

May, 1978.

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105-F-9

A Summary of Recommendations for Work  
on the  
Iona Silver Mines Property  
Ketzra River Area, Yukon  
by  
T.L. Sadlier-Brown and Andrew E. Nevin, P.Eng.  
March 10, 1978

With the addition of the 22 claims on the Camp, Dub, and Gem groups Iona Silver Mines Ltd. has increased the size of its holdings in the Ketzra River area, Yukon to a total of 86 mineral claims. The property is located in mountainous country some 30 miles south of the community of Ross River, Yukon and is accessible by road from the Campbell Highway or by air to a gravel airstrip one mile from the campsite.

The claim area is underlain by a complex sequence of sedimentary and volcanic rocks ranging in age from Proterozoic to Mississippian. These have been modified by block and thrust faulting, folding, intrusive activity, and perhaps most significantly, hydrothermal vein emplacement.

Silver occurs in siderite veins with massive argentiferous galena and occasionally freibergite, in altered mineralized wallrock associated with disseminated galena, and locally in black shales with banded pyrite. Twenty-five geochemical anomalies have been identified on the property and several of these have been shown to be related to sulphide mineralization. Of the many occurrences which have been discovered to date, fifteen are presently considered to be of economic interest. Among them are seven recognized veins including the K-18B and A-1 which together are estimated to contain a total of 55,000 tons of reserves grading 17 oz/ton Ag and 12% Pb. The list also includes four showings of which three are possible veins and one, the Key 35, a bedded sulphide deposit. Finally it includes four float areas the sources of which remain to be discovered.

For the 1978 field season work should be performed in three stages with priority recommended for exploration in four of the areas mentioned above. These are: the K-18B; K-18; A-1; and the F2 and Canyon. Later phases of the program should include work on the Key 35 and F-3 showings. Primary objectives of this work are:

- 1) to develop reserves and carry out metallurgical tests in the K-18B area;
- 2) to delineate the mineralization discovered during 1977 in the K-18 area;
- 3) to test the indicated northern continuity of the A-1 vein;
- 4) surface sampling and evaluation of the F-2 and Canyon vein system.

Important secondary objectives should be:

- 1) detailed evaluation of the Key 35 showing; possibly including drilling;
- 2) re-entry of the A-1 workings; drilling either from surface or underground to test A/ downdip continuity and B/ the nature of the north extension;
- 3) further evaluation of the K-18B area by drilling;
- 4) further evaluation of the F 2 and Canyon by drilling.

An outline of the recommendations is as follows:

Phase 1:

K-18B

- Drive raise in vein material from the 800 level of the workings to the 700 level or beyond. Precise location to be selected by engineer on site.
- Line cutting to be followed by detailed surface survey.
- Electromagnetic (shootback CEM or JEM) survey over selected parts of grid.
- Underground mapping and sampling. Metallurgical testing of selected samples of vein material.

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K-18

-Surface mapping and electromagnetic survey of showing area.

A-1

-Establish survey grid and carry out electromagnetic survey of known and indicated extension of A-1 zone.

F-2 and Canyon

-Surface survey followed by electromagnetic survey of vein area and possible extensions. Sampling and detailed mapping of showings.

Phase 2

Key 35

-Geological mapping, electromagnetic survey work, and geochemical sampling.

A-1

-Re-entry and sampling of old workings. Design drilling program both surface and underground.

K-18B

-Design and initiate surface and underground drilling program.

F-2 and Canyon

-Surface drilling from sites selected on the basis of Phase 1 work.

K-18

-Follow-up trenching. Evaluate Phase 1 work. Design drill program if warranted.

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Phase 3

Priorities for Phase 3 cannot yet be established but allowances should be made for the following:

- Continued drilling on K-18B;
- Preliminary drill program on A-1 and Key 35;
- Additional drilling on F-2 and Canyon as warranted.

The program outlined above will be carried out in conjunction with limited camp expansion and continuing road construction and maintenance. An estimate of the cost of the program envisioned for the 1978 field season is as follows:

Phase 1 (Duration approx. 40 days)

Camp expansion and upgrading	\$ 6,000
Road construction and maintenance	7,000
Camp operating costs, meals, support staff	8,500
Geology, Engineering and Supervision (includes survey work, sampling, report and map preparation)	10,500
Geophysical surveys	4,000
Development work (includes re-opening of 800 level portal, timbering, misc. machinery purchases and rentals, explosives, raise driving)	21,000
Corporate purposes	5,000
Contingency	<u>3,000</u>
TOTAL	<u>\$65,000</u>

Phase 2 (Duration 60 days)

Camp costs	\$15,000
Engineering and supervision	14,000
Trenching	5,000
Drilling	27,000
Development work	11,000
Contingency	5,000
Corporate purposes	8,000
TOTAL	<u>\$85,000</u>

Phase 3 (Duration uncertain)

Camp costs	\$12,000
Diamond drilling	43,000
Engineering & supervision	15,000
Road maintenance and construction	3,000
Trenching	4,000
Contingency	8,000
Corporate purposes	10,000
TOTAL(allow)	<u>\$95,000</u>

GRAND TOTAL \$245,000

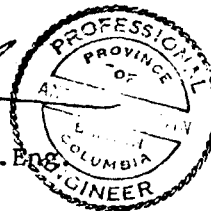
Respectfully submitted,

NEVIN SADLIER-BROWN GOODBRAND LTD.

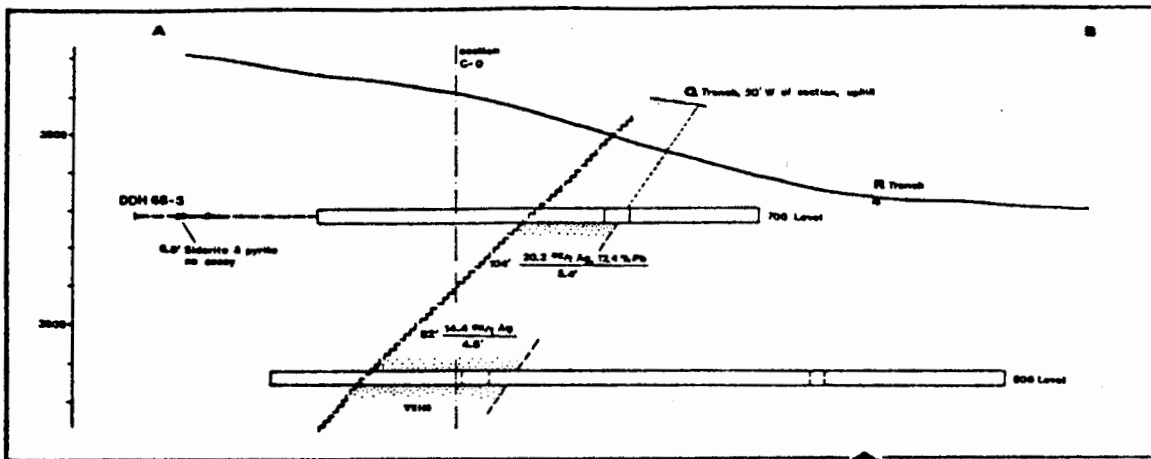
T.L. Sadlier-Brown



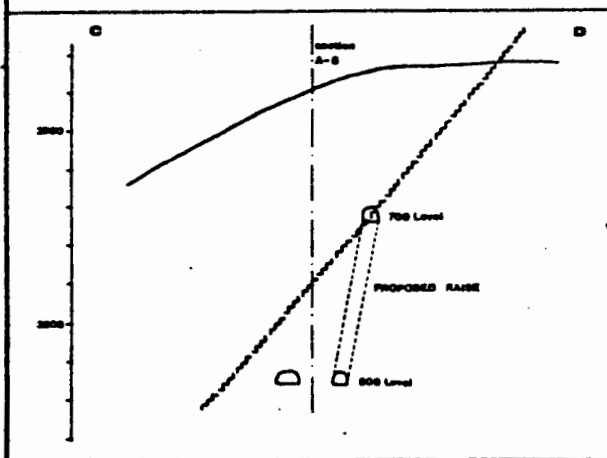
Andrew E. Nevin, P.Eng.



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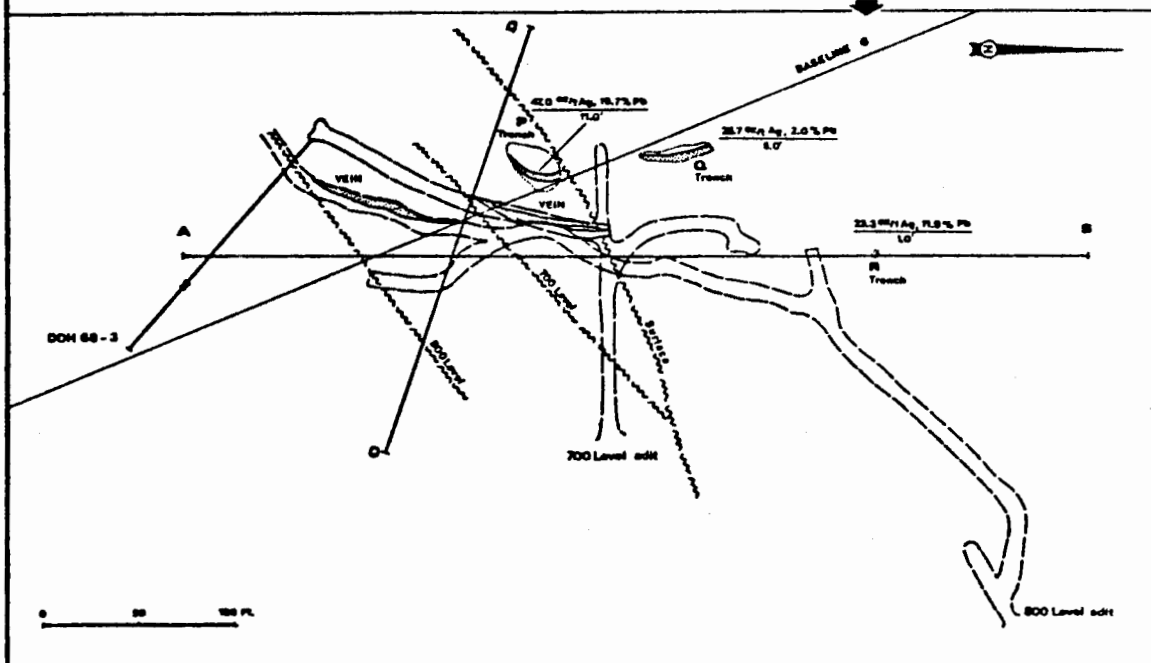


Longitudinal Section A-B  
(projection)

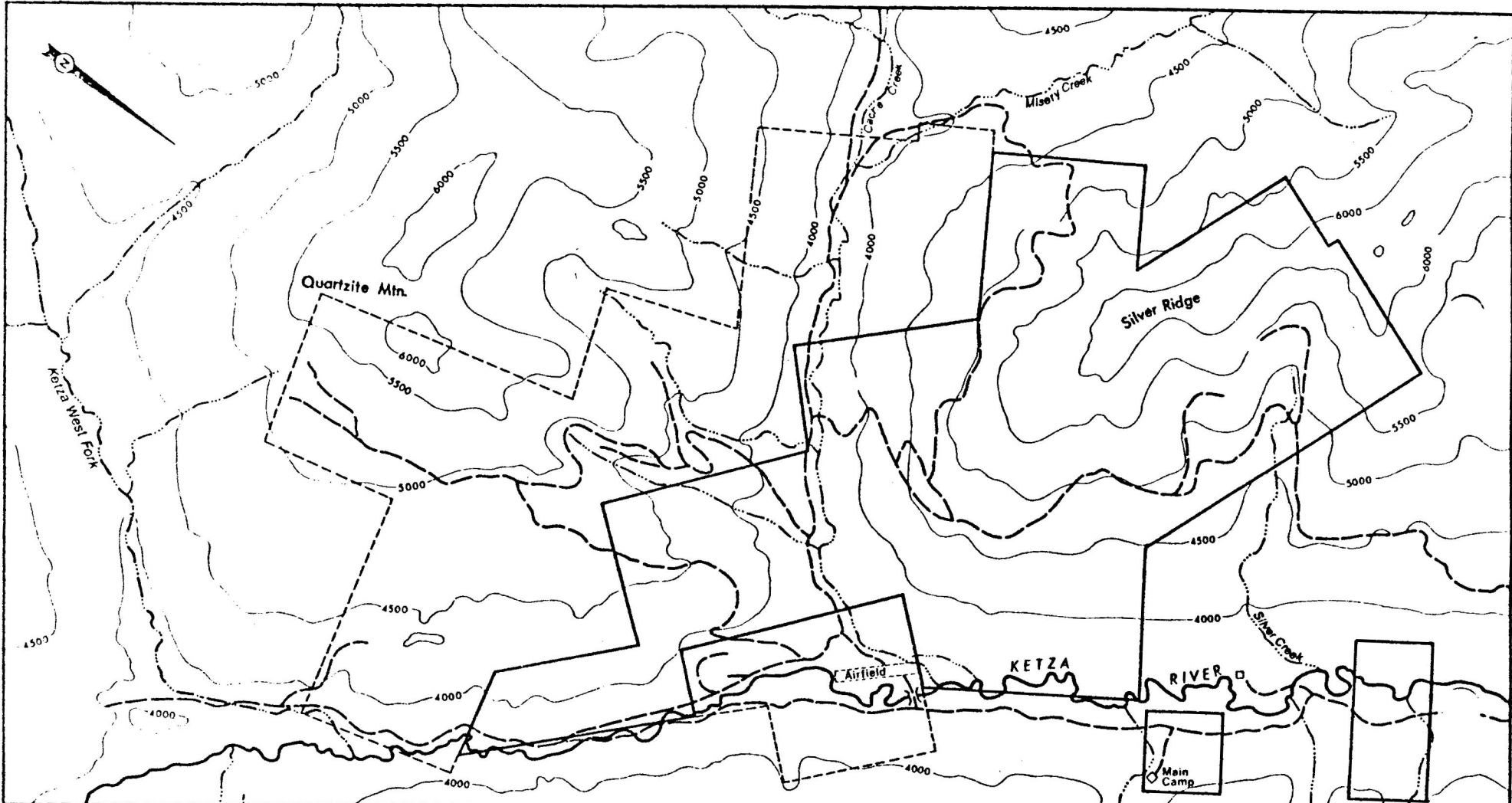


Cross-section C-D  
(true section)

Surface Plan and  
Underground Workings



IONA SILVER MINES LTD.  
Ketza River Property  
K 12-B VEIN



**LEGEND**

- Iona Silver Mines Ltd. previous claims
- New claims acquired 1977

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**CLAIM LOCATION MAP  
KETZA RIVER PROPERTY**

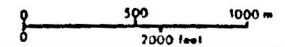
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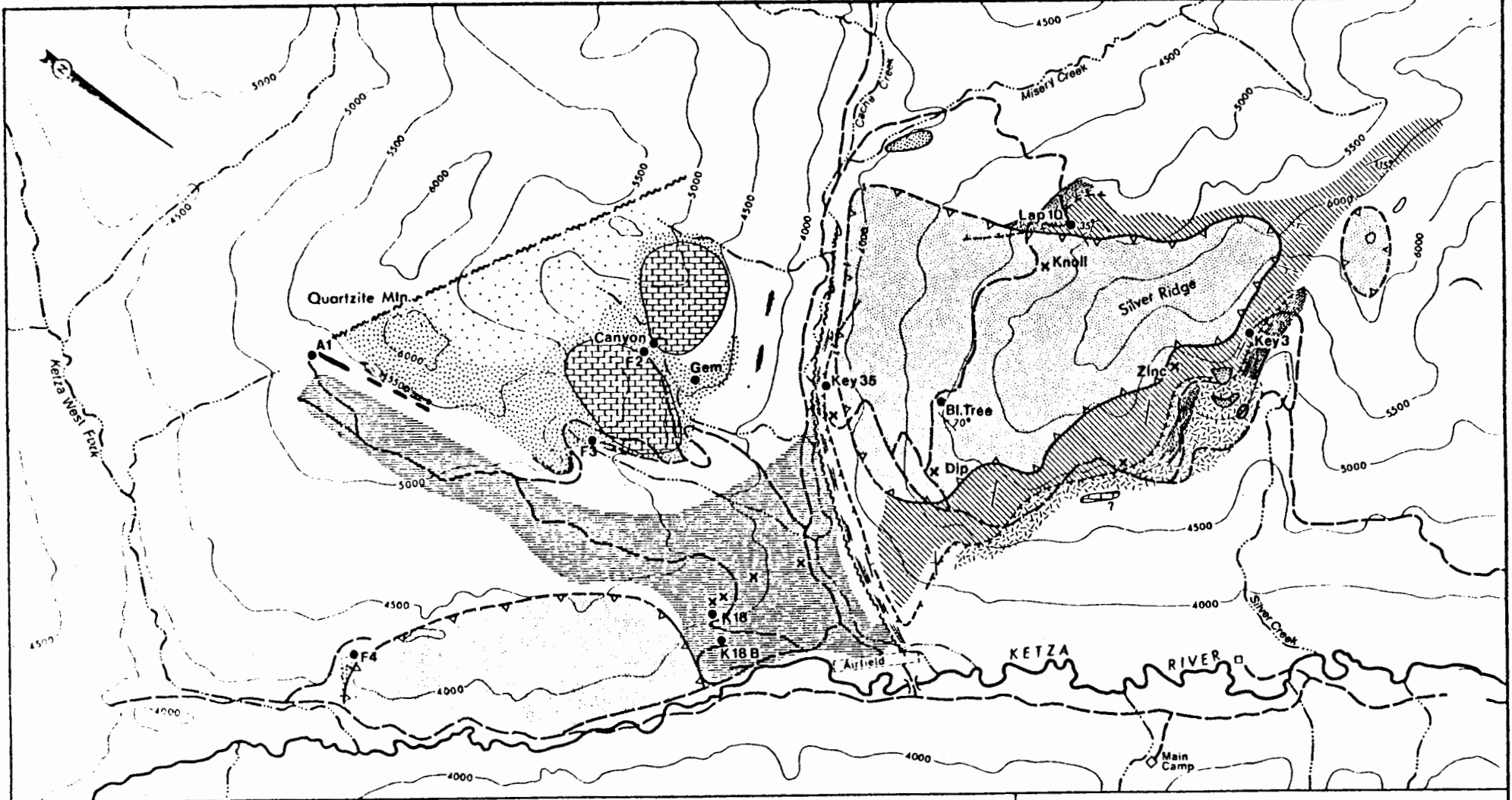
Part of NTS map 105 F-9

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



DATE: January, 1978







FIG. 3










**LEGEND**

-  ALLOCHTON, ORDOVICIAN  
Green agglomerate, lustrous phyllite,  
andesitic flow rocks
-  Thrust - POST TRIASSIC ?
-  Buff tuffaceous thin bedded siltstones
-  Top of black member,  
bedded pyrite (galena) in places

- |   |   |   |
|---|---|---|
| a   | b   |   |
|  |  | a - Black crystal tuffs b - Black slates  |
| No contact observed   |   |   |
|  |   | DEVONIAN<br>Platy limestone, <i>Stringocephalus</i>   |
|  |   | SILURIAN<br>Orthoquartzites overlain by some<br>dolomite                                    |
| Minor unconformity  |   |   |
|  |   | SILURIAN Brown weathering massive<br>siliceous dolomite, black slates,<br>minor graptolites |
| Major unconformity  |   |   |
|  |   | CAMBRIAN Grey phyllites, minor<br>dolomite, platy chloritoid formation                      |

-  Fault
-  Mineral showing
-  Significant float
-  Gossan
-  Intrusive

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**GEOLOGICAL MAP  
KETZAL RIVER PROPERTY**

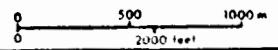
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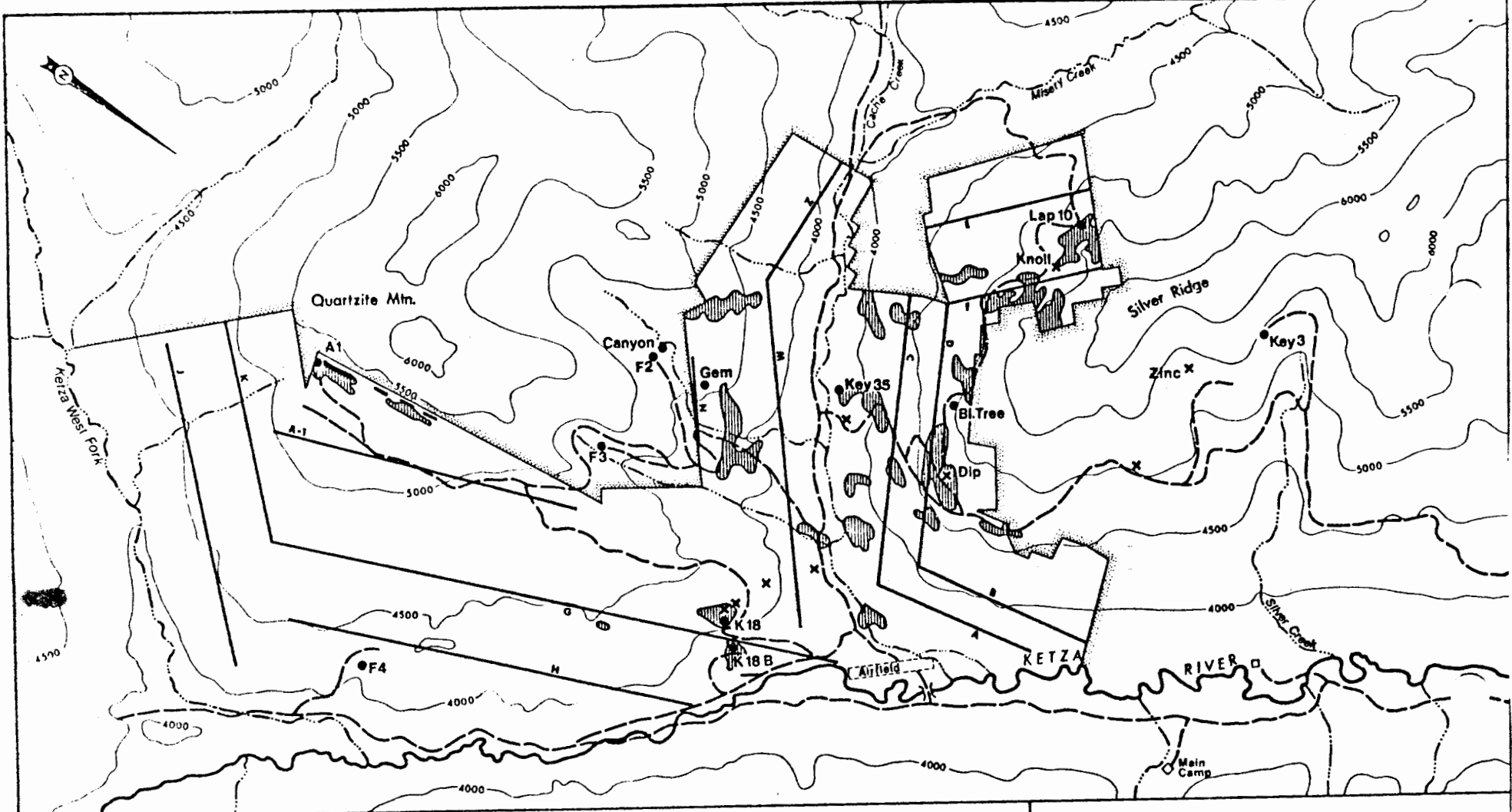
Part of NTS map 105 F-9

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

DATE: January, 1978



FIG 4





**LEGEND**

-  Outline of 400 ppm Pb
-  Baseline
-  Boundary of surveys

-  Mineral showing
-  Significant float

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**GEOCHEMICAL MAP  
KETZAL RIVER PROPERTY**

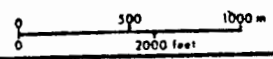
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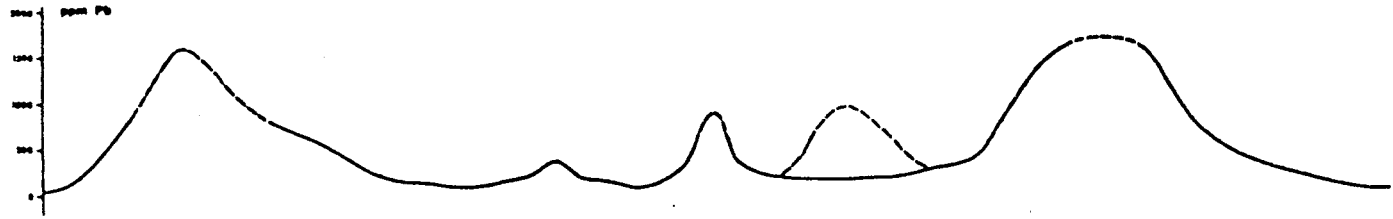
Part of NTS map 105 F-9

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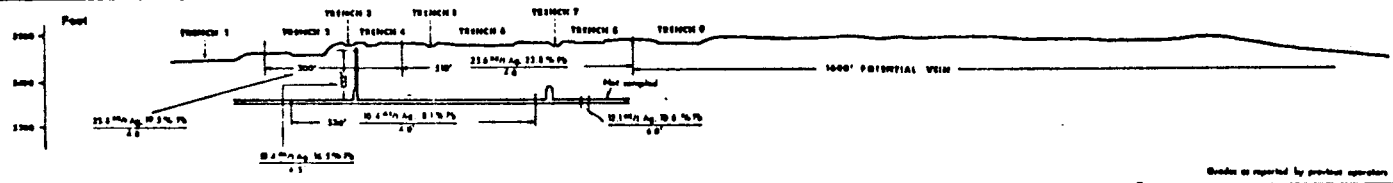
DATE: January, 1978

FIG. 5

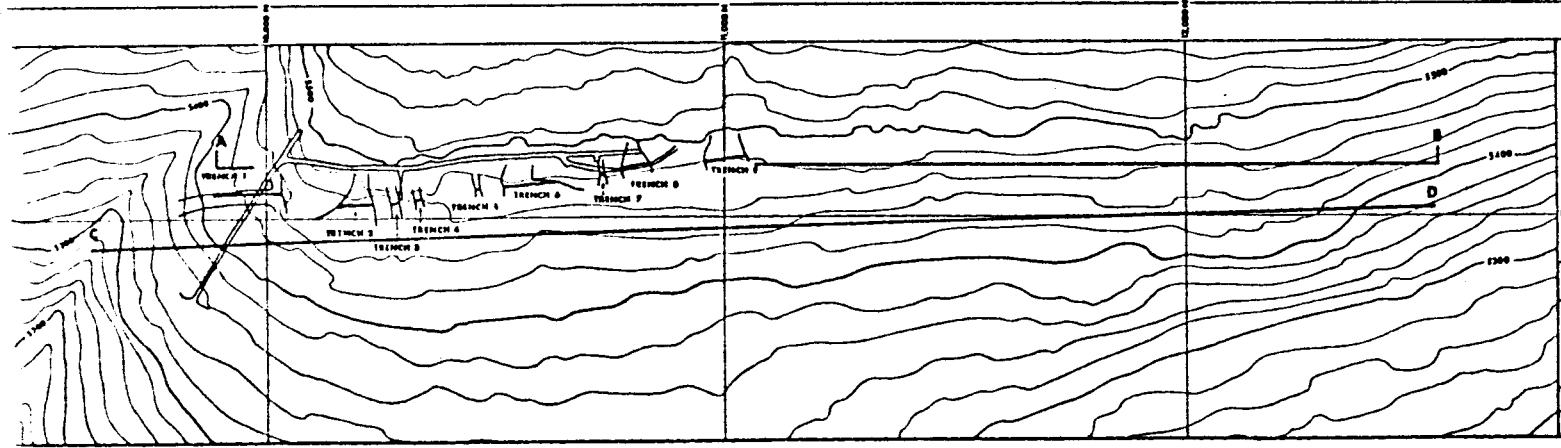




Geochemical Lead Profile  
C - D



Vertical Longitudinal Section  
A - B



Surface Plan and  
Underground Working



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A-1 VEIN  
KETZA RIVER PROPERTY

WATSON LAKE, B.C. Part of M.E.S. Map 106 F.-9  
MEYER, BADLER - BROWN, GOODBRAND, LTD., VANCOUVER, B.C.  
DATE: January 1978. FIG. 8