

Dolmage
Nov. 15, 1954.

*Contains ore reserve
estimates*

Note recommends also
THE McVICAR COPPER PROPERTY

INTRODUCTION

The McVicar Copper claims are situated in the Coast Range mountains of British Columbia, about 40 miles north of Vancouver and about 10 miles southeast of Squamish, a seaport at the head of Howe Sound 40 miles north and a little west of Vancouver. The McVicar claims lie along the head waters of Goat or Raffuse creek which flows into the Manquam river about 6 miles from its entrance into Howe Sound near Squamish. The numerous showings are widely scattered over a large area, but are confined mainly to the creek valleys and to high summits where nature has removed much of the overburden.

The showings range from 2700 to 4500 feet above sea level.

Up until 1953, exploration was limited to trenching, stripping and sampling, but during the summers of 1953 and 1954 considerable diamond drilling has been done. The trenching and sampling have been described in several previous reports by the writer and the results of 1953 drilling have been described in reports by the writer and by Derek Davidson.

REGIONAL GEOLOGY

The Coast Range mountains consist mainly of granodiorite but in this formation are numerous large remnants, many miles in extent, of the older volcanic and sedimentary rocks and it is in these rather than in granodiorite that the mineral deposits of the region are located. The largest deposit in the southern part of the Coast Range is the Britannia mine which is situated on the east shore of Howe Sound 8 to 10 miles southwest of McVicar. This mine has been in operation for more than 50 years and is now producing copper-zinc ore at the rate of 3600 tons per day. This ore, as well as its geological environment, bears many resemblances to the McVicar ores.

*mm 1937 - note
Britten drilled
in 1925 & 1928.
M.M. 1953 states
1950 drilling @
2498' on 17 holes*

McVICAR MINERAL BELT

Most of the important showings on the McVicar property lie in a well defined belt which extends in a north 30 degree west direction from the highest and most southerly showings on the Whistler claim. From here the belt crosses the Grouse, Harding, Rainstorm and Cabin claims.

Six groups of showings have been discovered in this belt by surface prospecting. These were formerly referred to by numbers, but since the numbers were assigned new showings have been found and the original ones extended. Because of this it was thought advisable to rename the showings according to the claims on which they occur and they are now referred to as the Whistler, South Harding, North Harding, Rainstorm and Cabin. The Whistler, North Harding, Rainstorm and Cabin were formerly known respectively as the numbers 1, 2, 3, 5 and 7.

*all in
1937-53
in orig.
no. system*

East of this belt are several other showings, such as those on the Lillie and the northeast part of the Rainstorm claims, known respectively as the number 1 and the number 4 showings. These have significant surface showings but have not yet been tested by drilling.

The Cabin and Rainstorm groups were drilled in 1953 and the results of this work were discussed in the above mentioned reports by Derek Davidson and the writer. The results of the Rainstorm drilling have been included in the plan and longitudinal section accompanying this report so as to give a better over all picture of the mineral belt as a whole.

1954 DRILLING AT McVICAR

The accompanying plan and longitudinal section - Figures 1 and 17 respectively - show the positions, directions and lengths of all the holes drilled in the mineral belt except two drilled on the Cabin claim. Those on the Rainstorm were drilled in 1953 and as they have been previously described they are only briefly mentioned in this report. The assay values of the ore found in each of the drill holes are recorded in the accompanying crosssections - Figures 2 to 15 and on the accompanying tabulation. The ore values are also shown but in less detail on the longitudinal section - Figure 17.

The McVicar Copper Property.

- 3 -

WHISTLER SHOWINGS (2)

The surface showings on this claim contain high values in lead and zinc as well as copper, as shown on the accompanying longitudinal section. Only two holes, numbers 2-1 and 2-2 were drilled under these showings. These cut the ore zone at two points close together and about 200 feet directly under the outcrop.

As shown on the longitudinal section and on cross sections 4 and 5, only 1 small vein 2 to 5 feet wide and carrying negligible amounts of metal, was cut by these two holes. However, it is quite possible that the mineralization might rake either to the north or south in such a way as to pass out of range of these holes. Further drilling should be done to test this possibility.

SOUTH HARDING SHOWINGS (3)

These showings are about 600 feet north of the Whistler showings. No important mineralization was found on the surface at this locality. Three holes were drilled which cut the mineral belt 75 to 100 feet below the outcrop. Two of the holes, labelled 2-3 and 2-4, cut a number of narrow veins 1 to 2 feet wide, carrying high values in lead, zinc and copper, as shown on the longitudinal section and on cross section 6 and 7.

This ore is similar in character to that on the Whistler claim and differs from that on all the other showings in having more lead and zinc and less copper. More drilling in this vicinity, both to the south and north, as well to greater depths is required to adequately test this group of showings. Present information is not sufficient to enable ore estimates to be made.

NORTH HARDING SHOWINGS (4)

Four prominent surface showings were exposed by trenching in this area. These assayed respectively 1.15% copper across 10 feet, 3.15% copper across 12 feet, 3.0% copper across 13 feet, and 1.05% copper across 7 feet.

As shown in the two longitudinal sections, 9 holes were drilled under these showings, number 3-1, 3-2, 3-3, 3-4, 3-5, 3-6, 3-7, 54-1 and 54-2. All encountered some ore and several cut good widths of medium to good grade material. These ore intersections ranged from 200 to 350 feet below the surface and over a horizontal distance of 600 feet. The ore intersections, together with sampling results are shown on both longitudinal sections (figures 16 and 17) and on cross sections numbers 1 and 2, and 9 to 15. This drilling indicated one continuous band of ore as well as two or three smaller and more less parallel branch veins. Owing to its irregular shape and its great variations in width and values, there are many ways in which its volume and average value may be calculated. The continuous band of ore has an average width of 6.8' and contains about 92,000 tons of ore averaging approximately 2.0% copper. Neither the horizontal nor depth limits of this ore body have been determined and much more drilling should be done. There is a possibility that this ore body may be found to be continuous with the Rainstorm orebody to the north and the South Harding orebody to the south. The Rainstorm orebody, drilled in 1953, is estimated to contain 40,000 tons of 2.0% copper over an average width of 9.8 feet.

There is, therefore, now indicated on the property about 132,000 tons of 2% copper ore, with minor amounts of lead, zinc and silver. While this is not sufficient to warrant the immediate consideration of a milling operation, still progress is being made and the property still has many attractive possibilities which deserve further investigations.

RECOMMENDATIONS

It is recommended that further drilling be continued in 1955. The objectives of this drilling, named in their order of importance, are as follows:

- (1) Try to expand the North Harding ore body by drilling north and south of and under the present holes.
- (2) Test the section between the South Harding and Whistler showings. The first holes in this area should be drilled at shallow depth.

- (3) Test the South Harding showing at greater depth and over a greater length.
- (4) Drill two wildcat holes in the areas between the South Harding and North Harding showings and between the North Harding and Rainstorm Showings.
- (5) Test the Lillie showings at depth.

GEOLOGICAL CONSIDERATIONS

All of the above recommendations are made with little regard to geology. Little or no progress has been made towards an understanding of the controlling geological structures. It now appears probable that the ore belt is following certain fragmental beds of volcanic rock which strike northwesterly and dip southwesterly. It also seems probable that the best ore lies in local variations in the strike or dip of these beds. If these theories could be proved it would speed up the process of finding ore. It is too much to ask of any one engineer to manage the camp, do the surveying, log the cores, do the sampling, keep the records and at the same time do the geological mapping and log the cores with the geological detail necessary. A young geological assistant to the engineer in charge would yield results of value far exceeding the cost. With the aid of such an assistant, two drills each working two shifts, could be well looked after. There would not be too much difficulty in finding a geological assistant if the summer's plans were made before the end of the University term.

Respectfully submitted,

DIAMOND DRILLING RECORD

1954 Season

Hole No.	Bearing	Length	Dip	Elevation of Collar	Elevation at Bottom.
54 - 1	N60°E	396'	45°	3922'	3636'
54 - 2	N80°E	421'	-57°	3922'	3518'
2 - 1	S52°W	378'	-45°	4470'	4200'
2 - 2	S25°W	296'	-45°	4470'	4260'
2 - 3	East	264'	-45°	4294'	4110'
2 - 4	N68°E	203'	-45°	4294'	4150'
2 - 5	N32°E	213'	-43°	4296'	4147'
3 - 1	N60°E	402'	-45°	4003'	3717'
3 - 2	N40°E	434'	-56°	4003'	3641'
3 - 3	East	455'	-57°	4003'	3621'
3 - 4	N53°E	400'	-45°	3936'	3700'
3 - 5	N33°E	394'	-56°	3936'	3656'
3 - 6	N60°E	455'	-60°	3855'	3460'
3 - 7	East	450'	-60°	3855'	3465'

RECORD OF SAMPLING AND ASSAYS

1954 Season

Hole No.	Sample No.	From	To	Assays				
				Gr. Al.	Gr. Ag.	% Cu.	% Pb.	% Zn.
54-1	12542	167	174	-	1.2	1.2	0.4	0.1
	12543	174	180	-	0.1	0.8	T.	T.
	12544	180	186	-	0.2	0.9	T.	T.
	12545	186	190	-	0.2	0.3	T.	T.
	12546	190	195	-	0.4	0.6	T.	0.8
	12547	195	201	-	-	0.1	T.	T.
	12548	201	206	-	-	0.3	T.	T.
	12549	206	211	-	-	0.5	T.	1.9
54-2	12541	259	274	-	0.1	0.3	0.4	T.
2-1	12538	207	209	-	0.2	0.6	0.3	0.8
2-2	12537	243	248	T.	1.4	0.3	-	-
2-3	12539	97.5	99.5	-	0.6	1.6	7.9	14.1
2-4	1063	52	53	-	-	0.5	T.	T.
	1061	74	75	-	-	0.7	3.2	8.3
	1062	89	90	-	-	0.5	1.5	2.4
	1060	132	134	-	T.	3.1	T.	2.4
	1064	149	150	-	-	5.5	T.	7.1
3-1	12534	121	123	T.	0.4	1.6	-	-
	12533	235	238	T.	0.6	2.4	4.1	7.7
3-2	12531	166	196	T.	1.2	2.8	0.1	0.3
	12532	255	270	T.	1.1	1.5	0.2	1.8
	12535	312	320	T.	0.2	0.6	0.1	0.6
	12536	322	325	T.	T.	0.3	-	-
3-3	1059	226	228	-	-	1.1	T.	4.7
3-4	12540	137	142	-	0.8	2.4	T.	0.4
	1058	324	332	-	-	1.8	T.	1.6
3-5	12550	174	175	-	-	0.5	T.	1.9
	1051	193	198	-	-	1.4	T.	T.
	1052	193	204	-	-	0.6	T.	T.
	1053	213	219	-	-	4.5	T.	T.
	1054	247	251	-	-	1.9	T.	1.0
	1055	251	255	-	-	3.2	4.4	9.3
	1056	262	266	-	-	1.3	T.	T.
	1057	266	269	-	-	1.8	T.	T.

RECORD OF SAMPLING & ASSAYS - 1954 Season - Continued.

Hole No.	Sample No.	From	To	Assays				
				Oz. Au.	Oz. Ag.	% Cu.	% Pb.	% Zn.
3-6	1066	324	329	-	-	0.7	T.	T.
3-7	1067	311	313	-	-	0.4	0.1	0.1
	1068	313	318	-	-	1.2	0.1	0.2
	1069	318	323	-	-	0.2	-	-
	1070	323	328	-	-	0.1	-	-
	1071	328	334	0.02	0.3	0.5	0.1	0.2
	1072	334	340	T.	0.2	T.	0.1	0.2
	1073	340	346	T.	0.2	0.8	0.1	0.2
1074	346	350	-	-	0.1	0.1	0.2	

NOTE: A dash (-) indicates sample was not assayed for this metal.