Occurrence Details

Occurrence Number: 115H 053
Occurrence Name: Bowen
Occurrence Type: Hard-rock
Status: Showing
Date printed: 4/29/2025 12:14:55 AM

General Information

Secondary Commodities: arsenic, gold
Aliases: Arc, Kluane, Killer Gold, Ruby Range Project
Deposit Type(s): Vein Au-Quartz
Location(s): 61°13'9" N - -137°40'10" W
NTS Mapsheet(s): 115H04
Location Comments: Location from map on Strategic Metals Ltd website, May 2022
Hand Samples Available: No
Last Reviewed:

Capsule

Work History

Staked as Arc cl 1-20 (YB7826) in Sep/87 by J.P. Ross. Ross tied on Stroker cl 1-20 (YB20426) to the east in Jul/88, added Arc cl 21-32 (YB07835) in Sep/88 and performed geochemical sampling in 1988. During 1989, the claims were briefly optioned to Noranda Exploration Company Ltd, which performed mapping, soil sampling and geophysical (mag) surveys.
In the fall of 1994, Ross negotiated an option agreement with Cash Resources, whereby the company optioned the surviving Arc and Stroker claims in conjunction with Rossċs neighboring Malou and Delor claim groups. These claims and others formed Cash Resourcesċ Ruby Range property. In Sep/94 the company carried out two days of work on the Arc and Stroker claims.
In the spring of 1995 NDU Resources optioned the Ruby Range property from Cash Resources. In Jun/95 NDU staked Delor cl 130-142 (YB57680) on the western boundary of the surviving Arc and Stroker claims. The claims covered open ground between the Arc and Stroker claim block and the neighboring Delor claim block. In 1995 NDU carried out prospecting and hand trenching on the Arc and Stroker claims. NDU and Cash Resources dropped their options in the fall of 1995 and in Apr/97 all surviving Arc, Stroker and Delor claims were transferred to Ross.

Capsule Geology

The Kluane property is underlain by Late Mesozoic metasedimentary rocks of the Kluane schist and Latest Cretaceous to Eocene rocks of the Ruby Range suite. The Kluane schist consists of a fairly monotonous package of biotite-quartz schist, muscovite-quartz schist and rare lenses of altered and strongly deformed ultramafic rock and marble. Metamorphic grade reaches upper greenschist with local zones of amphibolite. The Kluane schist is intruded by intrusions of the Ruby Range Suite. The Ruby Range suite ranges in age from ca 65 Ma to 52 Ma and consists of biotite granodiorite and hornblende quartz-diorite (Israel et al., 2010).
Three main rock types underlie the Kluane property; 1) biotite-quartz schist of the Kluane schist; 2) migmatitic paragneiss of the Kluane schist; and 3) granodiorite to quartz-diorite of the Ruby Range suite. In the southernmost portion of the claim block, dark grey to black biotite-quartz schist dominates. The schist often forms blocky outcrops that locally weather a brown-orange colour along fractures and joints. Biotite and quartz are the main minerals with the biotite forming the main foliation surfaces. Minor amounts of garnet and staurolite are found as accessory minerals. White to slightly rusty quartz veins of varying widths are ubiquitous and many veins are laterally discontinuous and often have sigmoidal or lozenge shapes. Structurally overlying the schist is a relatively thick package of dark-grey to black and orange weathered migmatitic paragneiss. The paragneiss is characterized by biotite and quartz layers separated by more leucocratic layers comprised of feldspar and quartz. The leucocratic layers appear to be injected melts that may be derived by local partial melting or by melts sourced by intrusions that have migrated along foliation planes.
Marble lenses and rare skarn zones are found within the gneiss on the east-facing slope above Killermun Lake. Exposures of marble are typically white to pale green on both weathered and fresh surfaces, display weak silicification, and range up to 7 m thick and 100 m long. Skarns consist of medium to coarse-grained garnet and diopside. The marbles are often rusty weathering and difficult to distinguish from the surrounding gneiss, unless the rock is broken.
The northern half of the property is comprised of coarse to medium-grained, biotite, granodiorite and hornblende +/- biotite, quartz-diorite of the Ruby Range suite. These rocks generally weather a light grey to white and are locally feldspar porphyritic. Smokey grey quartz grains are common in the granodiorite and less so in the quartz-diorite. The granitic rocks are unfoliated and cross-cut all ductile fabrics found in the Kluane schist except for a strongly foliated border phase that is sporadically observed in outcrop near the boundary with the paragneiss. Foliation in the border phase parallels those found in the Kluane schist and has been attributed to syndeformation intrusion of the earliest phases of the Ruby Range suite (Israel et al., 2010).
Two sets of narrow unfoliated dykes have been noted on the property in several areas underlain by Kluane schist. The dykes are up to one metre wide and are best distinguished by grain size. One of these dykes, from the central part of the property, has been dated at 55.3 Ma. This overlaps a 55.8 Ma age obtained from the main phase of the Ruby Range found just outside the northern portion of the property.
The occurrence is underlain by Eocene Ruby Range granodiorite. The granodiorite contains a wide variety of xenoliths, and is cut by dykes and quartz-carbonate veins and breccias. Some of the veins contain sulphides, and a 1988 grab sample assayed 11.82 g/t Au.
Noranda's soil sampling outlined arsenic anomalies (up to 30 000 ppm) over large areas and sporadic gold anomalies as high as 1 250 ppb. The magnetometer survey outlined narrow, linear shears and a broader magnetite-rich skarn zone. No bedrock source was found for the gold, but a sample of quartz-arsenopyrite vein material in talus assayed 2.84 g/t Au.
Soil sampling carried out by Cash/NDU generally confirmed Norandaċs earlier results of wide spread arsenic anomalies (>10 000 ppm) with sporadic gold values (140 ppb) but analysis of float specimens was disappointing. Although many rock samples collected by Cash/NDU returned greater than 1% arsenic, the highest gold value obtained was only 0.03 g/t.
Two hand trenches were dug into the prominent northwest-trending linear located immediately west of Stroker Lake. Both trenches were started and partially sampled by Cash Resources in 1994 and were completed and resampled by NDU Resources in 1995. Trench 1 encountered sheared and altered granodiorite with several narrow (up to 5 cm) arsenopyrite-bearing veins. The highest assay was 0.32 g/t Au over 1.0 m. The second trench located 550 m south of the first, encountered 4.0 m of arsenopyrite-bearing quartz+/-carbonate vein material. One 1994 chip sample returned 5.59 g/t Au across 0.5 m. The trench was deepened and resampled in 1995 and the best assay was 1.52 g/t Au over 1.0 m. It appears no significant work was carried out on Delor cl 130-142.

ROSS, J.P., Oct/88. Assessment Reports #092581 by J.P. Ross.

ROSS, J.P., Oct/88. Assessment Report #093582 by J.P. Ross.

YUKON EXPLORATION & GEOLOGY 1995, p. 15, 17.

Work History

Date	Work Type	Comment
5/1/2019	Remote Sensing	
5/1/2015	Geochemistry	

5/1/2015	Geochemistry	
5/1/2015	Other	
5/1/2012	Airborne Geophysics	
5/1/2012	Airborne Geophysics	
5/1/1995	Geochemistry	
5/1/1995	Geology	
5/1/1995	Geochemistry	
5/1/1995	Ground Geophysics	
5/1/1989	Geochemistry	
5/1/1989	Geochemistry	
12/31/1995	Trenching	
12/31/1995	Other	
12/31/1994	Geology	
12/31/1994	Geochemistry	
12/31/1994	Trenching	Trenches started by Cash Resources.
12/31/1994	Other	
12/31/1989	Geology	
12/31/1989	Geochemistry	
12/31/1989	Ground Geophysics	
12/31/1988	Geochemistry	

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
096776	2015	Assessment Report Describing Prospecting and Geochemical Sampling at the Kluane Property	Rock - Geochemistry, Soil - Geochemistry, Prospecting - Other		
096090	2012	Assessment Report Describing Airborne VTEM and Magnetic Survey at the Kluane Property	Electromagnetic - Airborne Geophysics, Magnetic - Airborne Geophysics		
093458	1995	Assessment Report Describing Diamond Drilling, Trenching and Geophysical Surveys at the Ruby Range Property	Diamond - Drilling, Drill Core - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, EM - Ground Geophysics, Backhoe - Trenching	14	1874
092764	1989	Geological, Geochemical & Geophysical Report on the Arc 1-32, Stroker 1-20	Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Magnetics - Ground Geophysics		
092581	1988	Geochemical Report	Soil - Geochemistry		

Related References

Number	Title	Page(s)	Reference Type	Document Type
15-062	Assessment Report Describing Prospecting and Geochemical Sampling at the Kluane Property		Yukon Government: Energy, Mines and Resources	YMEP Report
YEG2010_07	New insights into the geology and mineral potential of the Coast Belt in southwestern Yukon.		Yukon Geological Survey	Annual Report Paper