

MORSEBY MINES LTD.

(Non-Personal Liability)

Prospectus

September 20, 1965

103C 004-05
PROPERTY FILE



NOTES

1. 4 staked mineral claims were obtained by the issuance of shares to Bardale Mining & Development Ltd.
2. By agreement dated August 17th, 1965 the Company was assigned the rights under an option agreement to 5 mineral claims in the Skeena Mining division. The agreement requires that \$5,000.00 be expended on work suitable for assessment work purposes by October 31st, 1965. The next payment under the option agreement is due on October 31st, 1965 in the amount of \$2,000.00. If the option agreement is cancelled or abandoned all adjacent grounds staked by the Company revert to the vendors.

REPORT ON THE GARNET AND RUBY CLAIM GROUPS
TASU SOUND AREA OF MORESBY ISLAND, Q. C. I.
SKEENA MINING DIVISION OF B. C.

INTRODUCTION

This report covers the examination of the mineral occurrences on the Garnet and Ruby claim groups located in the Tasu Sound Area of Moresby Island, Q. C. I. in the Skeena Mining Division of British Columbia.

The examination was made by the writer on October 17th and 18th, 1964, accompanied by Mr. Ralph Wolverton of Christina Lake, B. C. who originally staked and prospected the claims in 1953, and Mr. R. Dale, President of Bardale Mining & Development Ltd. and at whose request the examination was made.

LOCATION

The property consists of five claims located on the North-West corner of the peninsular of land running into Tasu Sound and bounded by Fairfax Inlet to the West, and Botany Inlet to the East. Tasu Sound lies at about Lat. 52° 45' N on the West coast of Moresby Island, Q. C. I. (See Location Plan accompanying this report).

The names and record numbers of the claims held are as follows:

<u>NAME</u>	<u>RECORD NO.</u>
Ruby #1	15220
Ruby #2	15221
Ruby #3	15222
Garnet #1	15223
Garnet #2	15224

ACCESS

The property is accessible by both sea and air. B. C. Air Lines run a charter plane service to Tasu Sound from either Sandspit or Charlotte City, the flying time being about 25 minutes. By sea the distance is roughly fifty miles from Charlotte City to Tasu Sound via Skidegate Channel. Tasu Sound is sheltered in all directions, and the marine charts show ample depth of water to accommodate large vessels to within a short distance of most of the shoreline.

Wesfrob Mines Ltd. who are opening up a large magnetite deposit directly across Fairfax Inlet from the Ruby and Garnet group are in the process of constructing a road from Sewell Inlet on the East coast to the head of Newcombe Inlet, with terminal wharves at each end. This will enable supplies to be shipped to Tasu by barge via the more sheltered East coast of the Island, as there are times when gales make the west coast route

impassable except to large vessels

TOPOGRAPHY AND CLIMATE

The penninsular on which the claims are situated consists of a ridge rising to about 900 feet of elevation. The West side rises steeply at between 30 to 40 degrees from almost vertical rocks along the shoreline, but to the East, and North-East, the slope is more gradual. No beaches were noted except in a small cove on the East side. This might serve as a boat landing site for the preliminary exploration.

The climate of the region is fairly wet but mild, the average annual rainfall being about 60 inches, but freezing weather is rare, and total annual snowfall averages about 8 inches. The severe gales which are common during the fall and winter months do not unduly affect the waters of Tasu Inlet, as there is only a narrow channel leading to the open sea.

HISTORY OF THE PROPERTY

The property was originally staked by Mr. Ralph Wolverton in July 1953 for the Consolidated Mining and Smelting Co. Ltd. During the summer of 1953 and 1954 some prospecting and regional mapping was done, and a transit traverse was run across the claims to tie in the principal mineral showings. A number of samples were taken from the mineral outcrops and float material. The following is quoted from an engineering report by Consolidated Mining & Smelting dated August 10, 1953.

"The timber and overburden is very effective cover, and the majority of the ore mineral occurrences have been found in drift material. These include spectacular chalcopyrite - sphalerite, and chalcopyrite - magnetite specimens. Banded magnetite in skarn is exposed in place running 0.20 oz. of Au. per ton with 48% Fe and 2.0% Cu. The chalcopyrite-sphalerite samples taken from large boulders run up to 40% Zn. and up to 14% Cu. with 0.10 oz/ton of Au."

REGIONAL GEOLOGY

No detailed geological mapping has been done on the ground covered by the claim area, but some preliminary mapping was done by Consolidated Mining and Smelting Co. Ltd. in 1953, and the southern end of Moresby Island was mapped by A. Sutherland Brown and W. G. Jeffery in 1960 and described in "Notes on the Geology of the Southern Queen Charlotte Islands". The following summary was obtained from these sources together with information from the geological description of the Wesfrob property as given in the Minister of Mines reports for 1961 and 1963.

The claims lie to the East of an intrusion of quartz diorite forming part of the San Cristobal batholith. The oldest rocks in the area

About 400 feet North of Station #9, at Station #12, surface trenching has exposed a wide zone of massive sphalerite with pyrite and chalcopyrite in altered limestone. This zone strikes roughly N. 55E., dips about 60 degrees to the East, and can be traced for about 500 feet up the slope. The uppermost exposure is at an elevation of about 600 feet and is over 80 feet in width. The lower end, at Station #12, was measured at 65 feet in width, including a 12 foot 'horse' of limestone. Overburden obscures the continuations of this zone at both ends. Grab and chip samples were taken across the width of the exposures at both ends, the positions of the samples being shown on the map.

	<u>Au.</u> <u>oz. /ton</u>	<u>Ag.</u> <u>oz. /ton</u>	<u>Cu.%</u>	<u>Zn.%</u>	<u>Pb.%</u>	<u>Fe.%</u>
#6161- width 80'+	0.02	2.60	2.30	12.05	0.10	12.40
#6162- width 65'	0.005	0.65	0.35	7.75	0.20	19.20

Farther to the North-East between Stations #20 and #24, there are a number of old pits and prospect trenches, exposing both magnetite-copper, and zinc-copper mineralization. As there was much surface oxidation, and the pits were not extensive, it was not possible to determine the structural relationship of these showings, but the magnetite-copper mineralization appears to be principally in the greenstones, while the zinc-copper showing is on the contact zone between the greenstone and the limestone. Several chip samples were taken from different exposures of mineralization, the approximate positions of the samples being shown on the accompanying map. The assay results are as given below.

	<u>Au.</u> <u>oz. /ton</u>	<u>Ag.</u> <u>oz. /ton</u>	<u>Cu.%</u>	<u>Pb.%</u>	<u>Zn.%</u>	<u>Fe.%</u>
#6164	0.03	Tr.	11.60	0.25	0.05	49.20
#6167	0.01	2.00	0.80	0.10	Tr.	42.40
#6168	0.01	1.85	1.15	0.20	Tr.	50.40
#6169	Tr.	2.15	0.30	Tr.	4.80	

About two hundred feet directly South of Station #21 there is a long, North-South trending band of sphalerite mineralization in limestone. The average width of the exposure is 4 feet. A representative chip sample was taken along the exposed width, which assayed as follows:

	<u>Au.</u> <u>oz. /ton</u>	<u>Ag.</u> <u>oz. /ton</u>	<u>Cu.%</u>	<u>Pb.%</u>	<u>Zn.%</u>	<u>Fe.%</u>
#6166	Tr.	0.90	0.17	0.05	7.25	9.20

Previous sampling by Consolidated Mining and Smelting Co. Ltd. over the same showing resulted in an average of 8.0% Zn. over a width of 4 feet.

In the center of the Garnet #1 claim at an elevation of between

are greenstone volcanics of Upper Triassic or earlier age. These volcanics are overlain conformably by massive and thin bedded limestones and argillites of the Kunga formation of late Triassic age. As provisionally mapped by Consolidated Mining and Smelting Co. Ltd., these limestones form a lenticular body covering the eastern halves of the Garnet #1 and #2 claims, and is bounded by the greenstones. There are a number of diorite dikes of a later age which cut both the limestones and greenstone volcanics. Apart from the main limestone body, there is a small band of limestone occurring on the beach at the north-west corner of the penninsular.

In 1959, the B. C. Department of Mines flew an air borne Magnetometer Survey of Moresby Island. This survey indicated several strong magnetic anomalies in the Tasu Inlet area, three of which are marked A, B, and C on the section of the map which accompanies this report.

It will be noted that anomaly 'A' lies over the area of magnetite orebodies now being developed by Wesfrob Mines Ltd. while anomaly 'B' lies in the general area of magnetite occurrences on the Ruby and Garnet group. Anomaly 'C' lies outside the claim area, in a zone so far unprospected, and could indicate another magnetite occurrence.

DESCRIPTION OF THE PROPERTY

A landing was made by dinghy on the West side of the penninsular near survey Station #3 (see enclosed map.) Here a rock slide comes down to the water and forms the only landing place on this side, as the remainder of the shoreline is an almost vertical rock face rising fifteen to twenty feet above the water. The rock slide rises steeply, and reaches an elevation of 350 feet in a horizontal distance of about 500 feet. A trail has been cut along one side and across the slide, and roughly follows the line of survey stations shown on the map. Considerable magnetite associated with limestone and skarn was noted as float material in the slide rock.

The first mineral showing examined consisted of massive magnetite with some pyrite and chalcopyrite which occurs near station #9. The outcroppings are visible over a considerable area and along the face of the bluff which is at the head of the rock slide. The outcrops appear to be within the greenstone volcanics, but may extend into the limestones. A representative sample chipped from various parts of the outcropping assayed as follows.

	<u>Au. oz/ton</u>	<u>Ag. oz/ton</u>	<u>Cu. %</u>	<u>Fe %</u>
#6163	0.01	1.50	0.05	62.40

Previous sampling in this area by Consolidated Mining & Smelting indicated a zone of mineralization 500 x 20 feet assaying Au. 0.20 oz./ton, Cu. 2.1%, Fe. 48%.

850 and 900 feet there are some large outcroppings of massive sphalerite intermixed with limestone. The most predominant showing is at Station #31, and measured 95 feet in width. A grab sample of representative material was taken from various parts of the outcrop assayed: -

	<u>Au. oz./ton</u>	<u>Ag. oz. /ton</u>	<u>Cu. %</u>	<u>Pb. %</u>	<u>Zn. %</u>
#6165	Tr.	0.25	0.35	0.08	8.30

Float mineral is evident over a large area, both to the South, and down the slope to the East.

One additional mineral showing was sampled at Station #18. Here, a large bench of magnetite interbanded with limestone is exposed, and appears to be overlain by greenstone. This however is probably due to an overthrust of the North-South fault indicated on the map. A grab sample from this outcrop assayed: -

	<u>Au. oz./ton</u>	<u>Ag. oz. /ton</u>	<u>Cu. %</u>	<u>Fe. %</u>
#6160	0.01	1.05	Tr.	60.40

To the South, near the boundary of the Garnet #1 and Tommy claims, an outcrop of very high grade copper-zinc mineralization has been reported, and considerable high grade float. There was not sufficient time to examine these showings during the recent visit to the property, but an assay of float taken by Consolidated Mining and Smelting Co. Ltd. ran 0.01 oz. Au. /ton, 13.6% Cu. and 34.3% Zn.

SUMMARY AND CONCLUSIONS

1. In the area examined there are two general types of mineralization.
 - (a) Massive magnetite, with minor gold and silver, and varying amounts of pyrite-chalcopyrite associated mainly with the greenstone volcanics, but also in the limestones.
 - (b) Massive sphalerite with varying amounts of chalcopyrite and minor gold-silver values associated with limestone, and running roughly parallel to and near the limestone-greenstone contact.
2. Prospecting of the area is far from complete, and the overburden and timber obscure most of the underlying rock formation, but the widths and extent of the few outcroppings exposed suggest the possibility of very substantial tonnages of both copper-iron and copper-zinc ore. In support of this, it should be noted that Wesfrob Mines Ltd. are preparing for production an orebody estimated to contain forty million tons of magnetite-chalcopyrite ore in an area of similar geology directly across Fairfax Inlet from the Ruby and Garnet group.
3. The property is advantageously located in sheltered waters,

but accessible to deep water shipping, allowing direct loading of concentrates to overseas markets without re-handling.

4. This is a property of merit, and warrants an extensive exploration program to be carried out as outlined below under Recommendations.

RECOMMENDATIONS

1. Initial efforts should be aimed to determine the size, potential and relationship of all the presently known mineral occurrences. This should be followed by more detailed exploration of both the zinc-copper and iron-copper deposits, with the former given priority.

2. To achieve 1., the following work will be required in the early stages:

(a) A camp should be established and reconnaissance trails cut to connect all known mineral **showings on the property.**

(b) The exposed showings should be trenched by drilling and blasting to determine their full width and provide fresh surfaces for accurate sampling.

(c) Bulldozer stripping of the overburden is required along the strike of the mineral occurrences, and to determine the source of high grade copper-zinc float.

(d) Detailed geological mapping of all rock structures and mineral exposures should be carried out concurrently with (b) and (c).

3. On completion of the above work, a program of diamond drilling can be laid out to test the mineralization at depth.

4. Some additional claims should be staked around the block to protect the North-West foreshore and southern boundaries. These claims are shown in dotted line on the location map. In addition, should the ground presently held by other parties to the East and North-East of the Ruby and Garnet claims become open, it is recommended that this area should be staked from the claim boundaries to the East and North-East shoreline.

November, 1964.

J. P. Elwell, P. Eng.
Consulting Mining Engineer.

August 3rd, 1965.

Moresby Mines Ltd. (N. P. L.)
Suite 625,
925 West Georgia Street,
Vancouver 1, B. C.

Dear Sirs:

This letter may be considered as an addenda to my report on the Ruby and Garnet Claim Groups, Tasu Sound Area of Moresby Island, Q. C. I. , in the Skeena Mining Division of B. C. dated 9th November, 1964.

The following is an estimate of the cost of carrying out the initial phases of exploration on the property as outlined in the above mentioned report under "Recommendations".

1. Establishment of exploration camp and purchase of necessary tools, materials, and supplies-----	\$ 6,000.00
2. Trenching and sampling of all mineral exposures (labor and materials)-----	6,000.00
3. Construction of rough access road from beach to principal mineral out cropping, and additional bulldozer stripping of showings-----	8,000.00
4. Geological mapping and surveying (salaries & maintenance)-----	2,000.00
5. Initial diamond drilling on property (3,000 feet @ \$10.00 per foot, all inclusive)-----	30,000.00
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Total	\$ 52,000.00

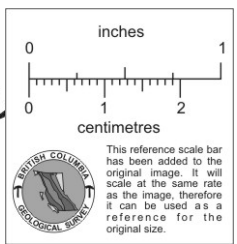
Estimates of future expenditures justified on the property will be made on completion of the initial work, and assessment of the results.

Yours very truly,

J. P. Elwell, P. Eng.
Consulting Mining Engineer.



B.C. DEPT. OF MINES.
AIRBORNE MAGNETOMETER SURVEY
TASU INLET, Q.C.I.
From Map AM-59-1, 1960
Scale ~ 1" = 4200' (approx.)



This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

CERTIFICATE

I, JAMES PAUL ELWELL, of 4744 Caulfeild Drive West Vancouver, B. C., do hereby certify that:

1. I am a Consulting Mining Engineer residing at 4744 Caulfeild Drive, West Vancouver, B. C. and with an office at 929 - 510 W. Hastings Street, Vancouver, B. C.
2. I am a graduate in Mining Engineering from the University of Alberta in 1940, and am a Registered Professional Engineer in the Province of British Columbia.
3. I have no personal interest, direct or indirect, in the Properties examined or in Bardale Mining and Development Ltd.
4. The findings in the report are the result of a personal examination of the property made by me on October 17th and 18th, 1964, and from information obtained from government publications.

DATED at Vancouver, B. C., this 9th day of November, 1964.

James P. Elwell, P. Eng.