Occurrence Details

Occurrence Number: 115I 188
Occurrence Name: Irene Vein
Occurrence Type: Hard-rock
Status: Prospect
Date printed: 8/5/2025 8:27:05 AM

General Information

Secondary Commodities: gold, silver
Aliases: Freegold
Deposit Type(s): Epithermal Au-Ag: Low Sulphidation
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 Elephant cl 1-14 (YA86794) were staked in April 1985 by G. Lee and optioned to Noranda Exploration Company Ltd, which staked Elephant cl 15-20 (YA96415) and performed mapping, trenching and geochemical sampling in 1986 and 1987. Noranda performed trenching in 1987.

B. Harris staked the Rag 25-26 cl (YB46562) to the southwest in December 1993. In October 1993, the Elephant claims and Rag cl 25-26 were optioned to La Rock Mining Corp.

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 Irene Vein. Northern Freegold carried out hand trenching and rock geochemistry in 2013; and magnetic and VLF-EM ground geophysics, bedrock mapping, mechanical trenching and rock geochemistry in 2014.

Triumph Gold acquired Northern Freegold Resources in 2015 and the property that includes the Irene Vein is now termed the Freegold Mountain Project. In 2018, Triumph Gold carried out diamond drilling of 11 holes (1369 m).

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 Irene Vein is located at a fault contact between metamorphic rocks and mid-Cretaceous granite and coincides with the NW-SE oriented Guder Creek fault (Triumph Gold, News Release, 24 Jan/2019).

Mineralization & Results

Epithermal mineralization at the Irene Vein occurs as sulphide-rich veinlets, veins and breccias containing gold, pyrite, arsenopyrite, stibnite and rare sphalerite in a carbonate (dolomite ± calcite) quartz gangue. Mineralization is primarily controlled by west northwest to northwest trending faults and fractures (Triumph Gold, News Release, 24 Jan/2019).

Sampling of fractures and pyrite stringers from bedrock in 1987 returned 2.2 g/t Au, 5.8 g/t Ag and 2560 ppm As (AR 092113). Trenching in 1987 defined a 6.5 m by 80 m long zone (AR 092113).

Trenching in 2013 by Northern Freegold returned significant intervals: 3.47 g/t Au over 7 m, including 10.9 g/t Au over 1.0 m in TR13-018; 2.24 g/t Au over 7 m, including 3.05 g/t Au over 3 m in TR13-019; 7.11 g/t Au over 3 m, including 11.35 g/t Au over 1 m in TR13-021 (AR 096643). Follow-up trenching in 2014 returned assays of up to 1.53 g/t Au over 5 m in TR14-031; 9.45 g/t Au, 114.5 g/t Ag, 0.79% Cu over 1.00 m (including 19.90 g/t Au, 145.0 g/t Ag, 0.68% Cu over 0.35 m) in TR14-037; and 5.19 g/t Au, 66.8 g/t Ag, 0.29% Cu over 1.00 m(including 9.03 g/t Au, 50.3 g/t Ag, 0.24% Cu over 0.50 m) in TR14-036 (Triumph Gold, MD&A, 25 Apr/2016).

Diamond drilling in 2018 by Triumph Gold encountered numerous significant intervals, including: 20.7 g/t Au over 0.7 m in IR18-01; 1.15 g/t Au over 19 m in IR18-05; 2.38 g/t Au over 6.13 m in IR18-08; and 2.19 g/t Au over 5.65 m in IR18-10 (Triumph Gold, MD&A, 23 Apr/2019).

Work History

Date	Work Type	Comment
12/13/2018	Drilling	Eleven holes totaling 1369 m.
12/13/2018	Geochemistry	
12/13/2014	Geochemistry	Grab and chip sampling.
12/13/2014	Geology	
12/13/2014	Ground Geophysics	31 line-km of magnetics and 29 line-km of VLF-EM.

12/13/2014	Trenching	
12/13/2013	Geochemistry	Grab and chip sampling.
12/13/2013	Trenching	
12/13/2006	Airborne Geophysics	Property wide survey.
12/13/2006	Airborne Geophysics	Property wide survey.
12/13/1987	Geochemistry	Grab and chip sampling.
12/13/1987	Geology	
12/13/1987	Geochemistry	
12/13/1987	Trenching	
12/13/1986	Geochemistry	Prospecting grab samples.
12/13/1986	Geology	
12/13/1986	Geochemistry	

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)