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→ Schussler:
 Take up with you + give to
 McDougall Notes
 June 12, 2003
 Rick Carter

CEI- Re: Turnagain

Since the people at SEC don't quite know what we are talking about, someplace in the report I'd like to enclose this insert form which will evolve after proof reading

Turnagain Nickel Prospect

Some mineralogical (historical) background data is required to fill in the blanks required to understand the interest in proceeding with prospect testing of the Turnagain Nickel Prospect. The writer, James McDougall, is probably one of the very few with unusually wide experience in western nickel exploration locally, having drilled at least seven deposits in the Cordilleran of B.C., Western Yukon, and Alaska. I have tested for nickel at intervals along the western ultramafic belt from Northern California to the north slope in Alaska. This experience, gained over the last 50 years, was possible because the Toronto based company Falconbridge Nickel and their parent company, Ventures Ltd., were always headed by qualified people, one of which, Dr. Horace Fraser, was head of metal procurement for the United States during the World War. My early boss, the late Dr. Alex Smith, was one of Dr. Fraser's pupils and had an insight as to post war mineral demand. Many are surprised to know that we discovered and first shipped columbium tantalum concentrates until the price dropped in half, or that the company was the first to drill test a porphyry copper (1942) in the Highland Valley with all but Spud Huestis frowning on the same low 0.56% copper which he later retrieved from the same deposit, etc. Our exploration group was well funded when the writer was hired in 1953 as an exploration geologist. Two northern pilot prospectors with their own floatplanes were hired on summer contract (which lasted up to 25+ years) or more, and a new helicopter (the first of 3), covering even a longer period, was purchased. All were used to support exploration parties in the north and were equipped with scintillometers and magnetometers-the latter useful for discovering numerous iron ore properties to back up our large producing Tasu mine on the Queen Charlotte Islands. The float aircraft logged many thousands of hours and the helicopters more than 15,000, supplemented by private machines used to help drill test many of our discoveries - i.e. Windy Craggy and Sustut to name just a few in B.C., plus several in Alaska (also confiscated for park extension etc.)

Much of our work involved generalized airborne geological mapping, largely by the writer, in many areas well before the Federal Geological Survey or the B.C. Geological Department- the latter whose first chartered geological use of a helicopter was made by Dr. Sutherland-Brown while the writer was in the Queen Charlottes. The writer alone (according to official flight log records and map notations made by two pilots who learned far more about economic geology than many graduates ever will) participated in about 30,000 landings, a number of which were for silt and float examinations. During an early trip (with student assistant Allan Archer) in 1957 while carrying out heavy metal

testing in creeks north of Kluane Lake, Yukon, an acquaintance, Ted Chisholm of Prospectors Airways, and new to the area, met us along the road and asked us if he could use our names to stake additional claims (then severely limited in the Yukon) adjoining a copper prospect nearby, which we agreed to. Chisholm, from Toronto, was interested in the copper property, but only after a simple test for nickel he had introduced in Ontario (dimethyl glyoxime) showed strong nickel present, particularly if oxide was present. A co-owner of the property noticed Chisholm's test (saliva was involved) and Chisholm, thinking he had made a solid deal on the prospect, told the co-owner that there was a "little nickel" in the ore. The co-owner immediately phoned his brother with Hudson's Bay, told him about the nickel, and Chisholm lost the property. The above test proved important to the writer as every prospector and trapper in the north learned about it and with two float planes and a helicopter available, the writer was kept busy examining "nickel" occurrences over hundreds of miles-far more than any other company ever attempted. However, the breakdown of nickel-bearing silicates (from which the low grade nickel could never be extracted commercially at current prices) was a good lesson. Most recorded nickel properties in B.C. and Alaska are valueless unless the nickel is in sulphide form as it is in the Turnagain, or in laterites. Turnagain silicates (i.e. in olivine), according to metallurgical tests (Wright 2003) contain surprisingly low nickel, and the same recovery tests show that a large percentage of the nickel present is in recoverable form. Falconbridge turned down the Turnagain project without testing because they assumed that, as world wide, nickel tied up in silicates in "peridotites" (along with some "pyroxenite") world wide is not recoverable. This was assumed true repeatedly without further adequate testing such as the writer would have preferred.

The nickel grade is a separate case. It has often been suggested that extreme temperatures and favorable pressures could liberate and/or enhance the assayable metal content. This conceivably could have taken place if intrusive granitic bodies were implanted locally, i.e. as it does during contact metasomatism. Current drill holes at Turnagain, i.e. 00H #93-08, have reportedly encountered such intrusives and assays are awaited from contact areas, possibly of varying ages and chemistry, which may effect grades (upwards) if current visual sulphide estimates of unassayed core are correct, or various "vein" occurrences may be present but as yet unsorted. The Turnagain occurrence is considered regionally unique (probably "magmatic") as provincial geologists have reported, and related ongoing work is essential at this stage of investigation.

In the Turnagain River eastern area, the writer through the Vancouver office hired John Schussler, once a Keno Hill (controlled by Falconbridge) silver miner. He was introduced to diamond drilling by a long time Vancouver field and office employee, J. Robertson, to test drill several non nickel-related properties. Robertson had drilled the Highland Valley (later Bethlehem) referred to earlier. One of our pilot prospectors, J. Davis of Victoria, had placer holdings in the area and knew the district well, having been a local B.C. Provincial policeman and game warden, earlier based in Telegraph Creek. Davis introduced the writer to a local horse wrangler, Bill Thompson, who had discovered massive sulphides (then covered by 2 claims) containing cobalt and some nickel along his horse trail on the north-east bank of the Turnagain River. Several

companies had examined it, including Keneco (Charlie Ney and J. Anderson) but concluded it was too small to be of interest. Thompson told Davis about the showing and Davis interested the writer and an option was drawn up with Thompson. Using magnetics (helicopter mag) the writer staked additional claims and drilled a short packsack drill hole north of the outcrop. Results, including recognizable pentlandite, were good enough over large areas to warrant more attention, and the writer employed Steve Presunka, a geophysicist, to run E.M. and magnetometer surveys locally. Anomalies were opened and more claims were staked. J. Schussler was employed to drill several more holes, all of which encountered readily identifiable pentlandite (nickel sulphide).

The writer has since visited the property only on a few occasions.

THE END