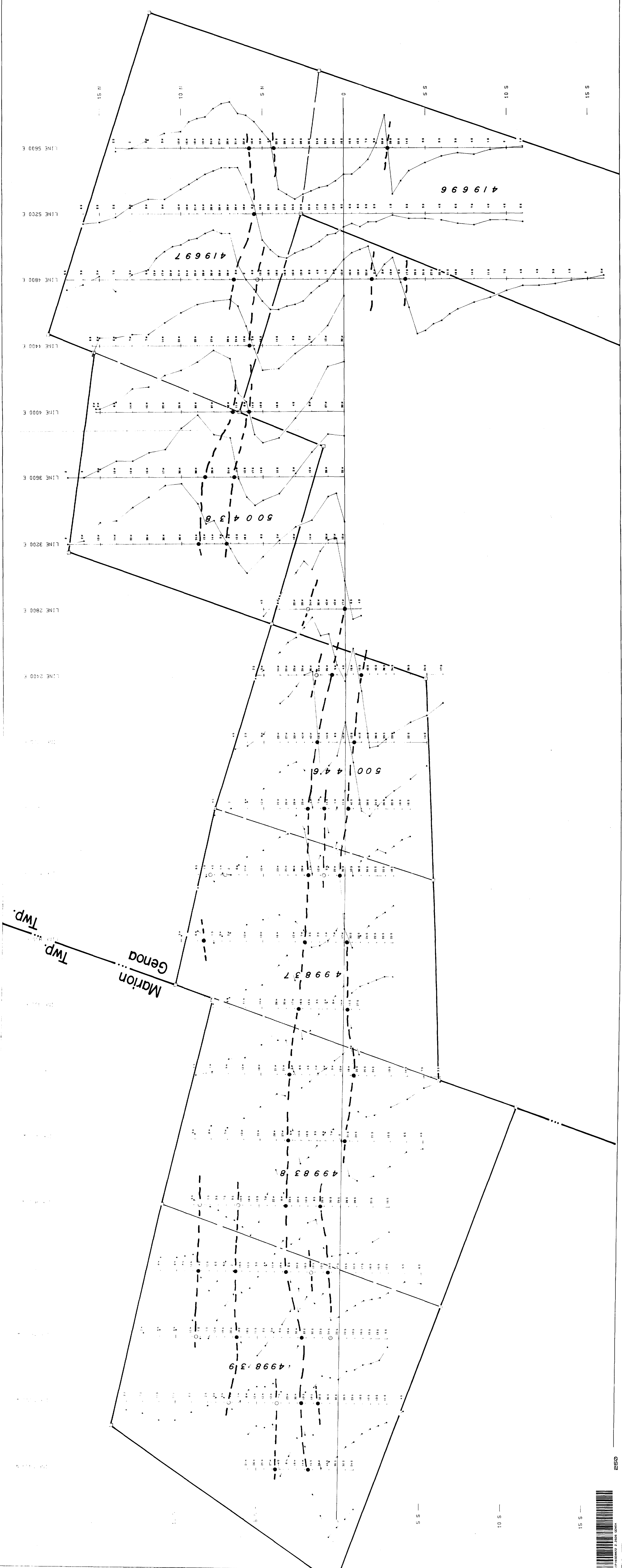
LEGEND

DIP ANGLE (DEGREES)

INSTRUMENT : CRONE RADEI
 STATION : CUTLER, 17.8 MHZ
 PROFILE SCALE : DIP ANGLE 1" = 20°



TEXASGULF INC.
 V L F SURVEY
 MARION 66
 NTS: 41016
 PROJ.# 60
 DATE 1978



Marion Twp.
 Genoa Twp.