



Occurrence Details

Occurrence Number: 106C 071
Occurrence Name: Pika
Occurrence Type: Hard-rock
Status: Showing
Date printed: 12/16/2025 4:50:21 PM

General Information

Deposit Type(s): Iron Oxide Breccias & Veins (Wernecke Breccias)
Location(s): 64°49'20" N - -133°28'3" W
NTS Mapsheet(s): 106C14
Location Comments: .5 Kilometres
Hand Samples Available: No
Last Reviewed:

Capsule

Work History

Staked as Pika cl (YA14291) in Nov/76 by Mountaineer Mines Ltd and optioned to Pan Ocean Oil Ltd which explored with mapping, geochem and radiometric surveys in 1977. In Dec/93 Westmin Resources Ltd staked Pika 1-36 cl (YB42323) 1.5 km to the north. In early 1994 Westmin formed the Fairchild Joint Venture with Newmont Exploration Ltd to explore the Pika and other claim groups. In Jun/94 Pamicon Developments Ltd and Equity Engineering Ltd began preliminary field work on the claims on behalf of the joint venture. At the end of June, on the basis of preliminary stream sediment results, the joint venture added Pika cl 37-60 (YB43041) to the west side of the original Pika claims. In the summer of 1995 Pamicon and Equity carried out detailed geological mapping, prospecting and soil and rock sampling on the claims.

Capsule Geology

The region is underlain by a metamorphosed and altered sequence of Early Proterozoic Wernecke Supergroup clastic and carbonate rocks (Fairchild Lake Group, Quartet Group and Gillespie Lake Group, from oldest to youngest) that are intruded by Early to Middle Proterozoic mafic sills and dykes, and cut by Middle Proterozoic Wernecke Breccia. To the east, Wernecke Supergroup rocks are unconformably overlain by Middle Proterozoic Pinguicula Group rocks. According to Thorkelson (2000), Wernecke Breccia development is best modeled as a set of hydrothermal and/or phreatic breccias; brecciation being caused by explosive expansion of volatile-rich fluids. Hunt (2005) attributed Wernecke Breccia formation to periodic overpressuring of dominantly basinal fluids, which lead to repeated brecciation of host strata and mineral precipitation. The original Pika claims covered a breccia body cutting Gillespie Lake Group clastic and carbonate rocks and unconformably overlying Pinguicula Group sedimentary rocks. Minor Proterozoic age supergene enrichment (up to 29 ppm arsenic and 0.2% copper) occurs within the breccia body and metasomatized Gillespie Lake Group rocks. The base of the leached zone is marked by copper mineralization. Westmin staked Pika cl 1-36 to cover extensive copper mineralization reported by D. Thorkelson in an oral presentation given at the November 1993 Yukon Geoscience Forum. According to property mapping by Pamicon and Equity, the claims are underlain by dolomite and interbedded dolomite, shale and siltstone of the Gillespie Lake Group and strata transitional to the underlying Quartet Group. At the south and east end of the property Gillespie Lake Group dolomite is overlain unconformably by Pinguicula Group shale and siltstone. A large complex of Wernecke Breccia and spatially associated diorite (Bonnet Plume River Intrusions - Early Proterozoic) have been mapped on the property. Mineralization reported by Thorkelson as supergene enrichment consisted of bleached and foliated silica-altered dolostone with minor chalcopyrite and malachite stain, but no clear evidence was seen to suggest that this mineralization represents a supergene product. In general, samples from this mineralization returned low copper values. A grab sample collected from talus assayed 10 ppb gold and 7 270 ppm copper. A specimen of brecciated diorite collected by Thorkelson and Wallace (1994) assayed 2% copper.

References

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).

HUNT, J., 2005. The geology and genesis of iron oxide-copper-gold mineralisation associated with Wernecke Breccia, Yukon Canada, PhD thesis, James Cook University, Australia, 2 volumes, 120 p.

PAMICON DEVELOPMENTS LTD, Feb/95. Assessment Report #093268 by M.A. Stammers.

PAMICON DEVELOPMENTS LTD, Jan/96. Assessment Report #093380 by A.T. Montgomery.

THORKELSON, D.J. AND WALLACE, C.A., 1994. Geological Setting of mineral occurrences in Fairchild Lake map area, (106C/13), Wernecke Mountains, Yukon. In: Yukon Exploration and Geology, 1993, Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p. 79-92.

THORKELSON, D.J. AND WALLACE, C.A., 2000. Geology and mineral occurrences of the Slat Creek, Fairchild Lake and "Dolores Creek" areas, Wernecke Mountains, Yukon (106D/16, 106C/13, 106C/14). Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada, Bulletin 10, 73 p.

Work History

Date	Work Type	Comment
12/31/1995	Geochemistry	
12/31/1995	Geology	
12/31/1995	Geochemistry	
12/31/1995	Other	

12/31/1994	Geochemistry	
12/31/1994	Other	
12/31/1977	Ground Geophysics	
12/31/1977	Geology	
12/31/1977	Geochemistry	Also rock sampling.
12/31/1976	Other	

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
095646	2007	2007 Geological, Geochemical and Geophysical Report on the Wernekes Project	Diamond - Drilling, Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Regional Bedrock Mapping - Geology, Magnetics - Ground Geophysics, Scintillometer - Ground Geophysics, Prospecting - Other, Backhoe - Trenching, Hand - Trenching, Handblast - Trenching	28	6537.96
094953	2006	Assessment Report Describing Airborne Geophysics, Mapping, Prospecting and Diamond Drilling	Gamma-Ray Spectrometry - Airborne Geophysics, Magnetic - Airborne Geophysics, Diamond - Drilling, Drill Core - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other	22	2602.89
094956	2006	2006 Geological, Geochemical and Geophysical Report on the Wernekes Project	Reverse Circulation - Airborne Geophysics, Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Scintillometer - Ground Geophysics, Prospecting - Other		
061207	1974	Report on Geological and Geochemical Field Work 1974 EG Claim Group	Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Prospecting - Other		

Related References

Number	Title	Page(s)	Reference Type	Document Type
ARMC008086	Dolores Creek detail map area - Reef project		Property File Collection	Geoscience Map (General)
ARMC007822	Geochemical values map - Sample sites - Reef project - Dolores Creek detail area - Figure 5		Property File Collection	Geochemical Map
ARMC007823	Geology map - Reef project - Dolores Creek detail area - Figure 4		Property File Collection	Geoscience Map (Geological - Bedrock)