

006858

Kluane Lake Hotel  
Burwash Landing,  
Mileage 1093, Alaska  
Highway, July 12/52

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	A.D.	
	J.L.	
	G.C.A.	
	G.E.	
	C.L.C.	
	M.H.F.	
	R.D.S.	



Mr. C.L. Coleman,  
Prospectors Airways Co. Ltd.,  
Suite 1616, 44 King St. W., Toronto.

Y4/1

Dear Sir:

The following is a preliminary report on the copper-nickel discovery in the Quill Creek area, near Mileage 1111.6 Alaska Highway.

**Summary:** A crew of prospectors headed by Walter Green, working for a local company called Yukon Mining Co. Ltd., staked a large gossan at the head waters of Quill Creek, which crosses the Alaska Highway at mileage 1111.6 from Dawson Creek. The discovery was staked on June 13, 1952.

The showing was originally staked for copper. On examination by E.O. Chisholm, field engineer for Prospectors Airways Ltd., on June 28/52 the gossan found to contain important values in nickel.

Following competitive bidding between Prospectors Airways Company Ltd., and The Hudson Bay Mining and Smelting Company, an option was given to Hudson Bay, by Yukon Mining Co. The terms of the option have not been released but it is understood that a cash payment of around \$30,000 was made on a total payment of around \$300,000 in three years time. In addition the vendors will be given around 250,000 shares of stock in a three million share company with options to buy a small amount of treasury stock at \$1.00 per share.

The Hudson Bay Company have staked in the neighborhood of 150 claims in the area. Prospectors Airways staked 28 claims to the NW, the boundary of which lies about 9000 feet NW of the main showing. The ground was staked on July 10th by E.O. Chisholm and a party of prospectors, and is believed to lie in a favorable location. Geological sketch map of the area is enclosed.

The original showing does not appear to be a recent discovery as it has been learned that some reference to the deposit is made by Cairns, of the G.S.C. in Sessional Papers of the Bureau of Mines around 1915. It is believed to have been sampled for copper at that time, but the presence of nickel was not suspected. No claims have been staked on the deposit prior to the recent activity.

The showing may be briefly described as a replacement of massive sulphides, containing values in copper, nickel, zinc, cobalt, and platinum group metals, lying at the contact of an altered limestone and a peridotite sill. There is a considerable zone of alteration bordering the sulphides which has converted to the limestone into skarn and the peridotite into mineralized peridotite.

Y411

Two other showings of a similar nature but narrower were examined by the writer within a claim length of the original showing. This indicates there is a possibility of extensions to the main showing. It is reported that several other showings of copper nickel mineralization in ultrabasic rocks have been made recently in the area by prospectors working for Hudson Bay.

The ground acquired for Prospectors Airways was briefly examined during the course of staking and appears to be in a favorable geological setting. Some copper mineralization was noted in pieces of lava talus at two locations.

Description of showings

Location B. (see accompanying map)

Comprised of a band of massive fine-grained sulphides 40 feet in width and exposed for 110 feet in length.

The sulphides consists of fine grained pyrite chiefly with minor amounts of pyrrhotite and chalcopyrite. The nickel mineral is thought to be pentlandite. No zinc mineral was identified by eye but the assays indicate zinc is present. The sulphides are covered by a thin layer of rust less than a half inch thick in most places. Considerable annabergite was noted.

A chip sample of the massive sulphides across 40 feet was assayed with the following results: Nickel, 3.3%; copper, 1.2%; cobalt, 0.3%; zinc, 4.2%; platinum group 0.08 Oz per ton; gold, trace.

A grab sample of the mineralized peridotite which extends for around 40 feet beyond the massive sulphides, was taken. The sample contained about 10 % sulphides disseminated through it, half of which were pyrrhotite and half chalcopyrite. The sample assayed copper, 0.9%; nickel, 0.8%, zinc, 0.5%; platinum group 0.07 oz per ton.

The sulphide body is exposed at the bottom of a narrow gulch cutting into a mountain side at an elevation of about 500 feet vertically above the base of the mountain. It lies at an elevation of about 1700 above the Alaska Highway.

The body strikes at about 120 degrees east of north, dips at 65 degrees north and appears to have a shallow plunge to the southeast. On the southeast side it plunges into a canyon wall. On the northwest side it is covered with talus. There are indications of an extension of the massive zone in mineralized float on the hillside above the showing 200 feet SE of the south end of the showing.

The hangingwall rock consists of mineralized peridotite, with from 5 to 10% disseminated sulphides. The zone extends for an additional 40 feet in width. Beyond this is massive peridotite containing fine hairlike seams of chrysotile asbestos.

The footwall rock consists of altered limestone or skarn. Copper stain shows in the skarn rock out from the sides of the sulphide for a distance of 6 to 8 feet.

Unaltered limestone and slaty sediments lies to the NE. The general strike of the sediments is around 120 degrees east of north. It is believed that the peridotite intrusive is sill like in form and was injected along an anticlinal axis.

74/1

Location A

This comprises a narrow patch of sulphides similar to those in location B lying about 1500 feet SE. Massive sulphides occur in stringers ~~xxxx~~ ~~xxxxxxx~~ from one to two inches in width, in a skarn rock at the contact with a peridotite. The rock is exposed on a sidehill and dips under the talus within 25 feet along strike. The elevation is about 200 feet below location B.

Location C

This comprises a rusty shear zone in skarn rock near a peridotite contact approximately 1500 ft. NW of location B. Massive sulphide stringers similar to B and C were noted. The massive sulphides are less than 6" in width but lie in a zone 10 to 15 feet wide. The zone is exposed for several hundred feet but is badly oxidized and covered with overburden.

Location D

W.Green reports 6 feet of massive sulphides at this location similar in occurrence to the main showing.

Location E

Chalcocite mineralization was noted in a carbonated vein material in the float on the hillside at this location. What appears to be a narrow 5 to 6 foot carbonate vein cuts the basaltic lava here. The showing does not appear to be economic but serves as a guide to further prospecting. It lies at an elevation of about 3000 feet above the Quill Creek.

Location F.

Carbonate float containing chalcocite mineralization similar to E was noted in a stream bottom at this location.

Conclusions

Extensive copper-nickel mineralization occurs over a wide area in the Quill Creek district in conditions favorable to the formation of ore bodies.

The St.Elias range contains large mountains of basic intrusives extending for hundreds of miles.

Native copper nuggets weighing several pounds in size are recovered from the gold dredging operations at Burwash Creek 7 miles east of Quill Creek.

The Kennecott Copper Mine, one of the major copper deposits in the world occurs in Alaska in the same belt of basic intrusives.

From the above it is concluded that the St.Elias range in the neighborhood of Burwash Lake and to the north up to the Alaska boundary offers prospecting ground for base metals of unusual merit.

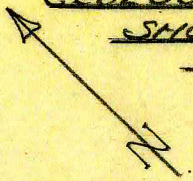
Detailed prospecting of the Prospectors Airways group is recommended together with general prospecting in the area.



E.O.Chisholm, MSc.P.Eng.

GEOLOGICAL SKETCH MAP OF COPPER-NICKEL  
SHOWINGS NR. MILEAGE 1111.6  
ALASKA HIGHWAY Y.T.

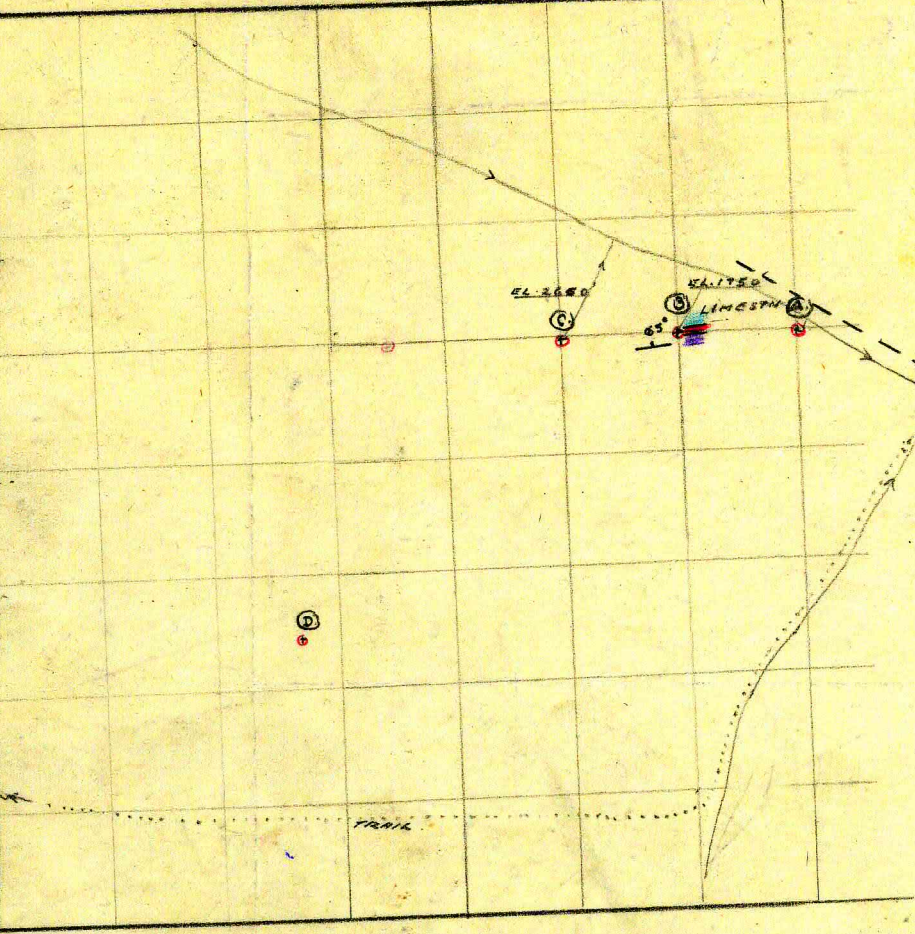
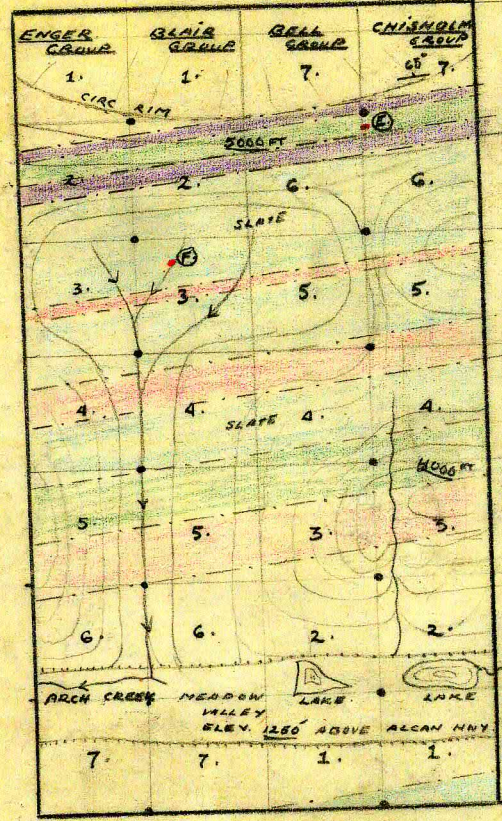
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HUDSON RAY MINING

RAIL (6 MI. TO MP. 1111.6)  
 CREEK

PROSPECTORS AIRWAYS



DULLDOZER ROAD  
 90 HIGHWAY IN  
 PROGRESS APP.  
 12 MILES

**GEOLOGICAL LEGEND**  
 (SCALE 0.6" = 1500 FT)

	MINERAL		POSTS
	PERIDOTITE		TALUS
	DIORITE		
	BASALT		
	SLATE, SHALE, SOME LIMESTONE		

80 Chisholm P. Eng.  
 12 JULY 1952.

COPPER-NICKEL GROUPS

Y 411

QUILL CREEK AREA

AT 111.6 ALASKA HIGHWAY

PROSPECTORS AIRWAYS (?) POSSIBLE 16 CLAIMS NW OR MORE.									
20	7	2	3	6	7	3	4		
5	6		4	5	8	2	1		
4	7	8	8	7	8	7	6		
3	6	5	7	6	5	5	5		
2	3	4	6	3	5	3	5		
1	2	1	5	2	1	2	1		
2	8	8	5	1	2	2	8		
6	5	5	3	3	3	6	5		
3	4	4	2	5	6	3	4		
2	1	1	1	8	7	2	1		

ALASKA HIGHWAY

DST 1

20

4

2

6

3

2

PROSPECTORS  
AIRWAYS (?)  
POSSIBLE 16 CLAIMS  
NW OR MORE.

RAM

WADSWORTH

PISCOURY

BASE CAMP

QUILL CREEK

SE

EAGLE

IRISH

ORIGINAL SHOWN

RED

SE

E.O. Chasler  
July 9/52.

STAKED  
BY  
YUKON M. Co  
H B M Co.