Occurrence Details

Occurrence Number: 105G 020
Occurrence Name: Riley
Occurrence Type: Hard-rock
Status: Anomaly
Date printed: 4/29/2025 9:42:54 PM

General Information

Secondary Commodities: arsenic, beryllium, copper, lead, tungsten
Deposit Type(s): Unknown
Location(s): 61°26'23" N - -131°11'4" W
NTS Mapsheet(s): 105G06
Location Comments: .5 Kilometres
Hand Samples Available: No
Last Reviewed:

Capsule

Work History

Discovered in 1954 by Pelly River Exploration Ltd (Pioneer Gold Mines Ltd; American Standard Mines Ltd; New York-Alaska Gold Dredging Corporation; and Northwest Ventures Ltd). First staked as part of the Gee claims (1-530, Y90l72) in Jan/66 by Northlake Mines Ltd (Augustus Exploration Ltd, Copper Ridge Mines Ltd, Silver Standard Mines Ltd, Transcontinental Resources Ltd, North Pacific Mines Ltd), which conducted airborne mag and EM, prospecting and grid soil sampling later in the year (Areas 8 & 9).
Restaked as part of a large block of Boot claims (1-282, YA33838) in Jul/78 by Chevron Canada Ltd, which explored with mapping, geochem sampling and hand trenching in 1978 and additional geochem sampling in 1979.
The occurrence was restaked as Lamp cl 1-48 (YB56268) in Oct/94 by A. Harman, who carried out a small prospecting program in Sep/95. In Oct/95 Harman optioned the claims to Minfocus International Inc which carried out VLF-EM and magnetometer surveys, reconnaissance geological mapping and detailed rock and soil geochemical surveys in Aug/96.
Restaked as Light cl 1-41 (YB92385) in Aug/99 by Expatriate Resources Ltd, which carried out a prospecting and sampling program later in the month. In 2002 the company carried out one day of soil sampling and prospecting on neighboring Minfile Occurrence #105G 021C and nothing on this occurrence. The company added Light cl 51-60 (YC22637) and Light cl 65-68 (YC22647) to the northeast, in Nov/2002 to cover the area surrounding Minfile Occurrence #105G 021C.
Expatriate Resources staked NS cl 1-40 (YC22547) in Nov/2002 on the western boundary of Light cl 1-41. In Mar/2003 the company optioned a 60% interest in the NS and Light claims to Entourage Mining Ltd in return for certain work commitments and monetary payments. In Sep/2002 Entourage carried out contour soil sampling on the NS claims and soil sampling, prospecting and geological mapping on the Light claims associate with Minfile Occurrence 105G 021C. The company was looking for elevated beryllium values in the soils and further signs of beryl mineralization. Entourage dropped the option in Nov/2005 and returned both sets of claims to Expatriate Resources.

Capsule Geology

The area was recently re-mapped by Murphy et al., (2001) of the Yukon Geological Survey. The occurrence is underlain by voluminous layered metamorphic rocks that range in age from Upper Devonian and Older, to Lower Mississippian. These rocks belong to the Yukon-Tanana Terrane and have been assigned to Murphy's Grass Lakes Succession. The oldest rock unit in the area is unit Dqm, comprised of micaeous marble, calcareous schist and lesser carbonaceous phyllite and followed by unit Dq, comprised of tan- to brown-weathering biotite-muscovite-feldspar psammitic schist and quartz-biotite-muscovite metapelitic schist.
These units are overlain by the unit DF, Fire Lake metavolcanic rocks, comprised of massive to subtly layered, plagioclase-chlorite phyllite or schist, lesser carbonaceous phyllite, muscovite-quartz phyllite, grey quartzite and marble. The unit also hosts rare brown-weathering carbonate-clast pebble to cobble conglomerate. The succession is topped by unit DMcg, quartzofeldspathic-pebble metaconglomerate. In the Finlayson Lake area, the metaconglomerate unit was deposited on all underlying units of the Grass Lakes succession, implying an angular unconformity following a phase of deformation.
The Grass Lake succession is intruded by voluminous granitic meta-plutonic rocks of the "Grass Lakes Plutonic Suite". In the occurrence area, unit Mgag occurs approximately 2 km to the north and consists of variably foliated, medium- to coarse-grained, equigranular granite to quartz monzonite. A small, granitic stock believed to be Cretaceous in age intrudes the succession 5 km to the southeast.
Northlake's airborne geophysical survey identified an EM conductor in the general area of the occurrence. Follow-up prospecting uncovered a few pieces of quartz float containing small amounts of chalcopyrite. Soil and silt sampling returned slightly elevated levels for lead and copper.
Chevron reported tungsten mineralization in several different host rocks and/or settings. At this occurrence the company reported finding 6 mineralized float samples consisting of rusty muscovite-garnet schist and gneiss, hosting pyrrhotite and scheelite mineralization. The best sample returned 5.4% tungsten oxide(WO3). Attempts to find the source of the float failed.
Harman's prospecting program re-located all the known mineralized showings in the area. Heavy mineral sampling carried out along various streams returned several galena crystals in one area and fine placer gold in another. Prospecting around a gossanous zone near the original occurrence location uncovered several pieces of siliceous float containing minor chalcopyrite mineralization.
Minfocus did not discover any new showings or zones of mineralization. Soil sampling returned several spot copper and zinc anomalies.
Expatriate explored the area for potential emerald bearing stratigraphy similar to that found at Regal Ridge (Minfile Occurrence #105G 147) located approximately 40 km to the southeast. The company concentrated on two areas, A and B. Area A is located north of occurrence A, while Area B is located approximately 3 km to the east, near occurrence C of Minfile Occurrence #105G 021. At area A, the company collected two lines of contour soil samples and collected silt samples from the adjoining creeks. One sample located at the southernmost end of the sampling area returned extremely anomalous arsenic (7 970 ppm) and moderately anomalous beryllium (2.0 ppm) values. During prospecting activities the company did not find any ultramafic rocks on the claims. Ultramafic rocks are generally required to provide a source for chromium, which in turn provides emeralds with their green color.
Entourage Mining's soil sampling program on the NS claims returned background levels for beryllium, molybdenum, copper, nickel and chromium. Work on the Light claims was limited to an area located southeast of neighboring Minfile Occurrence #105G 021C.

References

CHEVRON CANADA LTD, Feb/79. Assessment Report #090439 by U. Schmidt and R.J. Cathro.

CHEVRON CANADA LTD, Mar/80. Assessment Report #090558 by U. Schmidt and A.R. Archer.

CHEVRON CANADA LTD, Jan/81. Assessment Report #090728 by U. Schmidt and R.J. Cathro.

ENTOURAGE MINING LTD AND EXPATRIATE RESOURCES LTD, Dec/2003. Assessment Report #094426 by C.G. Verley.

ENTOURAGE MINING LTD AND EXPATRIATE RESOURCES LTD, Jan/2004. Assessment Report #094451 by C.G. Verley.

ENTOURAGE MINING LTD, Audited Annual Financial Statements - English. May 1, 2006 p. 13. Available on SEDAR.

EXPATRIATE RESOURCES LTD, May/2000. Assessment Report #0944111 by W.A. Wengzynowski.

EXPATRIATE RESOURCES LTD, Mar/2002. Web Site: www. Expatriateresources.com/

EXPATRIATE RESOURCES LTD, Aug/2003. Assessment Report #094419 by R. Duncan.

GEOLOGICAL SURVEY OF CANADA Paper 67-40, p. 59

HARMAN, A.G, Apr/96. Assessment Report # 093406 by A.G. Harman.

MINFOCUS INTERNATIONAL INC, Feb/97. Assessment Report #093554 by J.Arengi and G. Harper.

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, D.C. ET AL., 2001. Preliminary bedrock geological map of northern Finlayson Lake area (NTS 105G), Yukon Territory. Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada, Open File 2001-33, 1:00 000 scale.

MURPHY, D.C. ET AL., 2002. Finlayson Lake Targeted Geoscience Initiative (southwestern Yukon), Part 1: Bedrock geology. In: Yukon Exploration and Geology 2001, D.S. Emond, L.H Weston and L.L. Lewis (eds.), Exploration and Geological Services Division, Yukon region, Indian and Northern Affairs Canada, p. 189-207.

MINERAL INDUSTRY REPORT 1978, p. 65.

NORTHLAKE MINES LTD, 1966. Assessment Report *#060252 by N.R. Paterson.

NORTHLAKE MINES LTD, 1967. Assessment Report #019114 by A.J. MacDonald.

NORTHLAKE MINES LTD, 1967 Assessment Report #019115 by P.H. Sevensma.

NORTHLAKE MINES LTD, Apr/68. Assessment Report #060585 by R.G. Gifford.

Work History

Date	Work Type	Comment
12/31/2003	Geochemistry	Carried out by Entourage Mining on NS claims.
12/31/2002	Geochemistry	One day program.
12/31/2002	Other	One day program.
12/31/1999	Geochemistry	
12/31/1999	Geochemistry	
12/31/1999	Other	Work was preliminary in nature.
12/31/1996	Geochemistry	Also rock sampling.
12/31/1996	Ground Geophysics	Also VLF and magnetic surveys.
12/31/1996	Geology	
12/31/1995	Other	Harman carried out prospecting program over Lamp claims.
12/31/1979	Geochemistry	
12/31/1978	Geology	
12/31/1978	Geochemistry	
12/31/1978	Trenching	
12/31/1966	Geochemistry	
12/31/1966	Airborne Geophysics	Also magnetometer survey.
12/31/1966	Other	
12/31/1954	Other	Discovered but not staked.

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
		Report on a Geological Survey on the Lamp and Alan Group of	Rock - Geochemistry, Soil - Geochemistry, Regional Bedrock		

093554	1996	Report on a Geological Survey on the Lamp and Alan Group of Claims	Mapping - Geology, EM - Ground Geophysics, Magnetics - Ground Geophysics, Line Cutting - Other		
093406	1995	Prospecting Report Lamp Claims	Prospecting - Other		
090728	1980	Report on Geological Mapping and Diamond Drilling on the Boot 1-284 & Marmot 1-24 Claims	Diamond - Drilling, Soil - Geochemistry, Detailed Bedrock Mapping - Geology	10	1232
090558	1979	Report on Geological Mapping, Geochemical Surveys and Diamond Drilling Boot 1-284 & Marmot 1-24 Claim Group Conducted July 29 - October 13, 1979	Diamond - Drilling, Soil - Geochemistry, Detailed Bedrock Mapping - Geology	10	1414
090439	1978	Report on Geological Mapping, Geochemical and Radiometric Surveys, BOOT 1-284 and MARMOT 1-24 Claim Group	Silt - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Regional Bedrock Mapping - Geology, Line Cutting - Other, Hand - Trenching		
060250	1966	Geological, Geochemical, Geophysical & Physical Work Report on the Hoo, EL, Gee Leo, P.S., P.G., C.W. and Z Claim Groups	Electromagnetic - Airborne Geophysics, Magnetic - Airborne Geophysics, Diamond - Drilling, Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, EM - Ground Geophysics, Backhoe - Trenching	4	486.46
019114	1966	Report on the Hoo, EL, Gee Leo, P.S., P.G., C.W. and Z Group of Mineral Claim Groups	Electromagnetic - Airborne Geophysics, Magnetic - Airborne Geophysics, Diamond - Drilling, Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, EM - Ground Geophysics, Backhoe - Trenching	4	486.46

Related References

Number	Title	Page(s)	Reference Type	Document Type
ARMC016586	Geochemical map - 105G/6 - Upper Hoole River		Property File Collection	Geochemical Map
ARMC016576	Geology map - 105G/6 - Upper Hoole River		Property File Collection	Geoscience Map (Geological - Bedrock)