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CANADA

Sept 27/1916

Swd J2

ORE DRESSING LABORATORIES

No. 52

Report on Shipment of Molybdenite Ore

from

Padwell

Geo. Caldwell.

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Weight of Ore received --- 1267 lbs. net.

Observations: The Molybdenite in the Ore was of the flake
variety, very similar to the Reupeu occurrences. The
other minerals present were pyrite, pyrrhotite and pyrox-
mite.

Concentration: The Ore was crushed in the Jaw Crusher
and Rolls until the gangue passed through a 16 mesh screen.
Seven (7) pounds of flake were caught on the screen.

The material through 16 mesh was sent to the
Flotation Machines and the products from the Machines
weighed and sampled.

The results were as follows:-

Flake obtained: Weight - 7.0 lbs.

Analysis - 88.04 % MoS_2.

Content - 6.1628 lbs. MoS_2.

Recovery of MoS_2 Values - 12.6 %.

Rougher Concentrates: Weight - 68.0 lbs.

Analysis - 54.65 % MoS_2.

Content - 37.1620 lbs. MoS_2.

Recovery of MoS_2 Values - 76.2 %.

Rougher Middlings: Weight - 83.0 lbs.

Analysis

Rougher Middlings: Weight - 83.0 lbs.

                      Analysis - 2.57 % MoS_2.

                      Content - 2.1331 lbs. MoS_2.

Percentage of MoS_2 Values- 4.4 % .

Tailings: Weight - 1109 lbs.

                      Analysis - 0.30 % MoS_2.

                      Content - 3.3270 lbs. MoS_2.

Loss of MoS_2 Values   - 6.8 % .

From the above products the Analysis of the Crude was calculated:-

    Total weight of Crude - 1267 pounds.

          Analysis   - 3.85 % MoS_2.

          Content   - 48.7849 lbs. MoS_2.

Conclusions: This grade of ore can very readily be con-centrated by Water Flotation from which a recovery of 88.8 % of the Molybdenite Values would be obtained. In the ord-inary Mill run of this ore the Rougher Concentrates are retreated to bring them up to over 80 % MoS2 grade and the Rougher Middlings as well as the Middlings obtained from the retreatment of the Rougher Concentrates are added to the Mill run. In this way only final Concentrates and Tailings are made. The Rougher Concentrates from this shipment were not retreated as there were such a small amount to treat satisfactorily and as it was understood that we would obtain a larger shipment to which they could be added.