42H09SE0026 2.4983 BLAKELOCK

010

JUL 27 1982

MINING LANDS SECTION

GEOPHYSICAL REPORT

On The

Magnetic and Electromagnetic Surveys

Conducted on

Mining Claims L 591079 - 591084

591099 - 591128

619175 - 619180

619461 - 619480

619181 - 619194

393758 - 393761

393766 - 393769

393777

Located in

Blakelock and Tweed Townships

in the

Mining Division of Larder Lake

Ontario

W. S. Mitchell

TABLE OF C________

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MAPS - To Accompany Report

INTRODUCTION

This report provides a description of the magnetic and electromagnetic surveys which were completed by Utah Mines Limited personnel, on mining claims located in Blakelock and Tweed Townships in the mining district of Larder Lake, Ontario. A Total of 85 mining claims in four separate claim groups: A, B, C, and E were covered by the ground geophysical surveys which were completed between January 18 and April 15, 1982.

MINING CLAIMS COVERED BY SURVEY

The 85 mining claims held by Utah Mines Limited in Blakelock and Tweed Townships are in four separate claim groups as follows:

Block A (62 claims) - L591079 - L591084, L591099 - L591128, L619175 - L619180, L619461 - L619480

Block B (14 claims) - L619181 - L619194

Block C (4 claims) - L393766 - L393769

Block E (5 claims) - L393758 - L393761 & 393777

Claim blocks: A, B, and C are all located within Blakelock Township, and claim block E is located approximately six miles west of these three claim blocks in Tweed Township (Figure 1). All of the claims are within the Larder Lake

Mining Division of Ontario

LOCATION AND ACCESS

The claim groups are located in Blakelock and Tweed Townships approximately 44 miles northeast of Cochrane, Ontario. Block A comprising 62 claims is the largest of the claim blocks and is located just west of Mikwam and Brayley Lakes. 14 claims contained within Block B are located approximately one mile northeast of Block A claims on the east shore of Kanitama Lake. The Block B claims extend from Kanitama Lake southeasterly towards Little Mikwam Lake. Block C is a four claim group which is located on the northeastern shores of Little Mikwam Lake. The five claims of Block E are located in Tweed Township on and south of Spear Lake. The Block E claims are situated immediately east of the Detour Lake road and are approximately six miles distant from the main Block A group of claims.

During summer, float plane or helicopter can be used to access the property from Cochrane. In winter, Block E is readily accessible via the Detour Lake road, which is currently under construction and which branches north of Highway No. 652, at a point approximately twenty miles east of Cochrane. Snowmobile trails allow access to Blocks A, B and C from the Detour Lake road during the winter months.

GENERAL DESCRIPTION OF GEOLOGY, PHYSIOGRAPHY AND VEGETATION

All of the claim groups are covered by glacial drift, and no outcrop has been found on any of the claims. Ontario Department of Mines Map 2161, a four mile geological compilation sheet of the Coral Rapids - Cochrane Area covers Blakelock and Tweed Townships. This map indicates that the southern half of Blakelock and the extreme southeast corner of Tweed Townships are underlain by a series of mafic to felsic metavolcanic rocks and metasediments. The northern part of both Townships is interpreted as being underlain by granitic rocks.

There is very little variation in topographic relief in any of the claim blocks, which are generally thickly wooded with black spruce, poplar, cedar and minor birch. Areas of swamp,common in the northern part of grid A sustain only muskeg and small shrubs.

LINE CUTTING - GRIDS

Prior to completing the geophysical surveys, cut line grids were established on each of the claim blocks. The line cutting was completed between January 18 and March 10 by Dane Inc. of Amos, Quebec, under contract to Utah Mines Limited.

On the largest group of claims, claim Block A, an east-west base line (BL-0) was established from Monday Lake in the west for 6,550 feet eastwards towards Brayley Lake. To avoid Brayley Lake the base line is offset 300 feet due south at line 64 east, from which point the base line continues east to line 104 east (10,400 feet east). Cross lines spaced at 400 foot intervals were cut from the base line to provide complete coverage of all 62 claims within Block A.

Additional directional control of the cross lines on the Block A grid is provided by four east-west trending tie lines. Two of the tie lines were established 4,000 feet and 8,000 feet north of the base line (lines 40 north and 80 north) while two other tie lines were positioned 4,000 feet and 6,600 south of base line zero (lines 40 south and 66 south). The tie line at line 80 north marks the northern boundary of grid A, while the tie line at 66 south forms the southern boundary.

Tie line 40 north also provided control for cross lines L68E to L92E which were cut on the northern section of grid A between the 4,000 and 8,000 foot tie lines only.

On claim Block B a base line extending 7,600 feet in the northwest-southeast direction provides the necessary control for cross lines of grid B which were cut at 400 foot intervals in a northeast-southwest direction. The base line on claim Block C was also cut in a northwest-southeast direction and extends for 2,800 feet. Cross lines on grid C were also established in a northeast-southwest direction at 400 foot intervals.

The base line for grid E extends 4,800 feet northwest to southeast, again with cross lines cut at 400 foot intervals in a northeast-southwest direction. Tie lines were not utilized on grids B, C or E because of the relatively short length of the cross lines.

Base lines and cross lines on each of the four grids were chained and picketed at 100 foot intervals. Pickets were all clearly marked with their respective grid designations to provide adequate station control for the planned geophysical surveys.

METHODS OF GEOPHYSICAL SURVEYS

(A) Magnetic Survey

Magnetic surveys were completed by Utah Mines Limited personnel on grids A,B,C and E during the period January 18, 1982 to April 15, 1982. The instrument used for the magnetic surveys was the Barringer GM-122 Proton Precession Magnetometer. The instrument operates on the principle of measuring the precession frequency of protons contained in a proton rich liquid in a sensor head when an induced magnetic field is abruptly removed. The sensor is mounted on a staff which can be held at arms length from the operator, thus decreasing the effect of any magnetic material that the operator may unknownly be wearing or carrying. The output from the GM-122 portable magnetometer is in the form of a five digit display in gammas. This magnetometer measures the total intensity of the earth's magnetic field with an accuracy of better than ± 1 gamma and a resolution or sensitivity of 1 gamma. The instrument is portable and battery operated.

Magnetic readings must be corrected for diurnal and instrumental drift. This was done by establishing central base stations on each of the grid as follows:

Grid	Location of Base Station	Base Station Reading (Gammas)
Grid A	L64E, 0+00	59558
Grid B	L40N, 0+00	60020
Grid C	L16N, 0+00	59413
Grid E	L12N, 0+00	59500

The base stations and their corresponding values are shown on the accompanying plan maps. On each of the four grids additional base stations were set up along the full length of the base lines. These base stations were corrected for diurnal and instrumental drift in relation to the central base station pertaining to each grid. All magnetometer readings were then taken at 100 foot intervals along the cross lines which were surveyed in loops from the base line.

The operator would commence taking readings along the cross lines and return to the base station to complete his loop. In this way, any diurnal variations in the magnetic field or drift within the instrument could be monitored, and each reading taken along the loop could be corrected for the relative amount of dirunal drift. With base stations set up along the base line,readings along the cross line loops were normally completed and closed within a period of one hour.

All magnetometer readings were taken at 100' intervals over each grid and a total of 3,895 readings were recorded during this survey. After correcting the readings for diurnal and instrumental drift the values were plotted as gamma values on a map of the grid drawn to a scale of 1" to 400'. The plan map for each grid was plotted and contoured using computer methods.

(B) Electromagnetic Survey

The electromagnetic survey was carried out by Utah Mines Limited personnel using an Apex Max-Min II EM system. The Max-Min II EM unit consists of a transmitter coil and console which generates an oscillating primary field at one of four operating frequencies (222,444,888 or 1777 cycles per second). The choice of frequency is made primarily on the type and depth of overburden and the type, size and depth of target being sought. In general a lower frequency will reduce geological noise, have increased depth penetration, but at the same time will reduce sensitivity of the system.

The transmitter coil of the Apex Max Min unit is connected to the receiving coil and console by a reference cable of suitable length. The choice of cable length is made primarily on the basis of depth to which EM penetration is desired for exploration. Generally, depth of exploration with an EM unit increases with coil separation.

The receiving console, once tuned and nulled for local ground conditions gives an automatic read out of the real and imaginary components of the secondary field as a percentage of the phase shift of the primary field. With no conductor present, no secondary field is produced and only the primary field is detected by the receiving coil with a response of zero, real and quadrature readings.

In the presence of a conductor, a secondary field is produced and negative real and quadrature readings are recorded. As the leading coil approaches the conductor, positive readings are observed which are commonly referred to as the positive shoulder. When the coils have moved to a point where the conductor is approximately mid way between the two coils, a maximum negative response will be observed. As the coils move off the opposite side of the conductor, a second positive shoulder is observed.

The readings obtained are plotted as percentages of the primary field at the midpoint between the transmitter and receiver coils. The values are then profiled to outline the anomalous regions. The shape of the profiles will depend upon the separation of the coils, the nature of the conductor present, and its physical location as well as the frequency at which the primary field is transmitted.

The depth penetration of this instrument is a function of the coil separation and is generally regarded as being one half to two thirds of the separation distance between the coils. The nominal sensitivity of the instrument is about 0.2% of the total field.

All four grids were surveyed with the Max-Min instrument using a 400 foot reference cable. Readings were taken at frequencies of 444 and 1777 cycles per second. The values of real and quadrature readings for each frequency are plotted on the accompanying maps of each grid.

INTERPRETATION OF THE GEOPHYSICAL RESULTS

A. Magnetic Survey

Results of the magnetometer surveys on each of the four grids A,B,C and E, are shown on the accompanying contoured magnetic maps for each respective claim block. The maps are drawn at a scale of 1" = 400' and the magnetic values are contoured at an interval of 100 gammas.

On Block A the most striking magnetic feature is a northeasterly trending zone of relatively high magnetic relief in the southern portion of the property. This magnetic feature coincides with several northeasterly trending electromagnetic anomalies.

Other areas of high magnetic intensity occur in the northwestern part of the claim block and in some cases again coincide with anomalous EM conductivity. A weak north/south trending feature in the western third of the property, possibly reflects a diabase dyke.

The magnetics on Block B indicate a strong northwesterly trending series of magnetic highs. There is again a broad coincidence with magnetic highs and anomalous EM conductivity.

On Block C a distinct zone of high magnetic values occur in the western part of the property. There is no coincident electromagnetic conductivity associated with these magnetic highs which are difficult to interpret because of the total lack of outcrop and undeterminate thickness of glacial overburden in this area.

Apart from a relatively weak easterly magnetic trend near the centre of claim block E, the magnetics over this area are relatively flat. The weak east trending magnetic high coincides with a moderate to weak electromagnetic conductivity anomaly.

B. Electromagnetic Survey

Max-Min II data are plotted as a series of profiles on the accompanying plan maps of the grids drawn at a scale of 1" = 400'. The profile scale is 40% per inch for both frequencies 444 and 1777 Hertz. Areas of conductivity are shown on each of the maps and the anomalies are noted alphabetically.

On Block A anomalies A & B have significant strike length and as noted previously are located in the southern portion of the claim group coincident with an area of northeasterly trending magnetic highs. Also on Block A are a series of short strike length conductive anomalies C to H inclusive.

A long continuous conductive zone (anomaly I) trends northwest, southeast, across Block B and coincides with a similar trending zone of relatively high magnetic relief. A short strike length anomaly J, also with high magnetic expression is located approximatley 600' away from the main conductor at its northwestern limit.

B. Electromagnetic Survey (Continued)

Max-Min II data on Block C, indicates only weak deflection on the out-of-phase readings. This deflection probably represents overburden response or bedrock topography.

Two conductive anomalies were detected on Block E. These anomalies K and L, trend approximately east-west and have weak coincident magnetic expression.

Conclusions

Conductive and magnetic anomalies located on Block's A, B, and E, appear to be untested anomalies and drill testing of the higher priority anomalies is warranted.

W.S. Mitchell.

W.S. Mitchell
District Geologist
Eastern Canada

WSM/ca

APPENDIX I

GEOPHYSICAL TECHNICAL DATA STATEMENT

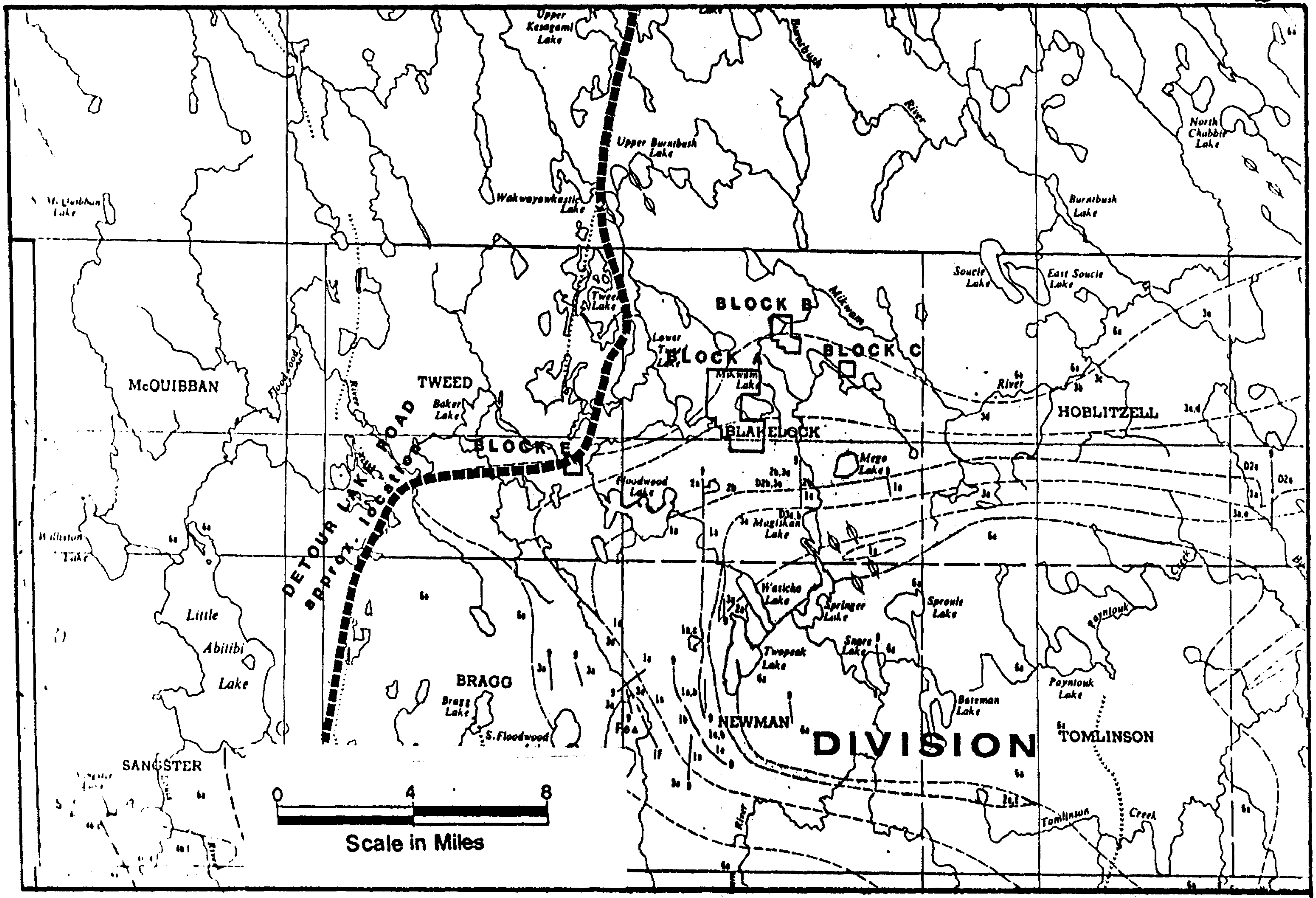

FIGURE 1 **LOCATION OF CLAIM BLOCKS A,B,C AND E**

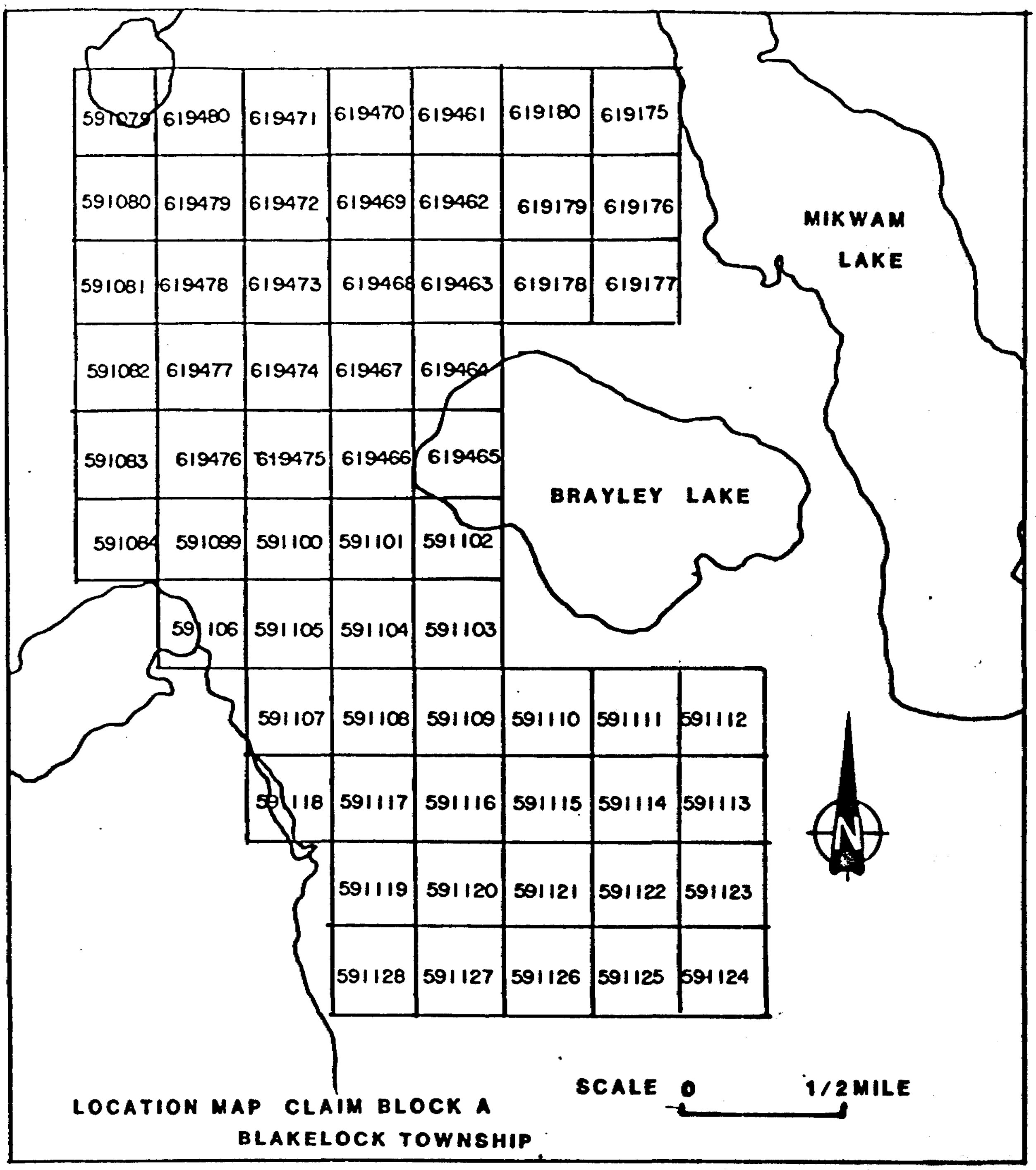

FIGURE 2 LOCATION MAP CLAIM BLOCK A

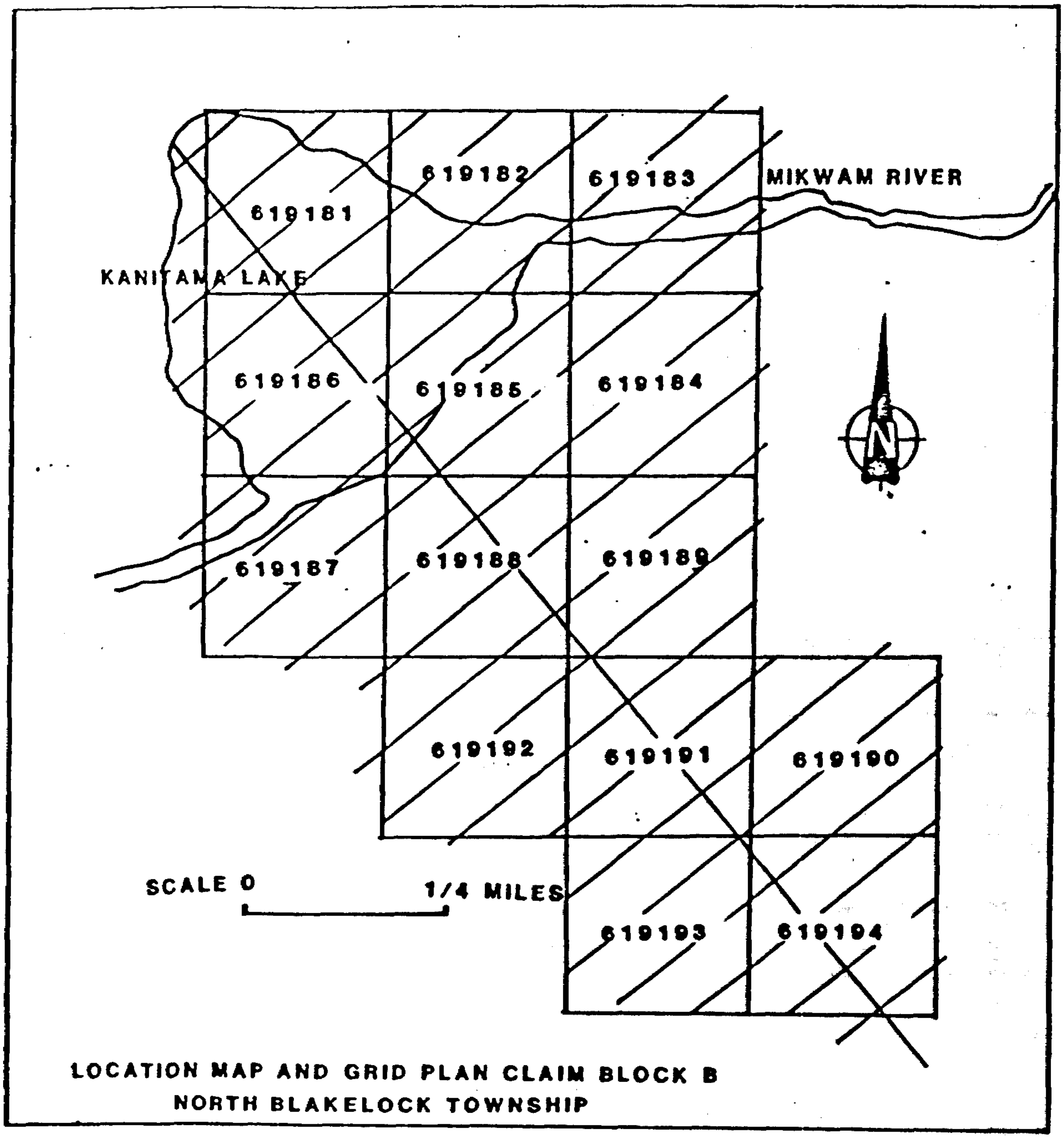

FIGURE 3 LOCATION MAP AND GRID PLAN CLAIM BLOCK B

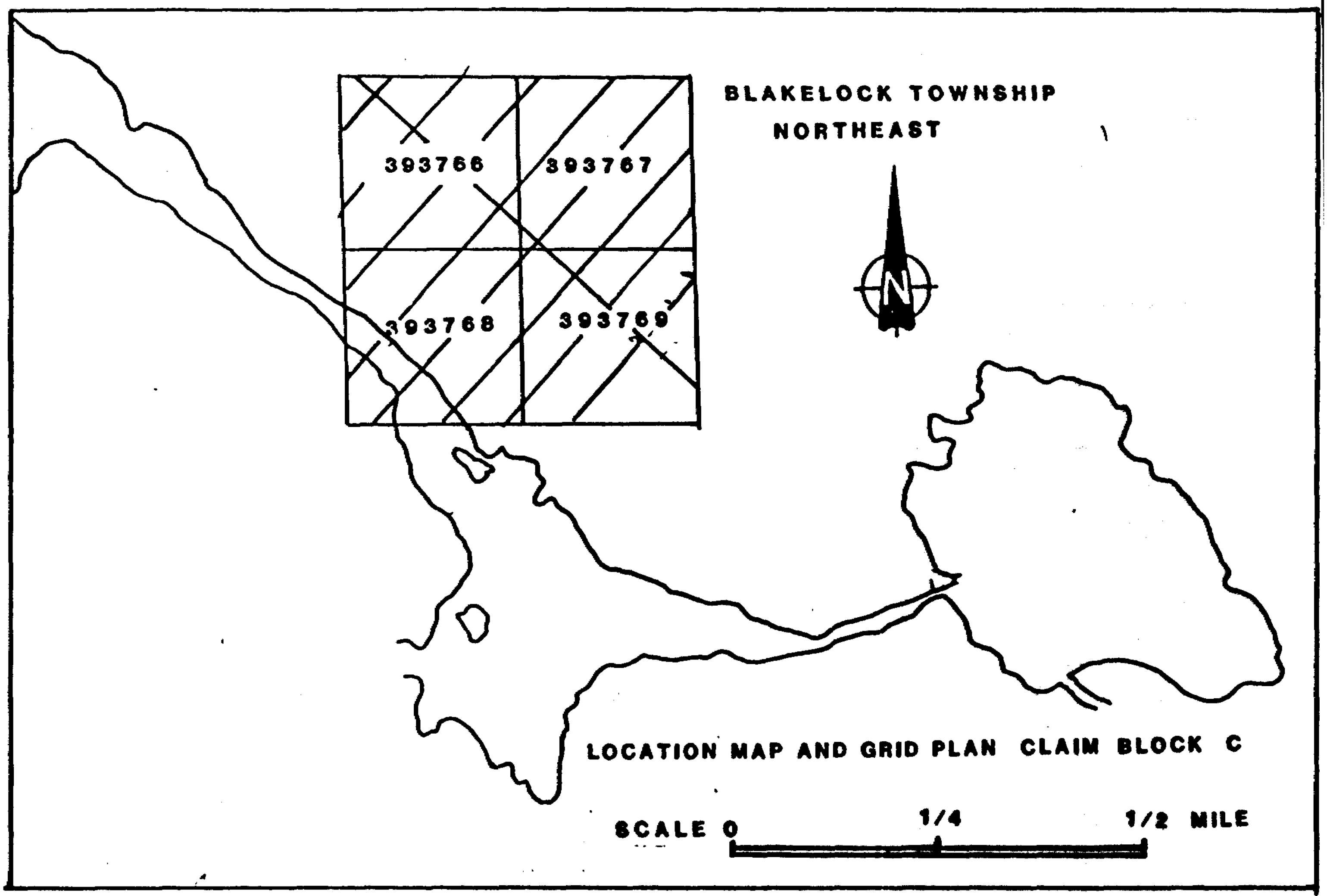

FIGURE 4 LOCATION MAP AND GRID PLAN CLAIM BLOCK C

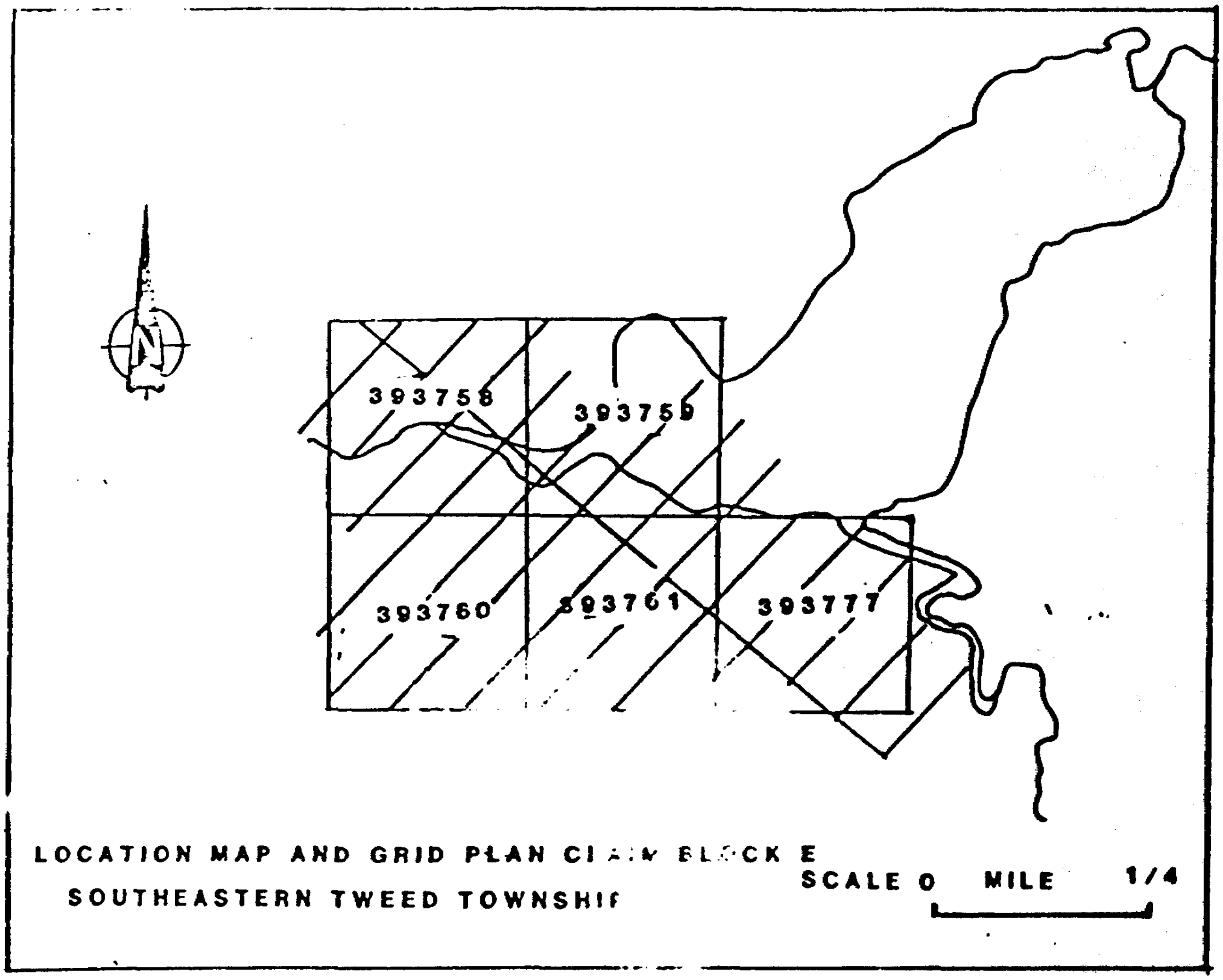

FIGURE 5 LOCATION MAP AND GRID PLAN CLAIM BLOCK E

1983 06 17 2.4963

Utah Mines Ltd
Suite 1406
4 King Street West
Toronto, Ontario
M5H 1B6

Attention: W.S. Mitchell

Dear Sirs:

RE: Geophysical (Electromagnetic and Magnetometer) Survey submitted on Mining Claims L591079 et al in the Townships of Blakelock and Tweed

---

Enclosed are the plans, in duplicate, for the above-mentioned survey. Please plot on the plans, the original values at each station for both the Electromagnetic and Magnetometer Surveys and return the plans to this office.

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
Phone:(416) 965-1380

R. Pichette:mc

Encls.

cc: Mining Recorder
Kirkland Lake, Ontario

TABLE OF CONTENTS

Ontario

Ministry of Natural Resources

Geotechnical Report Approval

File 2 4963.

Mining Lands Comments

You wanted to see this file again

☑ To: Geophysics Mr. Barlow.

Comments

☑ Approved ☐ Wish to see again with corrections

Date August 31

Signature Roger Barlow

☐ To: Geology - Expenditures

Comments

☐ Approved ☐ Wish to see again with corrections

Date

Signature

☐ To: Geochemistry

Comments

☐ Approved ☐ Wish to see again with corrections

Date

Signature

☐ To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

1593 (81/10)

UTAH MINES LTD.

MINERAL EXPLORATION

SUITE 1406, 4 KING STREET WEST, TORONTO, ONTARIO, CANADA M5H 1B6

(416) 368-3884

Date: August 11, 1983

File: 2.4963

E.F. Anderson
Whitney Block,
Room 6450
Queen's Park,
Toronto, Ontario
M7A IW3

Dear Sir:

In compliance with your request of June 17, the enclosed, signed plan maps in duplicate are being returned with data values posted at each station. In order to accommodate this the total number of maps and the titles for various map sheets have been altered. Since this affects the "Table of Contents" of the associated report, it is included in duplicate, for insertion to the report.

Sincerely yours,

P. Diorio

P.A. Diorio
Geophysicist

PAD/ca

Ministry of Natural Resources
Ontario

Geotechnical Report Approval

File 2.4963

Mining Lands Comments

☑ To: Geophysics Mr. Barlow

Comments		
- EM Survey requires raw readings		
☑ Approved ☑ Wish to see again with corrections	Date May 11/83	Signature [signature]

☐ To: Geology - Expenditures

Comments		
☐ Approved ☐ Wish to see again with corrections	Date	Signature

☐ To: Geochemistry

Comments		
LD		
☐ Approved ☐ Wish to see again with corrections	Date	Signature

☐ To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

1593 (81/10)

1982 08 16 2.4963

Mining Recorder
Ministry of Natural Resources
4 Government Road East
P.O. Box 984
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

We have received reports and maps for a Geophysical (Electromagnetic and Magnetometer) Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims L 591079 et al in the Townships of Blakelock and Tweed.

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: 416/965-1316

J. Skura:sc

cc: Utah Mines Limited
Toronto, Ontario
Attn: W.S. Mitchell.

UTAH MINES LTD.
MINERAL EXPLORATION
SUITE 1406, 4 KING STREET WEST, TORONTO, ONTARIO, CANADA M5H 1B6
(416) 368-3884

July 26, 1982

Ministry of Natural Resources,
Mining Lands Section,
Room 6450,
99 Wellesley Street, West,
Whitney Block, Queen's Park
Toronto, Ontario M7A 1W3

Attention: Mr. Arthur Barr

Dear Sir:

Please find enclosed two complete signed copies of an Assessment Work Report, covering mining claims located in Tweed and Blakelock townships, Ontario. The Geophysical Assessment Reports hereby submitted pertain to the claims listed in the attached copy of the report of work form filed with the Ministry of Natural Resources, in Larder Lake on May 28, 1982.

I trust that you will find everything in order.

Sincerely yours,

W.S. Mitchell

W.S. Mitchell
District Geologist
Eastern Canada

WSM/ca

Enclosures:

Ontario

Geochemical and Expenditures)

(file L-393777)

Lands admin

The Mining Act

Note: — Only days credits calculated "Expenditures" section may be ent[illegible] in the "Expend. Days Cr." colum[illegible]
— Do not use shaded areas below.

Type of Survey(s)	Township or Area
[illegible]CUTTING-MAGNETOMETER-ELECTROMAGNETIC	BLAKELOCK Tweed

2.4963

Claim Holder	Prospector's Licence No.
UTAH MINES LIMITED	T 793

Survey Company	Survey Dates (linecutting to office)	Total Miles of line Cut
DANE INC. LINECUTTING ONLY	Day 18 Mo. 01 Yr. 82 — Day 15 Mo. 04 Yr. 82	1

Name and Address of Author (of Geo-Technical report)

W.S. MITCHELL, SUITE 1406,4KING STREET,WEST, TORONTO, ONT.M5H 1B6

Special Provisions Credits Requested

Instructions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	40
	- Magnetometer	20
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Man Days

Instructions	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Airborne Credits

Note: Special provisions credits do not apply to Airborne Surveys.		Days per Claim
	Electromagnetic	
	Magnetometer	
	Radiometric	

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Number	Expend. Days Cr.
L	393777	60

RECEIVED
JUN 25 1982

LARDER ... MINING ...
REC...
JUN
AM 7 8 9 10 11 12 ... PM ... 5 6

Total number of mining claims covered by this report of work. 1

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
60	JUN 9 1982	
	Date Approved as Recorded	Regional/Branch Director

Report Completed

Date of Report	Recorded Holder or Agent (Signature)
June 09,82	P. Baril

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying

Patricia Baril 334 Ross Ave East.
Timmins, Ontario P4N 5X2

Date Certified	Certified by (Signature)
June 09/82	Patricia Baril

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

Instructions: — Please type or print.
— If number of mining claims traversed exceeds space on this form, attach a list.
Note: — Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
— Do not use shaded areas below.

(file # 619474) The Mining Act 2.4963

Type of Survey(s): LINECUTTING — MAGNETOMETER — ELECTROMAGNETIC
Township or Area: Blakelock & Tweed
Claim Holder(s): UTAH MINES LTD.
Prospector's Licence No.: T 793
Survey Company: Dane Inc. — Linecutting only
Survey Dates (linecutting to office): 18 01 82 (Day Mo. Yr.) 15 04 82 (Day Mo. Yr.)
Total Miles of line Cut: 84
Name and Address of Author (of Geo-Technical report): W.S. Mitchell, Suite 1406, 4 King Street, West, Toronto, Ontario, M5H 1B6

Special Provisions Credits Requested

Instructions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	40
	- Magnetometer	20
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Man Days

Instructions	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Airborne Credits

		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

LARDER LAKE MINING DIV.
RECEIVED
MAY 28 1982
AM 7 8 9 10 11 12 1 2 3 4 5 6 PM

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Mining Claims Traversed (List in numerical sequence)

Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
L	591079	60	L	591118	60
	591080			591119	
	591081			591120	
	591082			591121	
	591083			591122	
	591084			591123	
	591099			591124	
	591100			591125	
	591101			591126	
	591102			591127	
	591103			591128	
	591104			619175	
	591105			619176	
	591106			619177	
	591107			619178	
	591108			619179	
	591109			619180	
	591110			619461	
	591111			619462	
	591112			619463	
	591113			619464	
	591114			619465	
	591115			619466	
	591116			619467	
	591117			+list attached	

Total number of mining claims covered by this report of work: 84

For Office Use Only
Total Days Cr. Recorded: 5040
Date Recorded: MAY 28 1982
Mining Recorder: [signature]
Date Approved as Recorded: 83.09.26
Branch Director: [signature]

Report Completed

Date of Report: May 27, 1982
Recorded Holder or Agent (Signature): W.S. Mitchell

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

APPENDED LIST OF CLAIMS SCHEDULE A

May 27, 1982

		Expend Days CR			Expend Days CR
L	619468	60	L	619186	60
L	619469		L	619187	
L	619470		L	619188	
L	619471		L	619189	
L	619472		L	619190	
L	619473		L	619191	
L	619474		L	619192	
L	619475		L	619193	
L	619476		L	619194	
L	619477		L	393758	
L	619478		L	393759	
L	619479		L	393760	
L	619480		L	393761	
L	619481 J.W.N.		L	393766	
L	619482 J.W.N.		L	393767	
L	619483 J.W.N.		L	393768	
L	619484 J.W.N.		L	393769	
L	619485 J.W.N.				

RECEIVED
JUL 27 1982
MINING LANDS SECTION

LARDER LAKE
MINING DIV.
RECEIVED
MAY 28 1982
AM PM
7 8 9 10 11 12 1 2 3 4 5 6

Ontario

File ____________

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) MAGNETOMETER - ELECTROMAGNETIC

Township or Area BLAKELOCK AND TWEED TWSP.

Claim Holder(s) UTAH MINES LIMITED LIC.T793

Survey Company DANE INC. (LINECUTTING ONLY)

Author of Report W.S. MITCHELL

Address of Author STE. 1406, 4 KING ST.W., TORONTO

Covering Dates of Survey JAN 18/82 - APR 15/82
(linecutting to office)

Total Miles of Line Cut 85

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	40
—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: July 26 1982 SIGNATURE: W.S. Mitchell
Author of Report or Agent

FOR OFFICE USE ONLY

Res. Geol. ____________ Qualifications 2.2763

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
L.	591079
L.	591080
L.	591081
L.	591082
L.	591083
L.	591084
L.	591099
L.	591100
L.	591101
L.	591102
L.	591103
L.	591104
L.	591105
L.	591106
L.	591107
L.	591108
L.	591109
L.	591110
L.	591111
L.	591112
L.	591113

+ attached list

If space insufficient, attach list

TOTAL CLAIMS 85

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 3895 Number of Readings 3895

Station interval 100 feet Line spacing 400 feet

Profile scale 1" = 400 feet

Contour interval 100 gammas

MAGNETIC

Instrument Barringer Proton Precession Magnetometer Total Field

Accuracy – Scale constant ± 1. gammas

Diurnal correction method Linear Loop Base Station Control

Base Station check-in interval (hours) 1.0 hours

Base Station location and value Grid A L 64 E base station 0+00-59558 gammas; Grid B L 40 N 0+00-60020 gammas; Grid C L 16 N 0+00-59413 gammas; Grid E L 12 N 0+00-59500 gammas

ELECTROMAGNETIC

Instrument APEX MAX MIN II

Coil configuration HORIZONTAL LOOP

Coil separation 400 feet

Accuracy + 1%

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

Frequency 444 1777 h. (specify V.L.F. station)

Parameters measured Real and quadrature components of secondary 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

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 __________

Instrument __________

Accuracy __________

Parameters measured __________

Additional information (for understanding results) __________

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 ____________________

____

____

Total Number of Samples ____________________

Type of Sample ____________________
(Nature of Material)

Average Sample Weight ____________________

Method of Collection ____________________

____

Soil Horizon Sampled ____________________

Horizon Development ____________________

Sample Depth ____________________

Terrain ____________________

____

Drainage Development ____________________

Estimated Range of Overburden Thickness ____________________

____

____

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

Mesh size of fraction used for analysis ____________________

____

____

____

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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GEOPHYSICAL-GEOLOGICAL-GEOCHEMICAL
TECHNICAL DATA STATEMENT

APPENDED LIST OF CLAIMS SCHEDULE A

L. 591114
L. 591115
L. 591116
L. 591117
L. 591118
L. 591119
L. 591120
L. 591121
L. 591122
L. 591123
L. 591124
L. 591125
L. 591126
L. 591127
L. 591128
L. 619175
L. 619176
L. 619177
L. 619178
L. 619179
L. 619180
L. 619461
L. 619462
L. 619463
L. 619464
L. 619465
L. 619466
L. 619467
L. 619468
L. 619469
L. 619470
L. 619471
L. 619472
L. 619473
L. 619474
L. 619475
L. 619476
L. 619477
L. 619478
L. 619479
L. 619480
L. 619181
L. 619182
L. 619183
L. 619184
L. 619185
L. 619186
L. 619187
L. 619188
L. 619189
L. 619190
L. 619191
L. 619192
L. 619193
L. 619194
L. 393758
L. 393759
L. 393760
L. 393761
L. 393766
L. 393767
L. 393768
L. 393769
L. 393777

BLAKELOCK TWP
M419

M.419

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

DATE OF ISSUE
DEC 22 1982
Ministry of Natural Resources
TORONTO

BLAKELOCK

LARDER LAKE MINING DIVISION

DISTRICT OF COCHRANE

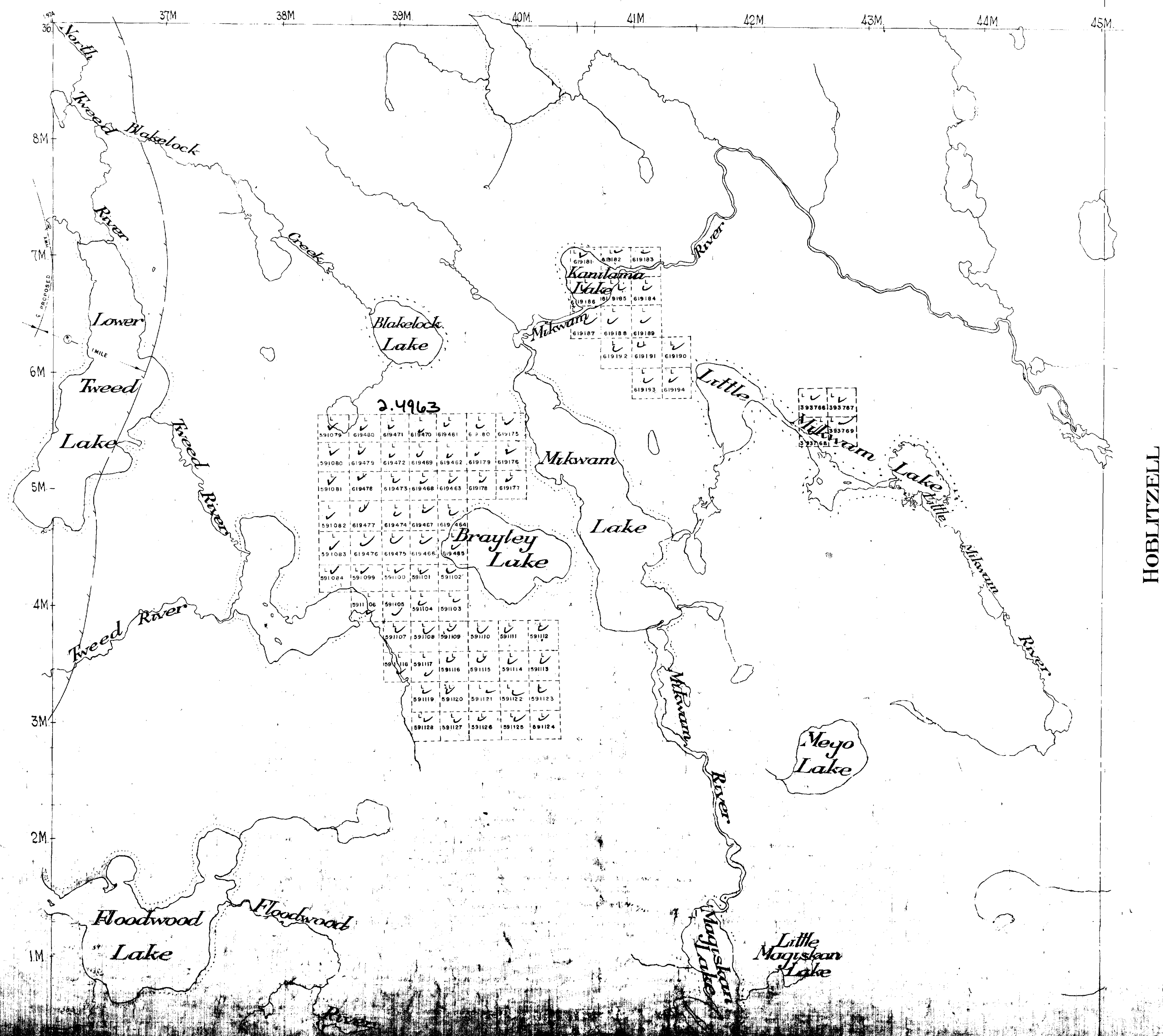
Scale - 40 Chains - 1 Inch

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

Order No.	File	Date	Disposition
(R1) NR W 1/81	188511	15/1/81	S.R.O.

LEGEND

Cancelled	C.
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.



42H09SE0026 2.4963 BLAKELOCK

200

W P08

M.608

ONTARIO

MINISTRY OF NATURAL RESOURCES

SURVEYS AND MAPPING BRANCH

TWEED

LARDER LAKE MINING DIVISION

DISTRICT OF COCHRANE

Scale :- 40 Chains - 1 Inch

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

Order No.	File	Date	Disposition
(R1) NR W 1/8	18851	15/1/81	S R O

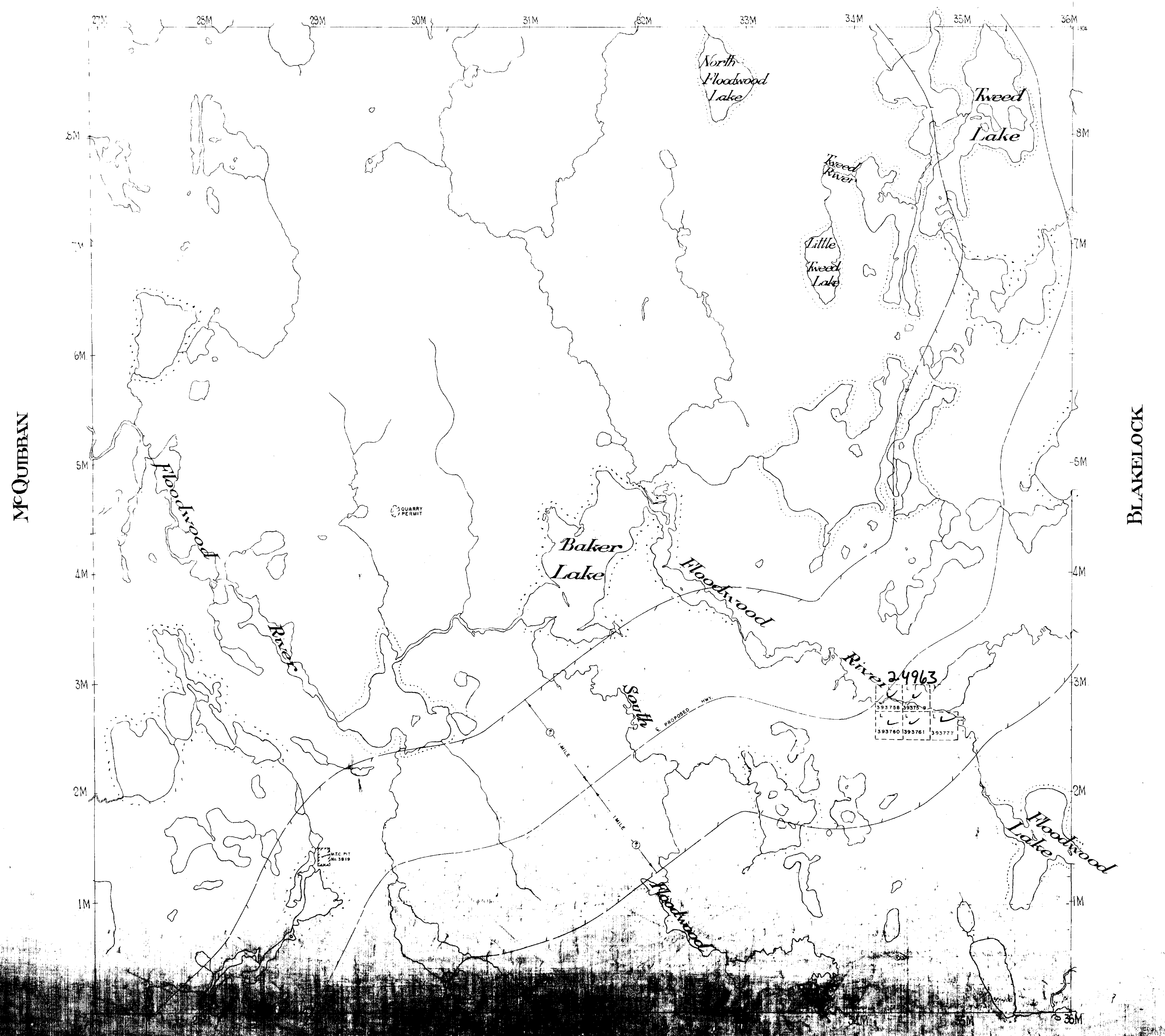
DATE OF ISSUE

DEC 22 1982

Ministry of Natural Resources TORONTO

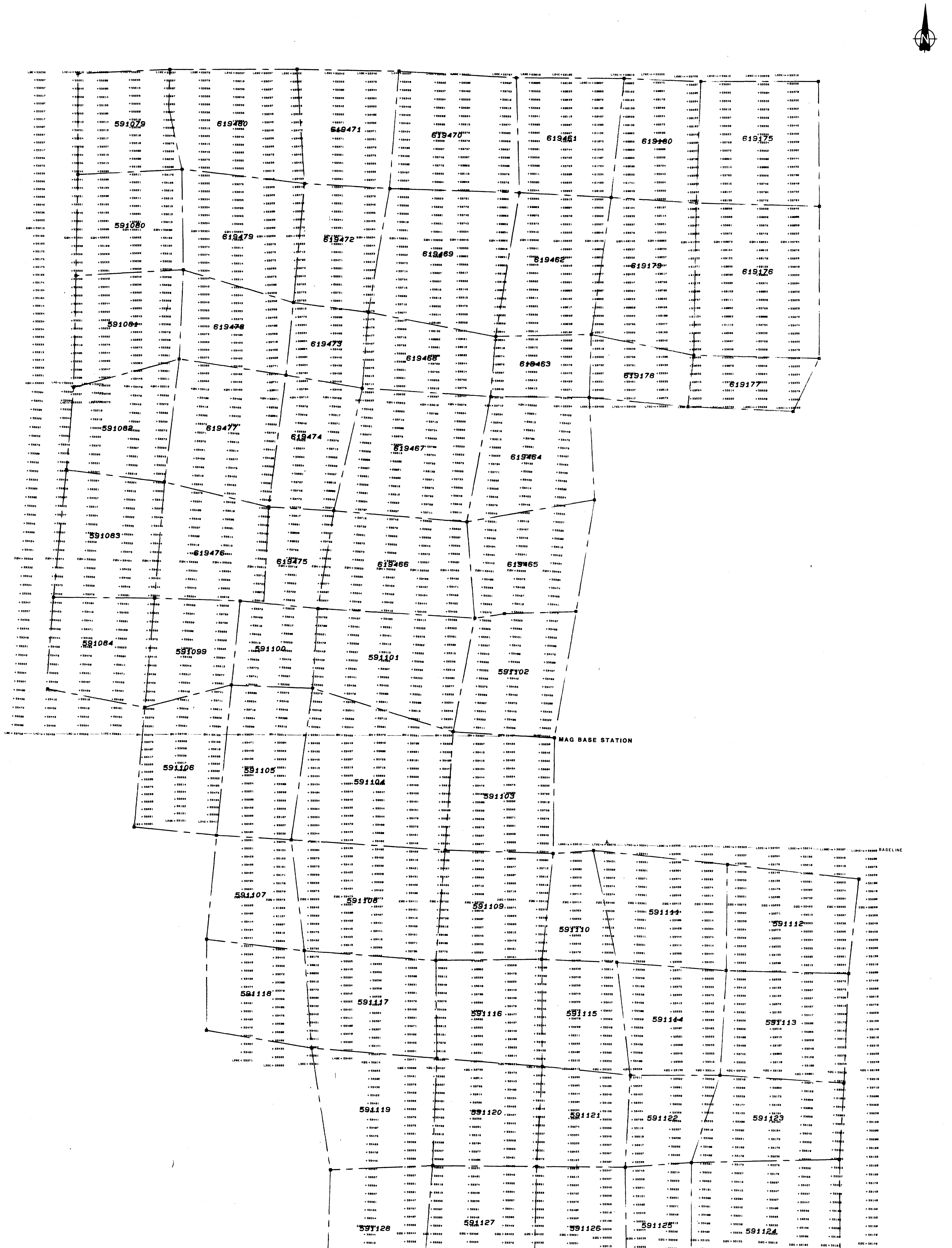
NOTE

400' Surface Rights Reservation around all Lakes and Rivers.



42H08SE0026 2.4963 BLAKELOCK

210



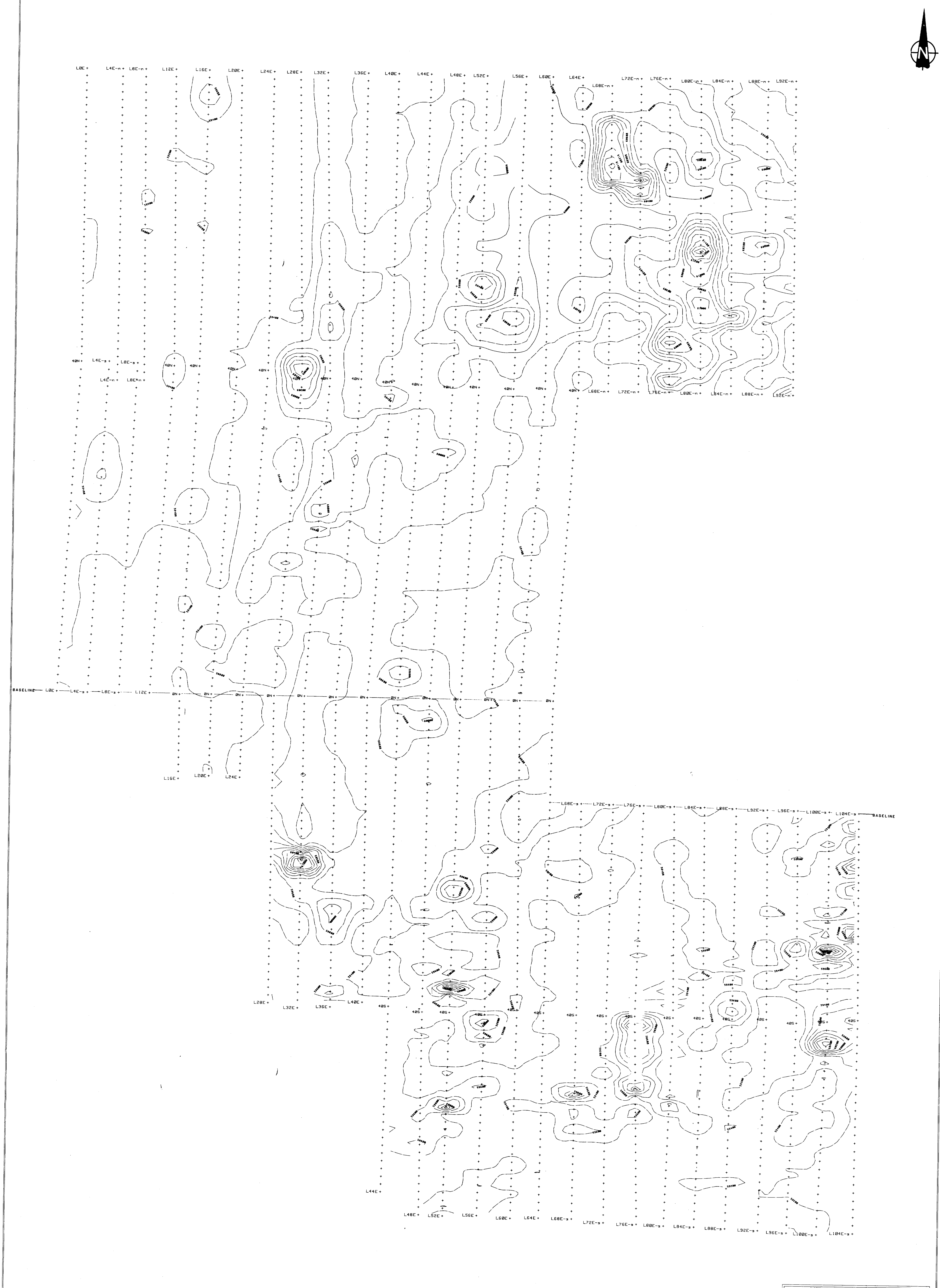
UTAH MINES LIMITED
EXPLORATION DEPARTMENT
Toronto, Ont., Canada

MIKWAM MAGNETOMETER SURVEY
Block A
Total Field Values in Gammas

Date	Drawn	Checked	Revised	NTS	File	Map

220

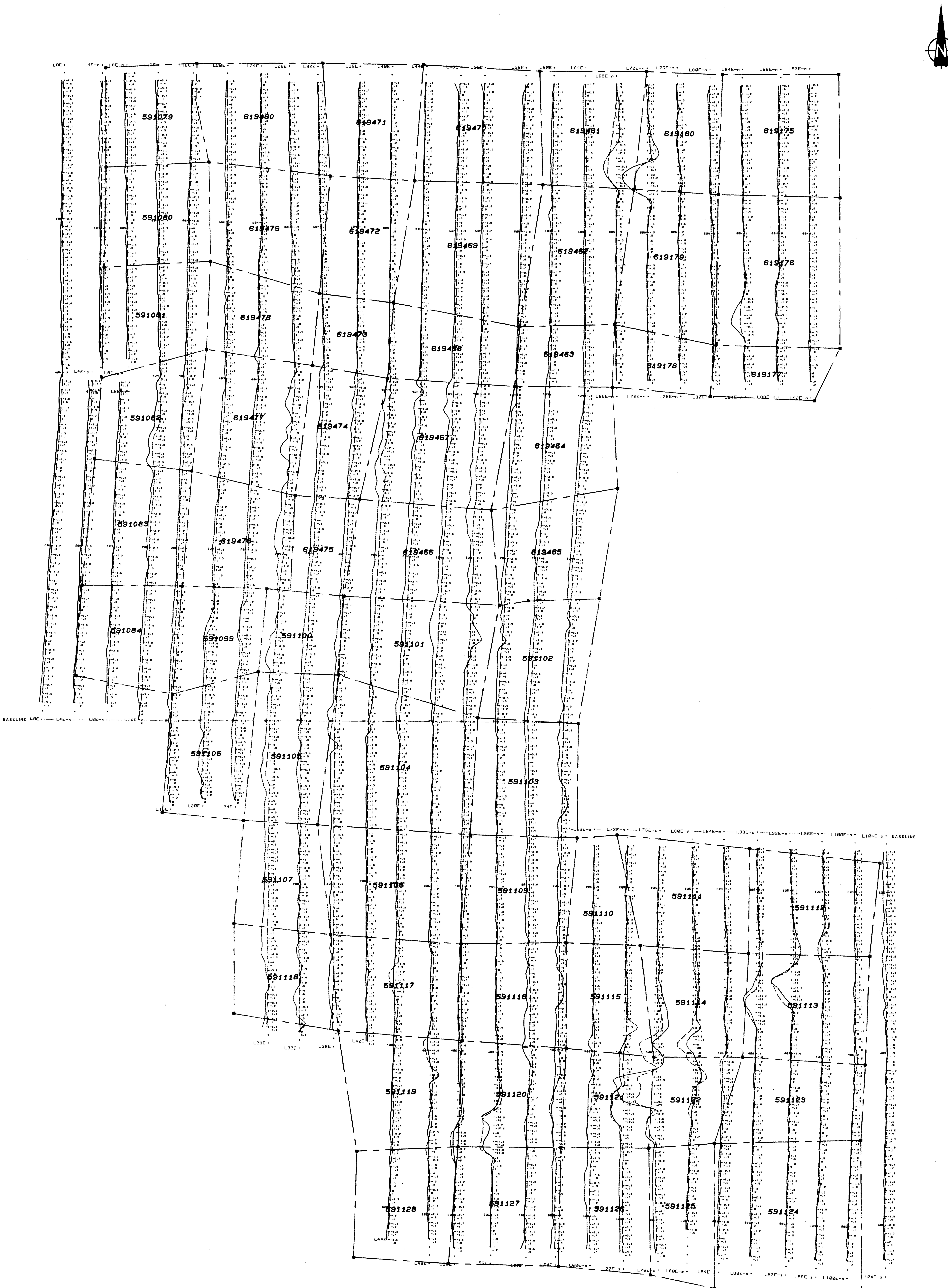
24963



UTAH MINES LIMITED
EXPLORATION DEPARTMENT
Toronto,Ont,Canada

MIKWAM MAGNETOMETER SURVEY
BLOCK A
Contour Interval =200 Gammas

Ft



UTAH MINES LIMITED

EXPLORATION DEPARTMENT
Toronto,Ont,Canada

MIKWAM MAXMIN II at 444 Hz
BLOCK A
400' Coil Spacing

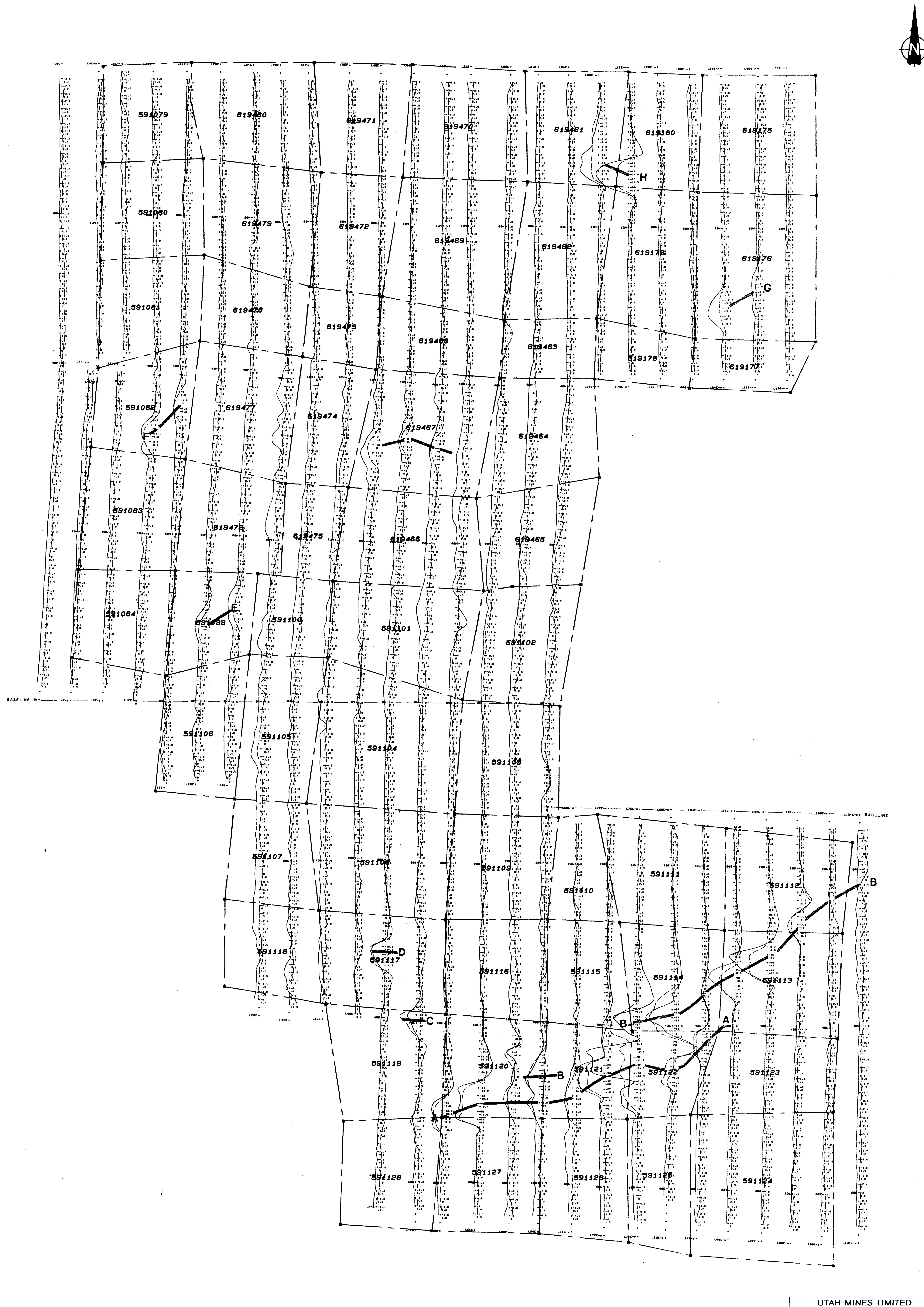
In-Phase (Solid) at 40 % per inch
Ouu-of-Phase (Dashed) at 40 % per inch
Negative Profiled Towards West
Values in %

Date	Drawn	Checked	Revised	NTS	File	Map

0 400 800 1200
Ft

240

2.4963



UTAH MINES LIMITED

EXPLORATION DEPARTMENT

Toronto,Ont,Canada

MIKWAM MAXMIN II at 1777 Hz

Block A

400' Coil Spacing

In-phase (solid) at 40 % per inch

Out-of-phase (Dashed) at 40 % per inch

Negative Profiled Towards West

Values in %

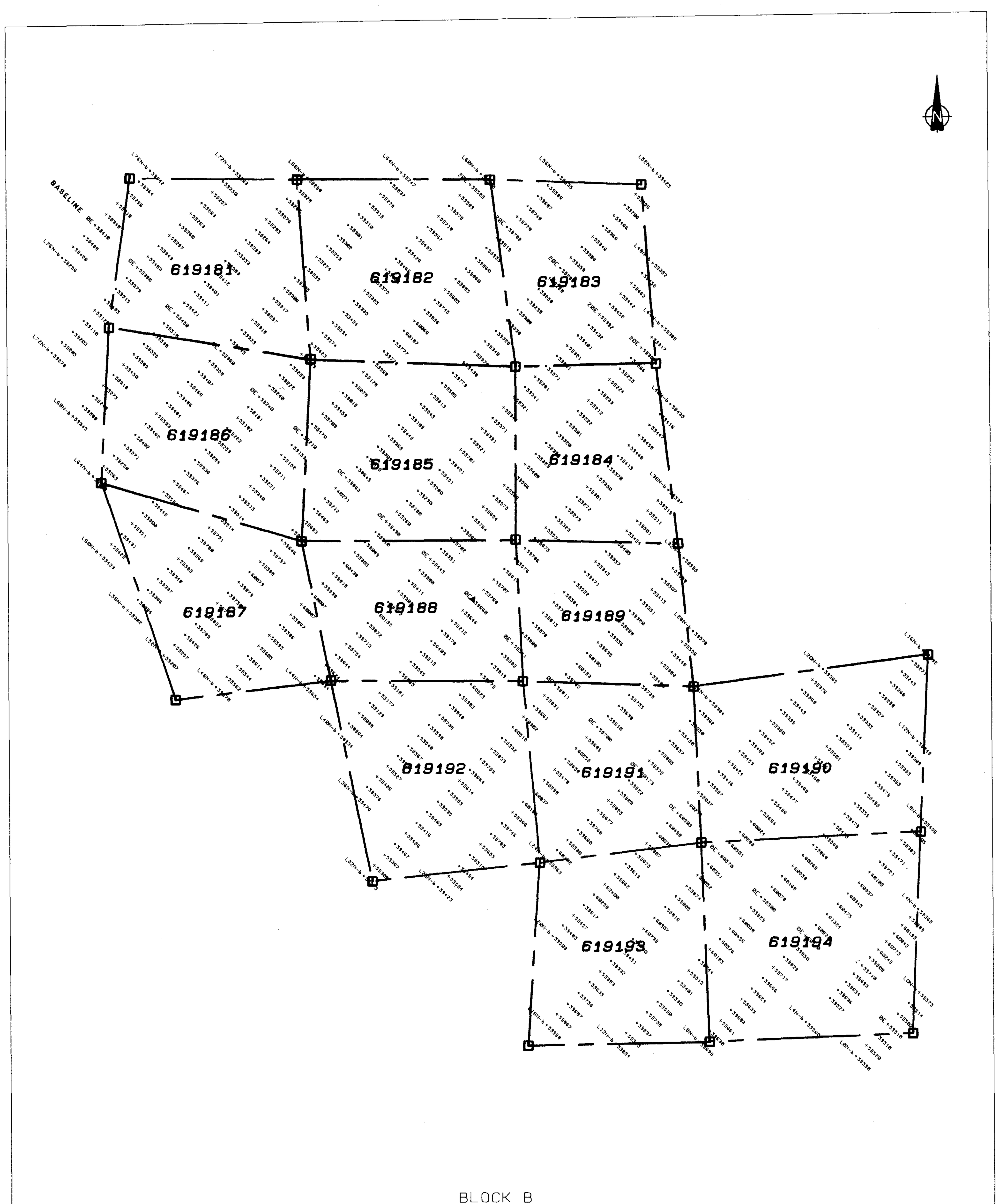
Date	Drawn	Checked	Revised	NTS	File	Map

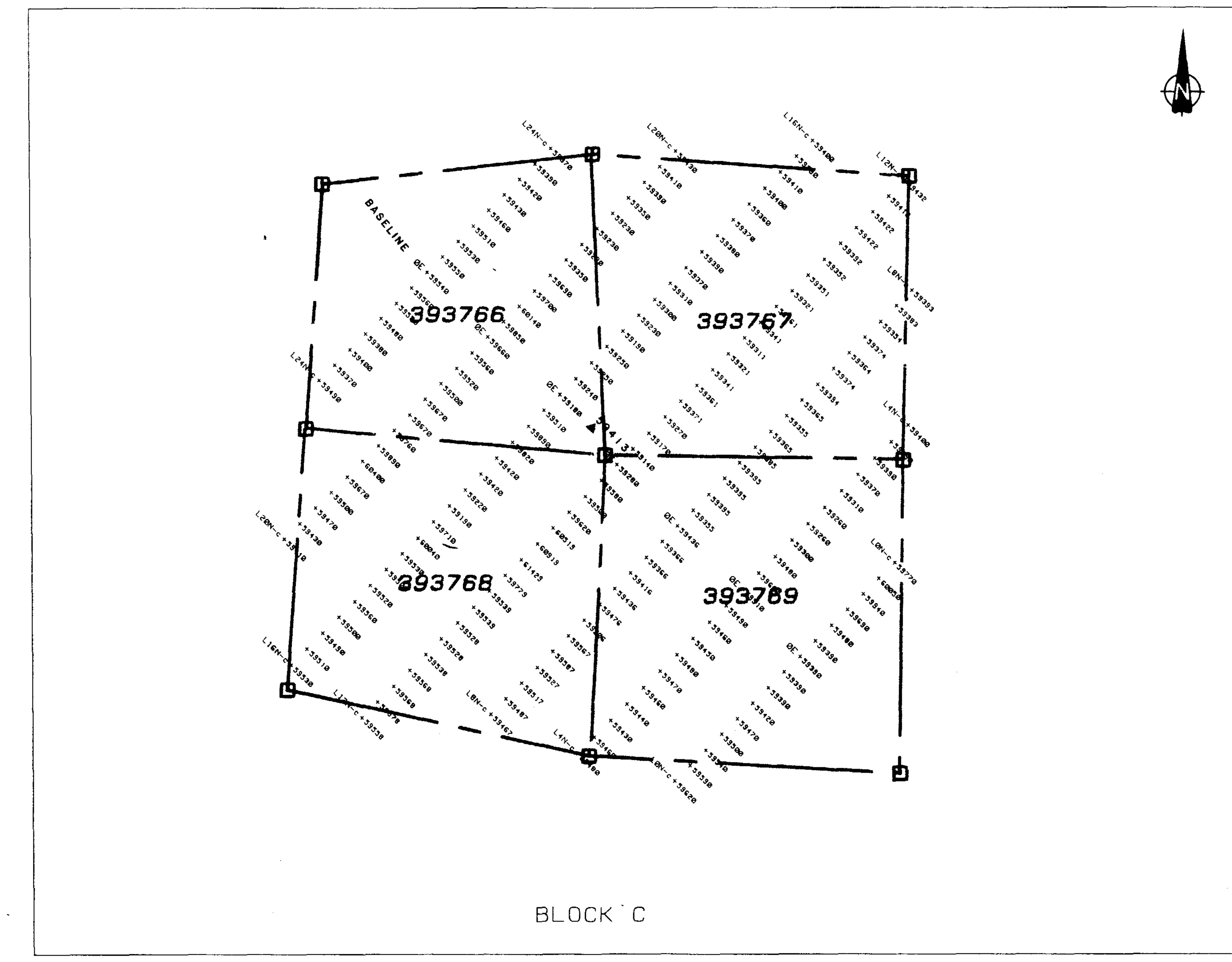
0 400 800 1200

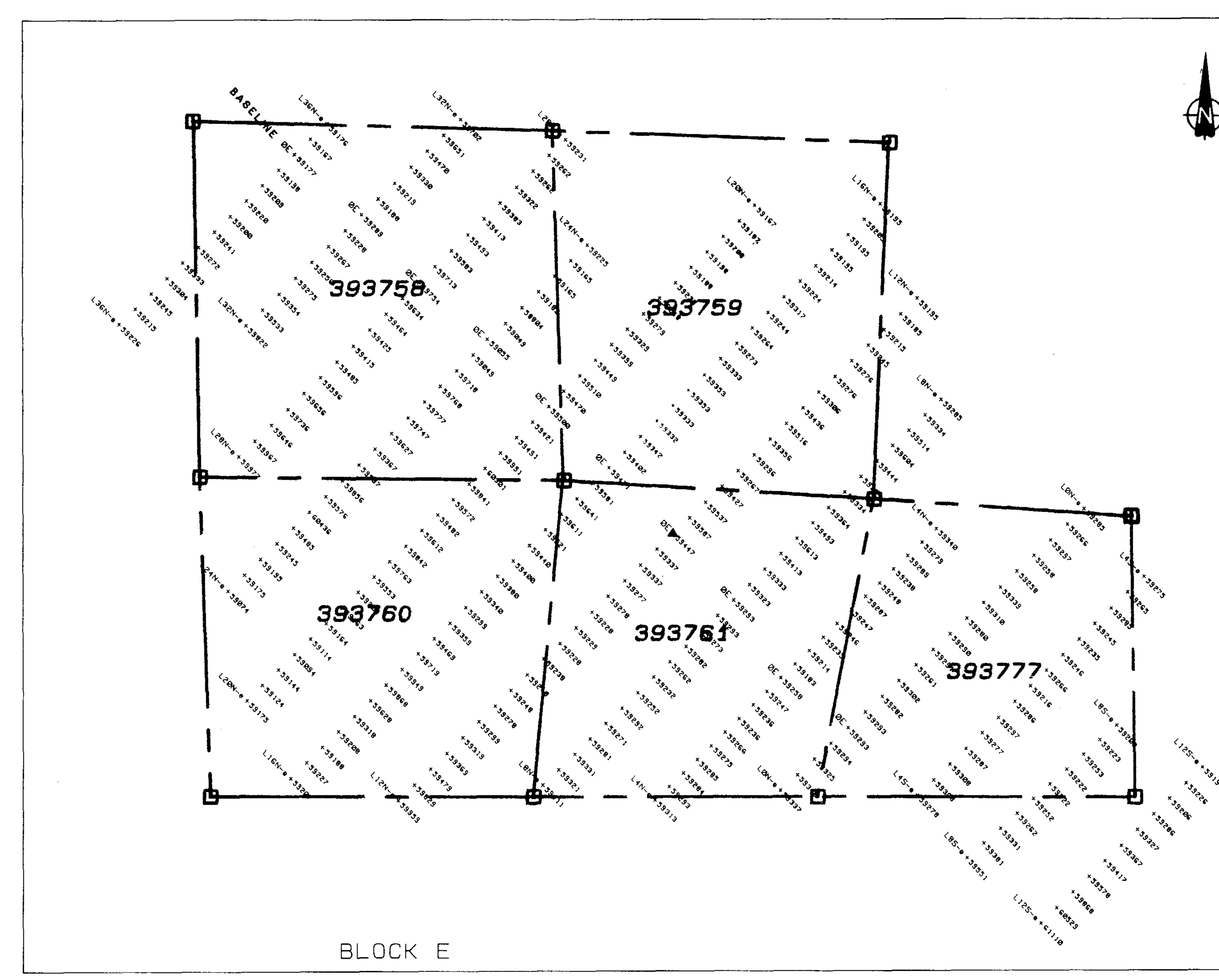
Ft

W A Mitchell

250







▲: MAG BASE STATION

UTAH MINES LIMITED
EXPLORATION DEPARTMENT
Toronto,Ont,Canada

MIKWAM MAGNETOMETER SURVEY

Blocks B C and E

Values in Gammas

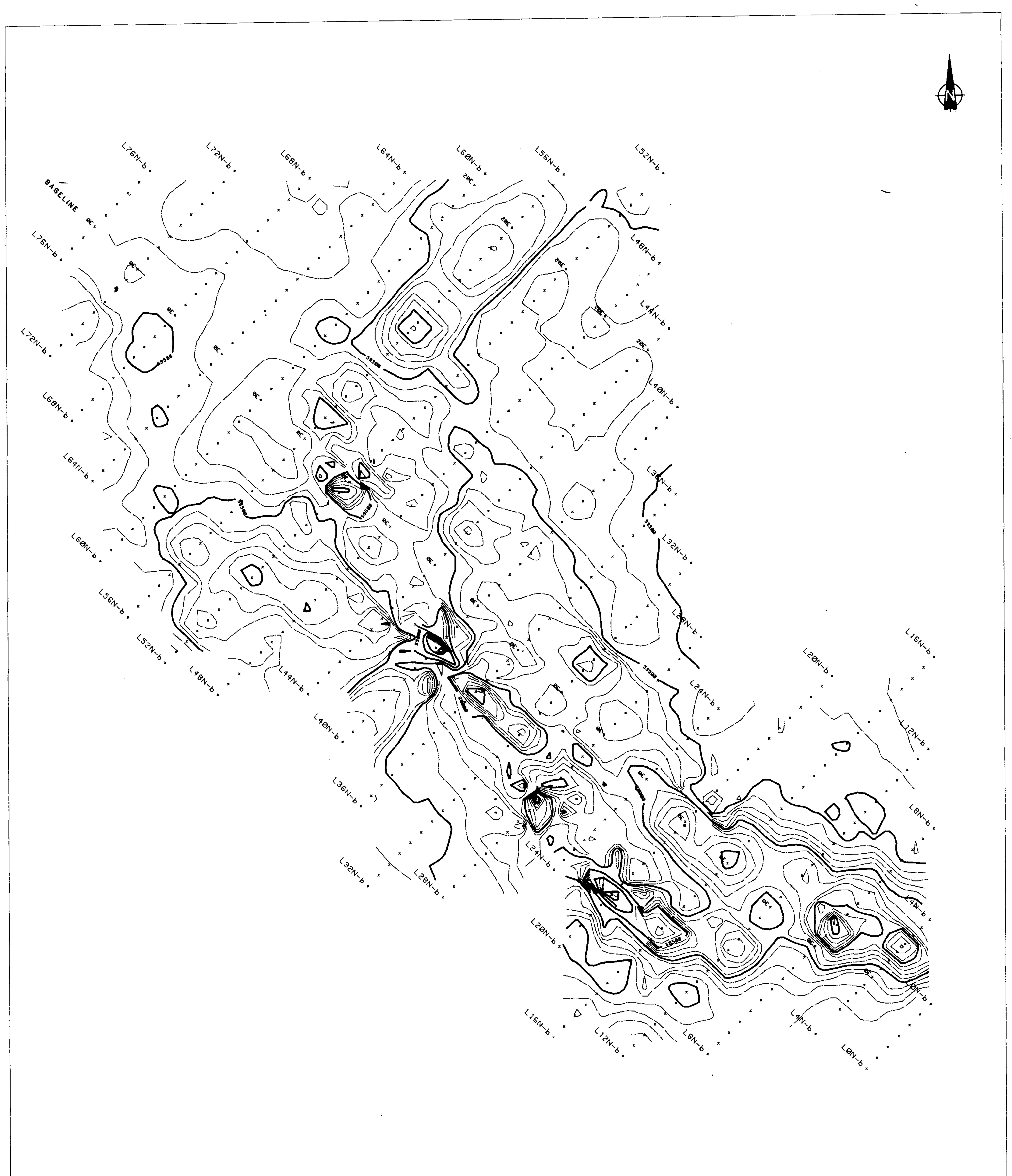
Contour Interval=100 Gammas

Date	Drawn	Checked	Revised	NTS	File	Map

0 400 800 1200
Ft.

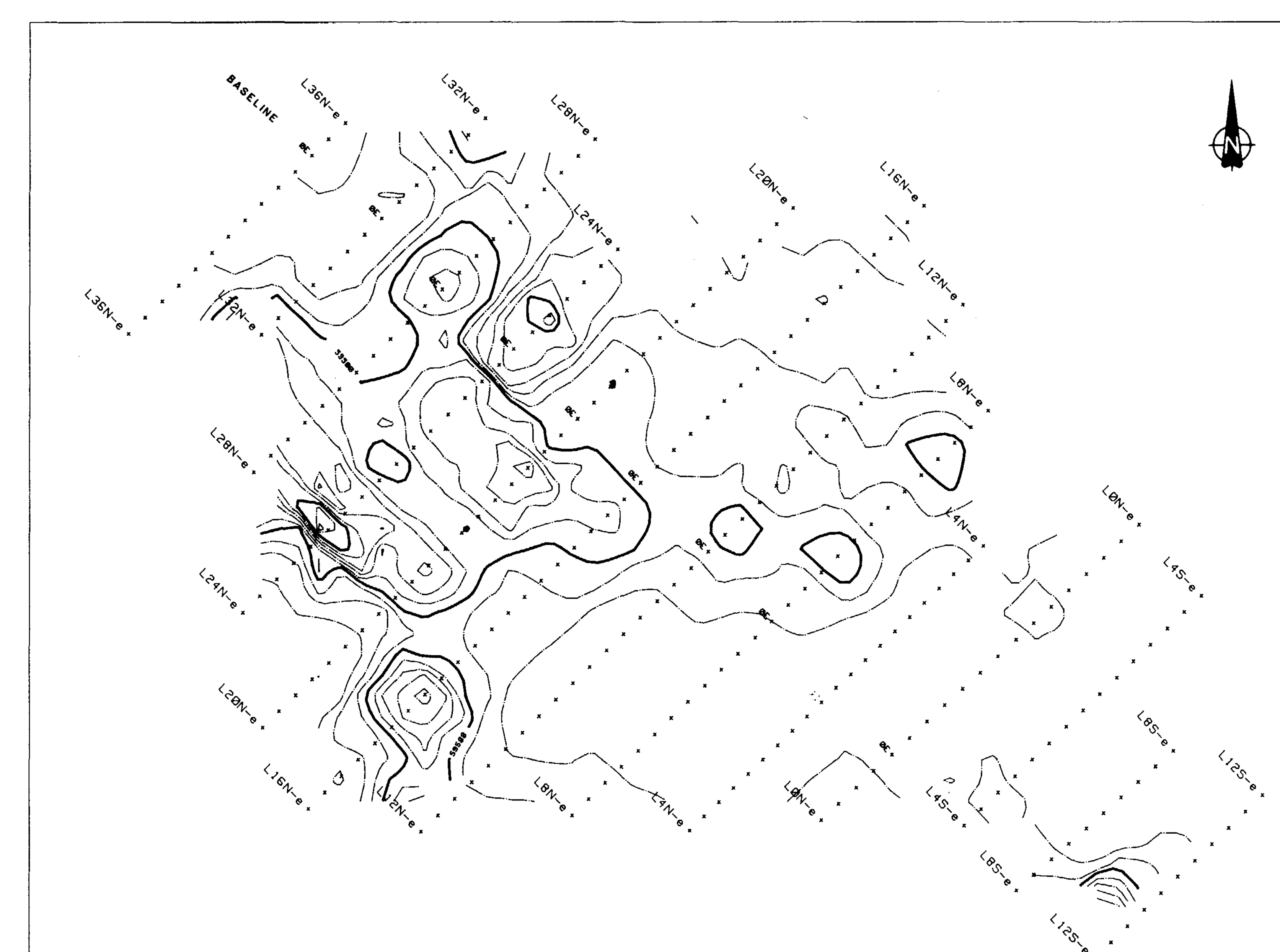
260

42H09SE0026 2.4963 BLAKELOCK



BLOCK B

BLOCK C



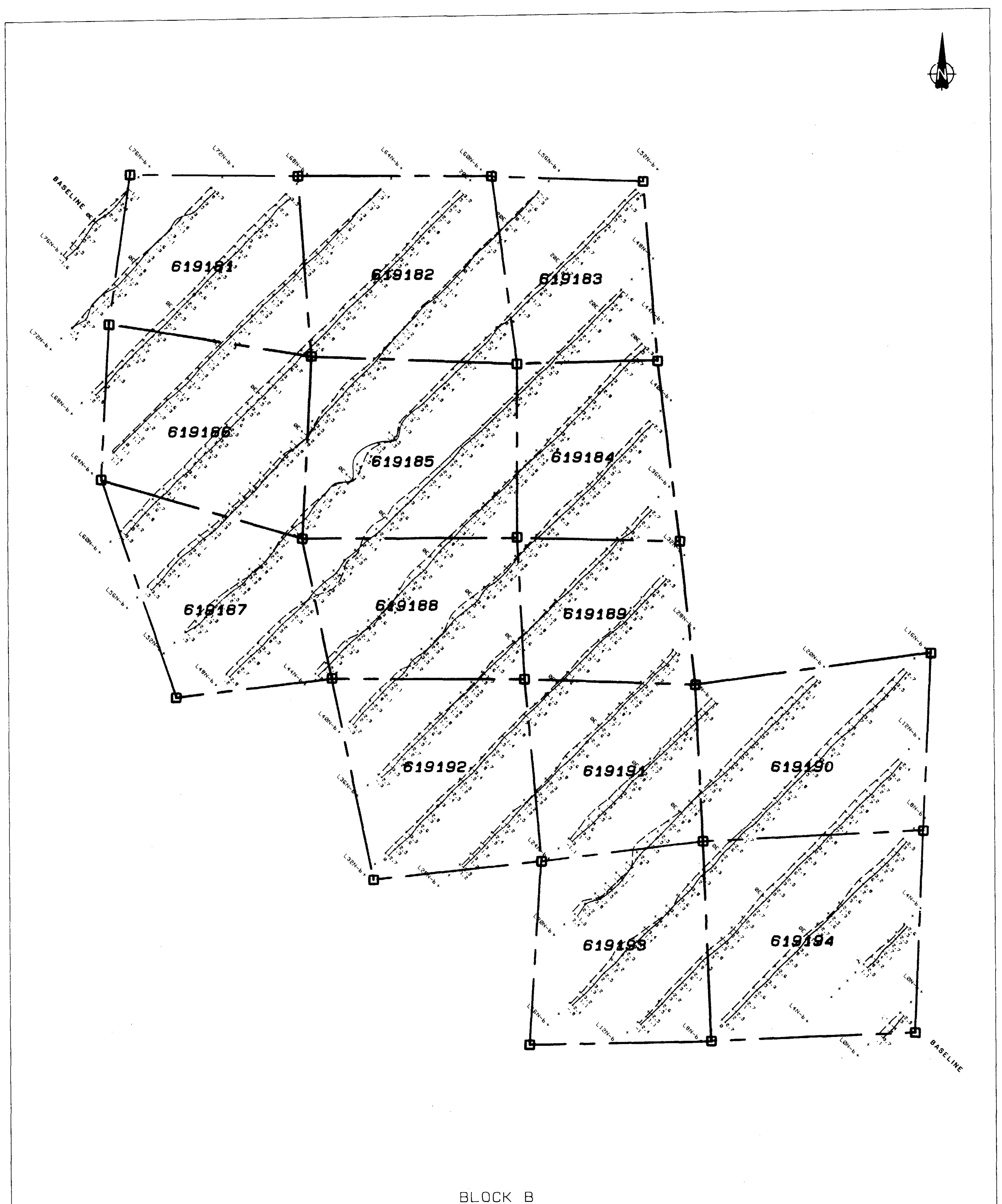
BLOCK E

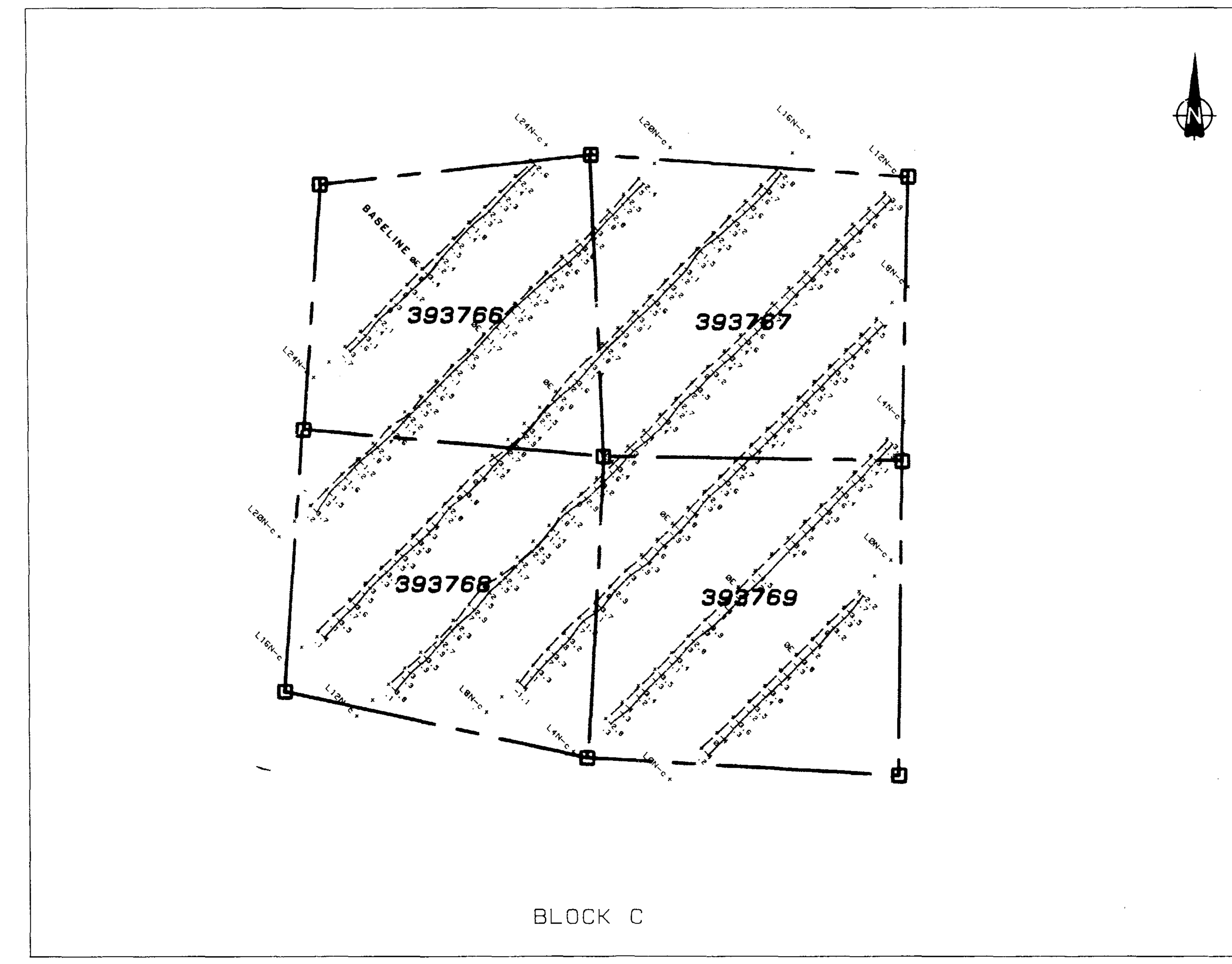
UTAH MINES LIMITED
EXPLORATION DEPARTMENT
Toronto,Ont,Canada

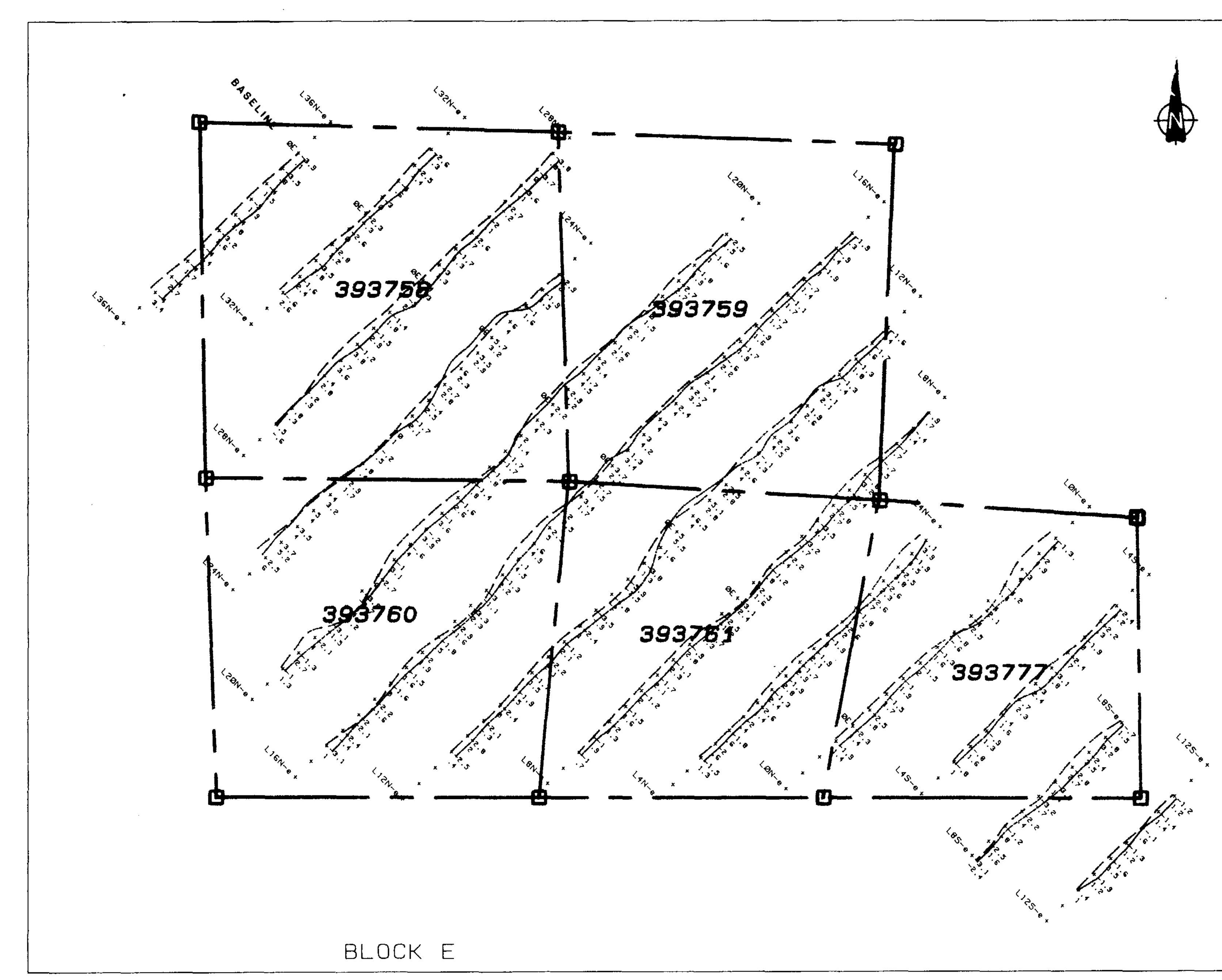
MIKWAM MAGNETOMETER SURVEY
Blocks B C and E
Total Field Contours
Contour Interval = 100 Gammas

Date	Drawn	Checked	Revised	NTS	File	Map

270







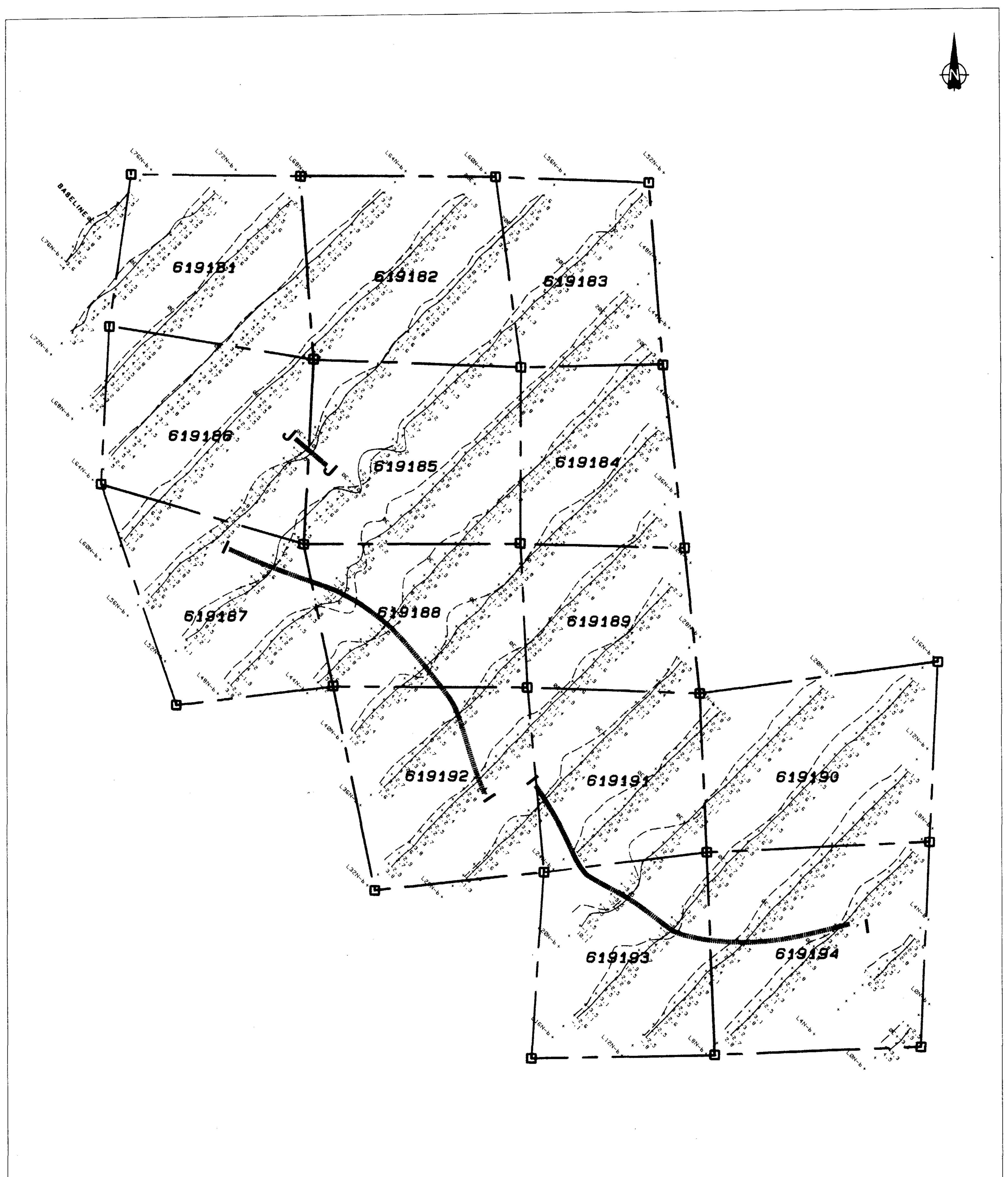
UTAH MINES LIMITED
EXPLORATION DEPARTMENT
Toronto, Ont, Canada

MIKWAM MAXMIN II at 444 Hz
Blocks B C and E
400' Coil Spacing
In-phase (solid) at 40 % per inch
Out-of-phase (Dashed) at 40 % per inch
Negative Profiled Towards Southeast
Values in %

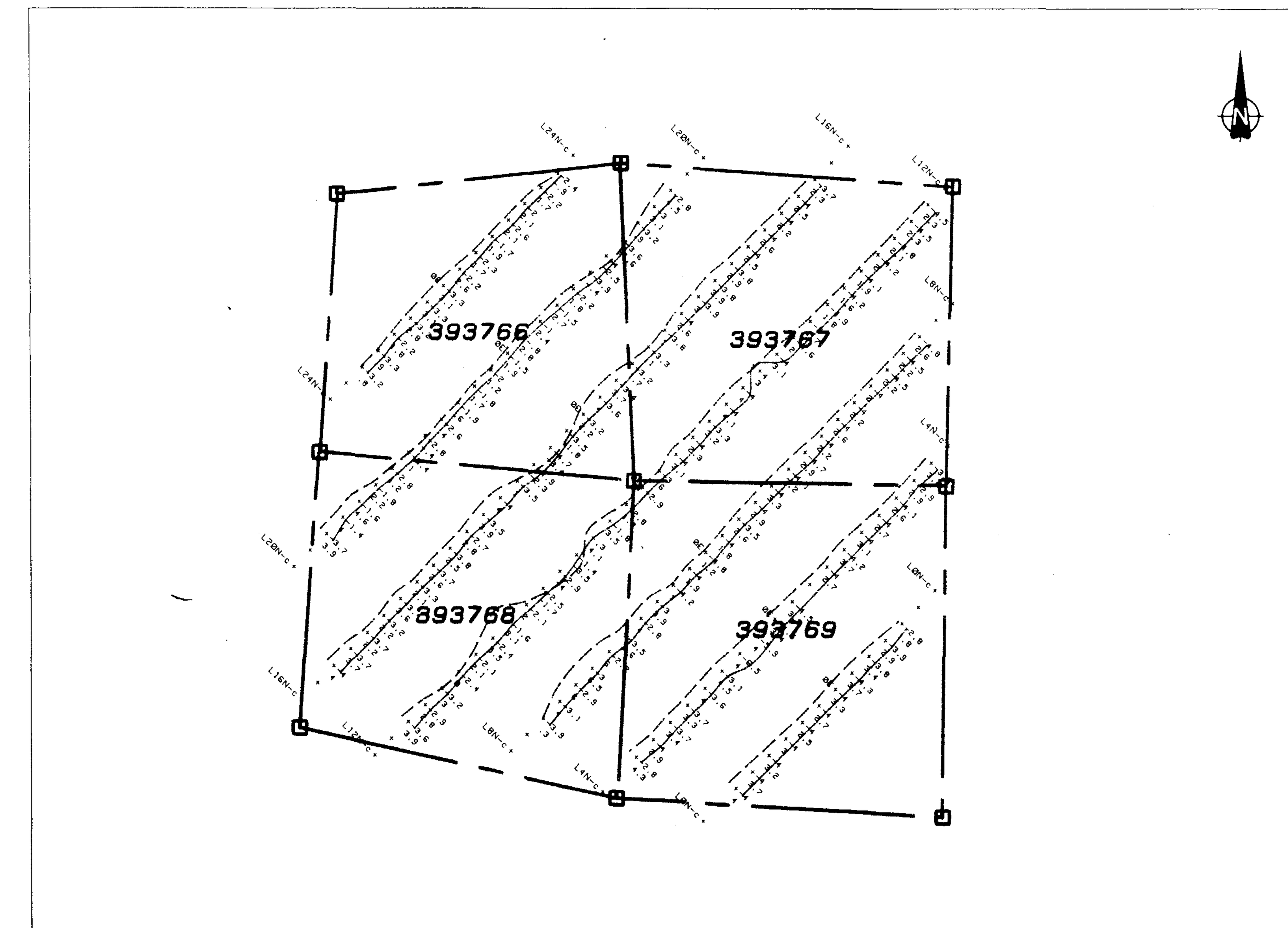
Date	Drawn	Checked	Revised	NTS	File	Map

0 400 800 1200
Ft

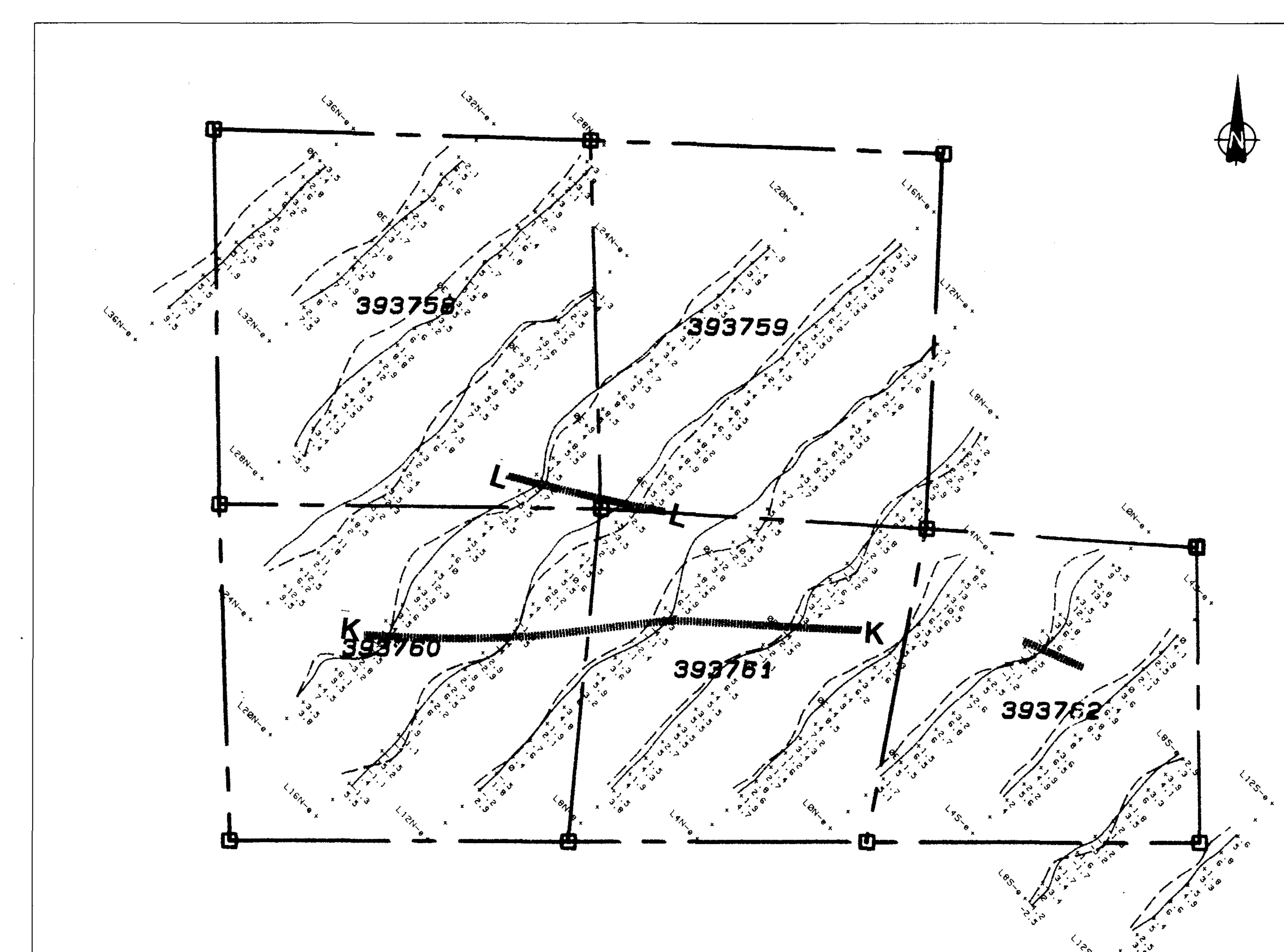
280



BLOCK B



BLOCK C



BLOCK E

UTAH MINES LIMITED
EXPLORATION DEPARTMENT
Toronto,Ont,Canada

MIKWAM MAXMIN II at 1777Hz

Blocks B C and E
400' Coil Spacing

In-phase (solid) at 40 % per Inch
Out-of-phase(dashed)at 40 % per Inch
Negative Profiled Towards Southeast
Values in %

Date	Drawn	Checked	Revised	NTS	File	Map

0 400 800 1200
Ft

GP Mitchell