Occurrence Details

Occurrence Number: 115I 187
Occurrence Name: Melissa
Occurrence Type: Hard-rock
Status: Showing
Date printed: 8/5/2025 10:07:30 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

Staked as the Seymour cl 1-44 (YA60053) in May 1981 by Arctic Red Resources Ltd and in 1985 by Chevron Minerals Ltd. who sampled and performed rock geochemistry of historic trenches from the 1930s. Soil geochemistry was carried out in 1986 and 1987.

In 1987, Chevron optioned its claims to Big Creek Joint Venture (Big Creek Resources Ltd. and Rexford Minerals Ltd.). Big Creek Resources Ltd. purchased the claims in the spring of 1990. Rinsey Mines Ltd. optioned Big Creek's claims in February 1991.

ATAC Resources re-staked the area in 1999 and conducted rock geochemistry and prospecting at the between 2001 and 2004, hand trenching in 2002 and 2003 and hand and mechanical trenching in 2004.

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 Melissa occurrence. In 2013, Northern Freegold carried out an IP survey over the Melissa showing that uncovered a string of shallow resistivity and chargeability anomalies. Mechanical and hand trenching, as well as rock, soil and silt geochemistry was carried out in 2013.

Triumph Gold acquired Northern Freegold Resources in 2015 and the property that includes the Melissa 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).

Mineralization & Results

The Melissa showing was discovered in 1986 and is described as gold-bearing quartz vein and disseminated and fracture-fill mineralization hosted by silicified metasedimentary rocks and adjacent quartz-feldspar porphyry dykes. The showing covers a "zone of limonitic and manganiferrous schists with minor northerly and southerly trending quartz veins (Paulter, 2006).

Sampling of historical trenches in 1985 and 1986 returned gran samples of up to 0.76 g/t Au and 1.03 g/t Au in limonitic schist with quartz veins proximal to a felsic porphyry dyke (AR 091895; AR 091823).

Limonitic, white quartz boulders sampled from a pit in 2003 by ATAC returned 5.67 g/t Au and 52.8 g/t Ag (Paulter, 2006). Trenching in 2004 returned anomalous samples of 0.613 g/t Au and 8.24 g/t Ag over 31.5 m in TRS04-01 and 1.395 g/t Au over 4 m in TRS04-02 (AR 094528).

Grab sampling in 2013 returned 1.72 g/t Au, 13.7 g/t Ag and >10 000 ppm As from a sample of limonitic quartz vein and 0.43 g/t Au and 9.9 g/t Ag in a second sample (AR 096643).

Work History

Date	Work Type	Comment
12/13/2013	Geochemistry	Grab and chip sampling of trenches.
12/13/2013	Geochemistry	And silt sampling.
12/13/2013	Trenching	
12/13/2013	Trenching	

12/13/2011	Ground Geophysics	
12/13/2006	Airborne Geophysics	Property wide survey.
12/13/2006	Airborne Geophysics	Property wide survey.
12/13/2004	Geochemistry	Grab and chip sampling of trenches.
12/13/2004	Trenching	Six trenches.
12/13/2004	Trenching	
12/13/2003	Geochemistry	Grab and chip sampling of trenches.
12/13/2003	Trenching	
12/13/2002	Geochemistry	Grab and chip sampling of trenches.
12/13/2002	Trenching	
12/13/2001	Geochemistry	Prospecting grab samples.
12/13/1987	Geochemistry	
12/13/1986	Geochemistry	
12/13/1985	Geochemistry	Sampling of historical trenches likely from the 1930s.

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)