ALL OFFICIAL CORRESPONDENCE
SHOULD BE ADDRESSED TO THE DIRECTOR.

DIVISION OF ORE DRESSING AND METALLURGY

G. C. MACKENZIE, B.SC., CHIEF OF DIVISION
W. B. TIMM, B.SC., 1ST ENGINEER
C. S. PARSONS, B.SC., 2ND ENGINEER
H. C. MABEE, B.SC., CHEMIST
R. J. TRAILL, ASST. CHEMIST
B. M. DERRY, MILLMAN

DEPARTMENT OF MINES
CANADA

MINES BRANCH

EUGENE HAANEL, PH. D.
Director.

OTTAWA, Ont., Sept. 30th, 191 8.

Report of Ore Dressing and Metallurgical Laboratories.

Test No.---101---

A shipment of Scheelite Ore was received on August 28th from Geo.A. Cameron, Eureka, N.S.

This shipment was contained in 31 canvas sacks.

Gross weight----------1075 pounds.

Net weight----------1067 pounds.

Sample weights---------- 4 pounds.

Net weight Treated------1063 pounds.

Analysis------WO_3--------40.47%

As-------- 3.06%

MoS_2------nil

Au--------nil

Ag--------nil

Pt.--------nil

Content-------WO_3-------430.1961 pounds.

As-------- 32.5278 pounds.

The scheelite occurs in a quartz gangue, associated with it is a small amount of pyrite and arsenopyrite.

Tests were conducted on this ore to obtain a commercial product, suitable for reduction to ferro-tungsten in an electric furnace.

The ore was crushed to pass 30 mesh and sampled. It was then run over a concentrating table, the middlings from the table being reground to 50 mesh and run over the table. The results of this concentration was as follows:-

Concentrates--------Weight-----644.5 pounds.

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Analysis-------WO_3------- 64.73%

As-------- 4.18%

Content--------WO_3--------417.1848 pounds.

As-------- 26.94 pounds.

%age of WO_3 Values------- 96.98%

Tailings -------Weight---------- 395 pounds.

Analysis-------WO_3------- 1.10%

Content--------WO_3------- 3.849 pounds.

%age of WO_3 Values------- 0.66%

Slime Loss------Weight---------- 58.5 pounds.

Analysis-------WO_3------- 17.08%

Content--------WO_3------- 10.1633 pounds.

%age of WO_3 Values------- 2.36%

Conclusions. - From the above ore, a concentrate of grade 64.73% WO_3 was obtained with a recovery of practically 97% of the WO_3 Values. 3% of the WO_3 Values was lost in Slime and in the Tailings.

The concentrate obtained carries 4.18% As. in the form of Arsenopyrite. This will necessitate Roasting of the Concentrate to eliminate the Arsenic in order to obtain a first class product.

(Sgd.) W. B. Timm