Occurrence Details

Occurrence Number: 105G 015
Occurrence Name: Nan
Occurrence Type: Hard-rock
Status: Anomaly
Date printed: 12/16/2025 3:19:17 PM

General Information

Deposit Type(s): Volcanogenic Massive Sulphide (VMS) Besshi Cu-Zn
Location(s): 61°33'33" N - -131°28'21" W
NTS Mapsheet(s): 105G11
Location Comments: 1 Kilometres
Hand Samples Available: No
Last Reviewed:

Capsule

Work History

Staked as Nan and Mar cl (Y2791) in Apr/66 by Kerr Addison Mining Limited following an airborne magnetic survey. The company explored with geochemical surveys and prospecting later in the year.
In May/66 Atlas Explorations Limited staked God cl 1-30 (Y7894) to the east of the Nan and Mar claims, following an airborne survey, and carried out soil sampling, and ground magnetic and electromagnetic surveys later in the year.
Restaked within a large block of Bev claims in the fall of 1974 by Hudson Bay Exploration and Development Company Ltd. The claims were staked between expired Nan, Mar and God claims and covered geophysical anomalies identified in a regional EM/Mag geophysical survey. The company carried out ground HLEM and magnetic geophysical surveys in 1975 and bulldozer trenched an anomalous zone (now located on Corky cl # 10) in late 1976. No assessment reports appear to have ever been filed for any of this work.
Restaked as Corky cl 1-64 (YB70155) in Oct/95 by YGC Resources Ltd. The company completed geological mapping, prospecting and geochemical surveys over the claims in 1996 and 1997.

Capsule Geology

The area is underlain by a layered sequence of metamorphosed and deformed rocks of the Yukon-Tanana Terrane. The metamorphosed sedimentary and volcanic rocks represent a mid Paleozoic continental magmatic arc. The Nan occurrence is underlain by Devonian to Missippian and (?) older rocks of the Nasina assemblage (Gordy and Makepeace, 1999). In the occurrence area the Nasina assemblage consists of, graphitic and non-graphitic quartzite, micaceous quartzite and quartz muscovite (+/- chlorite, +/- feldspar augen) schist, locally garnetiferous, minor metaconglomerate and metagrit (unit DMN1). These rocks probably correlate with Murphy and Pierce¿s (1999b) Devonian to Mississippian units, which they mapped to the southeast in the Finlayson Lake district.
Regional mapping and limited outcrop exposures on north slopes indicate the property is underlain by calcareous phyllite and chlorite phyllite overlying carbonaceous to graphitic siliceous argillite/phyllite, dolomite, and lower most quartz-sericite schist (Hunt, J.A., 1997). The uppermost unit of this stratigraphic section is an Early Pennsylvanian to Early Permian white carbonate which is located in the southwest corner of the Corky claim block. Stroshein (1997) relates this lithology to the ¿Middle Unit¿ section of the Layered Metamorphic Sequence as described by Mortensen & Jilson (1985) and later correlated to the upper portion (Mississippian) of the Grass Lakes succession and the Carboniferous Wolverine Lake as described by Murphy & Piercey (1999a, 199b). It is these rocks, the upper portion of the Grass Lakes succession and the Wolverine Lake succession, that host the ABM deposit at Kudz Ze Kayah (Minfile Occurrence #105G 117) and the Wolverine deposit (Minfile Occurrence #105G 072). Hunt (1997) describes the geology of the Corky claims as being ¿shallow dipping interbedded meta-volcanic and meta-sedimentary rocks of the Devonian to Mississippian Nasina Assemblage likely correlatable to those at Kudz Ze Kayah and Wolverine¿. More recent research has placed the Kudz Ze Kayah and Wolverine deposits at different stratigraphic levels and ages (Murphy and Piercey 1999a, 1999b).
Work by Atlas Explorations in 1966 on the God claims located approximately coincident magnetic and electromagnetic anomalies. Soil sampling yielded scattered Cu-Pb-Zn anomalies none of which correlated to the geophysical anomalies. Atlas concluded that all the anomalies were related to individual lithologies (i.e. metavolcanic and metasedimentary) but not areas of possible base metal mineralization.
Preliminary exploration completed in 1996 indicated that the most prospective region on the Corky claims was likely to be found in the northeast corner of the claim block where soil sampling delineated multiple zones of anomalous, coincident, and overlapping base metal values overlying chlorite quartz sericite schist and argillite bedrock (Stroshein, 1997b). The 1996 exploration program also showed that rock and soil sampling could be used as an effective tool for mapping bedrock geology, determining prospective units and locating potential volcanogenic massive sulphide mineralization on the claim block.
The 1997 exploration program concentrated on three areas, the northeast corner of the claim group and two targets ¿351' and ¿315", located over small hills, near to the centre of the claim block. In the northeast area detailed grid soil sampling outlined two separate anomalies , a central 400m long, east - west oriented Cu (>100 ppm) anomaly, with coincident Ni (>350 ppm) and Cr (>1000 ppm) and a broad overlapping Zn anomaly (>200 ppm) (Stroshein, 1997b). This anomaly is open to the east. The anomaly tapers to the east. Nickel and Cr mimic the western border of the anomalous Cu zone but extend only 300 metres eastward. In the southeast area of the grid coincident Cu (436 ppm peak), Zn (1570 ppm peak), Mo (31 ppm peak), Co (78 ppm peak), and As (360 ppm peak) anomalies define the zone which is mapped as being within and along the contact of graphite schist with chlorite schist (Stroshein, 1997b). This suite of anomalous elements is consistent with VMS style mineralization in the Finlayson area.
The 351 and 315 targets have received only preliminary work. Soil samples collected at the 351 target yielded up to 95 ppm Cu and 148 ppm Zn. Soil samples collected from the 315 target yielded up to 249 ppm Cu and 166 ppm Zn. Rock grab samples from the 315 target returned up to 210 ppm Cu and 136 ppm Zn from a calcareous chlorite schist sample containing disseminated pyrite (Stroshein, 1997b).

References

ATLAS EXPLORATIONS LIMITED, June/67. Assessment Report #017488 by J.S. Brock.

ATLAS EXPLORATIONS LIMITED, June/67. Assessment Report #017489 by J.S. Brock.

HUNT, J.A., 1997. Massive Sulphide deposits in the Yukon Tanana and adjacent Terranes. In: Yukon Exploration and Geology 1996, Exploration and Geological Services Division, Indian and Northern Affairs Canada, p.35-45.

MINERAL INDUSTRY REPORT 1975, p.166; 1976, p.205.

MORTENSEN, J.K., AND JILSON, G.A., 1985. Evolution of the Yukon-Tanana Terrane: evidence from southeastern Yukon Territory; Geology, 13, p. 806-810.

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 Lake map

area, southeastern Yukon. In: Yukon Exploration and Geology 1998, C.F. Roots and D.S. Emond (eds.), Exploration and Geological Services Division, Indian and Northern Affairs Canada, p.47-62.

MURPHY, D.C., AND PIERCEY, S.J., 1999b. Geological map of parts of Finlayson Lake (105G/7,8 and parts of 1,2, and 9) and Frances Lake (parts of 105H/5 and 12) map areas, southeastern Yukon (1:100,000 scale). Exploration and Geological Services Division, Indian and Northern Affairs Canada, Open File 1999-4.

YGC RESOURCES, 1997a. Assessment Report #093577 by R.W. Stroshein.

YGC RESOURCES, 1997b. Assessment Report #093806 by R.W. Stroshein.

Work History

Date	Work Type	Comment
12/31/1997	Geology	
12/31/1997	Geochemistry	Also rock sampling.
12/31/1997	Other	
12/31/1996	Geology	
12/31/1996	Geochemistry	Also rock sampling.
12/31/1996	Other	
12/31/1976	Trenching	
12/31/1975	Airborne Geophysics	Also magnetic survey. Regional program.
12/31/1966	Geochemistry	
12/31/1966	Airborne Geophysics	
12/31/1966	Other	
12/13/1975	Ground Geophysics	Also HLEM survey.
12/13/1966	Ground Geophysics	Also magnetic survey.

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
093730	1996	1996 Assessment Report Ling Property Geological Mapping/ Prospecting and Soil Geochemistry	Soil - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Bedrock Mapping - Geology, Prospecting - Other		
093669	1996	Assessment Report on the 1996 Biogeochemistry Survey on the Cyr Property	Biogeochemistry - Geochemistry		
060148	1972	Geology and Geochemistry, Hoo Occurrence	Silt - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology		

Related References

Number	Title	Page(s)	Reference Type	Document Type
ARMC005802	Claims map - Mar, Cher and Nan groups - Pelly River project		Property File Collection	Geoscience Map (General)