Occurrence Details

Occurrence Number: 105G 041
Occurrence Name: Finlayson
Occurrence Type: Hard-rock
Status: Anomaly
Date printed: 12/16/2025 3:19:53 PM

General Information

Secondary Commodities: copper, nickel, zinc
Deposit Type(s): Unknown
Location(s): 61°29'42" N - -130°0'39" W
NTS Mapsheet(s): 105G08
Location Comments: 1 Kilometres
Hand Samples Available: No
Last Reviewed:

Capsule

Work History

First staked as May cl (Y7970) in Jun/66 by B. Haskell.
Cominco Ltd restaked the occurrence in May/95 as part of large block of northwest trending Strike cl 1-320 (YB59582). Later in the summer the company carried out silt sampling and an airborne EM/magnetic geophysical survey. In 1998, Cominco carried out follow up ground geophysics, soil and silt sampling, prospecting and geological mapping and diamond drilling of two holes (245.4 m) in the northeast corner of the property.

Capsule Geology

The area is underlain by two suites of rocks; the Early Mississippian Wolverine Lake succession and the Early Permian Campbell Range succession (Murphy et al., 2001). Earlier authors called these units Domain B and C. The oldest rocks in the area are the Wolverine Lake succession first mapped and recognized at the Wolverine deposit (Minfile Occurrence #105G 072) located 10 km to the southwest. The youngest stratigraphic unit present in the occurrence area is unit MWf, described as a tan to grey muscovite-quartz phyllite of felsic volcanic and subvolcanic protolith. It is overlain by unit MWt, a thinly interbedded (cm scale), massive to granular siliceous rock and light colored phyllite (metatuff and exhalite). The siliceous rocks are pale-colored, locally massive and bedded on metre-scale at base where associated with baritic iron formation. It is darker near the top of the unit where intercalated phyllite is dark grey.
The Campbell Range succession overlies the Wolverine Lake succession. Murphy and Piercey (2000) believe the contact between the two succession is depositional. Unit PPCb1, forms the basal unit of the succession. It is comprised of coarse basaltic breccia, pillowed and massive basaltic lavas, gabbro, diabase, and maroon and green chert. It is foliated and tightly folded in the occurrence area. Unit PPCb1 is overlain by unit PPCs, described as a heterogenous unit composed of carbonaceous argillite, quartz sandstone, chert, chert-pebble conglomerate and discontinuous bodies of limestone and diamictite. The succession is capped by Unit PPCb2, described as similar to unit PPCb1 and consisting of coarse basaltic breccia, pillowed and massive basaltic lavas, gabbro, diabase and maroon and green chert. In the occurrence area it is also foliated and tightly folded. Pennsylvanian to Permian ultramafic rocks intrude all levels of the succession.
The area has been glaciated but bedrock on upper slopes is relatively well exposed with little or no till cover. The rocks strike northwesterly and dip apparently in a homoclinal fashion to the northeast. The rocks are regionally metamorphosed to sub-greenschist facies, characterized by epidote alteration and weak foliation sub-parallel to bedding. To the northwest gentle folds indicate the sequence occupies the eastern limb of a major fold. Lineations suggest a shallow plunge to the northwest.
At the Wolverine deposit volcanogenic massive sulphide (VMS) mineralization occurs within unit MWt, near the contact with the underlying carbonaceous phyllite. Few massive sulphide deposits have been discovered in the Campbell Range succession but Piercey (et al., 1999) suggests that units PPCb1 and PPCb2 could host VMS style deposits.
Mapping by Cominco (Bannister, 1998) appears to verify Murphy¿s and other mapping. They reported that the southern third and the northern portion of the claim area, consists of chloritic pillowed basalt flows, epidotized and silicified lapilli tuffs and coarser clastic volcanic rocks (Campbell Range succession). A sequence of layered metasedimentary and metavolcanic rocks occupy the central portions of the property. The metasedimentary rocks are described as fine grained grey-green, variably carbonaceous, siltstone to mudstone. Metavolcanic rocks are reported to be represented by both a mafic and a felsic component. Felsic metavolcanic rocks are described as finely foliated quartz-sericite +/-feldspar schists, while the mafic component is represented by chloritic andesitic tuffs and minor mafic sills (Wolverine Lake succession).
Comincoċs 1995 silt sampling program identified several drainages anomalous in Cu and Ba. The airborne survey produced two strong, coincident EM-magnetic anomalies. The follow up ground geophysics program outlined numerous (HLEM) conductors flanking strong magnetic features. Silt sampling of a stream north of the ST3 grid returned five adjacent samples highly anomalous in Cu, Ni and Cr. Soil samples collected in 1996 and 97 returned several samples moderate to strongly anomalous in Cu and Ni in an area underlain by mafic flows. Geological mapping identified several small gossanous zones within the mafic rocks. These zones consist of primary breccias of small mafic fragments, floating in an Fe-rich carbonate matrix, with up to 2-5 % pyrite. A sample from one of these zones, containing significant pyrite, returned 80 ppm Au and 1 148 ppm Cu.
Cominco focused its 1998 work program on a large area of ferricrete that is coincident with an airborne magnetic high and a weak, single line EM conductor. Highly anomalous Cu values (to 11 920 ppm) were returned from soil samples collected from within and downslope of the ferricretes. Further prospecting in the area indentified malachite/calcite veined hematitic cherts, malachite veinlets in leucogranite and malchite stained mafic volcanics, but no significant amount of sulfides were found. While results of the drilling were considered generally poor by Cominco, DDH ST98-01 did intercept 1.9 m of hematitic chert containing several veins (up to 3.5 cm thick) of massive fine grained pyrite with 3-10% disseminated fine grained chalcopyrite that returned 1.9 % Cu and 5.7 g/t Ag. The lack of an EM/Mag target with a strong enough signature to represent significant mineralization, lead Cominco to suggest that no significant sulfide deposit was present in the area.

References

COMINCO LTD, Mar/97. Assessment Report #093612 by D.A. Senft and D. Hall.

COMINCO LTD, May/97. Assessment Report #093457 by D.A. Senft and R.D. Holroyd.

COMINCO LTD, Jun/98. Assessment Report #093815 by V.L. Bannister.

COMINCO LTD, Dec/98. Assessment Report #093914 by P.A. MacRobbie, R.K. Mann and R.D. Johnston.

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., 1999. 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, Yukon, Indian and Northern Affairs Canada, Open File 1999-4.

MURPHY, D.C. AND PIERCEY, S.J., 2000. Syn-mineralization faults and their re-activation, Finlayson Lake massive sulphide district, Yukon-Tanana Terrane, southeastern Yukon. In: Yukon Exploration and Geology 1999, D.S. Emond and L.H. Weston (eds.), Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p. 55-66.

MURPHY et al., 2001. Finlayson Lake Targeted Geoscience Initiative (southeastern Yukon), Part 1: Bedrock Geology. In Yukon Exploration and Geology, 2001, Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p. 189-207.

PIERCEY, S.J., HUNT, J.A. and MURPHY, D.C., 1999. Lithogeochemistry of meta-volcanic rocks from Yukon-Tanana Terrane, Finlayson Lake region, Yukon: Preliminary results. 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. 125-138.

PLINT, H.E., 1995. Geological mapping in the Campbell Range, southeastern Yukon. In: Yukon Exploration and Geology, 1994, Exploration and Geological Services Division, Indian and Northern Affairs Canada, p. 47-58.

Work History

Date	Work Type	Comment
12/31/1998	Drilling	Two holes, 245.4 m.
12/31/1998	Geology	
12/31/1998	Geochemistry	
12/31/1998	Ground Geophysics	UTEM, HLEM and magnetic surveys.
12/31/1998	Other	
12/31/1997	Geology	
12/31/1997	Geochemistry	
12/31/1997	Other	
12/31/1996	Geology	
12/31/1996	Geochemistry	
12/31/1996	Geochemistry	
12/31/1996	Ground Geophysics	HLEM, magnetic and Max-Min surveys.
12/31/1995	Geochemistry	Regional sampling.
12/31/1995	Airborne Geophysics	Also magnetic survey.

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
095893	2011	2011 Geochemical Survey of the Bolt Property	Rock - Geochemistry, Soil - Geochemistry		
095410	2010	Assessment Report Describing Geochemical Sampling and Diamond Drilling at the Bolt Property	Diamond - Drilling, Diamond - Drilling, Drill Core - Geochemistry, Soil - Geochemistry, Soil - Geochemistry	12	1297.46
095368	2009	Assessment Report Describing Hand Trenching, Prospecting and Geological Mapping on the Bolt Property	Detailed Bedrock Mapping - Geology, Prospecting - Other, Hand - Trenching		
093815	1997	1997 Assessment Report Strike & Era Properties	Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Prospecting - Other		
093612	1996	1996 Assessment Report Strike and Era Properties Ground Geophysics (HLEM/MAG), Soil Geochemistry and Geological Mapping	Soil - Geochemistry, Regional Bedrock Mapping - Geology, EM - Ground Geophysics, Magnetics - Ground Geophysics, Prospecting - Other		
093584	1996	Dighem V Survey for Westmin Resources Limited Wolverine Lake Project Yukon	Electromagnetic - Airborne Geophysics, Magnetic - Airborne Geophysics		
093457	1995	1995 Assessment Report Strike Property Airborne Geophysics, Silt Geochemistry and Geological Mapping	Electromagnetic - Airborne Geophysics, Magnetic - Airborne Geophysics, Silt - Geochemistry, Regional Bedrock Mapping - Geology		

Related References

Number	Title	Page(s)	Reference Type	Document Type
ARMC008554	Simple Bouguer and residual gravity map profiles - L 500 and 510E - Finlayson project		Property File Collection	Geophysical Map

Drill core at YGS core library

Number	Property	Year Drilled	Core Size	Photos	Data

BOLT-10-01	Bolt	2010	NTW-BTW	0	6
BOLT-10-02	Bolt	2010	NTW-BTW	0	2
BOLT-10-03	Bolt	2010	NTW-BTW	0	2
BOLT-10-04	Bolt	2010	NTW-BTW	0	2
BOLT-10-05	Bolt	2010	NTW-BTW	0	2
BOLT-10-06	Bolt	2010	NTW-BTW	0	2