Occurrence Details

Occurrence Number: 105A 050
Occurrence Name: Bart
Occurrence Type: Hard-rock
Status: Anomaly
Date printed: 4/29/2025 5:50:28 PM

General Information

Secondary Commodities: copper, gold, lead, zinc
Deposit Type(s): Unknown
Location(s): 60°52'32" N - -129°52'28" W
NTS Mapsheet(s): 105A13
Location Comments: .5 Kilometres
Hand Samples Available: No
Last Reviewed:

Capsule

Work History

Staked within LJL cl 354-362 (YB77485) in Feb/96 by Cominco Ltd. The claims were part of a much larger group of LJL claims (500+) which Cominco staked to cover numerous airborne geophysical anomalies outlined by a large regional program flown by the company the previous year. No work appears to have ever been carried out in the occurrence area.
Rimfire Minerals Corporation staked Sim cl 3-36 (YC23358) and cl 41-46 (YC23382) in Jan/2003 to cover silt and soil anomalies identified in a regional geochemical survey conducted in 2002. The company added Sim cl 37-40 (YC24036) in Mar/2003. Rimfire carried out an initial prospecting, geological mapping and soil sampling program in Jun/2003 followed by further soil sampling and prospecting in Sep/2003.
The occurrence marks the location of the strongest multi-element geochemical anomaly detected during the 2003 exploration program. It is located off the claim block approximately 300 m east of the southeast claim boundary.

Capsule Geology

The area is located southeast of the Finlayson Lake massive sulphide district of southeastern Yukon. The area was last mapped by H. Gabriel (1967), who mapped the Watson Lake map sheet (topographic map sheet 105A) at 1:250 000 scale for the Geological Survey of Canada. The Yukon Geological Survey has not yet re-mapped the occurrence area, however Murphy and others have carried out varying amounts of geological field work on adjoining topographic map sheets 105H/3, 4, 5 and 105G/1 and 2. In 2004, Murphy published a compilation report summarizing results obtained from this work. Comparing Murphy¿s results with the Yukon Geology compilation published by Gordey and Makepeace in 2003 allows one to reasonably predict the geology underlying the occurrence area.
The area is located within the Big Campbell thrust sheet, one of several fault- and unconformity-bound metasedimentary and metavolcanic successions and affiliated metaplutonic suites proposed by Murphy (2004) for the Finlayson Lake massive sulphide district of the Yukon- Tanana Terrane. The Big Campbell thrust sheet contains the structurally deepest rocks and those that host the majority of the volcanic hosted massive sulphide (VHMS) deposits of the district. It is bound below by the Big Campbell thrust, and above by the Money Creek thrust.
The occurrence area hosts the same stratigraphic units that occur in the core of the Finlayson Lake massive sulphide district. Based on geological mapping completed to the north, the oldest rocks are likely quartz-rich psammite (meta-sandstone), meta-pelite and marble of the pre-Upper Devonian North River formation. The North River formation is overlain by the Fire Lake formation, which consists primarily of chloritic phyllite or schist, and lesser carbonaceous phyllite or schist, and muscovite-quartz phyllite or schist of felsic volcanic protolith. As in the Finlayson Lake massive sulphide district, mafic and variably serpentinized ultramafic metaplutonic rocks are spatially associated with the Fire Lake formation. To the north the metaplutonic rocks form a several hundred-metre- thick sheet within the upper part of the formation. It is likely that the succession is intruded by one or more small mid-Cretaceous granitic intrusions.
Rimfire reported generally poor outcrop exposure on the Sim claim block due to extensive glacial deposits. Reconnaissance geological mapping outlined three main rock types; quartz-feldspar-hornblende gneiss, quartz-chlorite-sericite phyllite and quartz eye or quartz augen schist. The latter two units likely represent Murphy¿s Upper Devonian Fire Lake formation. It is possible the older (Upper Devonian and Older) North River formation is present on the claim block but the lack of more clastic metavolcanic rocks suggest this unit is absent. The quartz-feldspar-hornblende gneiss likely represents Murphy¿s Late Devonian serpentinized ultramafic rock unit or alternatively a more mafic metaplutonic phase/unit.
Soil and silt sampling carried out over two field seasons outlined several discrete multi-element anomalies, the best of which is marked by this occurrence. The anomaly outlines the trend of highly anomalous gold, copper, lead, zinc and +/- silver values coincident with the mapped and projected trace of pyrite-mineralized felsic to intermediate volcanic rocks. Two float and two grab samples collected in the gossanous zone failed to return anomalous results. Several other areas within the claim block returned anomalous values for one or more metallic elements.

References

GABRIEL, H., 1967. Geology, Watson Lake Yukon, Territory. Geological Survey of Canada Map 19-1966.

GORDEY, S.P. AND MAKEPEACE, A.J. 2003: Yukon Digital Geology, version 2.0, S.P. Gordey and A.J. Makepeace (comp); Geological Survey of Canada, Open File 1749 and Yukon Geological Survey, Open File 2003-9 (D).

MURPHY, D.C. AND PIERCEY, S.J., 1999. Finlayson project: Geological evolution of Yukon-Tanana Terrane and its relationship to Campbell Range belt, northern Wolverine map area, southeastern Yukon. In: Yukon Exploration and Geology 1998, C.F. Roots and D.S. Emonds (eds), Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p. 47-62.

MURPHY D.C., 2004 Devonian-Mississippian metavolcanic stratigraphy, massive sulphide potential and structural re-interpretation of Yukon-Tanana Terrane south of the Finlayson Lake massive sulphide district, southeastern Yukon (105G/1, 105H/3, 4, 5). In Yukon Exploration and Geology 2003, D.S. Emond and L.L. Lewis (eds.), Yukon Geological Survey, p. 157-175.

MURPHY, D.C., KENNEDY, R. and TIZZARD, A. 2004. Geological Map of part of Waters Creek and Fire Lake map areas (NTS 105G/1, part of 105G/2), southeastern Yukon (1:50 000 scale). Yukon Geological Survey, Open File 2004-11.

RIMFIRE MINERALS CORPORATION, Mar/2004. Assessment Report #094444 by R. S. Heffernan.

Work History

Date	Work Type	Comment
12/31/2003	Geochemistry	
12/31/2003	Geology	
12/31/2003	Geochemistry	
12/31/2003	Other	
12/31/2002	Geochemistry	Also soil sampling. Rimfire Minerals conducted regional geochemical survey over area.
12/31/1995	Airborne Geophysics	Also magnetic survey. Regional airborne geophysical survey flown by Cominco.

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
095799	2011	Geochemical Sampling at the Sim Property	Soil - Geochemistry		
094444	2003	2003 Geological and Geochemical Report on the Simpson Property, Yukon Territory	Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry		
093814	1997	1997 Assessment Report ML & LJL Properties	Soil - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other		
093716	1996	Geological Mapping, Soil, Silt and Lake Sediment Geochemistry, Airborne Geophysical Surveys	Silt - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Regional Bedrock Mapping - Geology		

Related References

Number	Title	Page(s)	Reference Type	Document Type
ARMC018644	Field map - 105A/13 - Hasselberg Lake		Property File Collection	Geoscience Map (General)