

Box 11

103-J.2

REPORT
ON
PATTERSON IRON DEPOSIT
Porcher Island, B.C.

=====
December 1956

MINING DIVISION

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ENGINEER

PATTERSON IRON

The following report is based on several days work in the area between November 9th and 19th, 1956, by F.T. Russell, S. Bridcut, and the writer.

NAME: Patterson Iron Prospect

OWNER: St. Eugene Mining Corp. through agreement with
F.W. Patterson of Vancouver.

LOCATION AND ACCESS:

The property is located near the south shore of Porcher Inlet, Porcher Island, about 2 miles from its head, and is about 26 miles south of Prince Rupert. It may be reached by F.W.A. charter from Rupert or by a roundabout boat trip involving more than twice the distance.

The area of interest includes a section at least 2 miles square with elevations ranging from sea level to the top of a small hill approximately 1,500 ft. in elevation (See Map enclosed). Except for the shoreline and creek cuts, more than 95% of the area is overburden. In this wet and windy region the small muskegs and scrub timber characteristic of the north coast islands is widespread.

Porcher Inlet affords a good harbour. Suitable timber is available near the beach and along creek bottoms. Some hand logging has taken place here in the past. The nearest settlement at present is Hunts Inlet on the coast about 8 miles north from where a trail leads to a cabin on Porcher Inlet.

ORE: Magnetite.

PROPERTY AND HISTORY:

Magnetite-bearing basic rocks were noted here by Frank Patterson while on a prospecting trip about 30 (?) years ago and recently reported to us. No development work or detailed prospecting has been done. Our examination and claim staking were carried out following an agreement with Patterson.

Twelve claims were located to cover the only showings of basic rock noted although a much larger area of the same material is no doubt present. Snow at the higher elevations covered any small outcrops which could be present.

GEOLOGY:

The area in question, which runs inland at least several miles from the south shore of the prominent north bend of Porcher Inlet, is composed of a banded complex of igneous rock ranging from diorite to gabbro and hornblendite. This is probably of Juro-Cretaceous Age. Minor metasediments are present.

The complex in general strikes northerly and dips moderately to steeply east. Local reversals were noted. This structural trend is cut obliquely by Basic Creek which may mark a fault or other structural feature.

The grain size of the relatively fresh, basic rocks is notably large. Crystals over an inch in diameter were seen in several 25 - 50 ft. wide bands of hornblendite aggregate.

The commonest rock present has a composition between a coarse grained hornblende diorite and a gabbro with some pyroxene believed present.

Small scattered gobs of lustrous magnetite up to $\frac{1}{2}$ inch wide are present in the hornblende-rich rock and appear to be left over from the original crystallization and solidification process rather than originating as later injections or alteration products. The surface of this iron-rich rock weathers slightly rusty as pyrite is often present in amounts nearly equal the magnetite. Rarely chalcopyrite is present.

ASSAYS AND RESERVES:

Two assays were made on the best material found in our traverse of the beach, creek bottoms, and hill exposures and the results were as follows:

	Au	Ag	Total Iron %	Acid Sol. Iron %	Sulphur %	TiO ₂ %	Cobalt %
#786	Tr	Tr	10.6	7.0	0.07	1.4	Tr
#787	Tr	Tr	10.8	6.3	0.41	1.5	
#788	Tr	Tr					
#789	Tr	Tr					

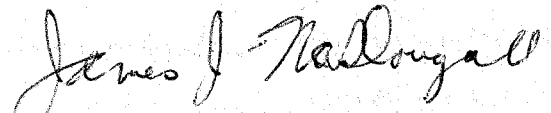
#786 is a composite of the highest grade material found as float. #787 is a grab sample taken across a 20 foot band of the best material exposed on the beach. #788 and 89 are from chalcopyrite-bearing quartz veins discovered during our traverses.

CONCLUSIONS AND RECOMMENDATIONS:

During three days spent prospecting the property we were unable to find indications (float or otherwise) of higher grade material than that assayed. The amount of acid soluble iron (magnetite) is only 25 - 50%

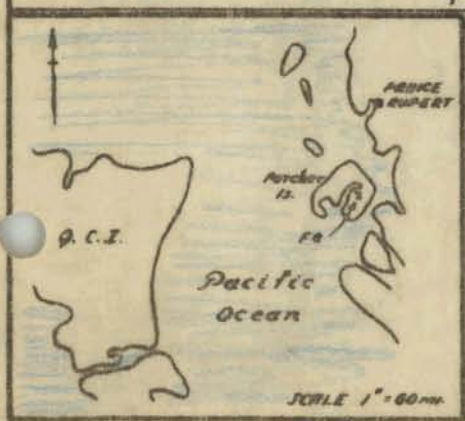
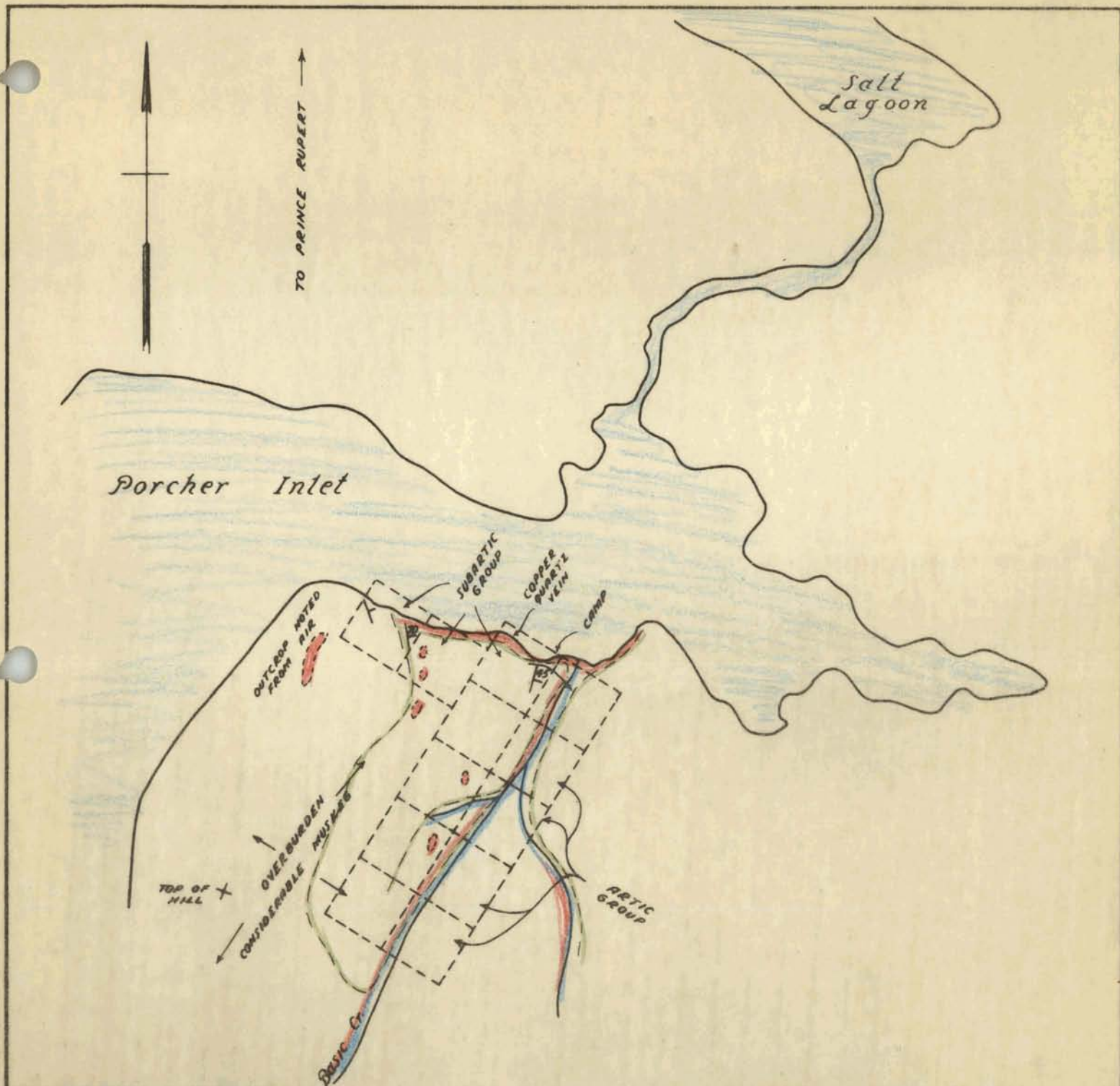
of that required to make a deposit of commercial grade.

As so much basic rock is present, the area must still be regarded as favorable prospecting ground for low grade iron deposits and there is a possibility that higher grade segregations are present. During better weather several days could advantageously be spent prospecting with the help of a boat.



**James J. McDougall, Geologist,
St. Eugene Mining Corp.**

December 10, 1956.



MAP SHOWING LOCATION
 — of —
PATTERSON IRON CLAIMS
PORCHER ISLAND

BASIC ROCK EXPOSURES IN RED
 TRAVERSES SHOWN IN GREEN
 SCALE APPROX 1" = 3000'

J. Mc DOUGALL
 F. RUSSELL
 NOV. 1956.