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GEOPHYSICAL ASSESSMENT REPORT

on the

CHERRY GROUP

(Jero Claims)

Trail Creek Mining Division - British Columbia

Lat. $49^{\circ} 02' N.$

Long. $117^{\circ} 49' W.$

N.T.S. 82F/4W

for

GUNSTEEL RESOURCES INCORPORATED

by

E. Sykes

May 1990

Vancouver, B.C.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,985

SUMMARY AND CONCLUSION

Gunsteel Resources Incorporated holds title to the CHERRY group. This group is comprised of the JERO 2-6, 8 and 10 claims. These claims consist of 94 units in close proximity to the Rossland gold camp in southeastern British Columbia. The Rossland gold camp is the second largest gold producer to date in British Columbia. Recorded production from the Centre Star, Le Roi and War Eagle Mines is 2,706,000 ounces of gold, 3,300,000 ounces of silver and 100,000 tons of copper from 5.9 million tons of ore.

Mineralization in the Rossland camp consists predominantly of pyrrhotite-rich quartz veins containing up to 70% sulphides found along faults intersecting augite porphyry or diorite porphyry intrusions.

Jero 3 was worked on from January 15th to February 9th, 1990. In total 7.8 kilometres of grid was established and 6.0 kilometres of VLF data collected. Four weak anomalies were found in the VLF data. The anomalies have strikes less than 200 metres. The location of these anomalies are:

- 1) Line 2 west at 235 metres and L 3 west at 210 metres
- 2) Line 1 west at 50 metres
- 3) Line 2 west at 725 metres and Line 3 west at 775 metres
- 4) Line 0 at 460 metres and Line 1 west at 510 metres.

The steep topography in the survey area is possibly responsible for some or all of these anomalies, however, a magnetic survey may aid in determining if they are caused by geologic structures.

INTRODUCTION

Gunsteel Resources Incorporated hold title to the CHERRY group. The CHERRY group is comprised of the JERO 2-6, 8 and 10 claims. These 7 claims total 94 units near the Rossland gold camp in southeastern British Columbia.

The Centre Star, Le Roi and War Eagle Mines located four kilometres north of the Jero 10 claim produced 2,706,000 ounces of gold, 3,300,000

ounces of silver and 100,000 tons of copper. This makes the Rossland gold camp the second largest gold producer in British Columbia.

The 1990 exploration program consisted of VLF-electromagnetic survey on a grid established for this survey. Work for the 1990 exploration program was performed by F. Critchlow and D. Llewellyn. The following report summarizes work performed in 1990 on the CHERRY group.

LOCATION, ACCESS, PHYSIOGRAPHY

The CHERRY group claims lie two kilometers southwest of Rossland, in southeastern British Columbia (Figures 1 and 2). Elevation varies from 600 metres along Little Sheep Creek to 1300 metres on Tamarak Mountain. The terrain varies from flat areas to very steep slopes. Vegetation is a secondary growth of balsam fir, cedar, jack pine, spruce, birch and alder. Primary stands of mature cedar can be found along some water courses. The claims are easily accessible by paved road. There are also some good 4X4 roads on the claims.

CLAIM DATA

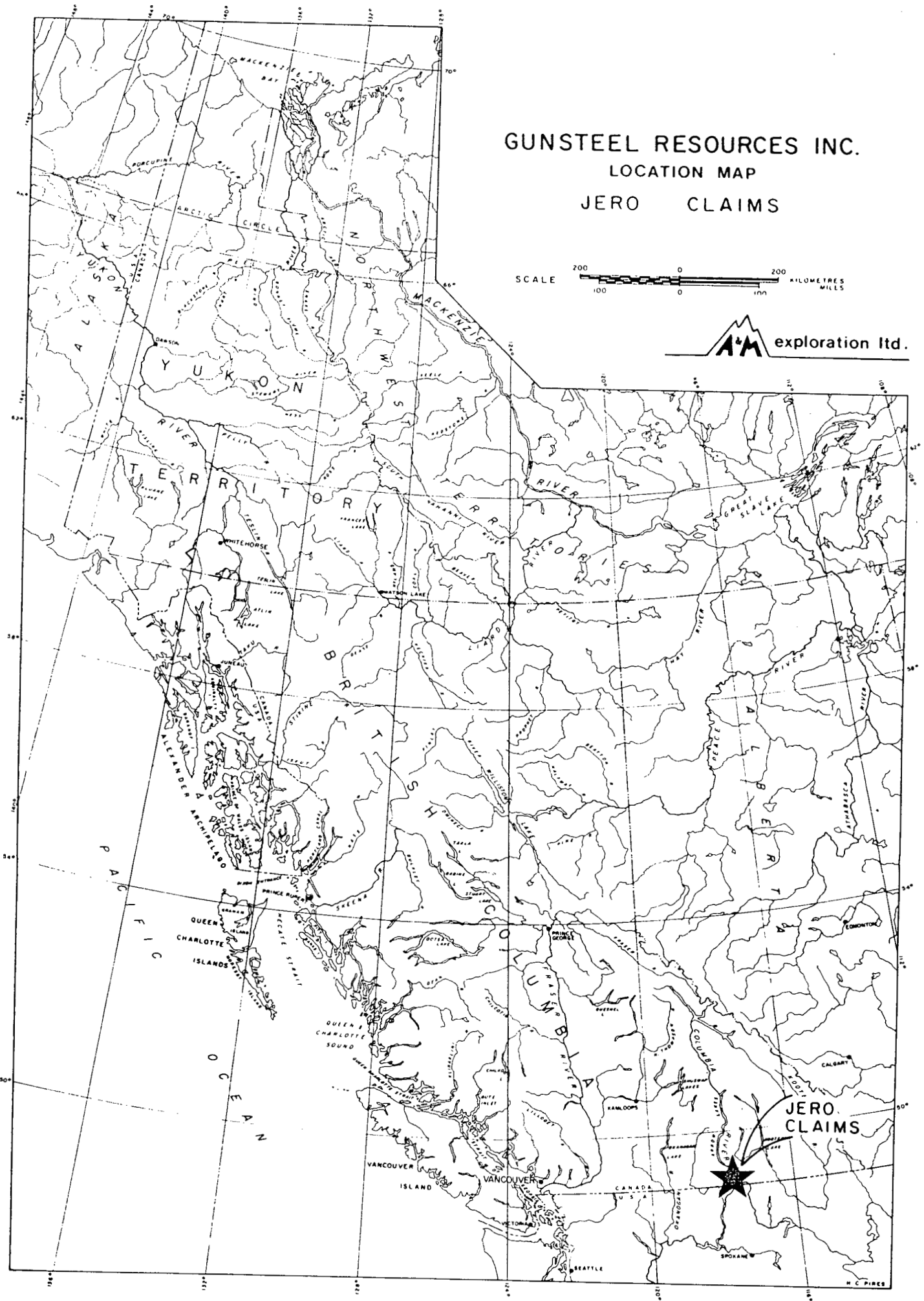
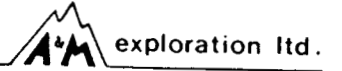
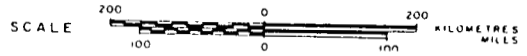
The CHERRY group claims comprising 94 units are registered in the name of Gunsteel Resources Incorporated. Claim boundaries are shown on Figures 2 and 3.

The claim data is as follows:

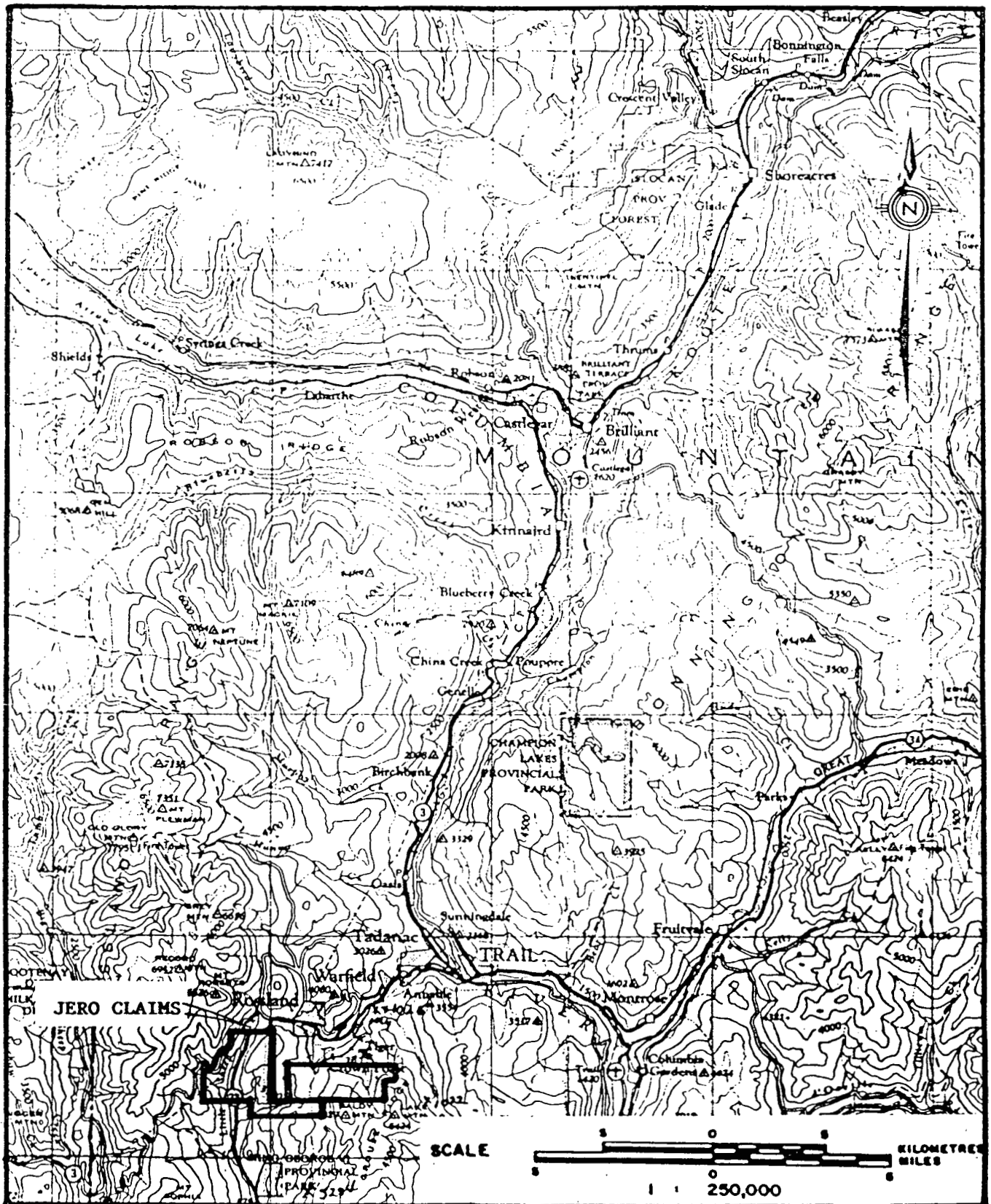
<u>Claim Name</u>	<u>No. of Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
Jero 2	6	654	June 8, 1991*
Jero 3	18	741	June 8, 1990*
Jero 4	4	742	June 8, 1991*
Jero 5	18	773	Dec. 12, 1990*
Jero 6	15	826	Apr. 15, 1990*
Jero 8	15	866	Feb. 10, 1991*
Jero 10	18	948	Feb. 24, 1991*

***Note:** Assuming that the work represented by this report is accepted for assessment purposes.

GUNSTEEL RESOURCES INC.
LOCATION MAP
JERO CLAIMS



JERO CLAIMS



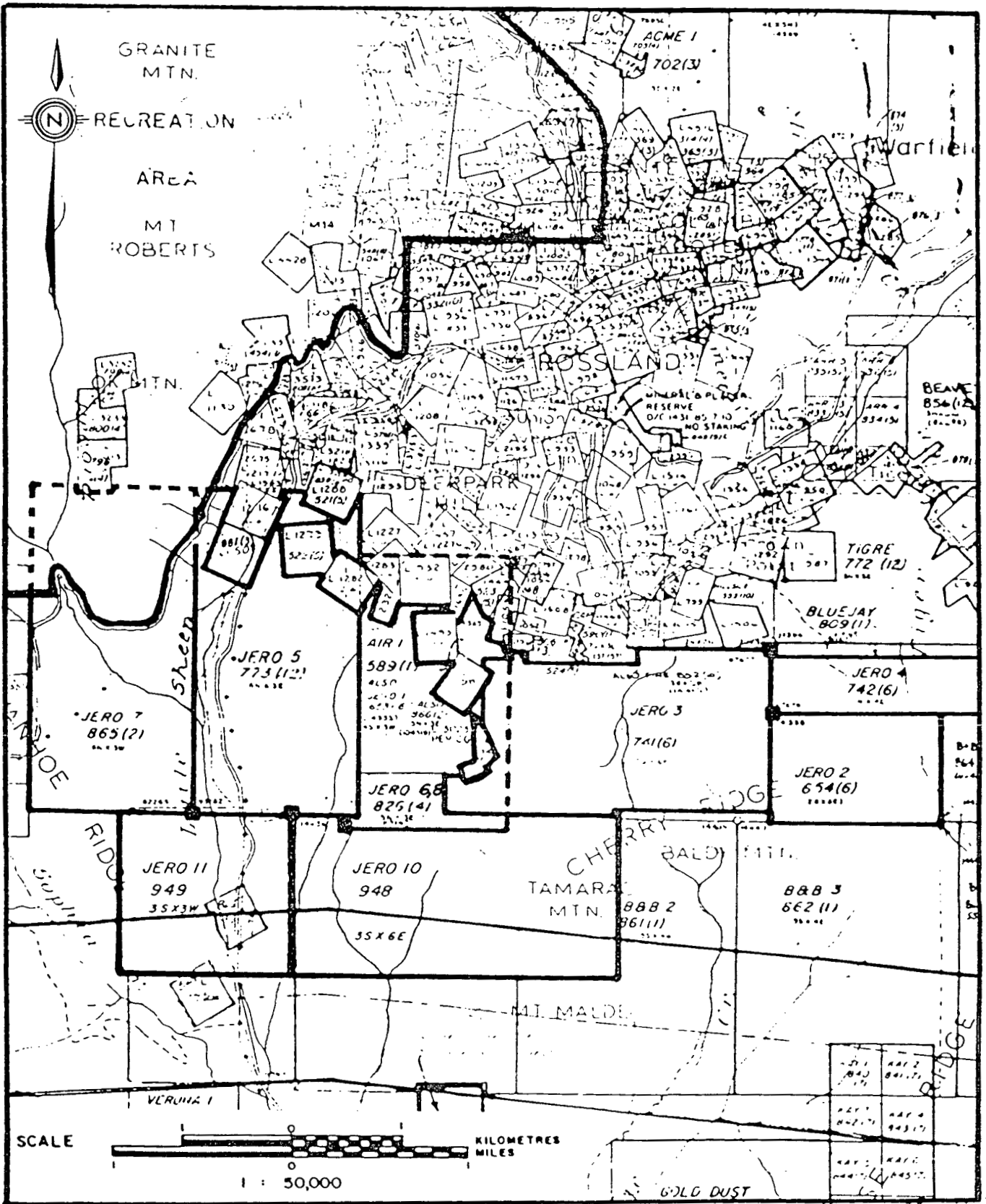
GUNSTEEL RESOURCES INCORPORATED

N.T.S. 82/F

ACCESS MAP

JERO CLAIMS

Trail Creek Mining Division - British Columbia



GUNSTEEL RESOURCES INC.

N.T.S. 82 F/4

CLAIM MAP

JERO CLAIMS

Trail Creek Mining Division - British Columbia



exploration Ltd.

HISTORY

The Rossland mining camp was the second largest gold camp in British Columbia in terms of recorded production. Total recorded production (mainly during the period 1895-1937) is 2,706,000 ounces of gold, 3,300,000 ounces of silver and 100,000 tons of copper from 5,915,000 tons of ore. The average grade was 0.46 ounces of gold per ton, 0.6 ounces of silver per ton and 1.79 ounces per ton copper. Most of the production came from four deposits (LeRoi, Centre Star, War Eagle and Josie) in the core of the camp. Molybdenum was produced at Red Mountain during the period 1966 to 1971.

Old claim maps indicate that the area in which CHERRY group are located has been staked and restaked many times, but apparently little systematic exploration work has been carried out. R. Sheldrake (1981) conducted an airborne electromagnetic survey and outlined a number of electromagnetic anomalies in the area. These anomalies have since been verified by ground VLF-electromagnetic surveys. Since 1982, Jero Resources has conducted claim acquisitions and has carried out preliminary geological, geophysical and geochemical surveys in this area. In 1985, Jero Resources amalgamated with Gunsteel Resources Incorporated, who have continued work on the claims (Figure 4).

GEOLOGY

Regional Geology

The Rossland area lies in the Nelson Map Area, 82F(West Half), the geology of which has been described by Little (1960). The geology of the Rossland Mining Camp has been well documented by Drysdale (1915), Bruce (1917), Gilbert (1948), Fyles (1970) Fyles et al (1973), Thorpe (1973) and Little (1982). In summary, the gold deposits of the Rossland camp occur in a complex environment in which major volcanic, sedimentary and intrusive rocks occur. The oldest rocks are the Carboniferous Mount Roberts Formation which consists of siltstone, sandstone, conglomerate and

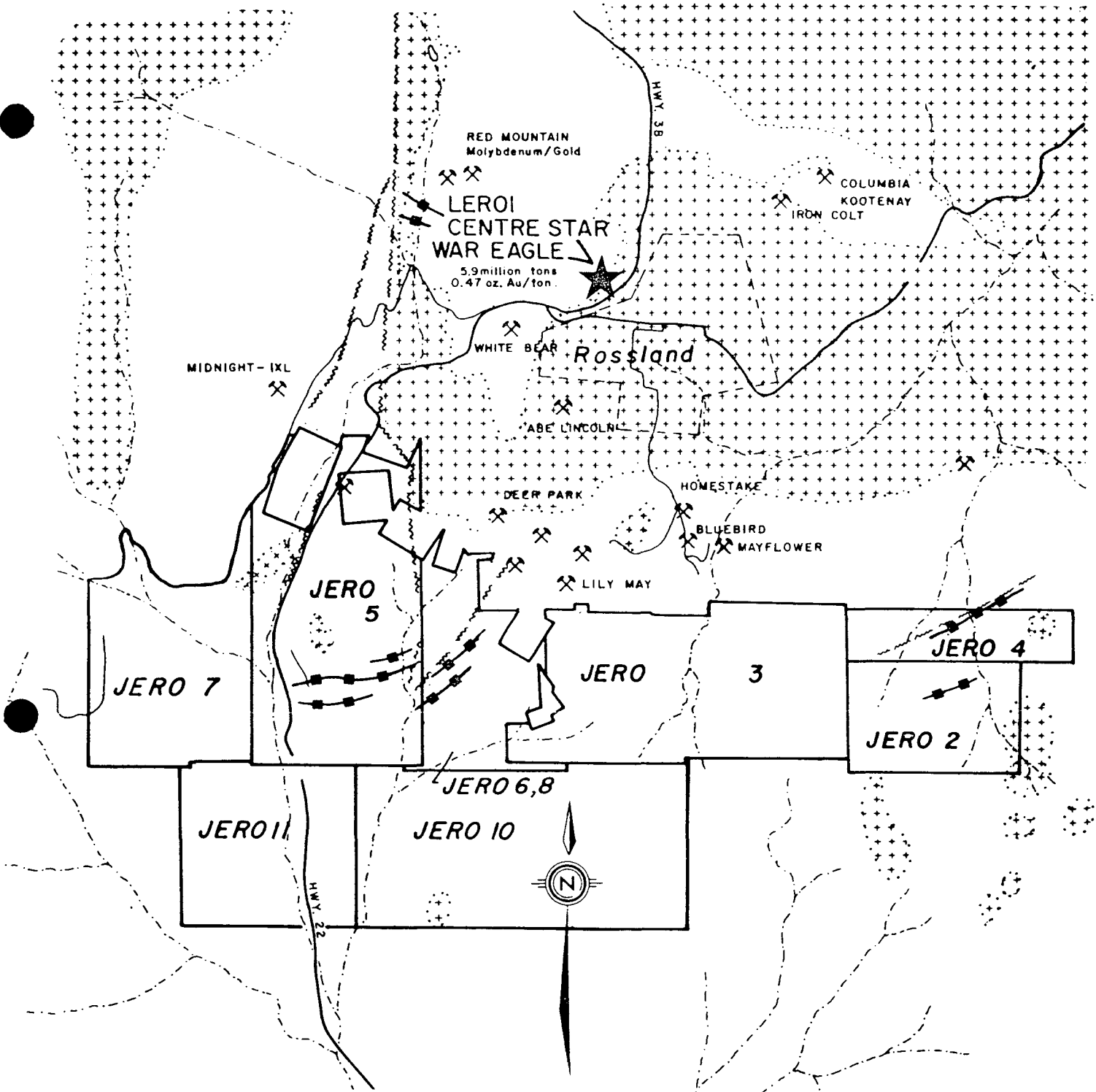
minor limestone. They are overlain by volcanic rocks and inter-bedded sediments of the Jurassic Rosslund Group. Irregular bodies and dykes of augite porphyry were apparently coeval with the Rosslund volcanics. These rocks are intruded by five groups of plutonic rocks: The Rosslund monzonite, the Trail batholith (granodiorite), Coryell intrusions (syenite), Rainy Day stock (quartz diorite) and a large number of dykes including diorite, lamprophyre, syenite, and quartz feldspar porphyry.

The CHERRY group claims are largely overburden covered. No attempt has yet been made to undertake geological mapping. Presumably the claims are underlain by volcanic rocks of the Rosslund Group.

Ore Deposits of Rosslund Camp

The gold-copper deposits of the Rosslund camp are predominantly pyrrhotite-rich quartz veins containing up to 70% sulphides. They are localized by east and north-trending faults where they intersect or lie along contacts of highly competent rocks such as augite porphyry and diorite porphyry. Thorpe (1973) has defined three zones: central, intermediate and outer. Veins of the central zone have a high chalcopyrite content and gold/silver ratio. Veins in the intermediate zone are characterized by a wide range of mineralogies including pyrrhotite, chalcopyrite, arsenopyrite, pyrite, molybdenite, cobaltite, gold bismuth and bismuth and bismuthinite. Veins in the outer zone contain sphalerite, galena and tetrahedrite and have a lower gold/silver ratio.

The molybdenite deposits on Red Mountain occur in brecciated granodiorite, and hornfelsic and skarny sedimentary rock of the Mount Roberts Formation. Mineralization consists of irregularly distributed disseminations and veinlets of pyrrhotite, pyrite, magnetite, molybdenite, scheelite and chalcopyrite (Eastwood, 1966; Fyles, 1967; Hainsworth, 1966). Appreciable amounts of gold are reported in the deposits.



LEGEND

- | | | | |
|--|--------------------------|--|-----------------|
| | CREEK | | FAULT |
| | HIGHWAY | | MINERAL SHOWING |
| | GRANITIC INTRUSIVE ROCKS | | EM CONDUCTOR |

GUNSTEEL RESOURCES INC.
 JERO CLAIMS
 TRAIL CREEK MINING DIVISION - BRITISH COLUMBIA



CLAIMS & GEOLOGY



1990 WORK PROGRAM

A work program on Jero 3 was conducted from January 15th to February 9th 1990. The work was performed by F. Critchlow, prospector, and D. Llewellyn.

A total of 7.8 kilometres of grid was established using compass and hip chain for a VLF-electromagnetic survey. A total of 6.0 line kilometres was surveyed using the VLF-electromagnetic method. Station spacing was 25 metres on lines 100 metres apart. A Geonics EM-16 VLF-EM receiver was used for the survey.

VLF-ELECTROMAGNETIC SURVEY

Method and Instrumentation

A total of 6.0 line kilometres of VLF-electromagnetic survey was conducted on the Jero 3 claim. Readings were taken at 25 metre intervals on lines 100 metres apart. The survey was conducted using Seattle, Washington (24.8 kilohertz) as the transmitting station.

The VLF-electromagnetic method utilizes an electromagnetic field transmitted from radio stations in the 12 to 24 kilohertz range (long range submarine communication signal). The magnetic field transmitted from the station will be horizontal. Conductive bodies (such as the presence of massive sulphides or fault structures) in the earth's crust, will create a secondary magnetic field. By measuring various parameters of the vertical component of the secondary field, conductive zones can be located and to a degree, evaluated.

An EM-16 VLF-electromagnetic instrument manufactured by Geonics Limited was used for the survey. This instrument measures the in-phase and quad-phase of a vertical magnetic field as a percentage of the horizontal primary field. The instrument has a resolution of 1%.

The in-phase percentage has been converted to a dip angle (the arctangent of the in-phase percentage divided by 100) and then filtered by a technique described by Fraser (1969 - Geophysics Vol. 34, No. 6, pp.

958-967). The in-phase and quadrature percentage are presented in profile form on Figure 7. The Fraser filtered values are shown in contour form on Figure 1. Conductive zones are interpreted to underlie the point on a traverse line where changes in in-phase and quadrature percentage occur. The Fraser filtered values will show high positive values at this point.

Results

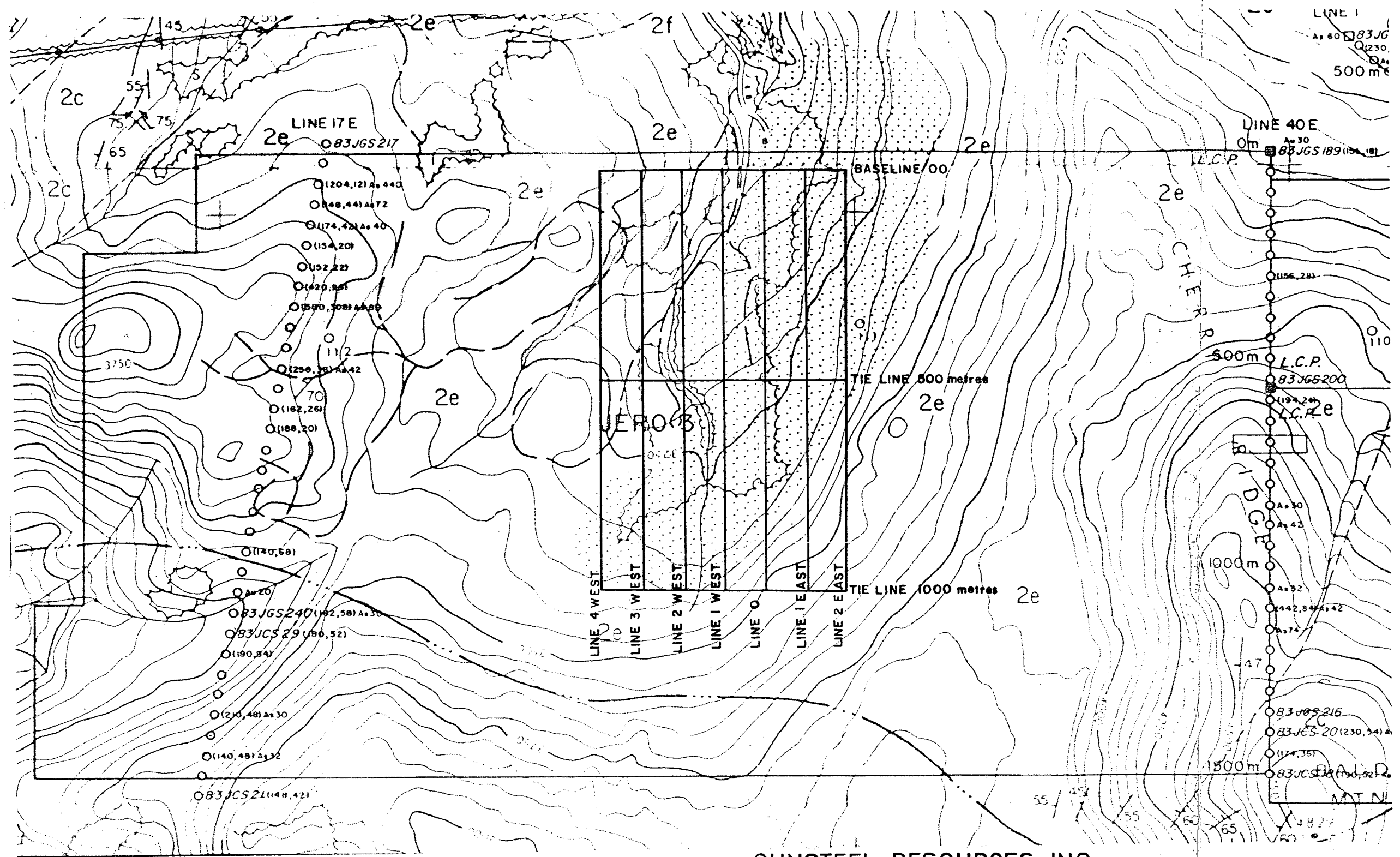
The VLF-electromagnetic survey shows four weak anomalous zones. These zones have very short strike lengths (less than 200 metres). The rigorous terrain and discontinuous nature of the anomalies suggest they may be due to terrain. The location of the anomalous zones are:

- 1) Line 2 west at 235 metres and Line 3 west at 210 metres
- 2) Line 1 west at 50 metres
- 3) Line 2 west at 725 metres and Line 3 west at 775 metres
- 4) Line) at 460 metres and Line 1 west at 510 metres.

The weak nature of these anomalies makes them a low priority exploration target. However if these anomalies were to be coincident with a high magnetic anomaly then further investigation would be warranted.

Discussion of Results

The VLF-electromagnetic survey located four weak anomalies with short strike lengths. A detailed magnetic survey of the area may indicate if these anomalies are due to the presence of sulphides (pyrrhotite, magnetite) which are associated with gold in the Rosslund area and should be carried out.



GUNSTEEL RESOURCES INC.

JERO 3 CLAIM

TRAIL CREEK MINING DIV. - B.C.

GRID MAP

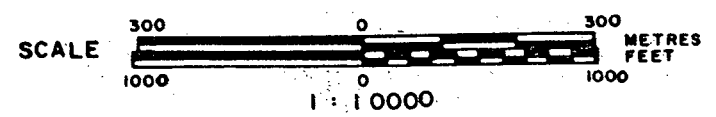
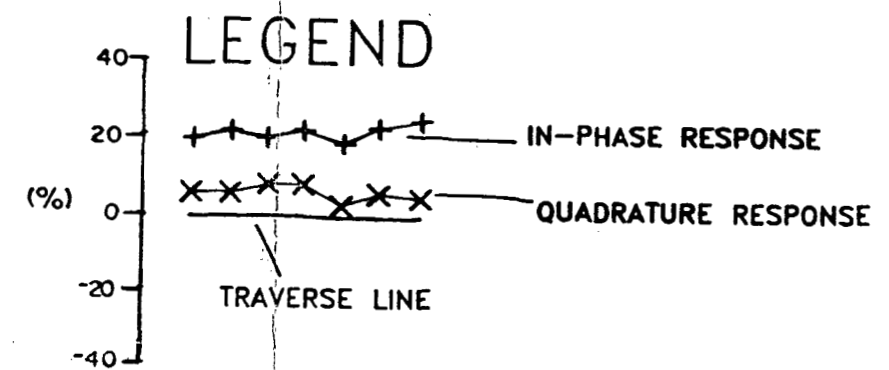
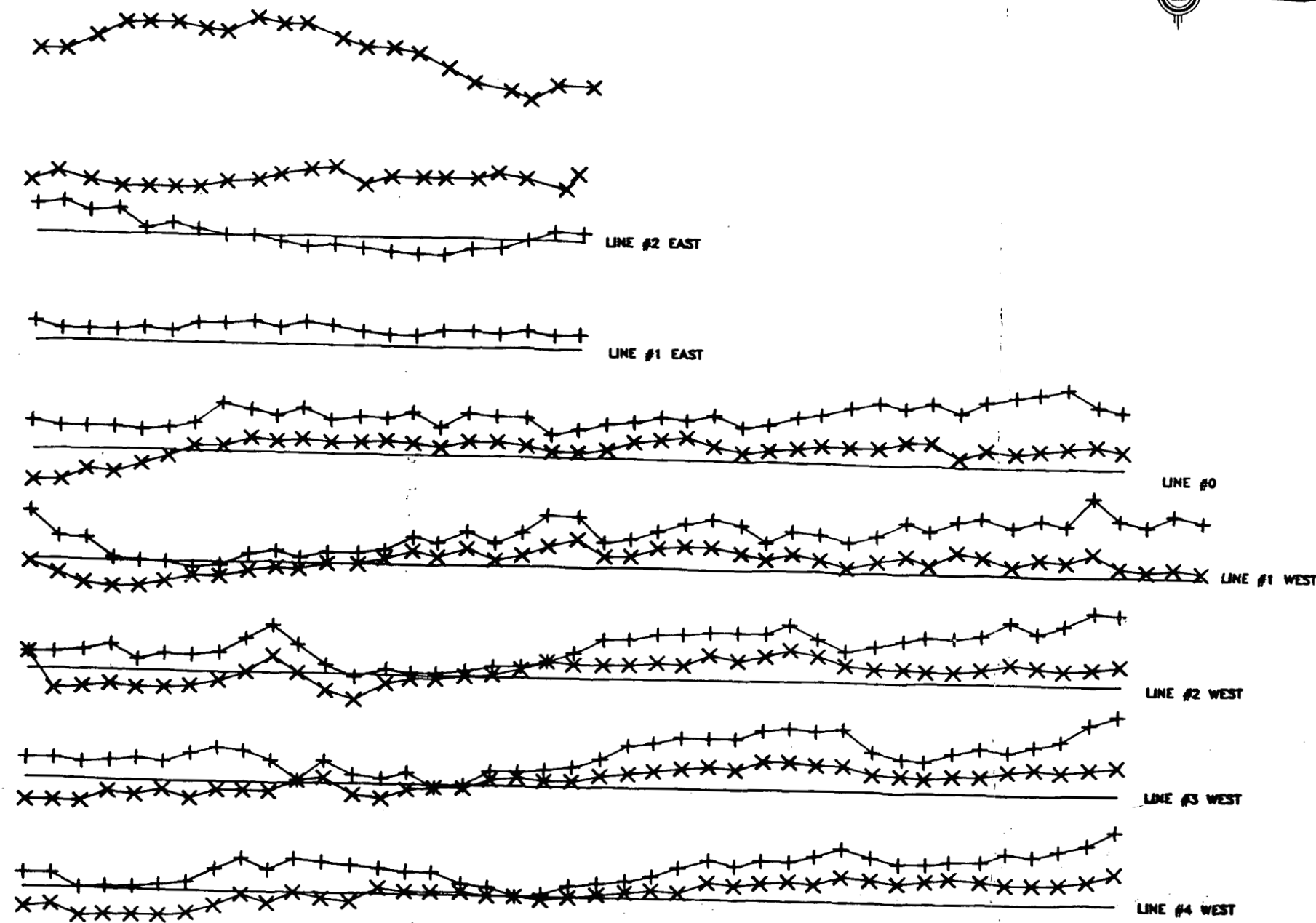


FIGURE 5



GUNSTEEL RESOURCES INC
JERO CLAIMS
TRAIL CREEK MINING DIV. - B.C.
VLF-PROFILES

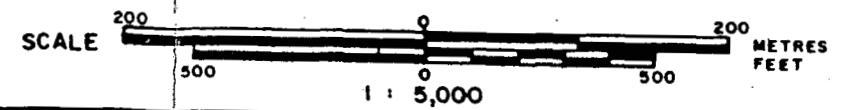
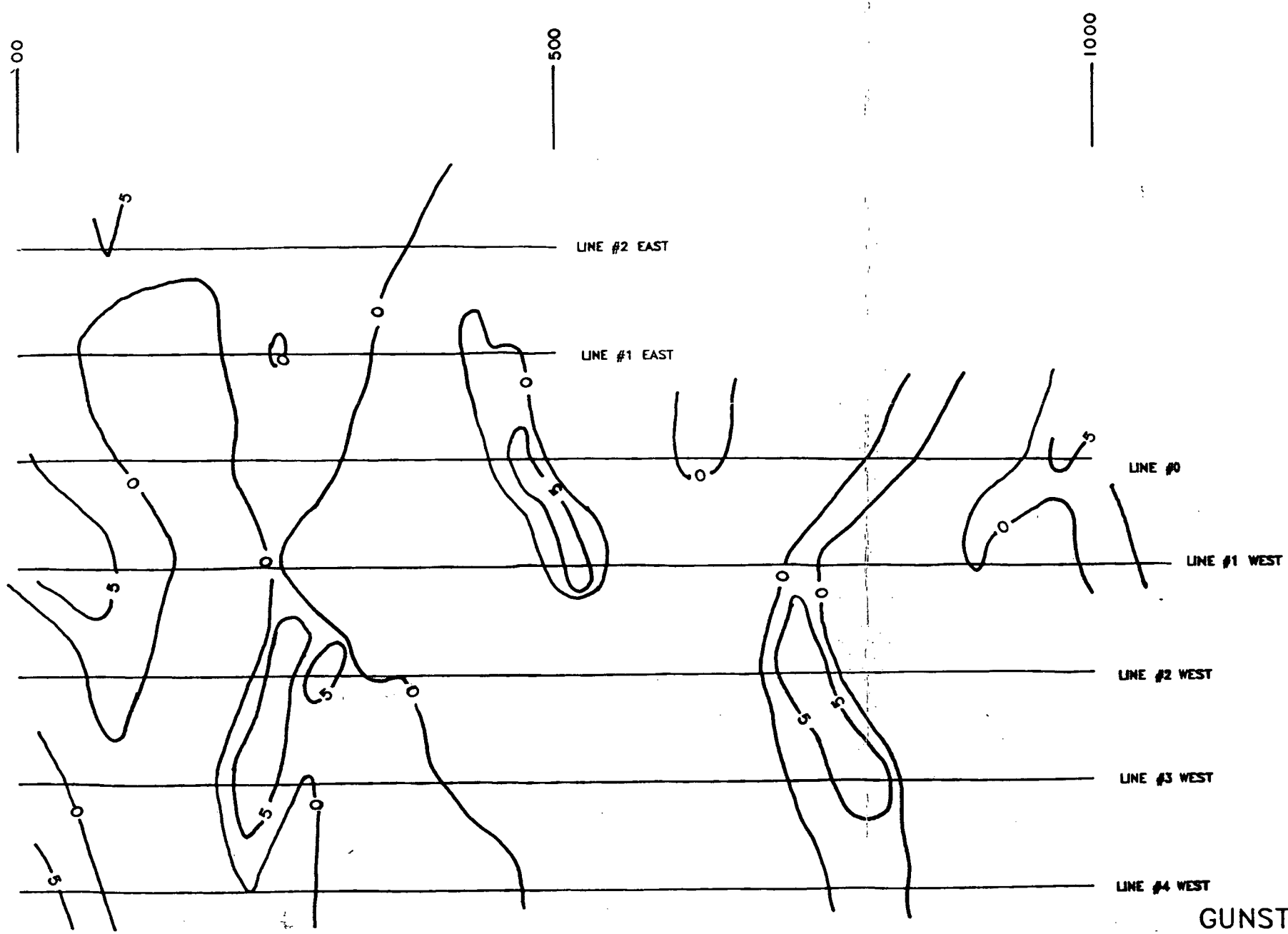
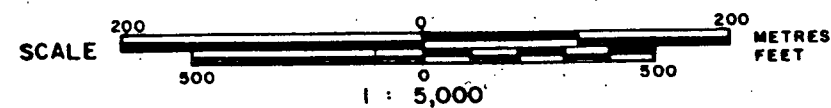
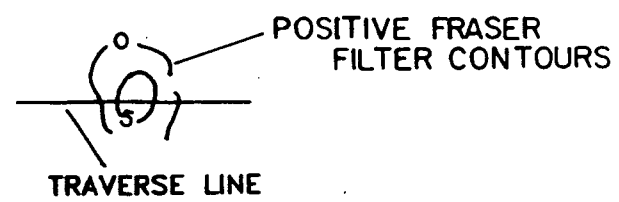


FIGURE 6



LEGEND



GUNSTEEL RESOURCES INC
JERO CLAIMS
TRAIL CREEK MINING DIV. - B.C.

FRASER FILTER CONTOURS

REFERENCES

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REFERENCES

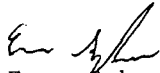
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- Eastwood, G.E.P. (1966). Geology of the Coxey-Giant Area in B.C. Dept. Mines Ann. Rept. for 1966, pp. 200-208.
- Fyles, J.T. (1967). The Geology of Red Mountain in B.C. Dept. Mines Ann. Rept. for 1967, pp. 236-238.
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- Little, H.W. (1982). Geology of the Rossland-Trail Map Area. Geol. Surv. Canada, Paper 79-26.

CERTIFICATE

I Evan Sykes, certify that:

1. I am a geophysicist residing at 6331 Azure Road, Richmond, British Columbia.
2. I am a graduate of the University of British Columbia with a degree in Geological Engineering (B.A.Sc., 1988).
3. I have practised my profession in British Columbia since 1986.
4. This report is based on fieldwork carried by F. Critchlow and on information listed under References.

May, 1990
Vancouver, B.C.


Evan Sykes,
Geophysicist

CERTIFICATE

I, Fredric H. Critchlow, certify that;

- (1) I am a prospector, free miners certificate #280908 (1989), #294865 (1990), and reside at 523-105th Street, Castlegar, B.C. VIN 3G7.
- (2) I have been practicing my profession, including prospecting, geochem, and geophysics since 1963, largely by contract basis with various companies in British Columbia.
- (3) This work was carried out by myself with the help of Dennis Llewellyn.
- (4) I have no interests in any of the company properties.

**Instrument used for the survey on the Jero Group was a VLF-EM 16, and the station used was Seattle.



Fredric H. Critchlow

AFFIDAVIT OF EXPENSES

This is to certify that the work program outlined in this report was carried out on the CHERRY group, Rosslund area, Trail Creek Mining Division, during the period of January 15th to February 9th, 1990 to the value of the following:

Personnel

Prospector		\$1,750.00
Field Assistant		1,400.00
Geophysicist		450.00
Drafting		420.00
Computer		250.00
VLF rental	9 days @ \$20/day	180.00
Truck rental	7 days @ \$ 50/day	350.00
mileage	1000 kilometres @ \$0.15/km	150.00
Ski-do rental	7 days @ \$35/day	245.00
Typing/Compilation		100.00
Office Supplies		<u>125.00</u>
		TOTAL \$5,400.00