

GEOLOGICAL, GEOCHEMICAL, GEOPHYSICAL, & PHYSICAL
ASSESSMENT REPORT
ON THE

MISTY-NIE-SAM PROPERTY

Claims:

MISTY 1 (201883)
MISTY 2 (201884)
NIE 1 (201903)
NIE 2 (201904)
POLE (201885)
SAM 1 (201844)
SAM 2 (201845)

FILMED

ATLIN MINING DIVISION
N.T.S.: 104 K/1 & K/8

LATITUDE: 58° 17' , LONGITUDE: 132° 18' E

Owned & Operated By:

North American Metals Corp.
1500-700 West Pender Street,
Vancouver, British Columbia
V6C 1G8

Rick J. Zuran, B.Sc.
November, 1994

GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,621

PART 2 OF 3

Field Work Completed June 28th to August 21st, 1994
REPORT No.: 94-MNS-1

APPENDIX G
Backbone Geophysical Report and Plates
(SJ Geophysics)

GEOPHYSICAL REPORT
MAGNETOMETER AND VLF-EM SURVEY

on the

BACKBONE GRID

Atlin, Mining Division N.T.S. 104K 8

Prepared for:

NORTH AMERICAN METALS CORP.

#1500 - 700 West Pender Street,
Vancouver, B.C.
V6C 1G8

Prepared by:

Todd A. Ballantyne, P. Geo.

SJ GEOPHYSICS LTD.

11762 - 94th Avenue
Delta, British Columbia
Canada V4C 3R7

July 1994

TABLE OF CONTENTS

INTRODUCTION.....	1
FIELD WORK AND INSTRUMENTATION	1
DATA PRESENTATION	2
INTERPRETATION.....	3
RECOMMENDATIONS	5
CONCLUSION.....	5
APPENDIX I	7
<i>Statement Of Qualifications</i>	8

LIST OF FIGURES

<i>Figure 1. VLF-EM Field of Cutler as it couples with Structures of varying strike - Illustrating it's poor coupling angle.....</i>	<i>4</i>
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INTRODUCTION

A magnetometer and VLF-EM survey was completed by SJ Geophysics Ltd. for North American Metals Corp. on the Backbone Grid. The Backbone Grid is located approximately 9 kilometres North of the Golden Bear Mine at Bearskin Lake in the Atlin mining division, B.C. (N.T.S. 104K 1).

The purpose of the survey was to aid in the mapping of local geology and to follow up on previous geophysical surveys conducted in this area.

FIELD WORK AND INSTRUMENTATION

The Magnetometer and VLF-EM Survey was completed during the period July 9, 10 and 15, 1994. Data acquisition, processing and field presentation was performed by Todd A. Ballantyne (Geophysicist). Surveying was performed at 12.5 metre intervals along 50 metre picketed lines using a hip-chain to infill measurement locations, for a total of 10.75 kilometres. Grid line spacing was 100 metres.

An EDA OMNI PLUS combined proton precession magnetometer and VLF-EM system was used for data acquisition and an EDA OMNI IV proton precession magnetometer was used as a base station. The VLF-EM survey used signals from Cutler (24.0 kHz, NAA), Hawaii (23.4 kHz, NPM) and Jim Creek (Seattle 24.8 kHz, NLK). The Cutler transmitter is poorly orientated for east/west lines and was used primarily for conformation of anomalies detected with the two other transmitters. The direction of VLF-EM surveying is positive to the east.

The data was processed as time permitted by a geophysicist. Data was field plotted on an Ink Jet printer and also given to the client as AutoCad files. Final data plotting was performed on a 36 inch Ink Jet Colour Plotter.

DATA PRESENTATION

The magnetic data, VLF-EM data, filtered VLF-EM data (using a standard four point Fraser filter) and compilation of the magnetic and VLF-EM data are presented on the following plates:

Plate G1A	Magnetometer Survey Total Field Profiles	In Pocket
Plate G1B	Magnetometer Survey Total Field Contours	In Pocket
Plate G1C	Magnetometer Survey Colour Contour Map	In Pocket
Plate G2A	VLF-EM Survey - Seattle, NLK 24.8 kHz Dip Angle & Quadrature Profiles	In Pocket
Plate G2B	VLF-EM Survey - Seattle, NLK 24.8 kHz Fraser Filtered Dip Angle, Total Field Profiles and Topography	In Pocket
Plate G2C	VLF-EM Survey - Seattle, NLK 24.8 kHz Fraser Filtered Dip Angle Contours	In Pocket
Plate G3A	VLF-EM Survey - Cutler, NAA 24.0 kHz Dip Angle & Quadrature Profiles	In Pocket
Plate G3B	VLF-EM Survey - Cutler, NAA 24.0 kHz Fraser Filtered Dip Angle, Total Field Profiles and Topography	In Pocket
Plate G3C	VLF-EM Survey - Cutler, NAA 24.0 kHz Fraser Filtered Dip Angle Contours	In Pocket
Plate G4A	VLF-EM Survey - Hawaii, NPM 23.4 kHz Dip Angle & Quadrature Profiles	In Pocket
Plate G4B	VLF-EM Survey - Hawaii, NPM 23.4 kHz Fraser Filtered Dip Angle, Total Field Profiles and Topography	In Pocket
Plate G4C	VLF-EM Survey - Hawaii, NPM 23.4 kHz Fraser Filtered Dip Angle Contours	In Pocket
Plate G5A	Magnetometer and VLF-EM Survey Compilation Map	In Pocket

INTERPRETATION

The interpretation is primarily presented on the compilation map plate G5A, but the most prominent anomalies will be discussed below. The magnetometer and VLF-EM survey has delineated numerous NNW to NNE trending anomalies. There is a minor correlation between the magnetics and the VLF-EM. The magnetic relief over the surveyed area is approximately 2,600 nT. The majority of this is due to a strong background response/regional magnetic trend. The trend is noted by a high magnitude response at the western limit of the grid that steadily decreases to the east. The regional appears to terminate approximately two hundred metres from the eastern boundary marking a NNE trending lithological contact; shown as anomaly M1 on plate G5A. Unfortunately, steep terrain did not permit the grid to be extended to the east. There is not enough data to determine if the regional magnetic trend results from a single or multiple source(s), as there appears to be another weak, shorter wave length regional trend on lines 30200 and 30100. The regional magnetic trend is not present on line 29800N thus the source of this trend may not extend south of the cliffs which terminate lines 30100 and 30000N. Contained within the regional magnetic trend are the near surface magnetic anomalies presented on the compilation map.

It would appear from the magnetic data that there are two major rock units. The predominant one is cut by numerous linear magnetic features. These anomalies may be represented by near surface magnetic dykes, higher magnetic phases/lenses within a unit or fault/shear zones containing magnetic mineralization. More information can be discerned from the magnetics and the VLF-EM when the data is correlated with geological mapping and geochemical sampling.

Magnetic anomaly M1 is an area of low magnetic mineral content and very little variation within this area. The west edge of M1 marks a change in lithology. Anomaly M2 is narrow mag high due to a near surface, steeply dipping structure, likely a dyke. Anomaly M3 is two sub-parallel magnetic highs that appear to be terminated to the north by a cross-structure. The remainder of the magnetic anomalies are not discussed, but presented on the compilation map.

The VLF-EM anomalies were determined from the Seattle data (primarily from the Dip Angle and Quadrature profiles and may not correspond exactly with the VLF Fraser filtered contours) and confirmed in most cases by the Hawaii data. The signal strength from Cutler is weak and it's orientation to the grid is poor for north/south structures. Caution is used when using the Fraser filtered dip angle contour data from Cutler for interpretation, because of the possibility of reverse cross-overs being the location of the anomaly of interest. Contouring would not render this situation very well, because on one line anomaly contours would be positive and on the next they could be negative, as in the case of a reverse cross-over.

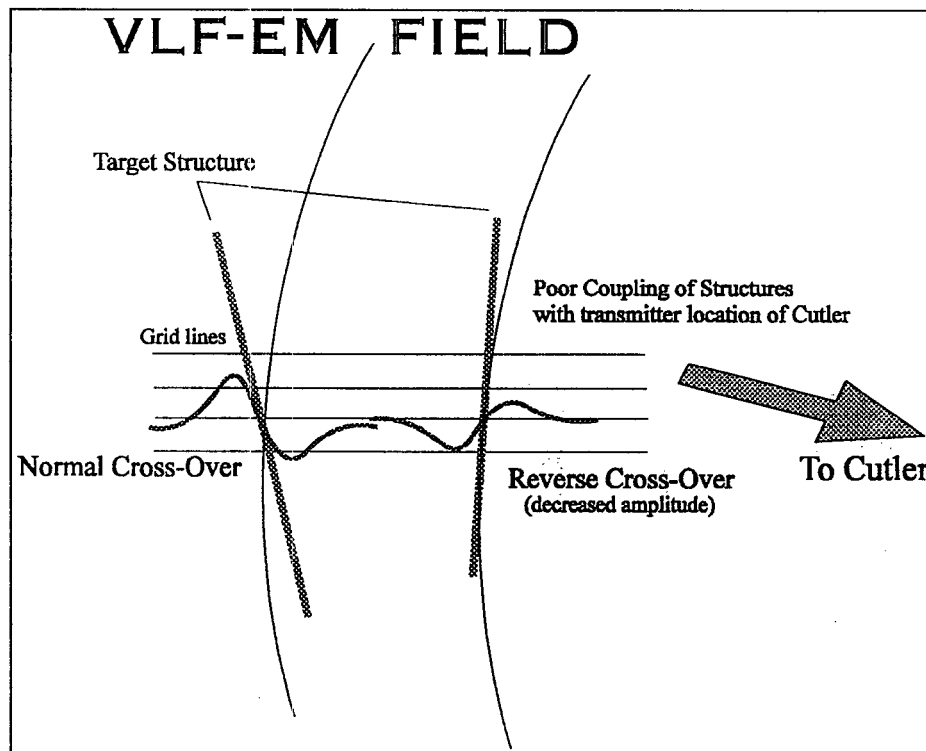


Figure 1. VLF-EM Field of Cutler as it couples with Structures of varying strike - Illustrating it's poor coupling angle.

Anomaly V1 is a well defined narrow, steeply dipping conductor that becomes weaker to the south and is not traceable beyond 600 meters. It may have been terminated by magnetic anomaly M3. Magnetic anomaly M2 follows V1 for a short distance and is vaguely traceable along V1's extent to the north (50 metre grid lines may yield enough information to confirm this).

Anomaly V2 is slightly less prominent than V1 and has a shorter strike length. These two anomalies may be separate conductors or the conductive edges of a 100 metre wide structure. V2 appears to have been cut by the northern portion of magnetic anomaly M2, but continues south slightly weaker.

Anomaly V3 is moderate strength conductor defining a contact. The lithology to the east is more resistive and a mag low.

Anomaly V4 is a strong anomaly with two sub-parallel conductors that appear to join to the north. The west edge of V4 is coincident with a magnetic high.

Anomaly V5 is moderate strength conductor that may continue to the south.

Anomaly V6 is a weak response from Seattle, but a strong response from Hawaii. This is due to the conductor's strike direction coupling better with the signal from Hawaii. Anomaly V6 may be responding to the edges of the two magnetic highs which are contained within it. Infill geophysics or geological mapping may clarify the crossing of the mag and VLF anomalies further north along V6.

RECOMMENDATIONS

The geophysical data should be compiled with geological mapping and sampling to determine if infill mag/vlf is required or other geophysical techniques are required enhance the geological mapping. If the results of the mag/vlf survey correlate well with the geology, it is recommended to further interpret the geophysics with the geology.


The VLF quadrature data should be compared with the geology to determine if any very weak VLF anomalies (those anomalies which display more quadrature response than in-phase) are attributable to structures of interest and if so infill surveying may be warranted.

CONCLUSION.

The magnetometer and VLF-EM survey delineated numerous NNW to NNE trending anomalies. The highest concentration of anomalies strikes across the grid between lines 23300E to 23800E. The majority of the magnetic anomalies are narrow and near surface magnetic highs suspected of representing magnetic intrusive features,

magnetic phases/lenses within a rock unit or fault/shear zones containing magnetic mineralization. A NNE trending change in lithology near the east boundary of the grid is suggested by both the magnetics and the VLF-EM data. There is some association of the VLF-EM anomalies with magnetic anomalies. Although in this data the majority of the magnetic and VLF-EM anomalies are not coincident.

27 July 1994



Todd A. Ballantyne, B.Sc., P. Geo.
Geophysicist


APPENDIX I
Statement of Qualifications

Statement Of Qualifications

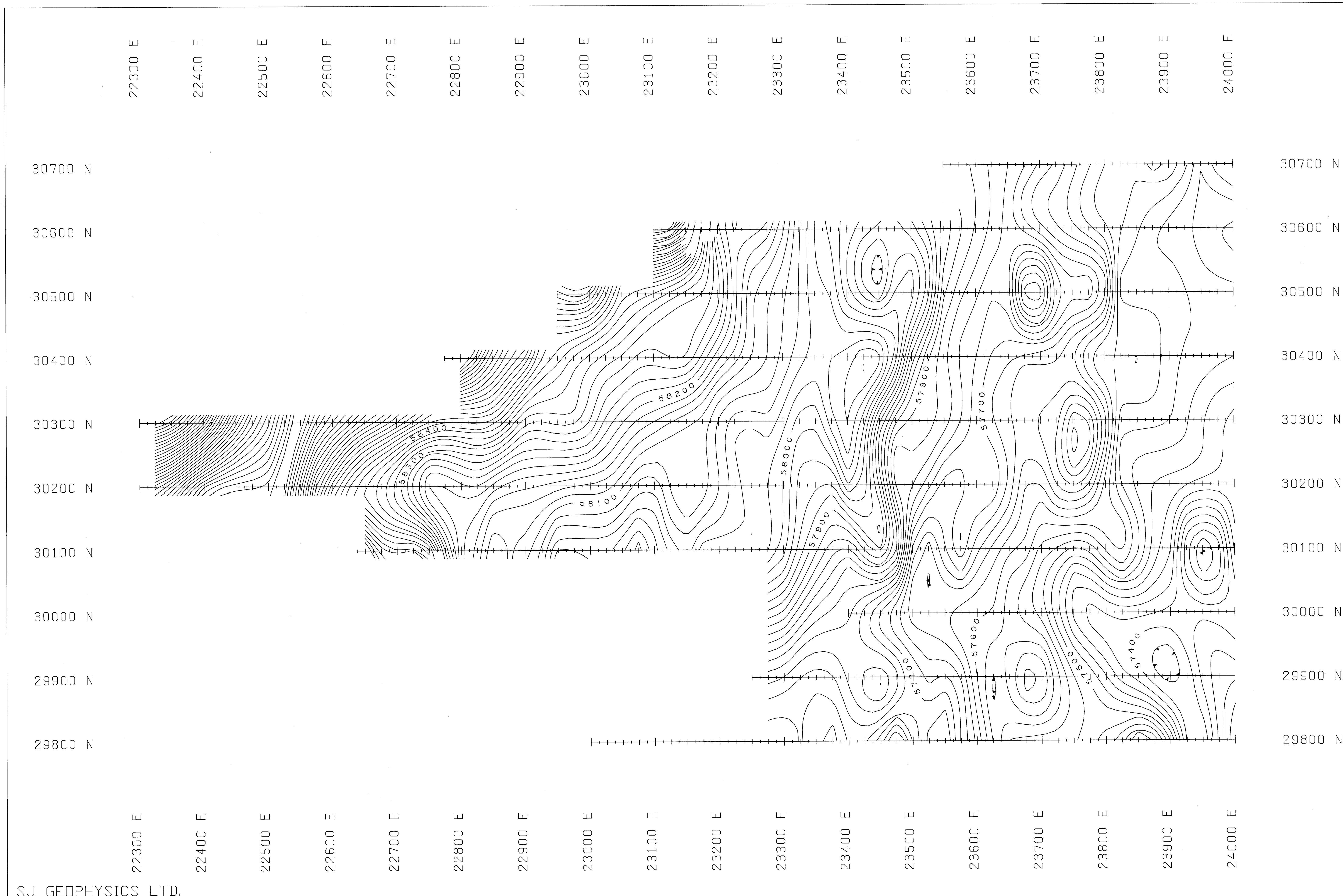
I, Todd A. Ballantyne, of 3538 West Sixteenth Avenue, Vancouver, in the Province of British Columbia, DO HEREBY CERTIFY:

1. THAT I am a graduate of the University of British Columbia with a Bachelor of Science degree in Geophysics.
2. THAT I have been engaged in mining and petroleum exploration since 1987.
3. THAT I am registered as a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of the Province of British Columbia
3. THAT this report is based on fieldwork carried out by myself in July 1994.
4. THAT I own no shares, directly or indirectly in North American Metals Corp., nor do I expect to acquire any shares. I have no interest, directly or indirectly, in the Backbone Prospect.
5. THAT I consent to the use by North American Metals Corp. of this report in a Statement of Material Facts or any such document as may be required by the Vancouver Stock Exchange or the Office of the Superintendent of Brokers.

27 July 1994

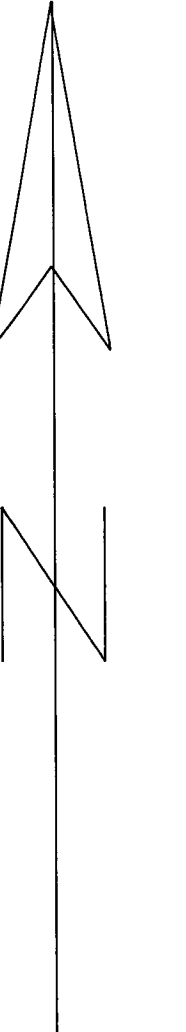


Todd A. Ballantyne, B.Sc., P. Geo.
Geophysicist



GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,621
PART 23 OF 3



LEGEND

CONTOUR INTERVAL: 20 nT
POSTED INTERVAL: 100 nT
MINIMUM VALUE: 57,133 nT
MAXIMUM VALUE: 59,711 nT

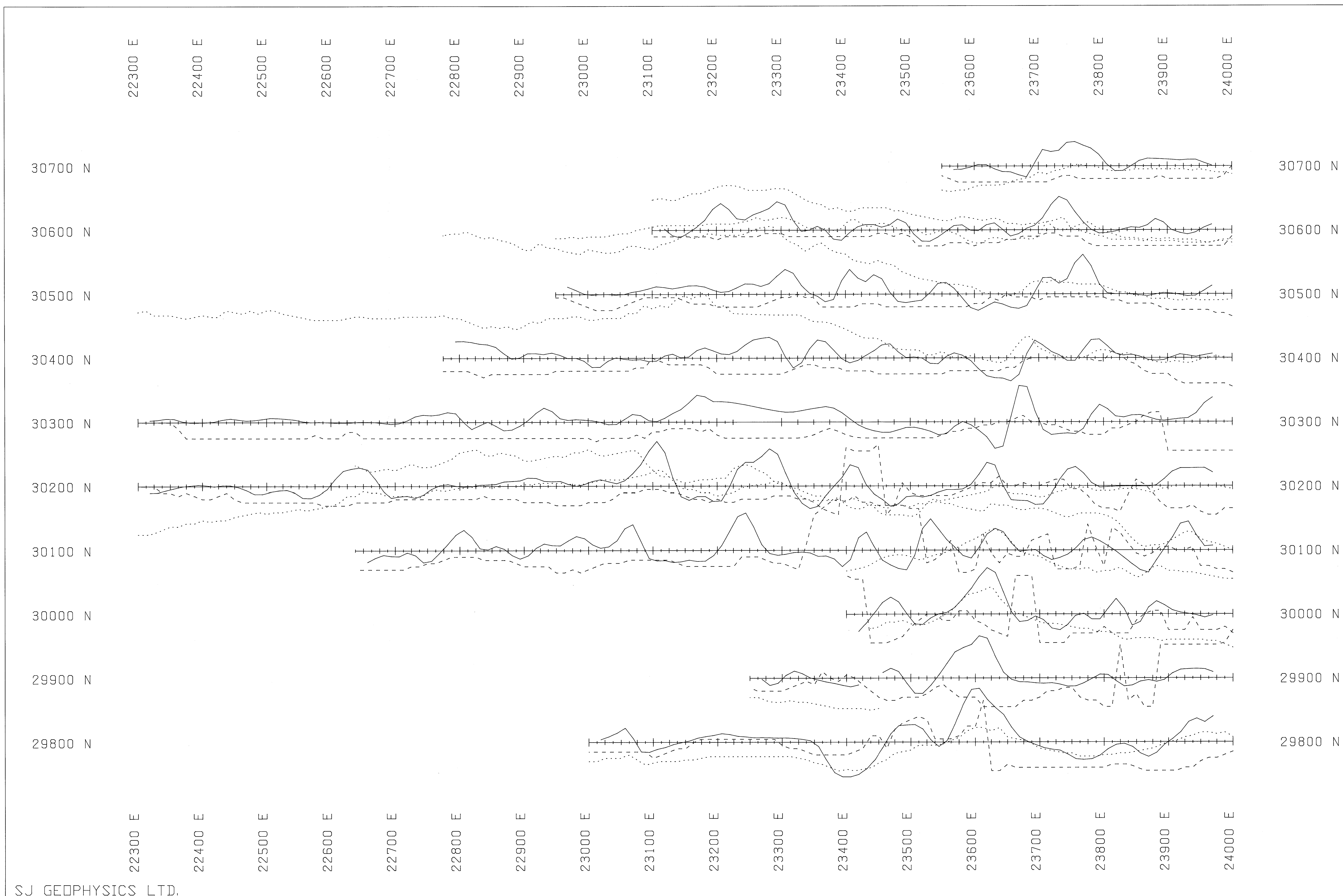
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EDA OMNI PLUS COMBINED PROTON PRECESSION
MAGNETOMETER AND VLF-EM SYSTEM - FIELD UNIT
EDA OMNI IV PROTON PRECESSION MAGNETOMETER
AS A BASE STATION UNIT

NORTH AMERICAN METALS CORP.
GOLDEN BEAR MINE
BACKBONE GRID
MAGNETOMETER SURVEY
TOTAL FIELD CONTOURS

ATLIN, MINING DIVISION N.T.S. 104K 8
SCALE IN METRES
100 0 100 200 300

JULY 1994

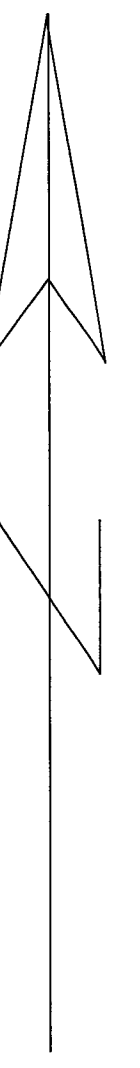
PLATE G1B



GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,621

PART 2 OF 3

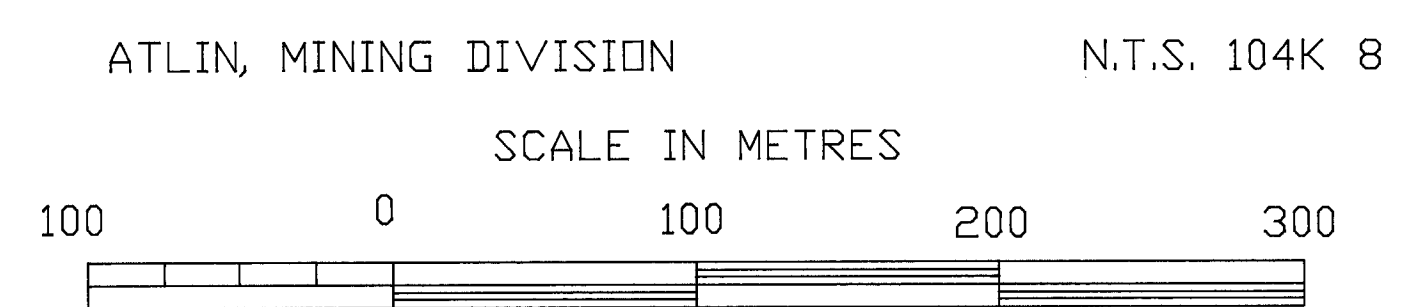


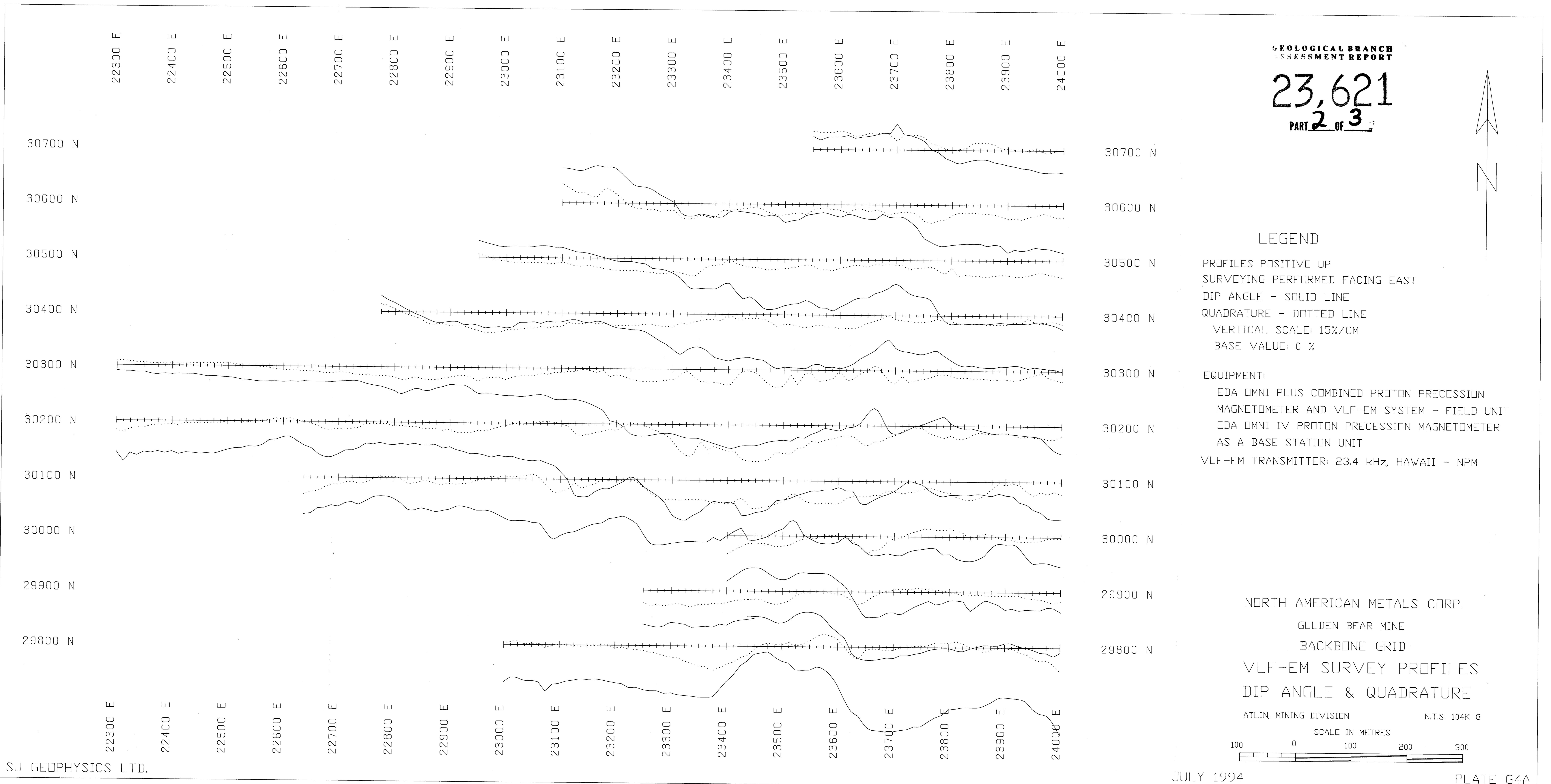
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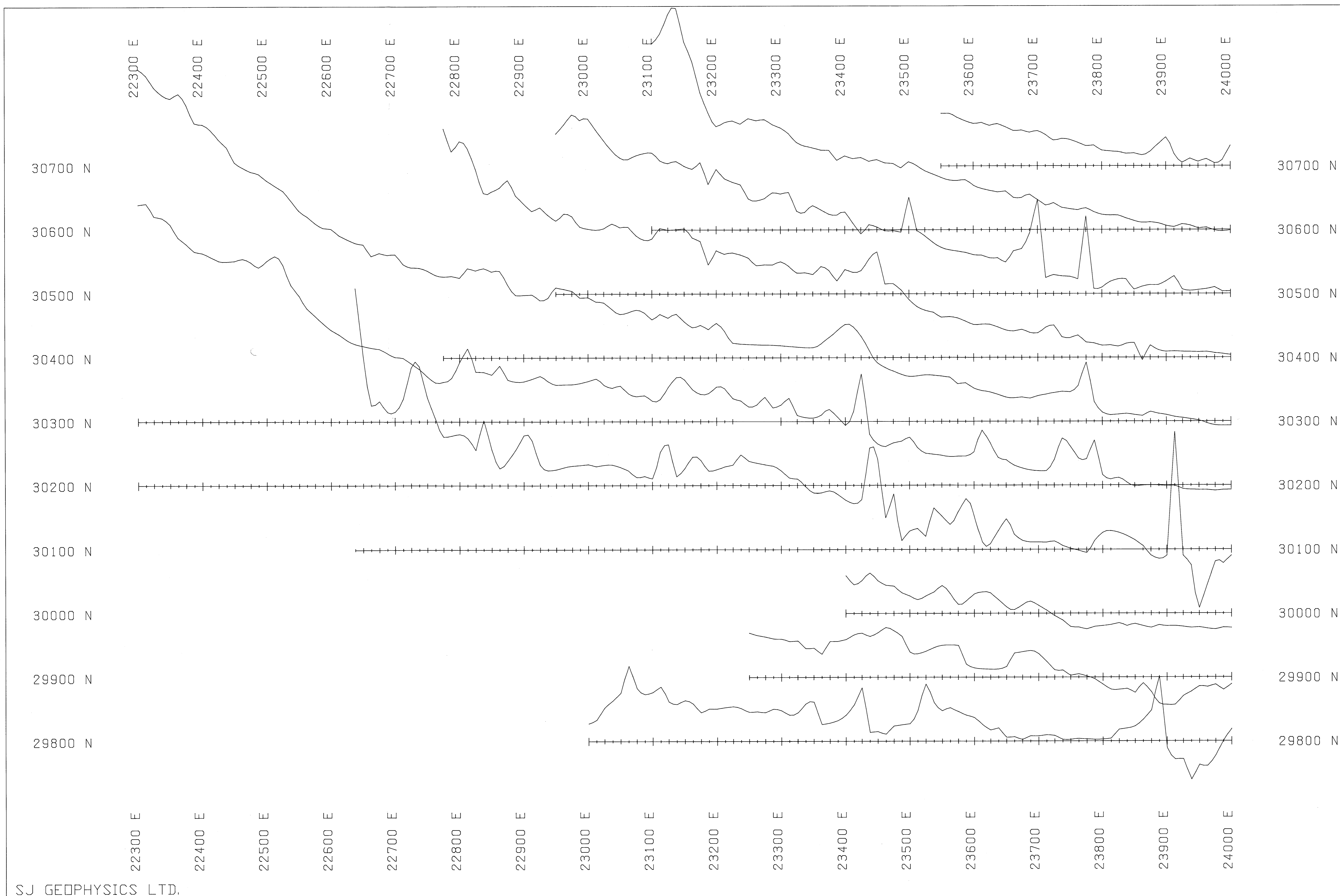
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 SURVEYING PERFORMED FACING EAST
 DIP ANGLE - SOLID LINE
 VERTICAL SCALE: 15%/CM 0% BASE VALUE
 VLF FIELD STRENGTH - DOTTED LINE
 VERTICAL SCALE: 2%/CM 8% BASE VALUE
 TOPOGRAPHY SLOPE - DASHED LINE
 VERTICAL SCALE: 50%/CM 0% BASE VALUE

EQUIPMENT:
 EDA OMNI PLUS COMBINED PROTON PRECESSION
 MAGNETOMETER AND VLF-EM SYSTEM - FIELD UNIT
 EDA OMNI IV PROTON PRECESSION MAGNETOMETER
 AS A BASE STATION UNIT
 VLF-EM TRANSMITTER: 23.4 kHz, HAWAII - NPM

NORTH AMERICAN METALS CORP.
 GOLDEN BEAR MINE
 BACKBONE GRID
 VLF-EM SURVEY PROFILES
 FRASER FILTERED DIP, TOTAL FIELD, TOPOGRAPHY

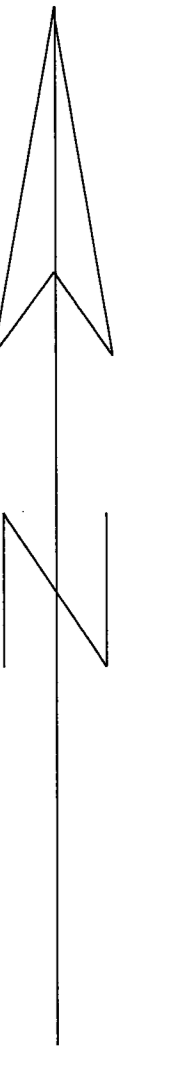






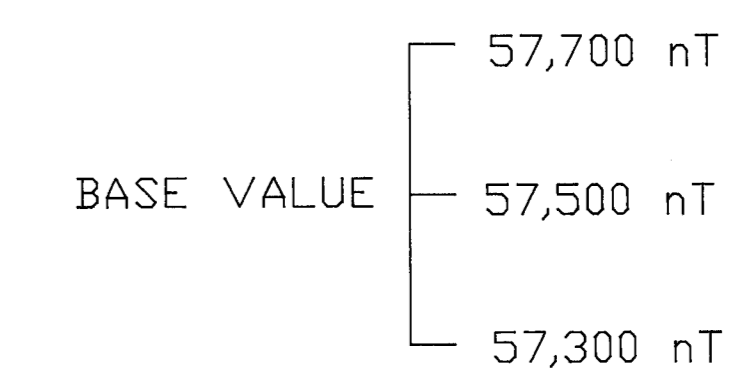
GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,621
PART 2 OF 3



LEGEND

PROFILES POSITIVE UP
MAGNETIC PROFILE SCALE:



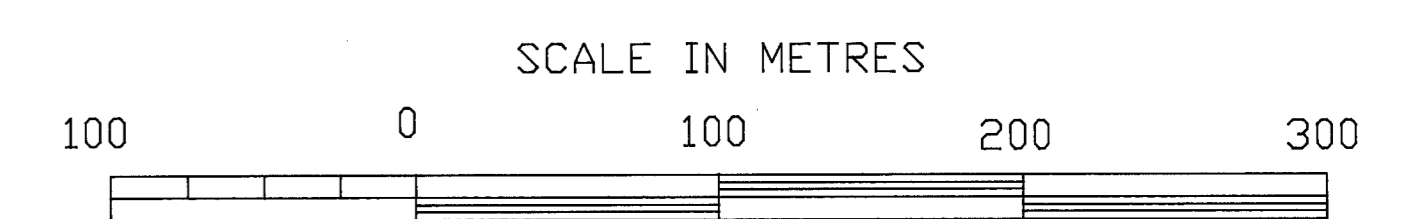
MINIMUM VALUE: 57,133 nT
MAXIMUM VALUE: 59,711 nT

EQUIPMENT:

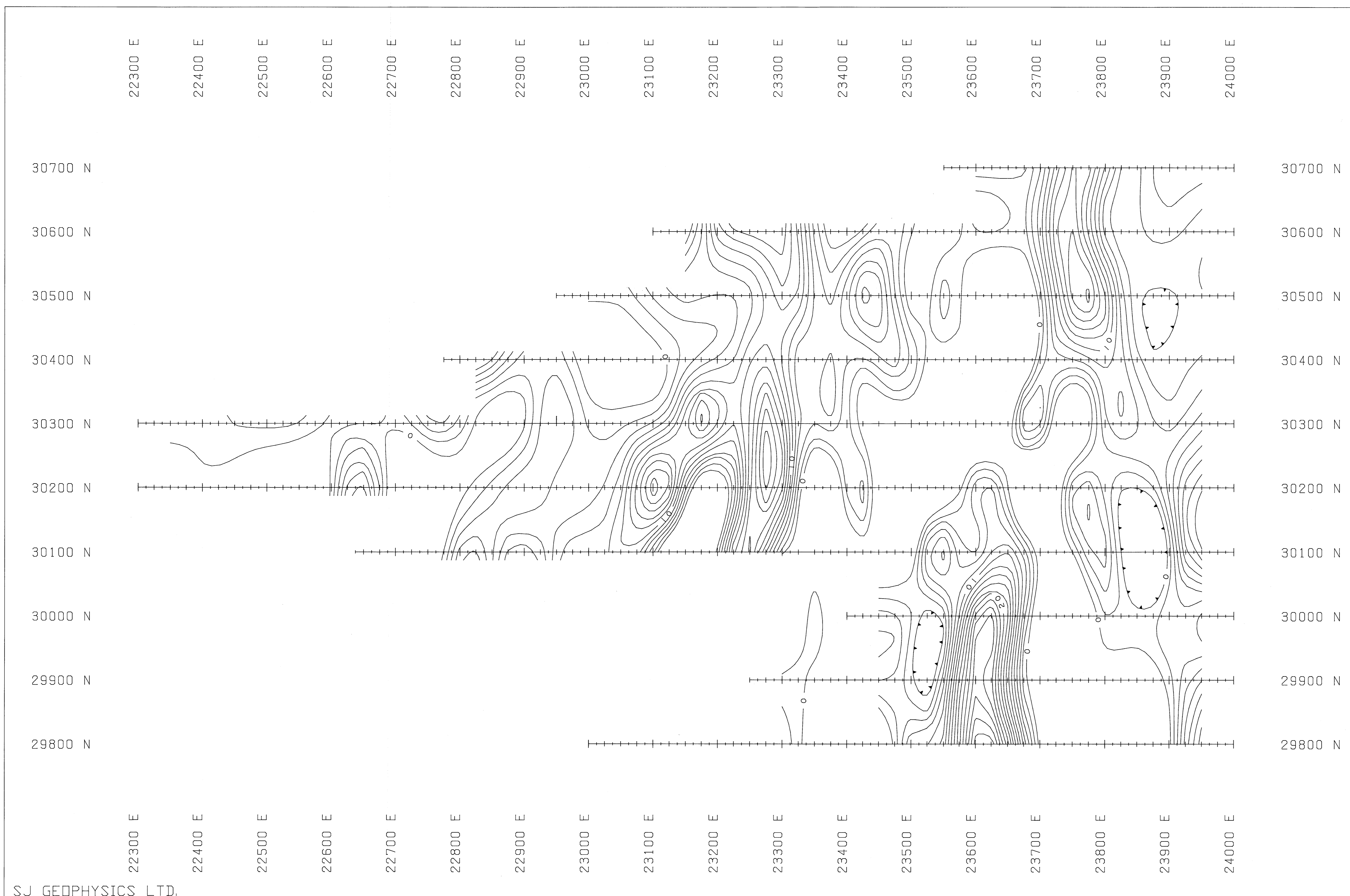
EDA OMNI PLUS COMBINED PROTON PRECESSION
MAGNETOMETER AND VLF-EM SYSTEM - FIELD UNIT
EDA OMNI IV PROTON PRECESSION MAGNETOMETER
AS A BASE STATION UNIT

NORTH AMERICAN METALS CORP.
GOLDEN BEAR MINE
BACKBONE GRID
MAGNETOMETER SURVEY
TOTAL FIELD PROFILES

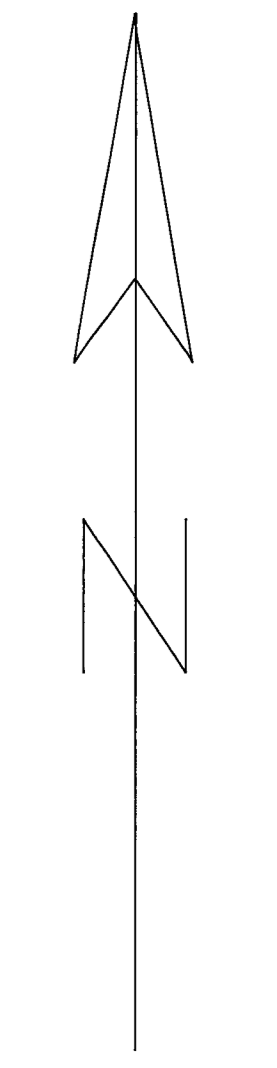
ATLIN, MINING DIVISION N.T.S. 104K 8



2



GEOLOGICAL BRANCH
ASSESSMENT REPORT
23,621
PART 2.3 OF



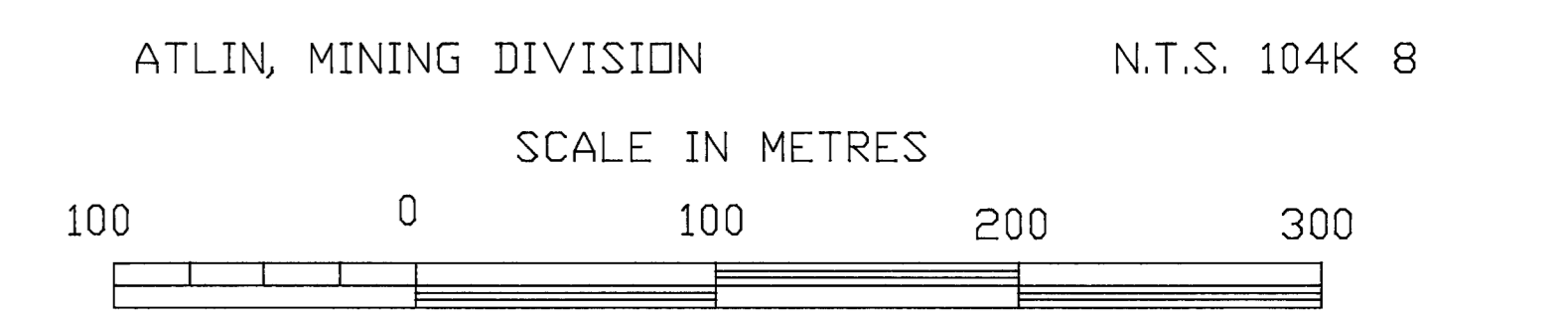
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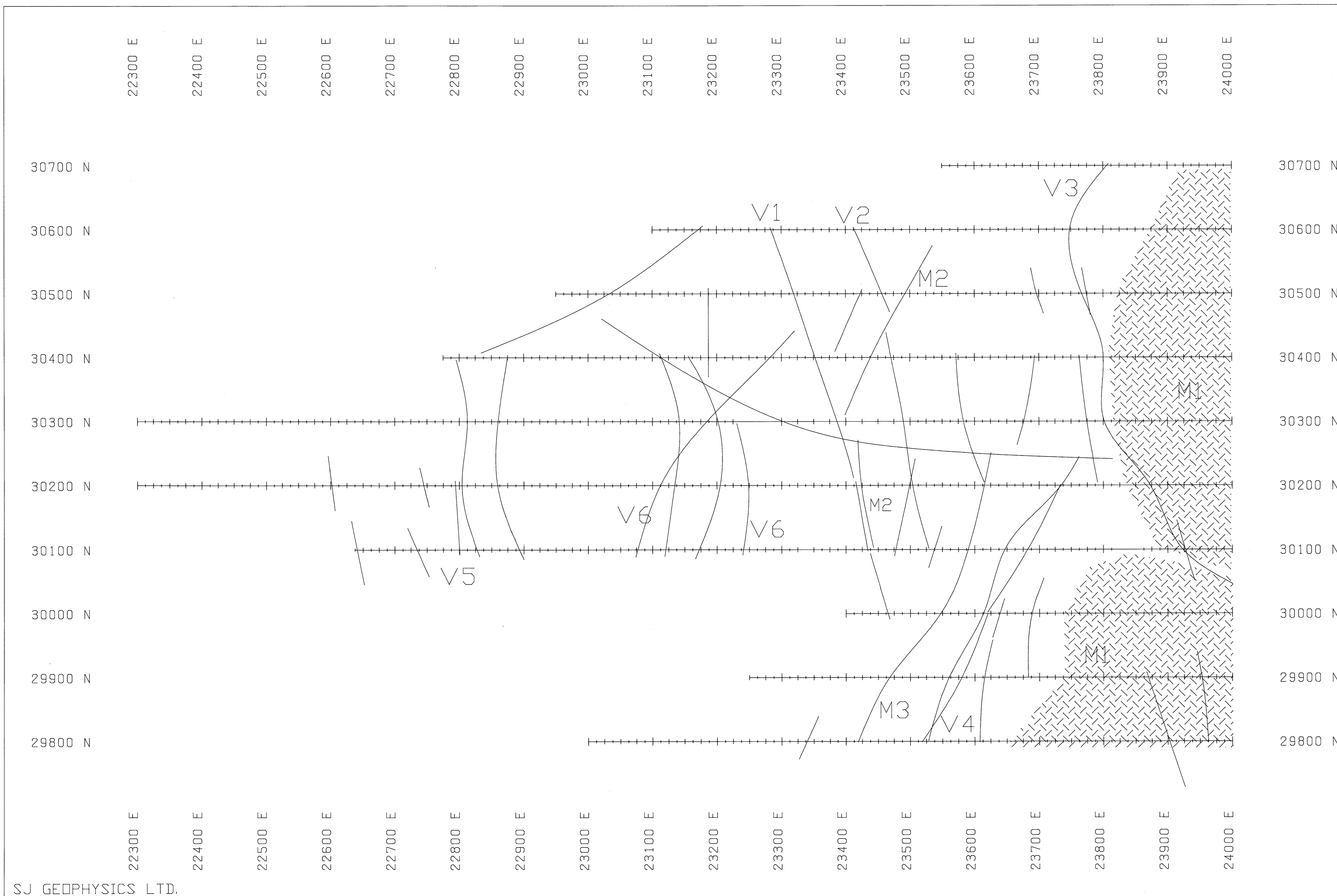
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CONTOUR INTERVAL: 2%
POSTED INTERVAL: 10%

EQUIPMENT:

EDA OMNI PLUS COMBINED PROTON PRECESSION
MAGNETOMETER AND VLF-EM SYSTEM - FIELD UNIT
EDA OMNI IV PROTON PRECESSION MAGNETOMETER
AS A BASE STATION UNIT
VLF-EM TRANSMITTER: 23.4 kHz, HAWAII - NPM

NORTH AMERICAN METALS CORP.
GOLDEN BEAR MINE
BACKBONE GRID
VLF-EM SURVEY CONTOURS
FRASER FILTERED DIP ANGLE



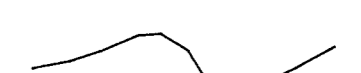

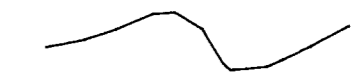
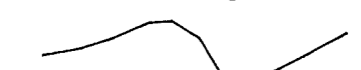



GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,621

PART 2 OF 3

LEGEND

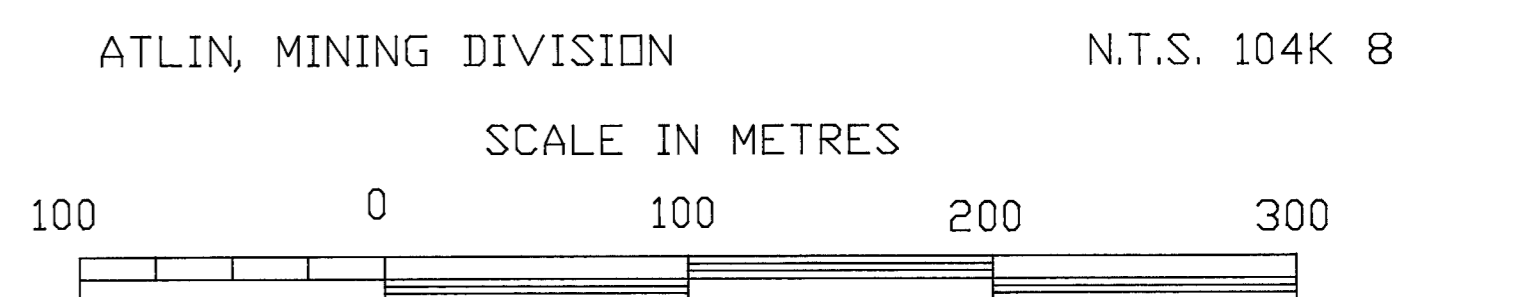
- MAGNETIC FEATURE
- STRONG ANOMALY 
- WEAK ANOMALY 
- VLF-EM ANOMALY AXIS
- STRONG ANOMALY 
- WEAK ANOMALY 
- POSSIBLE CROSS-STRUCTURE 

EQUIPMENT:

- EDA OMNI PLUS COMBINED PROTON PRECESSION MAGNETOMETER AND VLF-EM SYSTEM - FIELD UNIT
- EDA OMNI IV PROTON PRECESSION MAGNETOMETER AS A BASE STATION UNIT
- VLF-EM TRANSMITTER: 24.8 kHz, SEATTLE - NLK
- 23.4 kHz, HAWAII - NPM
- 24.0 kHz, CUTLER - NAA

SEATTLE IS PRIMARY VLF TRANSMITTER, OTHERS USED FOR SUPPORTIVE INFORMATION AND STRUCTURES POORLY ORIENTATED FOR EAST/WEST LINES

NORTH AMERICAN METALS CORP.
GOLDEN BEAR MINE
BACKBONE GRID
MAGNETOMETER & VLF-EM SURVEY
COMPILATION MAP



GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,621

PART 23 OF 3



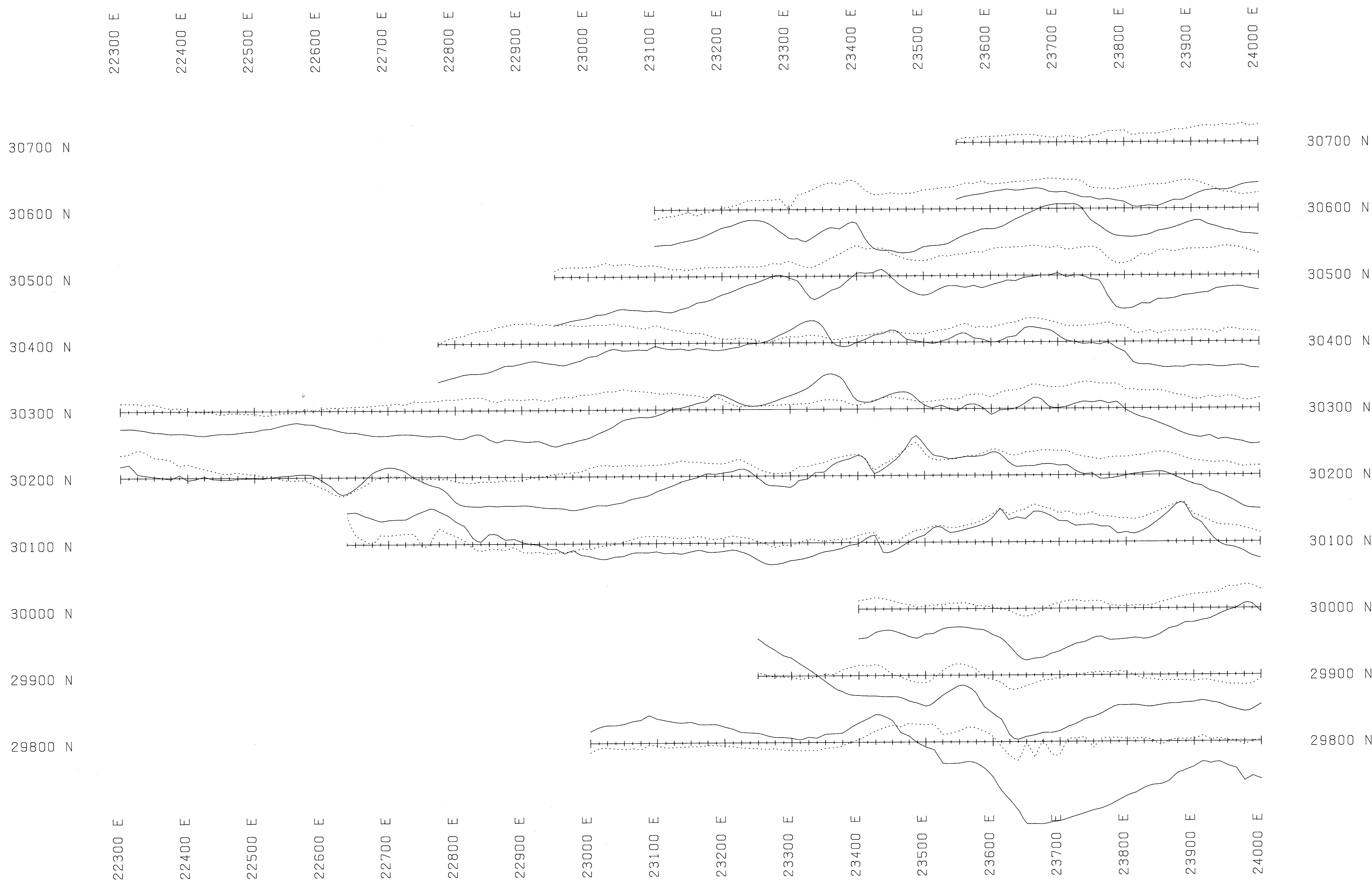
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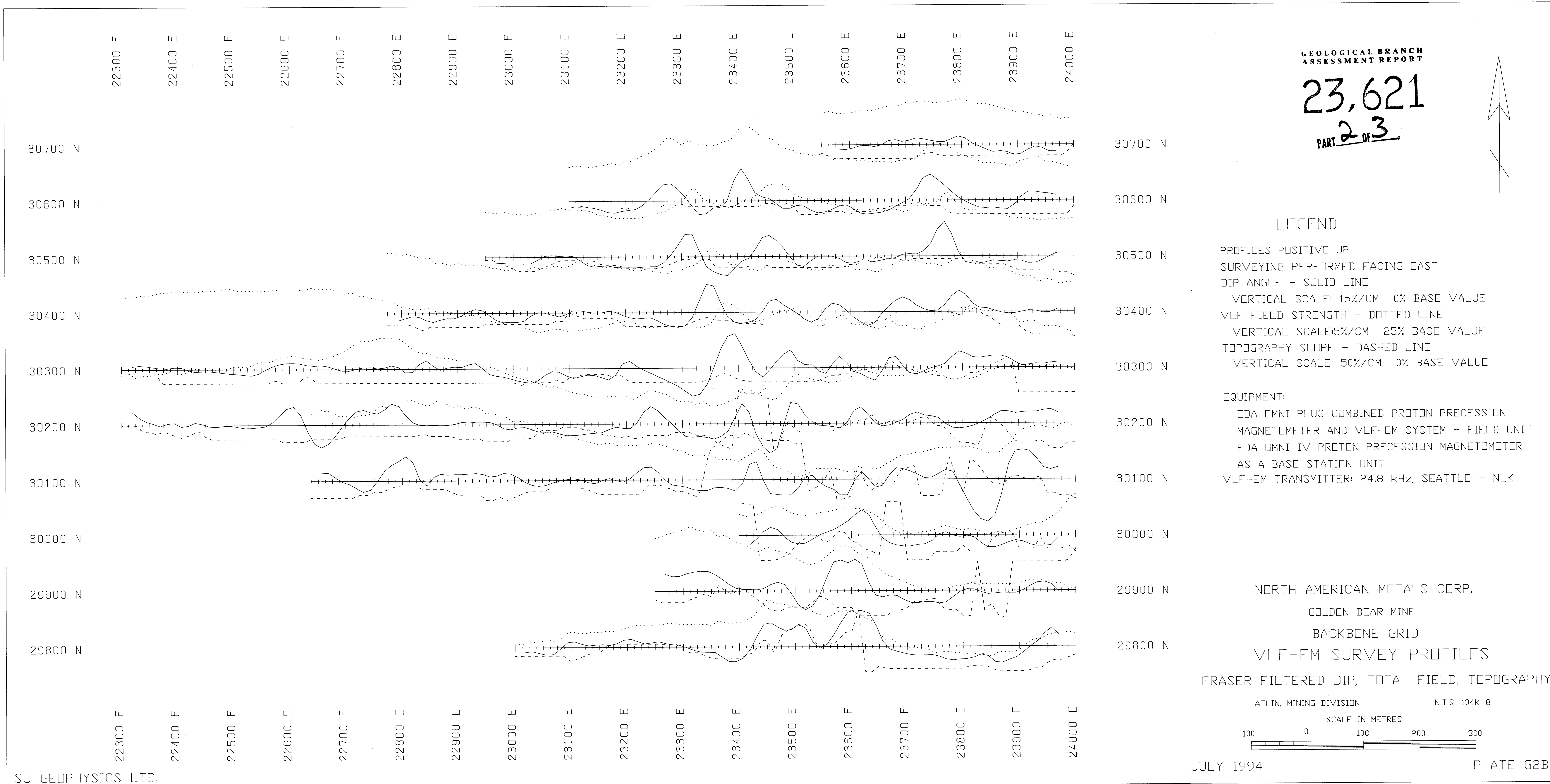
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SURVEYING PERFORMED FACING EAST
DIP ANGLE - SOLID LINE
QUADRATURE - DOTTED LINE
VERTICAL SCALE: 15%/CM
BASE VALUE: 0 %

EQUIPMENT:
EDA OMNI PLUS COMBINED PROTON PRECESSION
MAGNETOMETER AND VLF-EM SYSTEM - FIELD UNIT
EDA OMNI IV PROTON PRECESSION MAGNETOMETER
AS A BASE STATION UNIT
VLF-EM TRANSMITTER: 24.8 kHz, SEATTLE - NLK

NORTH AMERICAN METALS CORP.
GOLDEN BEAR MINE
BACKBONE GRID
VLF-EM SURVEY PROFILES
DIP ANGLE & QUADRATURE

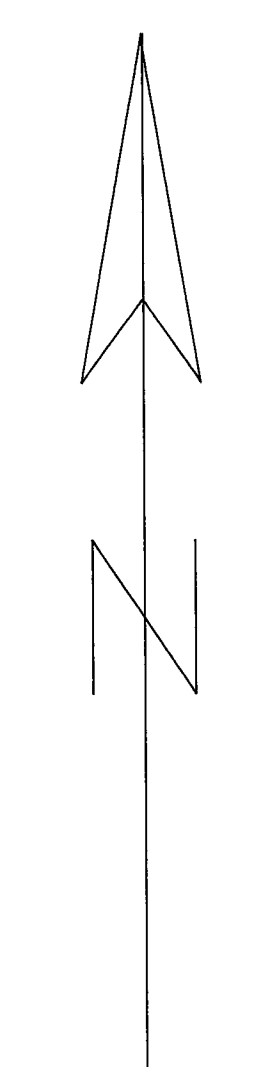
ATLIN, MINING DIVISION N.T.S. 104K 8
SCALE IN METRES
100 0 100 200 300





GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,621
PART 2 OF 3

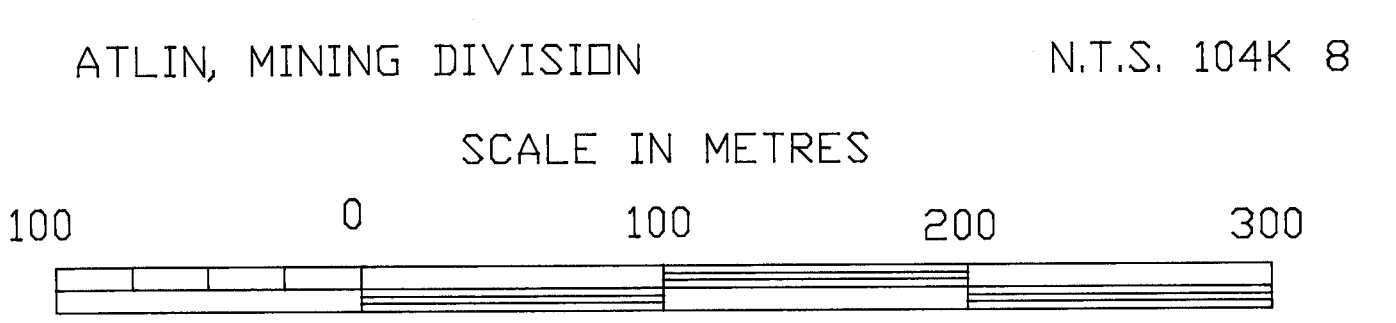


LEGEND

- PROFILES POSITIVE UP
- SURVEYING PERFORMED FACING EAST
- DIP ANGLE - SOLID LINE
- VERTICAL SCALE: 15%/CM 0% BASE VALUE
- VLF FIELD STRENGTH - DOTTED LINE
- VERTICAL SCALE: 5%/CM 25% BASE VALUE
- TOPOGRAPHY SLOPE - DASHED LINE
- VERTICAL SCALE: 50%/CM 0% BASE VALUE

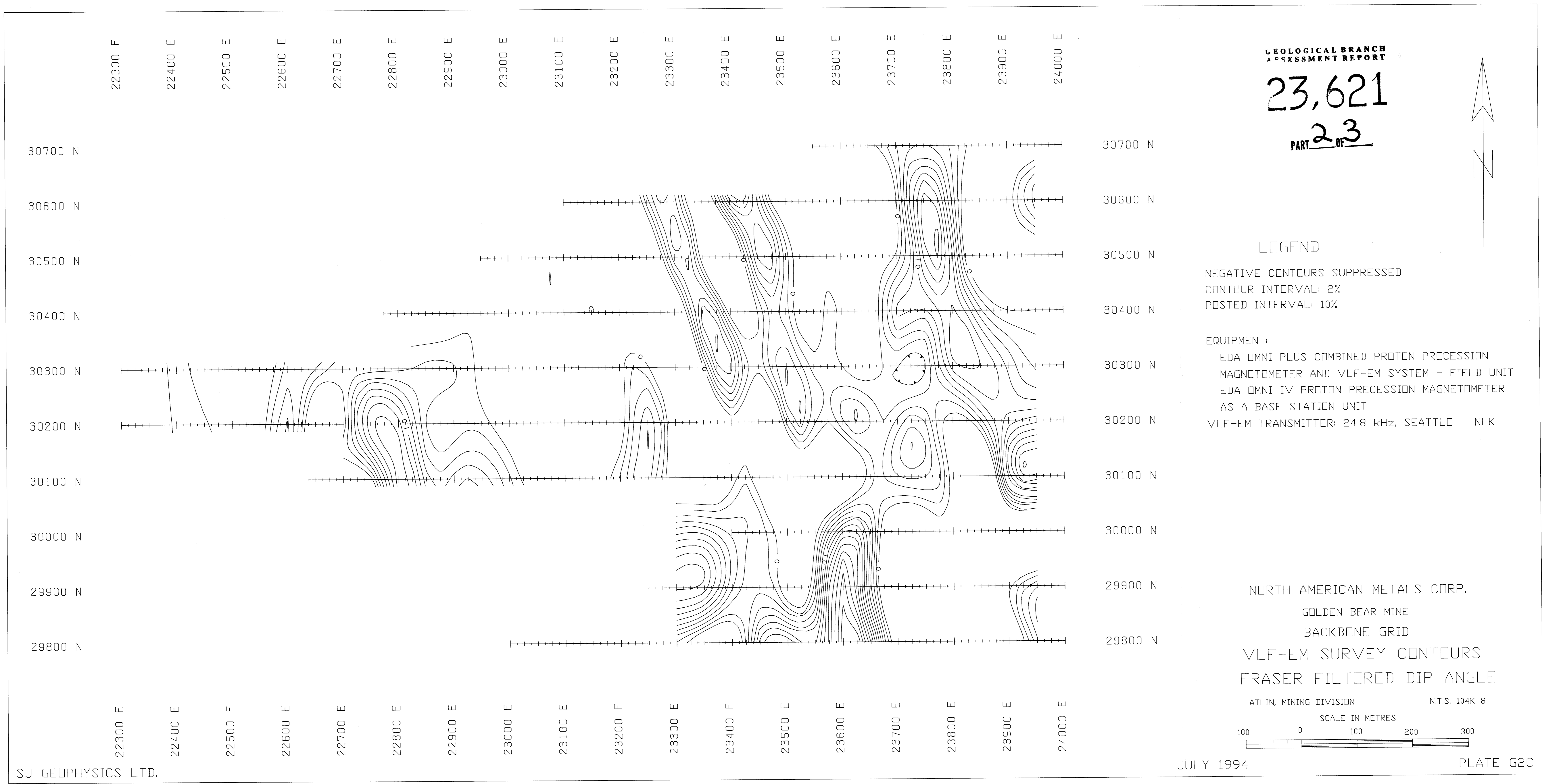
EQUIPMENT:
 EDA OMNI PLUS COMBINED PROTON PRECESSION
 MAGNETOMETER AND VLF-EM SYSTEM - FIELD UNIT
 EDA OMNI IV PROTON PRECESSION MAGNETOMETER
 AS A BASE STATION UNIT
 VLF-EM TRANSMITTER: 24.8 kHz, SEATTLE - NLK

NORTH AMERICAN METALS CORP.
 GOLDEN BEAR MINE
 BACKBONE GRID
 VLF-EM SURVEY PROFILES
 FRASER FILTERED DIP, TOTAL FIELD, TOPOGRAPHY



JULY 1994

PLATE G2B



GEOLOGICAL BRANCH
ASSESSMENT REPORT
23,621
PART 2 OF 3

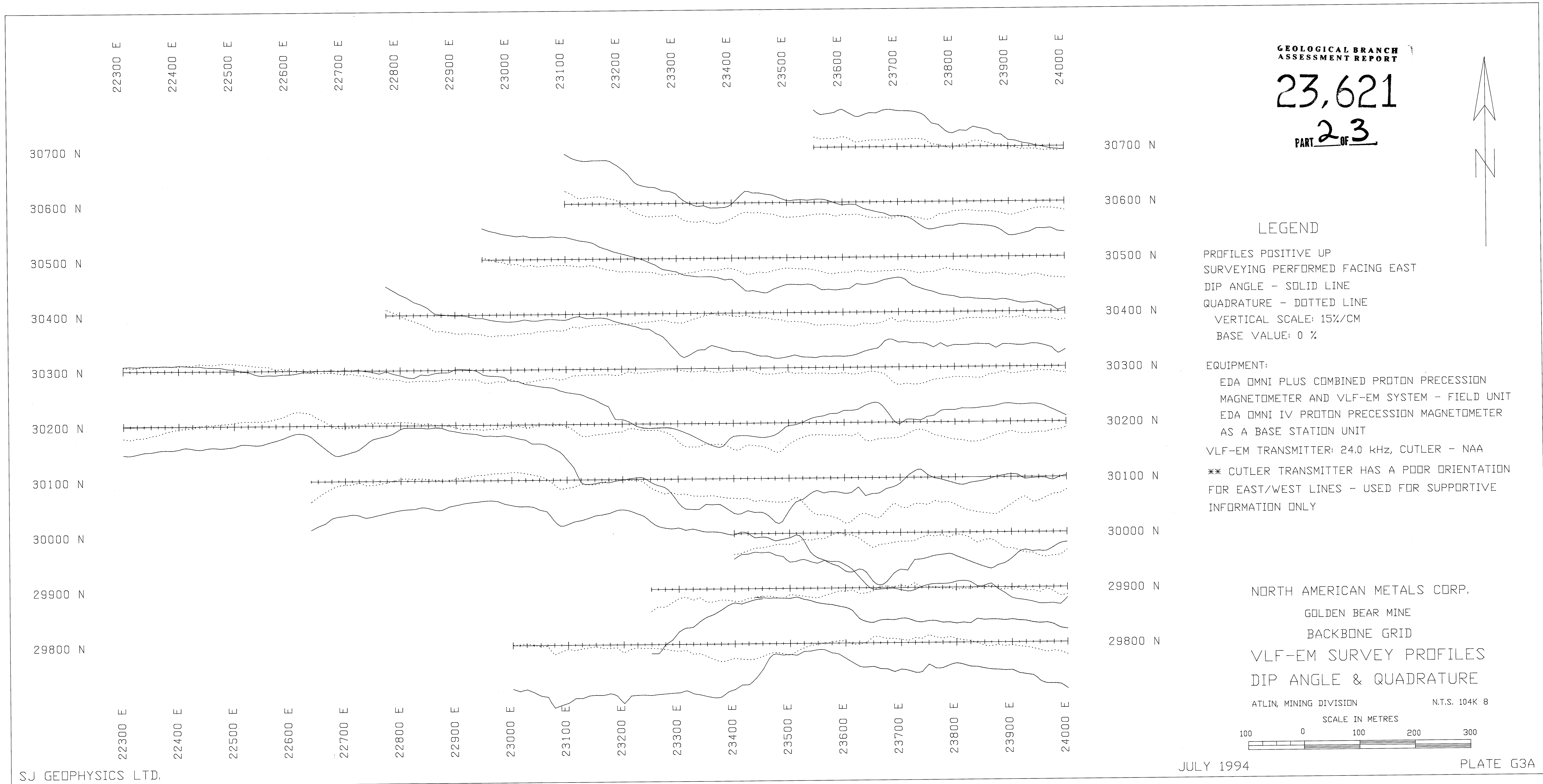
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NEGATIVE CONTOURS SUPPRESSED
CONTOUR INTERVAL: 2%
POSTED INTERVAL: 10%

EQUIPMENT:
EDA OMNI PLUS COMBINED PROTON PRECESSION
MAGNETOMETER AND VLF-EM SYSTEM - FIELD UNIT
EDA OMNI IV PROTON PRECESSION MAGNETOMETER
AS A BASE STATION UNIT
VLF-EM TRANSMITTER: 24.8 kHz, SEATTLE - NLK

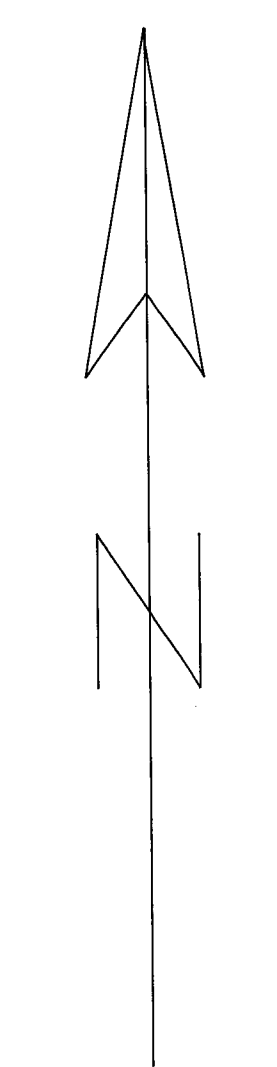
NORTH AMERICAN METALS CORP.
GOLDEN BEAR MINE
BACKBONE GRID
VLF-EM SURVEY CONTOURS
FRASER FILTERED DIP ANGLE

ATLIN, MINING DIVISION N.T.S. 104K 8
SCALE IN METRES
100 0 100 200 300



GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,621
23
PART OF



LEGEND

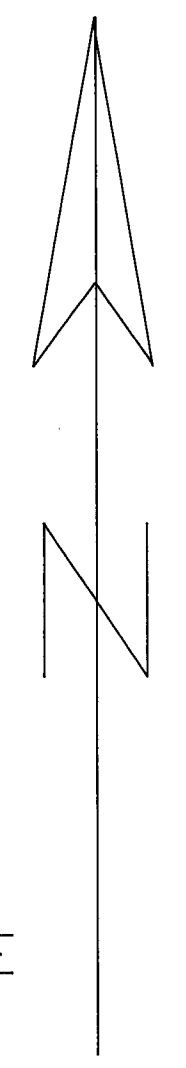
PROFILES POSITIVE UP
SURVEYING PERFORMED FACING EAST
DIP ANGLE - SOLID LINE
QUADRATURE - DOTTED LINE
VERTICAL SCALE: 15%/CM
BASE VALUE: 0 %

EQUIPMENT:
EDA OMNI PLUS COMBINED PROTON PRECESSION
MAGNETOMETER AND VLF-EM SYSTEM - FIELD UNIT
EDA OMNI IV PROTON PRECESSION MAGNETOMETER
AS A BASE STATION UNIT
VLF-EM TRANSMITTER: 24.0 KHz, CUTLER - NAA
** CUTLER TRANSMITTER HAS A POOR ORIENTATION
FOR EAST/WEST LINES - USED FOR SUPPORTIVE
INFORMATION ONLY

NORTH AMERICAN METALS CORP.
GOLDEN BEAR MINE
BACKBONE GRID
VLF-EM SURVEY PROFILES
DIP ANGLE & QUADRATURE

ATLIN, MINING DIVISION N.T.S. 104K 8
SCALE IN METRES
100 0 100 200 300

23,621
PART 2 OF 3

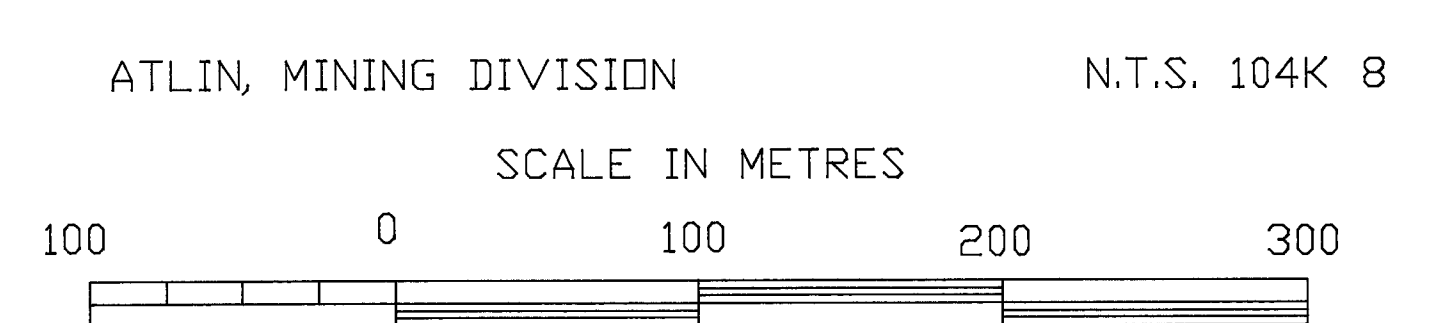


LEGEND

PROFILES POSITIVE UP
SURVEYING PERFORMED FACING EAST
DIP ANGLE - SOLID LINE
VERTICAL SCALE: 15%/CM 0% BASE VALUE
VLF FIELD STRENGTH - DOTTED LINE
VERTICAL SCALE: 3%/CM 6% BASE VALUE
TOPOGRAPHY SLOPE - DASHED LINE
VERTICAL SCALE: 50%/CM 0% BASE VALUE

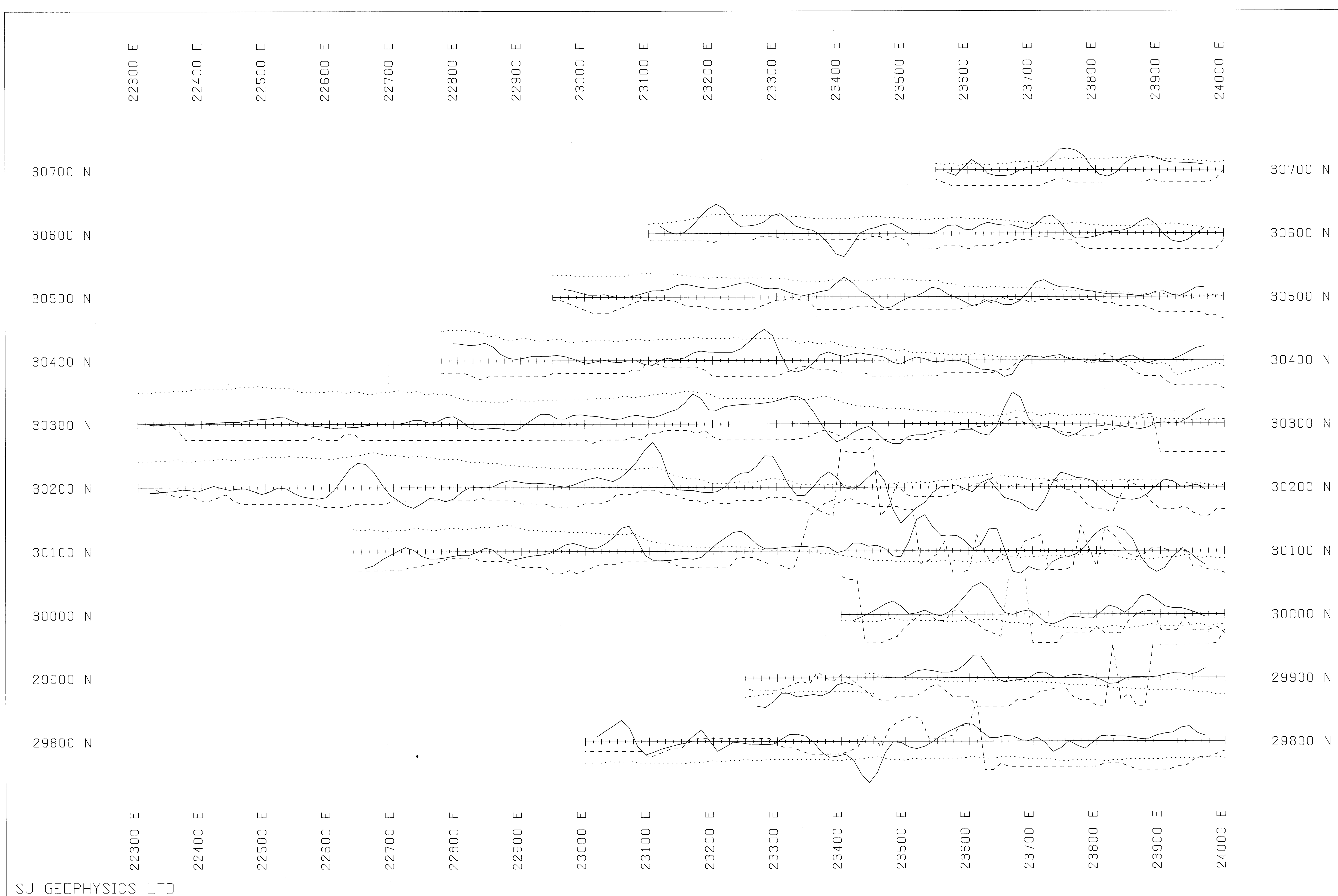
EQUIPMENT:
EDA OMNI PLUS COMBINED PROTON PRECESSION
MAGNETOMETER AND VLF-EM SYSTEM - FIELD UNIT
EDA OMNI IV PROTON PRECESSION MAGNETOMETER
AS A BASE STATION UNIT
VLF-EM TRANSMITTER: 24.0 kHz, CUTLER - NAA
** CUTLER TRANSMITTER HAS A POOR ORIENTATION
FOR EAST/WEST LINES - USED FOR SUPPORTIVE
INFORMATION ONLY

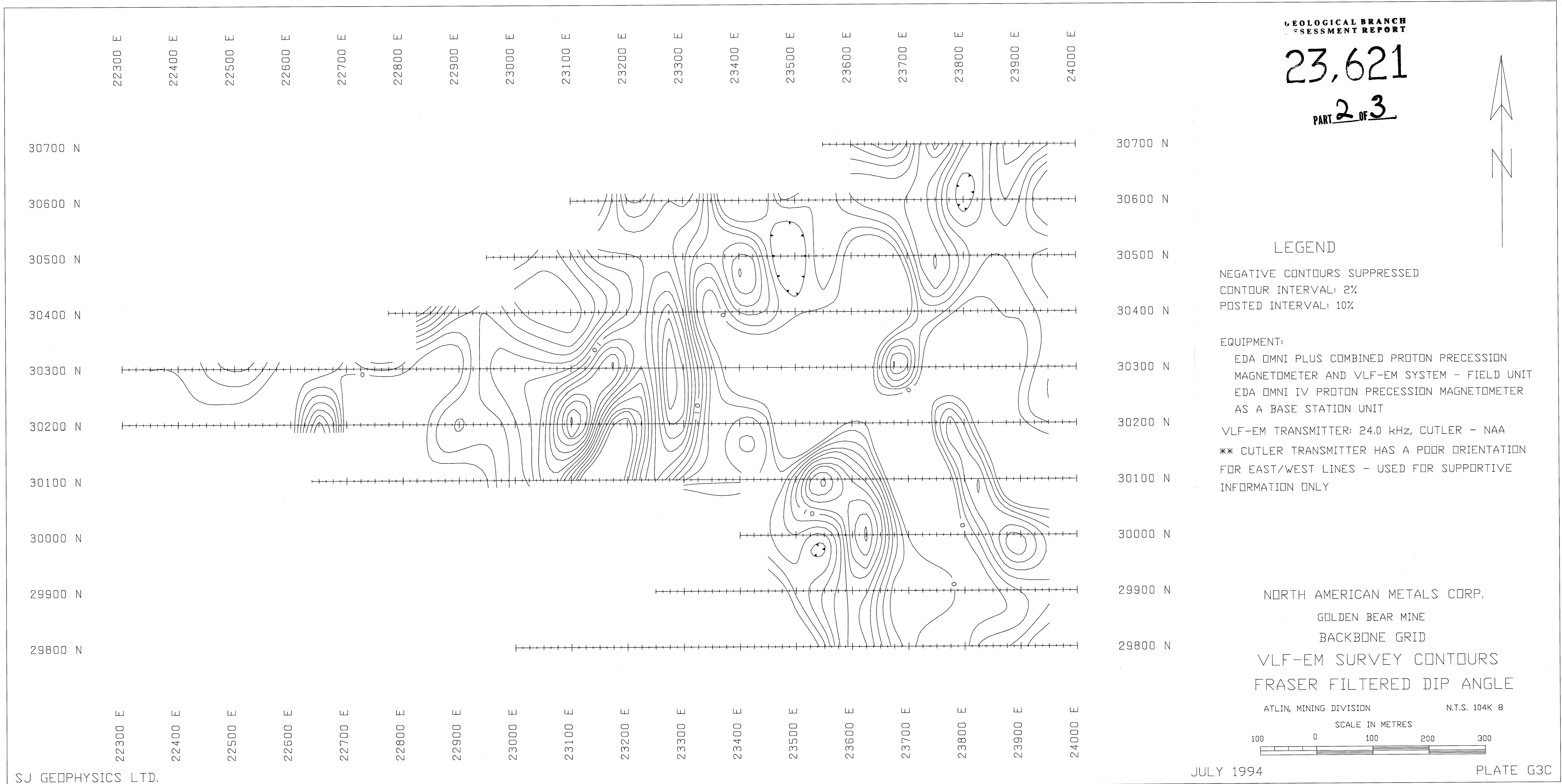
NORTH AMERICAN METALS CORP.
GOLDEN BEAR MINE
BACKBONE GRID
VLF-EM SURVEY PROFILES
FRASER FILTERED DIP, TOTAL FIELD, TOPOGRAPHY



JULY 1994

PLATE G3B

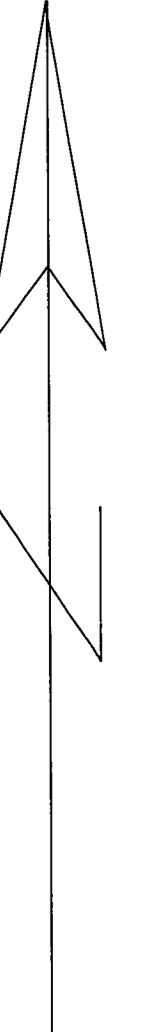




GEOLOGICAL BRANCH
ASSESSMENT REPORT

23,621

PART 2 OF 3



LEGEND

NEGATIVE CONTOURS SUPPRESSED
CONTOUR INTERVAL: 2%
POSTED INTERVAL: 10%

EQUIPMENT:

EDA OMNI PLUS COMBINED PROTON PRECESSION
MAGNETOMETER AND VLF-EM SYSTEM - FIELD UNIT
EDA OMNI IV PROTON PRECESSION MAGNETOMETER
AS A BASE STATION UNIT

VLF-EM TRANSMITTER: 24.0 kHz, CUTLER - NAA
** CUTLER TRANSMITTER HAS A POOR ORIENTATION
FOR EAST/WEST LINES - USED FOR SUPPORTIVE
INFORMATION ONLY

NORTH AMERICAN METALS CORP.
GOLDEN BEAR MINE
BACKBONE GRID
VLF-EM SURVEY CONTOURS
FRASER FILTERED DIP ANGLE

