ARIS SUMMARY SHEET

A COMPANY

District Geologist, Kamloops Off Confidential: 90.03.06 ASSESSMENT REPORT 18802 MINING DIVISION: Kamloops PROPERTY: Golden Loom 120 20 00 51 27 00 LONG LOCATION: LAT UTM 10 5703023 685294 NTS 092P08W 036 Cariboo - Quesnel Belt CAMP: CLAIM(S): Golden Loon I-IX OPERATOR(S): Mineta Res. Seywerd, M.; Wells, R.C. AUTHOR(S): 1988, 85 Pages **REPORT YEAR:** COMMODITIES SEARCHED FOR: Nickel, Copper, Gold Triassic, Nicola Group, Thuya Batholith, Ultramafics, Chalcopyrite KEYWORDS: Galena, Pyrite WORK Geophysical, Geochemical, Physical DONE: EMGR 61.0 km;VLF Map(s) - 10; Scale(s) - 1:500040.0 km LINE MAGG 61.0 km Map(s) - 2; Scale(s) - 1:5000SOIL 1571 sample(s) ;ME Map(s) - 05; Scale(s) - 1:5000RELATED REPORTS: 15870,17342 MINFILE: 092P

			LOG NO:	0602	RD.
r			ACTION		
			FILE NO:	መስከት በማይታ በማይታ በማይታ በማይታ በማይታ በማይታ በማይታ በማይታ	adala dang termanangananganangan
		MINETA RESOURCES			
		L REPORT ON A MAG		R AND	e de la companya de
		OLDEN LOON CLAIM			
	KA LATITUDE:	MLOOPS MINING DI 51°25'N LONG		209 2015	
		NTS: 92P/8			
	AUTHOR	: Markus B. Sey Geophysicist	werd, B.S	SC.	
		F WORK: August			988
	DATE C	F REPORT: Novem	ber 10, 1	.988	
		neros j			
	SUB-RECORDER				
	RECEIVED				
	MAY 3 0 1989				
	M.R. # \$				
	VAMCOUVER, B.C.		FILMED	1	
	an na n				
	n de la construcción de la constru La construcción de la construcción d			ANCH	
		COZCZMEP			
					· · · ·
			XI	and the second second	
		\cap	0 _		
		Part	17		
		IMI	U1 -		
		and and a second se Second second			
			· ·		

TABLE OF CONTENTS

Ŋ

PAGE	
------	--

INTRODUCTION	· 1
PROPERTY	1
LOCATION AND ACCESS	1-2
HISTORY AND PREVIOUS WORK	2
REGIONAL GEOLOGY	3
PROPERTY GEOLOGY AND MINERALIZATION	3-4
MAGNETOMETER AND VLF ELECTROMAGNETOMETER SURVEY	4-5
DISCUSSION OF RESULTS:	
Grid 2	5-7
Grid 3	7-8
RECOMMENDATIONS AND CONCLUSIONS	8-9
REFERENCES	10
INSTRUMENT SPECIFICATIONS	11-12
STATEMENT OF QUALIFICATIONS	
Markus B. Seywerd, B.Sc	13
COST BREAKDOWN	14

i

ILLUSTRATIONS

FIGURE	1		Location Map
PIGORE	-		pocacion wab
FIGURE	2	-	Claims Map
FIGURE	3	-	General Geology
FIGURE	4	-	Total Field Magnetics Contour Map Grid 2
FIGURE	5	-	VLF-EM Profiles - Cutler Grid 2
FIGURE	6	_	VLF-EM Profiles - Hawaii Grid 2
FIGURE	7		Fraser Filtered Contour Map - Cutler
			Grid 2
FIGURE	8	_	Fraser Filtered Contour Map - Hawaii
			Grid 2

FIGURE	9	-	Interpretation Map - Grid 2	
FIGURE	10	-	Total Field Magnetics Contour Map Grid 3	
FIGURE	11	-	VLF-EM Profiles - Cutler Grid 3	
FIGURE	12	'	VLF-EM Profiles - Hawaii Grid 3	
FIGURE	13	-	Fraser Filtered Contour Map - Cutler	
			Grid 3	
FIGURE	14	-	Fraser Filtered Contour Map - Hawaii	
	•		Grid 3	
FIGURE	15	_	Interpretation Map - Grid 3	

and the second se

ii

INTRODUCTION:

Contraction of the second

and the second se

Merca - Alex

ALC: NO.

Aller - Alle

1.11.10

ALC: NO

During August of 1988, White Geophysical Inc. was contracted by Mineta Resources Ltd. to conduct a total field magnetics and two station VLF-EM survey over portions of the Golden Loon claims near Little Fort, British Columbia. The purpose of these surveys was to follow up on existing geochemical information and attempt to target mineralized zones. These surveys were also designed to aid the geologist in mapping the property.

1

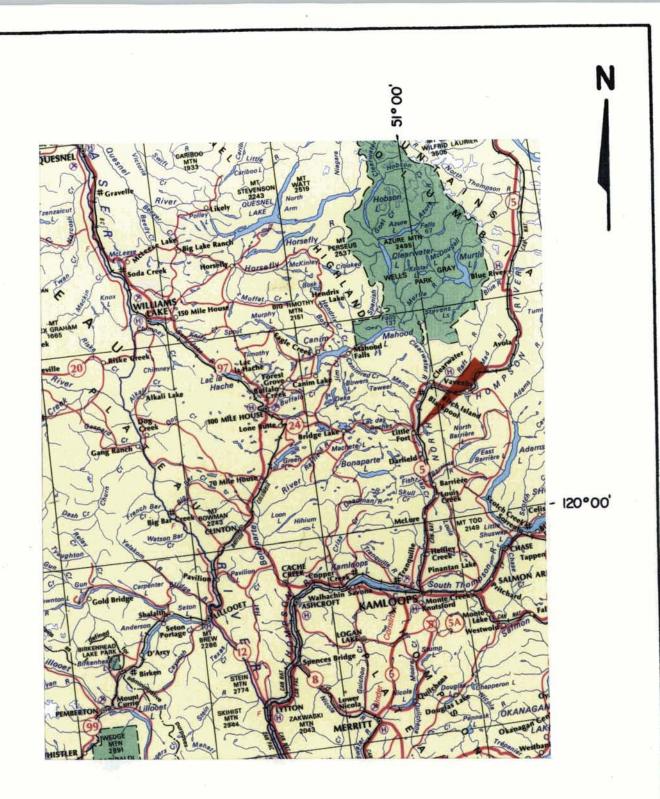
PROPERTY:

The property consists of nine minerals claims located in the Kamloops Mining Division and is summarized as follows:

Claim Name No.	of Units Record No.	Anniversary Date
Golden Loon I	20 5541	March 9, 1989
Golden Loon II	20 5542	March 9, 1989
Golden Loon III	20 5543	March 9, 1989
Golden Loon IV	20 5544	March 9, 1989
Golden Loon V	20 6539	March 9, 1989
Golden Loon VI	20 6540	March 7, 1989
Golden Loon VII	16 6549	March 7, 1989
Golden Loon VIII	20 6550	March 14, 1989
Golden Loon IX	20 6556	March 27, 1989

LOCATION AND ACCESS:

The property primarily lies on an undulating plateau varying between 1100 and 1400 metres in elevation. Towards the east the plateau slopes to the North Thompson Valley at Little Fort (elevation 400 metres).



MINETA RESOURCES LTD.

GOLDEN LOON CLAIMS I-IX

LOCATION MAP

N.T.S. 92P/8W & 92P/8E

SCALE = 1:2 000 000

1

The property is covered by thick pine, poplar and alder, making line cutting necessary. A number of small lakes and swamps are on the western portion of the property.

2

Access to the property can be had by a good road network originating at Little Fort or alternately by a road network originating in Barrier, B.C. Choice of road systems would depend on time of year and present condition. The area is centered at Latitude 51° 25'N and Longitude 120° 20'W and covered by NTS Map 92P/8.

HISTORY AND PREVIOUS WORK:

 $\left[\right]$

N-MARK

Ţ

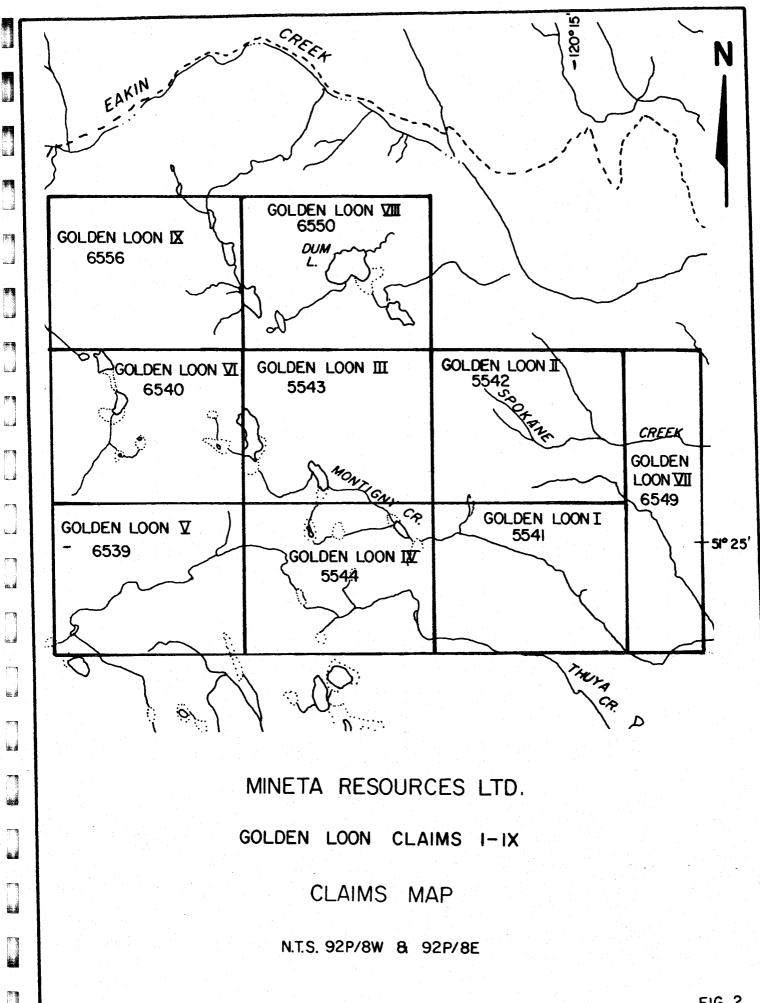
0.62

Ņ

The initial probes into this area were made by the placer miners of the early 1920's. Several of the creeks in the area were staked for placer gold, but no significant quantities were produced. The area then appears to have lain dormant until the 1960's when Noranda Explorations targeted the area as a possible copper producing region. After a stream and lake sediment sampling program was completed, a follow up program consisting of a broadly spaced soil geochemistry survey was conducted. A number of anomalous values were recorded but were apparently not followed up.

In the early 1980's, Teck Corporation again staked much of this ground as a copper target. Soil geochemistry and ground magnetic surveys were conducted along with a programme of geological mapping, but lost interest in the property.

In 1984, the property was staked by Barnes Creek Minerals. A limited grid of 7.0 kilometres of line was established over a series of old trenches on the western edge of the claim. A strong correlation was found between VLF-EM conductors and the gold geochemistry suggesting the presence of mineralized fault/shear zones.



SCALE = 1: 50 000

لأسبا

17

REGIONAL GEOLOGY:

. Share

Barton Salah

ALL STREET

6

V

The regional geology of the Little Fort area is seen in Figure 3 taken from GSC Map 1278A. This mapping indicates the property is on the northeast margin of the Thuya Batholith, which is an Early Mesozoic granodiorite intrusive. The property area itself is structurally complex with several splay faults, originating from the regional Thompson Valley Fault, branching to the northwest. This mapping indicates the property is underlain by the Nicola Group which consists of augite andesite flows and breccia, tuff, argillite, greywackes, and grey limestone, as well as The regional strike serpentinite and serpentinized peridotite. of the geology is toward from the northwest.

3

PROPERTY GEOLOGY AND MINERALIZATION

(Summarized from report by R.C. Wells, B.Sc., 1988)

The western part of the property is underlain by the Thuya Batholith. The area is extensively covered by glacial till and/or swamps. In his report, R.C. Wells indicates that the GSC mapping of the area is misleading. The ultramafic intrusive is not restricted to the eastern edge of the Thuya Batholith as two small lenses, but rather follows the high ground (ridge) south of Dum Lake and continues off the property.

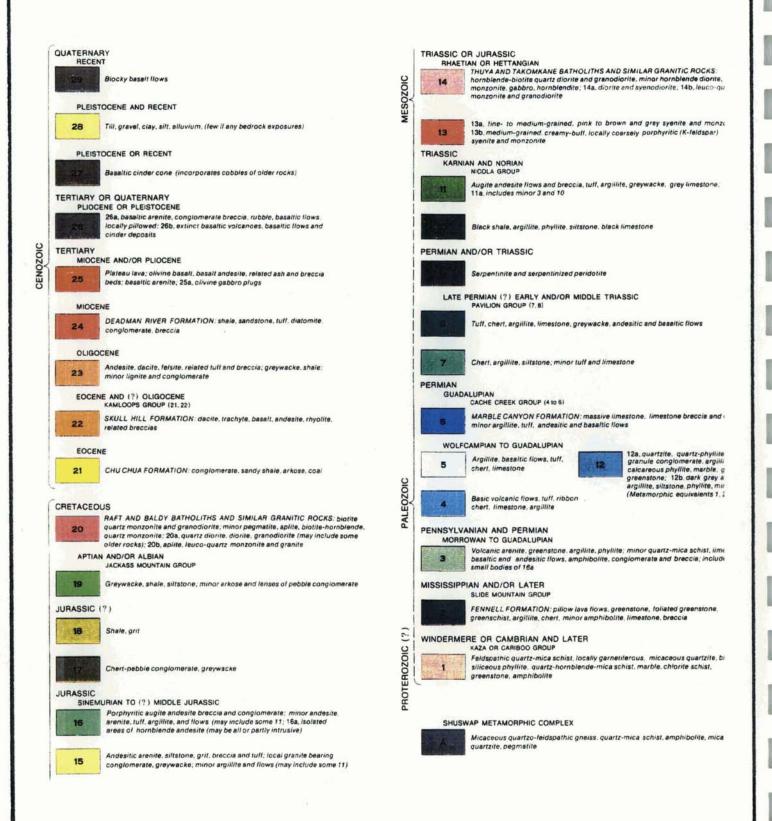
Mineralization:

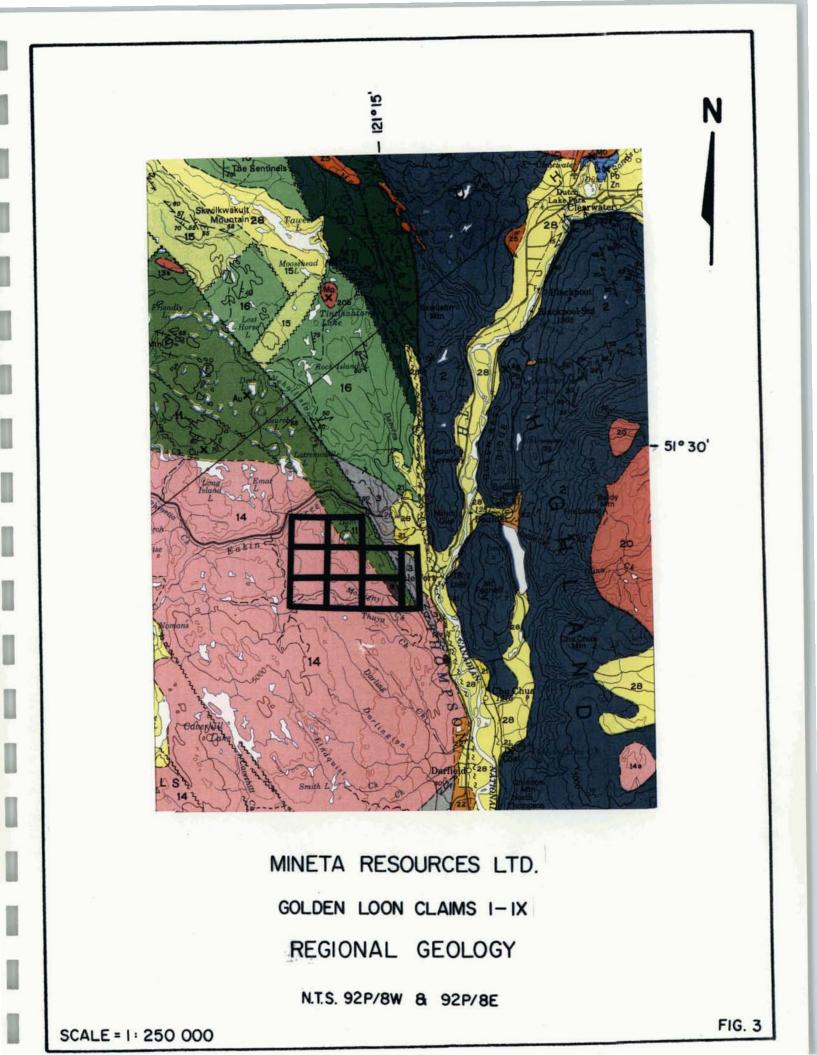
Three main areas of mineralization have been outlined.

1. Loon VII Fault Zone (Golden Loon VII)

A mineralized fault in which copper showings (malachite) and mineralized quartz veins occur. The quartz veins (1-5 cm) carry chalcopyrite, galena, pyrite, along with some silver and gold.

LEGEND





2. Silicified Ultramafics with Chalcedony (Golden Loon VII)

A series of old trenches have been located on the Golden Loon VII which contain strongly brecciated, silicified and chalcedony veined ultramafics which have returned some anomalous gold values.

3. Peripheral to the Ultramafics South of Dunn Lakes

In this area numerous quartz veins occur near the ultramafic units. The veins were reported to be up to 25 cm wide with galena, pyrite and chalcopyrite. Veins within the Thuya Batholith have yielded gold values up to .1 oz/t and silver to .7 oz/t.

MAGNETOMETER AND VLF ELECTROMAGNETOMETER SURVEYS:

The VLF EM and Magnetic surveys were conducted simultaneously utilizing the Omni-Plus VLF/MAGNETOMETER System built by EDA This instrument contains several Instruments Inc. associated circuitry for monitoring, microprocessors and processing and storing data. The VLF EM portion of this instrument utilizes the VLF-electromagnetic fields generated by submarine navigation and communication stations which operate in the 15-30 khz frequency band. The field generated by these stations is primarily horizontal. The instrument indicates the presence of a secondary field due to a conductor as a distortion in this horizontal field.

The distortion of this field produces an anomaly in the tilt angle, quadrature and total field intensity readings. VLF EM data is corrected for facing direction during data processing and is edited for spurious noise spikes. For maximum coupling, a transmitter station located in the same direction as the geological strike of interest should be selected, since the direction of the horizontal electromagnetic field is perpendicular to the direction from the transmitting station. The advantage of the Omni-Plus is that several stations can be recorded simultaneously since the instrument automatically orientates to the individual station direction.

5

The magnetics portion of this survey was conducted using the magnetometer system built into the Omni-Plus in conjunction with an EDA base magnetometer. The quartz clocks in the two instruments are synchronized in the morning. At the end of each survey day the field unit's readings are corrected using an RS232C interface and the built in microprocessors. Following the diurnal correction procedure, data is dumped via the RS232C interface to a microprocessor which writes data to the disk for storage and later processing. The solid state memory of this instrument and the microprocessor give rapid data gathering at some 5 - 10 kilometers per day at 12.5 m station intervals.

DISCUSSION OF RESULTS:

The magnetometer and 2 station VLF-EM survey was conducted over approximately 61 kilometres on the **Golden Loon** claims group. The VLF-EM transmitters used were Cutler, Maine and Hawaii. They surveys were conducted on two separate grids, with Grid 2 encompassing approximately 26 kilometres of line, and Grid 3 encompassing approximately 35 kilometres of line.

Grid 2:

Grid 2 constitutes 26 kilometres of line on 100 metre centers with stations every 25 metres. A reading of both VLF-EM stations and the total field magnetics was taken every 25 metres. The total field magnetics data is displayed in contoured form in Figure 4. The VLF-EM data is displayed in staked profile form in Figures 5 and 6 (Cutler, Hawaii respectively); and the Inphase component has been Fraser filtered and is displayed in contoured form in Figures 7 and 8 (Cutler, Hawaii Respectively).

A,

1

1

6

data indicates the major The regional airborne magnetic proportion of Grid 2 is underlain by the ultramafic intrusives. supports R.C. Wells ground total field magnetic data The hypothesis that the ultramafics are compositionally layered. Three northwest trending units can be distinguished in the magnetic data with the magnetic susceptibility of C>A>B (Figure The magnetic data also indicates the presence of a major 9). north trending contact/fault (F1, Figure 9). The break appears to be non-conductive in the VLF-EM frequency range. A similar, subparallel break (F2, Figure 9) produced a moderately strong conductive response and is the terminus of conductor C1, a strong conductor trending onto the grid at 200N on line 2000W.

The magnetic data indicates that C2, a strong short strike length conductor immediately north of C1 along with F2 constitute the boundary of a rock unit of lower magnetic susceptibility. A postulate to the identity of this unit is that it may be a member of the Nicola Group. The proximity of the postulated lithological contact with the probable fault sourced conductor F2, and the extremely conductive response of C1, made C1 and the neighboring conductive response C2, F2 good exploration targets.

The magnetic data indicates a probable displacement along F1 of approximately 800 - 1000 metres with the unit forward the east displaced to the north relative to the unit on the west.

Numerous other conductors occur within the ultramafics. The strongest C3, C4, C5 and C6. C5 is a strong short strike length conductor paralleling the longer C4. The location of these strong conductors along with the others marked in Figure 9 should

be correlated with the geochemical data in order to determine their significance. They may be sourced in heavily serpentinized horizons, graphite, shears and/or sulphide mineralization.

7

The last feature of note on Grid 2 are the intense magnetic highs delineated within the ultramafics. These highs may be sourced in pyrrhotite and/or magnetite pods (lenses) and should be examined as gold containing exploration targets.

Grid 3:

Grid 3 constitutes 35 kilometres of line. In the center of the grid the lines are spaced 50 metres apart, while on the periphery the lines are on 100 metre centres. All lines had stations established every 25 metres.

The total field magnetics data is displayed in contoured form in Figure 10. The VLF-EM data is displayed in staked profile form in Figures 11 and 12 (Cutler, Hawaii respectively); and the Inphase component has been Fraser filtered and is displayed in contoured form in Figures 13 and 14 (Cutler, Hawaii respectively).

The first feature to become apparent when looking at the data for Grid 3 is a continuation of fault/contact F1 (Figure 15). In the locality, this fracture appears to be the contact between the ultramafics and the Nicola Group. F1 is again non-conductive at VLF-EM frequencies Two additional fault in this local. structures can be inferred from this data F3 and F4 (Figure 15). appears to have a displacement of approximately 100 metres F4 associated with it, and is subparallel to F1. The unit toward the west has likely been displaced to the south by approximately 100 metres relative to the unit on the east. F4 is again nonconductive at VLF-EM frequencies. F3 is a conductive horizon probably sourced in a fault structure. There appears to be small relative displacement associated with the fault (approximately 25 metres). Since this apparent fault structure is conductive, it is a good target for further exploration work.

the major fault structure trends to the northwest, the While majority of the conductive responses on Grid 3 are trending to the west approximately 45° from the main structures. These conductive horizons appear to abound in the Nicola Group. The angle at which they associate with major trends suggest that they maybe sourced in tension shears resultant of the major faulting activity. These shears may be mineralized or contain graphite. All of these conductive zones need to be correlated with the existing geochemical data determine if they host to mineralization.

The strongest responses are C7, C8, C9, C10, C11 and C12. A number of these conductors appear to predate some of the faulting activity.

The last noteworthy features are a number of strong magnetic highs delineated within the ultramafics. These highs may be sourced in pyrrhotite and/or magnetite pods (lenses) and should be examined as exploration targets.

RECOMMENDATIONS AND CONCLUSIONS:

η

U

In August of 1988, White Geophysical Inc. conducted 61 kilometres of total field magnetics and two station VLF-EM surveys on Mineta Resources Ltd's Golden Loon project.

The survey was successful in locating numerous VLF-EM conductors. The strongest being C1 - C12 (Figures 9 and 15). These conductors should be correlated with the existing geochemical data in order to determine a^r set of priorities as to which to examine as new exploration targets. A program of detail geological mapping would assist greatly in this effort. Once this has been completed and priorities assigned, the conductors not visible at surface should be trenched and/or drilled.

The geophysical data also gave a good postulate as to the location of various major faults and contacts. Again these areas should be examined as to their merit as exploration targets. If it is deemed that the geochemical data correlates well with these areas they should be trenched and/or diamond drilled.

Respectfully Submitted,

Mart how

Markus B. Seywerd, B.Sc.

0

U

REFERENCES:

0

0

η

Ŋ

0

Û

0

Û

Û

Campbell, R.B. and Tipper, H.W., 1971

Wells, R.C., 1988

Geology of Bonapart Lake Map Area, British Columbia, GSC Mem. 363.

10

Geochemical Report on Golden Loon Claim Group.

OMNI-PLUS MAGNETOMETER/VLF SPEC	IFICATION	IS			
Physical Dimensions W	t(kg):	wxhxd(mm)			
Battery belt 1	.8: .8: .8:	122 x 246 x 210 540 x 100 x 40 138 x 95 x 75			
Sensors					
Magnetometer gradient sensor 2	.2: .1: .6:	56 dia x 220 56 dia x 790 280 x 190 x 60			
Environment					
Electronics Operating temperature rang Relative humidity		to +55 C 100% (weather-proof)			
Magnetometer Sensors Temperature range Relative humidity		to +55 C 100% (weather-proof)			
VLF Sensor Temperature range Relative humidity		to +55 C 100% (weather-proof)			
Standard Memory Capacity					
Field unit Tie-line points Base stations	100	sets of readings sets of readings sets of readings			
Electronics					
RS-232C serial I/O baud(programmable); 8 data		to 9600 stop bits; no parity			
Electronics consoleEnclosure contains electronics and battery pack (if not contained in separate belt). Front panel includes liquid crystal display (LCD), and keypad.					
Power Supply external battery belt; or station).	Internal 12V car b	battery pack or battery (base			

Û

Dynamic Range	18,000 to 110,000 gammas. Roll
	over display feature
	suppresses first significant
	digit upon exceeding 100,000
	gammas.
Funing Method	Tuning value is calculated
	accurately utilizing a
	specially developed tuning
	algorithm
Automatic Fine Tuning	+ 15% relative to ambient
	field strength of last stored
	value
Display Resolution	0.1 gamma
Processing Sensitivity	
Statistical Error Resolution	0.01 gamma
Absolute Accuracy	+ 1 gamma at 50,000 gammas at
	23 ⁰ C
	+ 2 gamma over total
	temperature range
Standard Memory Capacity	
Total Field or Gradient	1,200 data blocks or sets or
	readings
Tie-Line Points	100 data blocks or sets or
	readings
Base Station	5,000 data blocks or sets or
	readings
Display	Custom-designed, ruggedized
	liquid crystal display with an
	operating temp. range from
	-40° C to $+55^{\circ}$ C. The display
	contains six numeric digits,
	decimal point, battery status
	monitor, signal decay rate and
	signal amplitude monitor and
	function descriptors.
RS 232 Serial 1/0 interface	2400 baud, 8 data bits, 2 stop

12 _

Ŋ

0

0

0

STATEMENT OF QUALIFICATIONS

η

n

0

NAME: SEYWERD, Markus B., B.Sc.

PROFESSION: Geophysicist

EDUCATION: University of British Columbia -B.Sc., Mathematics

EXPERIENCE: Three years of summer field work with Noranda Exploration Company Ltd. in British Columbia, Northwest Territories and Yukon Territories.

13 _

Three years Geophysicist with White Geophysical Inc. with work in British Columbia, Saskatchewan and Yukon Territories.

COST BREAKDOWN:

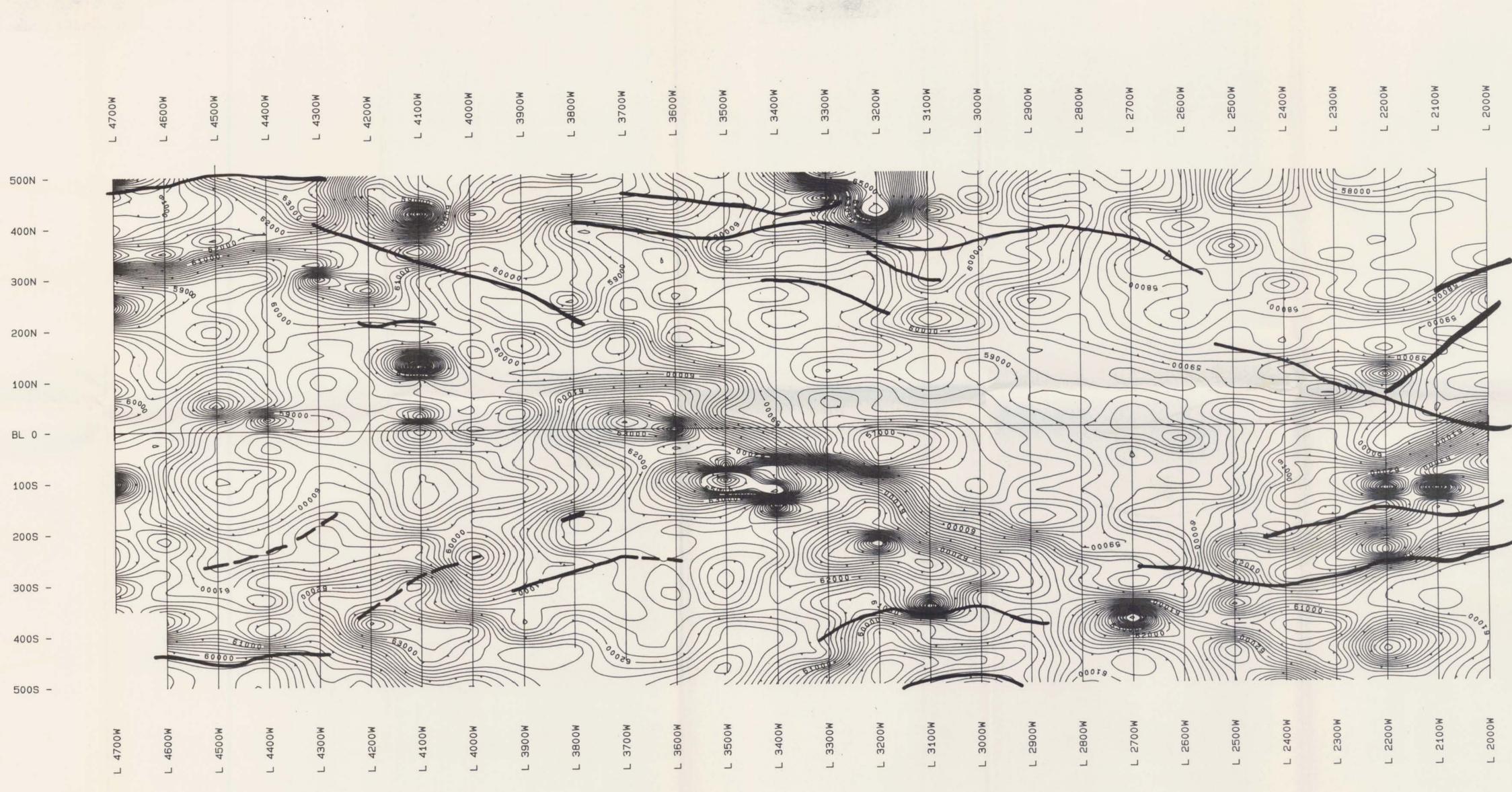
Ĵ

J

Ĵ

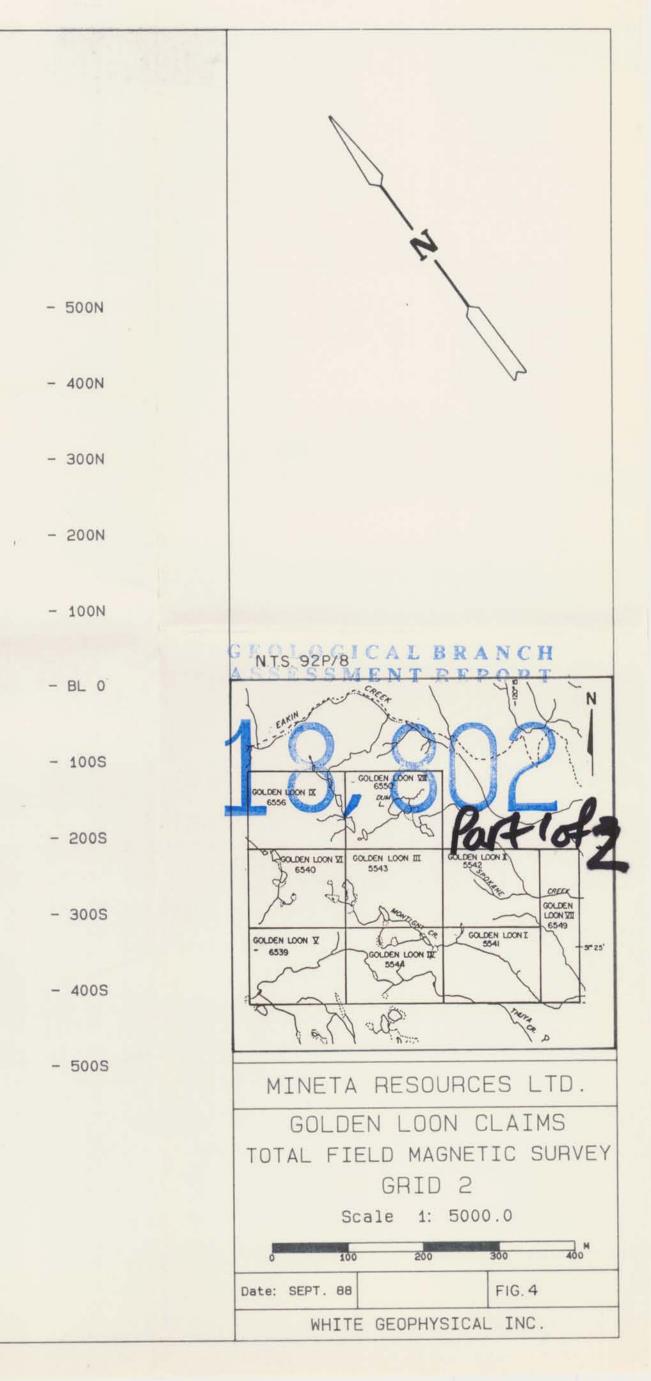
U

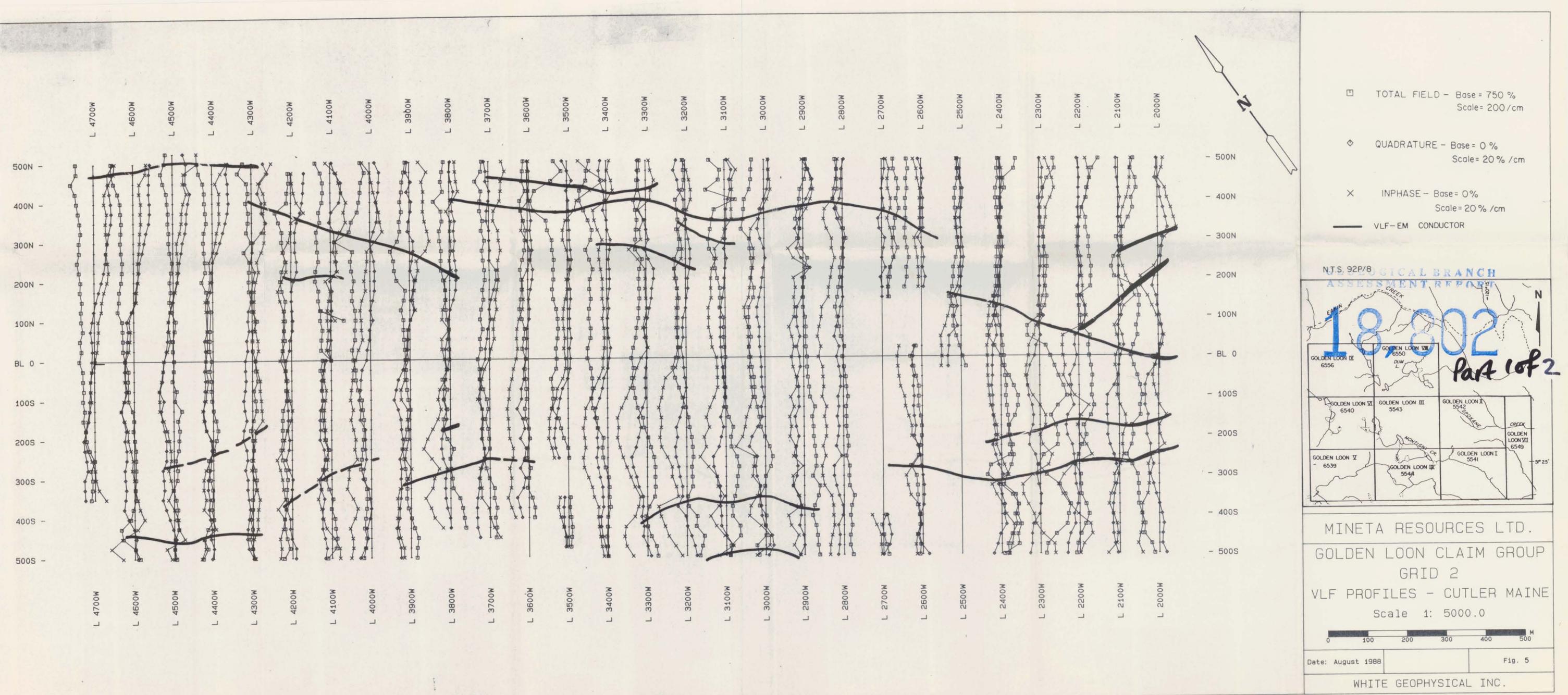
Personnel	Dates	Wages per Diem	Total
Tim Langmead	Aug.22 - Sept.2/88	\$300.00	\$ 3,600.00
Bob Acheson	Aug.22 - Sept.2/88	\$300.00	\$ 3,600.00
Mobilization a	nd demobilization	• • • • • • • • • • • • • • • • • •	\$ 1,000.00
Instrument ren	tal - 24 days @ \$100	/day	\$ 2,400.00
Truck rental a	nd fuel - 12 days X	\$100/day	\$ 1,200.00
Room and board	- 24 mandays @ \$95/	day	\$ 2,280.00
Reports and dr	afting	• • • • • • • • • • • • • • • • • • • •	\$ 925.00
		Total	\$15,005.00

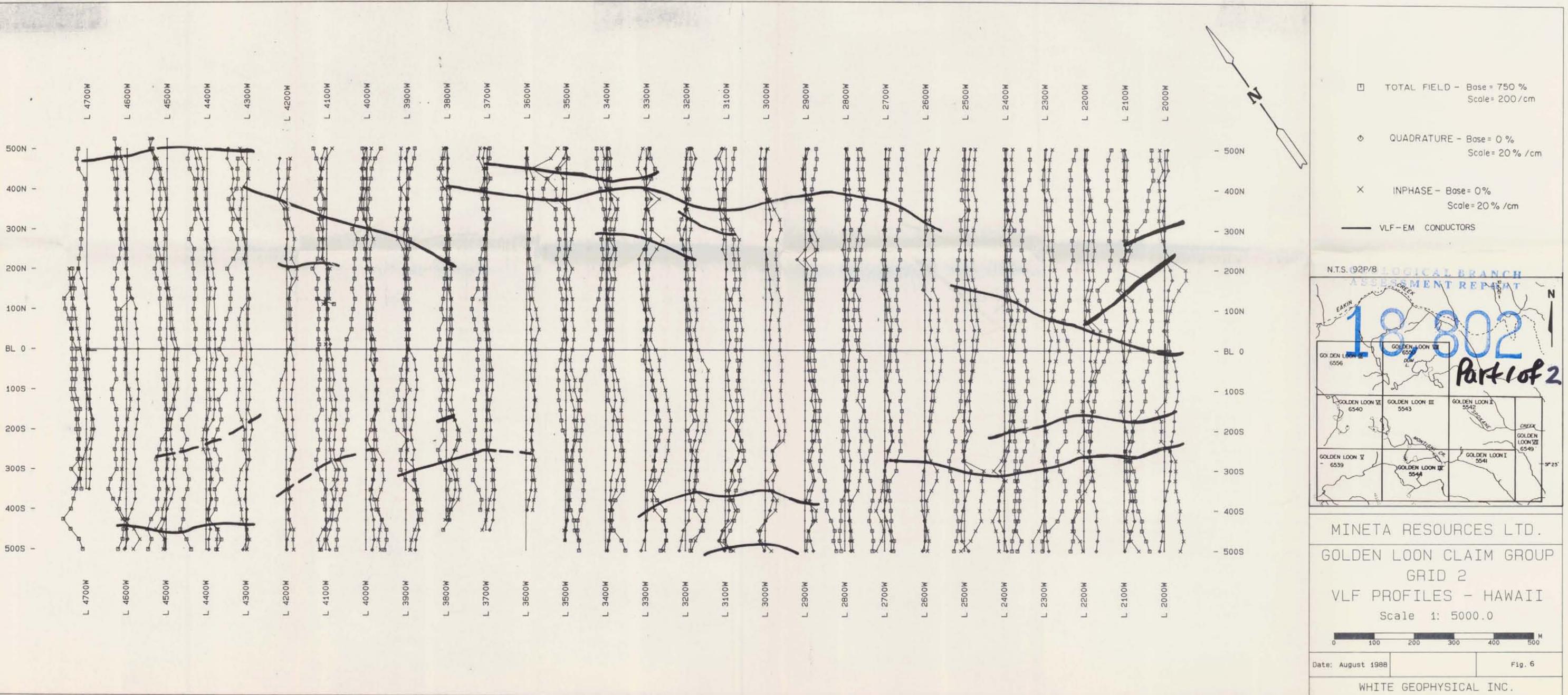


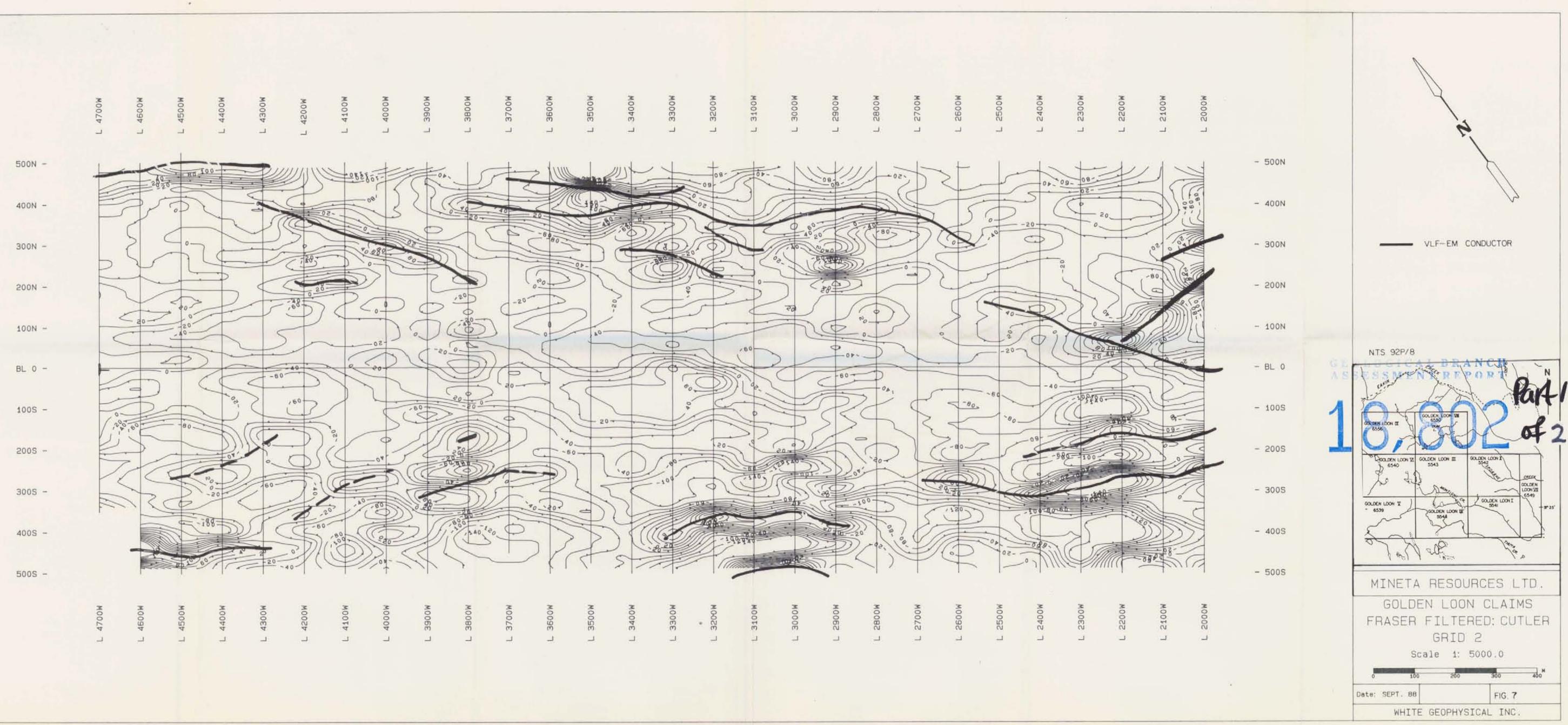
.

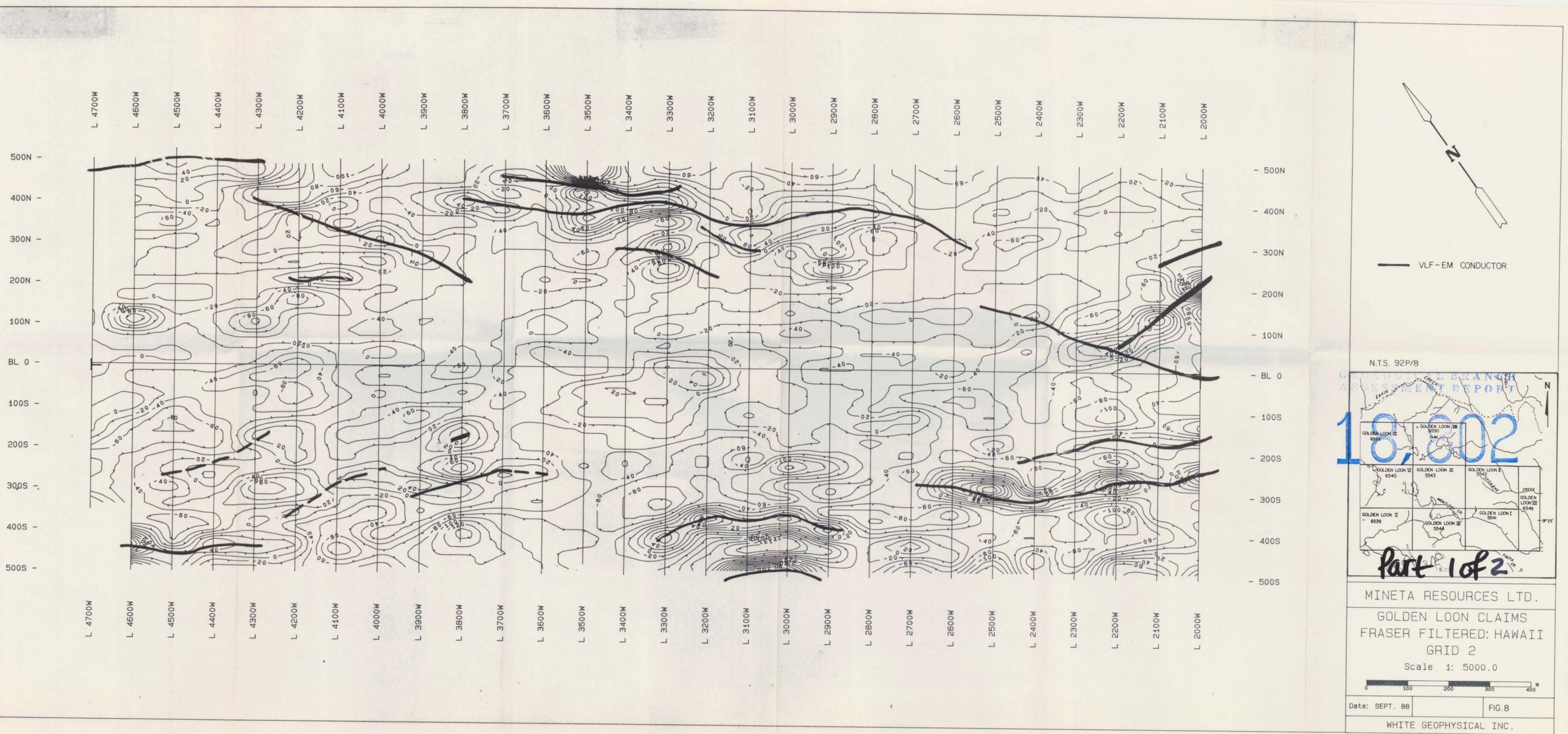
.

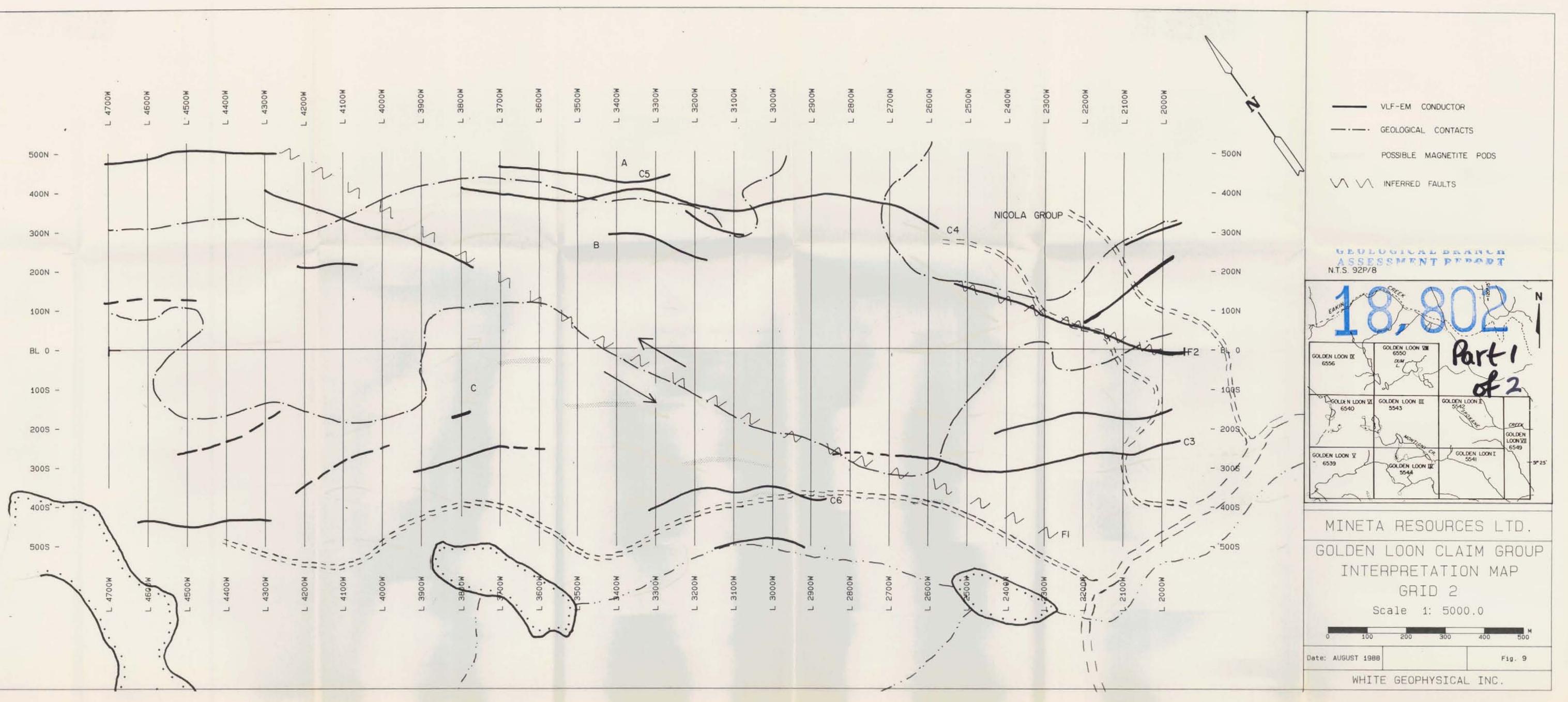


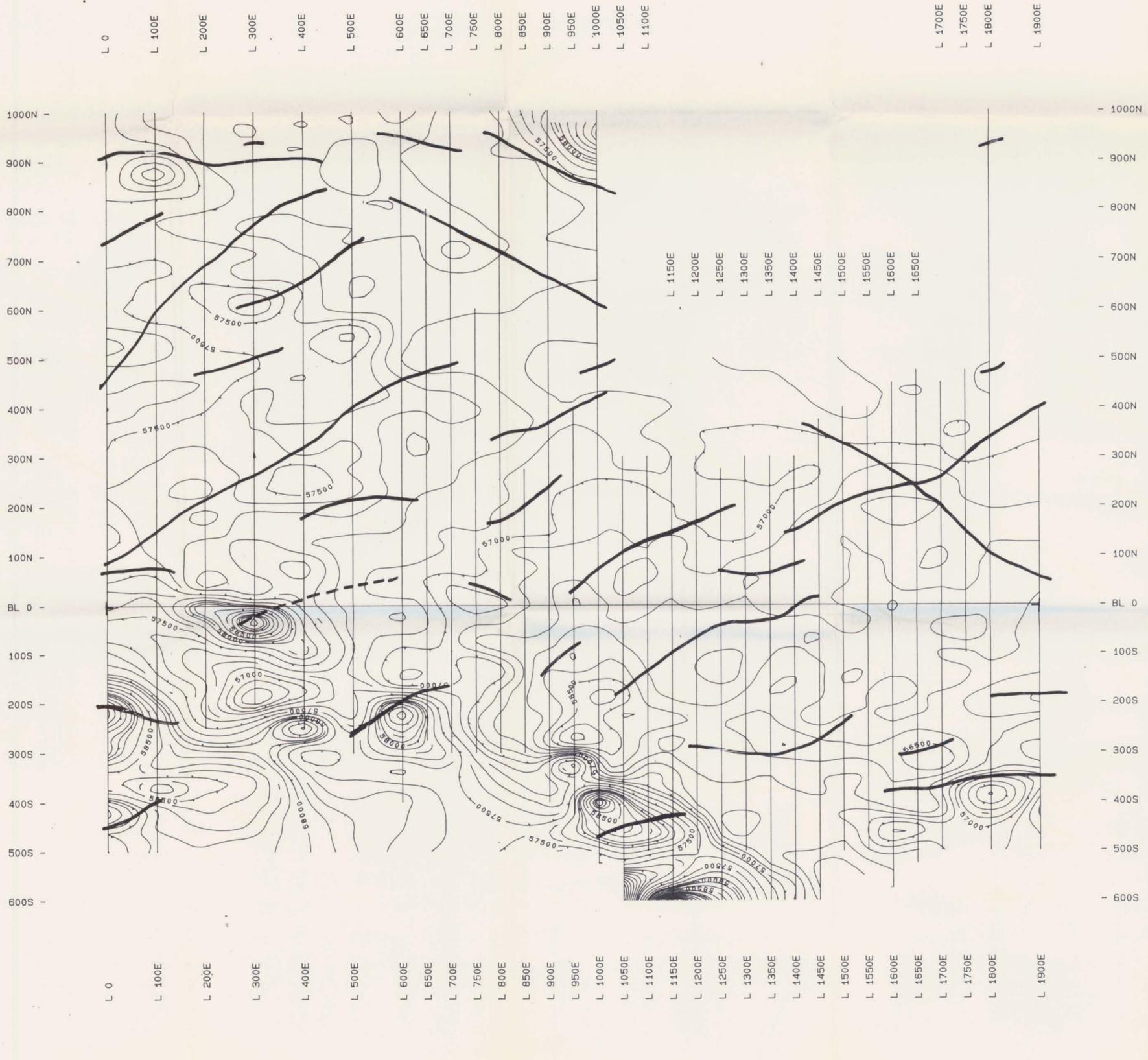


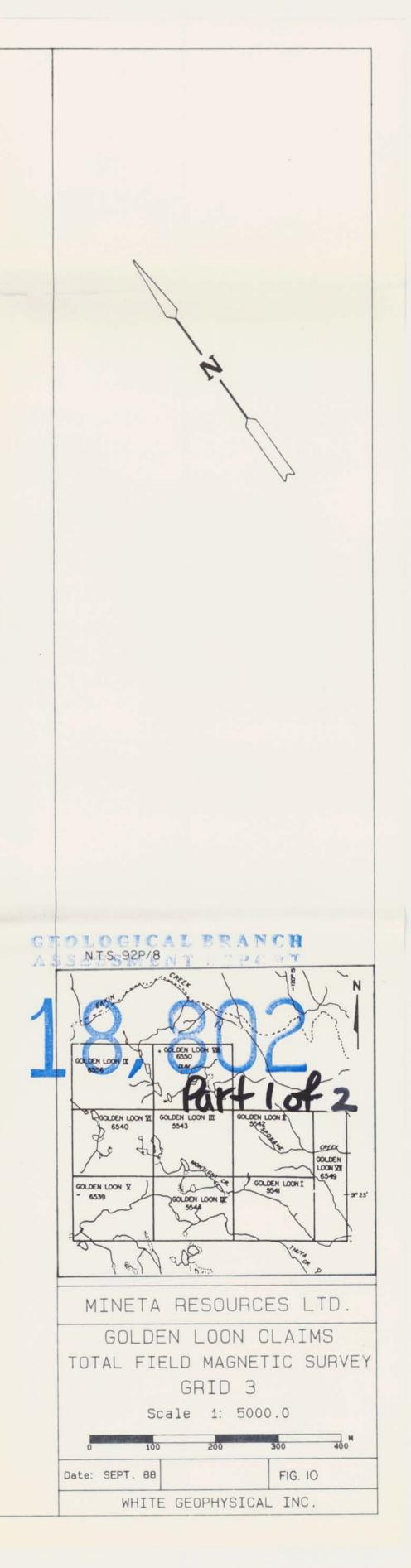


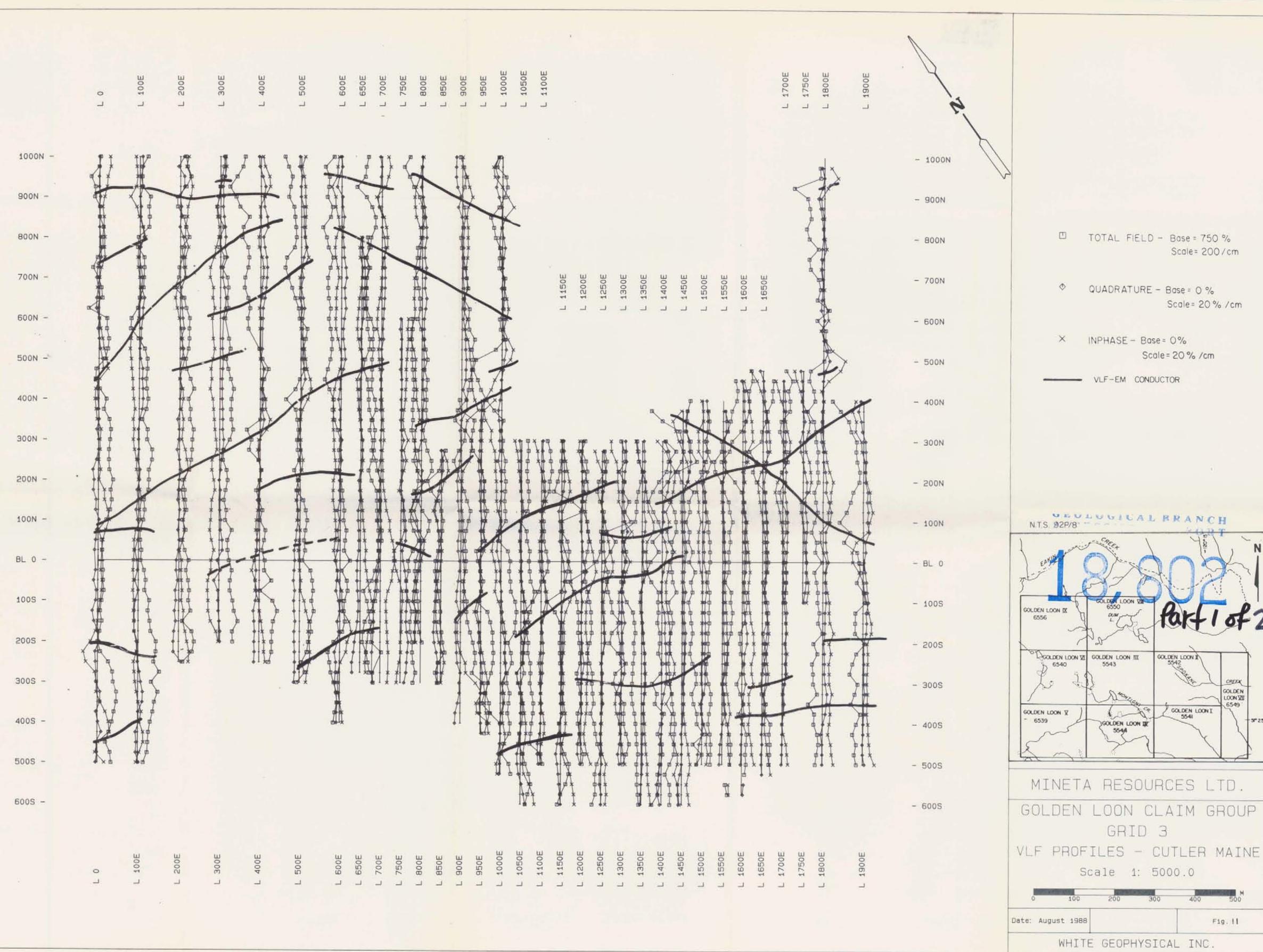


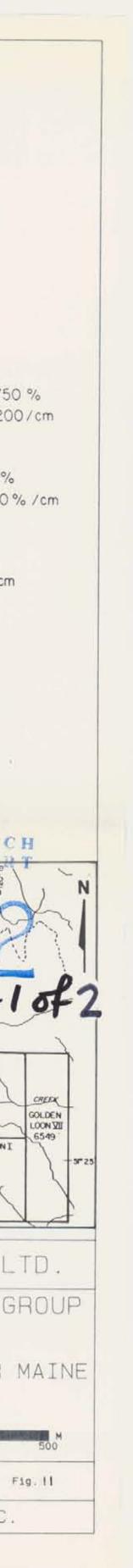


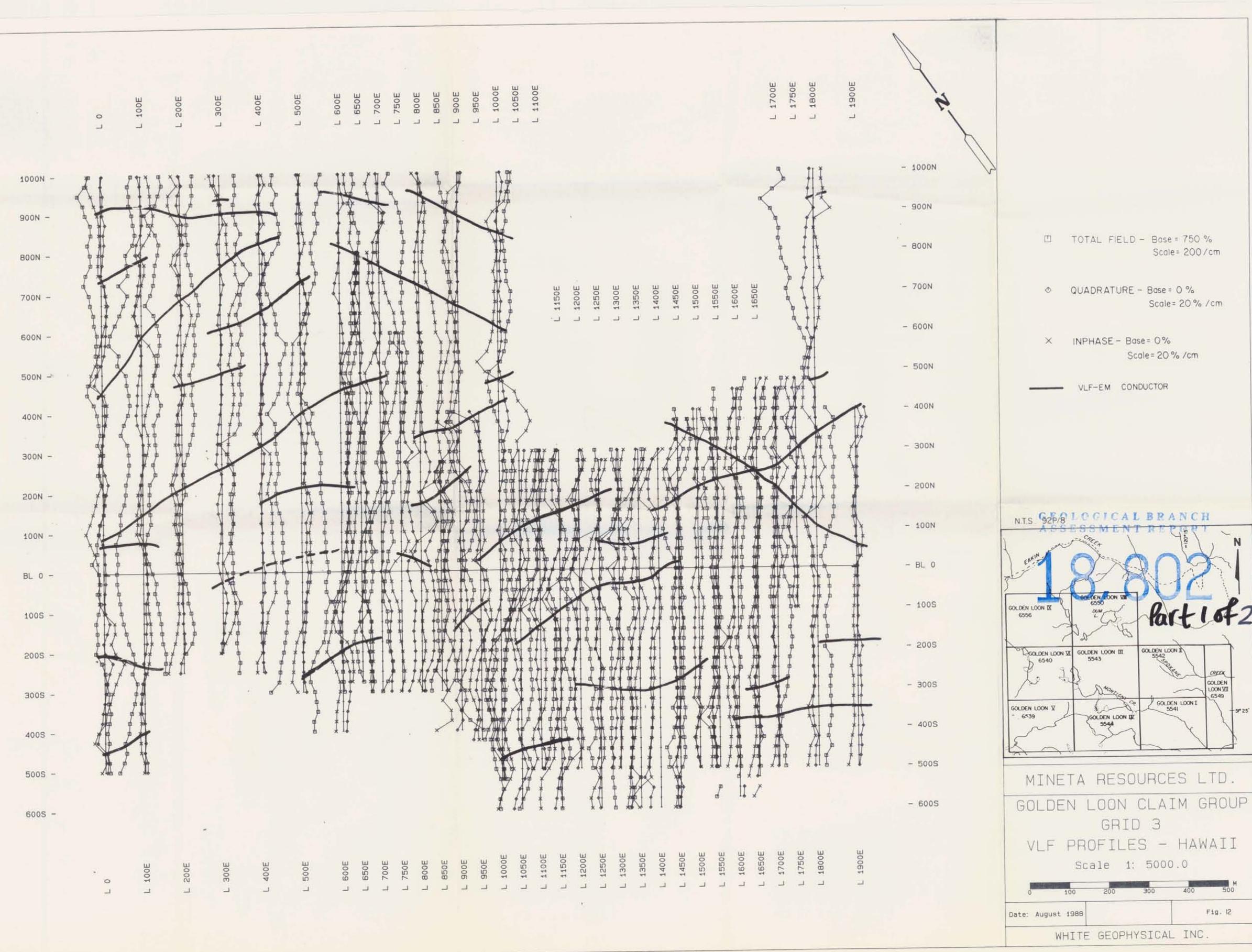




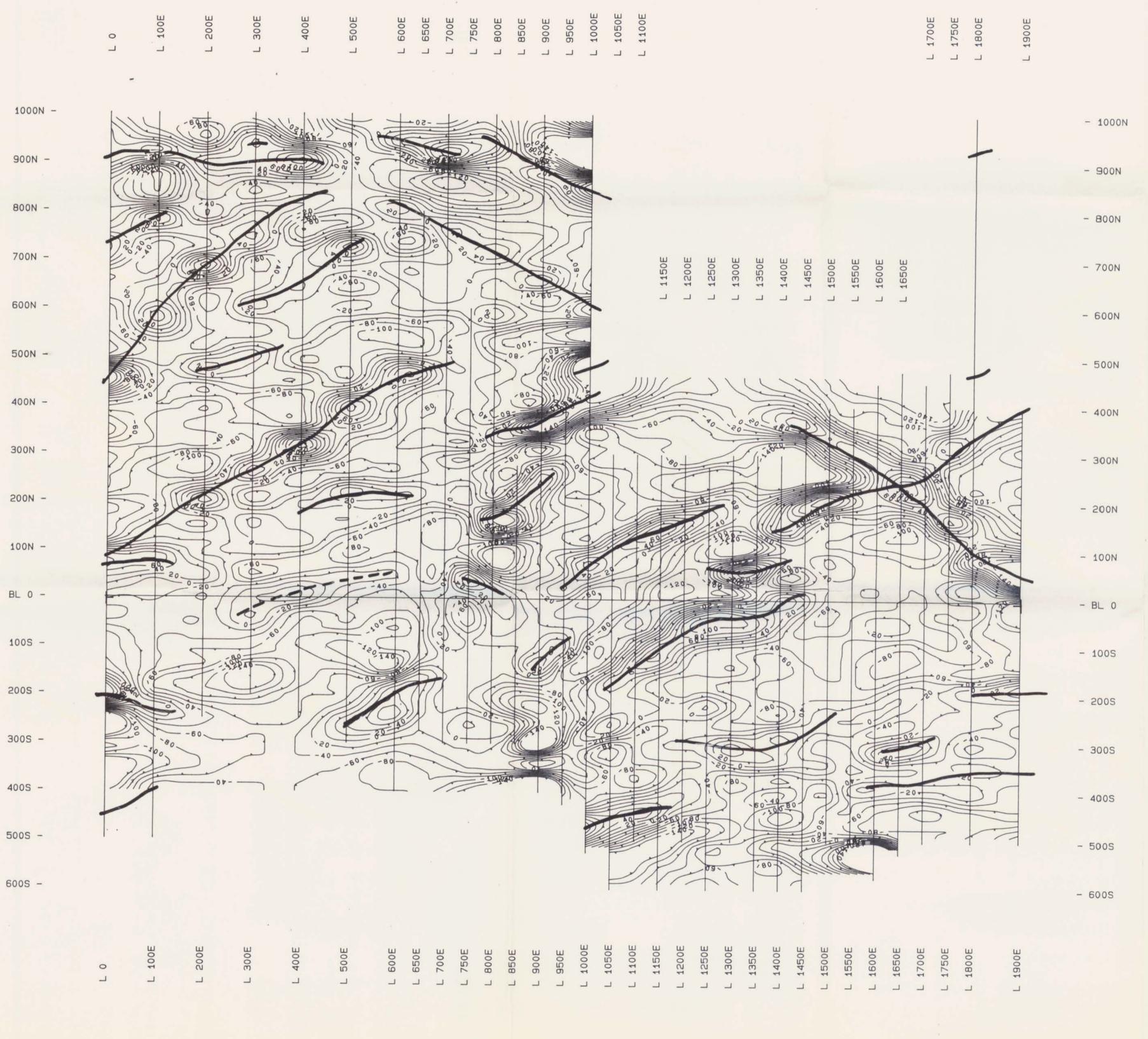






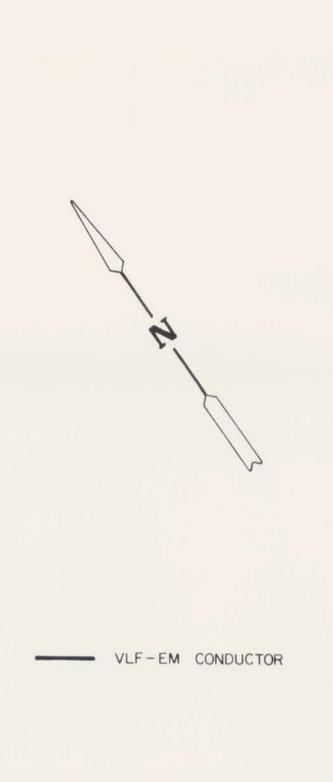






8.92

.



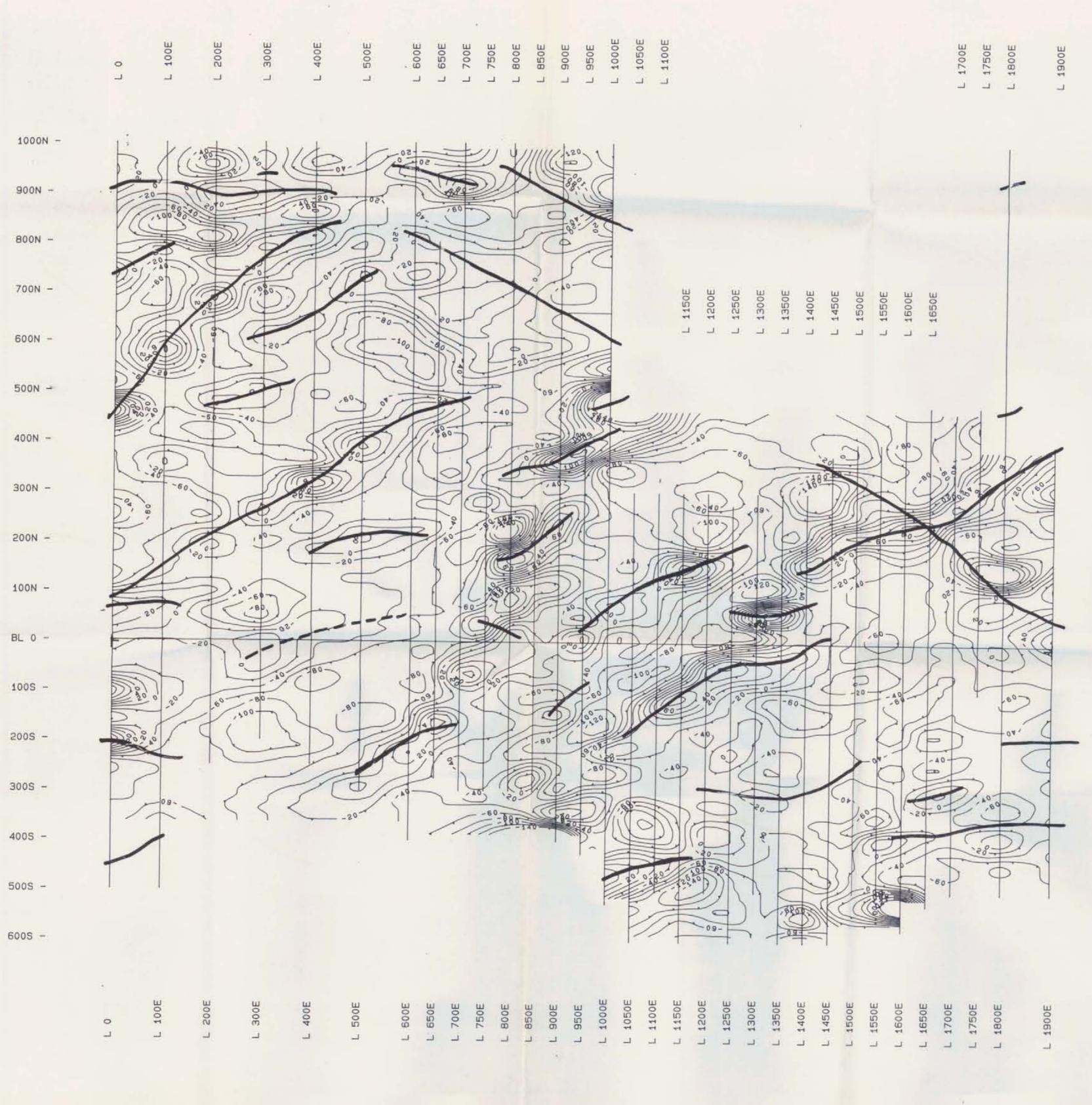
GEOLOGICAL BRANCH ASSESSMENT REPORT



WHITE GEOPHYSICAL INC.

Date: SEPT. 88





1.0

.

1.6



VLF-EM CONDUCTOR

- 1000N

- 900N

- 800N

- 700N

- 600N

- 500N

- 400N

- 300N

- 200N

- 100N

- BL 0

- 100S

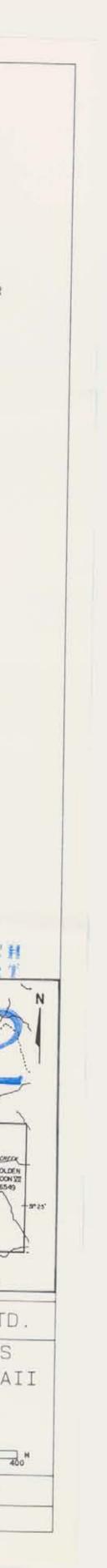
- 200S

- 300S

- 400S

- 500S

- 600S



COLDEN LOON VI

