

Occurrence Details

Occurrence Number: 115I 192
Occurrence Name: Keirsten South
Occurrence Type: Hard-rock

Status: Prospect

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General Information

Secondary Commodities: copper, gold

Aliases: Freegold

Deposit Type(s): Porphyry Cu-Mo-Au

Location(s): N - W

NTS Mapsheet(s): 115I06

Location Comments: Coordinates provided by Triumph Gold in 2020.

Hand Samples Available: No

Last Reviewed:

Capsule

Work History

P.F. Guder discovered gold-quartz float in the vicinity as early as 1934. He staked Revenue Copper in 1950 and the property was optioned by Conwest Exploration Ltd. Guder re-staked as Revenue Copper cl 1-8 (67180) in September 1953 and tied on Addition cl 1-2 (68060) to the south in January 1954. Guder tied on Addition cl 3-4 (74488) to the west in September 1959 and Addition cl 5 (75323) to the west and Homestake cl 1-2 (75321) to the south in September 1960. Between September 1967 and March 1968, 25 Inca, Revenue, Rev and Add claims were added to the fringes of the property. A new company, Yukon Revenue Mines Ltd, was formed in 1968 to develop the property.

Optioned in 1970 by Kaiser Resources Ltd, which carried out grid soil sampling and drilled a percussion hole near the Keirsten South zone. The property reverted to Yukon Revenue who optioned the property Shakwak Exploration Company Ltd in 1983.

Nordac Mining Corporation acquired Shakwak's interest in 1985. In 1987, Nordac changed its name to Big Creek Resources Ltd. and entered a joint venture with Rexford Minerals Ltd (Big Creek Joint Venture), which staked Subtract cl 2-3 (YA97442) in May 1987 and carried out VLF-EM and magnetometer surveying in 1987 over the property, including the Keirsten South zone.

Big Creek subsequently merged with Pacific Sentinel Gold and the claims were later sold to Amarc Resources Ltd, which returned them to Yukon Revenue in 1995. Yukon Revenue changed its name to YKR International Resources Ltd in 1996.

In 1999, ATAC Resources Ltd optioned the Revenue claims from YKR and purchased the adjoining Nucleus claims (MINFILE occurrence 1151 107) from the W4 Joint Venture consolidating a total of 151 claims in the area to form a single contiguous claim group, which they named the Golden Revenue property. ATAC carried out soil geochemistry at the Keirsten South zone in 1999.

The Golden Revenue property, including the Keirsten South zone, was further consolidated in 2006 by Northern Freegold Resources. Northern Freegold Resources performed a property wide VTEM and magnetic airborne survey in 2006. A ground IP survey was carried out in 2010.

Triumph Gold acquired Northern Freegold Resources in 2015 and the property is now termed the Freegold Mountain Project. In 2018, Triumph Gold carried out soil geochemistry and a ground magnetic and IP geophysical survey over the Keirsten South zone.

Regional & Property Geology

The occurrence is partly underlain by Yukon-Tanana Terrane (YTT). The rocks of the YTT in this region consist of Early Mississippian metamorphic rocks separated into meta-sedimentary and meta-igneous suites. The meta-sedimentary suite consists of micaceous quartz-feldspar gneiss, schist and quartzite. The meta-igneous package is comprised of biotite-hornblende feldspar gneiss and coarse-grained granodiorite orthogneiss with lesser amphibolite.

The YTT basement rocks are cut by numerous plutonic and volcanic events from the Mesozoic (Murray & Friend, 2018), including:

- 1. Early Jurassic Long Lake monzonite to syenite plutonic suites;
- 2. Mid-Cretaceous Mount Nansen Suite andesite to diorite;
- 3. Mid-Cretaceous Whitehorse granodiorite, quartz monzonite and granite;
- 4. Late Cretaceous Casino quartz monzonite;
- 5. Late Cretaceous Prospector Mountain syenite; and,
- 6. Quartz feldspar and feldspar hornblende porphyry $\,\mathrm{d}y\,\mathrm{kes}$ and plugs.

The major structural feature in the area is the Big Creek Fault with steeply-dipping, northwest-trending dextral faults parallel to the more regional Tintina and Denali faults (AR 097175).

Mineralization & Results

A percussion hole drilled in 1970 noted pyrite, chalcopyrite, arsenopyrite and bornite in phyllically and potassically altered plutonic rocks that assayed 0.3 g/t Au over 60 m and 0.07% Cu over 30 m (J. Halle, 2020, personal communication).

Soil geochemistry in 1999 confirmed a Cu anomaly and noted the presence of a coincident Au anomaly (AR 094102).

Work History

Date	Work Type	Comment			
8/1/2020	Drilling	1 hole, 265.18 m			
12/13/2018	Geochemistry				
12/13/2018	Ground Geophysics				

12/13/2018	Ground Geophysics	
12/13/2010	Ground Geophysics	
12/13/2006	Airborne Geophysics	Property wide survey.
12/13/2006	Airborne Geophysics	Property wide survey.
12/13/1999	Geochemistry	
12/13/1987	Ground Geophysics	And VLF-EM.
12/13/1970	Drilling	One hole.
12/13/1970	Geochemistry	
12/13/1970	Geochemistry	

Related References

Number	Title	Page(s)	Reference Type	Document Type
<u>YEG2017</u> <u>4</u>	New contributions to the bedrock geology of the Mount Freegold district, Dawson Range, Yukon (NTS 115I/2, 6 and 7)		Yukon Geological Survey	Annual Report Paper
<u>2018-2</u>	Bedrock geological map of the Mount Freegold district, Dawson Range		Yukon Geological Survey	Open File (Geological - Bedrock)