

Occurrence Details

Occurrence Number: 115I 191 Occurrence Name: Keirsten 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

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

Triumph Gold acquired Northern Freegold Resources in 2015 and the property is now termed the Freegold Mountain Project. Triumph Gold carried out diamond drilling (1 hole, 603.5 m) in 2017 and performed follow-up drilling (4 holes, 1787 m), soil geochemistry and magnetic and IP ground geophysics in 2018.

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:

- Early Jurassic Long Lake monzonite to syenite plutonic suites;
- 2. Mid-Cretaceous Mount Nansen Suite andesite to diorite;
- ${\it 3. \,\, Mid\text{-}Cretaceous \,\, W\, hitehorse \,\, granodiorite, \,\, quartz \,\, monzonite \,\, and \,\, granite;}$
- 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 Keirsten zone was discovered in 2017 when drilling tested the core of a chargeability high noted during a 2010 IP survey and encountered intense, porphyry style alteration and veining in a granodiorite host rock (Triumph Gold, MD&A, 23 Apr/2019).

Mineralization & Results

The Keirsten zone is a blind target with copper and gold mineralization associated with pyrite and quartz veining.

Diamond drilling in 2017 encountered 20 m of 0.173 g/t Au, 0.6 g/t Ag, and 0.06% Cu within strong pyrite and quartz veining in KZ17-01 (Triumph Gold, News Release, 2 Nov/2017).

Follow-up drilling by Triumph Gold in 2018 encountered numerous, but short intersections of anomalous gold an copper, including: 1.61 g/t Au, 4 g/t Ag, 0.033% Cu over 1.31 m in KZ18-01; 0.412 g/t Au, 1.75 g/t Ag, 0.175% Cu over 4 m in KZ18-02; 0.407 g/t Au over 7.5 m in KZ18-03; and 2.06 g/t Au over 1.5 m in KZ18-04 (Triumph Gold, MD&A, 23 Apr/2019).

Work History

Date	Work Type	Comment
12/13/2018	Drilling	Four holes totaling 1787 m.
12/13/2018	Geochemistry	
12/13/2018	Ground Geophysics	
12/13/2018	Ground Geophysics	
12/13/2018	Geochemistry	
12/13/2017	Drilling	One hole totaling 603.5 m.
12/13/2017	Geochemistry	
12/13/2010	Ground Geophysics	
12/13/2006	Airborne Geophysics	Property wide survey.

12/13/2006 Airborne Geophysics Property wide survey.

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		
2018-2	Bedrock geological map of the Mount Freegold district, Dawson Range		Yukon Geological Survey	Open File (Geological - Bedrock)		