Occurrence Details

Occurrence Number: 115I 170
Occurrence Name: Skarn
Occurrence Type: Hard-rock
Status: Prospect
Date printed: 8/5/2025 10:07:19 AM

General Information

Secondary Commodities: gold, silver
Aliases: Freegold
Deposit Type(s): Skarn 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

The original discovery in the Mt. Freegold area was made by P.F. Guder in 1930 on the Augusta cl (15494), followed by discoveries on the adjoining Peerless, Gold Star and Margarete claims. Guder explored by hand pits and shallow shafts until 1959. Guder's claims (Gold Star group) were optioned in 1969 to Yukon Revenue Mines Ltd and in 1973 to Prism Resources Ltd., which did a magnetometer survey and staked an additional 100 claims - PFG, AG, etc (Y75468) in June-September.

Prism transferred the option early in 1974 to Dynasty Exploration Ltd., which explored by grid soil sampling, trenching later in the year and five diamond drill holes (434 m). Guder's claims were optioned by Arctic Red Resources Corporation from 1980 to 1982, then transferred to Guder Mining Exploration Ltd. The Guder and Harris claims were optioned in 1986 by Chevron Minerals Ltd., which conducted a grid geochemical survey and bedrock mapping, and in 1987 by Big Creek Joint Venture (Big Creek Resources Ltd and Rexford Minerals Ltd), which explored with extensive bulldozer and excavator trenching, and geochemistry. The claims were transferred back to Harris in September 1989.

Gagan Gold Corporation optioned the property and explored with trenching and geochemistry in 1991. Redell Mining Corporation optioned the Goldstar property from Harris and Associates in August 1994. In September 1995, Pauline cl (YB37987) and Goldstar cl 1-3 (YB37988) were transferred to B. Harris.

Northern Freegold Resources consolidated the claims in 2006 as part of their Golden Revenue property and performed a property wide VTEM and magnetic airborne survey, including the Skarn occurrence.

Triumph Gold acquired Northern Freegold Resources in 2015 and the property that includes the Skarn occurrence is now termed the Freegold Mountain Project.

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 dykes 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).

The Skarn prospect occurs in a roof pendant of Paleozoic metasedimentary rocks enclosed in Mesozoic syenite and granodiorite and intruded by Cretaceous porphyry dykes. The metamorphic rocks consist of quartz-feldspar-mica-chlorite gneiss and schist, and minor marble, amphibolite and quartzite (AR 093019).

Mineralization & Results

At the Skarn occurrence, bands of magnetite skarn up to 70 m wide and averaging 20 to 30 m wide are noted parallel to the foliation of the hosting schists. These bands trend to the northwest and dip steeply to the northwest. Primary skarn minerals consist of quartz, magnetite, epidote, diopside, garnet, and calcite overprinted by a retrograde assemblage of quartz, actinolite and chlorite. Magnetite occurs as intergrowths with quartz and as massive magnetite. Retrograde minerals are zoned from magnetite and quartz cores and are spatially associated with areas of structural weakness. Gold mineralization appears to be spatially associated with these zones of retrograde skarn assemblages (AR 091896).

The Skarn occurrence has been exposed in a 500 m long zone located to the northeast of the Margarete occurrence (MINFILE occurrence 115I 053). The zone carries trace (0.03 g/t Au) gold and low silver values (3.0 to 15 g/t Ag).

A sample from the most northwesterly 1974 trench (Dynasty 1974-K) returned 11.6 g/t Au over 1.8 m in a segment of metasediment within the skarn. Trench samples (Dynasty 1974-6) from the eastern end of the zone carry elevated silver values with up to 410 g/t Ag over 1.5 m within an interval grading 155 g/t Ag over 9.9 m (AR 092699).

Work History

Date	Work Type	Comment
12/13/2006	Airborne Geophysics	Property wide survey.
12/13/2006	Airborne Geophysics	Property wide survey.

12/13/1991	Geochemistry	
12/13/1991	Trenching	
12/13/1987	Geochemistry	
12/13/1987	Trenching	
12/13/1986	Geology	
12/13/1986	Geochemistry	
12/13/1974	Drilling	Five holes totaling 434 m.
12/13/1974	Geochemistry	
12/13/1974	Trenching	
12/13/1973	Ground Geophysics	

Related References

Number	Title	Page(s)	Reference Type	Document Type
YEG2017_4	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
2018-2	Bedrock geological map of the Mount Freegold district, Dawson Range		Yukon Geological Survey	Open File (Geological - Bedrock)