RECONNAISSANCE UNDERGROUND MAPPING AND SAMPLING 3-LEVEL CROSSCUT, CORK-PROVINCE MINE SLOCAN MINING DIVISION

KASLO, B. C.

NTS 82F/14E

LATITUDE 49°54'30", LONGITUDE 117°04'30"

ARCTEX ENGINEERING SERVICES

Locke B. Goldsmith, P.Eng. Consulting Geologist

October, 1982

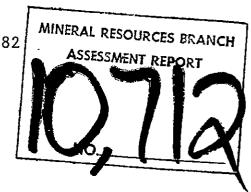


TABLE OF CONTENTS

SUMMARY	-
INTRODUCTION	
GEOLOGY AND SAMPLING	
LOCATION MAP	3
CONCLUSIONS	4
RECOMMENDATIONS	5
COST ESTIMATE	5
ENGINEER'S CERTIFICATE	7
REFERENCES	8
ITEMIZED COST STATEMENT, 1982 PROGRAMME	9
APPENDIX:	
ASSAYS	
PETROGRAPHIC ANALYSIS	
LETTER FROM J. A. MURPHY	
GEOLOGY MAP WITH ASSAYS(pocket inside back cover	.)

RECONNAISSANCE UNDERGROUND MAPPING AND SAMPLING 3-LEVEL CROSSCUT, CORK-PROVINCE MINE SLOCAN MINING DIVISION KASLO, B. C.

SUMMARY

Soil and boulders which had slumped at the 3-level portal were dug away by hand and the adit allowed to drain. Reconnaissance geological mapping and sampling verified the presence as reported in literature of two mineralized carbonate horizons which are parallel to the zone which was mined in at least three periods of operation.

Detailed sampling and mapping of 3-level should be completed. When metal prices warrant additional exploration, a diamond drill programme from 3-level could explore both zones. Estimated cost of geological mapping, sampling and drilling is \$186,400.

INTRODUCTION

Location, access, history, and local geology were summarized in a report which was filed for assessment work in November, 1979, and are not reproduced herein. #77/3

On August 30, 1982, soil and boulders which had plugged the mouth of the 3-level adit were removed by hand and the water allowed to escape. Additional excavation is required if the adit were to be used regularly because the water for the first 100 metres within the portal is still 1 metre deep. Geological mapping and sampling was done August 31.

Timbers in the internal vertical shaft from 3-level appear to be in sound condition. The hoist is in place; the drums, gears, and concrete footings appear to be usable. Both cage and skip are hanging from the cable at the 3-level station. Water fills the shaft below 3-level.

By chance in September 1982 an individual who had been associated with Base Metals Mining Corporation, the company which had once owned the mine, was located in Toronto (3, and Appendix). Unfortunately all records, including engineering and geological data, were destroyed in early 1981.

GEOLOGY AND SAMPLING

Limestone (marble, in part) beds contained within andalusite schist and argillite are exposed in the 3-level crosscut. Towards the southeastern end of the crosscut granodiorite and porphyritic granodiorite are in contact with andalusite schist. Drifts on the previously-mined zone require clean-up and retimbering for safety.

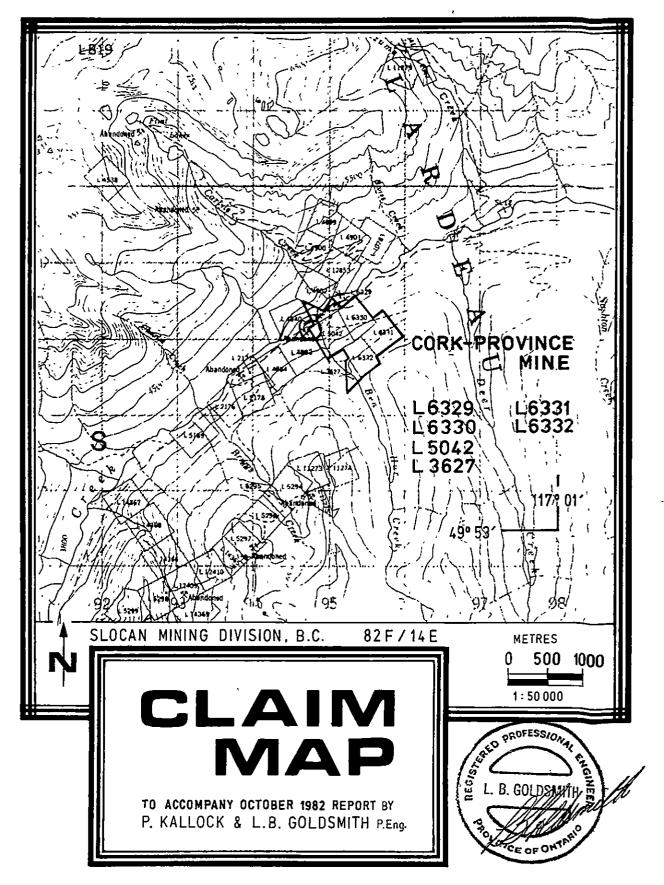
As well as the mineralized limestone bed(s) which provided the bulk of past production, at least two other limestones (which contain galena and sphalerite) are exposed in the crosscut. At the location of sample CP-1 short drifts (±20 m) and raises (±5 m) have explored a zone which dips northwesterly, i.e. opposite to the horizons mined in the old workings. There is no evidence of diamond drilling from 3-level to test this occurrence nor do plans and sections show any drilling or workings extending into this area on other levels. A composite chip sample of several close-spaced cuts taken across the width of mineralization graded 5.24 oz/ton Ag, 7.99% Pb, and 9.17% Zn (see map in pocket); this is probably the fissure "4" wide,...containing milling ore" noted in 1928 (1).

ARCTEX ENGINEERING SERVICES

广石

-3B

حت



CORK-PROVINCE MINE

Detailed geological mapping is required to examine the possibility that this mineralized limestone could be situated in the southeastern limb of a fold, the northwestern limb of which contains the zones which have been mined. This structural relationship, if supported, would suggest continuity between both zones. Important deposits which could be probed by drilling from the crosscut might therefore be present below 3-level. Existing levels from 3 to 8 could provide ready access for ongoing exploration and development.

Short drifts to the northeast of the crosscut have been driven on a mineralized limestone at the location of sample CP-4. Smooth rock exposure and high backs prevented the collection of a channel or chip-channel sample. Material contained in sample CP-4 is not representative of the grade of metals across the zone which exceeds 3.5 metres in width, but is taken from various accessible places. This zone in the footwall of the main workings was apparently not explored or drilled by earlier operators, although it could be the extension of one of the orebodies which was mined in the northeast end of the 3-level drift. Detailed mapping and sampling should be undertaken, and correlated with observations from the mined areas on 3-level.

Sample CP-5 was taken from mill tailings on the bank of Keen Creek at the site of the Cork-Province mill which operated circa 1950-53. The sample is from one site on surface and is not representative of the entire tailings pile. The grade is too low to be of economic interest at this time.

One specimen from the waste dump of carbonate which contained disseminated sulphides was submitted for thin and polished sections (Appendix). Object of the exercise was to examine the rock for evidence of bedded sulphide mineralization. Syngenetic deposition of metallics could not be substantiated; both gangue and sulphides appear to have replaced an earlier mineral suite. Relect phenocrysts (porphyroblasts?) may have been and alusite of the schistose wall-rocks.

A dump at the 3-level portal, by visual approximation only, may contain 50,000 tons of unknown grade, of interest mainly for its obvious zinc content.

CONCLUSIONS

Silver-lead-zinc mineralization in two unexplored carbonate zones is exposed in the 3-level crosscut of the Cork-Province mine. Geological mapping could enable the prediction of exploration targets. After mapping is complete,

a drill test might be considered, if warranted by prevailing metal prices and economic conditions.

RECOMMENDATIONS

Phase 1

- 1. The portal of 3-level should be completely excavated. The crosscut and drifts should be scaled and timbered as necessary.
- 2. Geological mapping and sampling could commence in the crosscut at the time of scaling. Mapping in the drifts should follow timbering.

Phase 2

1. Diamond drilling to test the results of Phase I should be considered.

COST ESTIMATE

Phase 1

1.	Rehabilitation	\$ 10,000		
	Supervision	2,000		
		12,000		
	Contingencies @ 20%	2,400		
		14,400	\$ 14,400	
. 2.	Geological mapping, sampling			
	Geologist and assistant Assays Room, board, supplies Travel, vehicle Supervision Report	10,000 1,000 1,500 2,000 1,500 4,000		
	Contingencies @ 10%	20,000 2,000		
		22,000	22,000	
	Phase	l Total	36,400	\$ 36,400

Phase 2

		Total, Phases 1 & 2		\$186,400
	Phase 2 Total	\$150,000		\$150,000
	Contingencies @ 20%	<u>25,000</u>		
		125,000		
	Report	4,000		
	Supervision .	3,000	ř,	
	Travel, vehicle	3,000	المراجع	
	Room, board, supplies	2,000		
	Assays	1,000	; **	
	Geologist	12,000		
1	 Diamond drilling, allow 100 metres @ \$100/metre 	\$100,000 ·	, '	

An engineering report which details the results of Phase 1 should be prepared before Phase 2 is commenced.

TO WINCE OF ONTARD

Respectfully submitted,

Locke B. Goldsmith, P.Eng. Consulting Geologist

Vancouver, B. C. October 27, 1982

ENGINEER'S CERTIFICATE LOCKÉ B. GOLDSMITH

- I, Locke B. Goldsmith, am a Registered Professional Engineer in the Province of Ontario and a Registered Professional Geologist in the State of Oregon. My address is 301, 1855 Balsam Street, Vancouver, B.C.
- 2. I have a B.Sc. (Honours) degree from Michigan Technological University and have done postgraduate study in Geology at Michigan Tech, University of Nevada and the University of British Columbia. I am a graudate of the Haileybury School of Mines and am a Certified Mining Technician. I am a member of the Society of Economic Geologists, the AIME, and the Australasian Institute of Mining and Metallurgy, and a Fellow of the Geological Association of Canada.
- 3. I have been engaged in mining exploration for the past 23 years.
- 4. I have authored the report entitled; "Reconnaissance Underground Mapping & Sampling, 3-Level Crosscut, Cork-Province Mine, Slocan Mining Division," dated October 27, 1982. The report is based upon fieldwork and research supervised by the author.
- 5. I have, with associates, 100% ownership in the property.
- 6. I consent to the use of this report in a prospectus or in a statement of material facts related to the raising of funds.

SOUTH CE OF OHTER

Respectfully submitted,

Locke B. Goldsmith, P.Eng. Consulting Geologist

Vancouver, B. C.

October 27, 1982

7

REFERENCES

- BCDM Annual Report, 1928, p. 305.
- 2. Cairnes, C. E., 1935, Description of Properties, Slocan Mining Camp,
 B. C. GSC Memoir 184, pp. 206-210.
- 3. Murphy, J. A., October 1982, Suite 208, 4125 Lawrence Ave. East, Scarborough, Ontario, MIE 2S2, Tel. 416-284-3000. Letter in Appendix and telecon.

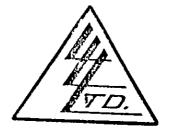
ITEMIZED COST STATEMENT, 1982 PROGRAMME

1. Wages

	L. B. Goldsmith, ¼ Aug. 30, 31, ¼ Oct. 24, ¼ 25, ¼ 27, ¼ 30, total 2½ days @ \$360/day P. Kallock, ¼ Aug. 30, 31, total 1½ days @ \$270/day G. Bennett, ¼ Aug. 30 @ \$180/day	\$ 	810.00 337.50 45.00 ,192.50	\$1	.,192.50
2.	Room, board				
	Aug. 23, room Aug. 30, meals Aug. 31, "	\$ \$	22.26 32.45 7.15 61.86		
	$$61.86 \div 2\frac{3}{4} \text{ worker days} = $22.49/\text{worker/day}$			\$	61.86
3.	Travel				
	Vehicle, one-way, Vancouver-Silverton (792 km), and two trips, Silverton to property return (130 km) = 922 km @ \$0.30/km Gas 331.60 ÷ 1.5 field days = \$221.07/day	\$ \$	276.60 55.00 331.60	\$	331.60
4.	Assays, petrographic analysis	,	332100	Y	331.00
	Assays, 4 samples @ ∿ \$21/each Petrographic analysis, one	\$ 	84.00 71.20 155.20	\$	155.20
5.	Report				
	Typing, photocopying Drafting Prints Report materials	\$	35.00 180.00 37.80 15.00	\$	267.80
	TOTAL	•			
	IOIAL			ąΖ	,008.96

APPENDIX

To: L. B. GOLDSMITH, 301 - 1855 Balsam Street, Vancouver, B.C. V6K 3M3



File No. 23948

Date

September 27, 1982

Samples

Rock

Sexificate ASSAY Ox LORING LABORATORIES LTD.

Page	#	1	
	_		

SAMPLE No.	OZ/TON Gold	OZ/TON Silver	% Pb	% Zn	7
•					
) ,					
CP-1		5.24	7.99	9.17	
CP-3		.66	.45	1:30	
CP-4		Ž.2 8	3.30	10.89	
CP-5		.02	.10	.86	
I					
				-	
			•		
	I Hereby Cer	CTITIS THAT THE ARE	OVE BESILETE ARE	Tuner	
	ASSAYS MADE BY ME	UPON THE HEREIN DE	SCRIBED SAMPLES	111115	

Rejects Retained one month. Pulps Retained one month unless specific arrangements made in advance.

Specimen # : CP DUMP Diss. PbS

Classification: Calcite replaced porphyroblastic(?) schist(?)

Mode:	Calcite	90-95%
	Quartz	<1%
	Chlorite	<1%
	Carbon/graphite	2-3%
	Limonite	<1%
	Sphalerite	<1%
	Sulfides	1-2%

Handspecimen: Grey, calcareous rock with distinct relict shapes of phenocrysts or porphyroblasts. The specimen is cut by fractures, which have been healed by calcite, as well as by veins of calcite, which are locally a bit mineralized.

Thin section:

Transmitted light:

The specimen is composed predominantly of calcite, with minor amounts of opaques (sulfides and carbon/graphite) and quartz. The calcite is secondary, having almost completely replaced a preexisting mineral assemblage of unknown composition. The calcite occurs as a granoblastic mass, which ranges from extremely fine grained to medium grained, in a rather irregular, patchy texture.

The most conspicuous relict texture is marked by distinct rhombic shapes up to 2 mm across, which appear to have been porphyroblasts, as they appear to have overprinted a older foliation. This foliation is also locally visible in the matrix, as a relict texture inherited from the original rock. This foliation resembles that of parts of specimen NB 008. Thus the earliest recognizable texture may have been that of a sheared rock similar to the other specimens in this suite, but with the added distinction of a porphyroblastic texture.

The specimen is cut by thin fractures, healed by calcite, as well as by a vein of bladed, coarse grained calcite and a thin veinlet of calcite with a irregular core of honey coloured sphalerite and small amounts of opaques. The bladed vein contains intergranular cavities which are lined with limonite and locally filled with radiating chlorite(?).

Reflected light:

About 50-60% of the opaque assemblage consists of small, yellow reflecting, prismatic, commonly somewhat skeletal crystals. These are soft (scratched by needle) and distinctly anisotropic, and have been tentatively identified as Ag-Fe sulfide.

The opaque mineral in the previously mentioned veinlet, which is partly filled with sphalerite, is galena. Reflected light examination also indicates small amounts of galena and sphaleite occur disseminated throughout the specimen.

Small amounts of fine grained, idiomorphic to subidiomorphic pyrite occur scattered throughout the specimen.

With the possible exception of pyrite, the opaques in this specimen appear to be of secondary origin, having entered the rock together with calcite, either as replacements or as vein minerals.

John A. Murphy F. C. J. S.
Chartened Secretary

Sude 208, 4125 Laurence Arenue Cast Scarborough, Ontario Mit C 2 S 2 Telephone: [416] 284-3000

October 5, 1982

Mr. Locke B. Goldsmith, P.Eng. Consulting Geologist 301-1855 Balsam Street VANCOUVER, B.C., VOK 3M3

Dear Sir:

Re: BASE METALS MINING CORPORATION LIMITED

In reply to your letter of September 8, 1982, I wish to advise you that the Charter of the above-mentioned company has been cancelled and all records destroyed.

Sorry, that I was unable to be of any assistance to you in this matter.

fre mees, enc Desine 100, Spoins of

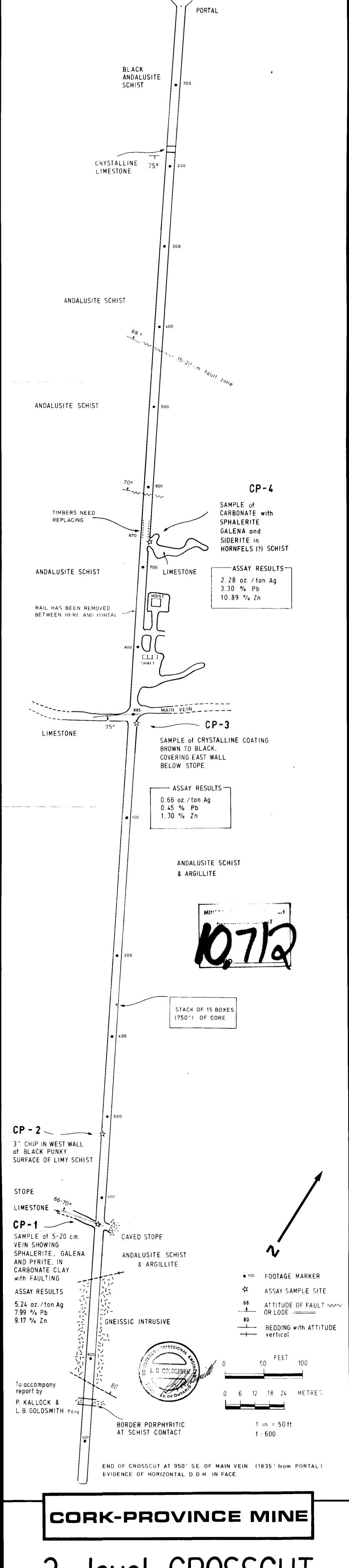
Yours very truly,

J. A. Murphy.

JAM:wg

CORK- FROUNCE

Try GSC.



3 - level CROSSCUT

ARCTEX ENGINEERING SERVICES 1982