

Re: St. Josephs Claims,
Williams Lake.

There is no published information available on the St. Joseph magnesite property, nor has the property been examined by the Department of Mines. The ridge, however, on which the property is located was pointed out to one of our Engineers at one time and a cursory examination indicated that it was composed essentially of serpentized rocks of the Cache Creek series. It is not impossible that magnesite might be found in these rocks as a result of surface alteration.

For the manufacture of metallic magnesium high-quality magnesite is essential. No hard and fast specifications exist, but high purity is stipulated in all references. To be a source of metallic magnesium, therefore, the St. Joseph property must contain a large tonnage of pure magnesite. "Ferro-magnesite" mentioned in the accompanying letter must mean magnesite containing iron. For the manufacture of metallic magnesium iron is an impurity. It is impossible to comment on the deposit, however, without further information.

Cheap power is essential to produce metallic magnesium, in general about 10 KW-hr. being required for 1 lb. of metal. In other words, the possible manufacture of magnesium commercially implies a large source of cheap power. As an example production at the rate of 12,000 tons per year would need at least 50,000 H.P. On the other hand, magnesium may be produced from brines, sea water, magnesite, dolomite, brucite, etc. if power is cheap enough. In brief, the controlling factor in the economic production of magnesium is access to large amounts of cheap power. If this is possible in the Cariboo area then magnesium may be produced economically by the company in question, granted that their property contains sufficiently high-grade material and in sufficient amount. Without cheap power, however, either in the Cariboo or Vancouver, the proposition is uneconomic.

J.M.C.

93A157-01
PROPERTY FILE

6248/41.

September 3rd, 1941.

A.W. Haddock, Esq.,
Box 22,
Williams Lake, B.C.

Dear Sir:

Your letter of August 29th,
regarding "white powder" has been referred to
me for attention.

Qualitative tests indicate that
the material contains a considerable amount
of magnesium and a little lime, iron and alumina
and silica. It appears to be hydromagnesite.

I would appreciate further infor-
mation on this deposit - its size, approximate
location, etc. as well as a typical sample of
several pounds for further examination.

Yours very truly,

Associate Mining Engineer.

JMC/HG.

93A157-01

PROPERTY FILE

Benevolent & Protective Order of Elks

Cariboo Lodge No. 239

Office of Chief Mining Engineer

Rec'd. SEP 17 1941

Referred to _____

Ans'd. _____

6640



WILLIAMS LAKE,

Cariboo, British Columbia

J. M. Lanning Esq. Sept 10th 1941
Victoria B.C.

Dear Sir,

Replying to your letter of
Sept 3rd re white powder containing
Magnesium.

It is located about 6 miles south
of this town and about $\frac{3}{4}$ mile west
of T. V. E. Railway. There is an unlimited
quantity of the Magnesite rock and
the cracks are all full of the white
powder. I will send you several pounds
of the powder first time I go down it
has been raining here for days.

I am mailing under separate cover today
sample from another locality please let
me know amount Magnesium.

M. C. 28502-EP PROPERTY FILE

93A157-01

Yours Truly
C. W. Hadd