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GEOPHYSICAL AND GEOCHEMICAL REPORT
 ON THE A.E.I. MINERAL CLAIMS
 Skeena Mining Division

NTS 104 A/4W

56 ~~13~~' N
12'

130 ~~15~~" W

129° 57'

By

Mel Langer, B.S. and Allan Ingelison, B.S.
GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,109

Owners/Operators: Allan Ingelison, John Cox

Field work completed August 12 to 17, 1988

July 12, 1989

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INTRODUCTION

The A.E.I. group of sixteen claims has been staked over a mineralized zone which is located three kilometres west of American Creek and 13.75 kilometres north-north-west of the junction of the Bear River and American Creek. Access to the claim group is by a fifteen minute helicopter flight from Stewart. During August 1988, a geophysical survey was carried out over the A.E.I. claims to detect the presence of massive sulphide mineralization in the andesitic tuffs. Chip sampling of the outcrops over four kilometres from the Dana's Find claim at the south end of the group to the edge of the Moonlight Glacier was completed in conjunction with the VLF-EM survey.

CLAIM HISTORY

The A.E.I. claims were first staked by Allan Ingelson during July 1987, over oxidized green tuffs which are exposed in an easterly facing cirque situated along the east edge of the Bear River Ridge. There is no reported previous exploration of the A.E.I. mineral zone. Allan Ingelson is the owner of the claims.

GEOLOGY

The green andesitic tuffs and schists which outcrop on the claim group are mineralized with pyrite, arsenopyrite, bornite and chalcopyrite. Massive pyrite occurs in milky quartz veins to a maximum of one meter in width, which are exposed in the cirque. The highest copper and silver assays of 4.28% and 3.81 oz./ton respectively are associated with bornite in a reddish tuff. Minor gold and silver values are associated with pyrite and arsenopyrite in green andesitic tuffs. Refer to the appendices for the sample descriptions and analysis of the twenty-two, 2.5 kilogram chip samples collected during the 1988 survey.

X.R.F. analysis of one chip sample containing pyrite and arsenopyrite in an andesitic tuff at location #15 contained traces of: Pb and Sr 1.5 %

Ga
Ni
Zn
Fe
Ba
Rb
Zr
Nb
Cr
Mn
Ca
K

The A.E.I. mineralized zone within the Stewart Complex is located on the western flank of the American Creek anticline at the Unuk River/Betty Creek formation contact (mapped by E. Grove 1964-70 and D. Alldrick 1985). Refer to appendix two. Sampling and mapping in the zone indicates intensely deformed, mineralized tuffs and schists overlain by siltstones, breccias, sandstones and conglomerates.

The potential for massive sulphide lenses within the A.E.I. zone may be evaluated in the context of the Granduc deposit situated in the Salmon River Valley 29 kilometres to the west. Host rocks at the Granduc Mine form part of a shallow marine succession of andesitic lavas, tuffs, conglomerates, siltstones, sandstones and cherts. Wolf describes the genesis of sulphide deposits in geologic settings such as is found in the A.E.I. zone and the Granduc Mine: "With respect to the genesis of sulphide deposits in this setting, the presently favored volcanigenetic theory holds that massive sulphide lenses were deposited periodically in a shallow water reducing environment in a basin receiving marine sediments and andesitic volcanoclastic debris." (p.89)

During August of 1988 a VLF-EM survey was carried out over a period of six days. The survey was directed toward detecting the presence of potential electromagnetic conductors which may indicate massive sulphide mineralization in the cirque, and beneath the snow on the adjacent icefield.

FIELD PROCEDURES

A Crone-Radem VLF-EM Receiver was employed in the survey. The Jim Creek, Seattle, Washington station (24.8 KH) was used as the main transmitter. This station provided the best electromagnetic coupling as the strike of the andesitic tuffs is north-northwesterly. The Cutler, Maine transmitter (24.0 KH) was utilized to verify the anticipated geologic strike of the tuffs beneath the snowfield. Refer to appendices six through eight for the dip angle of the resultant electromagnetic field. The survey was initiated at a base camp elevation of 4000 ft. a.s.l. (elevation determined by helicopter altimeter). The traverse lines were measured with a tape and compass. Since much of the surveyed area was along a steep surface, a slope correction factor was applied to reduce all measurements to a horizontal distance of thirty metres between adjacent stations.

A Zeiss transit was available for establishing the reference point stations in the survey. All of the stations were flagged with a yellow or green marker ribbon, and stakes placed at each station. A total of six kilometres of line was surveyed over the A.E.I. #1-4 claims, Dana's Find, and Evick Claims.

RESULTS AND INTERPRETATION

Figure one contains a topographic sketch map of the cirque survey area. The six traverse lines are labelled as A, B, C, D, E, and F on figure one. The Dana's Find no. 1 claim post (tag 477639M) is identified as post "c.p. A" on figure one. The initial post of the A.E.I. #1 claim (tag 520245) is referred to as post "c.p. B". The second post of the A.E.I. #1 claim is referred to as "c.p. C" on figure one. The second post (a replacement for the original one placed in 1987) is located on the snow at the edge of a precipitous slope at the north rim of the cirque. It would appear that the original post has been covered by the past year's snow.

Figures two and three contain the VLF-EM dip readings in plan view. Figure four provides a profile view of the Seattle station measurements. The strongest readings were recorded along traverse D. A maximum value of plus 22 was observed at the northeastern end of traverse D near the intersection of traverse lines C and D. A minimum value of negative 12 was recorded at station D-20. Measurements along traverse D were repeated to substantiate the presence of a cross-over zone.

The critical cross-over zone over a distance of ninety metres is located between stations D-5 and D-8. This cross-over zone may be interpreted as one broad massive sulphide conductor beneath the snow, or a series of narrower separate conductors.

Along traverse E there may be another cross-over zone at the northwestern end of the line. If there is a second cross-over zone, the axis of the buried conductor is at an azimuth of 350 degrees as plotted on figure two. Such an anomalous trend parallels the one metre wide sulphide-bearing quartz vein, which is exposed in the cirque approximately 250 metres east.

CONCLUSION AND RECOMMENDATIONS

1. The VLF-EM survey suggests the presence of a massive sulphide conductor beneath the snow, northwest of the mineralized tuffs in the cirque. As the anomalous trend may extend south across the Mell and Dora Gold claim a future geophysical survey should cover this area. A drilling program should be considered to evaluate the economic potential of the anomaly.

2. The sulphides occur in northwesterly-trending andesitic tuffs and schists. Pyrite is the predominant sulphide in quartz veins. Chip sampling of outcrops indicates that disseminated sulphides including arsenopyrite, bornite, and chalcopyrite occur in volcanic tuffs and schists over a distance of 3.5 kilometres from the north to south and 1.4 kilometres from east to west. Copper, silver, and minor gold values are associated with the sulphides in green silicified tuffs and schists. Discoloration of the ice and snow at the southern edge of the Moonlight Glacier along with sulphides in the greenish schist outcrops, suggests that the mineralized zone may extend to the north of the David and Scott claims.

REFERENCES:

Alldrick, D.J. (1983) Salmon River Project, Stewart, British Columbia (104 B/1), B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork, 1982, Paper 1983-1, pp. 182-195.

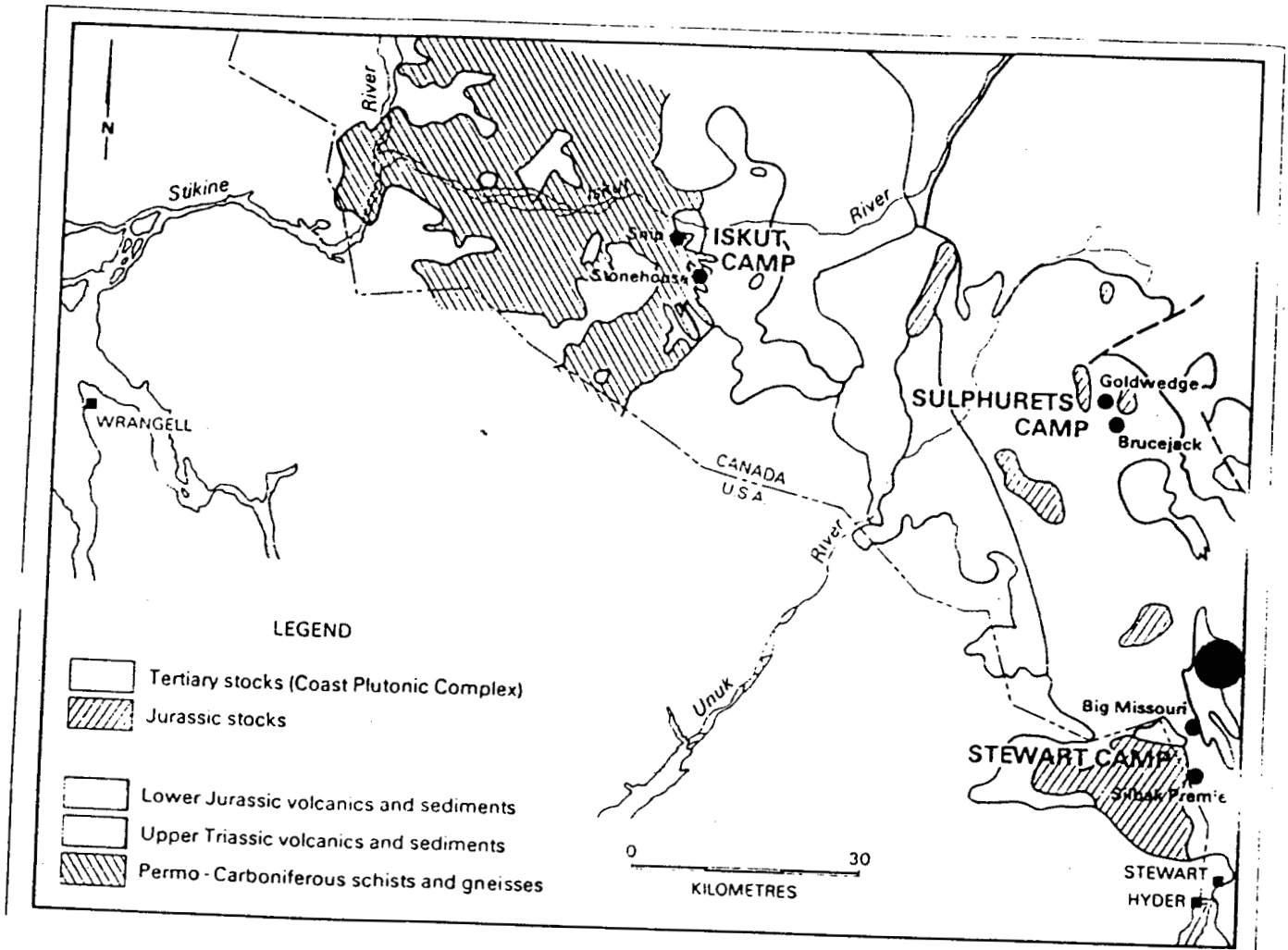
Alldrick, D.J. (1984) Geological Setting of the Precious Metal Deposits in the Stewart Area, British Columbia, B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork, 1983, Paper 1984-1, pp 149-164.

Alldrick, D.J. (1987) Lead Isotope Data From the Stewart Mining Camp (104 B/1) British Columbia, B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Fieldwork, 1986, Paper 1987-1.

Grove, E.W. (1971) Geology and Mineral Deposits of the Stewart Area, British Columbia, B.C. Ministry of Energy, Mines and Petroleum Resources, Bull. 58.

Grove, E.W. (1983) Geology of the Unuk River-Salmon River-Anyox Map-area, British Columbia, B.C. Ministry of Energy, Mines and Petroleum Resources.

APPENDIX 1



INDEX MAP



A.E.I. ZONE

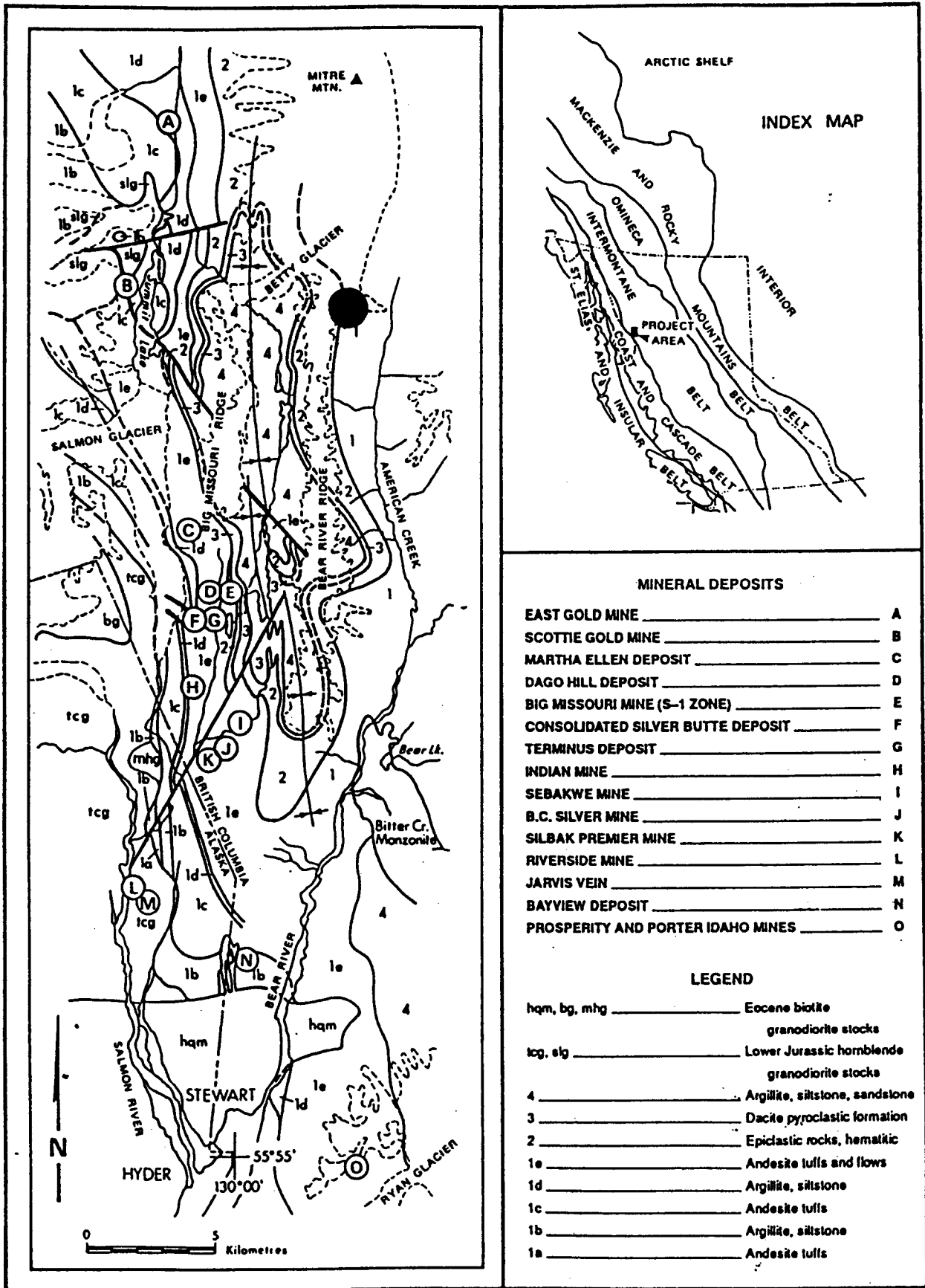


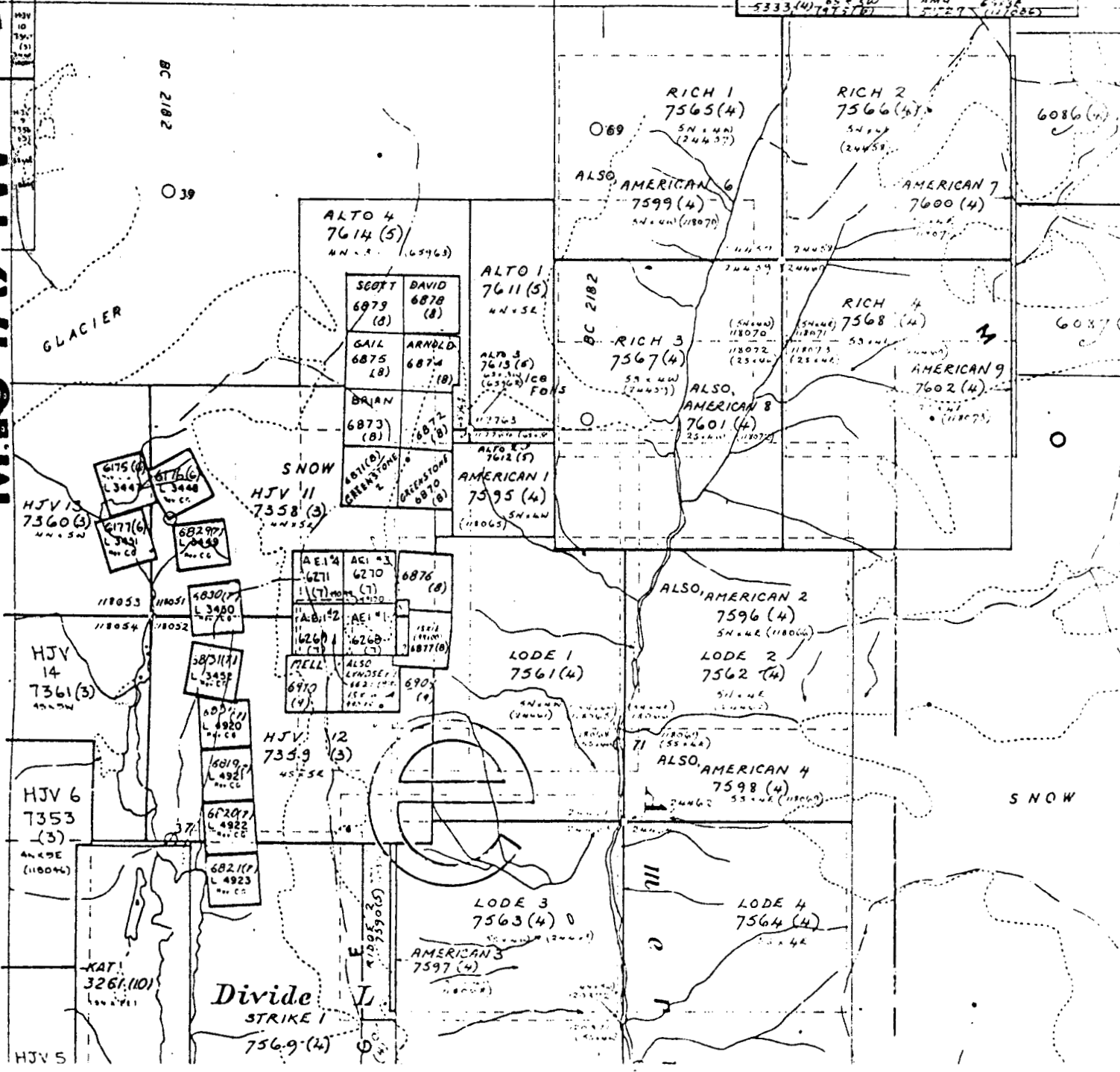
Figure 2-12-1. Geology and mineral deposits of the Stewart area (from Alldrick, 1985).

A.E.I. MINERALIZED ZONE

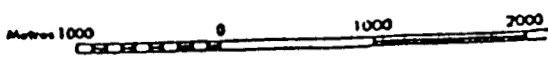
56 15'

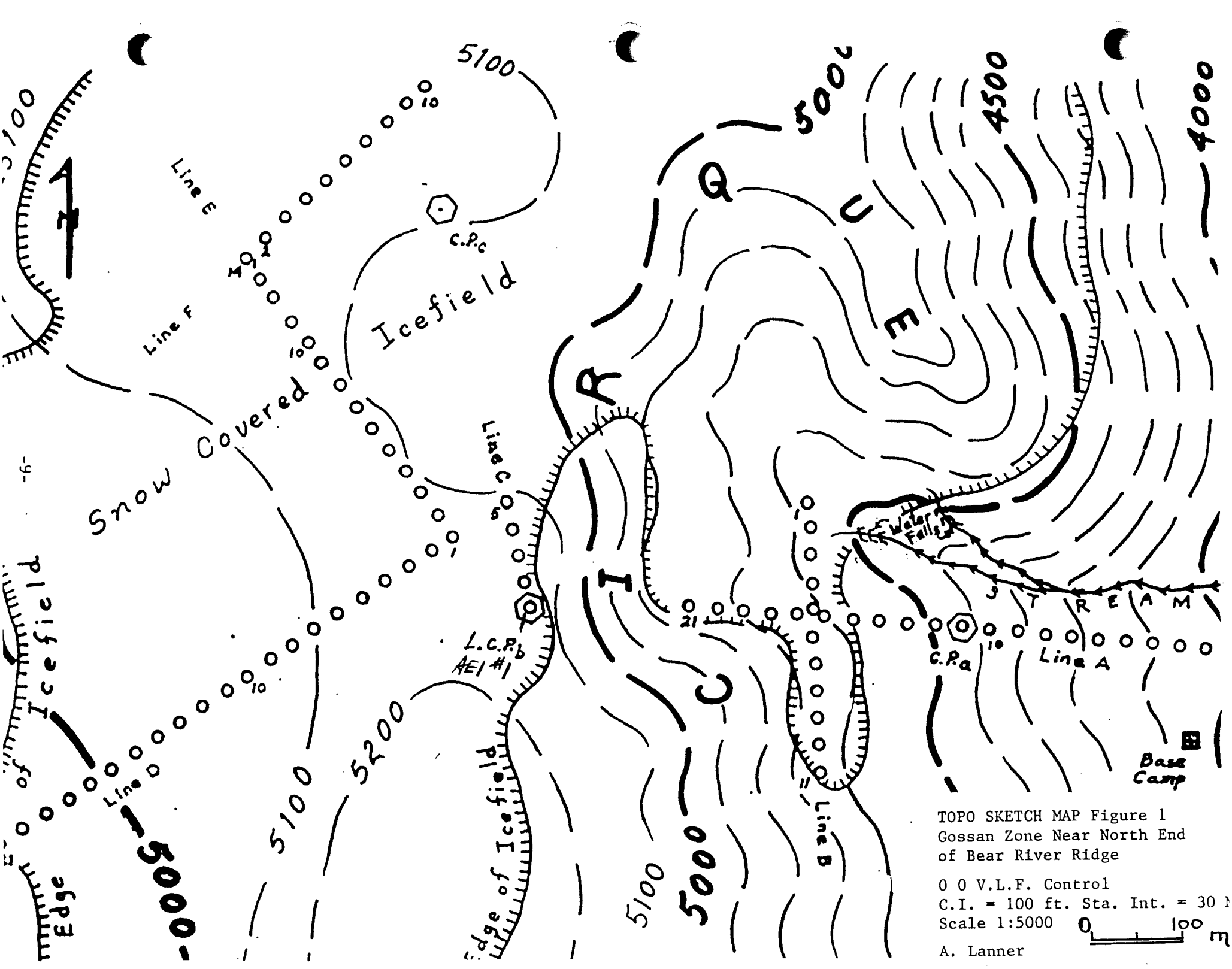
M.104A/4W

TO NORTH TELL MAP 104A/4W
AM2 6587W 5333(4) 7475(8)
AMU 6732 5727 (11728)



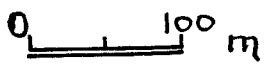
Claim Map NTS 104A/4W
Scale 1:50000





TOPO SKETCH MAP Figure 1
 Gossan Zone Near North End
 of Bear River Ridge

0 0 V.L.F. Control
 C.I. = 100 ft. Sta. Int. = 30 ft
 Scale 1:5000



A. Lanner

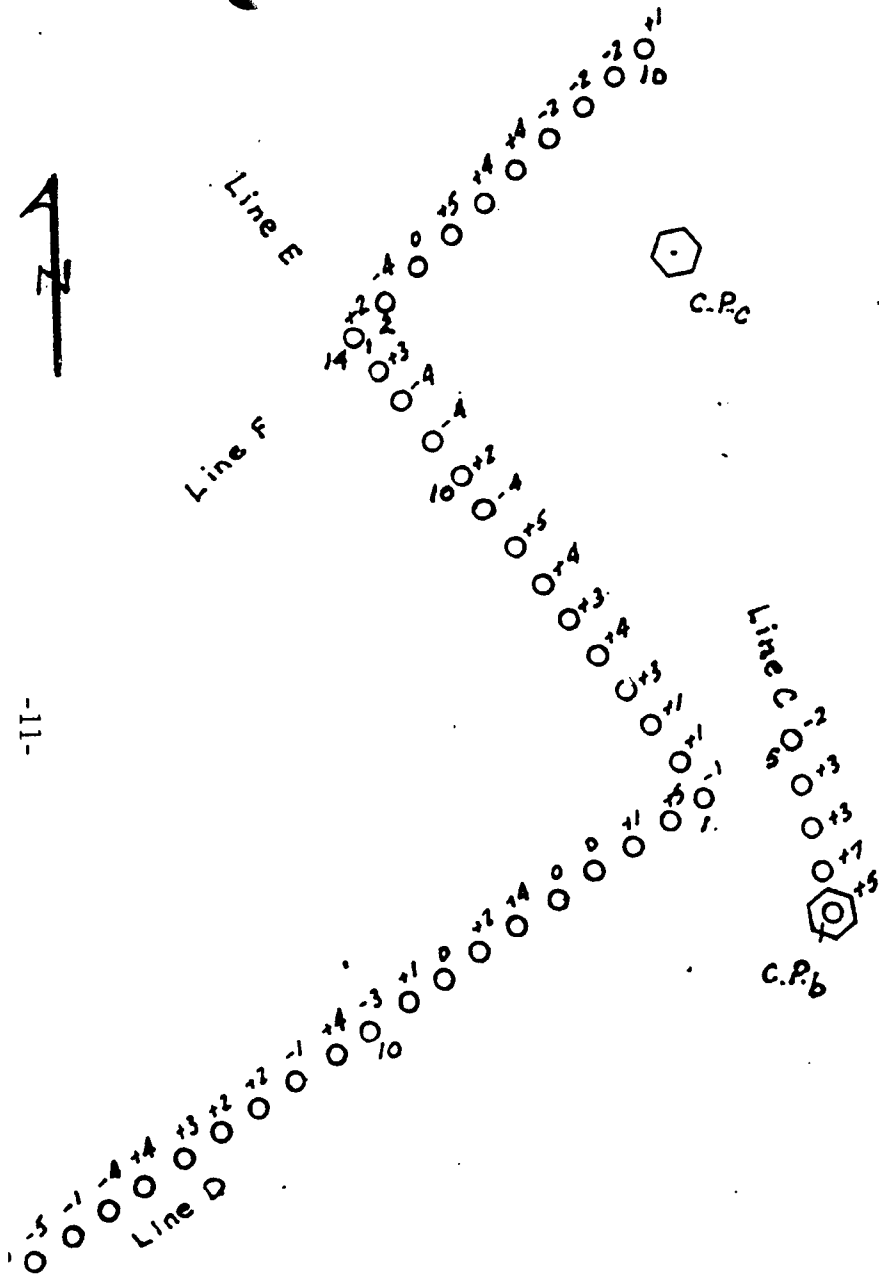
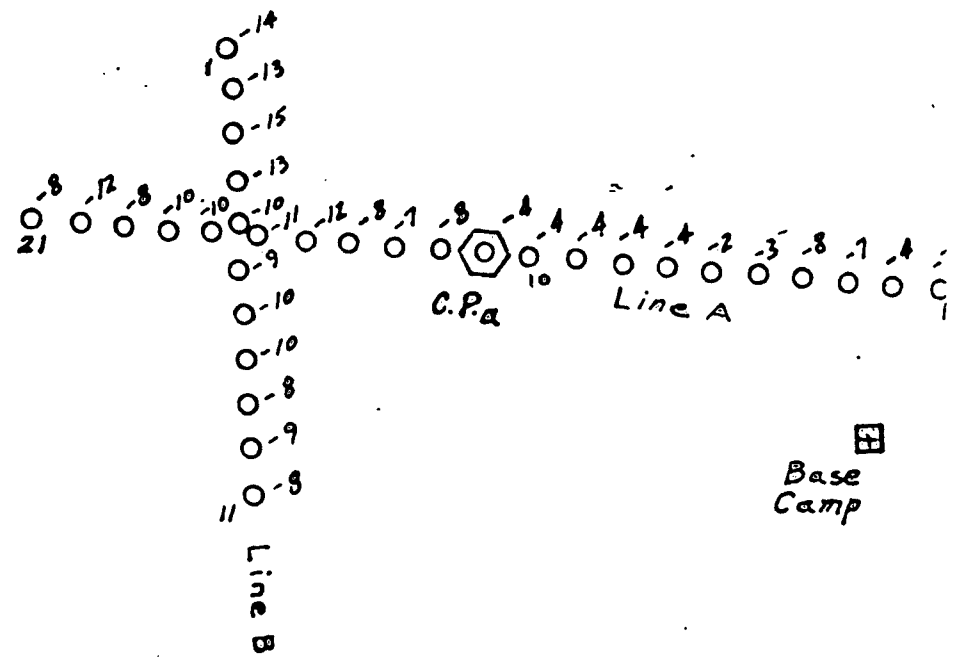
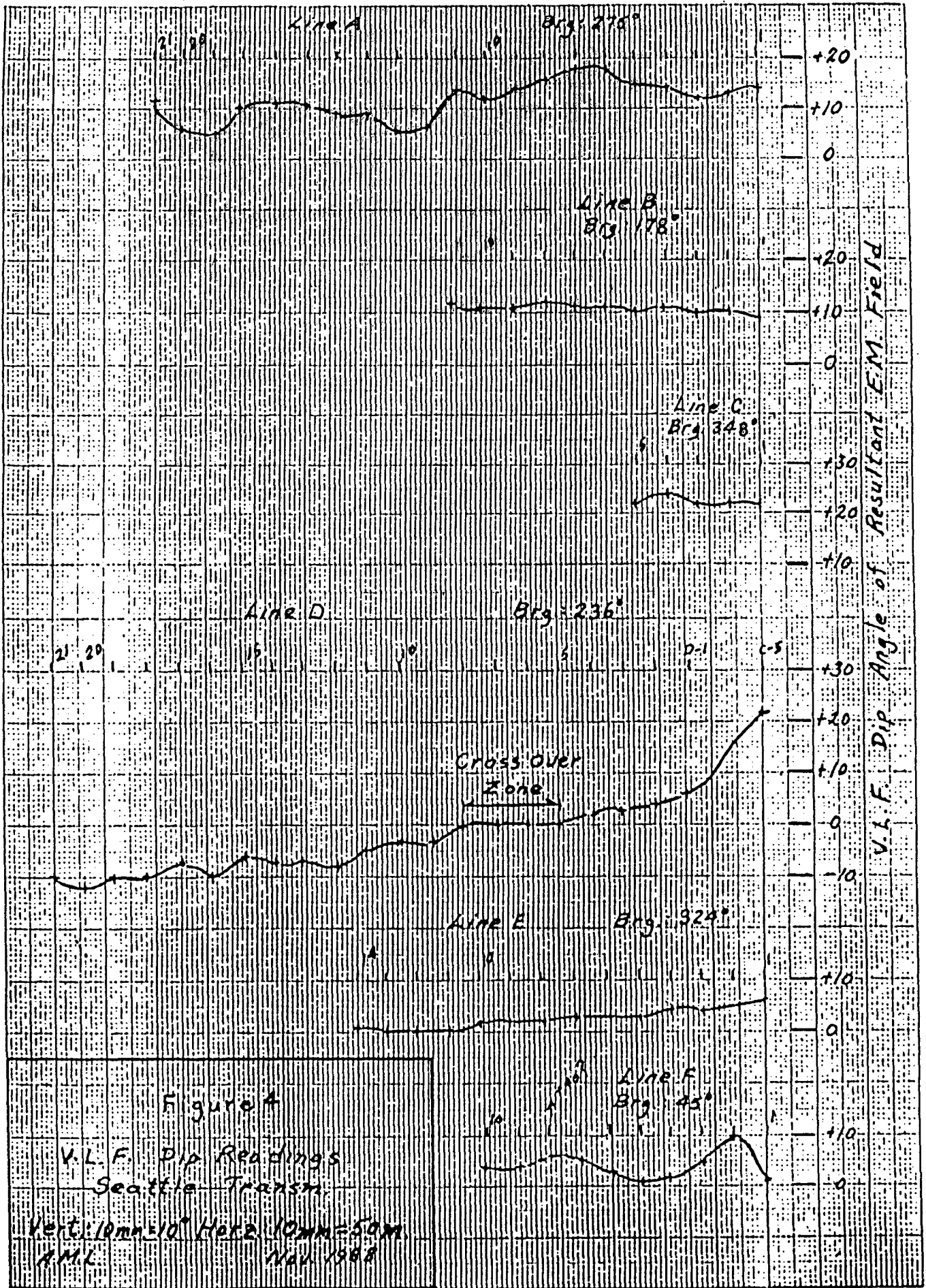
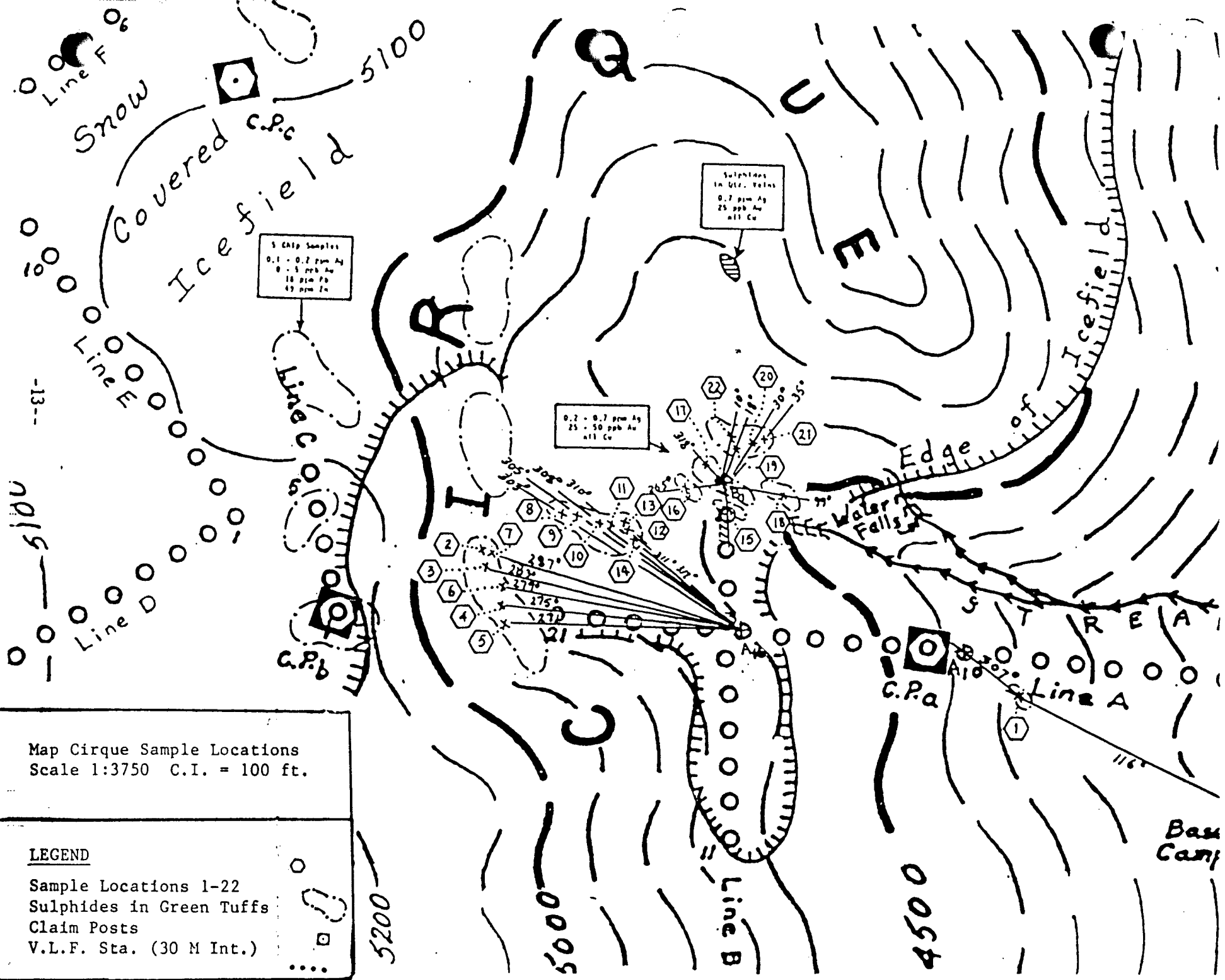


Figure 3
 V.L.F. Reconnaissance Survey of
 Gossan Zone Near North
 End of Bear River Ridge
 DIP READINGS FOR
 CUTLER MAINE TRANSM.
 A.M. Lanner Nov. 1988
 Scale 1:5000



Stn. Int. = 30m.





Map Cirque Sample Locations
Scale 1:3750 C.I. = 100 ft.

LEGEND

- Sample Locations 1-22
- Sulphides in Green Tuffs
- Claim Posts
- V.L.F. Sta. (30 M Int.)



SAMPLE DESCRIPTIONS - Refer to assay certificates for the corresponding assay sample numbers.

Sample 1. 6957 Finely disseminated pyrite in green andesitic tuff.

Sample 2. 6958 Finely disseminated arsenopyrite and pyrite in green andesitic tuff.

Sample 3. 6959 Blebs of bornite in reddish tuff.

Sample 4. 6960 Finely disseminated pyrite in green andesitic tuff.

Sample 5. 6961 Finely disseminated arsenopyrite and pyrite in green andesitic tuff.

Sample 6. 6962 Finely disseminated pyrite in green andesitic tuff.

Sample 7. 6963 Finely disseminated pyrite in green andesitic tuff.

Sample 8. 6964 Finely disseminated pyrite and arsenopyrite in green andesitic tuff.

Sample 9. 6965 Massive pyrite in quartz vein.

Sample 10. 32926 Bornite and malachite in reddish tuff.

Sample 11. 32927 Bornite in reddish tuff.

Sample 12 XRF sample Pyrite and arsenopyrite in greyish-green andesitic tuff.

Samples 13-22 Pyrite in green andesitic tuff.

To: Mr. ALLAN INGELSON,
578 Strathcona Drive S.W.,
Calgary, Alberta
T3H 1K5

File No. 31781
Date October 17, 1988
Samples Rock



Certificate of Assay LORING LABORATORIES LTD.

Page # 1

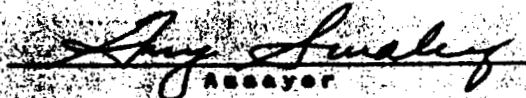
SAMPLE NO.	PPB Au	PPM Ag	PPM Cu
------------	-----------	-----------	-----------

"Rock Samples"
Geochemical Analysis

6957	15	0.4	-
6958	50	0.4	-
6959	-	+30.0	+1000
6960	10	0.4	-
6961	25	0.7	-
6962	10	0.2	-
6963	-	0.2	-
6964	15	0.3	-
6965	30	0.3	-

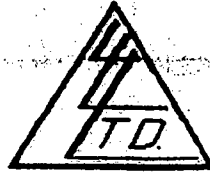
I Hereby Certify that the above results are those assays made by me upon the herein described samples....

Objects retained one month.
Fulps retained one month
Unless specific arrangements
are made in advance.


Assayer

To: MR. ALLAN INGELSON,
578 Strathcona Drive S.W.,
Calgary, Alberta
T3H 1K5

File No. 31781
Date October 17, 1988
Samples Rock



Certificate of Assay LORING LABORATORIES LTD.

Page # 2

SAMPLE NO.

OZ./TON
GOLD

x
CU

"Rock Sample"
"Assay Analysis"

6959

3.81

1.29

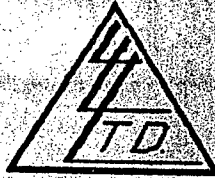
I Hereby Certify that the above results are those
assays made by me upon the herein described samples....

Rejects retained one month.
Pulps retained one month
unless specific arrangements
are made in advance.


Assayer

To: MR. ALLAN INGELSON,
578 Strathcona Drive S.W.,
Calgary, Alberta
3H 1K5

File No. 31971
Date November 22, 1988
Samples Rock



Certificate of Assay LORING LABORATORIES LTD.

SAMPLE NO.

OZ./TON
SILVER

%
Cu

Rock Samples

"Assay Analysis"

32926	2.78	4.28
32927	-	3.72

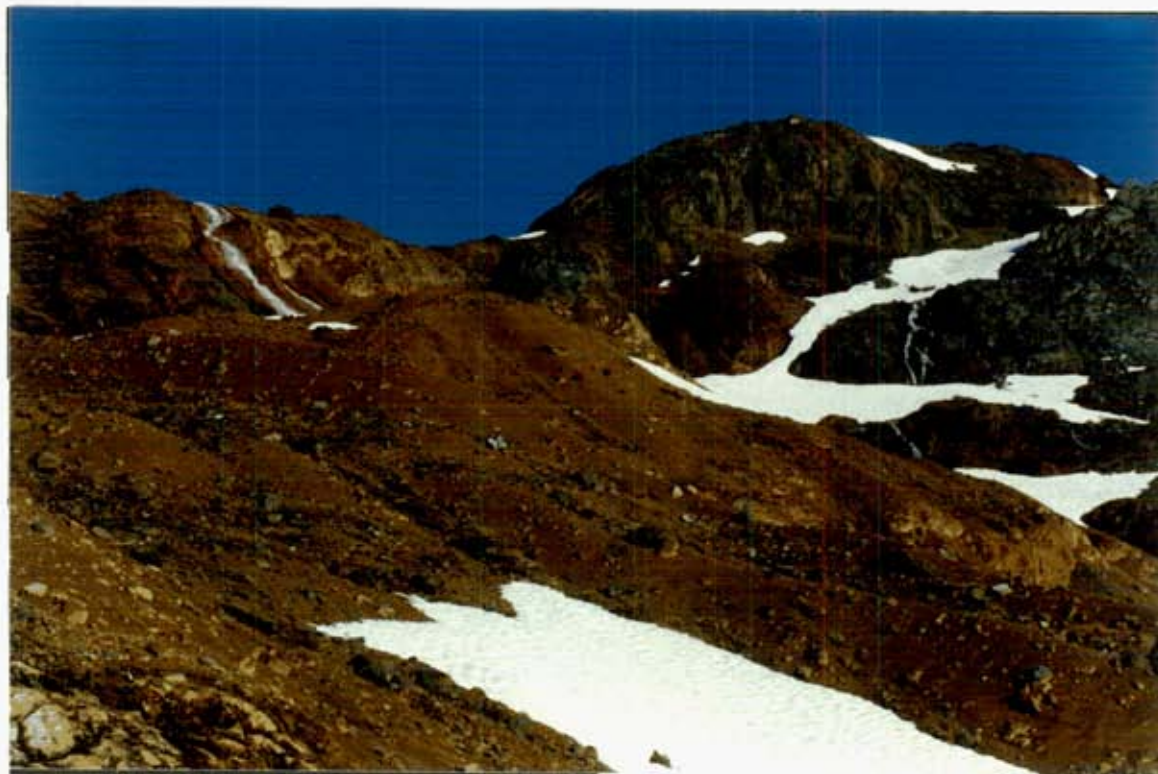
I Hereby Certify that the above results are those
assays made by me upon the herein described samples....

Rejects retained one month.
Pulps retained one month
unless specific arrangements
are made in advance.

Harry J. J. J.
Assayer



VLF-EM Survey A.E.I. #1-4



Oxidized green tuffs containing disseminated pyrite and arsenopyrite, A.E.I. cirque

DIRECT COSTS

Transportation/Helicopter Charter	1350
Hotel 1 night King Edward Hotel, Stewart	50
Assays - Loring Labs	175
Labor - Geophysicist 4 days at 200/day	800
Geophysical assistant 4 days at 100/day	400
VLF-EM Crone-Radem Rental from Taiga Consultants	180
Report Drafting and Preparation	45
	TOTAL
	\$3000

STATEMENT OF QUALIFICATIONS

Mel Lanner - Geophysicist B.Sc. (University of British Columbia, Physics, 1965)

Employment:

Mericana Mines Ltd. - conducted VLF-EM survey on Queen Charlotte Islands, summer 1963.

Geological Survey of Canada - geological mapping near Field, B.C. summer 1964.

Texaco Canada - geophysicist - seismic interpretation, 1965-1973

Pan Canadian - explorationist 1973-75

Getty Oil Co - explorationist 1978-81

Canterra Energy and Husky Oil - geophysicist 1981-present

Professional Memberships - C.S.E.G. and C.S.P.G. since 1970

I Mel Lanner of the City of Calgary in the Province of Alberta certify that I personally worked on the A.E.I. claims between August 12 and 17, 1988. This report is based on an interpretation of the data collected.



Mel Lanner B.Sc.
July 17, 1989