

ASSESSMENT REPORT

TYPE: Geological

CLAIMS: A1, A2, Hiltec 1 & 2, Fox 1-4, MK 1 - MK 4 inclusive

MINING DIVISION: Kamloops

NTS LOCATION: 82 M/3W

LATITUDE: 51° 03

LONGITUDE: 119° 31

OWNER: Orell Copper Mines Ltd.

AUTHOR: James Black, P.Eng.

DATE: June 21, 1980

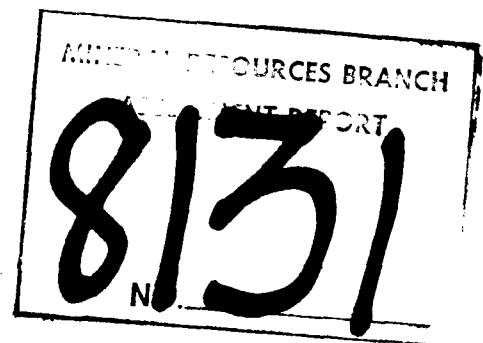


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## INTRODUCTION

The claims are near the top of Adams plateau between the heads of Nikwikwaia and Gash Creeks. The area is on N.T.S. 82 M 3 W and can be reached by a good logging road that leaves Shuswap Lake about 1 mile east of the bridge over Adams River.

## HISTORY

Showings of silver lead mineralization were found over 50 years ago. The ground since then has been held on option by a series of companies. The showings were drilled in the 40's and the 60's.

For the last 5 years Orell has held most of the ground. For 2 of these years, the claims were optioned by Craigmont Mines Ltd. This company made a geophysical and geo-chemical survey, mapped the geology and drilled some of the showings and anomalies. At 2 points mineralization was cored that is of interest if a sufficient tonnage can be proven.

## GEOLOGY

The area is underlain by an argillaceous, cherty sequence of beds that include some tuff and limestone. Generally the beds dip gently to moderately northwards. Minor dragfolds indicate that the structure may be much more complex than previously realized. The beds are cut by granitic and dark dykes, most of which strike northwards.

## MINERALIZATION

This comprises pyritic zones, conformable or nearly conformable to the bedding. Associated with the pyritic are quartz, galena, sphalerite, pyrrhotite, minor chalcopyrite and in

Mineralization (continued)

places magnetite. The galena contains silver. Minor gold is present. The mineralized zones, which include some country rock grade into the overlying and underlying un-mineralized beds by decrease in the proportion of mineralization.

Most of the showings are from a few centimetres to a metre thick. Some have been followed by trenches and geophysical response for as much as 200 metres.

WORK DONE

Detailed geological mapping was done. The occurrence on the A1 and A2 claims had been trenched before and small shipments made from it. In order to learn more about the grade of this mineralization and its attitude, it was drilled and blasted. Selected material was then shipped to the Trail smelter.

RESULTS

The work confirmed that the mineralization dips moderately northwards. Assay results show that the shipped ore, which was selected, ran about 10% lead and 8% zinc. It contains almost 1 ounce of silver per percent of lead.

161.65 tons were sent to the smelter. This had a gross value of \$351.41 per ton. After payment of all costs the net proceeds were \$39.41 per ton. This demonstrates that with raw ore such as this, a very large part of the value goes to defray shipping and smelter costs. The ore contains a considerable proportion of rock and it is the high charges for shipping this waste and smelting it, that costs so much. Ore of lower grade, in quantities sufficient to bear the cost of a mill, could be mined profitably.



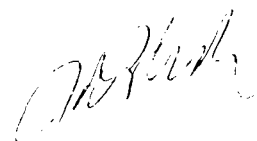
J.M. Black  
Consulting Geologist

ORELL COPPER MINES LTD.

1979 ITEMIZED COST STATEMENT

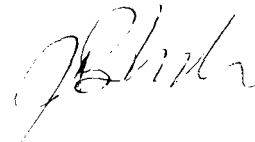
(to accompany report by J.M. Black, P.Eng.)

(i)	Charles Brown, P.Eng.	6 weeks	\$ 2,467.30
	Helper	6 weeks	668.48
	Ore Sorters (4)	4 weeks	1,514.00
	Cecil Kane, Prospector	7 days	500.00
	James Black, P.Eng. Consultant		990.34
	Workmens Comp. Board		203.66
	Mining Supervisor		5,460.71
(ii)	Truck, gas and oil, 4 x 4 rent		2,950.16
	Camp supplies and communications		2,127.57
(iii)	Assays		337.50
(iv)	Drafting		510.75
(v)	Loading and hauling ore		9,228.79
	Blaster		2,853.00
	Equipment rental - jack hammers		2,849.30
			<hr/>
			\$ 32,661.56
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	MK (A) Group	21,461.56	
	MK (B) Group	9,600.00	
	MK - 1 Group	1,600.00	

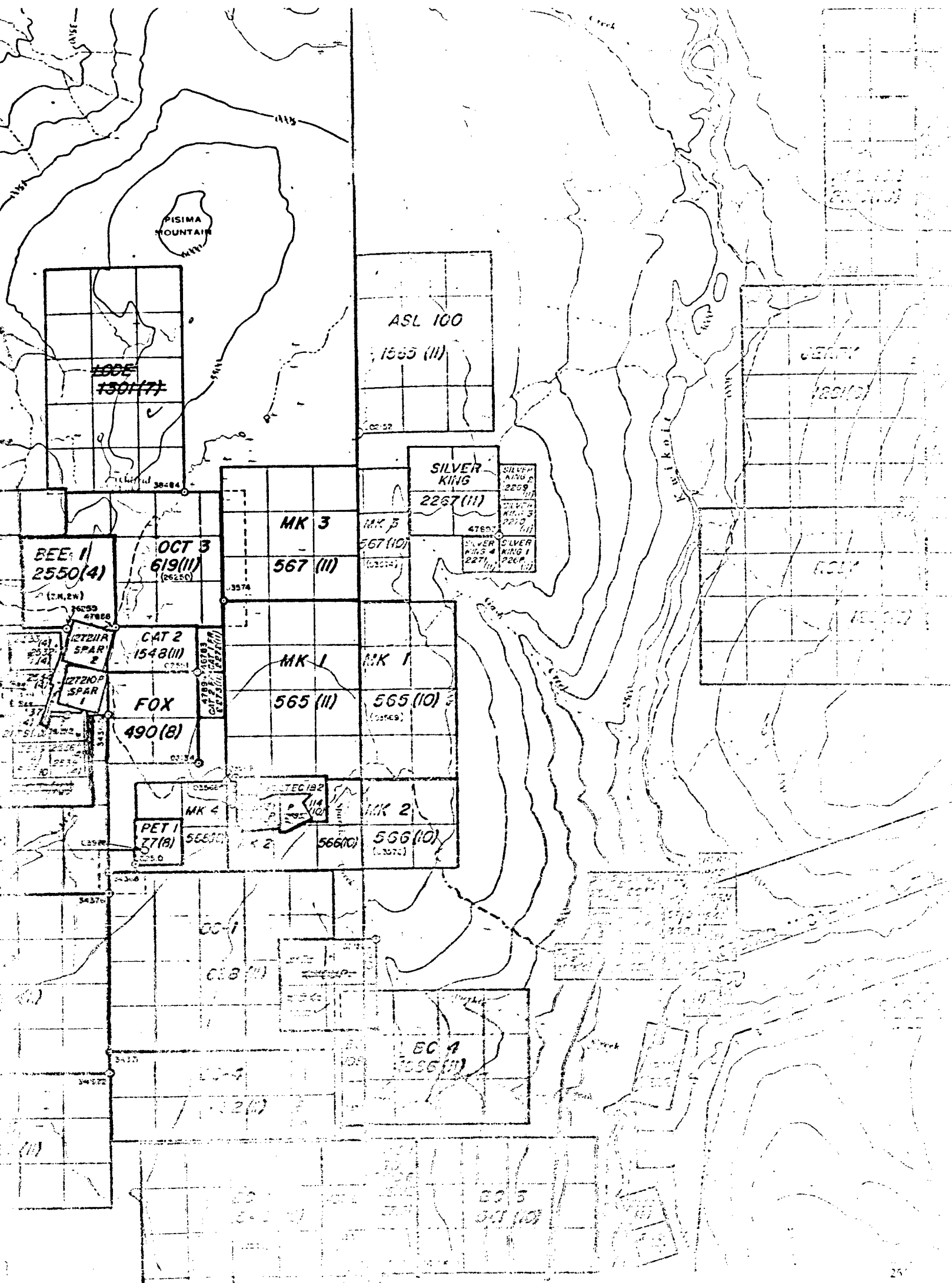


DECLARATION

- a. I, J.M. Black, am a consulting geologist with an office at 843 Prospect Ave. in North Vancouver, B.C.
- b. I was graduated in 1935 from the University of British Columbia with a degree of B.A.Sc in geological engineering and in 1942 from McGill University with a degree of PhD in economic geology.
- c. I have worked for 40 years as a geologist and I have extensive experience in deposits of the type on this property.
- d. I am a member of the Association of Professional Engineers of B.C. and of the Canadian Institute of Mining and Metallurgy.
- e. I have examined the showings that were mined last season and numerous other ones on the property.
- f. I have not received any interest, directly or indirectly in the property of the company, or any affiliate and I do not expect to receive any interest, direct or indirect. I do not own, directly or indirectly, any security of the company (Orell Copper Mines Ltd.) or any affiliate.







MAP 0510

MINERAL RESOURCES BRANCH  
 ASSESSMENT REPORT  
**8131**  
 NO.