## Occurrence Details

**Occurrence Number:** 105G 090
**Occurrence Name:** Fairbank
**Occurrence Type:** Hard-rock
**Status:** Showing
**Date printed:** 6/16/2025 9:54:07 AM

## General Information

**Secondary Commodities:** barite, fluorine, zinc
**Deposit Type(s):** Volcanogenic Massive Sulphide (VMS) Kuroko Cu-Pb-Zn
**Location(s):** 61°28'50" N - -131°54'51" W
**NTS Mapsheet(s):** 105G05
**Location Comments:** .5 Kilometres
**Hand Samples Available:** No
**Last Reviewed:**

### Capsule

Work History

Staked as NMT cl 1-16 (YA873) in Sep/76 by Noranda Exploration Company Ltd, which performed reconnaissance mapping and sampling later in the year.
Restaked as Lone cl 1-64 (YB90057) in Sep/97 by Pathfinder Resources Ltd. The claims make up part of the company¿s larger Starr property. In the fall of 1997 the company carried out a reconnaissance scale exploration program on the claims followed by an airborne geophysical survey.

Capsule Geology

The area is located in the Pelly Mountains southwest of the Tintina Trench. The occurrence lies near the centre of the Pelly Mountains volcanic belt, an arcuate belt of rocks measuring about 80 km long and up to 25 km wide that forms part of the Pelly-Cassiar Platform. In the 1970's several volcanic massive sulphide (VMS) deposits (Minfile Occurrence #105F 012 etc.) were discovered in the northwest end of the belt. After several years, interest in the belt waned, but interest was rekindled by the discovery of the Kudz Ze Kayah (Minfile Occurrence #105G 117) and Wolverine (Minfile Occurrence #105G 072) deposits in time-correlative strata in the Finlayson Lake area located to the east. The discovery of VMS mineralization on the Wolf (Minfile Occurrence #105G 008) property, at the southeast end of the belt, in 1997, triggered a staking rush and re-assessment of the
mineral potential throughout the volcanic belt.
Rocks of the Pelly Mountain volcanic belt are considered to be Late Devonian to Early Mississippian. The belt unconformably overlies cliff-forming carbonate and limey siltstone/shale that range from probable mid-Silurian to Middle Devonian age. The volcanic belt is overlain by coarse-grained sandstone and grit, argillite and massive rusty weathering carbonate which have been interpreted as Ordovician Road River and (?) Earn Group-equivalent strata that has been thrust over the volcanic package, however this contact is not directly exposed.
The original occurrence consisted of a silt anomaly caused by hydrozincite and minor sphalerite in a small erosional remnant of Ordovician Road River Formation shale surrounded by phyllite and volcanic rocks of the Pelly Mountains volcanic belt. Pathfinder Resources staked the Lone claims to explore the mineral potential of the Pelly Mountain volcanic belt.
Since Pathfinder Resources¿ exploration program was reconnaissance in nature little detailed mapping was reported. J. Hunt (1998) of the Yukon Geology Program carried out detailed geological mapping at the Wolf property located 27 km to the southeast. Hunt reported that the southeast end on the Pelly Mountain volcanic belt is made up of dominantly felsic volcaniclastic strata which she broke down into lower, middle and upper portions. The Wolf deposit is hosted within the middle portion of the volcanic succession, proximal to a syenite intrusion. Field work by Hunt and others indicates that to the west, towards the centre of the volcanic belt the felsic volcaniclastic component decreases as the number of sills, flows and dykes becomes more numerous, and the amount of intermediate volcanic material increases.
Pathfinder Resources reported that the Lone claims are mainly underlain by Pelly Mountain volcanic rocks. The southwest side of the claim group is underlain by tuff and tuffaceous slate (probably Hunt¿s Slate unit) while the northwest side is underlain by clastic rocks of uncertain origin ( Hunt¿s undivided unit). Prospecting located a gossan (Gossan 1) approximately 3.6 km northwest of the occurrence. The gossan is approximately 250 wide and consists of pyritic fine grained trachytes hosting barite and sphalerite veins. A float sample returned slightly anomalous Zn values while area silt samples returned anomalous values in Zn, Hg and Ba.

References

GIBSON, A.M., HOLBEK, P.M. AND WILSON, R.G., 1999. The Wolf property - 1998 update: Volcanogenic massive sulphides hosted by rift-related, alkaline, felsic volcanic rocks, Pelly Mountains, Yukon. In: Yukon Exploration and Geology 1998, C.F. Roots and D.S. Emond (eds.), Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p. 237-242.

HUNT, J.A., 1998. Preliminary geology of the Mount Vermillion area, Pelly-Cassiar Platform, Yukon Territory, 1:25 000 scale map (parts of 105G 5 & 6). Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Open File 1998-5.

HUNT, J.A., 1999. Preliminary stratigraphy and distribution of Devono-Mississippian massive sulphide-bearing volcanic rocks in the Mount Vermillion (Wolf) area, Pelly Mountains (105G/5 and 105G/6), southeast 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.73-89.

MINERAL INDUSTRY REPORT 1976, p. 203.

PATHFINDER RESOURCES LTD, May/98. Assessment Report #093786 by M. Baknes.

YUKON EXPLORATION & GEOLOGY 1997, p. 20, 37. 1998, p. 19, 28.

### Work History

| Date | Work Type | Comment |
|---|---|---|
| 12/31/1997 | Geochemistry | Also silt and soil samples. |
| 12/31/1997 | Airborne Geophysics | Also magnetic survey. |

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| 12/31/1997 | Other | |
| 12/31/1976 | Geology | |
| 12/31/1976 | Geochemistry | |
| 12/31/1976 | Geochemistry | |

## Assessment Reports that overlap occurrence

| Report Number | Year | Title | Worktypes | Holes Drilled | Meters Drilled |
|---|---|---|---|---|---|
| 094048 | 1999 | Horizontal Loop Electromagnetic and Total Magnetic Field Survey at the Starr Property, Ross River Area | Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, EM - Ground Geophysics, EM - Ground Geophysics, Magnetics - Ground Geophysics | | |
| 093983 | 1998 | Geological & Geochemical Report on the Starr Property | Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Detailed Bedrock Mapping - Geology, Prospecting - Other | | |

## Related References

| Number | Title | Page(s) | Reference Type | Document Type |
|---|---|---|---|---|
| ARMC016575 | Geology map - 105G/5 - McNeil Lake | | Property File Collection | Geoscience Map (Geological - Bedrock) |