

5891

GEOCHEMICAL AND GEOPHYSICAL  
REPORT  
BURN CLAIM GROUP  
(Burn 16 and Burn D-8 Mineral Claims)

FOR

NORANDA EXPLORATION COMPANY, LIMITED  
(NO PERSONAL LIABILITY)

BY

J. R. FRASER

L. C. BRADISH

June 4, 1976

OMINECA MINING DIVISION  
55°22'N ; 127°46'W  
93M/5E & W

Department of Mines and Petroleum Resources ASSESSMENT REPORT NO. 5891 ..... MAP.....
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# C O N T E N T S

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GEOCHEMICAL AND GEOPHYSICAL  
REPORT  
BURN CLAIM GROUP  
(Burn 16 and Burn D-8 Mineral Claims)  
Noranda Exploration Company, Limited

INTRODUCTION:

The Burn 16 and Burn D-8 mineral claims referred to in this report were located by Earl Sargent and Noranda Exploration Company, Limited in 1975 to protect a number of molybdenum-copper showings associated with intrusive rocks.

Noranda Exploration Company, Limited, under the terms of an Option Agreement with John H. Sargent and Earl W. Sargent dated August 1, 1976, completed and paid for a program of exploration consisting of line cutting, induced polarization (Phoenix Geophysics Limited - separate report), magnetometer and V.L.F. - E.M. surveys and geochemical soil sampling. The line cutting and soil sampling were supervised by John R. Fraser, while the geophysical surveys were supervised by L. C. Bradish, both employees of Noranda. This work was carried out during the period of September 8, 1975 to October 30, 1975. Details regarding costs and personnel are appended to this report.

LOCATION AND ACCESS (Figure 1):

The property is located between Date Creek and the Kispiox River, approximately 18 km. (11 miles) N35°W of the village of new Hazelton.

Access to the southeast corner of the claim group is provided by a good dirt road which leaves the main Kispiox - Date Creek road 1.28 km. (0.8 miles) north of the Kispiox River bridge. From this point, the main showings may be reached, on foot, by approximately 2.0 km. (1.24 miles) of very rough tote road.



NORANDA EXPLORATION COMPANY, LIMITED.

LOCATION MAP.

BURN CLAIM GROUP.

OMINECA M.D.

93M/5E&W



FIGURE 1.

SCALE: 1" = 4 Miles

*John K. ...* *L. ...*

2812 1982 ON

CLAIMS AND OWNERSHIP (Figure 2):

The property consists of the Burn 16 and Burn D-8 mineral claims staked under the Modified Grid System. Burn 16 is held by Noranda Exploration Company, Limited under an Option Agreement with Messrs. Earl and John Sargent while Burn D-8 is held directly by Noranda. Claim details are as follows:

<u>Claim</u>	<u>Units</u>	<u>Located</u>	<u>Located By</u>	<u>Agent For</u>	<u>Recorded</u>
Burn 16	16	June 2-5, 1975 Tag # 01010	Earl Sargent	Self	June 6, 1975
Burn D-8	8	Sept. 11-13, 1975 Tag # 10005	John Sargent	Noranda Exp- loration Co- mpany, Limited	Oct. 8, 1975

GEOLOGICAL STATEMENT:

Much of the property is underlain by north trending, moderately west dipping arkose, argillite and shale of the Jurassic Hazelton Group. These rocks are intruded by several small stocks and dyke-like bodies of Cretaceous to Tertiary granodiorite and biotite-feldspar porphyry. Both intrusive rocks exhibit weak to moderate alteration, quartz-sericite and biotite in the granodiorite and biotite in the biotite feldspar porphyry. Weak molybdenite and chalcopyrite mineralization, accompanied by pyrite and pyrrhotite in amounts up to several percent, occurs in the granodiorite and biotite-feldspar porphyry and in the hornfelsed sediments surrounding the intrusive bodies.

LINE CUTTING (Figure 2):

A survey control grid, cut out to induced polarization standards, was established over the main area of interest in the central part of the claim group. Details of the grid are as follows:

- North-south baseline 1200 m (3937 feet) long.
- East-west crosslines 2000 m (6561 feet) long, at 200 m (656 feet) intervals.

- Stations flagged and marked at 50 m (164 feet) intervals.
- At the eastern end of the grid, line locations established by means of a north-south tieline.
- A total of 16.4 km (10.19 miles) of line were completed.

## SOIL CHEMISTRY:

### Introduction

A total of 150 soil samples were collected at 100 m (328 feet) intervals throughout the grid area. These were analysed for total extractable copper, molybdenum, lead and zinc in the geochemical laboratory of Noranda Exploration Company, Limited located at 1050 Davie Street, Vancouver, British Columbia. The analyst was R. Fenton.

### Sampling Method

Samples are obtained by digging holes with a shovel to a depth where the visible C horizon, whenever possible, is encountered. The Band C horizons are sampled at all locations where they are visible. Where it is not possible to sample both horizons, the best sample is collected depending upon what is encountered at that particular site.

The samples are placed in "Hi Wet Strength Kraft 3 1/2" x 6 1/8" Open End" envelopes on which the grid station is marked with indelible felt pen.

### Laboratory Determination Method

The samples are first dried in a drying cabinet for a period of 24-48 hours. They are then screened and sifted to obtain a -80 mesh fraction.

To determine the amount of total extractable copper, molybdenum, lead and zinc in each sample, the following procedure is employed:

A small amount of the -80 mesh material, 0.200 grams, is digested in 2 ml of  $\text{HClO}_4$  and 0.5 ml of  $\text{HNO}_3$  for

approximately four hours. Following digestion, each sample is diluted to 5 ml with demineralized H<sub>2</sub>O. A Varian Techtron Model AA-5 atomic absorption spectrophotometer is used to ascertain the content, in parts per million, of each element.

### Presentation of Results

The results of the soil sampling are presented in Figures 3-6 of this report. These are plan maps, at a scale of 1:5000, indicating the distribution of the four elements, in parts per million, in both horizons. Contours on the maps refer to anomalous amounts of the metal in the B or upper horizon. The range and anomalous value for each element in this horizon are presented below:

<u>ELEMENT</u>	<u>RANGE (ppm)</u>	<u>ANOMALOUS VALUE (ppm)</u>
Cu	10 - 820	7/60
Mo	2 - 1100	7/20
Pb	12 - 54	Not Applicable
Zn	10 - 330	7/120

### Discussion of Result

The thickness of the blanket of glacial drift covering the grid area varies considerably. In the western half of the grid, where slopes are steep to precipitous, outcrop is abundant and overburden depths rarely exceed 10 feet; in the eastern half, the overburden thickness appears to be at least several tens of feet. Much of this area was subjected to forest fire some years ago and, as a consequence, vegetative cover is very thick, consisting of second growth hemlock and cedar.

A summary of the geochemical results is as follows:

- (i) Copper (Figure 3): Two major anomalies have been defined, both having north-northeast trends. The largest is situated east of the baseline and is at least 1400 m (4593 feet) long and up to 700 m (2296 feet) wide. The second is situated west of the baseline, in the northwest corner of the



grid. Both anomalies are open to the north and the south.

- (ii) Molybdenum (Figure 4): The molybdenum anomaly is situated in the north-central part of the grid and is open to the north. It is large, 1000 m (3280 feet) by 600 m (1968 feet), well defined and corresponds well with the known extent of the molybdenite mineralization in the intrusives and the hornfelsed sediments.
- (iii) Lead (Figure 5): Because of the low and very restricted range of values for this element, a statistical treatment of these data was not carried out.
- (iv) Zinc (Figure 6): Soils containing anomalous amounts of zinc are most abundant in the eastern third of the grid. Within this area, the largest anomaly is 600 m (1968 feet) wide, 700 m (2296 feet) long and is open to the north.

#### GEOPHYSICAL SURVEYS:

##### Introduction

Three geophysical surveys were completed on the property. Two of these, the magnetometer and V.L.F.-E.M. surveys, were carried out by Noranda personnel and are discussed in this report. The third, an induced polarization survey, was performed by Phoenix Geophysics Limited and is the subject of a separate report entitled "Report on the Induced Polarization and Resistivity Survey on the Kispiox Property, Hazelton Area, Omineca Mining Division, B.C. for Noranda Exploration Company, Limited; A. W. Mullan and P. G. Hallof, December 15, 1975."

V.L.F. - E.M. Survey

The V.L.F.-E.M. survey was conducted by E. Sargent utilizing a receiver manufactured by Sabre Electronic Instruments Ltd. The transmitter station location is Seattle, Wash. The tilt angle of null (in degrees) was measured and recorded at 25 meter (82 feet) intervals for a total of 13.0 km of line.

(i) Field Procedure: With the V.L.F. receiver held horizontally, the instrument is rotated in this plane until a null is observed. In this position, the coil axis points in the direction of the transmitter. This defines a vertical plane, perpendicular to the transmitter.

The receiver is then held in this vertical plane (operator facing the transmitter) and rotated until a minimum signal is observed. The dip angle of the null is read on the received inclinometer and recorded. The following sign convention is used:

- a) Top of coil axis to right of operator - sign positive.
- b) Top of coil axis to left of operator - sign negative.

(ii) Presentation of Results: A number of isolated conductors are indicated, occurring primarily in the south half of the grid area. No distinct pattern or feature is evident.

Magnetometer Survey

The magnetometer survey was conducted by M. Vetterli utilizing a Scintrex M.F. 2 fluxgate magnetometer. The relative, vertical component of the magnetic field was recorded (in gammas) at 25 meter (82 feet) intervals for a total of 13.9 km of line. Diurnal corrections were applied to the raw data. Readings were taken along a road that intersected all lines thus establishing a series of base stations. Readings at these stations were recorded throughout the day and differences plotted against time to obtain the diurnal variation. Reduced data was obtained by "removing" the diurnal variation.

(i) Presentation of Results: Magnetic values range from a low 220 gammas up to 1625 gammas with an average background of approximately 700+ gammas.

The contour map shows the following features:

- Low magnetic relief in the southwest corner, with values averaging 700 gammas to 800 gammas.
- The remaining area has a higher magnetic relief with values ranging from 700+ gammas to a high 1625 gammas. The contours show an approximate north-south trend with a fairly prominent linear feature just east of the base line. A second feature is the 1000 gamma high located on line 96N at station 105 + 50E.

A P P E N D I X

A

S T A T E M E N T S O F C O S T S

NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COST

PROJECT: SARGENT OPTION - KISPLOX PROPERTY

TYPE OF REPORT: GRID LINE PREPARATION

- (a) Employees: D. BAPTISTE, E. SARGENT  
Number of days: 44  
Dates worked: Between Sept 8 and Oct 24, 1975
- (b) Average cost per day \$ 42.73  
Total cost \$42.73 X 44 \$ 1,880.12
- (c) Cost of food & accomodation \$ 376.13
- (d) Cost of transportation  
i. During work period  
type:  
cost:
- ii. To and from Claims from  
within B.C.  
cost: 707.40 707.40
- (e) Cost of aircraft  
i. Fixed wing:  
ii. Helicopter:
- (f) Cost of instruments  
i. Rental:  
ii. Supplies
- (g) Cost of geochem analysis  
(details attached ):
- (h) Cost of report preparation:
- (i) Other: Contractors: See attached List 5,220.00

TOTAL

\$8,183.65

NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COST

PROJECT: SARGENT OPTION - KISPLOX PROPERTY

TYPE OF REPORT: GRID LINE PREPARATION

GRID LINE PREPARATION CONTRACTORS

JOHN HARRISON	V/N 1415	300.00
BRUCE HOLDEN	V/N 1419	300.00
JOHN SARGENT	V/N 1530	3,000.00
RAY S. TURNEY	V/N 1531	1,620.00

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\$5,220.00

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NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COST

PROJECT: SARGENT OPTION - KISPLOX PROPERTY

TYPE OF REPORT: GEOCHEM

- (a) Employees: E. SARGENT  
Number of days: 12  
Dates worked: Between Oct 1 and Oct 12, 1975
- (b) Average cost per day \$ 62.47  
Total cost \$ 62.47 X 12 \$ 749.64
- (c) Cost of food & accomodation \$
- (d) Cost of transportation  
i. During work period  
type:  
cost:  
ii. To and from Claims from  
within B.C.  
cost:
- (e) Cost of aircraft  
i. Fixed wing:  
ii. Helicopter:
- (f) Cost of instruments  
i. Rental:  
ii. Supplies
- (g) Cost of geochem analysis  
(details attached ): 697.50
- (h) Cost of report preparation: 213.60
- (i) Other:

TOTAL

1,610.74

NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COST

PROJECT: SARGENT OPTION - KISP10X PROPERTY

TYPE OF REPORT: GEOCHEM

GEOCHEMICAL ANALYSIS :

279	Cu	determinations	@	1.00	279.00
279	Zn	determinations	@	.50	139.50
279	Pb	determinations	@	.50	139.50
279	Mo	determinations	@	.50	139.50
					<hr/>
					\$697.50
					<hr/> <hr/>



NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COST

PROJECT: SARGENT OPTION - KISPIOX PROPERTY

TYPE OF REPORT: GEOPHYSICS

(a) Employees: BELIK, HELKENBERG, SARGENT, VETTERLI  
Number of days: 45  
Dates worked: Between Oct 9 and Oct 30, 1975

(b) Average cost per day \$ 65.32  
Total cost \$65.32 X 45 \$ 2,939.40

(c) Cost of food & accomodation \$ 198.82

(d) Cost of transportation  
i. During work period  
type:  
cost:

ii. To and from Claims from  
within B.C.  
cost: 1,394.49 1,394.49

(e) Cost of aircraft  
i. Fixed wing:  
ii. Helicopter:

(f) Cost of instruments  
i. Rental: See Attached 32.90  
ii. Supplies 32.90

(g) Cost of geochem analysis  
(details attached ):

(h) Cost of report preparation: 339.46

(i) Other: Contractor: Phoenix Geophysics 7,195.00

TOTAL

12,100.07

NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COSTS

PROJECT: SARGENT OPTION - KISPIOX PROPERTY

TYPE OF REPORT: GEOPHYSICS

DETAILS OF EQUIPMENT RENTAL:

MAG UNIT COST PER MONTH \$ 153.00

Used 4 Days

Cost  $4/31 \times 153.00$

\$ 19.74

VFL-EM UNIT COST PER MONTH \$ 102.00

Used 4 Days

Cost  $4/31 \times 102.00$

\$ 13.16

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\$ 32.90

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A P P E N D I X

B

STATEMENTS OF QUALIFICATIONS

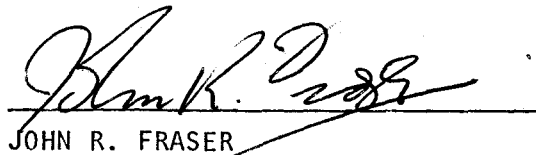
JOHN R. FRASER

LYNDON C. BRADISH

STATEMENT OF QUALIFICATIONS

I, John R. Fraser, of the Town of Smithers, Province of British Columbia, do certify that:

1. I have been employed as a geologist by Noranda Exploration Company, Limited continuously since June 1972, and intermittently since June 1970.
2. I am a graduate of the University of British Columbia with a Bachelor of Science degree in Geophysics (1967) and a Master of Science degree in Geology (1973).
3. I am a member of the Canadian Institute of Mining and Metallurgy and a Fellow of the Geological Association of Canada.



A handwritten signature in cursive script, appearing to read "John R. Fraser", is written over a horizontal line.

JOHN R. FRASER

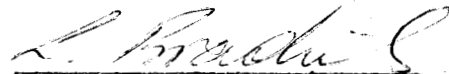
Geologist

NORANDA EXPLORATION COMPANY, LIMITED  
(NO PERSONAL LIABILITY)

STATEMENT OF QUALIFICATION

I, Lyndon C. Bradish of the City of Vancouver, Province of British Columbia, do certify that:

1. I have been an employee of Noranda Exploration Company, Limited since May, 1973.
2. I am a graduate of the University of British Columbia with a Bachelor of Science Degree in Geophysics.
3. I am a member of the Canadian Institute of Mining and Metallurgy.
4. I have held the position of Geophysicist for Noranda Exploration Company, Limited since May, 1973.



L. Bradish  
Geophysicist  
Noranda Exploration Company, Ltd  
(No Personal Liability)

# PHOENIX Geophysics Limited

200 YORKLAND BLVD., WILLOWDALE, ONTARIO M2J 1R6

TELEPHONE (416) 493-6350

October 3, 1975

Noranda Exploration Company Ltd.  
1050 Davie Street  
Vancouver, B. C.

Attention: Mr. T. Walker

We wish to confirm that we will supply consultant services, geophysical interpretation, reporting, equipment, field technicians and supplies to carry out the Induced Polarization survey as outlined below. It is understood that this work will take place in the Hazelton area, Omineca Mining Division, British Columbia. The expected starting date of the survey is about October 6, 1975. The estimated duration of the survey is 8 - 10 days.

## Interpretation and Reporting

Recommendations regarding additional geophysical or geological investigations and exploratory drilling will be made as indicated by our interpretation of survey results. This presentation will be made in quadruplicate and will include maps and drawings showing the geophysical measurements, the location of anomalous zones and any surface features recorded by our field staff.

\* Interpretation, drafting and reporting may not be required in which case field data will be turned over directly to a representative of Noranda Exploration Company Ltd.

## Field Crew

Phoenix will supply two geophysical technicians trained in the operation of the IP apparatus.

## Field Help

Two helpers will be required to assist with the field operations. These men may be either supplied by the client or Phoenix. If they are supplied by Phoenix, the higher rate outlined below under "Charges" will apply.

## Equipment

Phoenix will supply one induced polarization unit with normal field operating spares.

## Supplies

Phoenix will supply batteries, field wire, drafting supplies, materials for electrode preparation, and gasoline for the motor-generator.

..... 2

Grid Control

The preparation of control lines for the survey is the responsibility of the client. The lines should be prepared and marked in such a way as to allow easy location and access by the IP crew. Delays caused by unsuitable lines or by unfinished lines will be charged at the standby rate. Improperly cut or marked lines will impede the progress of the survey.

It is the responsibility of the client to submit a base map of each survey grid, a claim map and, if possible, a location sketch.

Charges

The standard fee charged for the Induced Polarization survey is as follows:

Full Service Survey

- (a) Complete crew supplied by Phoenix
  - Operating day ..... \$540.00/day
  - Standby day ..... \$330.00/day
- (b) 2 helpers supplied by Noranda
  - Operating day ..... \$455.00/day
  - Standby day ..... \$245.00/day

\*Reduced Service Survey - (Less Reporting, Drafting & Interpretation)

- (a) Complete crew supplied by Phoenix
  - Operating day ..... \$475.00/day
  - Standby day ..... \$330.00/day
- (b) 2 helpers supplied by Noranda
  - Operating day ..... \$390.00/day
  - Standby day ..... \$245.00/day

There will be no charge for time off or breakdown time.

Mobilization

An all inclusive mobilization charge will be made to cover the return transportation, accommodation and living costs for the crew. The charges, which vary with the particular service provided, are listed below:

- (a) A complete 4-man Phoenix crew mobilized from Kamloops ..... \$ 1,800.00
- (b) A 2-man Phoenix crew from Kamloops and two men hired locally in the Smithers area. (Noranda will arrange the hiring of these men prior to the crew's arrival) ..... \$ 1,525.00
- (c) A 2-man crew from Kamloops with the helpers supplied by Noranda. .... \$ 1,350.00

Local Transportation

Local transportation costs are included in the daily rates.

Expenses

Living expenses are included in the daily rates.

Field Consultant Services

Field consulting by senior professional personnel will be supplied at your request at the rate of \$250.00/day plus expenses.

Insurance

1. Phoenix will supply a letter from the Worker's Compensation Board evidencing coverage under the Act when so requested.
2. Phoenix carries the following insurance at its expense covering its operation under the contract.
  - i) Comprehensive General Liability including Employees Liability. Non-Owned (Contingent) Automobile Liability for a single limited B.I. and P.D. of \$1,000,000.00.
  - ii) Non-Owned (Contingent) Aircraft Liability coverage for a single limited B.I. and P.D. of \$1,000,000.00.
3. Certificates of insurance are available on request and details of any specific policy may be obtained from our Insurance Brokers, Morris & MacKenzie Limited.

Terms

All charges are stated in Canadian funds, payable in Vancouver.

Payment is requested according to the following schedule:

- \$1,000.00 on signing the contract.
- \$2,000.00 on completion of field work.
- Remainder on delivery of the report.

Phoenix reserves the right to discontinue the survey if payments are not received according to the above schedule.

Phoenix will endeavour to initiate this survey as close to the agreed starting date as possible. However, due to factors beyond our control (i.e. extended periods of bad weather, equipment malfunction, or previous survey extensions) it may not be possible to meet a specified date.

Overdue accounts will bear interest at the rate of 1% per month.



If the foregoing meets with your approval, please signify by signing and returning the enclosed copy.

Yours very truly,

PHOENIX GEOPHYSICS LTD.



A. W. Mullan  
Western Manager

AWM/mb

NORANDA EXPLORATION COMPANY LTD.

SIGNED: \_\_\_\_\_

DATED: \_\_\_\_\_

PROJECT NO: PV-1007



# PHOENIX Geophysics Limited

200 YORKLAND BLVD., WILLOWDALE, ONTARIO M2J 1R6

TELEPHONE (416) 493-6350

## I N V O I C E

November 24, 1975  
Invoice Number 579

Noranda Exploration Company Ltd.  
1050 Davie Street,  
Vancouver, B.C.

Attention: Mr. L. Walker

REFERENCE: Contract No. PV-1007 - IP Survey  
Omineca Mining Division, B.C.

PERIOD: October 8 - October 24, 1975

CREW: P. Makulowich - R. Lepine

9½ Operating days	@ \$455.00/day	\$4,322.50
5½ Standby days	@ \$245.00/day	1,347.50
Mobilization		1,525.00
		<u>\$7,195.00</u>

PHOENIX GEOPHYSICS LIMITED

MEMORANDUM OF AGREEMENT dated this 1st day of October 1975 at Smithers, B.C.

BETWEEN: Noranda Exploration Company, Limited,  
(No Personal Liability)  
P.O. Box 2169  
Smithers, B.C.  
VOJ 2NO

(hereinafter called the Company)

AND: John Harrison  
General Delivery  
Smithers, B.C.  
VOJ 2NO

(hereinafter called the Contractor)

WITNESS THAT in consideration of the terms listed hereunder, the parties hereto agree as follows:

1. The Contractor shall cut grid line as laid out by the Company and under the supervision of the Company at the rate of \$75.00 per day.
2. On completion of each job the Contractor shall submit an invoice for all charges related to the job which shall include the names and number of days worked on the job.
3. The Contractor shall be responsible for:
  - a) Transportation to and from jobs, where road conditions permit, power saw and related supplies.
  - b) Medical coverage, Canada Pension Plan contribution, U.I.C. contribution, and income tax deductions.

4. The Company shall be responsible for:

- a) Workmen's Compensation Board assessments.
- b) Supplying the Contractor with flagging, chains and snow shoes at no cost to the Contractor.
- c) Any other reasonable cost related to the job on the prior approval of the Company's supervisors.

This agreement shall be binding upon both parties hereto:

Mans Adenberg  
WITNESS

John Harrison

Noranda Exploration Company, Limited  
(No Personal Liability)

John B. Bell  
Geologist

**noranda**

Noranda Corporation Company Limited, Vancouver, B.C.  
(No Personal Liability)

No.

1415

*99*

JOHN HARRISON

OCT 10/75

300 00

CHECKED BY: \_\_\_\_\_  
APPROVED FOR PAYMENT

*[Signature]*

MANAGER

CHARGE A/C: \_\_\_\_\_

Invoice:

Oct. 5/1975.

For line-cutting work as per agreement.

in Kispiox Property.

Four days (4) - Oct. 2 - Oct. 5. (inclusive)

at \$ 75<sup>00</sup>/day. = \$ 300<sup>00</sup>

Balance due. = \$ 300<sup>00</sup>

John Harrison.  
General Delivery  
Smithers, B.C.

OCT 6 1975

APPROVED FOR PAYMENT

CARY BELIK *on file*  
MANAGER

CHARGE A/C: 17-H-30

4  
8

MEMORANDUM OF AGREEMENT dated this 1st day of October 1975 at Smithers, B.C.

BETWEEN: Noranda Exploration Company, Limited,  
(No Personal Liability)  
P.O. Box 2169,  
Smithers, B.C.  
VOJ 2NO

(hereinafter called the Company)

AND: Bruce Holden  
P.O. Box 3084  
Smithers, B.C.  
VOJ 2NO

(hereinafter called the Contractor)

WITNESS THAT in consideration of the terms listed hereunder, the parties hereto agree as follows:

1. The Contractor shall cut grid line as laid out by the Company and under the supervision of the Company at the rate of \$75.00 per day.
2. On completion of each job the Contractor shall submit an invoice for all charges related to the job which shall include the names and number of days worked on the job.
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  - b) Medical coverage, Canada Pension Plan contribution, U.I.C. contribution, and income tax deductions.

4. The Company shall be responsible for:

- a) Workmen's Compensation Board assessments.
- b) Supplying the Contractor with flagging, chains and snow shoes at no cost to the Contractor.
- c) Any other reasonable cost related to the job on the prior approval of the Company's supervisors.

This agreement shall be binding upon both parties hereto:

Mary Soderberg  
WITNESS

Bruce Holt

Noranda Exploration Company, Limited  
(No Personal Liability)

John Salik  
Geologist



**noranda**

Noranda Corporation Company Limited, Vancouver, B.C.  
(No Personal Liability)

No. 1419

*JK*

Bruce Holden

OCT 10/75

300 00

CHECKED BY: \_\_\_\_\_  
APPROVED FOR PAYMENT

*[Signature]*

MANAGER

CHARGE A/C: \_\_\_\_\_

Invoice

Oct 5/1975

For linecutting work: as per agreement

On Kispiox Property.

Four days (+) - Oct. 2 - Oct 5 (inclusive)

at \$ 75<sup>00</sup>/day = \$ 300<sup>00</sup>

Balance Due = \$ 300<sup>00</sup>

Bruce Holden  
Box 3084  
SMITHERS BC,

OCT 6 1975

APPROVED FOR PAYMENT

GARY BELIK

MANAGER

CHARGE A/C: 17-M 30

g

MEMORANDUM OF AGREEMENT dated this 9th day of September 1975 at Smithers, B.C.

R

BETWEEN: Noranda Exploration Company, Limited,  
(No Personal Liability)  
P.O. Box 2169,  
Smithers, B.C.  
VOJ 2NO

(hereinafter called the Company)

AND: John Sargent,  
P.O. Box 39  
New Hazelton, B.C.

(hereinafter called the Contractor)

WITNESS THAT in consideration of the terms listed hereunder, the parties hereto agree as follows:

1. The Contractor shall cut approximately 10 Km of grid line as laid out by the Company and under the supervision of the Company at the rate of \$100.00 per day. Any claims staked by the Contractor for the Company shall be at the rate of \$35.00 per unit. The Contractor shall bear the cost of recording such claims.
2. On completion of each job the Contractor shall submit an invoice for all charges related to the job which shall include the names and number of days worked on the job.
3. The Contractor shall be responsible for:
  - a) Transportation to and from jobs, where road conditions permit, power saw and related supplies.
  - b) Medical coverage, Canada Pension Plan contribution, U.I.C. contribution, and income tax deductions.

4. The Company shall be responsible for:
- a) Workmen's Compensation Board assessments.
  - b) Supplying the Contractor with flagging, chains and snow shoes at no cost to the Contractor.
  - c) Any other reasonable cost related to the job on the prior approval of the Company's supervisors.
  - d) Mileage when Contractor supplies own vehicle. (0.18 on paved roads, 0.21 for gravel roads)

This agreement shall be binding upon both parties hereto:

Mary Soderberg  
WITNESS

John Sargent  
John Sargent

Noranda Exploration Company, Limited  
(No Personal Liability)

Harry Smith  
Geologist

**noranda**

Noranda Exploration Company Limited, Vancouver, B.C.  
(No Personal Liability)

No. 1530

*AS*

J. SARGENT

OCT 31/75

3 552 42

CHECKED BY: \_\_\_\_\_  
APPROVED FOR PAYMENT

*[Signature]*

MANAGER

CHARGE A/C: \_\_\_\_\_

OCT. 24 1975

MEMORANDA EXPLORATION CO. LIMITED  
BOX 2169, SMITHERS, B.C. (N.P.L.)

In Acc't With JOHN SARGENT

Terms \_\_\_\_\_ NEW HAZELTON, B.C.

LINE CUTTING @ \$100.00 PER DAY

SEPTEMBER: -

15, 16, 17, 18, 19, 20, 22, 23, 24,  
25, 26, 27, 30.

OCTOBER: -

1, 2, 3, 4, 6, 7, 9, 10, 11, 12, 13  
14, 15, 16, 17, 18, 19.

EQUALS 30 DAYS

@ \$100.00 = \$  
3000.00

OCT 24 1975

*certified correct*

*J. Sargent*

APPROVED FOR PAYMENT

MANAGER

CHARGE A/C. 17-H-30

MEMORANDUM OF AGREEMENT dated this 16th day of September 1975 at Smithers, B.C.

BETWEEN: Noranda Exploration Company, Limited,  
(No Personal Liability)  
P.O. Box 2169,  
Smithers, B.C.  
VOJ 2N0

(hereinafter called the Company)

AND: Ray Sturney  
New Hazelton, B.C.

(hereinafter called the Contractor)

WITNESS THAT in consideration of the terms listed hereunder, the parties hereto agree as follows:

1. The Contractor shall cut grid line as laid out by the Company and under the supervision of the Company at the rate of \$60.00 per day.
2. On completion of the job the Contractor shall submit an invoice for all charges related to the job which shall include the names and number of days worked on the job.
3. The contractor shall be responsible for:
  - a) Transportation to and from jobs, where road conditions permit, power saw and related supplies.
  - b) Medical coverage, Canada Pension Plan contribution, U.I.C. contribution, and income tax deductions.

4. The Company shall be responsible for:

- a) Workmen's Compensation Board assessments.
- b) Supplying the Contractor with flagging, chains and snow shoes at no cost to the Contractor.
- c) Any other reasonable cost related to the job on the prior approval of the Company's supervisors.

This agreement shall be binding upon both parties hereto:

  
\_\_\_\_\_

WITNESS

  
\_\_\_\_\_

Ray Sturney

Noranda Exploration Company, Limited  
(No Personal Liability)

  
\_\_\_\_\_

Geologist



**noranda**

Noranda Ex( tation Company Limited, Vancouver, B.C.  
(No Personal liability)

No. 1531

*gk*

PAY STURNEY

OCT 31/75

1620 00

CHECKED BY: \_\_\_\_\_  
APPROVED FOR PAYMENT

*[Signature]*  
\_\_\_\_\_  
MANAGER

CHARGE A/C: \_\_\_\_\_

1 60854-A MC8EE

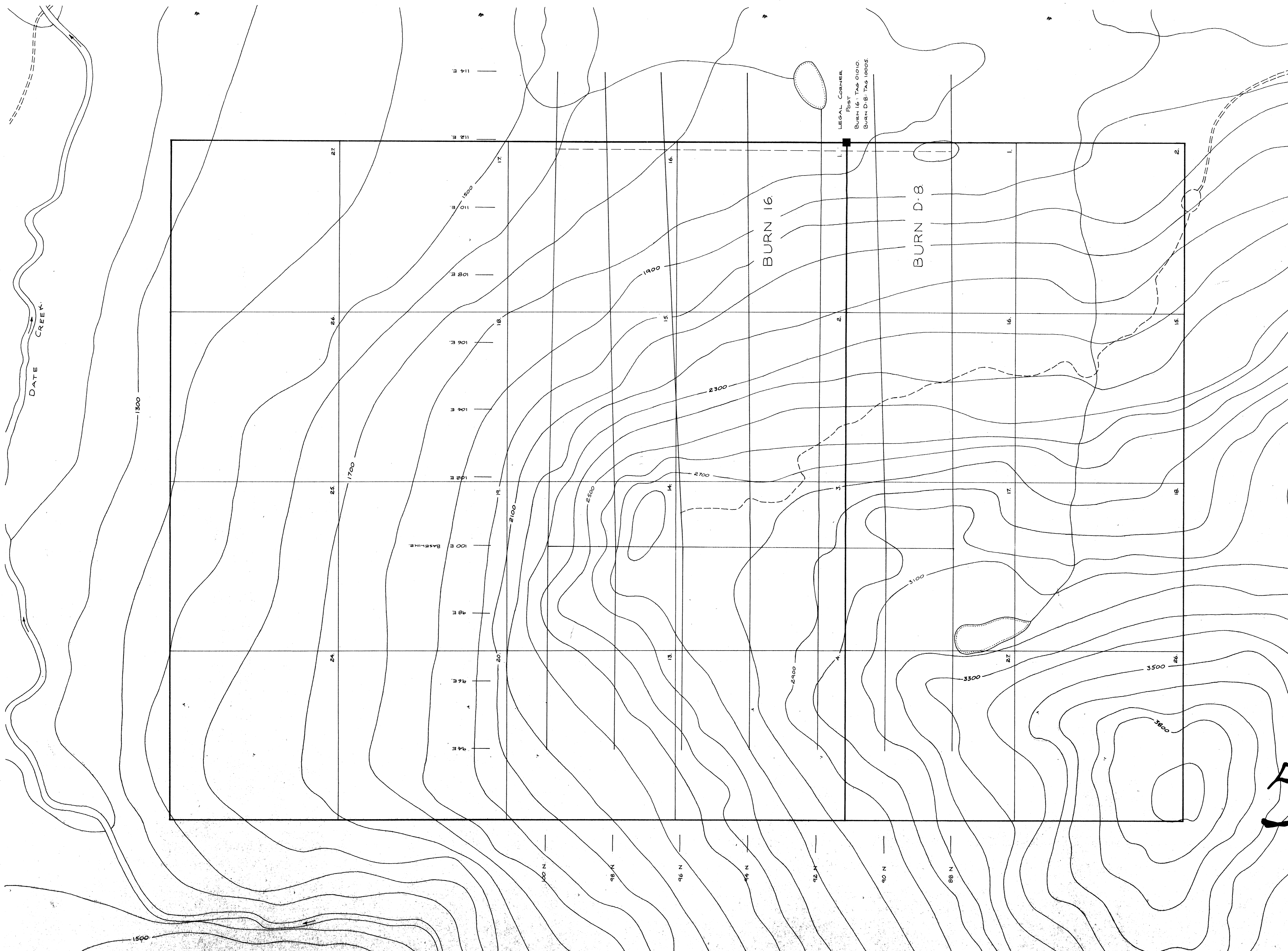
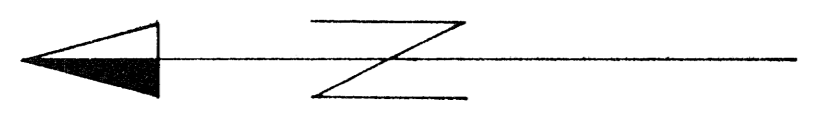
Folio \_\_\_\_\_ Statement  
OCT 24 1975

MANORANDA EXPLORATION CO. LIMITED  
(N.P.L.)  
BOX 2169, SMITHERS BL.

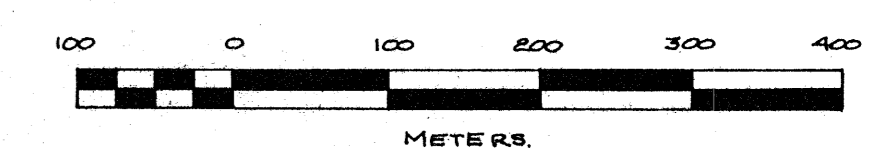
In Acc't With RAY STURNEY,

Terms \_\_\_\_\_ NEW HAZELTON, B.C.

LINE CUTTING @ \$60.00 PER DAY			
SEPTEMBER:-			
16, 17, 18, 19, 20, 22, 23, 24, 25,			
26, 27, 30			
OCTOBER:-			
1, 2, 3, 4, 6, 7, 9, 11, 14, 15, 17,			
18, 20, 21, 22.			
EQUALS 27 DAYS			
@ \$60.00 = \$1620.00.			
OCT 24 1975			
APPROVED FOR PAYMENT			
MANAGER			
CHARGE A/C: 17-H-30			



M-2  
5891

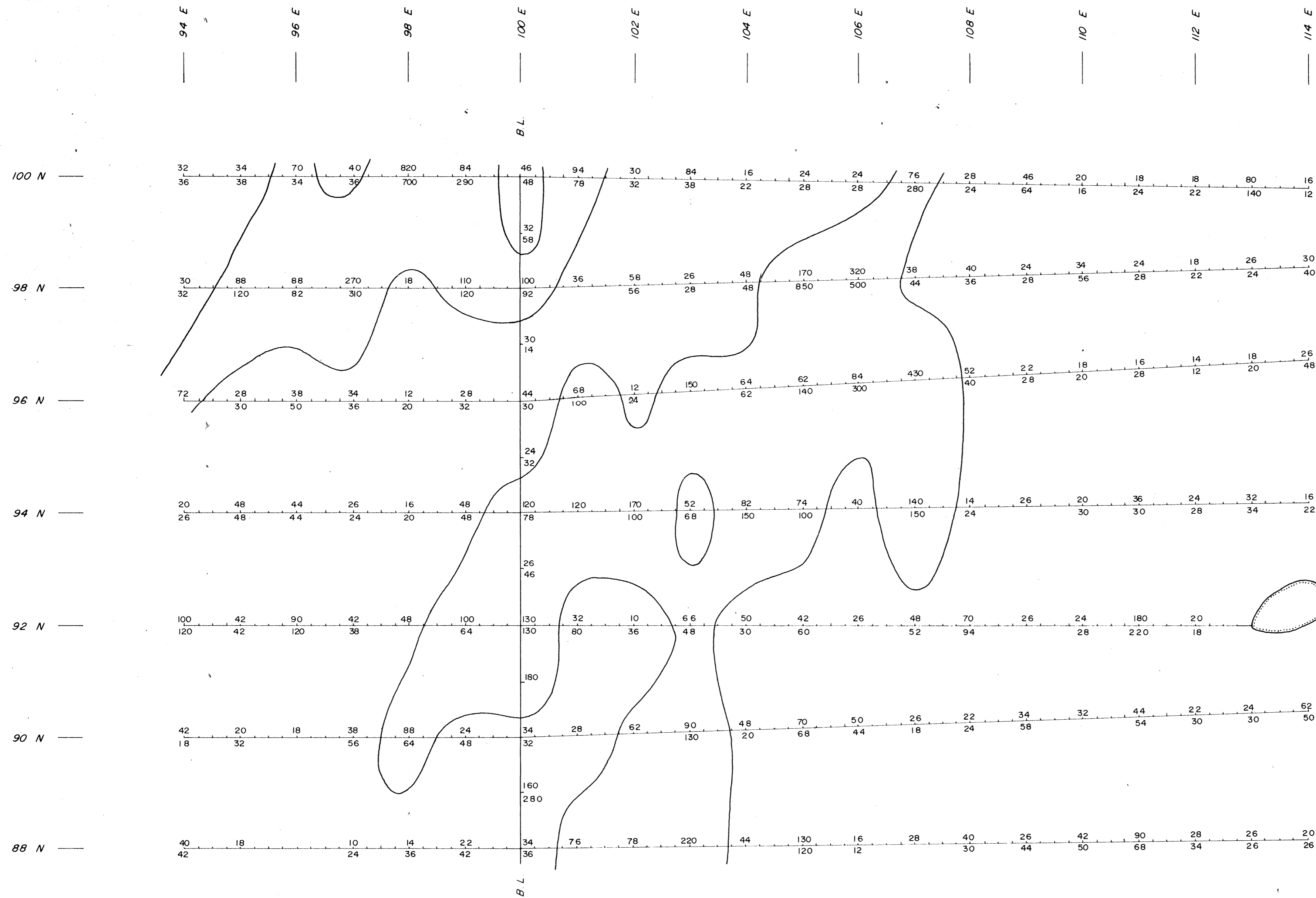


TOPOGRAPHY DERIVED FROM 1:5000 SCALE  
BLU-UP OF THE 1:5000 SCALE MAP SHEET -  
HAMILTON, 43M/5, 1975.  
CONTOUR INTERVAL 100 FEET.

TO ACCOMPANY GEOCHEMICAL AND GEOPHYSICAL REPORT  
ON THE BURN CLAIM GROUP BY J.R. FRASER  
AND L.C. BRADSHAW, JUNE 4, 1976  
ONCELA MINE DISTRICT

*J.R. Fraser*  
*L.C. Bradshaw*

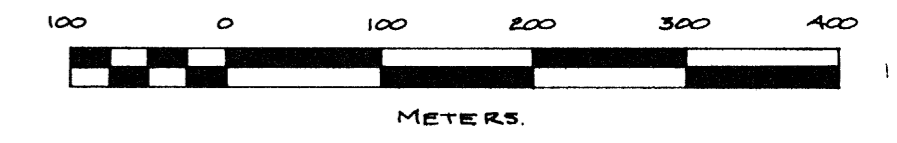
REVISED	SARGENT OPTION (KISPIOX PROPERTY)	
	CLAIM-GRID MAP	
	PROJECT: BURN CLAIM GROUP	
PROJ. NO.	SURVEYED BY: J.R. FRASER	DATE: MAY 21, 1976
N.T.S. 43M/5	DRAWN BY: J.R. FRASER	SCALE: 1:5000
DWG. NO.	NORANDA EXPLORATION CO. LTD.	
2	OFFICE: SMITHERS	



26 B of UPPER HORIZON  
38 C of LOWER HORIZON

ANOMALOUS CONTOUR } >= 60 ppm Cu.  
FOR THE B HORIZON

5891 M-3

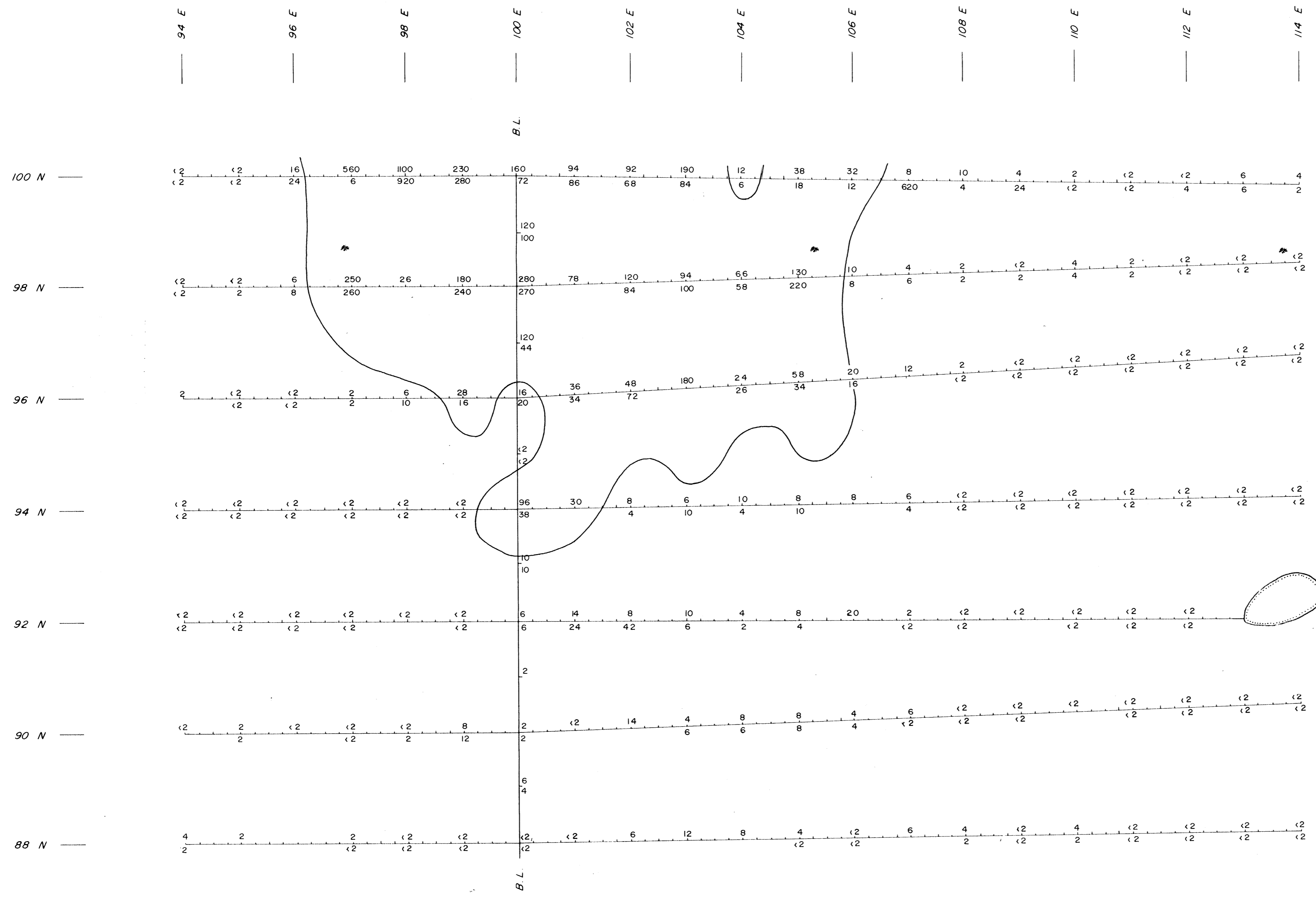
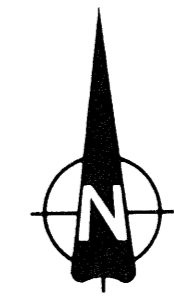


TO ACCOMPANY: "GEOCHEMICAL AND GEOPHYSICAL REPORT  
ON THE BURN CLAIM GROUP" BY J.R. FRASER  
AND L.C. BRADISH, JUNE 4, 1976.  
OMINECA MINING DIVISION.

*John R. Fraser*  
*L.C. Bradish*

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 5891 MAP 3

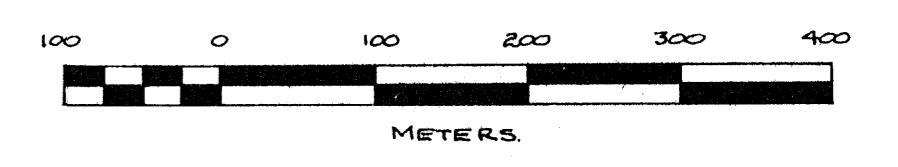
REVISED	SARGENT OPTION (KISPIOX PROPERTY)	
	GEOCHEMICAL SOIL SURVEY	
	Cu in P.P.M.	
PROJ. No. 17	SURVEY BY EARL SARGENT	DATE NOV, 1975
N.T.S. 93M/5W	DRAWN BY J.V. VOORST	SCALE: 1:5000
DWG No. 3	<b>NORANDA EXPLORATION</b>	
	OFFICE VANCOUVER	



26 B @ UPPER HORIZON  
 38 C @ LOWER HORIZON

ANOMALOUS CONTOUR }  $\geq 20$  ppm Mo  
 FOR THE B HORIZON

5891 M-4

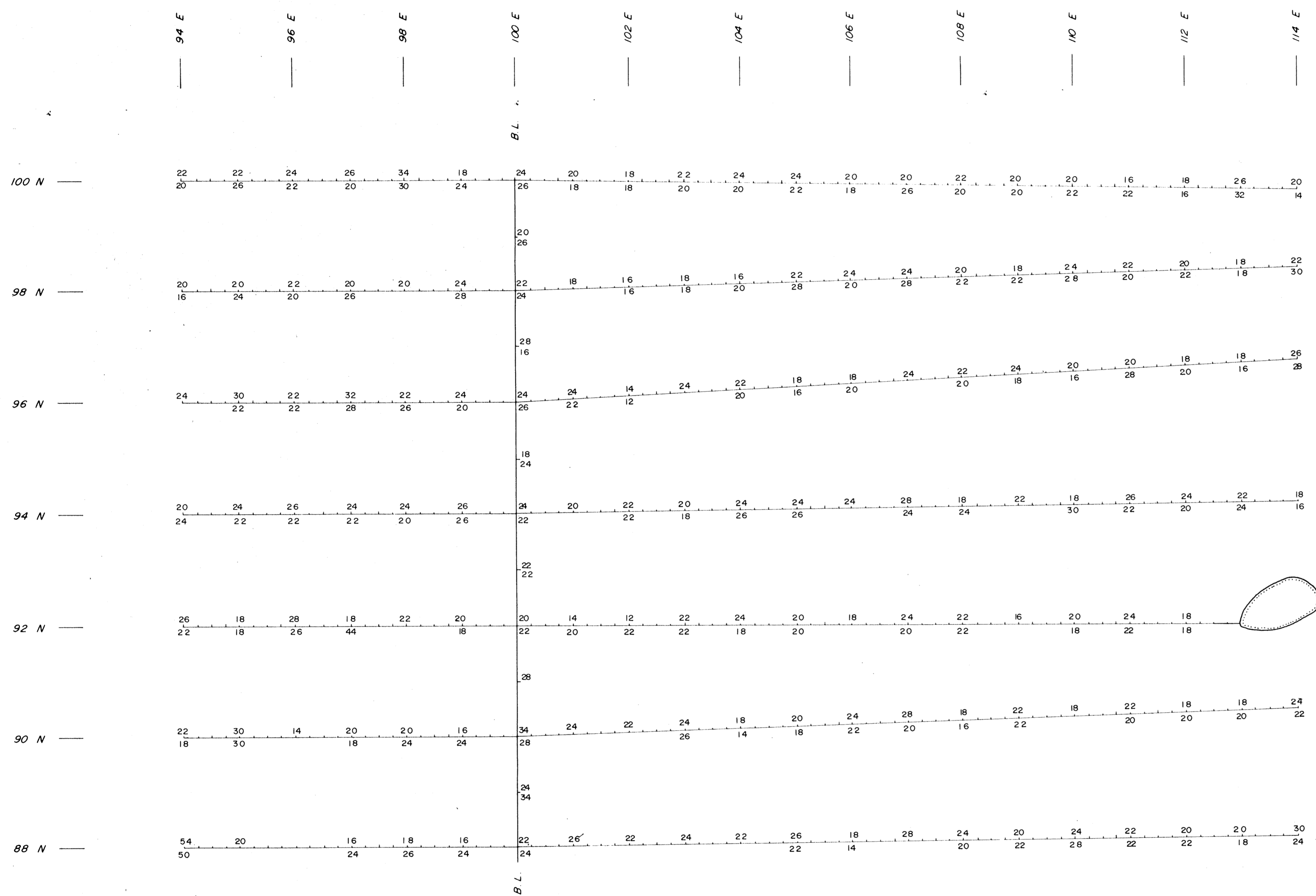


Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. 5891 MAP 4

TO ACCOMPANY'S "GEOCHEMICAL AND GEOPHYSICAL REPORT  
 ON THE BURN CLAIM GROUP" BY J.R. FRASER  
 AND L.C. BRADISH, JUNE 4, 1976.  
 OMINESCA MINING DIVISION.

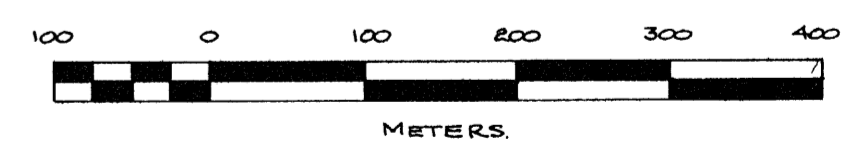
*John R. Fraser*  
*L. Bradish*

REVISED	SARGENT OPTION (KISPIX PROPERTY)
	GEOCHEMICAL SOIL SURVEY
	Mo in P.P.M.
PROJ. No. 17	SURVEY BY: EARL SARGENT DATE: NOV, 1975
N.T.S. 93M/5 W.	DRAWN BY: J.V. VOORST SCALE: 1:5000
DWG No. 4	<b>NORANDA EXPLORATION</b>
	OFFICE VANCOUVER



26 B of UPPER HORIZON.  
 58 C of LOWER HORIZON.

5891 M-5

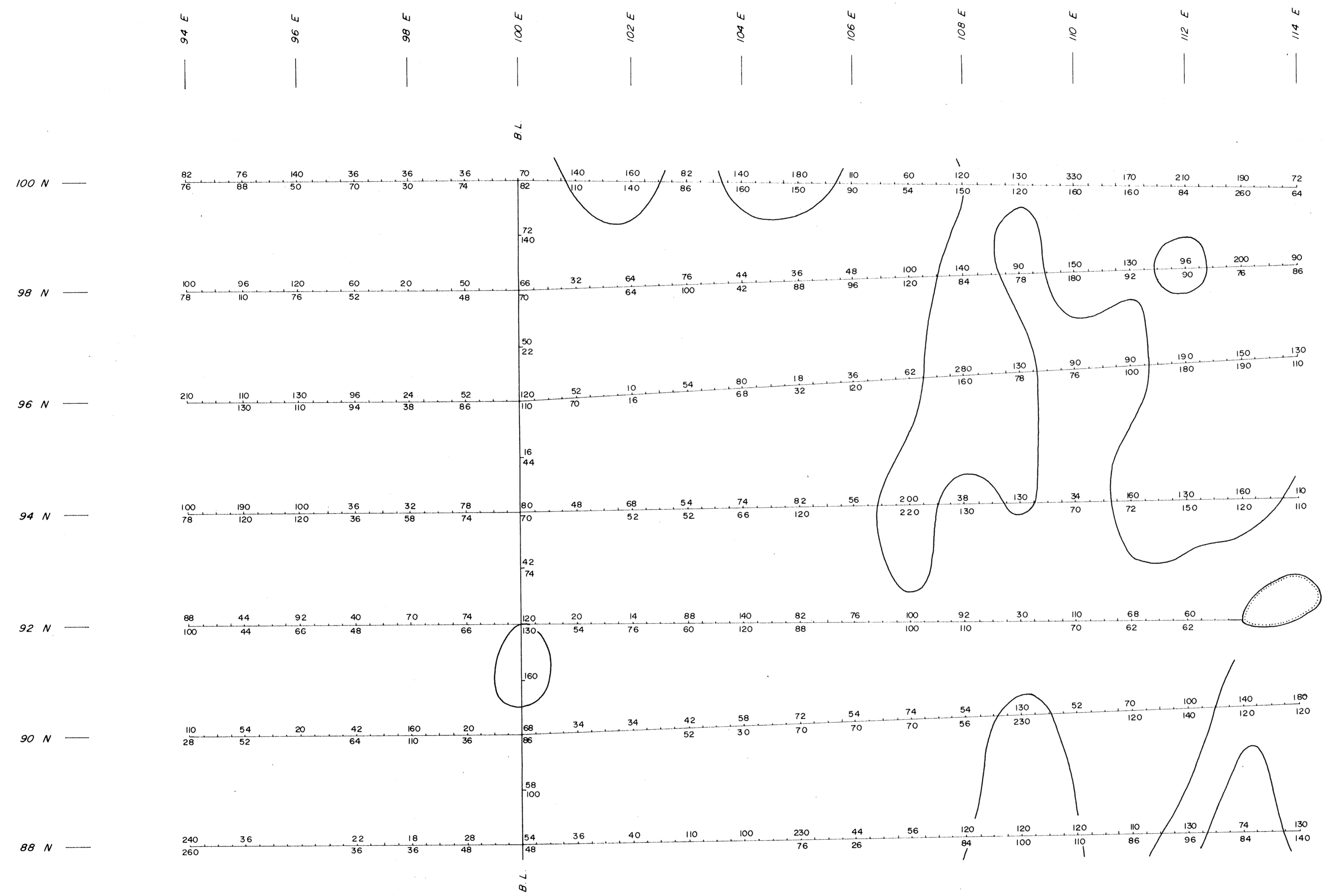


Department of  
 Mines and Petroleum Resources  
 ASSESSMENT REPORT  
 NO. 5891 MAP 5

TO ACCOMPANY: "GEOCHEMICAL AND GEOPHYSICAL REPORT  
 ON THE BURU CLAIM GROUP" BY J.R. FRASER  
 AND L.C. BRADISH, JUNE 4, 1976.  
 OMEGA MINING DIVISION.

*[Handwritten signatures]*

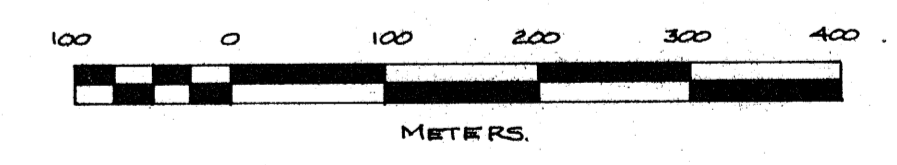
REVISED	SARGENT OPTION (KISPIOX PROPERTY)
	GEOCHEMICAL SOIL SURVEY
	Pb in PPM.
PROJ. No. 17	SURVEY BY: E. SARGENT. DATE: NOV, 1975
N.T.S. 93M/5W	DRAWN BY: J.V. VOORST. SCALE: 1:5000
DWG No. 5	<b>NORANDA EXPLORATION</b>
	OFFICE VANCOUVER



26 B of UPPER HORIZON.  
38 C of LOWER HORIZON.

ANOMALOUS CONTOUR  $\geq 120$  p.p.m. Zn  
FOR THE B HORIZON

5891 M-6

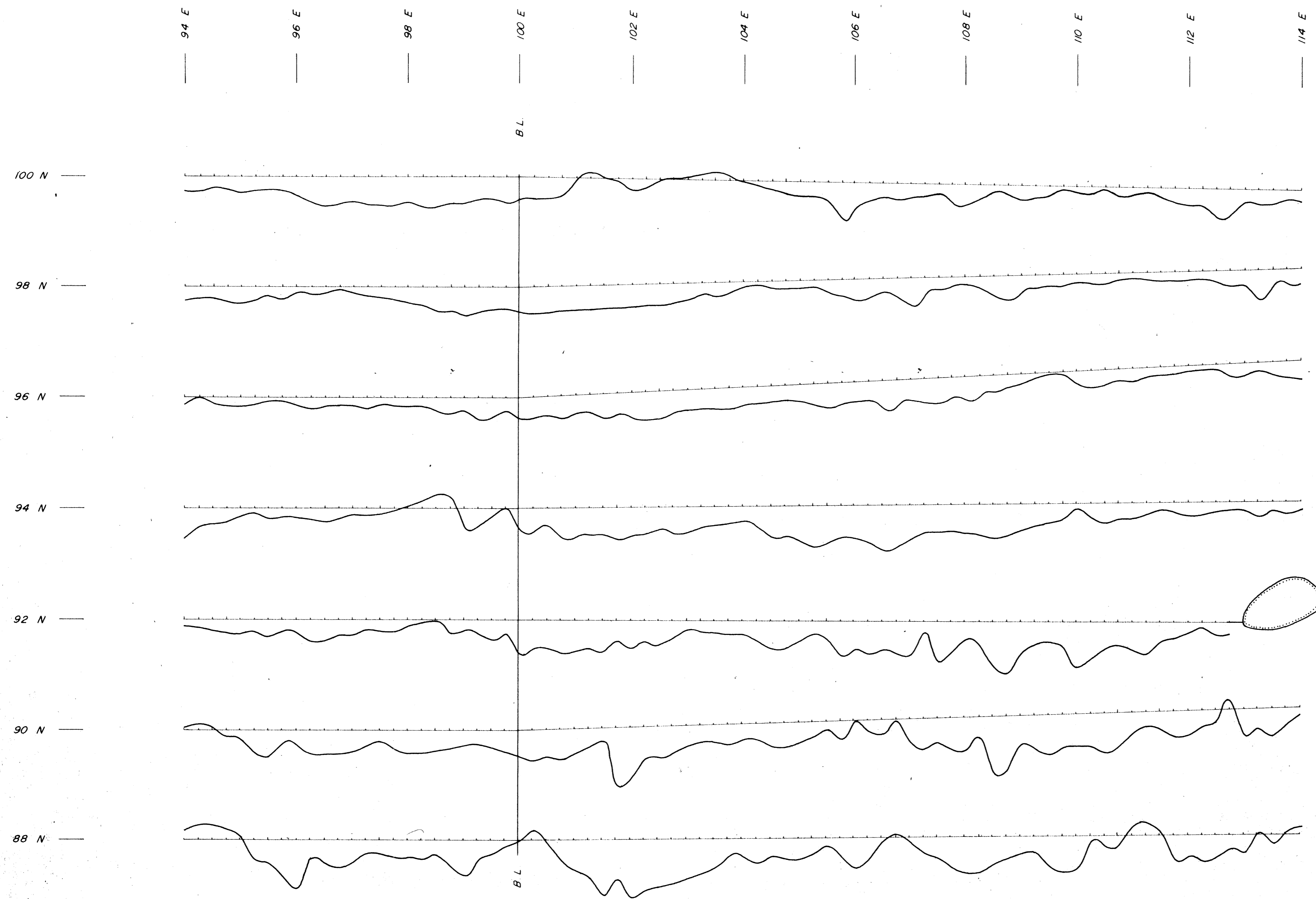
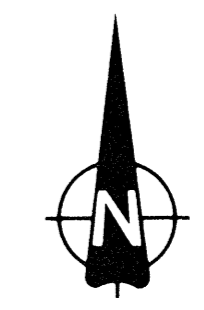


TO ACCOMPANY: "GEOCHEMICAL AND GEOPHYSICAL REPORT  
ON THE BURN CLAIM GROUP" BY J.R. FRASER  
AND L.C. BRADISH, JULY 4, 1976.

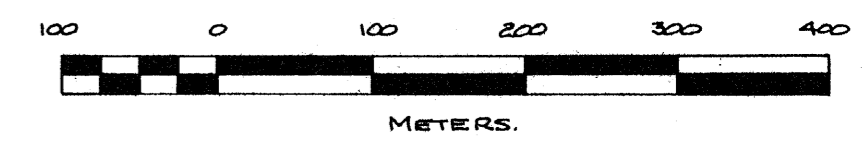
OMEGA MINING DIVISION  
*John R. Fraser*  
*L. Bradish*

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 5891 MAP 6

REVISED	SARGENT OPTION (KISPIX PROPERTY)	
	GEOCHEMICAL SOIL SURVEY	
	Zn in PPM.	
PROJ. No. 17	SURVEY BY: EARL SARGENT	DATE: NOV, 1975
N.T.S. 93M/S.W.	DRAWN BY: J.V. VOORST	SCALE: 1:5000
DWG. No. 6	<b>NORANDA EXPLORATION</b>	
	OFFICE VANCOUVER	



5891 M-7



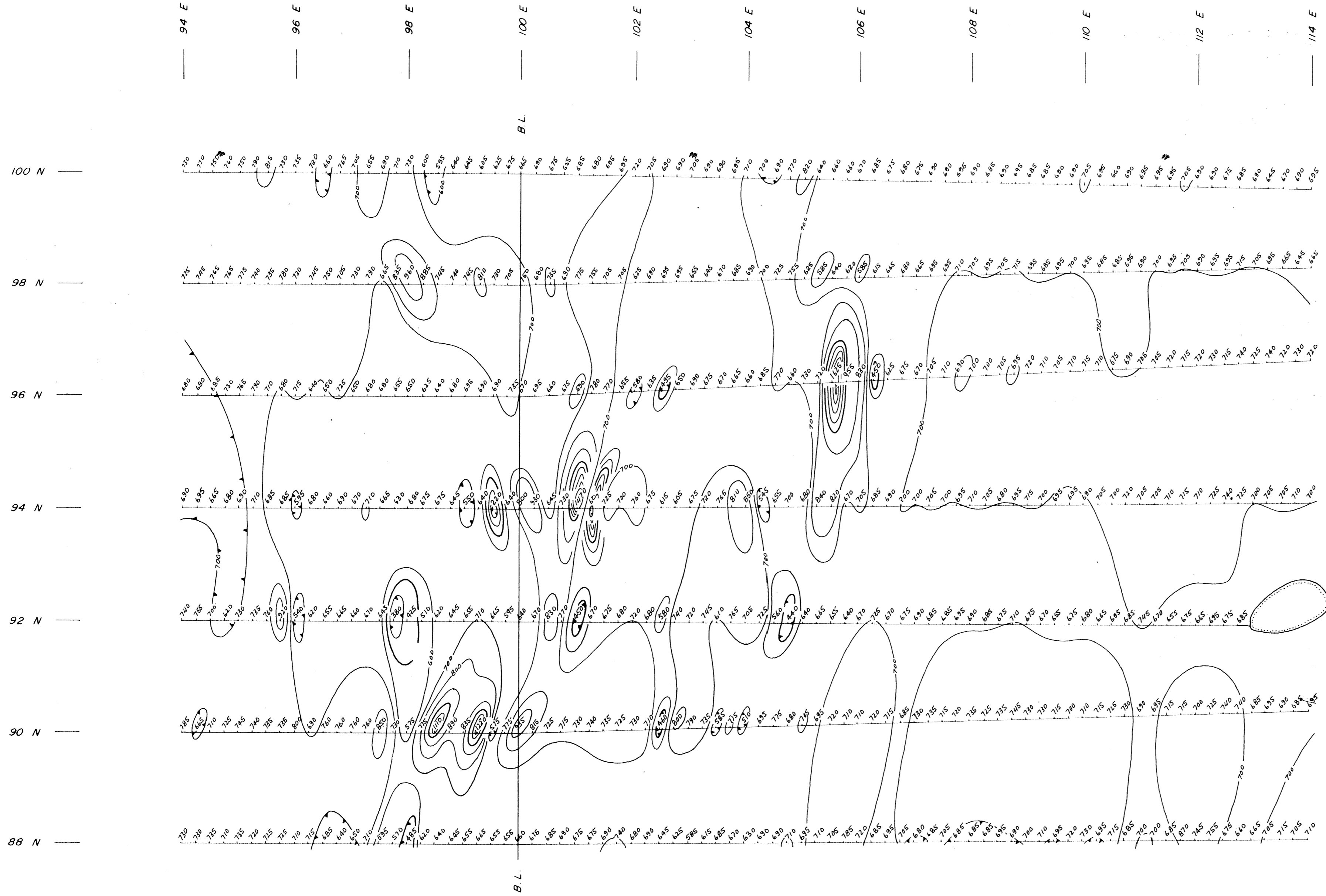
TO ACCOMPANY'S "GEOCHEMICAL AND GEOPHYSICAL REPORT  
ON THE BURW CLAIM GROUP" BY J.R. FRASER  
AND L.C. BRADISH, JUNE 4, 1976.  
OMEGA MINING DIVISION.

*John K. DeG...*  
*L. Bradish*

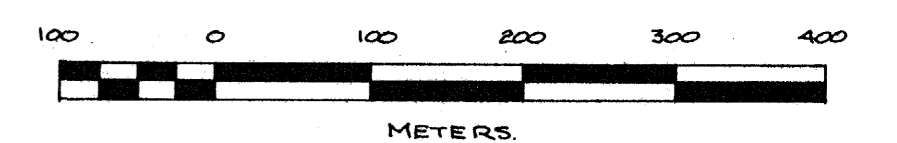
Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 5891 MAP 7

REVISED	SARGENT OPTION (KISPIOX PROPERTY)	
	V.L.F.-E.M. SURVEY NULL ANGLE	
	Vertical Scale: 1cm = 20' Tx: Seattle, Wash.	
PROJ. No. 17	SURVEY BY E. SARGENT	DATE: NOV., 1975
N.T.S. 93M/5.W	DRAWN BY L.C.B.	SCALE: 1:5000
DWG. No. 7	<b>NORANDA EXPLORATION</b> OFFICE VANCOUVER	





5891 M-8



Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 5891 MAP 8

TO ACCOMPANY "GEOCHEMICAL AND GEOPHYSICAL REPORT  
ON THE BURN CLAIN GROUP" BY J.R. FRASER  
AND L.C. BRADISH, JUNE 4, 1976.

OMINECA MINING DIVISION  
*John R. Fraser*  
*L. Bradish*

REVISED	SARGENT OPTION (KISPIOX PROPERTY)	
	MAGNETOMETER SURVEY	
	CONTOUR INTERVAL: 100 $\gamma$	
PROJ. No. 17	SURVEY BY: M. VETTERLI	DATE: NOV, 1975
N.T.S. 93M/5W	DRAWN BY: J.V. VOORST	SCALE: 1:5000
DWG. No.	<b>NORANDA EXPLORATION</b>	
8	OFFICE: VANCOUVER	