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REPORT DATED  
APRIL 15, 1981

ON THE  
MOSQUITO KING AND BOWLER CREEK GROUPS  
ADAMS PLATEAU  
BRITISH COLUMBIA  
FOR  
ORELL RESOURCES LTD.

BY  
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MOSQUITO KING & BOWLER CREEK PROPERTIES  
OF ORELL RESOURCES LTD.

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SUMMARY

1. The Mosquito King group includes the Mosquito King claims and many others and extends over about 2,000 hectares. The Bolwer Creek group includes the Bowler Creek and Zinc claims and extends over about 1,000 hectares. Both of the properties are on Adams Plateau and the slope down from it on the east.
2. These properties are about 21 miles by road north of Squilax on the the Trans-Canada Highway and are accessible by road from there.
3. Stratiform sulphide and oxide beds are in sedimentary and volcanic rocks which are partly schistose. They have been explored at intervals for more than 50 years. Small tonnages of selected ore have been shipped.
4. Assays of cores from drill holes average about as follows:
  - Zn 2.7%
  - Pb 1%
  - Cu 0.2%
  - Ag 1.60 oz/ton.

The beds range up to about 3 meters in thickness.

5. Estimated tonnage of drill indicated reserves of the grade given above is about 200,000 tons.
6. Trenching in 1980 exposed mineralization of similar grade in areas with few outcrops, not previously explored.
7. An exploration program is recommended that includes completion of detailed geological mapping to try to find any thickening of the mineral beds. If it is successful, it is recommended that an IP survey be made to find out if a thickened part of a mineral bed has a long dimension. If such is found it is recommended that this be drilled to determine extent and grade.
8. The estimated cost is \$110,000.

INTRODUCTION

This report describes the Mosquito King and Bowler Creek properties on Adams Plateau. Silver and zinc are the most valuable components of the mineral beds and continued high

prices for these metals make the beds of interest. This report described results so far. Some moderate-sized shoots may be found. An exploration program is recommended. The beds have been examined many times by the author in the last 8 years.

PROPERTY

The claims included in the Mosquito King property are as follows:

- Mk 1 (565)
- Mk 2 (566)
- Mk 3 (567)
- Mk 4 (568)
- Pet (77)
- A1 (128831)
- A2 (128832)
- Hiltec 1&2 (114)
- Fox (490)
- Cat (1548)
- Cat 1 Fr. (2272)
- Cat 2 Fr. (2273)
- Spar 1 (127210)
- Spar 2 (127211)
- ELIC Flic 5 and 8 (2179)
- Bee 1 (2550)
- Bee 2 (2551)
- Bee 1C (2532 to 2539 inclusive)

The Bowler Creek property, about 3 miles south of the Mosquito King comprises:

- BC 1
- BC 2 (540)
- BC 3 (594)
- BC 4 (1080)
- Zinc 1 to 6 inclusive (437)

These properties are about 12 miles NNE of Squilax, which is near the west end of Shuswap Lake. The properties are accessible by road from Squilax a distance of about 20 miles. They are on Adams Plateau and the slope down from it on the east.

The elevations range from about 2,600 feet to 5,700 feet. Snow generally remains on the highest ground until June. All the area, except the highest parts are timbered or have been logged.

## History

Mineralization was found over 50 years ago. It was considered to be in veins and was explored from time to time by trenches. In 1947 Cominco examined the property and drilled some holes to test the extension of surface showings at depth. In 1967 Giant Metallics examined the property and after doing mapping and geophysics drilled some holes to explore down dip from surface showings.

In 1977 and 1978 Craigmont Mines Ltd. optioned the properties and mapped them and made geophysical and geochemical surveys. During both years Craigmont drilled holes to test showings and anomalies. Since that time Orell has done some drilling and trenching. The total amount of drilling is about 5,000 meters.

In 1979 geologists from a major company started detailed mapping of the Mosquito King property. This mapping was not completed because agreement on terms of an option was not reached.

Last year trenching was done on areas of the Mosquito King property that had few outcrops and had not been explored. Mineral beds similar to those exposed elsewhere were uncovered.

## Geology

The area is underlain by a sedimentary sequence, mostly argillaceous, and includes some chert and limestone. Interbedded are tuffaceous beds and some flows, now greenstone. The beds appear to strike westward and dip gently northwards.

The rocks are slightly schistose with the schistosity about parallel to the bedding.

The rocks and mineral beds are cut by light and dark coloured dykes. Most of these trend northwards. They are believed to be from a granitic mass which is exposed northeast of the properties.

## Structure

The beds, including the mineral ones, appear to dip gently northward. Mineral beds not cored in some drill holes suggest that the interpretation of a monoclinoidal structure is not correct. Pressure during folding may have caused mobilization of sulphides and repeated pressure may have caused secondary folds. Drag folds are exposed in some of the well exposed outcrops.

West of the properties, geologists of the B.C. Department of Mines have been mapping. They have found that the structure is complex with probably several intervals of folding. They have concluded that there probably has been movement along and near bedding planes to accomodate some crumpling that has taken place where weaker beds have been squeezed between more competent ones. \*

\* V. Preto - verbal communication

#### MINERAL BEDS

The sulphide beds comprise pyrite pyrrhotite, sphalerite, galena and minor chalcopyrite in a gange of quartz, chert and country rock. Some magnetite may be present. Some of the country rock is altered.

The silver content is roughly proportioned to the galena. A small amount of gold is present. Mineral beds ranging in thickness up to 3 meters are of interest, especially for their silver and zinc content.

Oxide beds are composed mostly of magnetite with minor sulphides and some gangue. Some of these are as much as 10 meters thick.

A third type of bed has a high proportion of country rock and some pyrrhotite and generally minor chalcopyrite and very little sphalerite. Such beds are as much as 8 meters across and generally have a copper content of about 0.15% though a few sections run as high as 0.35% Cu.

#### ASSAYS AND RESERVES

Assay results, mostly reported by Craigmont Mines Ltd., on samples taken from drill core, are as follows for the zinc mineral body:

<u>Hole</u>	<u>Thickness</u> feet	<u>Cu%</u>	<u>Pb%</u>	<u>Zn%</u>	<u>Cd%</u>	<u>Au ppm</u>	<u>Ag ppm</u>
Ex 1+	10	0.26	--	1.9	-	-	-
BC 12	11.5	0.26	0.79	3.48	.03	0.038	79.5
BC 14++	<u>13.1</u>	<u>0.074</u>	<u>0.30</u>	<u>1.93</u>	<u>.02</u>	<u>0.03</u>	<u>24</u>
Average	11.5	0.19	0.53	2.43	.025	.001 oz.	1.45 oz.

Length used is distance along strike between holes and the slope length is the distance from the surface to the deepest intersection.

Indicated reserve 163,000 tons.

- + Orell hole
- ++ Excludes central section of low grade 2 meters thick

Indicated Reserves and grade of Mosquito King occurrences are as follows:

	<u>Tons</u>	<u>Cu%</u>	<u>Pb%</u>	<u>Zn%</u>	<u>Ag oz/ton</u>
Mosquito K.	9,600	--	4.0	4.9	1.9
Sunset	2,320	--	3.71	4.74	1.16
Sunset SE	4,150	--	3.96	7.0	2.5
Ball Park	25,000	--	1.77	2.66	2.36

RECOMMENDATIONS

(Text to be provided by J. Black)

The estimated cost are as follows:

Tools and Other Camp purchases	\$	700	
Trailer Mobilization & Demobilization twice		1,400	
Travel		2,500	
Report		2,400	\$7000
Geologist		3,200	
Asst. & Cook		1,800	
Trailer rent		1,000	
Food and propane		1,500	
Assays		1,000	
President delivery etc. trips		1,000	
Radiophone		300	
Truck		700	
Consultant		1,000	11,500 3 mo.=\$34,500
1 P Survey			5,000
Trenches			5,200
Drilling 1700 ft. x \$28			47,600
<u>Contingencies</u>			<u>10,700</u>
			\$110,000

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J. M. Black, P. Eng. Ph.D.  
Consulting Geologist

Certificate will follow



C E R T I F I C A T E

I, J. M. Black, of 843 Prospect Avenue, North Vancouver, B.C., do hereby certify that:

1. I am a graduate of U.B.C. in geological engineering with degrees of B.A.Sc. and M.A.Sc., and a graduate of McGill University with a degree of Ph.D. in economy geology.
2. I am a consulting geologist with broad experience in examination of mineral occurrences.
3. I examined the mineral occurrences reported in the accompanying report.
4. I have no beneficial interest in the property described in this report nor do I expect to receive any nor do I have any interest in Orell Copper Mines Ltd. other than my duties as a consultant.

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J. M. Black, P.Eng.  
Consulting Geologist  
April 15, 1981