ALL OFFICIAL CORRESPONDENCE
SHOULD BE ADDRESSED TO THE DIRECTOR.
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DEPARTMENT OF MINES
CANADA

MINES BRANCH
EUGENE HAANEL, PH. D.
Director.

OTTAWA, December 31, 1920 191

REPORT
of the
ORE DRESSING AND METALLURGICAL LABORATORIES

Test No. 130

Ten barrells of crude magnesite, net weight 5849 pounds were received March 26, 1920, at the Ore Dressing and Metallurgical Laboratories from the North American Magnesite Company, Calumet, Quebec.

The magesite is a mixture of magnesite and dolomite, the magnesite predominating, the dolomite being present in sufficient quantity that the lime content of the crude makes it compare unfavourably with the Austrian and Greecian magnesites, or with that from the States of Washington and California.

The shipment received showed the following analysis:

CaO	12.85%
MgO	34.94%

Investigation is being carried on to obtain a separation of the lime from the magnesia and to obtain a product that will compare favourably with the foreign material.

A number of tests have been conducted by calcining the crude in a stack furnace at a temperature of from 950° C. to 1100° C., slacking the calcines with a moderate amount of water, and then classifying and washing the lime from the calcined magnesite.

The crude magnesite containing 13% CaO on being calcined gave 25% CaO in the calcines. The test work so far conducted shows that this can be reduced to 9% CaO in the magnesite product by classification and washing. These results, however, are

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much higher than desired, and further work is being carried on to improve the methods of calcining, as it is in this part of the operations upon which the success of the process will depend.