



42A03NE0008 2 16304 GEIKIE

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GEOPHYSICAL REPORT
ON THE
BARTLETT TOWNSHIP PROPERTY
NORTH EXTENSION
FOR
OUTOKUMPU MINES

2.16304

Submitted by: S.D. Anderson *Anal # 2.12306*
Rayan Exploration Ltd.
October, 1995



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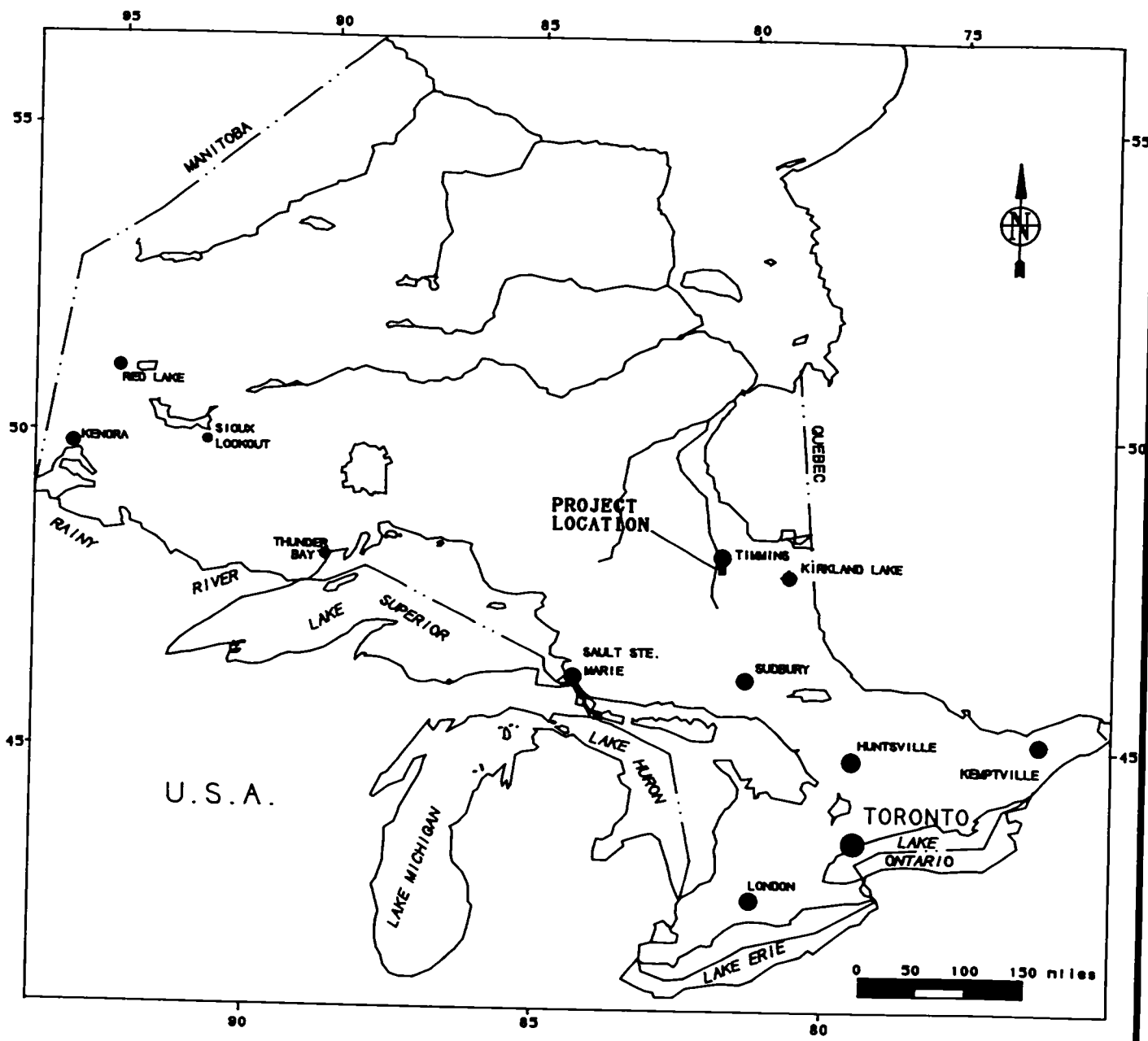
INTRODUCTION

Rayan Exploration Limited was hired by Outokumpu Mines Limited to extend their Bartlett Township grid to the north, and continue the geophysical coverage over the new grid. This work was done on a contract basis, and was carried out during the months of August and September, 1995. The property is located in Bartlett Township, Porcupine Mining Division, District of Cochrane, Ontario.

The first stage of this work program involved linecutting, which extended the grid northward to cover the new claim block. This was then followed by complete coverage with a Total Field Magnetometer and HLEM survey.

The purpose of this program was to outline any geophysical responses that might indicate areas favourable for base metal deposition.

This report will deal with the parameters used for each of the surveys conducted, as well as the results obtained and interpretation of the results.



PROVINCE OF ONTARIO

FIG 1

OUTOKUMPU MINES LTD.	
BARTLETT TWP (NORTHERN EXTENSION) PROPERTY	
LOCATION MAP	
Date: SEPT/95	Scale: 1" = 150 mi N.T.S.: 42A/W
Drawn: R.M.	Approved: R.M. File: 100

LOCATION AND ACCESS

The Bartlett Township Property is located in Bartlett Township, District of Cochrane, Porcupine Mining Division. It is situated approximately 35km. south of the city of Timmins, Ontario. The claim block occurs within the southeast of the township. The Redstone River runs roughly north-south through the middle of the claim group and a hydro line cuts through the extreme southwest corner of the block.

The property was accessed by travelling down Pine Street south from the city of Timmins for approximately 35km. Just south of Scott Lakes a bush road heads west from Pine Street to the Redstone River. This road provides access to the western portion of the grid as well as to the Redstone River. Here a canoe was used to cross the river and the eastern part of the property was accessed from this point.

PERSONNEL

The people directly involved in this program were all employed by Rayan Exploration Limited, and are as follows:

Wayne Pearson.....Timmins
Lanny Anderson.....Timmins
Aurel Chamont.....Timmins

All work was supervised by R.J. Meikle.

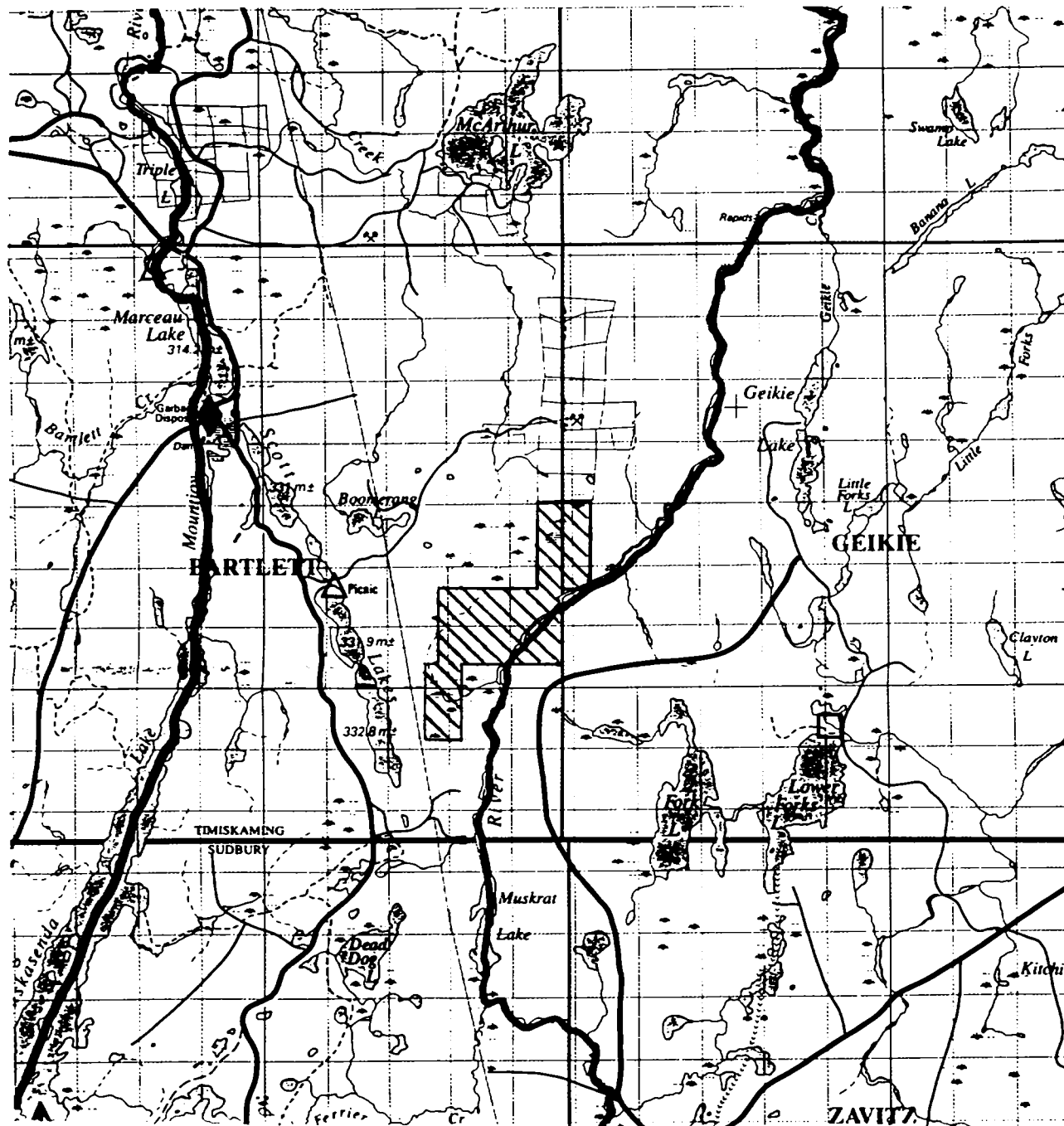


FIG 2

Client: **OUTOKUMPU MINES LIMITED**

Property: **BARTLETT NORTHERN EXTENSION**

Title:

REGIONAL LOCATION MAP

Scale: SDA	Project: R.M.
Date: SEPT/95	Property: BARTLETT
Location: ONT	Area: 42A/SW
Scale: 1:100000	Project: SDA



RAYAN
EXPLORATION LTD

CLAIMS

The Bartlett Township (North Extension) Property consists of 5 contiguous unpatented mining claims (26 units) recorded in Bartlett and Geikie Townships, Porcupine Mining Division. The claim numbers which make up the north extension of the Bartlett Township Property are listed below.

<u>CLAIM #</u>	<u># OF UNITS</u>
1207526	6
1207527	10
1207528	8
1207529	1
1207530	1

Outokumpu Mine Limited currently holds a 100% interest in the claims listed above.

PREVIOUS WORK

The following is a brief outline of the work previously conducted, that covered, or partially covered, the Bartlett Township Property.

- 1952 DOMINION GULF COMPANY
 - Magnetometer survey
- 1957 QUEENSTON GOLD MINES
 - 5 DDH hole consisting of 2411 ft.
- 1965 CONIGO MINES LIMITED
 - Magnetometer and HLEM survey
 - DDH program, 12 holes
- 1965 TEXMONT MINES LIMITED
 - Magnetometer and EM survey
 - DDH program, 5 holes
- 1990 TIMMINS NICKEL INC.
 - Airborne Magnetometer and VLF survey

WORK PROGRAM

The work program carried out took the form of linecutting, then geophysical coverage with Magnetometer and HLEM surveys. The original grid to the south was extended northward to cover the new claim block. The parameters used to establish the original grid, were also used for the new grid. The entire northern extension property was covered which resulted in a total of 53km of grid line. This was then covered with Magnetometer and HLEM Surveys. This data was levelled and tied into the main grid, which was surveyed originally. A brief description of the instruments, as well as the parameters used for both the surveys will follow.

MAGNETOMETER THEORY

An EDA Omni Plus Proton Precession magnetometer was used to carry out the magnetometer survey. The instrument is synchronized with an EDA recording base station to help eliminate magnetic diurnal variation. This should ensure an accuracy of less than 10 Nt.

The Proton Precession method involves energizing a wire coil immersed in a hydrocarbon fluid. This causes the protons in the proton rich fluid to spin or precess simulating spinning magnetic dipoles. When the current is removed the protons precess about the direction of the earth's magnetic field, generating a signal in the same coil which is proportional to the total magnetic field intensity. In this way, the horizontal gradient of the earth's magnetic field can be measured and plotted in plan form

with values of equal intensity joined to form a contour map.

This presentation is useful in correlating with other data sets to aid in structural interpretation. Individual magnetic responses can be interpreted for dip, depth and width estimates after profiling the data.

The following parameters were employed for the survey:

Instrument - EDA Omni Plus Proton Precession Magnetometer
 Station Interval - 10m
 Line Interval - 100m
 Diurnal Correction Method - EDA Recording Base Station
 Data Presentation - Magnetic Contours Map
 - Magnetic Data Posting Map
 - 1:5000 scale

HORIZONTAL LOOP EM SURVEY

The Horizontal Loop EM survey was carried out with an Apex Max-Min II instrument. These surveys are commonly called "Max-Min" surveys in recent times.

The Max-Min II instrument can operate at five frequencies (3555HZ, 1777HZ, 888HZ, 444HZ, 222HZ)., and is capable of coil separations from 25 meters to 200 meters. Although it can be used in the vertical loop mode as well as minimum coupled, it is most often used in the Maximum Coupled, Co-Planer mode which is in effect a Horizontal Loop Electromagnetic Survey.

The instrument records the "In-Phase" and "Out-of-Phase" components of the anomalous resultant field from a conductor as a percentage of the primary field strength. Both components are used in the interpretation of the results. Generally, the larger the ratio of peak negative responses between In-Phase and Out-of-Phase, the higher the conductivity of the anomaly. A ratio of

1:1 is considered a medium conductor.

The purpose of reading more than one frequency is to obtain more information about the conductor itself as well as the conductivity of the overburden etc. The higher frequencies will respond to weaker conductive features such as faults, conductive overburden etc. As a result the signal from these frequencies can attenuate very quickly, possibly not penetrating to the bedrock at all. The lower frequencies having a longer wavelength tend to penetrate deeper and generally only respond to anomalies with a higher order of conductance,. Thus as with most geophysical techniques it is a trade off as to depth of penetration vs. conductance threshold detectable. The use of multi frequency surveys helps to alleviate this problem at a minimal extra cost.

The Max-Min survey was carried out using an Apex Max-Min II instrument reading 1777HZ and 444HZ with a constant coil spacing of 160 meters. The Maximum Coupled mode was employed with the coils co-planer. A reading interval of 20 meters was used. Because of the very flat surface topography, no slope or topographic corrections were necessary. The entire survey was read with unit serial no. 1057 with twice daily phase mix testing to ensure that the data would be consistent across the surveyed area.

A plan scale of 1:5000 was chosen with a profile scale of 1cm = 10% for 444Hz., and 1cm = 20% for 1777Hz. was used. The results are presented on maps in the back of this report.

SURVEY RESULTS

The work program conducted on the Northern Extension of the Bartlett Township Property was successful in outlining a number of geophysical responses that might be of interest. This includes magnetic features as well as HLEM conductors. The HLEM conductor axis have been marked and labelled zones A through E. All areas of interest will be discussed individually and in further detail below.

Zone A: - L55N/180W, open to the north
- depth to source of 20-30 meters
- conductivity of 8-30 mhos
- coincident magnetic high
- north flanking, 12 channel AEM conductors

Zone B: - L52N/340W, not completely covered.
- coincident magnetic high.
- north and south flanking 6 channel AEM conductors

Zone C: - L55N/270E to L50N/230E
- primarily quadrature response.
- no significant magnetic correlation

Zone D: - L26N to L27N at 1300W, open to the south.
- depth to source of 80-85 meters
- conductivity of 15-35 mhos
- east and west flanking magnetic highs.
- coincident with 4 channel AEM conductor.

Zone E: - L17N to L18N at 1540W, open to the south.
- coincident with magnetic high.
- coincident with 8 channel AEM conductor.

RECOMMENDATIONS AND CONCLUSIONS

The geophysical program conducted on the north extension of the Bartlett Property was successful in outlining five conductive zones. Zones D and E are likely strike extensions of conductors previously outlined to the south, by the original work program. All would appear to be legitimate bedrock responses, and should be further tested in order to help determine a possible source.

The strong magnetics associated with some the zones are likely due to iron formation.

One of the first additional work programs that should be considered would be geological mapping of the grid. If any of the conductors are located within areas of outcropping, the source of the conductor might be resolved.

The data obtained from this work program should be tied into the original survey to the south, and compiled with any other geological or geophysical data available on the area. This should help in establishing a priority list for the zones described in this report, or possibly even resolve some of them enough to test with a diamond drill program.

If it is felt that additional geophysical coverage is needed to help resolve any of the zones, a Deep-EM survey might be considered. This would provide greater depth penetration, and additional information as to the strike and dip of the conductor.

CERTIFICATION

I, Steve Anderson of Timmins, Ontario hereby certify that:

1. I hold a three year Technologist Diploma from Sir Sandford College , Lindsay, Ontario, obtained in May 1981.
2. I have been practising my profession since 1979 in Ontario, Quebec, Nova Scotia, New Brunswick, Newfoundland, NWT, Manitoba, and Saskatchewan.
3. I have been employed directly with Asamera Oil Inc. Urangesellschaft Canada Ltd.. Nanisivik Mines Ltd., R.S. Middleton Exploration Services Ltd., and Rayan Exploration Ltd.
4. I have based conclusions and recommendations contained in this report on knowledge of the area, my previous experience and on the results of the field work conducted on the property during 1995.

Dated this 14th day of October, 1995
at Timmins, Ontario.



APPENDIX 'A'

OMNI PLUS VLF/Magnetometer System



Major Benefits of the OMNI PLUS

- Combined VLF/Magnetometer/Gradiometer System
 - No Orientation Required
 - Three VLF Magnetic Parameters Recorded
 - Automatic Calculation of Fraser Filter
 - Calculation of Ellipticity
 - Automatic Correction of Primary Field Variations
 - Measurement of VLF Electric Field
-

Specifications*

Frequency Tuning Range	15 to 30 kHz, with bandwidth of 150 Hz; tuning range accommodates new Puerto Rico station at 28.5 kHz
Transmitting Stations Measured	Up to 3 stations can be automatically measured at any given grid location within frequency tuning range
Recorded VLF Magnetic Parameters	Total field strength, total dip, vertical quadrature (or alternately, horizontal amplitude)
Standard Memory Capacity	800 combined VLF magnetic and VLF electric measurements as well as gradiometer and magnetometer readings
Display	Custom designed, ruggedized liquid crystal display with built-in heater and an operating temperature range from -40°C to $+55^{\circ}\text{C}$. The display contains six numeric digits, decimal point, battery status monitor, signal strength status monitor and function descriptors.
RS232C Serial I/O Interface	2400 baud rate, 8 data bits, 2 stop bits, no parity
Test Mode	A. Diagnostic Testing (data and programmable memory) B. Self Test (hardware)
Sensor Head	Contains 3 orthogonally mounted coils with automatic tilt compensation
Operating Environmental Range	-40°C to $+55^{\circ}\text{C}$; 0 - 100% relative humidity; Weatherproof
Power Supply	Non-magnetic rechargeable sealed lead-acid 18V DC battery cartridge or belt; 18V DC disposable battery belt; 12V DC external power source for base station operation only.
Weights and Dimensions	
Instrument Console	2.8 kg, 128 x 150 x 250 mm
Sensor Head	2.1 kg, 130 dia. x 130 mm
VLF Electronics Module	1.1 kg, 40 x 150 x 250 mm
Lead Acid Battery Cartridge	1.8 kg, 235 x 105 x 90 mm
Lead Acid Battery Belt	1.8 kg, 540 x 100 x 40 mm
Disposable Battery Belt	1.2 kg, 540 x 100 x 40 mm

*Preliminary

EDA Instruments Inc.,
4 Thorncliffe Park Drive,
Toronto, Ontario
Canada M4H 1H1
Telex: 06 23222 EDA TOR,
Cables: Instruments Toronto
(416) 425-7800

In USA,
EDA Instruments Inc.,
5151 Ward Road,
Wheat Ridge, Colorado
U.S.A. 80033
(303) 422-9112

Printed in Canada

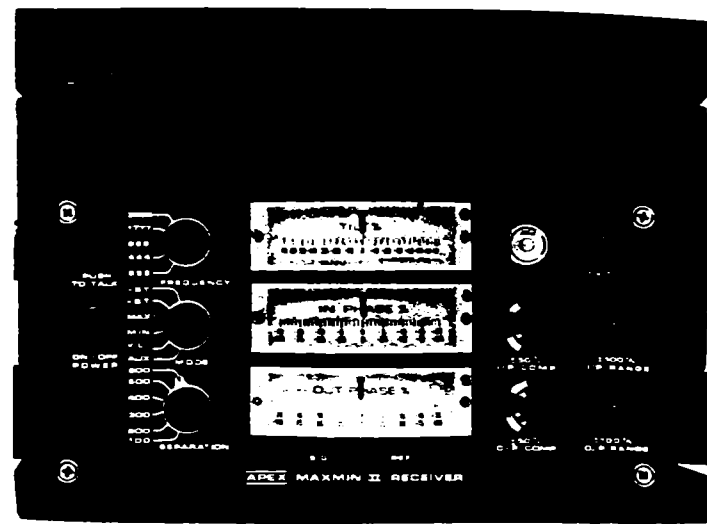
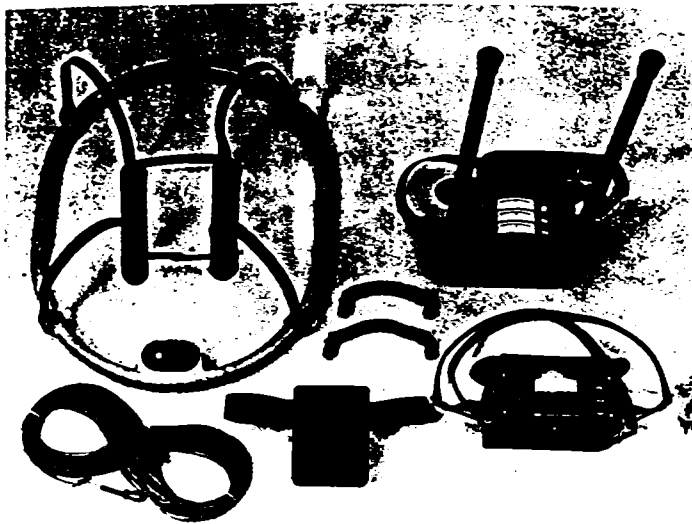
APPENDIX "B"

APEX MAXMIN II PORTABLE EM

- Five frequencies: 222, 444, 888, 1777 and 3555 Hz.
- Maximum coupled (horizontal-loop) operation with reference cable.
- Minimum coupled operation with reference cable.
- Vertical-loop operation without reference cable.
- Coil separations: 25, 50, 100, 150, 200 and 250 m (with cable) or 100, 200, 300, 400, 600 and 800 ft.
- Reliable data from depths of up to 180m (600 ft).
- Built-in voice communication circuitry with cable.
- Tilt meters to control coil orientation.

NOW ALSO ±4%
QUADRATURE
FULL SCALE.





SPECIFICATIONS :

Frequencies: 222, 444, 888, 1777 and 3555 Hz.

Modes of Operation: MAX: Transmitter coil plane and receiver coil plane horizontal (Max-coupled; Horizontal-loop mode). Used with refer. cable.

MIN: Transmitter coil plane horizontal and receiver coil plane vertical (Min-coupled mode). Used with reference cable.

V.L. : Transmitter coil plane vertical and receiver coil plane horizontal (Vertical-loop mode). Used without reference cable, in parallel lines.

Coil Separations: 25, 50, 100, 150, 200 & 250m (MMII) or 100, 200, 300, 400, 600 and 800 ft. (MMIIF). Coil separations in V.L. mode not restricted to fixed values.

Parameters Read: - In-Phase and Quadrature components of the secondary field in MAX and MIN modes.
- Tilt-angle of the total field in V.L. mode.

Readouts: - Automatic, direct readout on 90mm (3.5") edgewise meters in MAX and MIN modes. No nulling or compensation necessary.
- Tilt angle and null in 90mm edgewise meters in V.L. mode.

Scale Ranges: In-Phase: $\pm 20\%$, $\pm 100\%$ by push-button switch.
Quadrature: $\pm 20\%$, $\pm 100\%$ by push-button switch.
Tilt: $\pm 75\%$ slope.
Null (V.L.): Sensitivity adjustable by separation switch.

Readability: In-Phase and Quadrature: 0.25 % to 0.5 % ; Tilt: 1%.

Repeatability: $\pm 0.25\%$ to $\pm 1\%$ normally, depending on conditions, frequencies and coil separation used.

Transmitter Output: - 222Hz : 220 Atm²
- 444Hz : 200 Atm²
- 888Hz : 120 Atm²
- 1777Hz : 60 Atm²
- 3555Hz : 30 Atm²

Receiver Batteries: 9V trans. radio type batteries (4). Life: approx. 35hrs. continuous duty (alkaline, 0.5 Ah), less in cold weather.

Transmitter Batteries: 12V 6Ah Gel-type rechargeable battery. (Charger supplied).

Reference Cable: Light weight 2-conductor teflon cable for minimum friction. Unshielded. All reference cables optional at extra cost. Please specify.

Voice Link: Built-in intercom system for voice communication between receiver and transmitter operators in MAX and MIN modes, via reference cable.

Indicator Lights: Built-in signal and reference warning lights to indicate erroneous readings.

Temperature Range: -40°C to +60°C (-40°F to +140°F).

Receiver Weight: 6kg (13 lbs.)

Transmitter Weight: 13kg (29 lbs.)

Shipping Weight: Typically 60kg (135 lbs.), depending on quantities of reference cable and batteries included. Shipped in two field/shipping cases.

Specifications subject to change without notification.

APEX PARAMETRICS LIMITED
200 STEELCASE RD. E., MARKHAM, ONT., CANADA, L3R 1G2

Phone: (416) 495-1612

Cables: APEXPARA TORONTO

Telex: **NOTE OUR NEW TELEX NUMBER:**
06-966775 APEXPARA MKHM

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 870-7284.

2.16304

- Instructions:
- Please type or print and submit in duplicate.
 - Refer to the Mining Act and Regulations Recorder.
 - A separate copy of this form must be cc
 - Technical reports and maps must accom
 - A sketch, showing the claims the work is



900

Recorded Holder(s) <i>Outokumpu Mines Ltd.</i>		Client No. <i>178525</i>
Address <i>P.O. Box 1123, Suite 30a, 637 Algonquin Blvd. E.</i>		Telephone No. <i>(705) 264-5024</i>
Mining Division <i>Porcupine</i>	Township/Area <i>Bartlett and Geikie Townships</i>	M or G Plan No. <i>M-262, M-320</i>
Dates Work Performed From: <i>August 15, 1995</i>		To: <i>September 30, 1995</i>

Work Performed (Check One Work Group Only)

Work Group	Type
<input checked="" type="checkbox"/> Geotechnical Survey	<i>Line Cutting, Magnetic Survey, Max-Min Survey</i>
<input type="checkbox"/> Physical Work, Including Drilling	
<input type="checkbox"/> Rehabilitation	
<input type="checkbox"/> Other Authorized Work	
<input type="checkbox"/> Assays	
<input type="checkbox"/> Assignment from Reserve	

RECEIVED

DEC 15 1995

MINING LANDS BRANCH

Total Assessment Work Claimed on the Attached Statement of Costs \$ 24 910⁰⁰

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
<i>S.D. Anderson Rayon Exploration Ltd.</i>	<i>676 Murray Street, Timmins, Ontario, P4N 7B2</i>

(attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date <i>Oct 10, 1995</i>	Recorded Holder or Agent (Signature) <i>Paul</i>
--	-----------------------------	---

Certification of Work Report

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

Name and Address of Person Certifying
Paul Davis, Outokumpu Mines Ltd., P.O. Box 1123, Timmins, Ontario, P4N 7H9

Telephone No. <i>(705) 264-5024</i>	Date <i>October 10, 1995</i>	Certified By (Signature) <i>Paul</i>
--	---------------------------------	---

For Office Use Only

Total Value Cr. Recorded <i>24,910</i>	Date Recorded	Mining Recorder <i>undated Gary White</i>
	Deemed Approval Date <i>Jan 18/95</i>	Date Approved
	Date Notice for Amendments Sent	

RECEIVED
OCT, 20 1995
355 e Ok
PORCUPINE MINING DIVISION



WMS60 00413

2.16304

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute question sur la collecte de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4^e étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre		
	Field Supervision Supervision sur le terrain		
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert-conseil	Type		
	Line Logging, H&M, etc.	24,910 ⁰⁰	
			24,910 ⁰⁰
Supplies Used Fournitures utilisées	Type		
Equipment Rental Location de matériel	Type		
Total Direct Costs Total des coûts directs			24,910 ⁰⁰

2. Indirect Costs/Coûts indirects

** Note: When claiming Rehabilitation work Indirect costs are not allowable as assessment work. Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type		
Food and Lodging Nourriture et hébergement	DEC 15 1995		
Mobilization and Demobilization Mobilisation et démoblisation	MINING LANDS BRANCH		
Sub Total of Indirect Costs Total partiel des coûts indirects			
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)			
Total Value of Assessment Credit (Total of Direct and Allowable Indirect costs) Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)			

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note: Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

1. Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
	x 0.50 =

Remises pour dépôt

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Evaluation totale demandée
	x 0,50 =

Certification Verifying Statement of Costs

I hereby certify: that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as Project Geologist I am authorized
(Recorded Holder, Agent, Position in Company)

to make this certification

Attestation de l'état des coûts

J'atteste par la présente: que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de _____ je suis autorisé
(titulaire enregistré, représentant, poste occupé dans la compagnie)

à faire cette attestation.

Signature	Date
<u>Paul</u>	Oct 18, 1995

Note: Dans cette formule, lorsqu'il désigne des personnes, le masculin est utilisé au sens neutre.

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Geoscience Approvals Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (705) 670-5853
Fax: (705) 670-5863

January 10, 1996

Our File: 2.16304
Transaction #: W9560.00413

Mining Recorder
Ministry of Northern Development & Mines
60 Wilson Avenue, 1st Floor
Timmins, Ontario
P4N 2S7

Dear Mr. White:

**Subject: APPROVAL OF ASSESSMENT WORK CREDITS ON MINING CLAIMS
1207526 et al. IN BARTLETT AND GEIKIE TOWNSHIPS**

Assessment credits have been approved as outlined on the report of work form. The credits have been approved under Section 14 (Geophysical) of the Mining Act Regulations.

The approval date is January 04, 1996.

If you have any questions regarding this correspondence, please contact Steven Beneteau at (705) 670-5855.

Yours sincerely,
ORIGINAL SIGNED BY:



Ron C. Gashinski
Senior Manager, Mining Lands Section
Mining and Land Management Branch
Mines and Minerals Division

SBB SBB/jl
Enclosure:

cc: Resident Geologist
Timmins, Ontario

✓ Assessment Files Library
Sudbury, Ontario

052.M

GEIKIE TWP

Bartlett Twp. (M.262)

Cleaver Twp. (M.269)

Douglas Twp. (M.274)

Zavitz Twp. (M.1189)

THE TOWNSHIP OF











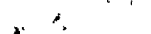

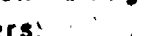

GEIKIE

DISTRICT OF TIMISKAMING

PORCUPINE MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

- PATENTED LAND 
- CROWN LAND SALE LEASES 
- LOCATED LAND 
- LICENSE OF OCCUPATION 
- MINING RIGHTS ONLY 
- SURFACE RIGHTS ONLY 
- 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:

F - THIS TWP. SUBJECT TO FORESTRY ACTIVITY IN 1994/95, 1995/96

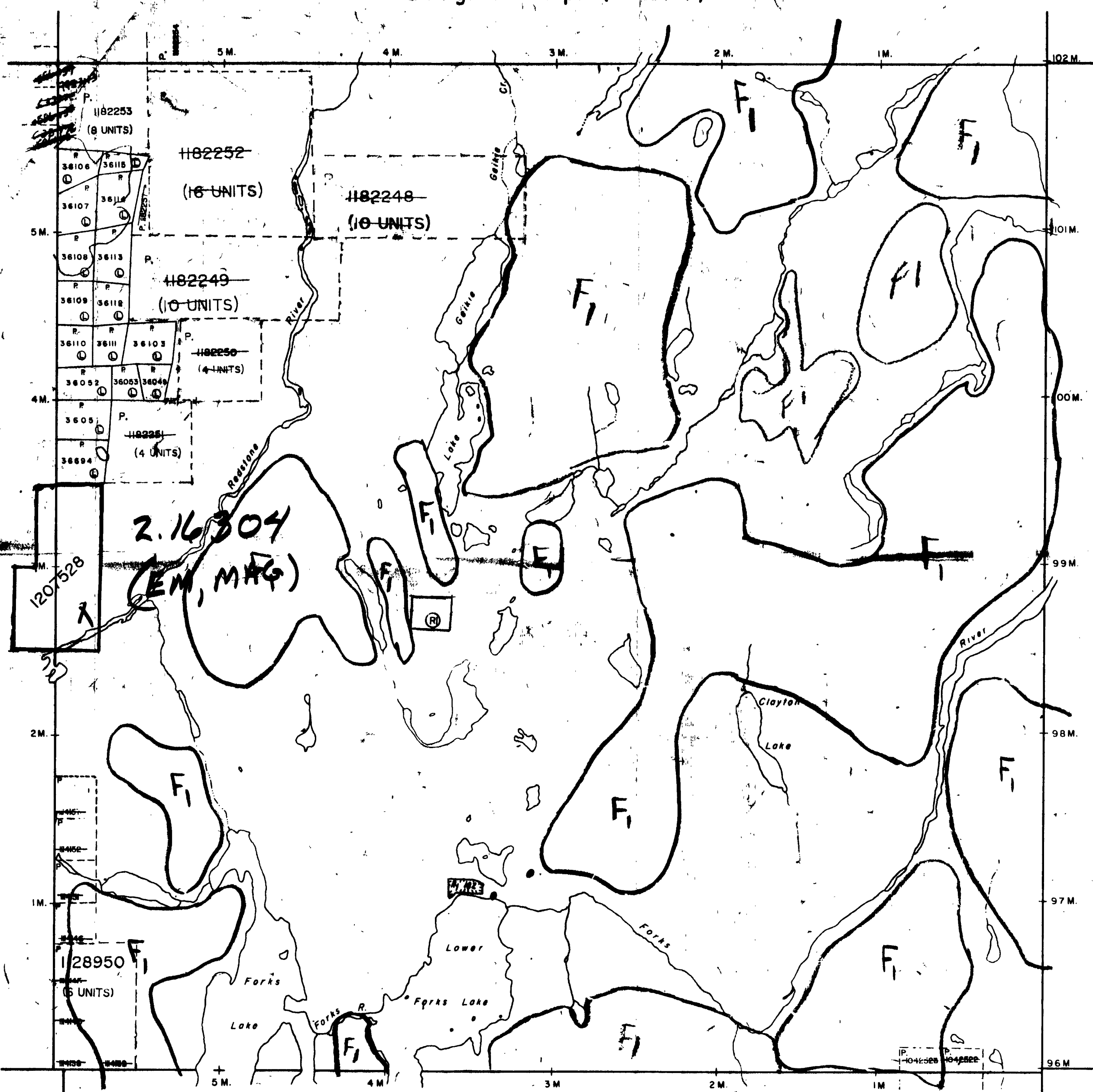
SURFACE AND MINING RIGHTS WITHDRAWN UNDER SECTION 38 OF THE MINING ACT R.S.O.1990 ORDER NO. W-P 46/94 DATED 94-MAY-02

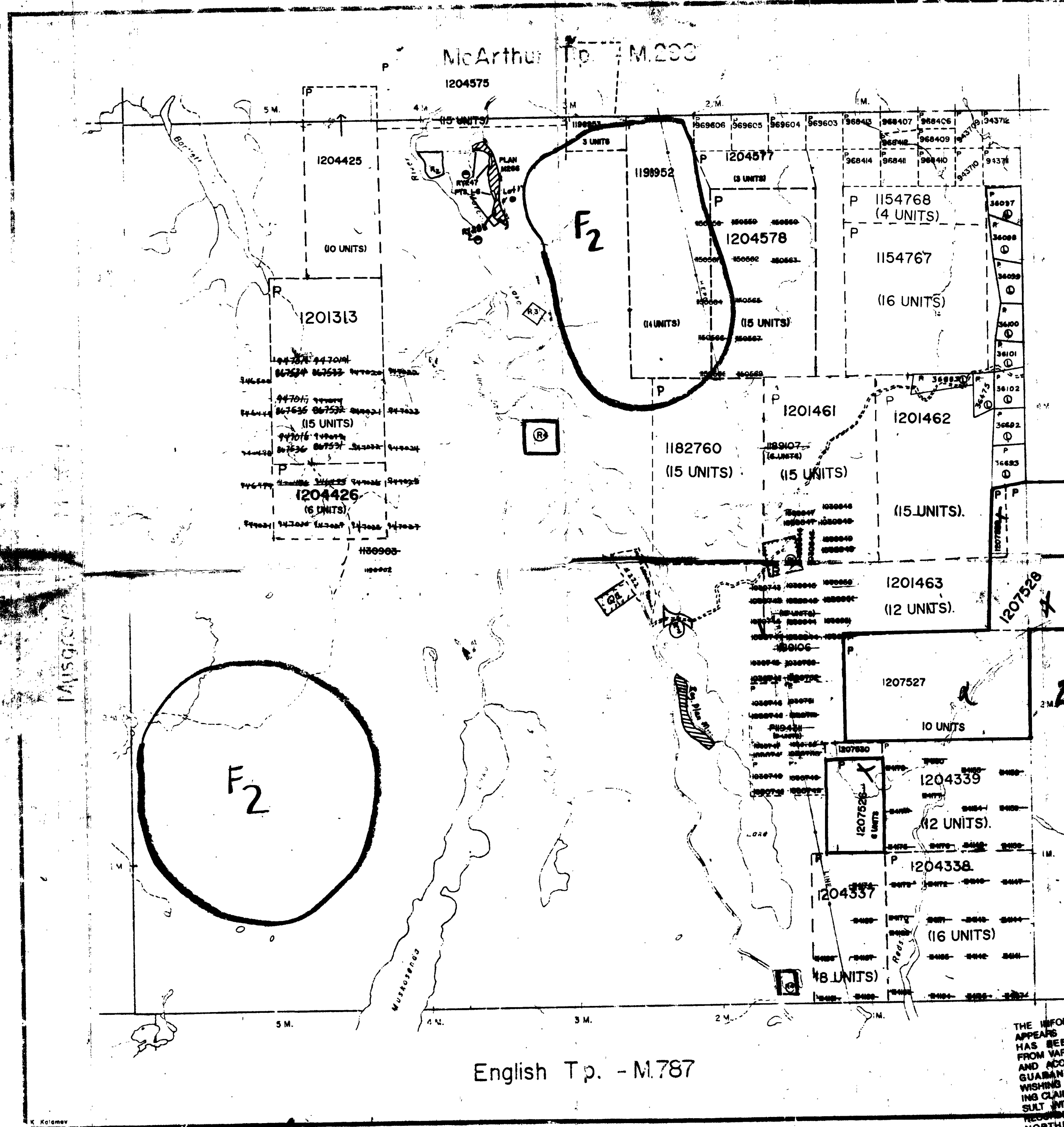
JAN 23 1995

PLAN NO. M-320

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

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





THE TOWNSHIP
OF
BARTLETT
DISTRICT OF
TIMISKAMING
MINING DIVISION
SCALE: 1 INCH = 40 CHAINS

LEGEND

- PATENTED LAND
- CROWN LAND SALE
- LEASES
- PROSPECTING RIGHTS ONLY
- SURFACE RIGHTS ONLY
- ROADS
- IMPROVED ROADS
- KING'S HIGHWAYS
- RAILWAYS
- POWER LINES
- MINOR OR LOCAL

JAN 23 1996
MINING DIVISION

NOTES

R - Subject to forestry inventory 1994/95

THIS TWP. IS SUBJECT TO FOREST ACTIVITY IN 1996/96. FURTHER INFORMATION IS AVAILABLE ON FILE.

Stores of all lakes and rivers

AREAS WITHDRAWN FROM DISPOSITION

DESCRIPTION	ORDER NO.	DATE	DISPOSITION	FILE
(R2)	W 9/77	10/1/78	S.R.O.	188543
(R3)	W 9/77	1/3/77	S.R.O.	17408
(R1)			GRAVEL RESERVE, M.N.R.	
(O)			PROPOSED GRAVEL PERMIT AREA JUNE 25/86	

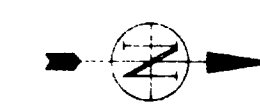
MINING AND SURFACE RIGHTS WITHDRAWN FROM PROSPECTING, STAKING OUT, SALE OR LEASE UNDER SECTION 35 OF THE MINING ACT R.S.O. 1990 ORDER NO. W-P 45/84 HER DATED 94-MAY-02

Received July 21/86
Checked July 21/86 EP HA

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

PLAN NO. _____
ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH



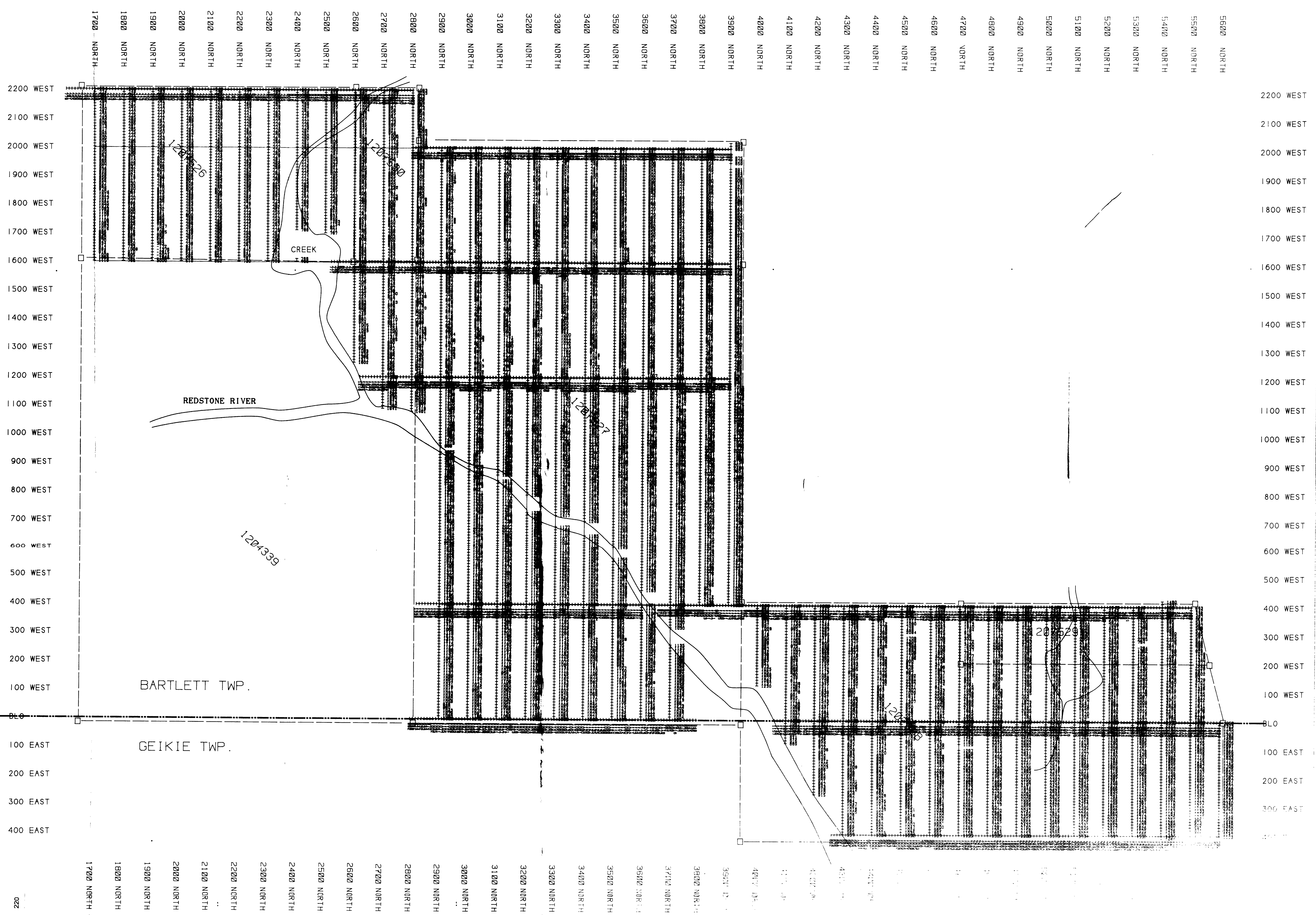


LEGEND

INSTRUMENT: EDA OMNI PROTON PRECESSION MAGNETOMETER
PARAMETERS MEASURED: EARTH'S TOTAL MAGNETIC FIELD (NANO-TESLA)
READING INTERVAL: 18"
DIURNAL CORRECTION METHOD: RECORDING OMNI BASE STATION
DATUM SUBTRACTED FROM ALL PLOTTED READINGS: 50000 nT

TOPO LEGEND

- Clove Line
- Clove Post Located
- Clove Post Assumed
- Highway
- Hydro Line
- Township Line



BARTLETT TWP.

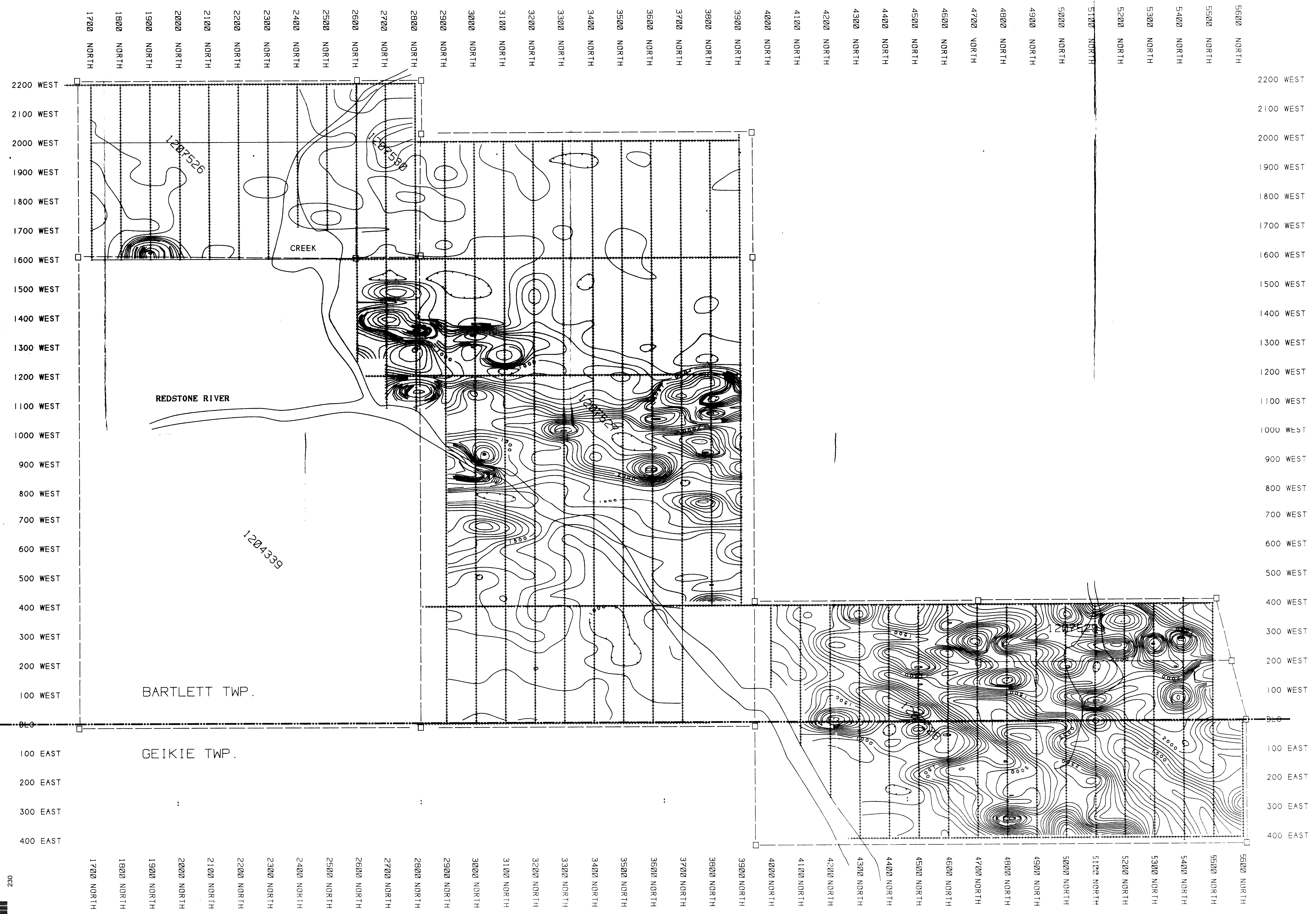
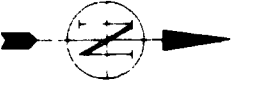
GEIKIE TWP.

2.16304

RECEIVED
DEC 15 1995
MINING LANDS DIVISION

022





LEGEND

INSTRUMENT: EDA OMNI PROTON PRECESSION MAGNETOMETER
 PARAMETERS MEASURED: EARTH'S TOTAL MAGNETIC FIELD (NANO-TESLAS)
 READING INTERVAL: 12m
 CONTOUR INTERVAL: 100 nT

DIURNAL CORRECTION METHOD: RECORDING OMNI BASE STATION
 DATUM SUBTRACTED FROM ALL PLOTTED READINGS: 5000 nT

TOPO LEGEND

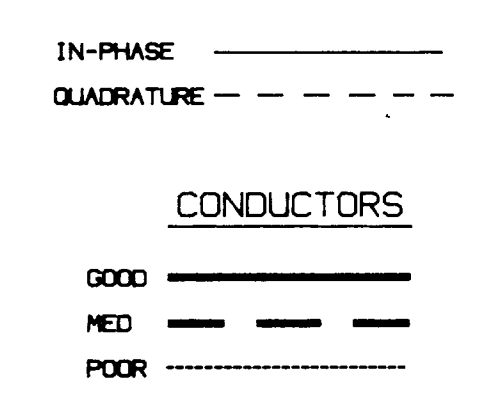
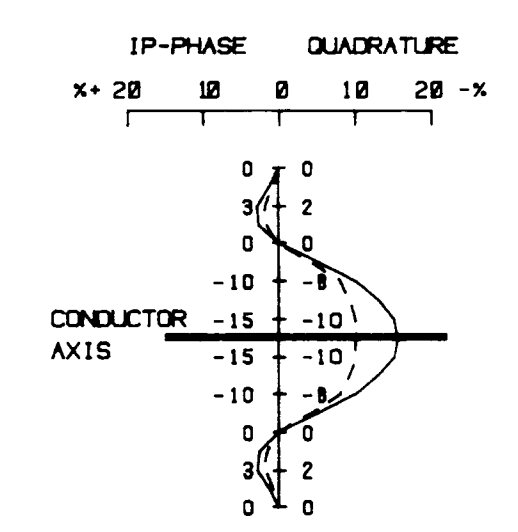
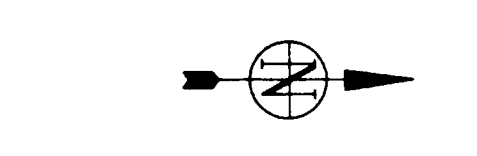
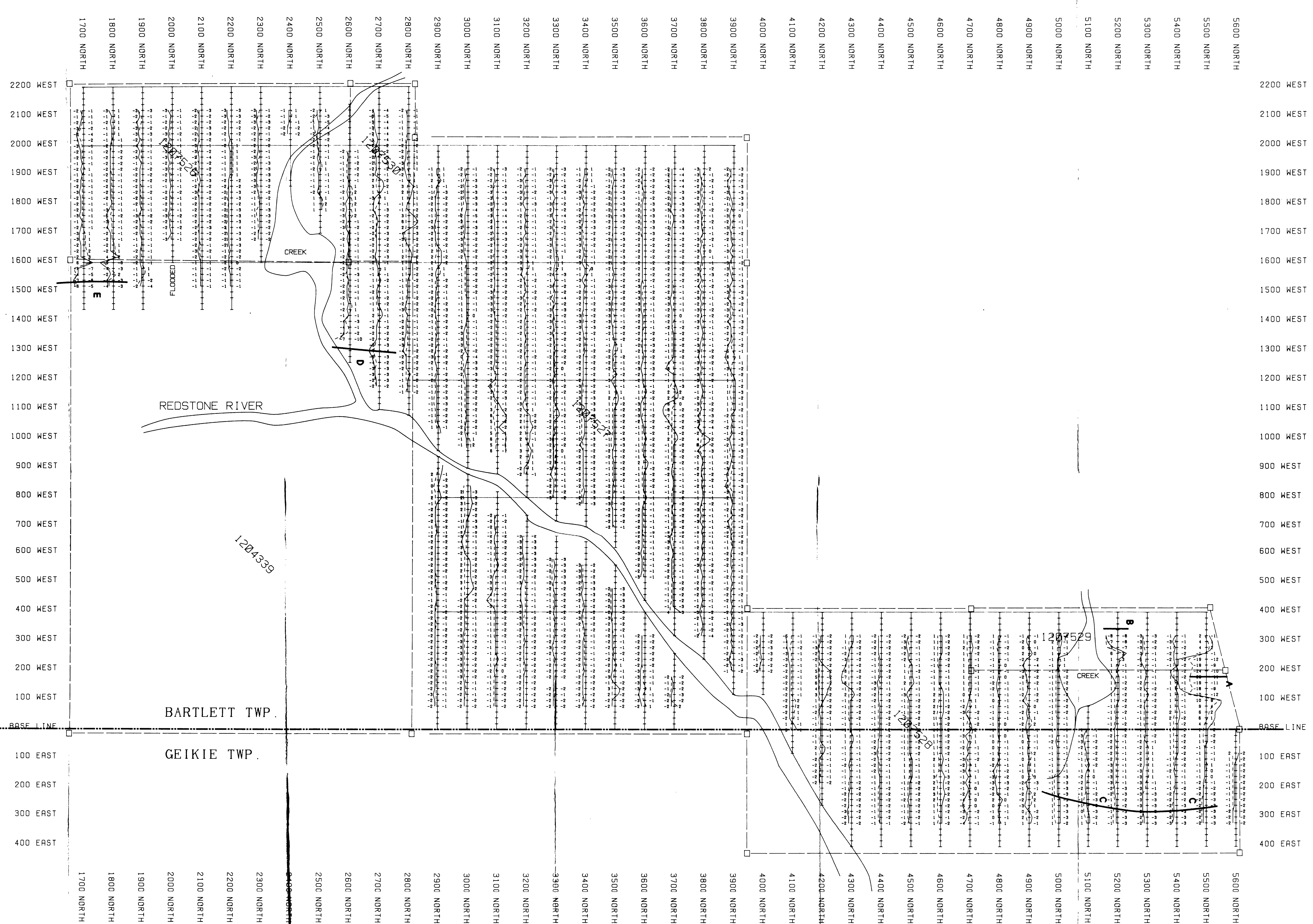
- Claim Line
- Claim Post Located
- Claim Post Assumed
- Highway
- Hydro Line

2.16304
 RECEIVED
 DEC 15 1985

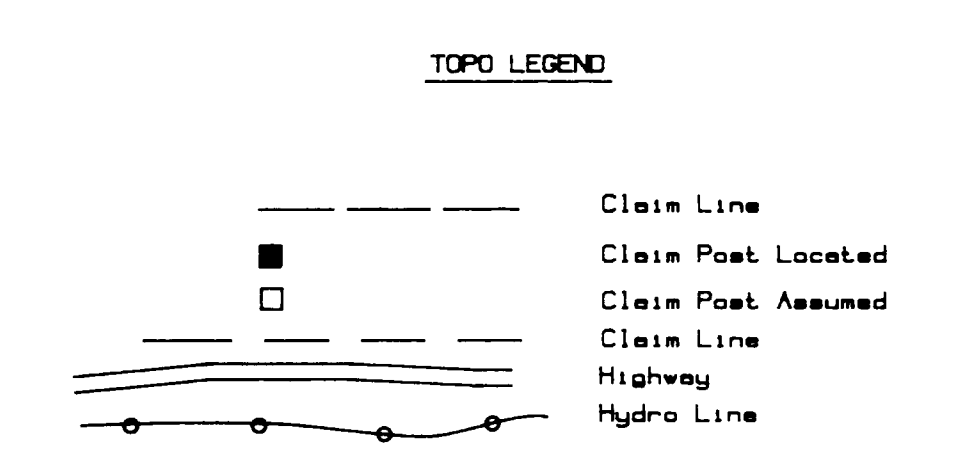
MINING LANDS BRANCH

Client: OUTOKUMPU MINES LTD.	
Property: BARTLETT PROPERTY NORTH EXTENSION	
Title: CONTROLLED	
MAGNETOMETER SURVEY	
Processed by	Checked by
Date: SEPT 1985	Township: BARTLETT - GEIKIE
Province: NT	NTS
Scale: 1:5000	Drawing: MAG 017
RAYAN EXPLORATION LTD. CONTRACT CONSULTING GEOLOGISTS 725-258-4866	





HLEM LEGEND
 INSTRUMENT: APEX - MAXMIN 11
 MODE: MAXIMUM COUPLED, CO-PLANAR
 READING INTERVAL: 20 M
 COIL SEPARATION: 160 M
 FREQUENCY: 444 Hz
 PROFILE SCALE: 1cm = 10x



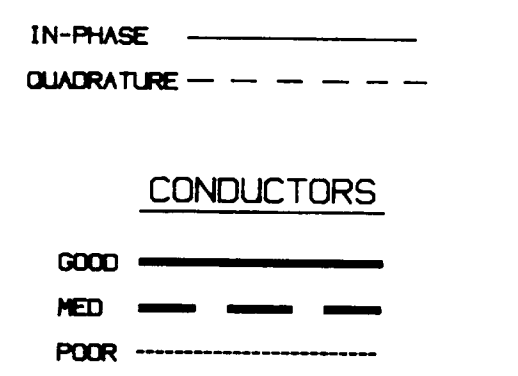
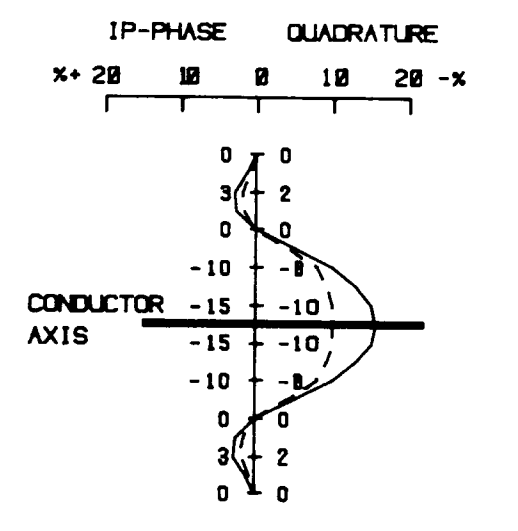
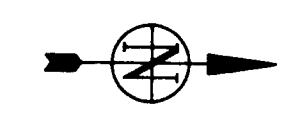
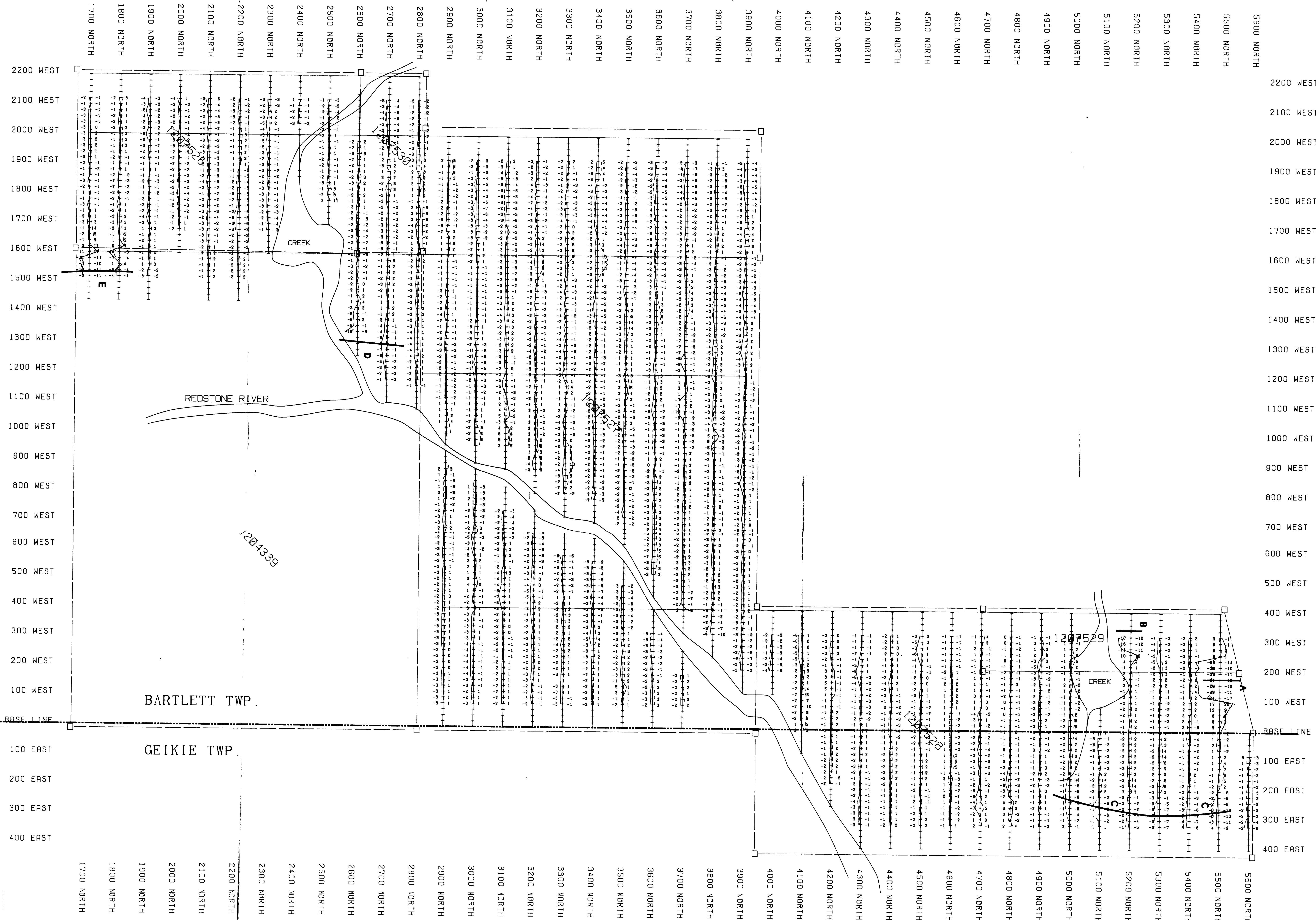
2.16304

RECEIVED
 DEC 15 1995

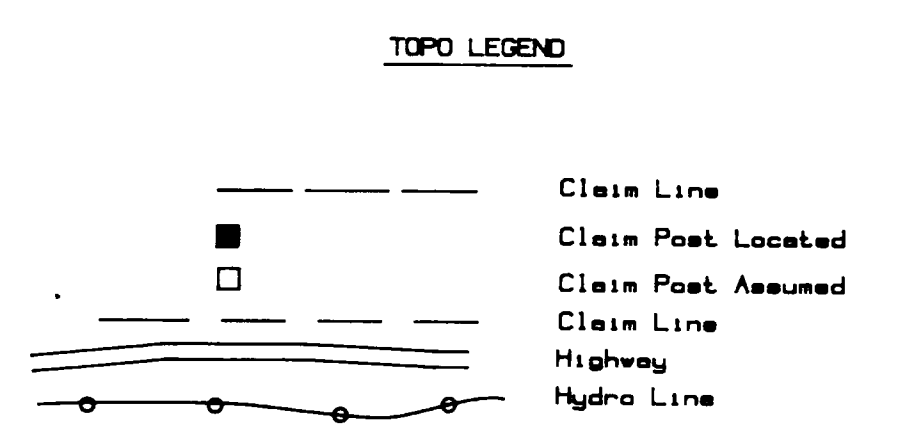
MINING LANDS BRANCH

Client: OUTOKUMPU MINES LTD.	
Property: BARTLETT PROPERTY NORTH EXTENSION	
Title: HLEM SURVEY 444 Hz.	
Processed: RJM	Checked: RJM
Date: SEPT 1995	Township: BARTLETT-GEIKIE
Province: ONT.	N.T.S.: 42A/SW
Scale: 1:5,000	Drawing: 444





HLEM LEGEND
 INSTRUMENT: APEX - MAXMIN 11
 MODE: MAXIMUM COUPLED, CO-PLANAR
 READING INTERVAL: 20 M
 COIL SEPARATION: 160 M
 FREQUENCY: 1777 Hz.
 PROFILE SCALE: 1cm = 20m



2.16304 RECEIVED
 DEC 15 1995



Client: OUTOKUMPU MINES LTD.	
Property: BARTLETT PROPERTY NORTH EXTENSION	
Title: HLEM SURVEY 1777 Hz.	
Processed: RJM	Checked: RJM
Date: SEPT 1995	Township: BARTLETT-GEIKIE
Province: ONT.	N.T.S.: 42A/5H
Scale: 1:5,000	Drawing: 1777



982