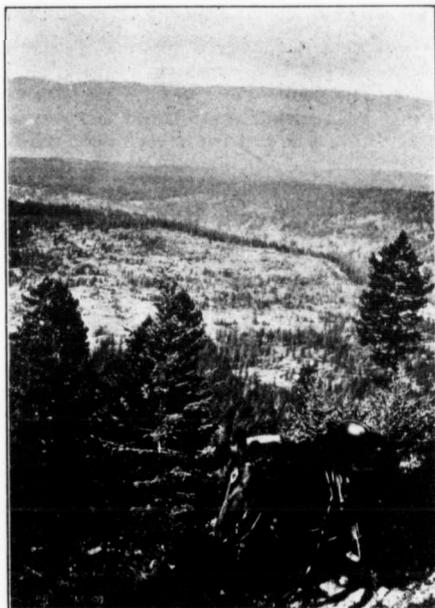


The general structure of the deposits is a bedded or banded one. The beds, ranging from two to ten feet, are separated by partings varying from six inches to one foot of barren material. These are sometimes replaced by a low-grade ore carrying 20 per cent. to 45 per cent. of metallic iron. So far developments have



Kootenay Valley looking towards Selkirks.

disclosed five deposits with a general east and west strike and dipping at various angles. Deposit "A" on the plan dips 50 degrees to the south; the others are nearly horizontal or dip at small angles. The flat appearance of the deposits would sustain the theory that the zone of mineralization is a replacement of the country rock and that the solution or filling came from a fissure crossing at an angle with the strike of the country rock. For some distance on each side of the fissure the country rock has been impregnated or entirely replaced by haematite, giving the deposits approximately the same dip as the country rock and following the course of the fissure. The ore is exposed by cuts for the distance of \$2,200 feet on deposit "B" and for a distance of one and one-quarter miles by natural outcrops.

The vertical distance measured from the summit to the lowest workings is 500 feet and from the summit to the lowest outcrop is 900 feet. Assuming the deposits are of a bedded type, the following figures are given from actual measurements. The depth of one of the beds only is taken into the calculation, being considered as continuing the width and length of the deposit. The

width is taken at a distance measured at right angles to the course of the deposit.

Number of Deposit.	Length	Width	Depth	Cubic Feet	No. of Cubic Ft. To 1 ton	No. tons
A	600	25	10	150,000	7	.....
B	2,800	200	6	3,360,000	.....	.....
C	1,400	200	6	2,100,000	.....	.....
D	500	50	4	100,000	.....	.....
E	2,000	25	2	100,000	.....	830,000

From a series of analysis made on this ore, the phosphorous contents have never been found to exceed the Bessemer limit and the sulphur runs always low. The highest class of ore will run 68 per cent. metallic iron and 3 per cent. silica. This is a massive hard blue haematite. A hard blue haematite of a slightly schistose character will run 60 per cent. iron and 11 per cent. silica. Softer varieties of ore go higher in iron and carry more alumina and magnesia. The absence of



Bull River Canon.

phosphorous makes this ore a most desirable one for the manufacture of Bessemer pig.

List of Analysis, Bull River Haematite.

Sample from	Insoluble Residue	Silica SiO <sub>2</sub>	Iron Ore Fe <sub>2</sub> O <sub>3</sub>	Alumina	Lime	Magnesia	Sulphur	Phosphorus	Metallic Iron	
Goliath Claim	.....	17.00	76.20	4.00	2.00	1.10	.06	.02	53.34	
Ajax	.....	12.00	85.00	2.55	1.10	.....	.04	.03	50.50	
Haematite	.....	8.50	88.00	1.20	1.60	.....	.08	.04	51.50	
Goliath	.....	9.68	.....	.....	.....	.....	.....	.....	64.00	
Tempest	.....	11.60	.....	.....	.....	.....	.....	.....	61.95	
Kent	.....	3.50	.....	.....	.....	.....	.....	.....	68.00	
Whisper	.....	4.00	.....	.....	.....	.....	.....	.....	65.80	
Atlantis	.....	10.20	.....	.....	.....	.....	.....	.....	61.70	
Ajax	.....	9.25	.....	.....	.....	.....	.....	.....	61.50	
.....	.....	6.64	.....	.....	.....	.....	.....	.....	58.50	
Average from Several Claims	.....	10.94	.....	.....	.....	.....	.076	.0291	55.9	
Average	.....	8.52	12.50	.....	2.58	1.56	1.10	.062	.0282	61.35