



Occurrence Details

Occurrence Number: 115G 026
Occurrence Name: Musketeer
Occurrence Type: Hard-rock
Status: Showing
Date printed: 8/6/2025 12:42:35 AM

General Information

Secondary Commodities: copper, gold, nickel, palladium, platinum
Deposit Type(s): Ultramafic Mafic Gabbroid Cu-Ni-PGE
Location(s): 61°30'9" N - 139°39'37" W
NTS Mapsheet(s): 115G12
Location Comments: 1 Kilometres
Hand Samples Available: No
Last Reviewed:

Capsule

Work History

Originally staked as Donjek cl 1-16 (63435) in Aug/52 by Conwest Exploration Company Ltd. Teck Exploration Company Ltd staked Musketeer cl 1-24 (63307) to the east and west at the same time. In 1953 both companies are reported to have carried out geological mapping and prospecting, as well as staking Donjek cl 17-27 (66049) and Musketeer cl 25-52 and 64-67 (66166) in Jul/53 and Musketeer cl 53-62 (66479) in Aug/53 contiguously with the original claims. In 1955, Teck carried out magnetometer, EM and resistivity geophysical surveying of the combined claim group and staked Ohm cl 1-4 (71070) to the southeast in Aug/55.

Restaked as Legacy cl 1-24 (Y12572) in Apr/67 by J.B. O'Neil and C. Gibbons, who carried out magnetometer and EM-16 geophysical surveying and geological mapping of the claims later in the year in conjunction with work on their adjoining Jiffy and Tippy claims to the southeast (Minfile Occurrence #115G 025) which included road building. Optioned briefly in Feb/72 to the Nickel Syndicate (Canadian Superior Exploration Ltd, Aquitaine, Home Oil Company Ltd and Getty Mines Ltd), which carried out geological mapping, geochemical sampling, magnetometer and EM surveying later in the year.

Restaked as Mus cl 1-16 (YA94962) in Jun/86 by Klauene Joint Venture (All-North Resources Ltd and Chevron Minerals Ltd), which carried out geochemical sampling in 1986. G. Davidson staked Amp cl 1-10 (YA95100) to the southeast at the same time, before subsequently optioning the claims to Klauene Joint Venture which drilled one hole (85.6 m) 2.35 km southeast of the location marker for this occurrence in 1988.

The Oro cl 1-12 (YA96419) were tied on to the north by E. Parmentier in Nov/86 and sold to Fred Minerals Ltd in 1987. Other adjoining claims included Missy cl 1-28 (YA97660) and SF cl 1-84 (YA97576) to the southwest in Jun/87 by Harjay Exploration Company Ltd and Klauene Joint Venture; Jek cl 1-48 (YA96984) to the west in Mar/87 by Silverquest Resources Ltd and Pak-Man Resources Inc, which carried out geological mapping and geochemical sampling later in the year; and PC cl 1-50 (YA97796) to the south in May/87 by S. Ridgway.

In 1987 the Klauene Joint Venture claims were optioned by Rockridge Mining Corporation and Pak-Man Resources Inc, which carried out geological mapping, geochemical sampling and magnetometer and VLF-EM surveying later in the year. The PC claims were transferred to Gold City Resources Inc in Jun/88 and a 50% interest in the Oro claims was transferred to A-X Minerals in Oct/88. Harjay explored the SF and Missy claims with soil geochemical sampling and magnetometer surveying in Jun/88 and Jun/89.

Restaked as Ar cl 1-60 (YC18359) in Sep/99 by Cabin Creek Resources Management Inc (T. Morgan) which added Ar cl 61 (YC18892) in Sep/2000, before optioning the claims to Auterra Ventures Inc in Oct/2000. Auterra carried out geochemical sampling, road rehabilitation and blast trenching in 2000 and geochemical rock sampling and magnetometer and VLF-EM geophysical surveying in 2001.

Capsule Geology

Assessment work filed from 1953 to 1955 identified two small copper-nickel showings that were found on the Donjek cl 4 (Conwest showing, this occurrence) and approximately 1 km south on the Musketeer cl 32 (Teck showing). The area is largely drift-covered, but mapping and geophysics revealed that conformable Lower Triassic mafic to ultramafic sills are present in the Pennsylvanian to (?) Lower Permian Station Creek Formation which underlies the area and is comprised of intermediate to mafic volcanics and sediments.

No nickel mineralization was found during the earlier work, but Station Creek tuff containing disseminated and fracture filling chalcopyrite and malachite assayed up to 0.3% Cu. The Conwest showing consists of 90 m of oxidized, medium grained gabbro lying east of and subparallel to a south-southeast trending fault. The intrusion occurs as two separate bodies, 15 m or more in width, that are flanked by quartz +/- calcite stringer stockwork zones within the volcanic host rock. Both the intrusion and stockwork zones are mineralized with interstitial and disseminated pyrite and chalcopyrite +/- pentlandite. Chip sampling in 2000 returned values up to 2 015 ppm Ni, 5 448 ppm Cu and 154 ppb Au.

The Teck showing consists of a small exposure of a 1 m wide, southeast trending fault zone within variably calcareous felsic to intermediate feldspathic porphyry in proximity to a peridotitic sill. The fault zone is mineralized with pyrite, while the sill is locally serpentinized and variably mineralized with fine disseminated pyrite, magnetite and pyrrhotite. Chip samples collected from a carbonate altered section of the sill returned the best values from sampling of this showing, returning 0.11 g/t Pt, 0.11 g/t Pd, 1 581 ppm Ni, 709 ppm Cu and 0.14 g/t Au over 2 m.

Magnetometer surveying in 2001 identified anomalies in overburden covered areas in the vicinity of the Teck showing and the 1988 drill hole (DDH A-88-01). The anomaly in the vicinity of the Teck showing is located approximately 60 m northwest of the showing and measures 150 m along strike by 100 m wide and is open along strike in both directions. The anomaly in the vicinity of DDH A-88-01 is at least 475 m long, varies in width from 30 to 150 m and is coincident with the axis of a relatively continuous VLF-EM conductor along its southeast edge.

References

AUTERRA VENTURES INC, Feb/2001. Assessment Report #094217 by M.T. Vanwermeskerken.

AUTERRA VENTURES INC, Aug/2002. Assessment Report #094396 by R.D. Brickner.

CONWEST EXPLORATION COMPANY LTD, 1953. Assessment Report *#092017 by J.R. Woodcock.
DAWSON ELDORADO MINES INC, 1987. Assessment Report *#092601 by C.J.R. Hart and R.A. Doherty.

LODESTAR EXPLORATION COMPANY LTD, 1988. Assessment Report *#092575 by G.S. Davidson.

LODESTAR EXPLORATION COMPANY LTD, 1989. Assessment Report *#092744 by G.S. Davidson.

O'NEIL, J.B. and GIBBONS, C., Oct/67. Assessment Report #019085 by R.G. Hilker.

PAK-MAN RESOURCES INC, ROCKRIDGE MINING CORPORATION and KLUANE JOINT VENTURE, Feb/89. Assessment Report #092645 by W.D. Eaton.

READ, P.B. and MONGER, J.W.H., 1976. Pre-Cenozoic volcanic assemblages of the Klauane and Alsek Ranges, Southwestern Yukon Territory. Geological Survey of Canada Open File 381.

SILVERQUEST RESOURCES LTD and PAK-MAN RESOURCES INC, 1987. Assessment Report #092089 by W.D. Eaton.

TECK EXPLORATION COMPANY LTD, Nov/53. Assessment Report #091763 by M.H. Frohberg.

TECK EXPLORATION COMPANY LTD, Dec/55. Assessment Report #017459 by A.J. Walker.

TECK EXPLORATION COMPANY LTD, Feb/56. Assessment Report #017513 by A.R. Clark.

YUKON EXPLORATION 1987, p. 240.

YUKON EXPLORATION AND GEOLOGY 2000, p. 23; 2001, p. 24.

Work History

Date	Work Type	Comment
12/31/2001	Geochemistry	
12/31/2001	Ground Geophysics	Also VLF-EM survey.
12/31/2000	Geochemistry	
12/31/2000	Trenching	
12/31/2000	Development, Surface	
12/31/1989	Geochemistry	
12/31/1989	Ground Geophysics	
12/31/1988	Drilling	One hole, 85.6 m. Drilled on Amp claims, 2.35 km southeast of location marker for occurrence.
12/31/1988	Geochemistry	
12/31/1988	Ground Geophysics	
12/31/1987	Geology	
12/31/1987	Geochemistry	
12/31/1987	Ground Geophysics	Also VLF-EM surveys.
12/31/1986	Geochemistry	
12/31/1972	Geology	
12/31/1972	Geochemistry	
12/31/1972	Ground Geophysics	Also magnetic survey.
12/31/1967	Geology	
12/31/1967	Development, Surface	
12/31/1967	Ground Geophysics	Also magnetic survey.
12/31/1955	Ground Geophysics	Also EM and resistivity surveys.
12/31/1953	Geology	
12/31/1953	Other	

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
096373	2013	Geophysical Interpretation of the Rory Claim Group, Yukon	Process/Interpret - Pre-existing Data		
096154	2011	Geological and Geochemical Assessment Report on the AR Project	Rock - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other		
093870	1997	Summary Report	Silt - Geochemistry, Prospecting - Other, Mechanical - Trenching		
092007	1987	Summary Report on 1987 Exploration	Soil - Geochemistry, Bedrock Mapping - Geology, EM - Ground Geophysics, Prospecting - Other, Mechanical - Trenching		
017459	1955	Report of Work on Donjek and Musketeer Claims, Arch Creek, Yukon	EM - Ground Geophysics, Magnetics - Ground Geophysics		
092017	1953	Report on Donjek Group	Bedrock Mapping - Geology, Prospecting - Other		
092054	1953	Report on the Geophysical Surveys in the Shakwak Valley Area, Yukon Territory for Canalsak Nickel Mines Limited.	Magnetic - Airborne Geophysics		

Related References

Number	Title	Page(s)	Reference Type	Document Type
ARMC013049	Preliminary evaluation report - Arch Creek area - Tippy-Jiffy-Legacy & Sue claims		Property File Collection	Report
ARMC013048	Property examination report on the Arch Creek area - Tippy-Jiffy-Legacy-Sue claims		Property File Collection	Report
ARMC013050	Geological map - Arch Creek area - 115-G-5, 12		Property File Collection	Geoscience Map (Geological - Bedrock)