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GEOPHYSICAL REPORT
on the
PINE CLAIM
Trail Creek Mining Division
82 F 4
49° 3' 25" N 117° 42' W
Owner: Inland Au. - Ag. Resources Ltd.
Operator: Inland Au. - Ag. Resources Ltd.
Author; D. K. Bragg
Jan. 10, 1990

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

19,650

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INTRODUCTION

The Rossland mining camp in the past has been one of the major gold and silver producers of British Columbia. The camp had its beginning in the early 1980's when some of the first claims in the area were staked. Since then the camp has produced in excess of five million tons of ore which gave a recorded grade of 15.68 g/ tonne Au., 19.65 g/ tonne Ag. and about 1 % Cu. per tonne.

Since the late 1920's little production has taken place except for leasors on some of the old properties satellite to the main core of the camp and the production of molybdenite from the southern flank of Red Mountain.

It was in the Rossland camp that the Consolidated Mining and Smelting Company got the start that enabled it to become one of the world's major producers of lead, zinc and silver, and the establishment of its smelter complex at Trail, B. C. This company is now Cominco.

Most of this early production was centered around the northern and western part of the camp where the veins were predominantly copper and gold producers, i.e.: the War Eagle, Centre Star, Le Roi and Josie crown granted claims. However, many properties satellite to the main producing area were discovered and staked. Many of the veins on these satellite properties contain a different mineralogy than that of the main producing core of the camp, such as lead, zinc, silver and gold veins and arsenic gold veins. It is on these satellite properties that most of the exploration work since the 1920's has taken place, although sporadic.

In the last few years exploration in the Rossland camp has intensified with numerous companies and individuals being actively engaged in exploration. The results of this increased activity has been most encouraging to the extent that the Rossland area may again become a producing camp of some note.

The writer has been intensely involved in the Rossland area since 1970 and had been actively mining on the Snowdrop and Blue Bird crown granted claims from 1970 to 1976. Since then he has been involved in exploration of the whole camp and in particular in that area that is known as the south belt. This continued exploration has resulted in the accumulation of considerable information and insight about the Rossland camp which is invaluable. Much of this information is contained in reports previously filed for assessment work requirements and in private reports.

The Pine claim, Record no. 852 was staked on Sept. 26, 1985 and was recorded on Oct. 24, 1985. The Pine claim was a relocation of the Cap claim. It was staked by D.K. Bragg as agent for G.Langset and was subsequently transferred to Inland Au. - Ag. Resources Ltd.

The claim was staked to cover the holes that existed along the southern boundary of the crown granted claims to the south of Rossland. A number of cuts, trenches, shafts and other old workings had been observed in the area of the Pine claim and its location was designed to cover these.

The purpose of this investigation was to continue to the eastward the magnetometer survey previously done on the Pine claim, (See previous reports, 'Geological and Geophysical Report on the Pine claim by D. K. Bragg, dated Jan. 10, 1987 and Geophysical and Topographical Report on the Air Supplemental Group by D. K. Bragg, dated March 1, 1988.)

PROPERTY LOCATION & ACCESSIBILITY

The Pine claim is centered two kilometers south of the City of Rossland within the upper Gopher Creek drainage basin, for the most part on the north and eastern facing slopes of Tamarac Mountain. Elevations on the claim range from 850 metres to 1125 metres. For the most part the terrain is quite gentle and easily accessible by foot.

Access to the claim is by means of the South Belt road from Rossland and through Drakes farm. The eastern portion of the claim is accessible by logging roads off of the South Belt road and by means of the abandoned rail grade. There are also numerous logging roads in the area but some of these are now impassible to 4 wheel drive.

The forest cover is mainly second growth hemlock, larch, fir, cedar and both white pine and jack pine with considerable poplar and birch. Much of the area has been recently logged. Some areas are covered by non commercial scrub growth. The undergrowth is fairly open and nowhere is it impassible.

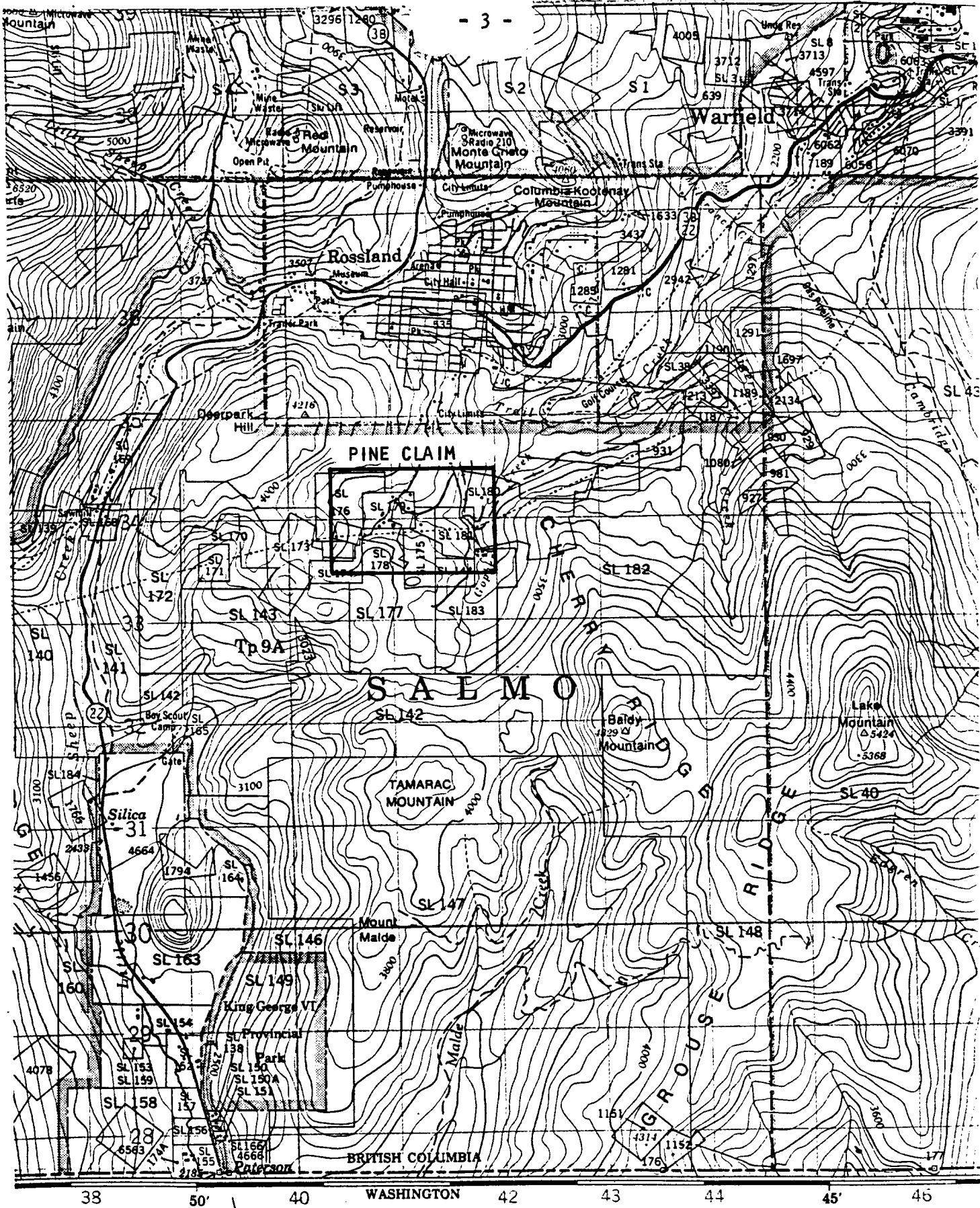


Fig. 1
INDEX MAP
LOCATION OF PINE CLAIM

ROSSLAND-TRAIL
BRITISH COLUMBIA

Scale 1 50 000 Échelle

Y MTN.
 JANCY
 RINE
 GRANITE MTN.
 GREAT JON
 AREA
 MT. OBERTS

MTN.

LAND

MITZI 2

VERUNA 1

Miles 1 0.5 0 0.5 1 2 Miles

Metres 1000 500 0 1000 2000 3000 Metres
 Kilometres

Topping

TOP 1
 701(3)

- 4 -

KAY
 774 (1)

ALUS HILL

Tardande

Topping

REAT JON

AREA

MT. OBERTS

Warfield

Trail Cr.
 C.P.R.
 Annable

MINERAL & PLACER
 O/C 658 20-2-75
 SUBJECT TO CONC

URAL
 785(3)

ROSSLAND

PINE CLAIM

TIGRE
 772 (12)

CAM 1
 795 (5)

JERO 5
 773 (12)

AIR 1
 589 (1)

JERO 3
 741 (6)

JERO 4
 742 (6)

JERO 2
 654 (6)

756 (6)

CHERRY BALDY MTN.
 TAMARAC MTN.
 JETHROW 2
 JETHROW 1

LAKE MTN.

MT MALDE

CLASS "A" PARA
 PK 24-28, 28, 28, 28, 28

ORO
 755 (6)

OROSE
 650 (6)
 656 (6)

GOLD
 274



FIG. 2
 CLAIM MAP 82 F 4
 Location of PINE Claim

Scale 1 : 50,000

GENERAL GEOLOGY OF THE ROSSLAND CAMP

The Rossland area is underlain by sedimentary and volcanic rocks which have been intruded and metamorphosed by igneous rocks (see GSC Memoir 308 by L.V.Little)

The oldest formation is the Mount Roberts Formation, (Pennsylvanian) which are sediments consisting of slates, limestones, quartzites and greenstones mostly andesites and banded tuffs.

This in turn is overlain by the Rossland Formation (Lower Jurassic) which consists mainly of lava flows of andesitic to basaltic composition, augite porphyry, and bodies of tuff and argillite.

The above rocks have all been intruded by a number of different intrusions in the following sequence:

Ultrabasic Intrusions	(Lower Cretaceous)	serpentinized peridotite
Rossland Monzonite	(Lower Cretaceous)	monzonite
Nelson Plutonic rocks	(Lower Cretaceous)	granite and other phases
Coryell Plutonic rocks	(Tertiary)	alkali granite and syenite
Sheppard Intrusions	(Tertiary)	alkali granite and syenite

Most of all these formations in turn have been subjected to faulting and the intrusion of numerous dykes of various composition from monzonite to basalts. In general these dykes are steeply dipping and trend to the North.

In the area to the south and south east of Rossland there are east - west fractures or faults along which mineralized stopes are formed. These stopes seem to be well developed vertically, but are limited horizontally. One such stope on the Blue Bird crown grant measures about hundred feet horizontally and has been drilled vertically to a depth of two hundred and forty feet and is open downward.

There are two known mineralized fractures of considerable length in what is known as the south belt. The Blue Bird - Mayflower vein system has been traced over a distance of 1200 metres from the eastern portion of the Hattie Brown crown grant through the Blue Bird, Copper Queen, Olla Podrida and on to the Alfie crown grants and still may be open on both ends. The second vein system is the Homestake vein, and although it is not known for certain that this is a continuous system, mineralization has been found along a strike distance of 2200 metres. This system runs through the Monday, Homestake, Gopher, Maid of Erin, Robert E. Lee, Celtic Queen crown grants and on to the Tigre claim.

There are numerous other short fractures in the area along which mineralization has been found, but since information is scarce, it is not known whether these mineralized occurrences are aligned and along continuous fracture systems.

The ongoing Geological and Geophysical investigations, along with prospecting is contributing gratefully to the fund of information on the Rossland camp and the surrounding area.

FIELD WORK

The field work for this survey was started on Oct. 22, 1989 and completed on Oct. 24. During the two and a half days a total of 2.4 km of line was run in using a compass and topochain for control. The line spacing was 25 metres with stations being established every 5 metres along the lines. Some of the lines were partially cut out in some of the more densely forested areas. D. K. Bragg put in the lines and did the magnetometer survey.

For the purpose of the magnetometer survey a base station was set up on the grid and numerous readings were taken at this base station before the survey was commenced and during the course of the survey in order to establish an average base station reading and to maintain control over any diurnal fluctuations. The magnetometer had been previously calibrated at a control station for all the surveys in the Rossland area so that the lower range scale on the magnetometer would be used in all the surveys. A total of 558 readings were taken using a M^CPhar M 700 vertical field magnetometer which works on the fluxgate principle. Of the 558 readings 61 of these were along line 35+75 east which had been done during the 1988 survey. This duplication of the readings along 35+75 east was done to establish a correlation between the two surveys and to determine a conversion factor between the two surveys. Also during the survey 10 duplicate readings were taken throughout the grid as a control over the continuity of the survey and as a correlation of the readings.

All the readings were corrected for diurnal fluctuations and the conversion factor was applied and then the readings were plotted on a map to the scale of 1 - 500 by computer and contoured.

The mapping of the geology and the topography had to be left to a later date.

RESULTS

Little time was spent during the two and a half days of the survey in looking at the geology of the survey area. The geology was left to be mapped at a later date. However a cursory examination suggested that most of area north of the 10+00 S base line was mainly Rossland Monzonite with minor amounts of Rossland Volcanic Formation rocks and black argillaceous shales which may be remnants of Mt. Roberts Formation. Some of these black argillaceous shales occur along the 10+00S base line and to the south. However, the occurrence of these shales seems limited and may only be thin beds of black shales that can be found in places within the Rossland Formation Volcanics. These black shales are the locus of much of the faulting. The rest of the area between 10+00 S and 13+00 S is mainly Rossland Formation Volcanics.

Of the 61 duplicate magnetometer readings along line 35+75 E between the two surveys, 59% were duplicated within 25 gammas and 82% were duplicated within 50 gammas. A conversion factor of 765 gammas was established between the two surveys.

Of the 10 duplicate readings throughout this grid 80 % were duplicated within 25 gammas and 100 % were duplicated within 43 gammas. With these results this survey can be accepted with a high degree of confidence.

Many of the anomalies appear to be broken up and to some extent resemble the blocks of broken anomalies found elsewhere on the Pine claim. These types of anomalies may represent areas of intense faulting within which are emplaced small linear mineralized stopes.

The strongest or first ranked anomaly lies 10 metres south of the 10+00 S base line between lines 36+25 E and 37+00 E. This anomaly has a gradient of 1000 gammas or better and is suggestive of a mineralized vein dipping to the north.

Just to the south of this anomaly is a low approximately 50 metres in diameter, centered at 36+50 E 10+45 S, that is surrounded by a series of highs. There was little outcrop in this area, but what was seen was mostly black shales with minor amounts of volcanics, both of which appeared to be intensely faulted and the area had a domed appearance. This may be a small zone of intense faulting and perhaps some alteration that has remobilized the magnetic minerals outwards to the surrounding zones where there are magnetic highs.

The second ranked anomaly lies along an E - W axis through 37+00E 10+75 S and through 35+75 E with possible mineralized stopes centered at 36+75 E 10+75 S and at 36+00 E 10+70 S This may represent a linear fault structure along which these mineralized zones occur. The gradient of these two anomalies is about 2000 gammas.

The third ranked anomaly appears along an axis between 37+00 E 9+75 S and 36+75 E 9+75 S. This anomaly again appears to have a gradient range of about 2000 gammas and may be of some length since only the western portion of the anomaly appears in this survey. The configuration of the anomaly suggest that it may be dipping to the south.

The fourth ranked anomaly lies along an E -W axis between 36+50 E 12+45 S and 36+25 E 12+45 S. This anomaly has a gradient range of 1000 gammas and is suggestive of a vein type structure dipping to the north.

There are seven other anomalies within the survey area that are of interest. For the most part they are single point highs that lie within an enclosing linear envelope. Their gradients range between 500 and 1000 gammas and do suggest linear vein type structures.

Some of this survey was over reverted crown grants such as the Alcome Fr. Lot 11468 and the Curlew Lot 1220 in the northern portion of the survey area, but since the position of the survey pins could not be found on the ground, and since the relative position of these claims could not be plotted at this time with any degree of accuracy they were not indicated on the map.

CONCLUSIONS AND RECOMMENDATIONS

The results of this survey can be accepted with a high degree of confidence since 80 % of the duplicate readings were within 25 gammas.

The results of the magnetometer survey are most encouraging and should be followed up with VLF and possibly some detailed SP surveys. These surveys may filter out some of the numerous magnetometer anomalies and delineate economic mineralized zones. Soil geochemistry should be done in the areas that are not culturally modified.

These magnetometer results give some credence to the large SP anomaly outlined in this area by the survey that was done by Rossland mines during the 1960's.

STATEMENT OF COSTS

D. K. Bragg	Oct. 22, 23, 1989	
	Oct. 24, 1989	½ day
	Total 2½ days at \$200.00 per day	\$ 500.00
Board	2½ days at \$ 40.00 per day	\$ 100.00
Truck costs	2½ days at \$ 50.00 per day	\$ 125.00
Equipment rent and supplies		\$ 50.00
Prorated transportation costs to Rossland & return to Vancouver		\$ 100.00
Report preparation		\$ 600.00
		<hr/>
	Total	\$ 1475.00

D. K. Bragg

STATEMENT OF QUALIFICATIONS

D. K. Bragg supervised and did most of the work involved in this investigation, including the line cutting, prospecting, mapping the geology, soil sampling, magnetometer survey and report preparation. His qualifications are as follows:

Graduated Armstrong High School, Armstrong, B.C., 1951

Attended U.B.C. from 1958 to 1962 in the faculty of Arts and Science, in Honors Geology.

Has worked in the mineral exploration industry since 1956.

Worked for Kennco Explorations during the summers of 1956, 1957, and 1959 in the Yukon and northern B.C. as an assistant prospector and geochem sampler under the direction of Dr. R. Campbell and R. Woodcock.

Worked as head prospector for the Nahanni 60 Syndicate in the Northwest Territories in 1960 under the direction of Doug Wilmont.

Worked as head prospector in the Yukon for Dualco in 1961 under the supervision of E. Wozniak.

Worked as head prospector for Mining Corp. of Canada in southwest B.C. in 1962 under J. S. Scott and Dr. K. Northcote.

Worked as head prospector during the summer of 1963 for the Francis River syndicate in the central Yukon, under the direction of Dr. A. Aho.

Worked as field geologist in the Greenwood area of B.C. for Scurry Rainbow Oil in 1965 under the direction of Bill Quinn.

Worked as field supervisor for Alrae Explorations Ltd. from sept 1965 to April 1967 under the direction of Rae Jury.

Since 1956 has also worked as a self employed contractor, working for various mining companies in the following fields: prospecting, property examination, staking, line cutting, topographical mapping, geological mapping and reconnaissance, mineral sampler, draughting, air photo interpretation, geochemistry, geophysics, and supervising property exploration programs.

Since 1956 has also been a self employed prospector working in various areas in B.C. on numerous properties.

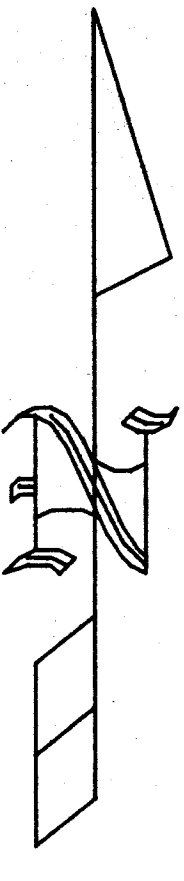
Has assisted in teaching the geochemical section of the Ministry of Energy, Mines and Petroleum Resources Mineral Exploration Course For Prospectors under the direction of Dr. S. Hoffman in 1984, 1985, 1986, 1987, 1988, 1989.

Has recieved the B.C. Provincial Grubstake for the years 1964, 1968, 1969, 1970, 1980, 1981, 1982, 1983, and 1986. 1987

Has worked in the Rossland camp since 1971 as a miner on the Snowdrop and BlueBird claims. Has spent considerable time in the camp as a prospector and mining exploration contractor.

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9+00S

9+00S

10+00S

10+00S

11+00S

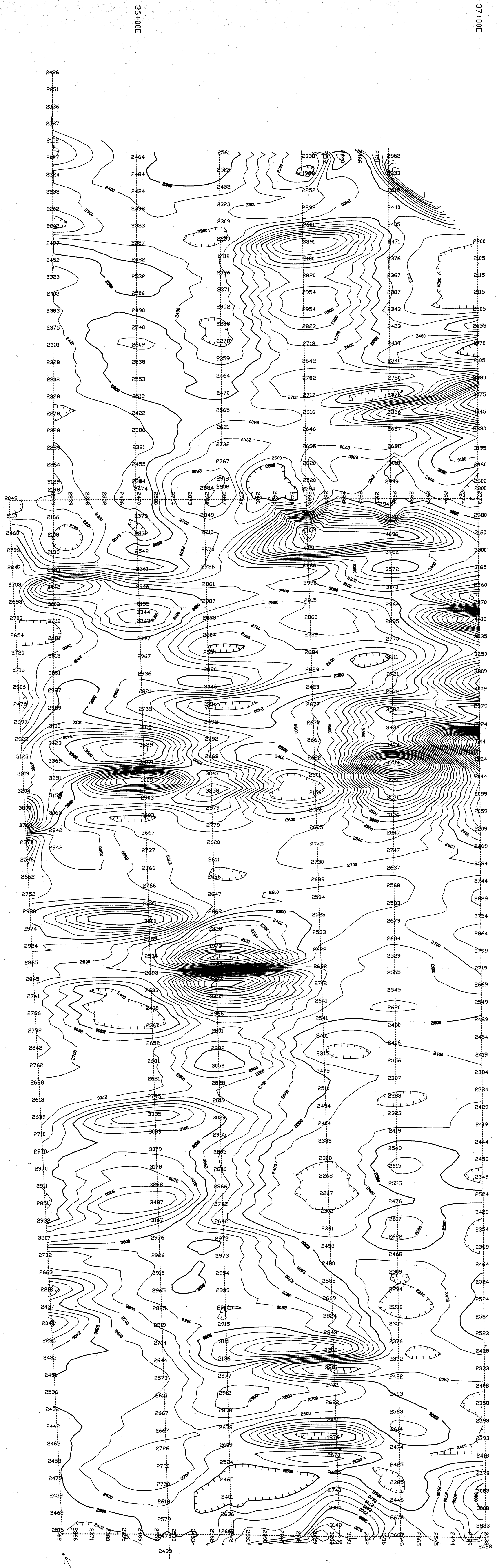
11+00S

12+00S

12+00S

13+00S

13+00S



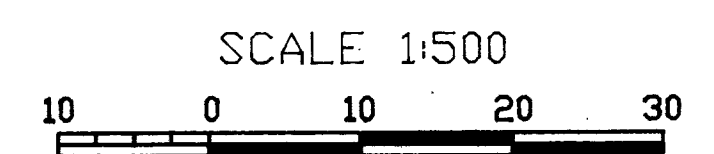
Post 2S 1E is 230m West and 20m South of this point (6m South of 13+00S 35+75E)

36+00E

37+00E

LEGEND

INSTRUMENT: McPHAR M700 VERTICAL FIELD OR FLUXGATE MAGNETOMETER
READINGS IN GAMMAS
CONTOUR INTERVAL: 100 GAMMAS



SCALE 1:500
METERS

19650

MAGNETOMETER SURVEY	
PINE CLAIM	
ROSSLAND, B.C. TRAIL CREEK H.D. NTS 82F / 4W 49° 3'25"N, 117° 48"W	
PLOTTED BY: RPM MAPPING AND COMPUTER SERVICES LTD.	
TO ACCOMPANY GEOPHYSICAL REPORT	
ON THE PINE CLAIM BY D.K. BRAGG	
NTS: 82F / 4W	DATE: JAN. 10, 1990
PLOTTED BY: RPM MAPPING	FIGURE NO. 3