Occurrence Details

Occurrence Number: 105B 040
Occurrence Name: Jc
Occurrence Type: Hard-rock
Status: Prospect
Date printed: 12/16/2025 9:45:23 PM

General Information

Primary Commodities: copper, tin
Secondary Commodities: silver, zinc
Aliases: Fis, Fur, Fxe, Viola
Deposit Type(s): Skarn Sn
Location(s): 60°11'45" N - -131°42'16" W
NTS Mapsheet(s): 105B04
Location Comments: Location from map in AR 097419
Hand Samples Available: No
Last Reviewed:

Capsule

Work History

Staked as Viola cl (Y22485) in Dec/67 by Esansee Exploration Ltd and later transferred to Yucan Silver Mines Ltd, which carried out bulldozer trenching in 1968.
Restaked twice by Cypress Exploration Ltd, originally as FXE cl (Y64626) in Aug/72 when it performed minor sampling, and later as FIS cl (Y83111) in Jul/74 when it drilled two holes (38.1 m).
Restaked as JC cl (YA25465) in Aug/77 by the DC Syndicate (Dome and Cominco), which explored with mapping and geochem sampling in 1978-80, trenching in 1978, mag surveys in 1979-80, 8 holes (804.7 m) in 1979, 14 holes (915.3 m) in 1980, and mapping, an aeromag survey and 9 holes (1673 m) in 1981. In 1982, DC Synd drilled another 8 holes (1527m) on the east end of the zone.
E. Johnson staked Fur cl (YA33778) to the south in Jul/78 and performed prospecting and sampling in 1978 and 1979.
Brett Resources staked Smart, Cass and Seagull cl around original JC occurrence in 2005.

Capsule Geology

Tin-bearing skarn has formed along the contact between a porphyritic lobe of the mid Cretaceous Seagull Batholith and a shallow dipping 30-35 m carbonate layer which occurs in a thick sequence of Mississippian quartzite. The original discovery was a diopside skarn band up to 6 m thick that is exposed for a length of over 850 m. It contains scattered patches of massive pyrrhotite and chalcopyrite up to a metre long and small patches of disseminated magnetite, arsenopyrite, pyrite and pyrrhotite. Surface assays were low and the best core assay was 2.7% Cu and 65.1 g/t Ag across the first 0.9 m of Hole 1 on claim FXE 2. Nickel and gold assays were all trace.
In 1977, DC Syndicate discovered tin mineralization associated with light calc-silicate skarn and dark skarn. The dark variety is composed of pyroxene, epidote, actinolite, garnet and calcite. Mineralization includes sphalerite, chalcopyrite, arsenopyrite, magnetite, scheelite and, locally, axinite, beryl, fluorite and apatite. A pipe-like lens or diatreme of breccia with axinite-fluorite mineralization is also present. Tin mineralization is associated with all types of skarn and consists of cassiterite with lesser amounts of malayaite, stannite and stanniferous tetrahedrite. The only assay reported, which was the best chip sample from the 1978 trenches, is 1.26% Sn, 0.4% Cu, 0.04% Zn and trace WO_3 across a true thickness of 2.6 m.
The 1980 and 1981 drilling, which was concentrated at the east end, reportedly defined a significant zone of tin mineralization, although grades generally average less than 0.2% Sn. The 1982 holes encountered structural complications.
Isotopic studies by Layne et al. (1991) clearly indicate a magmatic source for all of the sulphide minerals. Paragenetic and fluid inclusion studies show that cassiterite and fluorite are associated with quartz-biotite skarn formed in a narrow zone along the skarn-granite contact from a pulse of high temperature, high salinity magmatic fluid, during the fourth of six stages of skarn formation.

References

BRETT RESOURCES INC., News Release, 4 Oct/05.

COMINCO LTD, Jun/82. Assessment Report *#091062 by L.J. Nagy.

CYPRESS RESOURCES LTD, Nov/72. Prospectus Report by R.S. Adamson.

CYPRESS RESOURCES LTD, 1974. Assessment Report *#091099 by F. Erl and F. Schomig.

DC SYNDICATE, 1977. Assessment Report *#090354 by J.E. Cartier and J.C. Stephens.

DC SYNDICATE, 1978. Assessment Report *#090462 by J.C. Stephens.

DC SYNDICATE, 1979. Assessment Report *#090567 by J.C. Stephens.

DICK, L.A., 1980. A comparative study of the geology, mineralogy, and conditions of formation of contact metasomatic mineral deposits in the northeastern Canadian Cordillera. Unpublished PhD thesis, Queen's University, p. 8, 9, 165, 194, 205-16, 381, 392.

GEORGE CROSS NEWSLETTER, 10 Oct/74.

JOHNSON, E.H., 1979. Assessment Report *#090524 by E.H. Johnson.

LAYNE, G.D. ET AL., 1991. The JC tin skarn deposit, Southern Yukon Territory. Economic Geology, Vol 86, p. 29-65.

MINERAL INDUSTRY REPORT, 1978, p. 57.

WESTERN MINER, Apr/80, p. 45-48.

YUKON GEOLOGY AND EXPLORATION 1979-80, p. 148-149.

YUKON EXPLORATION AND GEOLOGY 1981, p. 98; 1982, p. 97; 1983, p. 28-29.

Work History

Date	Work Type	Comment
6/1/2020	Geochemistry	
6/1/2020	Geochemistry	
6/1/2020	Other	
6/1/2019	Geochemistry	
6/1/2019	Geochemistry	
6/1/2019	Lab Work/Physical Studies	
6/1/2018	Geochemistry	
6/1/2018	Airborne Geophysics	
6/1/2018	Airborne Geophysics	
6/1/2012	Geochemistry	
6/1/2006	Trenching	
6/1/2006	Geochemistry	
6/1/2006	Airborne Geophysics	
6/1/1980	Geochemistry	
6/1/1980	Geochemistry	
6/1/1979	Geochemistry	
6/1/1979	Geochemistry	
6/1/1979	Trenching	
6/1/1978	Geochemistry	
6/1/1978	Studies	
6/1/1977	Geochemistry	
6/1/1977	Geochemistry	
6/1/1977	Geology	
6/1/1977	Other	
12/31/1982	Drilling	Eight holes, 1,527 m.
12/31/1981	Drilling	Nine holes, 1,673 m.
12/31/1981	Geology	
12/31/1981	Airborne Geophysics	Airborne magnetic survey.
12/31/1980	Drilling	Number of holes drilled: 14 Amount of work done: 924.5 METRES
12/31/1980	Geology	
12/31/1980	Other	
12/31/1979	Drilling	Number of holes drilled: 8 Amount of work done: 449.8 METRES
12/31/1979	Geology	
12/31/1979	Ground Geophysics	
12/31/1979	Other	
12/31/1978	Geology	
12/31/1978	Geochemistry	Also silt sampling.
12/31/1978	Trenching	
12/31/1974	Drilling	Two holes, 38.1 m.
12/31/1972	Geochemistry	
12/31/1968	Trenching	
12/13/1978	Ground Geophysics	

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
097201	2018	Memorandum Report of Exploration Work 2018 - Jaycee Tin Property	Gamma-Ray Spectrometry - Airborne Geophysics, Magnetic - Airborne Geophysics, Rock - Geochemistry		
096722	2014	STAKING, SOIL SAMPLING, PROSPECTING AND AIRBORNE GEOPHYSICS REPORT – SEAGULL TIN PROJECT	Magnetic - Airborne Geophysics, Rock - Geochemistry, Soil - Geochemistry		
090567	1980	Geochemical Geological Report on the JC 79-88 Mineral Claims	Diamond - Drilling, Soil - Geochemistry, Detailed Bedrock Mapping - Geology	8	804.70
090462	1979	Geological, Geochemical, Geophysical Report on the J. C. 1-82 Mineral Claims	Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Magnetics - Ground Geophysics, Petrographic - Lab Work/Physical Studies, Backhoe - Trenching, Handblast - Trenching		
090803	1979	Report of Geological and Geochemical Surveys on Slouce Project	Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Petrographic - Lab Work/Physical Studies, Hand - Trenching		
090470	1978	Klinkit Joint Venture: 1978 Field Programme for Duval International Corporation and Du Pont of Canada Exploration Limited	Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Geotechnical - Studies		
090354	1977	Geological Report on the J. C. 1-8 Mineral Claims	Rock - Geochemistry, Silt - Geochemistry, Detailed Bedrock Mapping - Geology, Prospecting - Other		

Related References

Number	Title	Page(s)	Reference Type	Document Type
ARMC012722	Prospectus , report on the FXE claims, report on the Lad claims (Bonnet Plume River) and certificate of assay		Property File Collection	Report
12-054	Airborne Geochemical Sample Survey - Seagull Tin Project		Yukon Government: Energy, Mines and Resources	YMEP Report

Drill core at YGS core library

Number	Property	Year Drilled	Core Size	Photos	Data
DDH-JC-82-1	JC	1982	BQ	1	1
DDH-JC-82-2	JC	1982	BQ	4	1
DDH-JC-82-4	JC	1982	BQ	3	1
DDH-JC-82-5	JC	1982	BQ	2	1
DDH-JC-81-4	JC	1981	BQ	2	2
DDH-JC-81-6	JC	1981	BQ	1	2
DDH-JC-81-7	JC	1981	BQ	2	5
DDH-JC-81-8	JC	1981	BQ	2	5
DDH-JC-81-9	JC	1981	BQ	3	2