42A06SW0206 2.3973 BRISTOL

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PREUSSAG CANADA LIMITED

TIMMINS WEST PROJECT

GEOPHYSICAL SURVEYS 1981 Mag, VLF, HEM

RECEIVED

JUN 30 1981

MINING LANDS SECTION

REGISTERED PROFESSIONAL ENGINEER
T. E. Warren
T. E. WARREN
PROVINCE OF ONTARIO

June 26/81

INTRODUCTION

Magnetometer, VLF electromagnetic and HEM surveys were undertaken over a group of contiguous unpatented claims within the southwest part of Bristol township and the northeast part of Thorneloe township in the Porcupine Mining Division of the district of Cochrane (fig 1). Linecutting and geophysical surveys were initiated in January, 1981. Completion of the geophysics was in late June, 1981.

The surveys represent an initial stage in an overall objective to evaluate the gold potential of the claim group which is well situated geologically on the western extension of the prolific Timmins gold camp. Because of overburden coverage over a large part of the area it has not been amenable to evaluation by prospecting.

Property Description

The group consists of 109 contiguous claims as shown on fig 2. Recording dates range from December 6, 1977 to May 22, 1981. The 25 earlier staked claims were staked and recorded by J. Croxall and D. Miller of Timmins and have been optioned by Preussag Canada Limited. The more recent claims, largely in Thorneloe township, were staked and recorded for Preussag Canada Limited. Geophysical surveys cover only claims as listed in appendix.

Location and Access

The property is located in northern Ontario, 20 km southwest of the city of Timmins; a main mining and population centre in the area.

The property is readily accessible from Timmins by way of highways 101 and 144. The latter crosses the western part of the claims. Access roads for lumbering

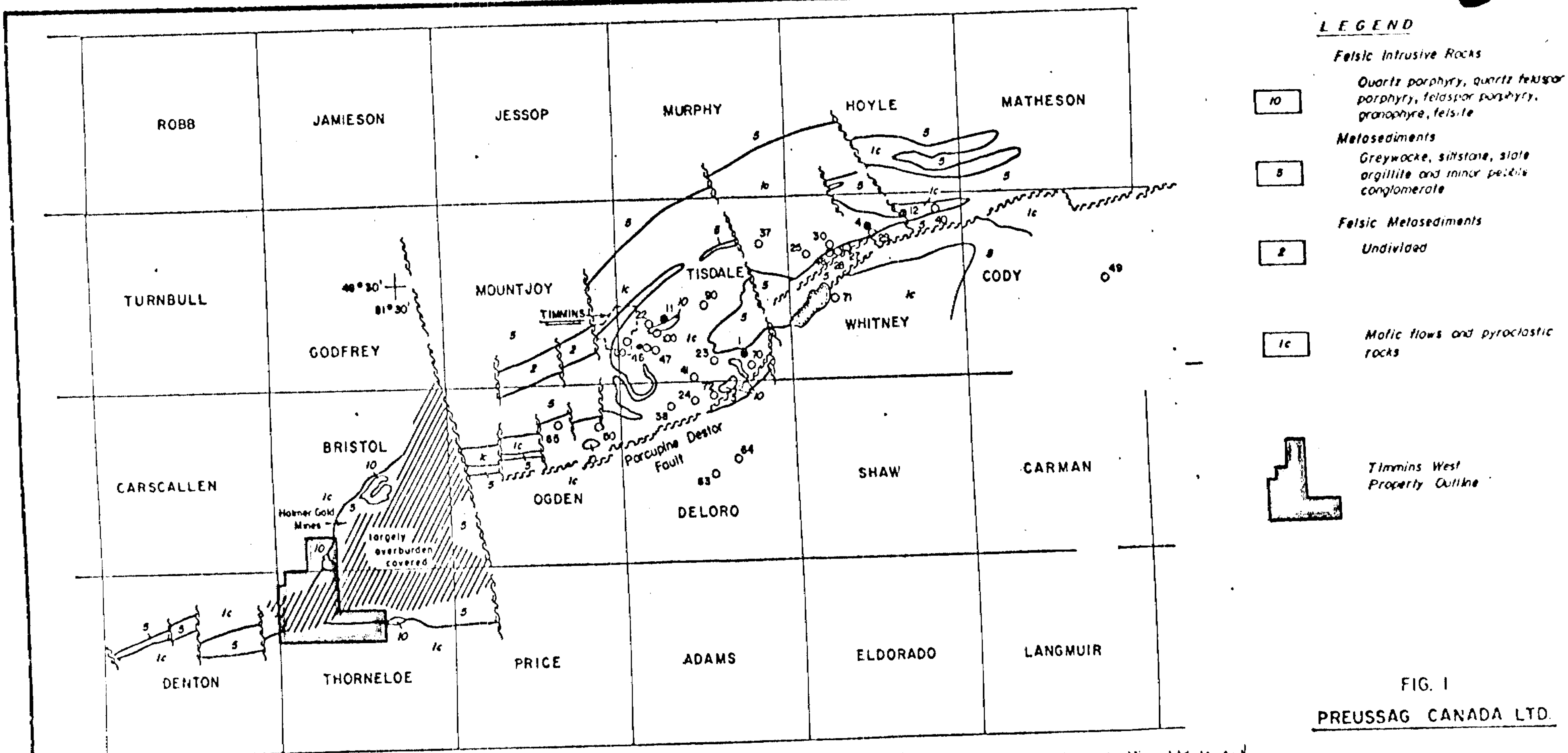

FIG. 1

PREUSSAG CANADA LTD.

Location Plan
Timmins West Property

● Producing Mines

1 Dome Mines Ltd (Au Ag Cu)
4 Hollinor Mines Ltd (Au Ag)
11 McIntyre Porcupine Mines Ltd (Au Ag Cu)
12 Pamour Porcupine Mines Ltd (Au Ag)

○ Past Producing Mines

22 Gilles Lake mine (Au Ag)
23 Paymaster mine (Au Ag)
24 Aunor Gold Mines Ltd (Au)
25 Scottish Ontario mine (Au Ag)
27 Bonetal mine (Au Ag)
28 Bonwhit mine (Au)
29 Broulan mine (Au)
30 Reef mine (Au)
37 Davidson-Tisdale Mines Ltd (Au Ag)
38 Delnite Mines Ltd (Au Ag)
41 Fuller mine (Au)
46 Crown mine (Au Ag)
47 Vipond mine (Au Ag)
49 Night Hawk Peninsula mine (Au Ag)
50 Naybob mine (Au Ag)
60 Moneta Porcupine Mines Ltd (Au Ag)
63 Bowman mine (asb)
64 Faymar mine (Au Ag)
66 Noranda Mines Ltd (Au Ag)
70 Preston Mines Ltd (Au Ag)
71 Porcupine Lake mine (Au Ag)
72 Buffalo Ankerite mine (Au Ag)
90 Coniaurum mine (Au Ag)
100 Hollinger Consolidated Gold Mines Ltd (Au Ag W)

2.

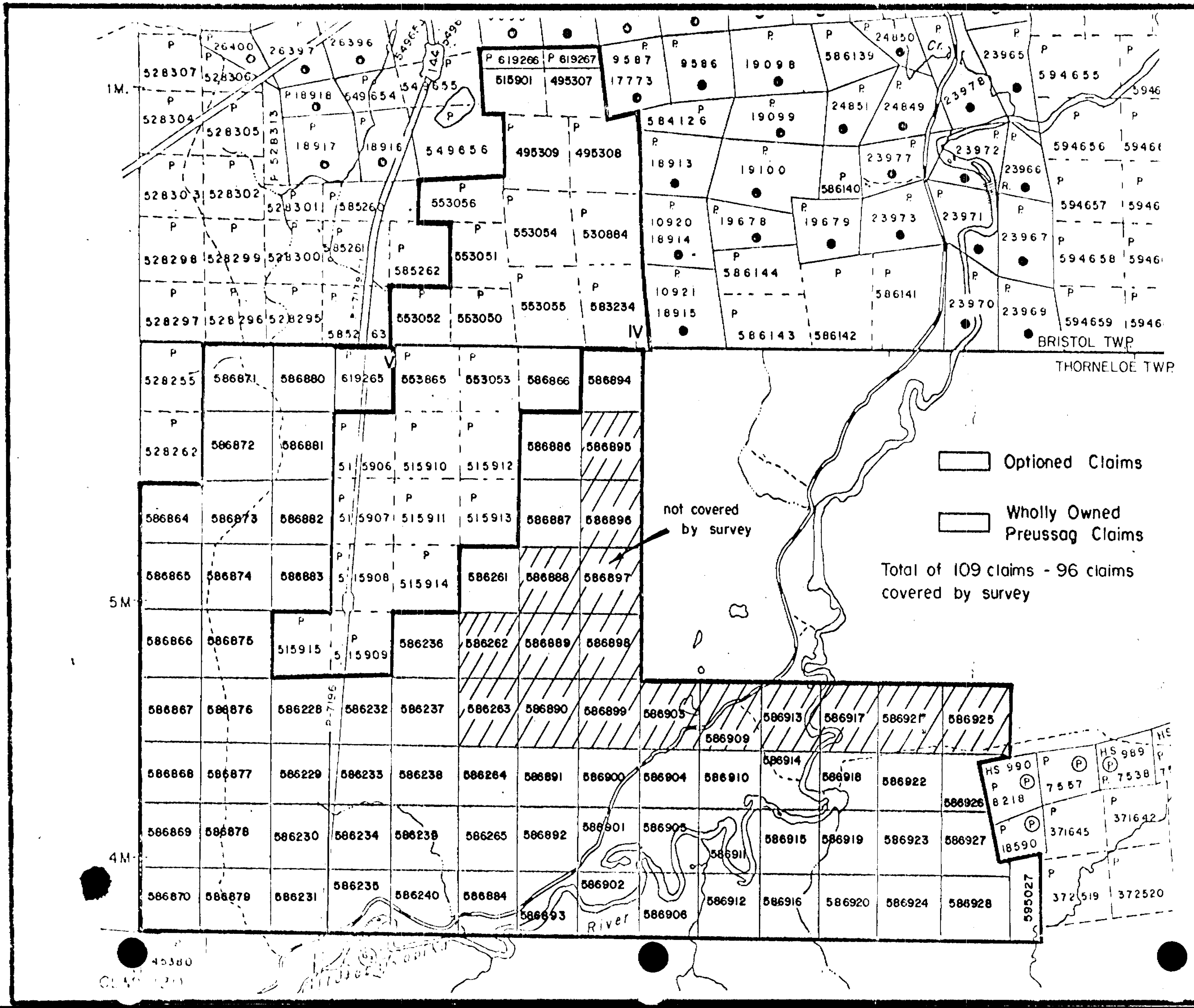

Figure 2 Timmins West Claim Group - Bristol & Thorneloe Twps.

NTS 42/A/5

Dec '80

operations make ease of activities within the property quite good. Most parts are within easy walking distance.

Topography is flat except for outcrop areas in the Bristol township claims. Otherwise spruce swamps, cedar swamps and some spruce covered sand plains dominate.

Results of Previous Investigations

The first recorded work on the property was undertaken by Rusk Porcupine Mines in 1942 on what are now claims 495307, 495308 and 495309 in Bristol township. Pits, trenches and 18 diamond drill holes (6,500 feet) were completed. No assay results from the drill holes are available, however channel samples in carbonatized andesite produced assays of: 4.0 ft of 0.71 oz/T Au; 2.5 ft of 0.43 oz/T Au; and 3.0 ft of 0.24 oz/T Au. (ref. ODM vol 66, pt. 7, 1957).

Various geophysically directed programs were undertaken over scatered parts of the present property from 1951 to 1962 as follows:

1 - 1951 Dominion Gulf did a mag survey north and south of the Tatachikapika River in Thorneloe Township. Three holes intersected iron formation.

2 - 1959 - 1962 Hollinger drilled at least 20 holes as follow up to magnetometer and EM surveys in Thorneloe and Bristol Townships. A variety of rock types such as basic volcanics, ultramafics, porphyries, iron formation and slates were intersected. Assays are not available, but massive pyrite and pyrrhotite stringers and carbonated metasediments with quartz and pyrite are recorded.

No recent exploration has been undertaken on the property itself, but over the last ten years there has been intermittent activity on the Holmer property immediately to the north where a shear zone up to 150 feet wide in carbonated metavolcanics carries gold in quartz-tourmaline veins.

Survey Specifications

The surveys were completed on picket line grids as shown on Maps. Baselines were oriented parallel to what is believed to be the regional trend of the lithologics. Picket line spacings are at 120 metres.

The survey was carried out by Mr. F.A. Hodgkinson, assisted by Mr. Beaulieu and Mr. G. Mason-Apps.

(a) Magnetometer Survey - Readings were taken at 30 metre intervals along the picket lines using a Scintrex MP-2 (see appendix) proton precession magnetometer. Readings were corrected for drift by tying into the baselines which had been read and corrected previously by using the looping method of baseline correction.

(b) VLF Survey Readings were taken at 30 metre stations with the Geonics EM-16 (see appendix) to record the In-Phase and Out-of-Phase components. The Cutler Maine transmitter at 17.8 k Hz was utilized for the entire survey. Signal strength from Panama station was extremely weak and hence could not be used for Baseline "B" in spite of its ideal locaion. Readings on Baseline A and B were taken with the operator facing south in both instances.

(c) HEM Survey - Readings were taken at 30 metre stations with the Apex Parametrics MaxMin II EM system (see appendix) in the horizontal loop mode. A coil separation of 120 metres was used and readings at 444 Hz and 1777 Hz were recorded. Since the topography is fairly level no corrections were necessary.

Survey Results and Interpretation

(a) Magnetics - Contoured magnetics are illustrated on maps 2a, 2b, 2c.

The grid A area (maps 2a, 2b) is dominated by a series of parallel and en echelon mag highs along and adjacent to the baseline from line 1680E to the east end of the grid. The strongest and most continuous of these linear mag features exists from line 2160E to line 5880E with local intensities to greater than 42,000γ above background at two locations - namely at the baseline on lines 3240E to 3480E and at 150N on line 5280E. The magnetic intensity and linearity of this feature is typical of that caused by magnetite iron formation. Steep gradients suggest shallow depths locally (see line 5280E). However, on line 3360E not only is a deeper source interpreted from shallower gradient but the broad nature of the anomaly is also more consistent with a thickening, probably by folding.

The en echelon mag high from L 1800E to L 2520E has similar characteristics to the previously mentioned feature and is also attributed to a magnetite iron formation source . It is interpreted as either an isoclinally folded repetition of the main magnetite iron formation zone or else a faulted segment. If the latter interpretation is taken, the fault would have to strike at N70W in order to achieve the noted geometric relationship.

A third linear mag feature is at 240N on lines 3000E to 3360E. It is another stratigraphic feature of iron formation character but of short strike length.

A series of north striking weakly magnetic features marked by low amplitude (+1000γ above background) isolated peaks and ridges coincide with what are interpreted as diabase dikes. These occur randomly across the claim group. The more prominent dike related magnetics occur along or parallel to lines 240E, 480E, 4080E, 4440E and 5760E. Other possible dikes which occur as more

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subtle features are along L120E, L1920E, L2640E, L3240E, L3840E and L5160E.

The only other notable magnetic feature on grid A is an irregular pattern in the northwest under claims 586865, 586874, 586875 and 515915. The bullseye pattern with anomalies to 1500γ above background suggests the underlying presence of ultramafic intrusives such as are found to the immediate north and are responsible for the pattern seen on map 2c.

Magnetics of grid B are dominated by a linear bullseye pattern along the entire length of the grid from along the baseline to the west edge of the grid. The 60,000γ contour essentially marks the eastern limit. To the east of this the magnetics are flat with not more than 100γ variability throughout except where magnetic ridges corresponding to the presence of diabase dikes are seen (e.g. through the centre of claims 586236, 515914, 515911 etc and along the west side of claims 586887, 586886 etc).

The bullseye pattern with highs locally to 6000γ above background correspond to a N30E trend and confirms the presence of pyroxenite intrusives such as that noted in outcrop at 30E on L3480N. These intrusives are apparently located somewhat randomly within non magnetic rocks of volcanic origin such that magnetics between the pyroxenitic intrusives decrease to background intensity.

b) VLF - Results of the EM-16 VLF survey are plotted as profiles on maps 3a, 3b and 3c. Conductor traces are illustrated by solid lines.

In the Grid A area a network of more than forty parallel to sub-parallel conductors cross the entire area from west to east. None have a configuration typical of bedrock conductors close to the surface. However, four (lettered A, B, C and D) show characteristic profiles of deeper bedrock conductors with moderate to good conductivity. Their symmetrical profile shape is typical of near vertical sheet like bodies. Qualitiative data is supplied by the HLEM data which is discussed in the next section.

The remainder of the conductors are typical of sources having weaker conductivity. Peak to trough distances of greater than 120 metres and asymmetry of the profile suggest causative features related to variable thicknesses of conductive overburden (i.e. buried overburden filled valleys and edge effects). Nevertheless, the conductive trends which range up to 1600 metres in length are sometimes parallel to magnetic trends, and hence could be related to either bedrock lithologies which are less resistant or to shears.

VLF EM results over Grid B are erratic and peaky because of the presence of outcrop hummocks and sand hills separated by swamps and overburden filled bedrock troughs. Conductors are mostly sub-parallel conductors and have characteristics typical of edge effects along either outcropping and buried outcrop knobs, creek bottoms or overburden troughs. Except in certain instances, their continuity from line to line has been interpreted somewhat arbitrarily assuming a strike direction sub-parallel to the baseline. Poor directional coupling of the grid in relation to the location of the Cutler transmitter station has helped to compound the interpretational problems in this type of terrain.

Typical of grid B conductors is the one which coincides with the beaver pond on line 3000N at 300E. This feature traces the creek valley both north and south of the pond and can be attributed to the overburden filled valley which is mapped between outcrop hills on each side. A weak shear in the underlying trough could be responsible for some enhancement of the anomalous amplitude but

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overburden thickening is the dominant force.

Qualitative appraisal of these weak conductors will be discussed in the next section covering HLEM results.

c) HLEM - Horizontal loop EM results are plotted as profiles on maps 4a, 4b, 4c and maps 5a, 5b, 5c for 444 hz and 1777 hz respectively.

In the grid A area (maps 4a, 4b, 5a and 5b), four bonafide bedrock conductors are detected in the central part of the grid to the north of the baseline. Anomaly A is 110 metres long and is very narrow with a vertical or near vertical dip. Estimated depth is approximately 40 metres. There is no mag association and conductivity thickness values are low as evidenced by the rapid decrease in IP/OP measured at 1777 hz and at 444 hz.

Anomaly B is directly on strike with anomaly A and is probably on the same horizon. As shown on maps 4a and 4b it is composed of two thickenings for a 2000 metre strike length. It varies from 0 to 15 metres in thickness. The thickest and most conductive part of the body is at the eastern end on line 3240E at 240N where it is calculated to have greater than 18 mho conductivity -thickness and to have a 60 metre depth.

Immediately to the east on line 3360E a depth estimate of greater than 44 metres and a conductivity-thickness value of greater than 10 mho is calculated. Although there is no magnetic response indicated for anomaly B, the portion from L2880E to L3360E has a linear mag high of greater than 12000 γ parallel and flanking at 30 metres south.

Anomaly C is a 360 metre long conductor centred at 40N on line 3000E where is has its maximum calculated thickness of approximately 20 metres. Conductivity-thickness is approximately 30 mho and depth is 40 metres.

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It lies 150 metres to the north and parallel to the strong magnetic feature producing the +4200γ mag high of map 2b.

Anomaly D, which defines a short 20 metre wide bedrock feature at 45N on line 3840E shows up on only two picket lines. It has a conductivity-thickness value of greater than 30 mhos and is estimated to be less than 45 metres deep. It appears to be on strike with anomaly C but a direct magnetic correlation of up to 5000γ suggests a different causative source.

Only two other types of anomalous responses are noted for Grid A - namely weak out-of-phase responses and local high in-phase peaks. The former type of response is widespread and is illustrated on maps 4a, 4b, 5a and 5b as dashed lines defining axes of weak out-of-phase trends. They vary from single line anomalies to ten line anomalies and are typically quite readily traceable. The lack of in-phase response and decrease in intensity from 1777 hz to 444 hz puts their cause in the category of overburden filled bedrock troughs adjacent to bedrock ridges. The lack of significant response at 444 hz confirms this interpretation although bedrock shears could be coincident with some and could be partially responsible for the trough and ridge configuration of the bedrock surface.

VLF anomalies are seen to coincide exactly with the weak HEM responses.

Positive in-phase responses occurring from L1680E to L3480E and from L4680E to L5760E are the only remaining anomalous responses. These are directly attributed to magnetite in magnetitic iron formation. The fact that amplitude of the readings remains constant at both 444 hz and 1777 hz and that no anomalous out-of-phase response is produced substantiates the interpretation of narrow magnetic, non-conductive tabular bodies. Positive IP responses are produced only when either the transmitter or receiver is directly over the magnetic body. Unlike a true conductor, no anomalous readings are noted when the body is straddled by the two instruments.

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For Grid B (maps 4c and 5c) anomalous responses are produced by effects of variable overburden thicknesses and by effects of magnetite in the bedrock. As with Grid A, overburden features are defined by negative out-of-phase responses. The majority are parallel or sub-parallel to the regional stratigraphy and are hence believed to be related to a bedrock topography dominated by differences in hardness of the volcanic and intrusive units. Conductors to the south of the baseline from L1320N to L3120N coincide remarkably well with the south edge of pyroxenite intrusives. Two others in the vicinity of 810E on L1800N correspond very closely with an interpretation conforming to a bedrock ridge along the diabose dike defined by magnetics on map 2c.

The remaining anomalous feature of Grid B coincides with highway 144 from 360N to 1560N and has a character typical of a grounded wire. The negative out-of-phase response is normal for an overburden response but the flat bottom to the profile indicates a flat cylindrical source. It is concluded that the grounding of the wire causes it to take on the conductivity character of the overburden or hence only an out-of-phase response.

Summary

Results of the mag, VLF and HEM surveys illustrate a simple pattern of magnetics and conductivity as follows:

(a) grid A shows a predominant E-W lithologic trend dominated by a strong mag feature over the eastern two-thirds of the grid. The intensity of the magnetics is typical of magnetic iron formation for the most part. However, an ultramafic flow or intrusive is interpreted for a shorter mag feature at the north edge of the main mag high;

(b) magnetics in the central part of grid A indicate either a thickening by folding or else a repetition of magnetic horizons;

(c) associated with the wide mag zone of grid A are four moderate bedrock conductors with little to no coinciden magnetic response;

(d) diabase dikes show up as weak north trending magnetic ridges;

(e) weak conductive trends conforming to edges of bedrock ridges occur throughout the gird;

(f) no conductors of merit are noted on Grid B. However, a number of weak features related to buried bedrock topography are recognized;

(g) irregular magnetic features of Grid B are coincident with pyroxenite sills which are partily exposed in the northern part of the grid. Diabase dikes show up as magnetic ridges striking due north.

File

Ontario

Ministry of Natural Resources

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) VLF, Mag, HEM

Township or Area Bristol & Thorneloe Twps

Claim Holder(s) Preussag Canada Limited

Survey Company Preussag

Author of Report T.E. Warren

Address of Author 121 Richmond St. W, Penthouse Fl
Toronto, Ontario

Covering Dates of Survey Jan 8 – June 29, 1981
(linecutting to office)

Total Miles of Line Cut 85.5 miles (136.8 km)

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	
VLF – Electromagnetic	40
– Magnetometer	20
– Radiometric	
– Other	20
Geological	
Geochemical	

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

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

DATE: June 30/81 SIGNATURE: [signature]
Author of Report or Agent

MINING CLAIMS TRAVERSED
List numerically

See attached list

(prefix) (number)

If space insufficient, attach list

TOTAL CLAIMS ______

OFFICE USE ONLY

Res. Geol. ______ Qualifications ______

Previous Surveys

File No.	Type	Date	Claim Holder

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations: 4204 — Number of Readings: VLF & Mag 4204, [illegible] 3[illegible]2

Station interval: 30 metres — Line spacing: 120 metres

Profile scale: VLF:1 cm = 10% HEM:1 cm = 10%

Contour interval: Mag 250 gammas

MAGNETIC

Instrument: Scintrex MP-2

Accuracy -- Scale constant: ± 1 gamma

Diurnal correction method: Return to base station regularly

Base Station check-in interval (hours): 2 hours

Base Station location and value: Established base lines for Grid A & B

ELECTROMAGNETIC

Instrument: Apex Parametrics Max Min II

Coil configuration: Horizontal Loop

Coil separation: 120 metres

Accuracy: ± 1/2 percent

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

Frequency: 444 hz & 177 hz
(specify V.L.F. station)

Parameters measured: IP and OP at both frequencies

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:

SELF POTENTIAL

Instrument ____________________ Range ____________

Survey Method ____________________

Corrections made ____________________

RADIOMETRIC

Instrument ____________________

Values measured ____________________

Energy windows (levels) ____________________

Height of instrument ____________________ Background Count ____________

Size of detector ____________________

Overburden ____________________
(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey VLF EM

Instrument Geonics EM-16

Accuracy Readability = ± 1%

Parameters measured In-Phase & Out-of-Phase

Additional information (for understanding results) Transmitter = Cutler Maine 17.8 k Hz - all readings taken facing southerly

AIRBORNE SURVEYS

Type of survey(s) ____________________

Instrument(s) ____________________
(specify for each type of survey)

Accuracy ____________________
(specify for each type of survey)

Aircraft used ____________________

Sensor altitude ____________________

Navigation and flight path recovery method ____________________

Aircraft altitude ____________________ Line Spacing ____________

Miles flown over total area ____________________ Over claims only ____________

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken ______________________

____

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Total Number of Samples ______________________

Type of Sample ______________________
(Nature of Material)

Average Sample Weight ______________________

Method of Collection ______________________

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Soil Horizon Sampled ______________________

Horizon Development ______________________

Sample Depth ______________________

Terrain ______________________

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Drainage Development ______________________

Estimated Range of Overburden Thickness ______________________

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SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis ______________________

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General ______________________

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ANALYTICAL METHODS

Values expressed in: per cent ☐ p. p. m. ☐ p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others ______________________

Field Analysis (______________________ tests)

Extraction Method ______________________

Analytical Method ______________________

Reagents Used ______________________

Field Laboratory Analysis

No. (______________________ tests)

Extraction Method ______________________

Analytical Method ______________________

Reagents Used ______________________

Commercial Laboratory (______________________ tests)

Name of Laboratory ______________________

Extraction Method ______________________

Analytical Method ______________________

Reagents Used ______________________

General ______________________

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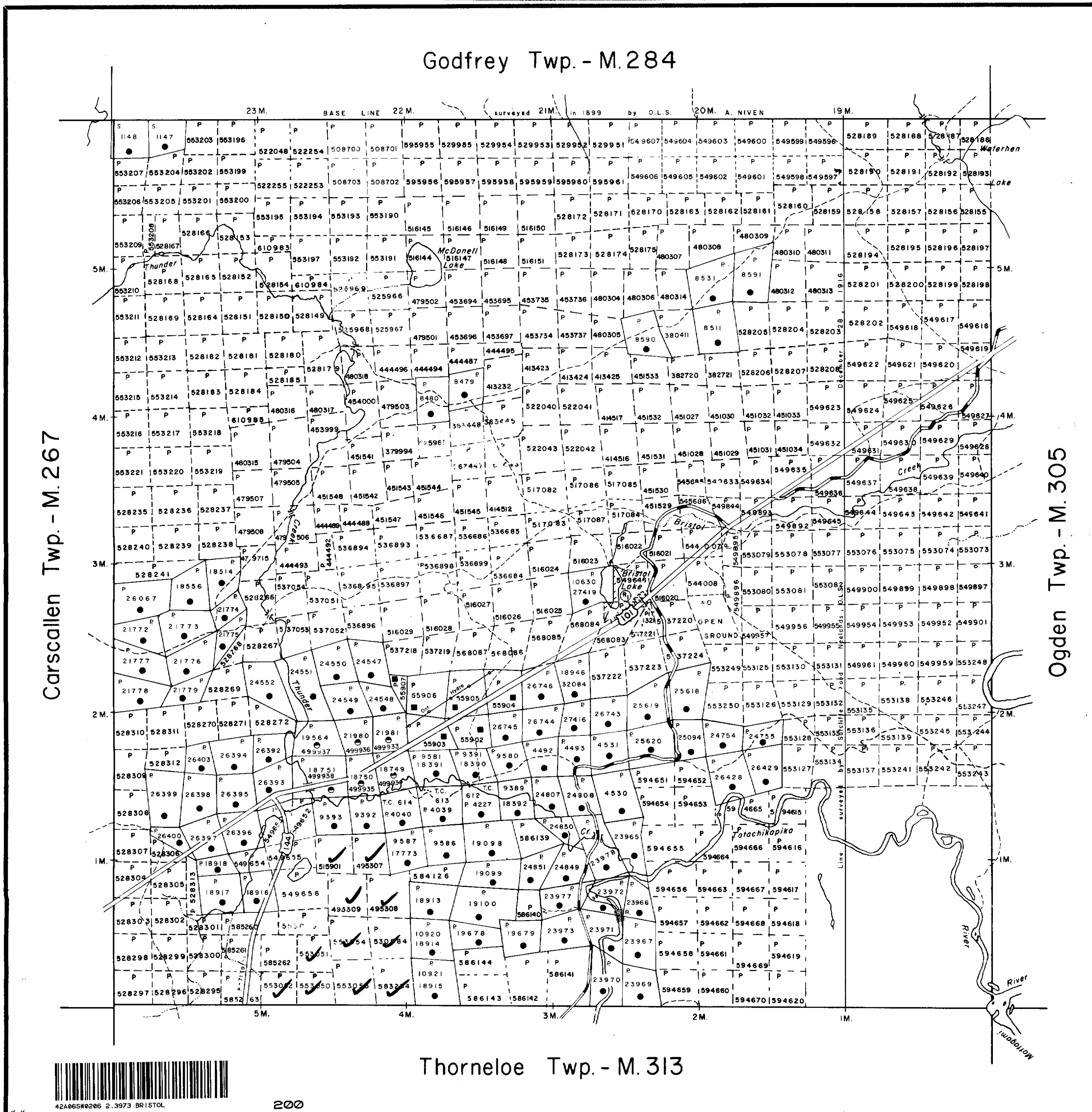
MINING CLAIMS TRAVERSED

Number of Days that can be Applied to Each Claim

P619265	80 days	P586232	80 days	P586883	80 days
P619266		P586233		P586884	
P619267		P586234		P586886	
P495307	20 days	P586235		P586887	
P495308	20 days	P586236		P586891	
P495309	20 days	P586237		P586892	
P515901	20 days	P586238		P586893	
P515906	80 days	P586239		P586894	
P515907		P586240		P586900	
P515908		P586261		P586901	
P515909		P586264		P586902	
P515910		P586265		P586904	
P515911		P586864		P586905	
P515912		P586865		P586906	
P525913		P586866		P586910	
P515914		P586867		P586911	
P515915		P586868		P586912	
P553050		P586869		P586914	
P553051		P586870		P586915	
P553052		P586871		P586916	
P553053		P586872		P586918	
P553054		P586873		P586919	
P553055		P586874		P586920	
P553865		P586875		P586922	
P553866		P586876		P586923	
P530884		P586877		P586924	
P583234		P586878		P596926	
P586228		P586879		P586927	
P586229		P586880		P586928	
P586230		P586881		P596927	
P586231		P586882		93 Claims	



THE TOWNSHIP OF

BRISTOL

DISTRICT OF COCHRANE

PORCUPINE MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

DISPOSITION OF CROWN LANDS

PATENT, SURFACE AND MINING RIGHTS	●
" , SURFACE RIGHTS ONLY	◒
" , MINING RIGHTS ONLY	◓
LEASE, SURFACE AND MINING RIGHTS	■
" , SURFACE RIGHTS ONLY	⬒
" , MINING RIGHTS ONLY	⬓
LICENCE OF OCCUPATION	▼
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	⚒
CANCELLED	C.

NOTES

400' Surface Rights Reservation along the shores of all lakes & rivers

Areas withdrawn from staking under Section 43 of the Mining Act (R.S.O. 1970).

Order No.	File	Date	Disposition
(R1)	164584		Surface Rights Only.

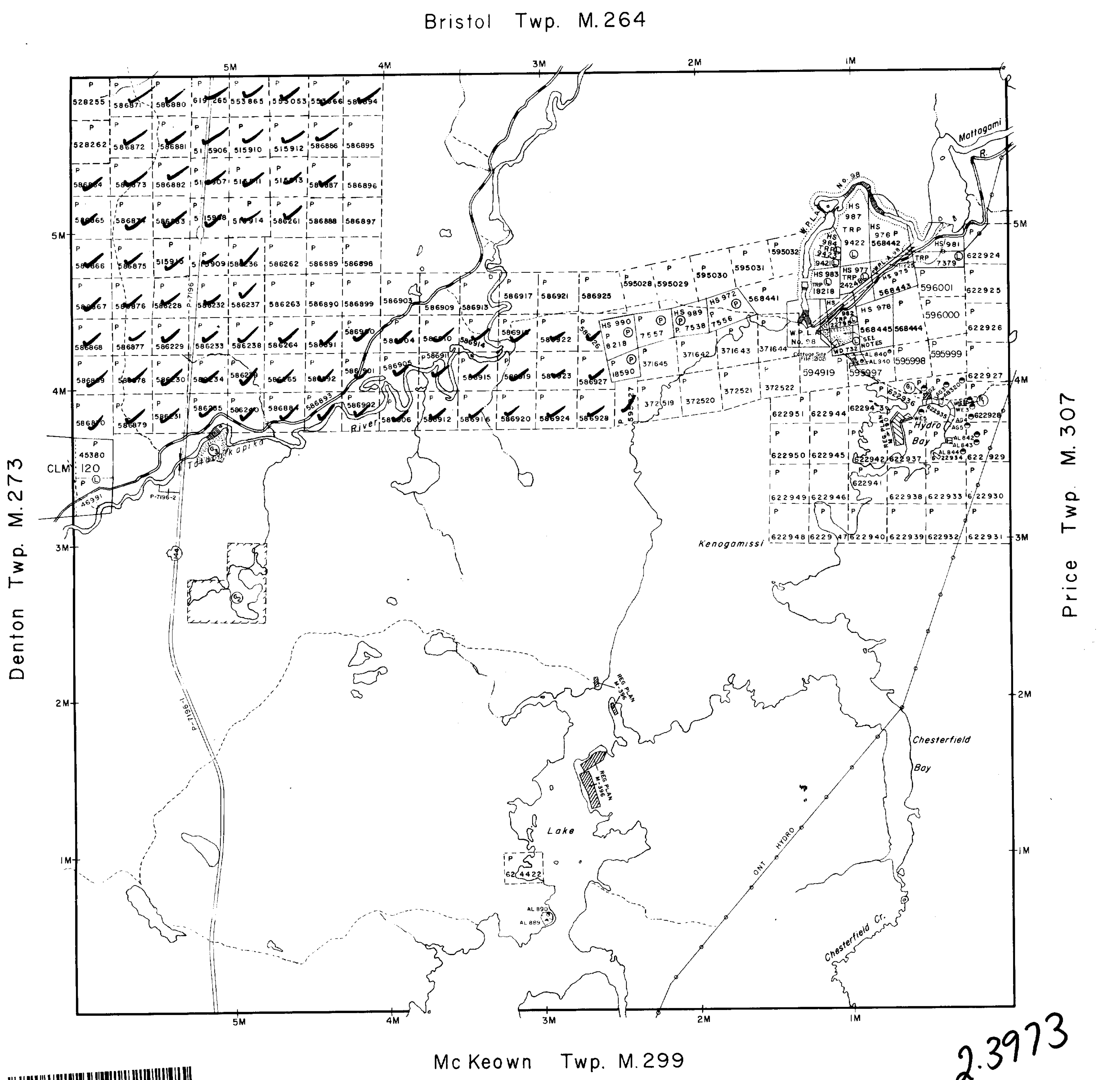
DATE OF ISSUE
FEB 10 1982
Ministry of Natural Resources
TORONTO

2.3973

This township lies within the Municipality of the CITY of TIMMINS.

PLAN NO. M-264

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH



2.3973

THE TOWNSHIP OF THORNELOE

DISTRICT OF COCHRANE

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	C.
PATENTED S.R.O.	●

NOTES

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

Reservation for Deputy Chief Ranger's Headquarters site shown thus File 110657

Flooding rights on Mattagami River & Kenogamissi Lake are reserved to Ont. Hydro — L.O. 7598 File 1163 vol.3

Areas withdrawn from staking under Section 43 of the Mining Act (R.S.O. 1970.)

Order Nº	File	Date	Disposition
Ⓡ		17/5/72	S.R.O.

SAND and GRAVEL

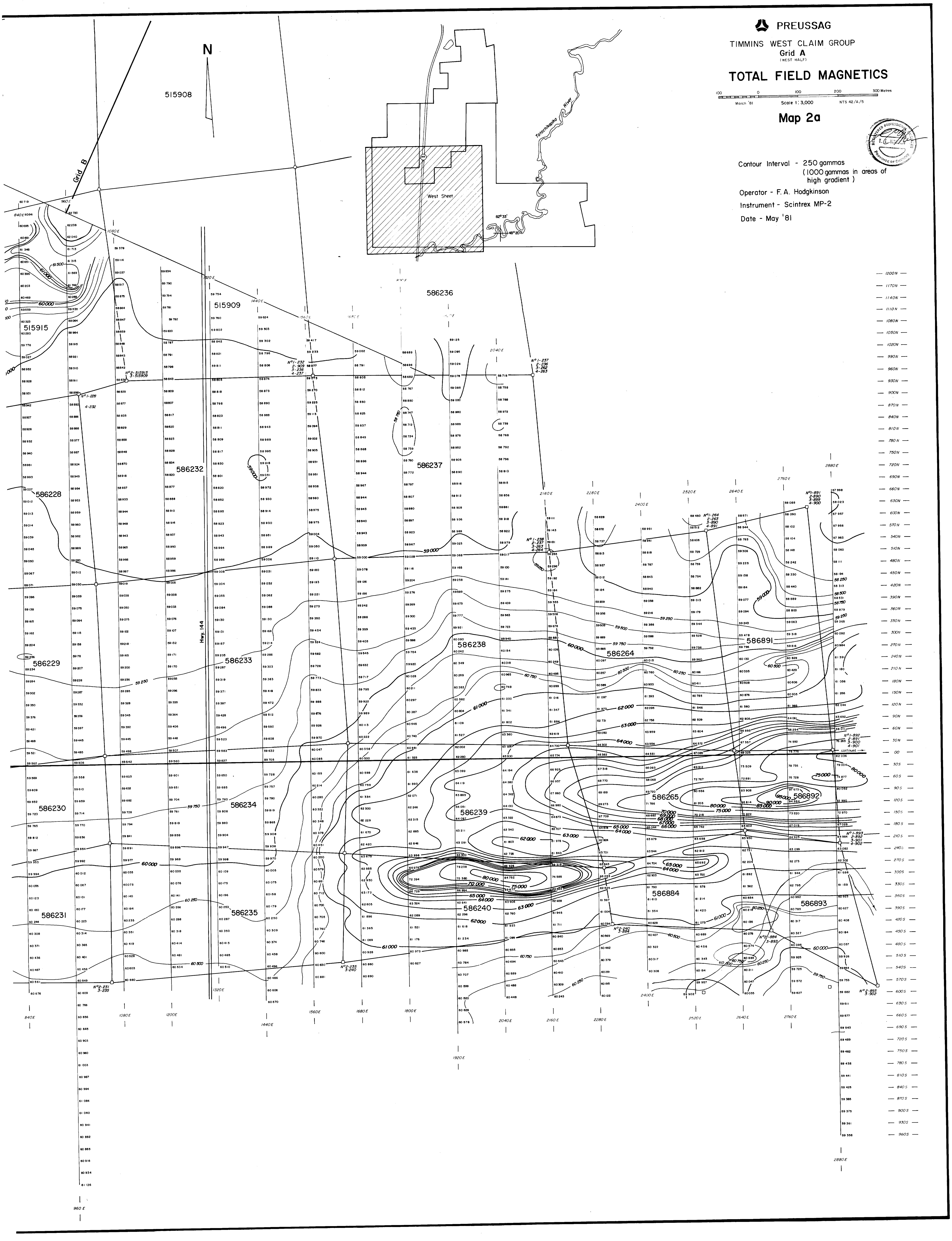
(G1) M.N.R. GRAVEL PIT 258, FILE 111467
(G2) GRAVEL FILE 143834
(G3) M.N.R. GRAVEL RESERVE

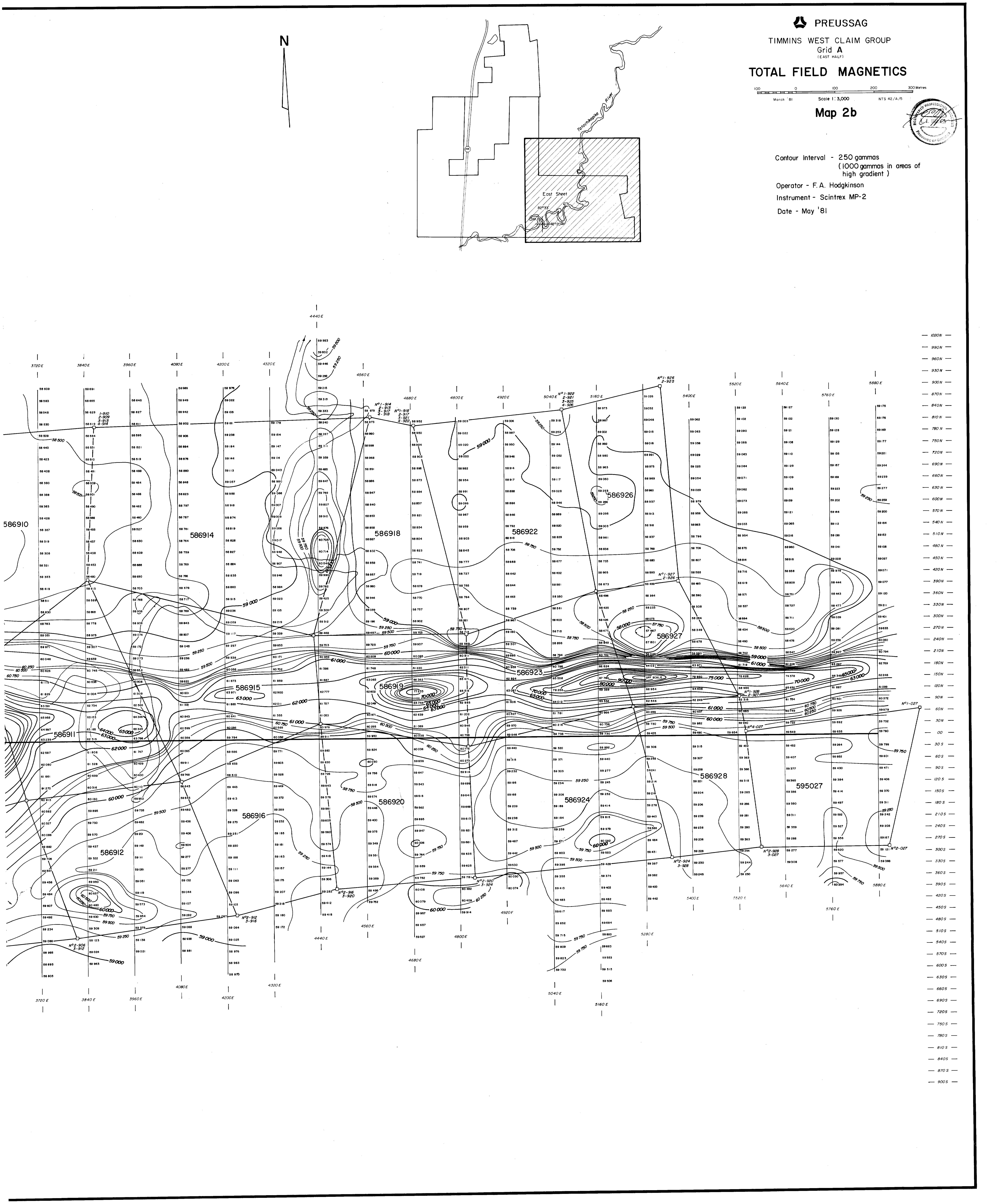
This township lies within the Municipality of the CITY of TIMMINS.

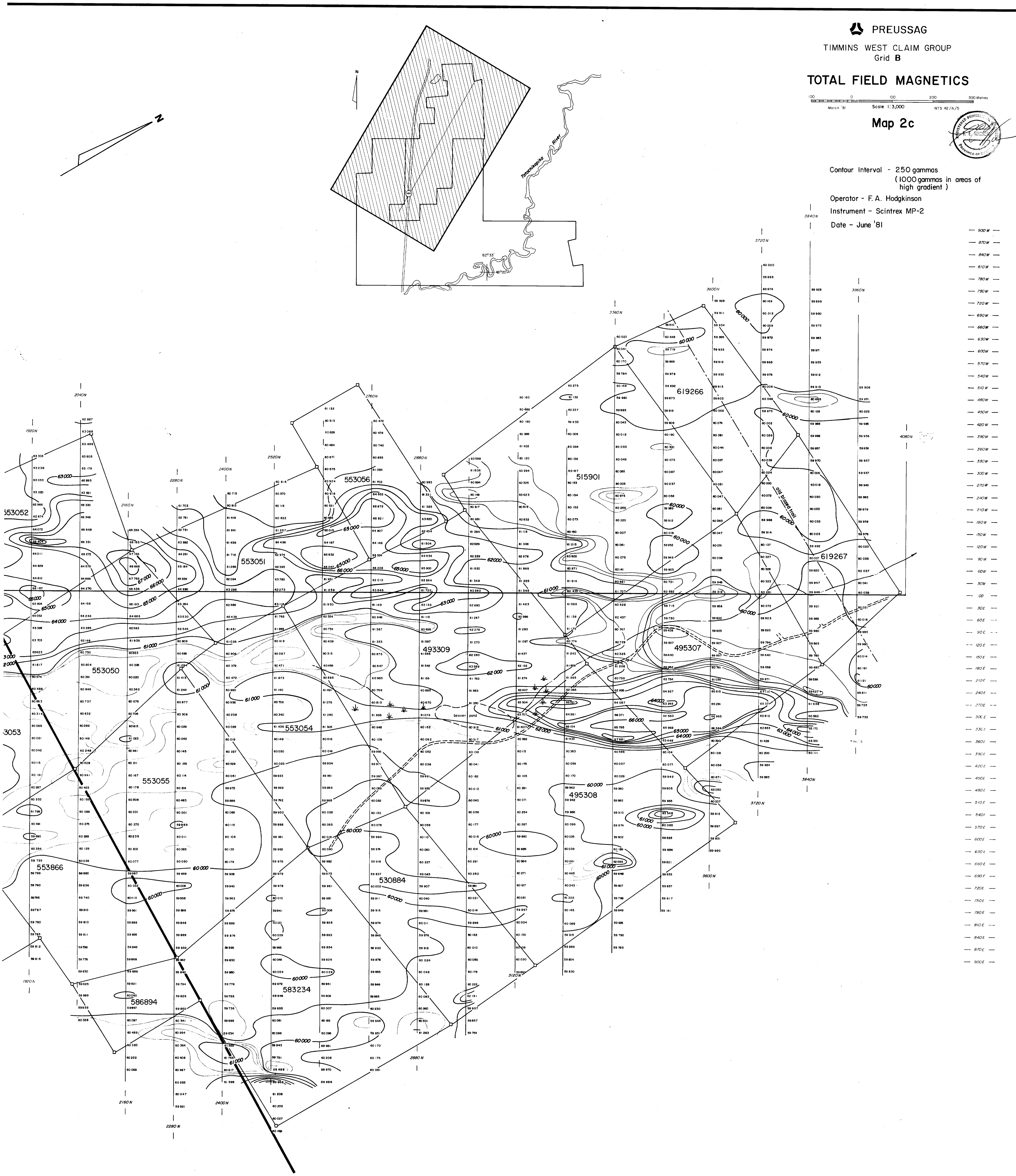
PLAN NO. M.313

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

210


PREUSSAG
TIMMINS WEST CLAIM GROUP
Grid A
(WEST HALF)
TOTAL FIELD MAGNETICS
March '81
Scale 1: 3,000
NTS 42/A/5
Map 2a
Contour Interval - 250 gammas
(1000 gammas in areas of high gradient)
Operator - F.A. Hodgkinson
Instrument - Scintrex MP-2
Date - May '81
West Sheet
Hwy. 144
Grid B
N
515908
515909
515915
586236
586237
586232
586228
586229
586233
586238
586264
586891
586230
586234
586239
586265
586892
586231
586235
586240
586884
586893


PREUSSAG
TIMMINS WEST CLAIM GROUP
Grid A
(EAST HALF)
TOTAL FIELD MAGNETICS
Scale 1: 3,000
March '81
NTS 42/A/5
Map 2b
Contour Interval - 250 gammas
(1000 gammas in areas of high gradient)
Operator - F.A. Hodgkinson
Instrument - Scintrex MP-2
Date - May '81
N
East Sheet
586910
586911
586912
586914
586915
586916
586918
586919
586920
586922
586923
586924
586926
586927
586928
595027


PREUSSAG
TIMMINS WEST CLAIM GROUP
Grid B
TOTAL FIELD MAGNETICS
Scale 1:3,000
March '81
NTS 42/A/5
Map 2c
Contour Interval - 250 gammas (1000 gammas in areas of high gradient)
Operator - F. A. Hodgkinson
Instrument - Scintrex MP-2
Date - June '81
Tatachikapika River
553052
553056
553051
515901
619266
619267
553050
493309
495307
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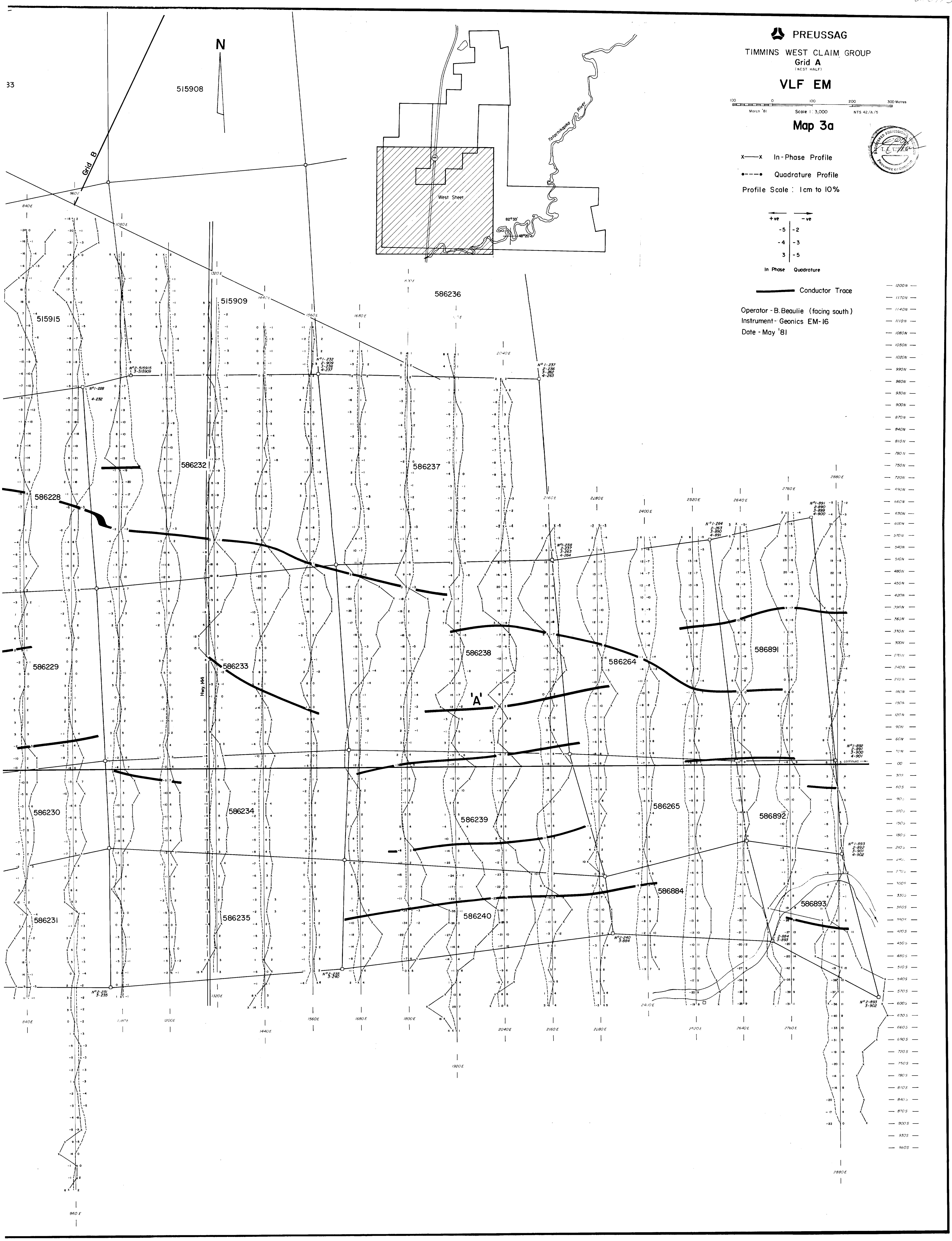
583234
586894
beaver pond
old blazed trail


PREUSSAG
TIMMINS WEST CLAIM GROUP
Grid A
(WEST HALF)
VLF EM
Scale 1:3,000
March '81
NTS 42/A/5
Map 3a
In-Phase Profile
Quadrature Profile
Profile Scale: 1cm to 10%
+ve
-ve
In Phase
Quadrature
Conductor Trace
Operator - B. Beaulie (facing south)
Instrument - Geonics EM-16
Date - May '81
N
West Sheet
Grid B
Hwy. 144
515908
515909
515915
586228
586229
586230
586231
586232
586233
586234
586235
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586237
586238
586239
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586264
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586884
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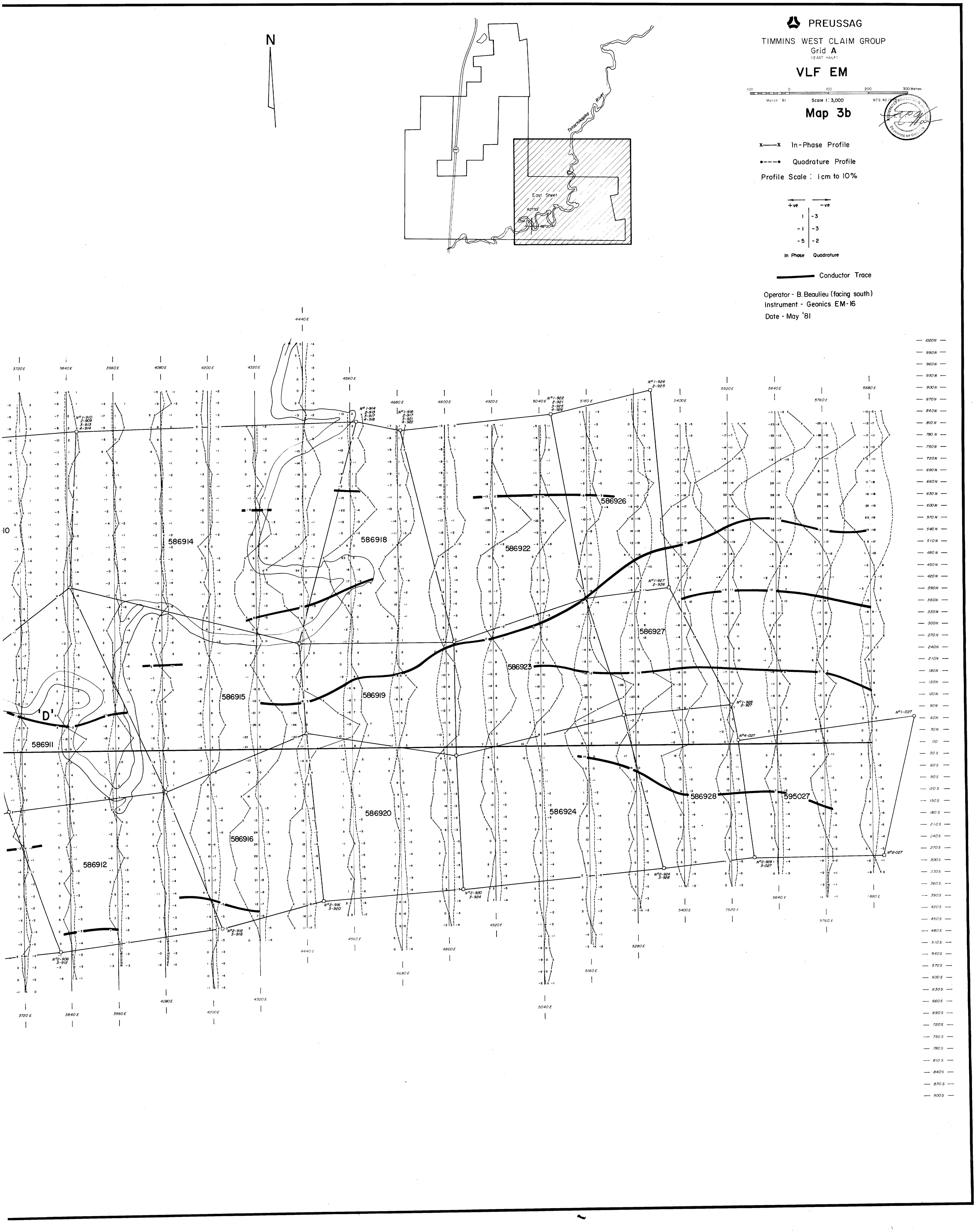
586892
586893
'A'


PREUSSAG
TIMMINS WEST CLAIM GROUP
Grid A
(EAST HALF)
VLF EM
Scale 1: 3,000
March '81
Map 3b
N
East Sheet
Tatachikapika River
x——x In-Phase Profile
•----• Quadrature Profile
Profile Scale : 1cm to 10%
+ve
-ve
In Phase
Quadrature
Conductor Trace
Operator - B. Beaulieu (facing south)
Instrument - Geonics EM-16
Date - May '81
'D'
586911
586912
586914
586915
586916
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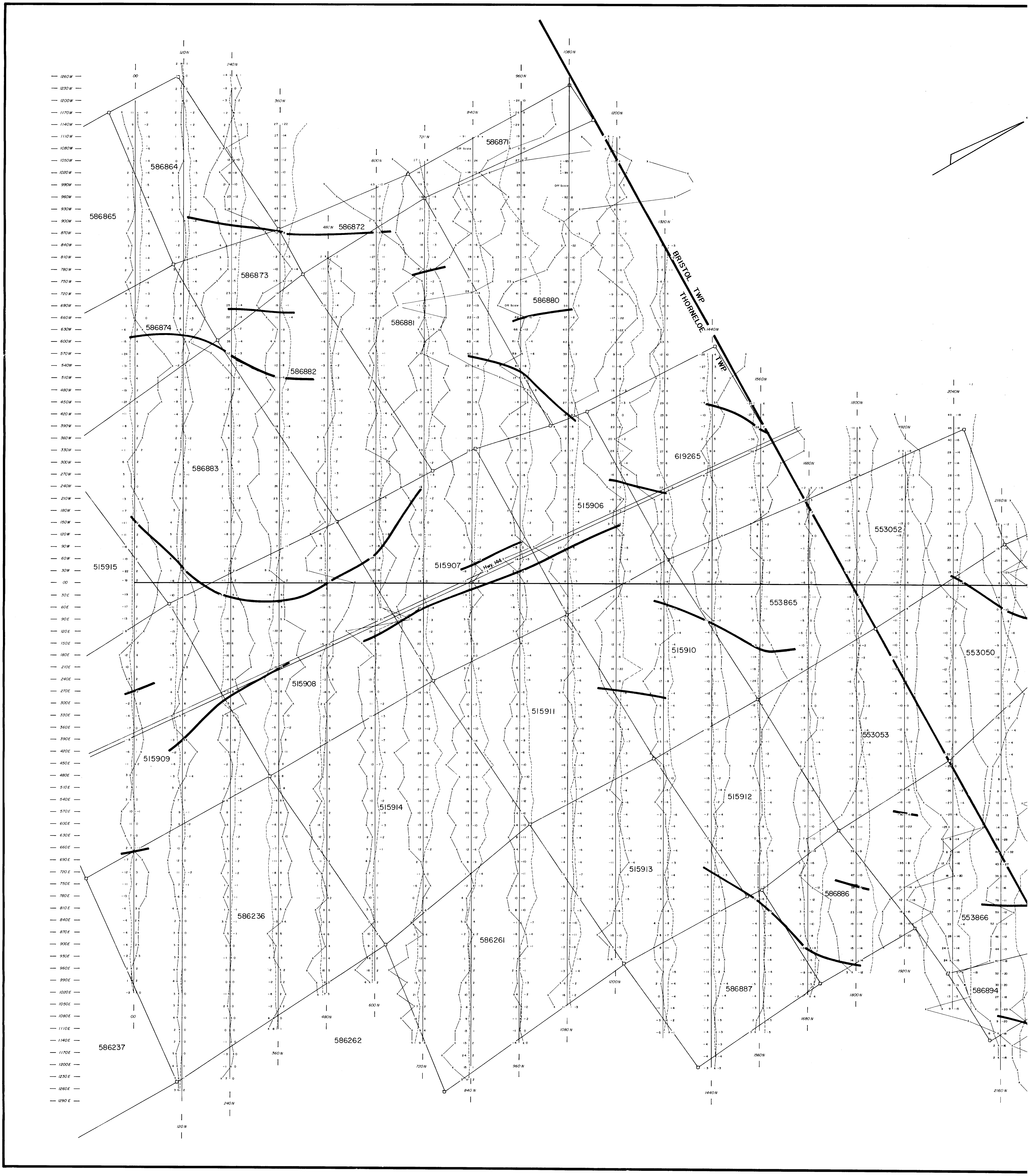
586928
595027


586865
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586873
586880
586881
586874
586882
586883
619265
515906
515915
515907
Hwy. 144
553052
553865
515910
553050
515908
515911
515909
553053
515912
515914
515913
586886
553866
586236
586261
586887
586894
586237
586262
BRISTOL TWP
THORNELOE TWP

270


N
Grid B
Hwy 144
West Sheet
586864
586873
586882
586883
515908
586865
586874
586875
515909
515915
586866
586236
586237
586232
586228
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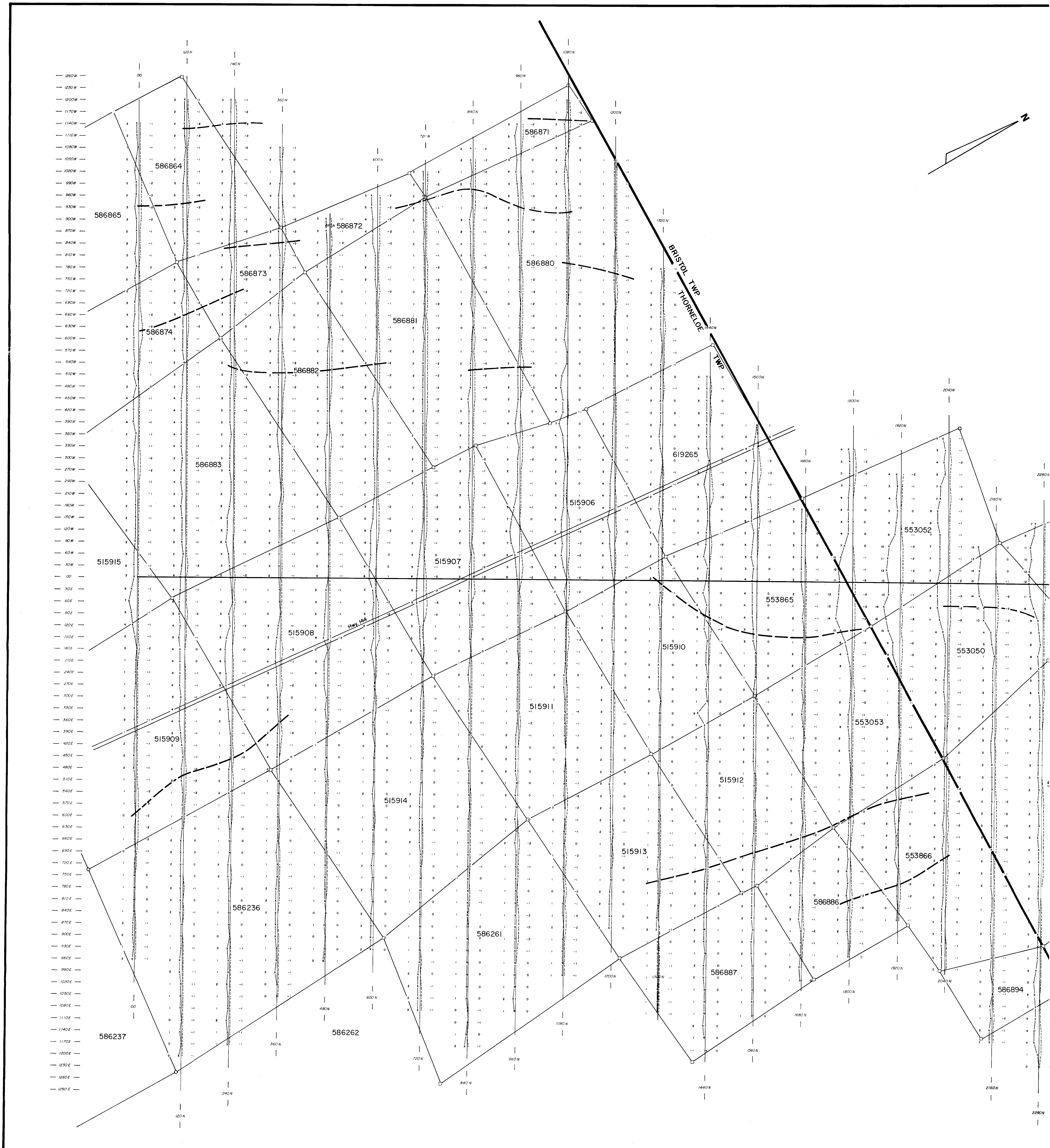
586867
586877
586229
586233
586868
586230
586234
586878
586869
586231
586235
586879
586870


N
586900
586901
586902
586904
586905
586906
586910
586911
586912
586914
586915
586916
586918
586919
586920
'A'
'B'
'C'
2880 E
3000 E
3120 E
3240 E
3360 E
3480 E
3600 E
3720 E
3840 E
3960 E
4080 E
4200 E
4320 E
4440 E
4560 E
4680 E
4800 E
1020N
00
900S



BRISTOL TWP
THORNELOE TWP
Hwy. 144
N
586864
586865
586871
586872
586873
586874
586880
586881
586882
586883
619265
515906
515907
515908
515909
515910
515911
515912
515913
515914
515915
553052
553865
553050
553053
553866
586886
586887
586894
586236
586261
586237
586262

300


N
Grid B
Hwy 144
West Shee
586864
586873
586882
586883
515908
586865
586874
515909
586875
586866
515915
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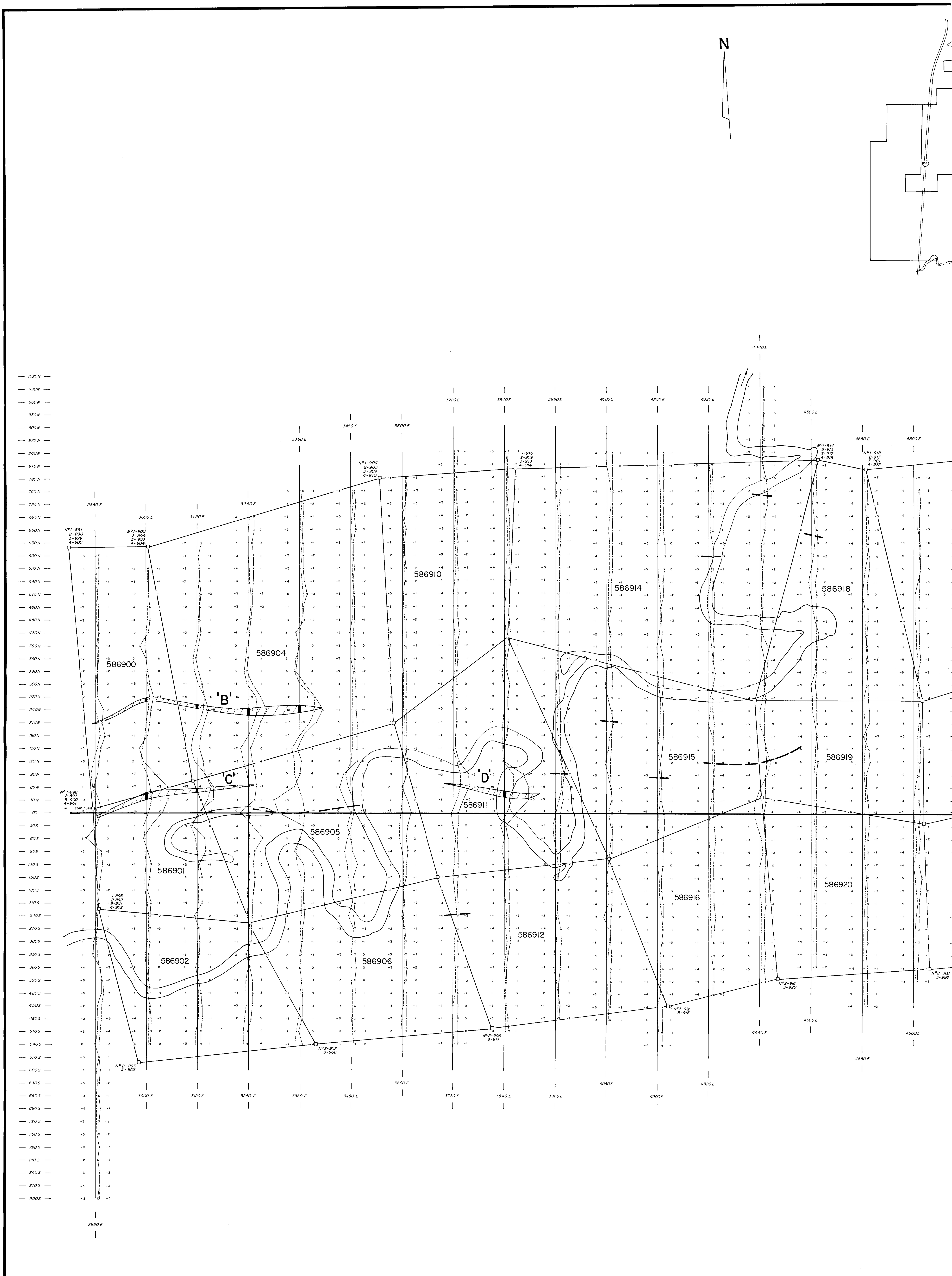
586876
586228
586232
586237
586868
586877
586229
586233
586869
586878
586230
586234
586870
586879
586231
586235
00
120E
240E
360E
480E
600E
720E
840E
960E
1080E
1200E
1320E
1440E
1560E
1680E
1800E

310


N
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586904
586905
586906
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586911
586912
586914
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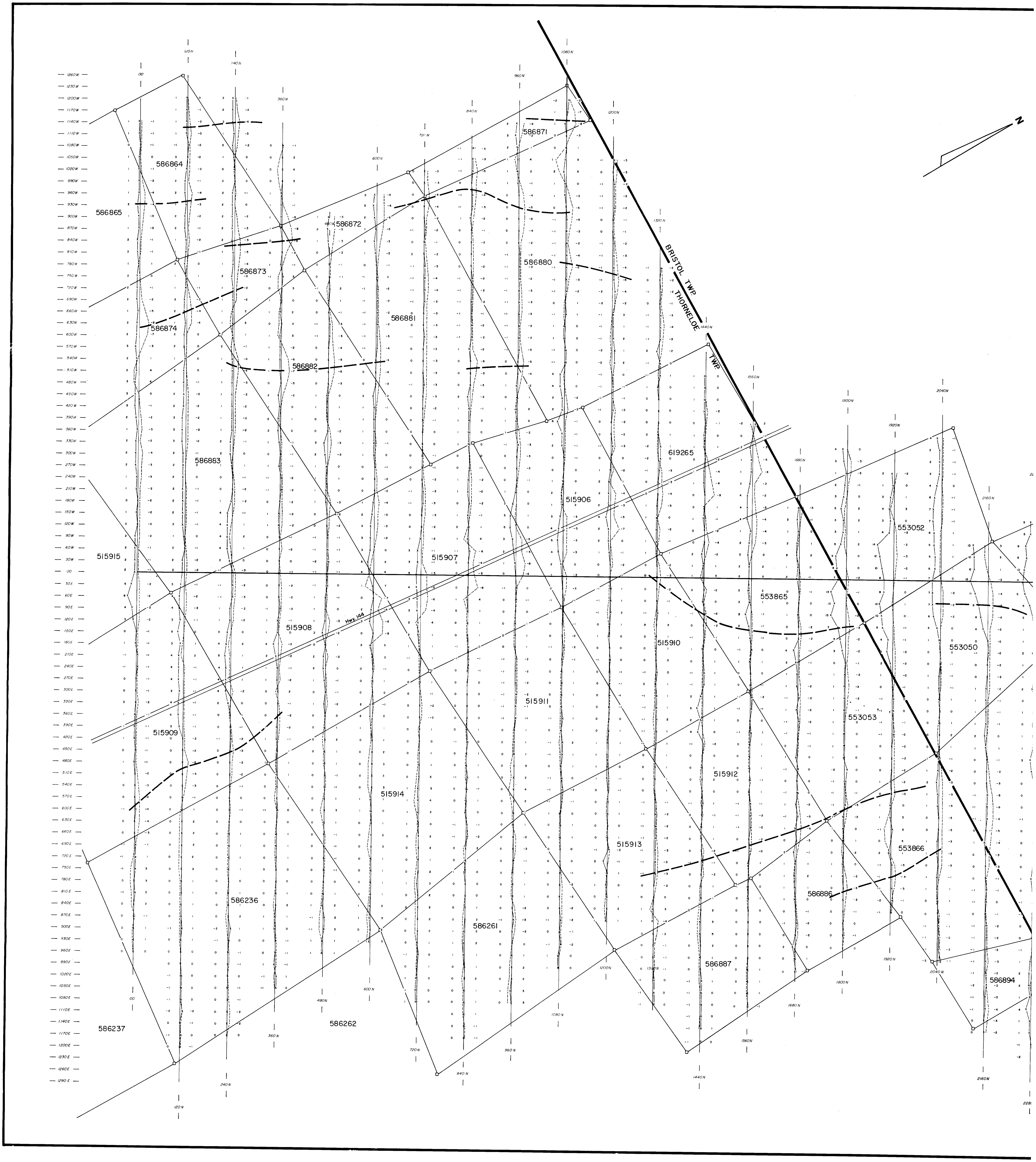
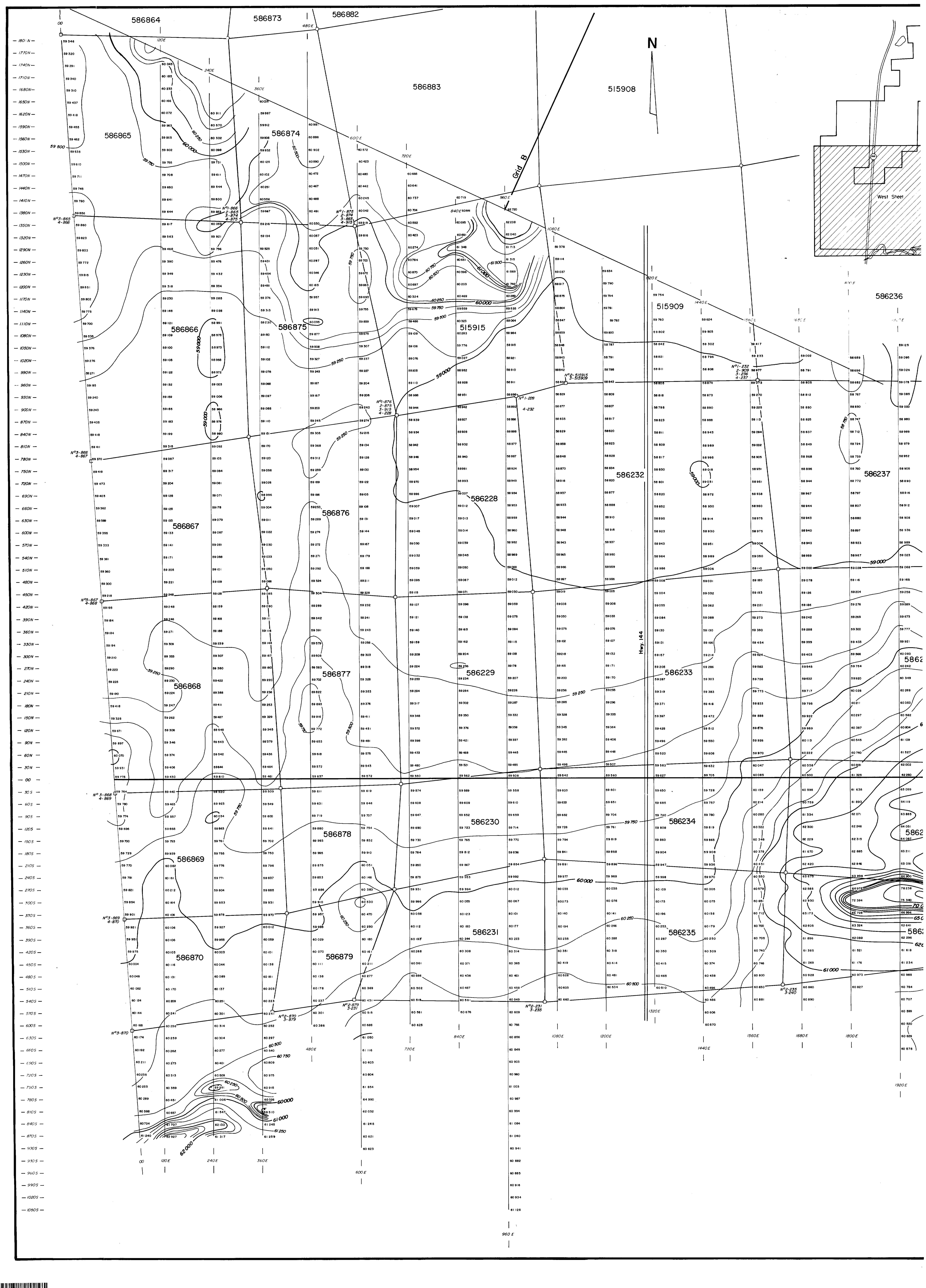
586916
586918
586919
586920
'B'
'C'
'D'



42A05SE8286 2.3973 BRISTOL
330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N
586883
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586865
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Grid B
West Sheet
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586875
515915
515909
586236
586232
586237
586867
586876
586228
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Hwy. 144
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586878
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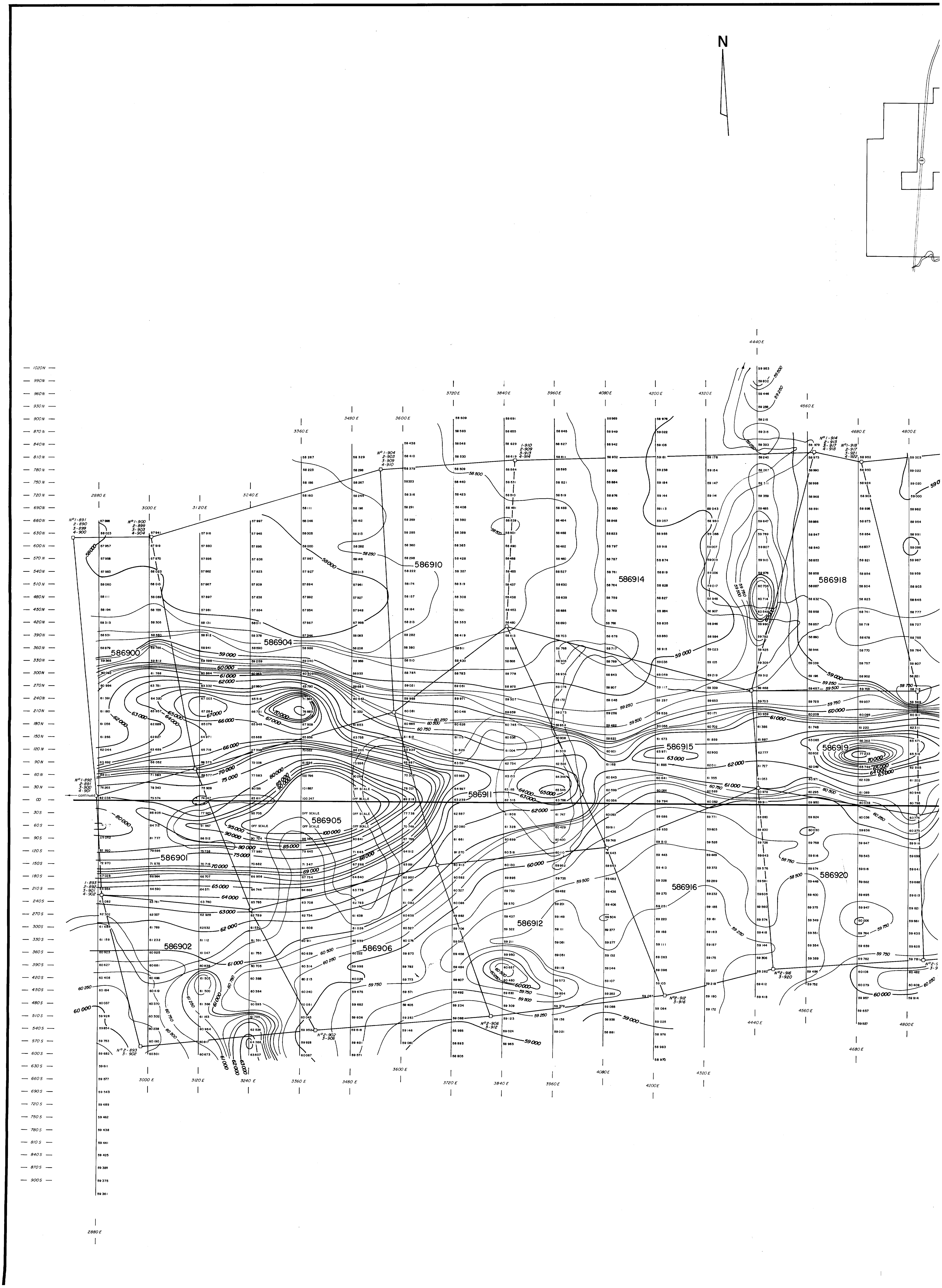
586235

220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586911
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586914
586915
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586918
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586920
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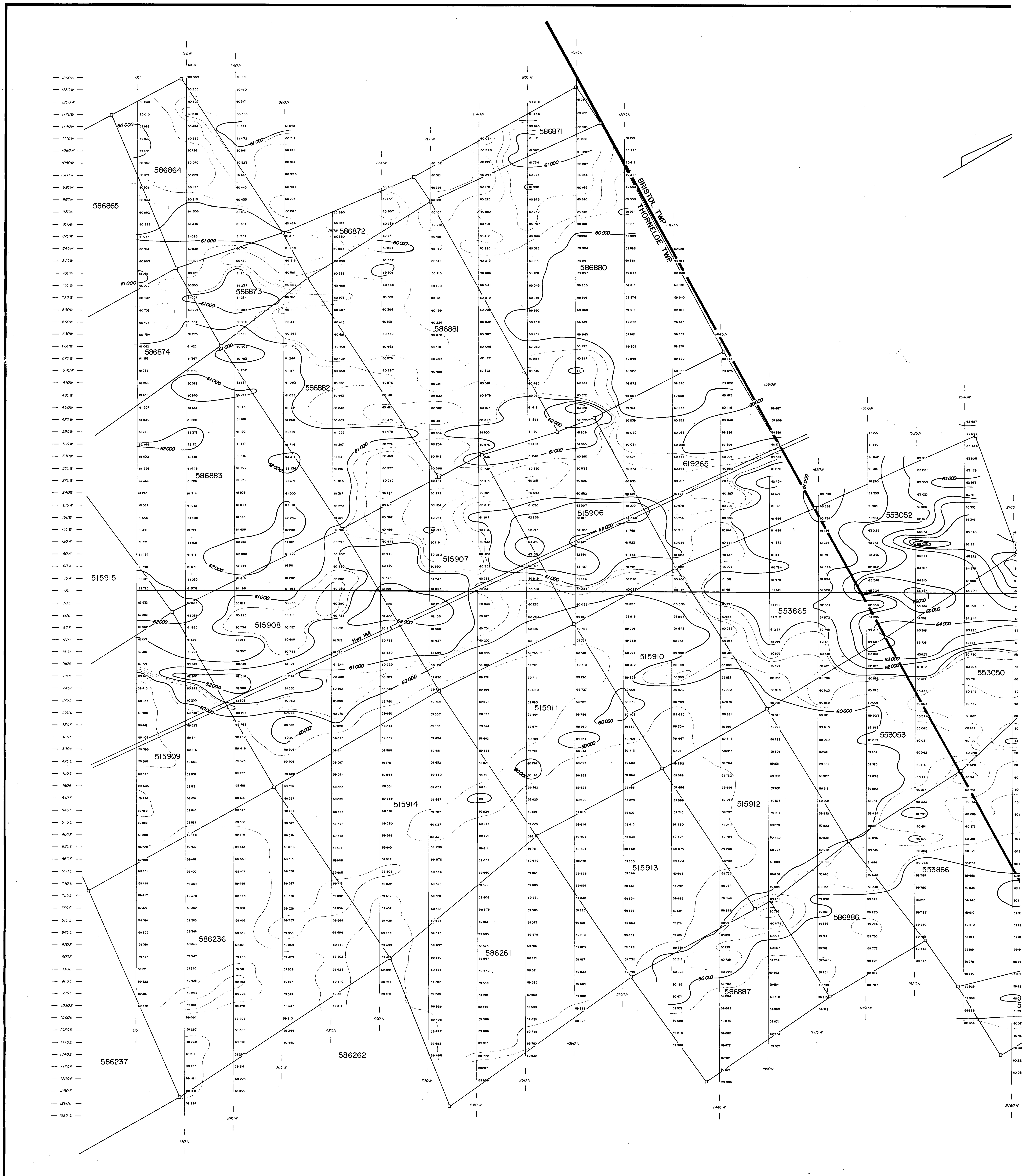
3000 E
3120 E
3240 E
3360 E
3480 E
3600 E
3720 E
3840 E
3960 E
4080 E
4200 E
4320 E
4440 E
4560 E
4680 E
4800 E
1020N
990N
960N
930N
900N
870N
840N
810N
780N
750N
720N
690N
660N
630N
600N
570N
540N
510N
480N
450N
420N
390N
360N
330N
300N
270N
240N
210N
180N
150N
120N
90N
60N
30N
00
30S
60S
90S
120S
150S
180S
210S
240S
270S
300S
330S
360S
390S
420S
450S
480S
510S
540S
570S
600S
630S
660S
690S
720S
750S
780S
810S
840S
870S
900S
continued
OFF SCALE

230


BRISTOL TWP
THORNELOE TWP
Hwy 144
586865
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586871
586872
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586874
586880
586881
586882
586883
619265
553052
515906
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515910
553865
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515914
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586886
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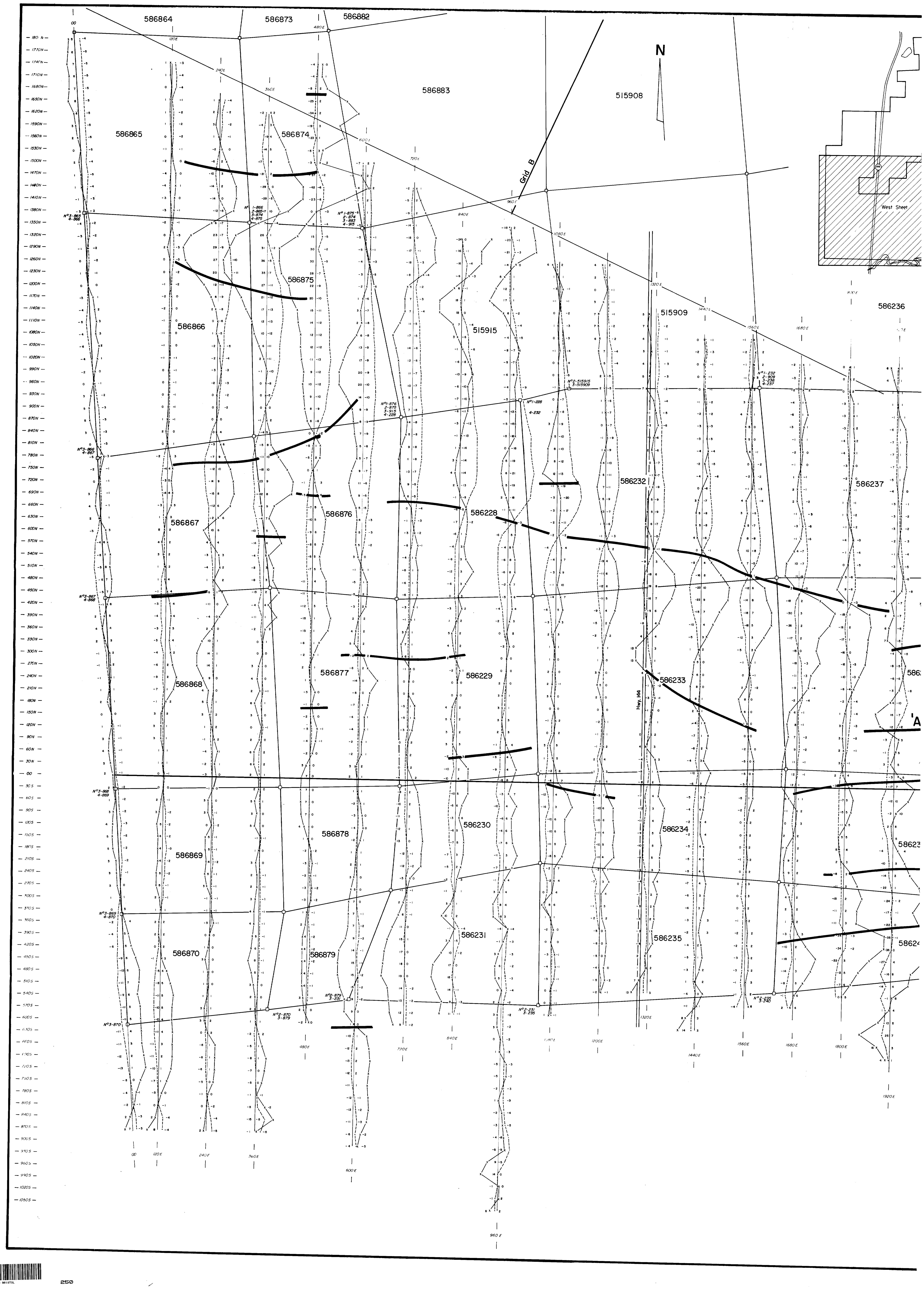
586237
586262


586864
586873
586882
586883
515908
N
586865
586874
Grid B
586875
West Sheet
586866
515915
515909
586236
586232
586237
586867
586876
586228
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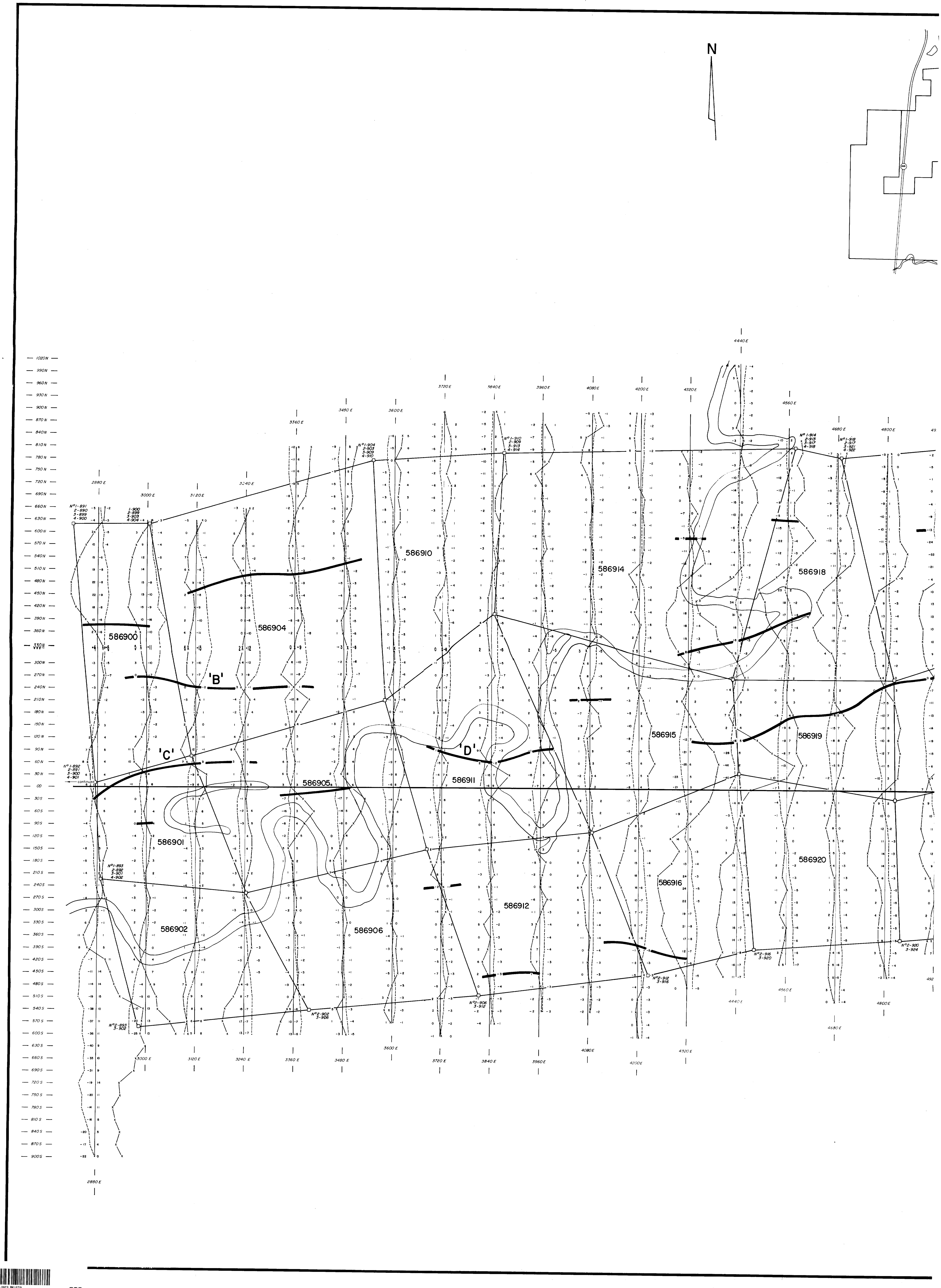
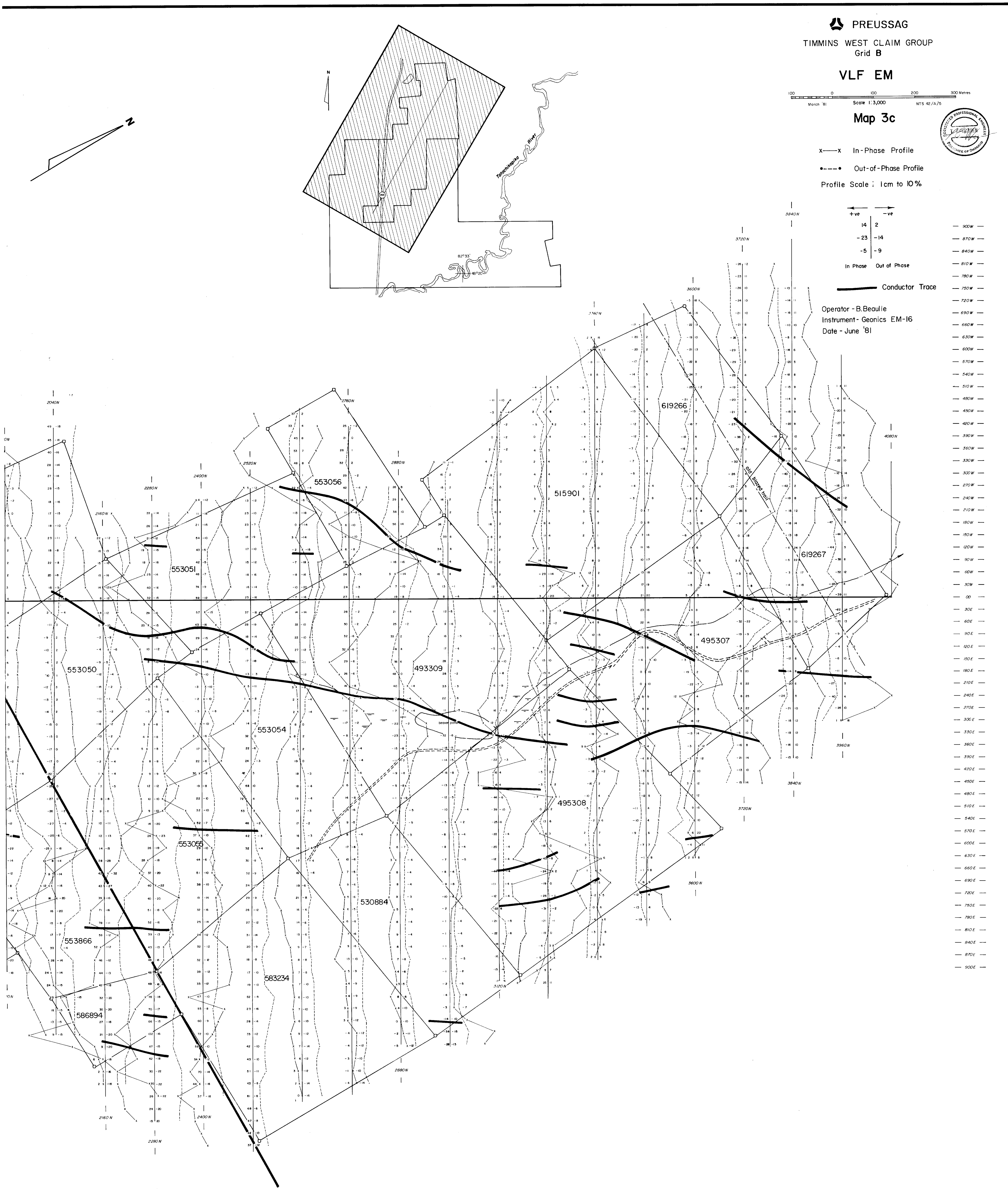
586233
Hwy. 144
586878
586230
586234
586869
586231
586235
586870
586879

250

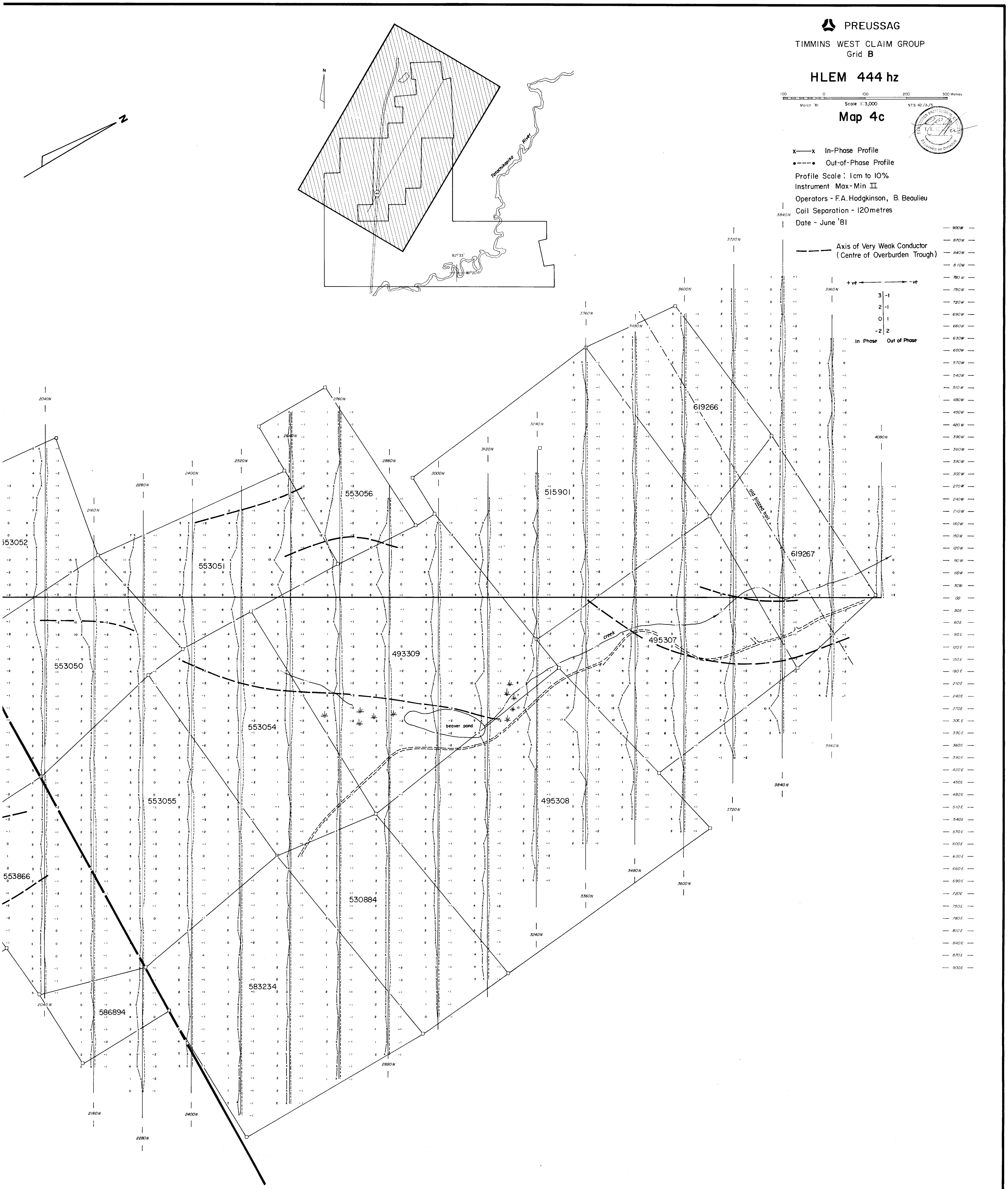


N
586900
586901
586902
586904
586905
586906
586910
586911
586912
586914
586915
586916
586918
586919
586920
'B'
'C'
'D'
continued


PREUSSAG
TIMMINS WEST CLAIM GROUP
Grid B
VLF EM
100 0 100 200 300 Metres
March '81
Scale 1:3,000
NTS 42/A/5
Map 3c
REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO
In-Phase Profile
Out-of-Phase Profile
Profile Scale ; 1cm to 10%
+ve
−ve
14 2
-23 -14
-5 -9
In Phase
Out of Phase
Conductor Trace
Operator - B.Beaulie
Instrument - Geonics EM-16
Date - June '81
553056
553051
553050
553054
553055
553866
586894
583234
530884
493309
515901
619266
619267
495307
495308
old blazed trail
beaver pond
2040N
2160N
2280N
2400N
2520N
2760N
2880N
3120N
3360N
3600N
3720N
3840N
3960N
4080N
900W
00
900E


PREUSSAG
TIMMINS WEST CLAIM GROUP
Grid A
(WEST HALF)
HLEM 444 hz
Scale 1:3,000
March '81
Map 4a
In-Phase Profile
Out-of-Phase Profile
Profile Scale : 1 cm to 10%
Instrument Max-Min II
Operators - F.A. Hodgkinson, B. Beaulieu
Coil Separation - 120 metres
Axis of Very Weak Conductor (Centre of Overburden Trough)
Bedrock Conductor Trace
+ve
-ve
In Phase
Out of Phase
Date - May '81
West Sheet
Tatachikapika River
N
586236
586237
586238
586233
586234
586235
586239
586240
586264
586265
586884
586891
586892
586893
'A'

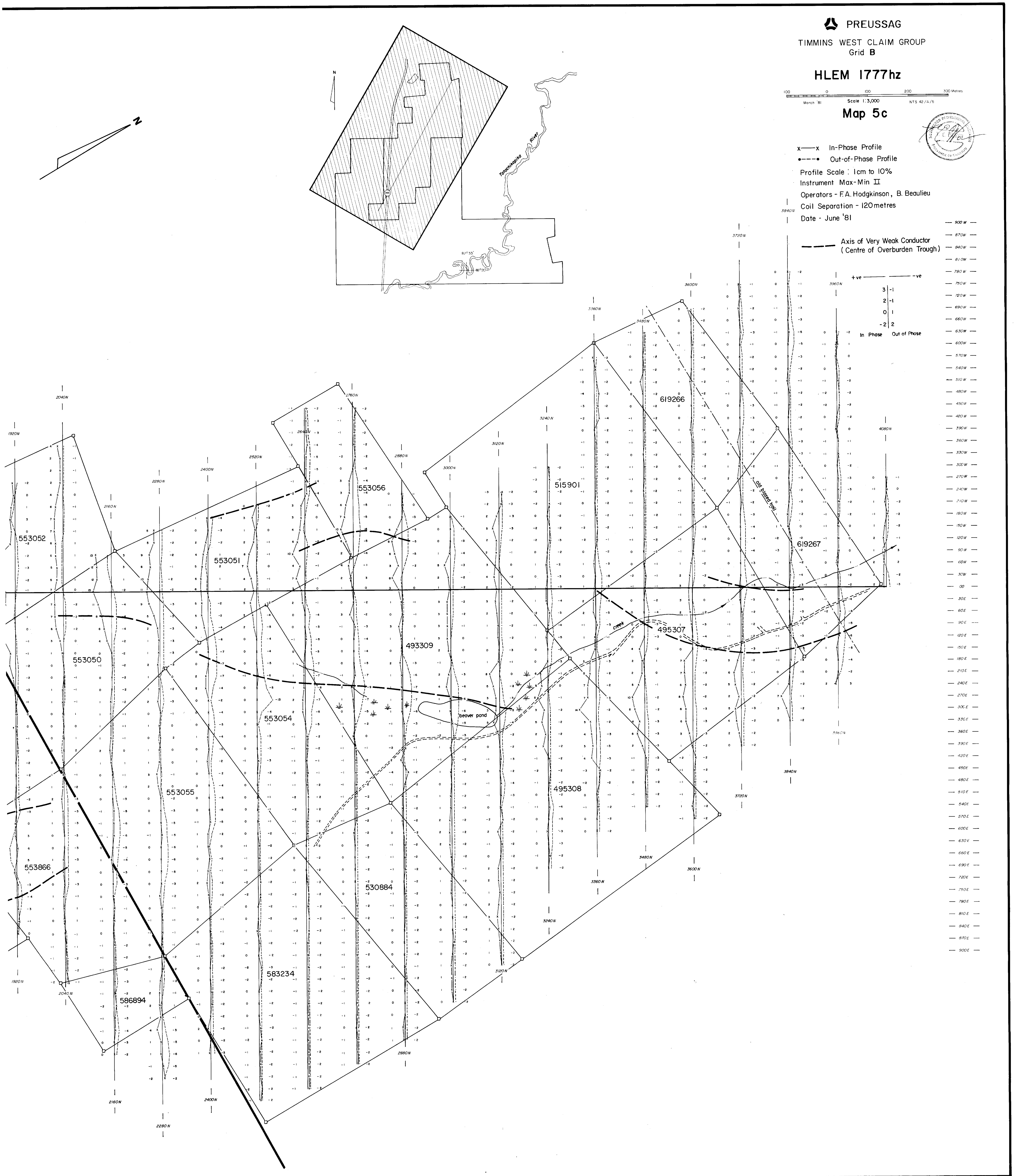
2 3973
PREUSSAG
TIMMINS WEST CLAIM GROUP
Grid A
(EAST HALF)
HLEM 444 hz
Scale 1:3,000
March '81
NTS 42/A/5
Map 4b
In-Phase Profile
Out-of-Phase Profile
Profile Scale: 1cm to 10%
Instrument Max-Min II
Operators - F.A. Hodgkinson, B. Beaulieu
Coil Separation - 120 metres
Bedrock Conductor Trace
Axis of Very Weak Conductor (Centre of Overburden Trough)
+ve
-ve
In Phase
Out of Phase
Date - May '81
N
Tatachikapika River
East Sheet
586918
586919
586920
586922
586923
586924
586926
586927
586928
595027



PREUSSAG
TIMMINS WEST CLAIM GROUP
Grid B
HLEM 444 hz
Scale 1:3,000
March '81
NTS 42/A/5
Map 4c
x——x In-Phase Profile
•- - -• Out-of-Phase Profile
Profile Scale ; 1cm to 10%
Instrument Max-Min II
Operators - F.A. Hodgkinson, B. Beaulieu
Coil Separation - 120metres
Date - June '81
Axis of Very Weak Conductor (Centre of Overburden Trough)
+ve
-ve
In Phase
Out of Phase
N
Tatachikapika River
553052
553051
553056
493309
515901
619266
619267
495307
553050
553054
553055
495308
553866
530884
583234
586894
creek
beaver pond
old blazed trail


PREUSSAG
TIMMINS WEST CLAIM GROUP
Grid A
(WEST HALF)
HLEM 1777hz
Scale 1: 3,000
March '81
NTS 42/A/5
Map 5a
x——x In-Phase Profile
•- - - -• Out-of-Phase Profile
Profile Scale : 1cm to 10%
Instrument Max-Min II
Operators - F.A. Hodgkinson, B. Beaulieu
Coil Separation - 120 metres
Axis of Very Weak Conductor (Centre of Overburden Trough)
Bedrock Conductor Trace
+ve —— —— -ve
In Phase Out of Phase
Date - May '81
N
West Sheet
Tatachikapika River
'A'
586236
586237
586238
586233
586264
586891
586234
586239
586265
586892
586235
586240
586884
586893
5909


PREUSSAG
TIMMINS WEST CLAIM GROUP
Grid A
(EAST HALF)
HLEM 1777hz
March '81
Scale 1: 3,000
NTS 42/A/5
Map 5b
In-Phase Profile
Out-of-Phase Profile
Profile Scale : 1cm to 10%
Instrument Max-Min II
Operators - F.A. Hodgkinson, B. Beaulieu
Coil Separation - 120 metres
Bedrock Conductor Trace
Axis of Very Weak Conductor
(Centre of Overburden Trough)
In Phase
Out of Phase
Date - May '81
East Sheet
586918
586922
586926
586927
586923
586919
586920
586924
586928
595027


PREUSSAG
TIMMINS WEST CLAIM GROUP
Grid B
HLEM 1777hz
100 0 100 200 300 Metres
March '81
Scale 1:3,000
NTS 42/A/5
Map 5c
x——x In-Phase Profile
•----• Out-of-Phase Profile
Profile Scale : 1cm to 10%
Instrument Max-Min II
Operators - F.A. Hodgkinson, B. Beaulieu
Coil Separation - 120 metres
Date - June '81
Axis of Very Weak Conductor (Centre of Overburden Trough)
+ve ——— -ve
In Phase Out of Phase
Tatachikapika River
beaver pond
creek
553052
553056
553051
553050
553054
553055
553866
586894
583234
530884
493309
515901
495308
495307
619266
619267