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PRELIMINARY GEOLOGICAL EVALUATION
AND EXPLORATION PROPOSAL
FOR THE
GRANBY POINT AREA, BRITISH COLUMBIA

NTS 103 P5

for

PROSPECTORS AIRWAYS CO. LTD.

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SUMMARY

Prospectors Airways holds 15 claims with 72 units, covering the 7 kilometre length of Granby Peninsula, in the old Anyox mining camp of British Columbia. The property is located on tidewater, 25 kilometres by water or overland from road access and the nearest power substation at Alice Arm. This block of claims is one of two large contiguous areas acquired by Prospectors Airways, and adjoins a third area held jointly by Cominco Ltd. and Prospectors Airways Ltd. The Granby Peninsula property lies 1 kilometer east of the abandoned mining and smelting complex at Anyox.

The property has demonstrated potential for vein-type gold mineralization, most of which would be amenable to inexpensive room-and-pillar mining. Five abandoned mines, developed prior to 1934 to furnish the Anyox complex with silica flux, are found on the property. At least three (the Granby Point, Reserve and Goldleaf) are known to contain significant gold and silver mineralization. The Granby point and Reserve mines are known to have produced 135,000 tons of flux averaging 0.065 oz/ton Au and 2.5 oz/ton Ag between 1915 and 1938. * Recent sampling by Prospectors airways has revealed values up to 6.62 oz/ton Au and 55.7 oz/ton Ag over 3 feet in the pillars of the mine. Recent drilling has located the extension of the flat-lying Granby Point vein system south of the mine, and in between the mine and the Reserve deposit. * Approximately 4 tons of hand cobbled ore, grading 9.72 oz/ton Au and 3.33 oz/ton Ag was taken from the Goldleaf vein in 1938. Between 1925 and 1928, 31,400 tons of flux, grading 0.084 oz/ton Au and 0.52 oz/ton Ag were recovered from the Goldkeish mine.

Reconnaissance surveying by Burton Consulting Inc. confirmed the presence of veins similar to the Granby Point and Reserve systems throughout the 7 kilometer length of the peninsula. None of these appear to have been systematically explored.

The property also has significant potential for vein-type Mo-Au and porphyry-type Mo mineralization in the Moly May stock, which underlies the southern portion of the property. Values of up to 0.582 oz/ton Au and 0.20 oz/ton Ag have been obtained by a variety of geologists from the various showings in the stock. * Surface sample values of up to 0.262% Mo over 7 metres were obtained by Enfield Resources in their limited 1981-82 survey of the Moly May area. Up to 12.7% MoS₂ has been obtained in chip samples across the Moly Mack mineralization.

An exploration program involving mapping, structural analysis, metallogenic study and diamond drilling (15,000 feet, 75 short holes) is highly recommended to further evaluate the potential of the property. A total budget of \$ 2,045,505 is recommended for this program.

INTRODUCTION

Prospectors Airways Co. Ltd. (formerly Timothy Mountain Explorations Ltd.) holds 15 claims, with 72 units, in three groups, covering the seven kilometre length of Granby Peninsula, in the Anyox area of British Columbia. These claims have demonstrated potential for vein-type gold mineralization (e.g., the former Granby Point, Reserve, Goldleaf, Groundhog and Goldkeish silica mines) as well as vein-type Mo-Au and porphyry - type Mo mineralization in the Moly May intrusion.

This report characterizes the various showings present and outlines an exploration program that will lead to their further valuation. It is based on visits to the property by both authors at various times in 1986, 1987 and early 1988.

PROPERTY DESCRIPTION, LOCATION AND ACCESS

The Prospectors Airways property is located at latitude 55° 20' N to 55° 25' N, and longitude 129° 48' W, in NTS area 103 P5. It comprises a series of old Reverted Crown Grant Mineral Claims and Metric Mineral Claims, in three groups (maps 1, 2, 3):

North Group

name	lot no.	record no.	due
Beaver	3895	5067 (1)	1990
Lost Rocker	1078	5068 (1)	"
Lady Isaac Fr.	1533	5066 (1)	"
Tiger	1532	5066 (1)	"

Peninsula Group

Quartz #1	1535	4745 (2)	1992
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Quartz #1 Fr.	3587	4745 (2)	"
Quartz #2	1536	4746 (2)	"
Quartz #4	1679	4747 (2)	"
Quartz #5	1680	4748 (2)	"
Quartz #6 (metric)	2 units	5069 (1)	1997
Quartz #7 (metric)	2 units	5070 (1)	"
Goldie	20 units	5110 (1)	"

South Group

Beatrice	1 unit	2937 (4)	1993
Moly May	8 units	2936 (4)	"
Moly Fr. 1	4 units	2938 (4)	"
Moly May 2	8 units	3135 (7)	"
Moly May 3	20 units	3136 (7)	"
Total	72 units		

The Granby property is one of two large contiguous areas held by Prospectors Airways in the old Anyox mining camp, and adjoins a third area which is held jointly by Prospectors Airways and Cominco Ltd.

The property is located on tidewater, approximately 130 kilometres north of Prince Rupert. The nearest road is located at Alice Arm 25 kilometres to the east, and leads to the provincial highway system through Terrace. The nearest power substation is located at the former Kitsault mine, on the outskirts of Alice Arm. The property lies 1 kilometer east of the abandoned mine and smelter town of Anyox.

The topography of Granby Peninsula property is moderate, as is the weather. The property is characterized by relatively good rock exposure, which is covered by new tree growth and low shrubbery.

PREVIOUS WORK

a) Vein - hosted Au - Ag mineralization.

Silica flux was mined at various locations on Granby Peninsula until the closure of the Anyox mine and smelter in 1934. Mining was carried out at five principal sites -- the Granby Point, Reserve, Groundhog Goldleaf and Goldkeish deposits. It is evident that gold was an important by-product of these silica mining operations. For example, it is known that approximately 135,000 tons of flux averaging 0.065 oz/ton Au and 2.5 oz/ton Ag, were mined from the Granby Point and Reserve mines between 1915 and 1938 (e.g., Burton, 1987). Approximately 62,000 tons grading 0.092 oz/ton Au and 3.1 oz/ton Ag were mined from the Granby Point mine alone between 1917 and 1938. Detailed sampling by the B.C. Ministry of Mines in the Granby Point mine in 1933 revealed gold values in the pillars ranging from 0.25 oz/ton to more than 1 oz/ton.

Mining of the horizontally - oriented Granby Point and Reserve veins was carried out by means of the room and pillar method. It is evident that mining was confined to a distance of about 800 feet from the shoreline in all cases, this being the distance over which the manual mining and ore transport methods used in the four mines were thought to be cost - effective.

The Granby Point mine has recently been resampled by Prospectors Airways. Grab sample values typified by the following were obtained from the pillars which remain in the mine:

sample 12055 - 1.79 oz/ton Ag, 0.024 oz/ton Au

sample 12054 - 1.05 oz/ton Ag, 0.077 oz/ton Au

sample 12057 - 4.07 oz/ton Ag, 0.056 oz/ton Au

One continuous chip sample from the mine (# 12053) yielded 6.62 oz/ton Au and 55.7 oz/ton Ag over 3 feet. Over 5000 feet of diamond drilling was done by Prospectors Airways in early 1988 between the Granby Point and Reserve mines, and to the south of the Granby Point mine. Extensions of the horizontal sulphide-bearing quartz veins found in the two mines were encountered in most of the holes drilled; assays from these holes had not been received at the time of writing. *

Three other apparently auriferous silica flux deposits exist at the south end of Granby Peninsula, the Groundhog, Goldleaf and Goldkeish "mines". Little data has so far been located for these two occurrences, nor has any recent sampling been done. However, it is known that 3.9 tons of hand cobbled ore, grading 9.72 oz/ton Au and 3.33 oz/ton Ag, was recovered from the Goldleaf deposit in 1938 (Selby, 1939). It is also known that 31,400 tons of ore, grading 0.084 oz/ton Au and 0.52 oz/ton Ag were recovered from the Goldkeish mine during the period 1925 to 1928 (B.C. Dept. Mines, 1925, ,1926, 1927, 1928). *

There is no evidence of recent exploration at any of the flux mines on the property, or at any of the abundant similar veins found inland on the peninsula.

b) Granite-hosted Mo and Au mineralization

The mineralized Moly May intrusive underlies the southern part of the Granby Peninsula property. The intrusive has been prospected intermittantly over the years, but the only exploration program known

to us was carried out by Enfield Resources in 1981-82. Enfield carried out geological and geochemical surveys, and limited (and poorly located) diamond drilling. Surface samples taken during the Enfield program were typified by the following assays (Burton, 1987, 1988):

- Showing A (West Zone) - 0.155% Mo over 10 metres
- Showing B (West Zone) - 0.262% Mo over 7 metres
- Showing C (West Zone) - 115 ppm Mo over 25 metres
- Showing E 1 (East Zone) - .254% Mo over 5 metres
- Showing E 2 (East Zone) - 14 ppm Mo
- Showing E 3 (East Zone) - 145 ppm Mo over 5 metres
- Showing E 4 (East Zone) - 0.194% Mo over 6 metres

Precious metal values from grab samples, ranging from 0.01 oz/ton Ag and 0.002 oz/ton Au to 0.20 oz/ton Ag and 0.582 oz/ton Au have been obtained from the the Moly May intrusive by various geologists since 1982 (Burton, 1988). *

Four major showings occur in the intrusive, the Moly May South, Moly May East, Moly May West, and Moly Mack. Although little information has so far been located for any of these, it is known that a chip sample from a 4' x 10' mineralized zone at the Moly Mack showing graded 12.7% MoS₂ (B.C. Dept. Mines, 1965). Enfield Resources considered the known mineralization in the intrusive to define two main zones, encompassed by an altered and sulphide-bearing zone 3000 feet long and 1500 feet wide (Enfield Resources, 1982).

GEOLOGY AND MINERALIZATION

From Burton (1987), it is noted that " the oldest rocks in the area are

Lower Jurassic, Hazelton Group, mainly submarine, basaltic flows. These rocks are overlain by middle Jurassic, Hazelton Group sediments consisting of siltstone, greywacke and sandstone. These rocks have been intruded by granodiorites of the Coast Plutonic Complex. All of the above are cut by Tertiary quartz monzonites of the Alice Arm type intrusives." Narrow, late-stage dykes with a wide range of compositions are common in the Anyox - Alice Arm - Stewart area.

The Granby property itself is characterized for the most part by folded and faulted argillite, greywacke and the Moly May quartz monzonite. The characteristics of the two main types of mineralization found in these rocks is described below.

a) Vein - hosted Au - Ag mineralization

Much of the existing knowledge about this type of mineralization on the peninsula reflects scattered data for the Granby Point and Reserve mines. However similar, and apparently unexplored, veins can be observed over the entire 7 kilometre length of the peninsula.

Quartz veining at the Granby Point and Reserve mines is hosted by argillite. Horizontal stacked veins, ranging from 1 to 15 feet in thickness, and constituting mineralized zones up to 30 feet thick, comprise the ore at the two mines. Less concentrated masses of veins extend from the main mineralized zones into the relatively thin (30 to 50 foot thick) argillite cover.

Although much of the vein mineralization at the two old mines is sub-horizontal, and is therefore amenable to inexpensive room-and-pillar mining methods, local changes in vein orientations are evident, as are

the presence of oblique vein systems of uncertain metalliferous character. Steeply inclined veins are noted to the south of the Granby Point mine and elsewhere on the peninsula, and may reflect either the regional structural complexity or the presence of the secondary oblique vein set.

The known veins consist of a central core of white, and apparently gold-poor quartz. Scattered concentrations of pyrrhotite, pyrite, sphalerite, galena, chalcopyrite and arsenopyrite occur near the hanging and footwalls and near argillitic inclusions within the veins. There appears to be a close correlation between sulphide mineralization and precious metal values. There is also some indication that the argillaceous walls around the veins and the thin veins in the argillaceous cover rocks may also be locally mineralized.

It is postulated that the auriferous veins are either syn-metamorphic Meguma/Carolina Slate Belt-type veins, or distal hydrothermal phenomena related to the nearby Anyox massive sulphur copper ore bodies or to the Moly May quartz monzonite.

b) Granite - hosted Mo and Au mineralization.

The mineralized Moly May intrusive is a zoned quartz monzonite. From his investigations, Burton (1988) concluded that significant potential exists in the vicinity of the stock for both vein-type Mo-Au mineralization and classic, large tonnage, low grade porphyry-type Mo mineralization.

It is postulated that the Moly May mineralization is similar in character and age to other deposits related to the Alice Arm

granitoids, such as Climax Molybdenum's Kitsault deposit 25 kilometres ×
to the east and the Quartz Hill deposit, 50 kilometres to the west.
At Kitsault, vein and porphyry-type Mo mineralization is cut by late-
stage Cu-Zn-Pb-sulphosalt veins that have apparently not been evaluated
for gold (Steininger, 1985). If the Moly May deposits are
paragenetically similar, gold may be restricted to late-stage veins,
and there may be a link between these and the argillite-hosted
auriferous veins.

CONCLUSIONS

It is our opinion that excellent potential exists on Prospectors
Airways Granby Peninsula ground for economic argillite-hosted quartz
vein-type gold mineralization. The past record of room-and-pillar
exploitation and the proximity of the mineralized veins to both tide
water and road access indicates that low cost mining is possible. The
fact that recent drilling has extended the vein systems around the
Granby Point and Reserve mines, and that mineralized, but essentially
unexplored veins similar to those found at the mines are present over
the 7 kilometer length of Granby Peninsula, suggests that a substantial
reserve base for future exploitation may exist on the property.

The Moly May stock has excellent potential for either low tonnage high
grade Mo-Au mineralization or high tonnage low grade Mo mineralization.
Previous exploration in the area of the intrusion has been preliminary
in nature.

Neither the quartz vein-type gold mineralization or the mineralization
associated with the Moly May intrusive has been systematically

evaluated. A thorough program of mapping, metallogenic analysis and diamond drilling is highly recommended.

PROPOSED 1988-89 EXPLORATION PROGRAM

Work is clearly required to distinguish between the mineralized and barren vein systems on the Granby Peninsula property, and to inventorize the former. An in-depth evaluation of the structural, stratigraphic and metallogenic controls on the mineralized veins is proposed in this regard. This work will be integrated into an overall program, which will include the following elements:

- i) Line cutting and ground magnetometer surveying
- ii) Enhancement of the ground magnetometer data. The production of second derivative, shadow and downward-continued enhanced magnetic maps will aid in the structural mapping of the property, and in the definition of drill targets.
- iii) Lithological and structural mapping of Granby Peninsula (scale 1:10,000). This will establish the overall geological context of the deformed sedimentary package on the peninsula, and will lead to the structural characterization of barren versus auriferous argillite-hosted veins. As the richest and most easily mined Meguma-type vein deposits can be expected to form in the hinge zones of folds, the structural models developed will be particularly applicable to the definition of drill targets in previously untested areas on the property.
- iv) Lithological, structural and alteration mapping of the Moly May

intrusion (scale 1:2000). This will establish the distribution of Mo-Au veins and of disseminated Mo mineralization, establish temporal relationships between mineralizing events, and isolate zones of alteration and/or mineralization suitable for drilling.

v) Prospecting and sampling of all veins and mineralization on the property.

vi) Geochemical analysis, including trace metal, fluid inclusion and isotopic analysis. Since mineralized quartz veins are often associated with hydrothermal fluids of particular chemical character, an orientation fluid inclusion and stable isotope study will be carried out as a means of chemically characterizing barren and mineralized veins, characterizing the origin of mineralized veins, and defining the genetic relationship between various vein systems. Such studies may also lead to the identification of fluid evolution and fluid pathways (i.e., source versus depositional sites), which is data that can also help in the selection of drill targets.

vii) Silica resource appraisal of the quartz vein systems

viii) Diamond drilling. A total of 15,000 feet (75 short holes) of diamond drilling is proposed for the property

PERSONNEL AND WORK SCHEDULE

It is proposed that all line cutting, geophysical surveying, camp preparation, diamond drilling and all support services be provided for the project by Pacific Geo-Roc Explorations Ltd.

It is also proposed that the geological mapping, geophysical data

processing, geochemical and metallogenic studies be carried out by the Mineral Exploration Research Institute (MERI). For the purposes of the field and associated laboratory work, MERI will provide the project with the services of a professional structural geologist and an economic geologist, as well as junior geological assistants, technicians, draughtsmen and secretarial personnel. MERI will also provide specific expertise where required. Along with Burton Consulting Inc., it will contribute to the geological quality control of the program.