Canada. Commission Appointed to Investigate the Zinc Resources of British Columbia 1906

REPORT

ON THE

ZINC RESOURCES OF BRITISH COLUMBIA

AND

THEIR COMMERCIAL EXPLOITATION.

BY

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	I.	II.	III.	IV.	V.	VI.
	%	%	%	%	%	%
Lead	—	nil	—	nil	3.00	—
Copper	nil.	—	—	—	—	—
Zinc	40.00	42.80	45.20	34.20	30.60	44.00
Iron	5.50	5.70	3.90	4.30	2.60	6.40
Silica	33.00	—	—	—	—	—
Lime	—	—	—	—	—	—
Gold	nil.	(a)0.30	traces	nil.	(a)0.02	nil
Silver	trace	(a)0.41	nil.	nil.	(a)3.00	(a)1.50

(a) Ounces per ton.

I. Analysis of zinc blende from Kemptville mineral claim supplied to the Commission from an independent source. (H. Harris, Analyst). II. Partial analysis of "black jack" from Kemptville claim. III. Partial analysis of "resin jack" from same location. IV. Partial analysis of ore from Kemptville No. 2 claim. V. Partial analysis of ore from Evening Star claim. VI. Analysis of zinc ore from Kemptville claim. Analyses II. to VI., inclusive, were made by George C. Robbins from specimens collected by Mr. A. C. Gardé in 1902.

No development work has been done on these claims since Mr. Gardé's visit, but Mr. Newman informed the writer that arrangements had been completed to carry on extensive mining operations very early in the approaching season, with a view to demonstrating the extent and value of the deposits.

(b). *Nanaimo Mining Division.*—In addition to the occurrences of zinc blende in Texada Island a report from a reliable source reached the writer of the presence of considerable deposits of this mineral near Theodosia Arm on the mainland of British Columbia. The mineral claims covering this deposit are known as the "Broken Hill Group" and are owned by J. M. Mackinnon of Vancouver. They are situated about 5 miles inland from the head of Theodosia Arm, or 18 miles by water from Lund P.O. The steamers of the Union Steamship Company call at this port several times each week and the rest of the water journey can be made in a yacht which may be chartered at Lund. The claims themselves are reached by a very rough trail requiring about 5 hours steady walking. The ore occurs in a vein at the contact between limestone and granite showing, in a small test pit, from 12 to 18 inches of ore chiefly zinc blende, with a much smaller amount of chalcopyrite, pyrrhotite and pyrite. The vein runs about north 40 degrees west magnetic and is almost vertical. The development work consists of two tunnels, each about 50 feet in length and about 800 feet apart. One tunnel cuts the vein showing a mixed ore, chiefly zinc blende, scattered through the limestone. The other tunnel has not reached the vein.

The following is an analysis by Mr. H. Harris of the ore obtained from the person who supplied the above information.

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Copper	2.50%
Zinc	29.00
Iron	7.60
Silica	16.00
Gold	trace.
Silver	2.30 oz. per ton.

4. INTERIOR OF BRITISH COLUMBIA.

(a). *Similkameen Mining District.*—A considerable quantity of zinc is an almost constant constituent of the silver-lead deposits occurring at the headquarters of the Tulameen River in the Summit City Camp. At present this camp is reached either by way of Hope or Granite Creek near Princeton, but the building of the Great Northern Railway through this district will bring it into more direct communication with the rest of the Province.

The ore is stated to consist mainly of galena and zinc blende with a much smaller amount of chalcopyrite. It is also said to be high grade ore, some of which is reported to have assayed 150 ounces of silver to the ton.

(b). *Kamloops Mining Division.*—The only information relative to the presence of zinc in this mining division is contained in two letters addressed to the Commission by Wentworth F. Wood, of Kamloops, B.C. He reports as follows:—

"Zinc occurs in many of the mining properties in this district and, I believe, in paying quantities in the northern part. The silver mines of Adams Lake all carry more or less zinc, but not in large quantities.

There are two claims especially mentioned as worthy of examination for their zinc contents. These are the Lone Prospector and Iron Clad, situated about 70 miles up the North Thompson River at Mosquito Flat. These claims are situated from 850 to 1,000 feet above the river and two miles inland. These properties are easily reached during the season of navigation, about three months in the year. Only one shipment was made to the smelter, where a charge was made for something over 16 per cent. for hand picked ore. The average ore would run nearer 30 per cent. of zinc. The vein of the Lone Prospector is 3 feet wide, a narrow stringer of galena running the length of the tunnel, 46 feet. The remainder of the "vein is quartz and zinc blende, with about 30 per cent. of zinc. A shaft has been sunk at the junction of a spur 30 feet or more, some very fine galena being thus secured. This ore was also high in zinc. A second shaft is down (on the spur) a little over 20 feet, but here the ore does not contain as much zinc. From these openings, in addition to a few open cuts, about 100 tons of ore have been taken out, which will assay about 20 per cent. of zinc.

"On the Iron Clad the tunnel is about 40 feet running with the vein which is about 4 feet wide, with ore which would average over 20 per cent. of zinc."