

MAP No.

105-F-9

ASSESSMENT REPORT  
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TYPE OF  
WORK:Preliminary  
Evaluation

REPORT FILED UNDER A. Becker and A.M. Riba DOCUMENT NO. 061144

DATE PERFORMED

Dec., 1972

DATE FILED: Jan. 11, 1973.

LOCATION - LAT.  
LONG.

61° 33' N

AREA: Ketzka River area, Yukon.

132° 10' W

CLAIM NO.

A 1-8 Y64464-71

B 1-8 Y64472-79

C 1-8 Y64480-87

VALUE \$

D 1-4 Y64621-24

WORK DONE BY

H.S. Aikins (under supervision of V. Cukor)

WORK DONE FOR

A.M. Riba

REMARKS

A summary of the known mineralization of the Ketzka River silver-lead properties.

index 061144

PRELIMINARY EVALUATION REPORT

KETZA RIVER SILVER - LEAD PROSPECT

A. B, C, & D Group Mineral Claims

Watson Lake M.D., Yukon 105 F-9  
Lat. 61° 33' N. Long. 132° 10' W.

Prepared for  
Messrs. A. Becker & A. M. Riba

By

H. S. Alkins, C.E.T.

under the supervision of

V. Cukor, P. Eng.

December 27, 1972.

NMEAP  
Received  
Jan 11, 1973

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KETZA RIVER SILVER - LEAD PROSPECT

A, B, C, & D Group Mineral Claims  
Watson Lake M D. 105 F-9

INTRODUCTION

This report is a summary of the available data pertaining to occurrences of silver-lead mineralization in the Ketz River area of the south central Yukon. Attention is focused on the claims which are described under the heading of "Property". Recommendations are made on the assumption that information published by previous operators may be readily confirmed. A mineralographic study of specimens from the various showings is now in progress and will be appended to this report on completion.

HISTORY

Between 1946 and 1954 prospectors located a number of mineral occurrences in the upper Ketz River and adjoining areas on McConnell and White Creek. From 1954 to 1957 Conwest Exploration Co. conducted work at several locations. Stripping, trenching, diamond drilling, and several short adits comprise the bulk of this work. Conwest retains a number of mineral claims in two areas where significant values in gold and silver were encountered.

The claims which comprise the present group represent the discovery zone originally held by Ketz River Silver Mines Ltd.

This company carried out exploration work during the 1960-61 field seasons including the construction of a 24 mile tote road giving seasonal access to the property. A 13 ton shipment of cobbled ore was forwarded to the Trail smelter during this time. In 1964 the holdings of Ketzakey Silver Mines Ltd. were acquired by Silver Key Mines Ltd. which subsequently increased its holdings to a total of 112 claims.

Stump Mines Ltd. acquired property in 1966 adjoining the Silver Key holdings.

Extensive work programs were conducted by both companies with substantial improvements made in the roads connecting the numerous mineral showings. Geochemical surveys followed by bulldozer trenching succeeded in locating new vein structures which were further tested by diamond drilling in 1967. Underground development work on both Stump and Silver Key holdings was initiated in the spring of 1968. Work was suspended in December of 1968 after an expenditure of some \$870,000. In December of 1970 it was reported that due to current conditions and the lower price of silver it was not feasible to conduct further work.

In 1972 the property which is the subject of this report was reacquired by one of the original prospectors and a group of associates.

PROPERTY, LOCATION & ACCESS

The property consists of 28 unsurveyed mineral claims held by right of location and recorded as follows:

<u>Claim Name</u>	<u>Record No.</u>	<u>Date of Record</u>
A 1 to 8	Y64464 - Y64471	May 31, 1972
B 1 to 8	Y64472 - Y64479	May 31, 1972
C 1 to 8	Y64480 - Y64487	May 31, 1972
D 1 to 4	Y64621 - Y64624	August , 1972

All claims are presently registered in the names of the individual locators but it is understood that control and principal beneficial ownership lies with Messrs. A. Becker and A. M. Riba.

Geographic co-ordinates of the property are about  $61^{\circ} 33' N$  and  $132^{\circ} 10' W$ . Elevations range from 3800 to over 6500 feet A.S.L.

In addition to the previously mentioned tote road a short airstrip suitable for winter use only is located near the property boundary. Distances to the property from Whitehorse and Ross River are 120 miles and 34 miles respectively.

## REGIONAL GEOLOGY

The area is located in the St. Cyr range of the Pelly mountains flanking the southwestern side of the Tintina Trench.

Regional mapping - G.S.C. Map 7-1960 - indicates a broad northwest trending belt of folded and faulted Palaeozoic rocks; largely clastic sediments, carbonates, minor chert and some volcanics comprize the layered sequence. Intrusives, predominately syenite, occur as a series of small stocks along a belt several miles to the southwest.

A number of gold, silver-lead, and base metal showings are known along this belt which extends from Old Gold Creek, near the head of the Liard to Little Salmon Lake.

## MINERAL OCCURRENCES

### A. General

Several writers have described the various showings on which work has been conducted. The following observations are applicable to the majority of known silver-lead occurrences.

- (1) Economic mineral present: Argentiferous galena with silver + lead ratio of from 0.5:1 to 6:1, minor sphalerite, tetrahedrite - usually inferred from traces of malachite on specimens with unusually high silver content, traces of chalcopryrite.

(ii) Gangue minerals present: Pyrite, siderite, quartz, pyrrhotite, and arsenopyrite in local areas where gold values occur.

(iii) Mode of occurrence: Veins usually along well defined faults. Attitudes vary from slightly east of north to northwesterly with moderate to steep westerly dips

The continuity of veins varies with the competency of host rock with the best exposures being in quartzite.

Stump Mines Ltd. and Silver Key Mines Ltd. have conducted extensive underground exploration work, the results of which have only been reported in general terms. Detailed records are not available to the writer and the following descriptions are subject to confirmation.

#### B. Occurrences

Key 3A showing:- A strong but somewhat irregular zone has been exposed over a strike length in excess of 100 feet bearing N 50° W. Average grades are reported as follows:-

30 feet @ 3.4' width	44.0 oz. Ag/T.	7.6% Pb.	5.8:1 Ag/Pb
15 feet @ 3.0' width	20.0 oz. Ag/T.	6.4% Pb.	3.1:1 "
20 feet @ 2.3' width	53.0 oz. Ag/T.	13.0% Pb.	4.0:1 "
35 feet @ ? width	32.0 oz. Ag/T.	4.8% Pb.	6.8:1 "

Mineralized subsidiary faults tend to complicate this structure in a zone of intercalated slates and quartzites. Three short adits and one drill hole have explored this zone. See figure 2. for detailed assay data. A 13 ton shipment from This zone provided a net smelter return of \$2,800 in 1962.

Key 5, 6, & 9:- These zones have received only cursory examination as mineralization included significant amounts of zinc.

Key 9:- A character sample from this showing returned the following values:

34.37 oz. Ag/T.    25.16% Pb.,    0.26% Zn.

The width and attitude could not be determined due to inadequate exposure.

Key 11:- A 2.0 foot vein in greenstone striking N 10° W / Vertical. Silver Key Mines Ltd report two grab samples which assay as follows:

15.1 oz Ag/T.    31.9% Pb

46.0 oz Ag/T.    47.0% Pb

Key 16:- Several sulphide showings have been exposed in this zone of graphitic and schistose sediments. The schistosity of host formations strikes east and dips moderately to the north with local evidence of the mineralization conforming to the schistosity. Maximum widths of from 8 to 10 feet are reported with up to 10% galena. A shear zone bearing north and dipping at 68° to the west assayed 0.12 oz Au/T., and 3.5 oz. Ag/T. across 5 feet. Pyrite appears to be the most prevalent sulphide in this zone.

Key 18:- An adit on the 700 level has exposed 104 feet averaging 20.2 oz Ag/T., 12.4% Pb over a width of 5.4 feet and a lower level adit has been collared 125' below the 700 foot level to intersect the veins. A surface exposure on this vein zone is reported to assay 50 oz. Ag/T. This zone has been traced for a distance of some 1,800 feet on surface, about 600' of which is within the boundary of the subject claims.

Lap 10:- This zone is exposed on surface for a distance of 410 feet with an average width and grade as follows:

Width 3.5 feet @ 35.0 oz Ag/T., 38% Pb.

A drift has been collared and some development work conducted with no reported result.

#### SUMMARY

A number of well defined surface showings have responded favourably to underground development. Overall silver + lead ratios would appear to average about 1.5:1 or slightly less and average vein widths are seldom in excess of 5 feet. Dips vary from moderate to steep and are invariably in excess of the angle of repose for broken rock. The wall rock character is variable, ranging from strong competent quartzites and greenstone to phyllite and schist.

An overall dilution factor of 15% is indicated with strict control essential.

Assuming a potential reserve grade of 20 oz. Ag/T. and 12.5% Pb. diluted grades of about 17 oz. Ag/T. and 11.5% Pb. are indicated with a gross metal value at present prices in the order of \$55.00 per ton.

The work proposed in this report is an exploratory search for a mineable tonnage of reserve grade ore amenable to simple milling procedures. A preliminary cost estimate based on recent experience suggests that costs may not exceed \$35.00 per ton on an all inclusive basis.

#### RECOMMENDATIONS

It is suggested that all property boundaries be confirmed by boundary surveys conducted in accordance with the Yukon Quartz Mining Act. Access roads should be repaired and maintained to the Key 18, Lap 10, and Key 3A mineral zones. Assessment of the grade and tonnage potential of these three primary target areas would be prepared by detailed mapping and sampling methods. An evaluation of other potential areas be made by geological mapping, geochemical surveys and, when warranted, by trenching and other physical methods.

Mineralogic and metallurgic studies should be conducted to determine recovery and treatment criteria. Two or more stages of evaluation work are envisioned prior to any attempt at commercial production.

It is recommended that a field budget of \$30,000.00 be allotted to evaluate economic potential. No contingency allowance is included as a somewhat flexible approach is suggested with the above budget. It is further recommended that application be made to the Department of Indian Affairs and Northern Development for a Northern Mineral Exploration Assistance grant.

#### COST ESTIMATE

Supervision & Consulting fees (3 month field program)	\$ 4,000.00
Mobilization, Road Repair & Maintenance Truck and Bulldozer rental & operation	4,500.00
Geological Mapping (Surface & Underground) Geologist & Assistant - 2 months Report preparation	4,000.00 500.00
Geochemical Surveys (Soil Sampling) 200 samples in conjunction with geological work	500.00
Evaluation - Metallurgical tests, ore reserve estimates and preliminary feasibility studies	2,500.00
Trenching, Surface stripping (repair and cleanup existing workings)	2,000.00
Underground Exploration (rehabilitation of portals and safety precautions)	1,500.00
Sampling and Assaying (grade determination & metallurgical testing)	3,000.00
Camp Construction (5 man tent camp)	1,500.00
Camp Operation (350 days @ \$6.00 per day)	2,000.00


Transportation, Aircraft Charter	
fixed wing, 20 hours @ \$100 per hour	\$ 2,000.00
helicopter, 10 hours @ \$150 per hour	1,500.00
Communications	
Radio rental & operation	500.00
	<hr/>
TOTAL BUDGET	\$ 30,000.00
	<hr/> <hr/>

Respectfully Submitted,



H. S. Aikins, C.E.T.

Endorsed by:



V. Cukor, P. Eng.

December 27, 1972.

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Scale: 0 500 1000 2000 feet

55,000 E

STAR MOUNTAIN

Silver Creek

25 miles to Ross River Highway

ALASKA

Dawson

Keno Hill

YUKON TERRITORY

NORTHWEST TERRITORIES

Carmacks

Anvil Mine

Ross River

Whitehorse

Alaska Highway

Yukon River

Watson Lake

KETZA RIVER

BRITISH COLUMBIA

LOCATION MAP

55,000 N

N

Key 3A

See fig. 2

Key 6

Key 5

6000

Key 7

5500

Key 9

Key 11

APPROXIMATE PROPERTY BOUNDARY A, B, C, & D GROUP

410' x 3.5'  
35 Oz. Ag 38% Pb

Adit

Lap 10

5000

4500

Key 16

Cache Creek

WINTER AIRSTRIP

4000

Adits on 2 levels

104' x 5.4'  
20.2 Oz. Ag 12.4% Pb

Key 18

50,000 N

M-2

Road

4500

60,000 E

65,000 E

5000

**KETZA RIVER SILVER-LEAD AREA**  
**A, B, C, & D GROUP MINERAL CLAIMS**  
Watson Lake Mining Division 105-F-9  
YUKON TERRITORY

○ Mineral Showing

To accompany report by H.S. Aikins & V. Cukor, P. Eng.

Fig. 1

# KETZA RIVER SILVER-LEAD AREA A, B, C, & D GROUP MINERAL CLAIMS Key 3A Showing

Watson Lake Mining Division 105-F-9  
YUKON TERRITORY

No.	W FT.	Ag OZ/TON.	Pb %	Ag/Pb
1	15	24.3	17.8	1.4
2	3.4	1.24	1.2	1.0
3	2.1	16.4	4.1	4.0
4	2.7	1.14	0.3	3.8
5	4.5	10.4	8.8	1.2
6	3.3	34.1	6.1	5.6
7	4.0	43.7	7.9	5.5
8	4.0	131.1	16.7	7.8
9	3.5	17.6	1.8	9.8
10	3.0	24.7	6.6	3.8
11	3.0	16.1	6.8	2.4
12	3.2	3.9	-	-
13	2.4	31.0	9.0	3.4
14	3.7	19.8	6.9	2.8
15	2.8	9.0	3.4	2.6
16	2.5	49.7	1.9	40.0
17	1.3	17.1	3.1	5.5
18	2.5	85.8	12.2	7.0
19	2.5	61.3	17.6	3.5
20	3.0	48.0	18.5	2.6
21	2.0	56.8	25.2	2.2
22	Grab	129.6	23.8	5.4

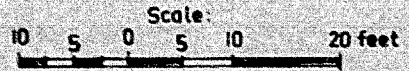
A  
B  
C



**AVERAGES**

	Lgt.	Width	Ag OZ/TON	Pb %
A	30	3.4	440	7.6
B	15	3.0	200	6.4
C	20	2.3	530	13.0
D	22	2.2	52.2	23.3

SELECTED 574.0 Oz Ag 63.5 % Pb



(Modified from mapping by A.E. Aho 1961 and Silver Key Mines Ltd 1967)

**Fig. 2**

