Occurrence Details

Occurrence Number: 105F 120
Occurrence Name: Mackenzie
Occurrence Type: Hard-rock
Status: Prospect
Date printed: 6/14/2025 5:05:51 PM

General Information

Secondary Commodities: antimony, arsenic, bismuth, gold, lead, silver
Aliases: Bob
Deposit Type(s): Vein Polymetallic Ag-Pb-Zn+/-Au
Location(s): 61°34'1" N - -132°43'45" W
NTS Mapsheet(s): 105F10
Location Comments: .5 Kilometres
Hand Samples Available: No
Last Reviewed:

Capsule

Work History

Staked as Mac cl 1-40 (YA91233) and cl 41 -56 (YA99349) in Aug/86 by Canamax Resources Inc, which staked adjoining Bob cl 1-36 (YA91425) and cl 37-44 (YA99341) at the same time. The company performed mapping, geochemical sampling, airborne magnetics and EM and hand trenching in 1987.
H. Davis and K. McCrory staked Megan cl 1-12 (YA99610) 3.5 km to the southeast in Nov/86. They staked Ash cl 1-28 (YB00159) in between the Mac and Megan claims in Apr/87 and carried out a preliminary exploration program on both claim groups in the summer of 1987.
Ross River Gold Ltd staked Gai cl 1-65 (YB92619) to the east in Mar/2000. The claims were staked to cover the western extension of the adjoining, optioned Tay-LP and Ram claim blocks. At the beginning of 2000, Newmont Exploration of Canada Ltd optioned Ross River Gold¿s Tay-LP and Ram projects. Later in the summer, Newmont carried out airborne geophysical and geochemical surveys over all of the various optioned claim groups.
Restaked as Try cl 1-60 (YB92756) in Aug/2000 by Newmont Exploration of Canada Ltd to cover the western extension of geochemical and geophysical anomalies outlined on the adjoining Tay-LP and Ram properties. In 2001, Newmont drilled 11 hole diamond drill holes (1213.4 m) on the optioned ground. Four of the holes (451.1 m) tested targets associated with this occurrence. In Dec/2001 Newmont terminated the option and returned the properties (including the Try claims) to Ross River Gold Ltd.
In May/2002 Ross River Gold Ltd, re-organized and under went a reverse take over with Panamex Resources Inc to emerge as Ross River Minerals Ltd. Later in the year, the company contracted S.J.V. Consultants to reinterpret the 1991 Dighem and 2000 Furgo airborne geophysical surveys using 3-D magnetic inversion software. The company hoped to better target existing anomalies and outline new anomalies. Ross River followed-up the reinterpretation with 11 diamond drill holes (914 m), none of which were associated with this occurrence.
In 2003 the company continued exploring their claims with prospecting, geological mapping, stream sediment sampling and water analysis. The majority of work was centered over the south end of the property i.e. the area located from Tolbert Creek south to the end of the property. Also in 2003, J. Bond and K. Kennedy of the Yukon Geological Survey studied the surficial geology and ice-flow patterns in the Seagull Creek area.
In 2004 Ross River carried out ground VLF and magnetic geophysical surveys and drilled 9 additional diamond drills holes (1 001.6 m) at the south end of the Tay-LP property. None of the holes were associated with this occurrence.

Capsule Geology

The occurrence is located southwest of the Tintina Fault in the Ketza-Seagull district of the Cassiar Terrane (Platform). The Ketza-Seagull district is underlain by thick (400 m or greater) successions of miogeoclinal clastic, volcanic and carbonate rocks, ranging in age from Upper Proterozoic to Mississippian that were deformed during Mesozoic arc-continental collision, and by mid-Cretaceous intrusions. A series of thrust faults combined with crustal shortening associated with the Seagull Uplift has resulted in older rocks being thrust overtop younger rocks. The Seagull Uplift is thought to be related to uplift above one or more buried Cretaceous intrusions. The Seagull Creek area is known to host at least 19 occurrences consisting of veins, skarns, breccia pipes, disseminated pyrite gossans, stockworks and replacement mantos in volcanics, sediments and carbonates associated with Mississippian age syenite bodies and mid-Cretaceous intrusions.
The occurrence is underlain by Upper Proterozoic to Devonian marble, phyllite and dolostone which are intruded by a mid-Cretaceous biotite-quartz monzonite stock. A larger, deeply buried mid-Cretaceous intrusion may also underlie the area. Steeply dipping north to northeast striking quartz veins containing pyrite, pyrrhotite, galena, sphalerite and arsenopyrite cut the metasediments and reportedly returned significant gold and silver values, however no results are available. Greisen zones are developed within the stock and skarns on its periphery. Canamax identified several EM and magnetic anomalies on their claims which they theorized represented a network of quartz veins and skarn-related massive sulphides. Soil sampling outlined two arsenic and lead anomalies located 3 km northeast of this occurrence and a strong arsenic and gold anomaly located 5 km northeast. None of the anomalies were ever followed-up and the company allowed the claims to lapse.
McCory and Davis identified several large gossan zones associated with quartz-carbonate veinlets in limy and dolomitic shales and phyllites. Rock sampling did not return any anomalous values.
Soil sampling completed by Newmont Exploration outlined a 1 200 by 1 200 m multi-element anomaly due east of the occurrence. Values ranged up to 220 ppb gold, >10 000 ppm arsenic, 54 ppm antimony, 28 ppm bismuth, 2 990 ppm lead and 11.2 ppm silver. Follow-up mapping showed the anomaly is underlain by dolostone, marble and phyllite that is intruded by a small mid-Cretaceous stock. Rock sampling in the area returned up to 196.0 g/t silver, 6.11% lead, > 10 000 ppm arsenic and 5 570 ppb gold. Although sample descriptions are not reported it is most likely that the samples came from quartz-sulphide veins cutting the metasediments.
Geophysics outlined four coincident magnetic and EM anomalies in the vicinity of this occurrence which the company theorized were mineralizing intrusives that intrude calcareous metasediments. The anomalies were also coincident with the quartz sulphide veins and soil anomalies.
Although Newmont collared four drill holes in this area, the company only released results for two holes; TLP01-2 and TLP01-11. The holes located 1.5 and 3 km (respectively) northwest of this occurrence, targeted coincident magnetic and electromagnetic anomalies as well as postulated gold-bearing pyrrhotite rich strata. Variably calcareous and carbonaceous phyllite and minor limestone units were intersected as well as several pyrrhotite-bearing intervals. Gold values were nearly all less than 5 ppb with a maximum value of 20 ppb gold in both drill holes. The presence of the pyrrhotite rich strata is thought to adequately explain the surface magnetic anomaly.
Newmont concluded that magnetic anomalies are associated with non-auriferous pyrrhotite and graphitic zones in black clastic units explain the majority of anomalous electromagnetic conductors present in the area. Other drill holes in the area demonstrate that a non-magnetic form of pyrrhotite is associated with gold-bismuth-copper mineralization in the region.
The airborne geophysical reinterpretation outlined several broad trends. One trend is thought to represent a series of depth limited sources, most likely skarn deposits. A second trend is thought to represent buried intrusives. Still another trend is thought to represent the trend of the Seagull Fault. The contractor strongly suggested that all identified targets be verified on the ground before drilling was attempted.
It appears from the 2003 sampling maps filed for assessment credit that Ross River prospected and sampled in the vicinity of the occurrence. No new anomalies were reported. Field work by Kennedy and Bond (2004) determined that glacial flow in the Seagull Creek area was to the north, up-valley, in the opposite direction to what had previously been believed. These results have a significant bearing on the interpretation of soil geochemical anomalies and the potential of known mineralized occurrences in the area. Ross River hopes to use this data to improve their search results.

All of the 2004 drill holes and geophysical surveys were carried out in the southern half of the property (i.e. Tay-LP claims).

References

CANAMAX RESOURCES INC, Aug/87. Assessment Report #091735 by A.H. Watts et al.

CANAMAX RESOURCES INC, May/88. Assessment Report #092145 by A.H. Watts et al.

KENNEDY, K.E. AND BOND, J.D., 2004. Evidence for a late-McConnell readvance of the Cassiar Lobe in Seagull Creek, Pelly Mountains, central Yukon. In: Yukon exploration and Geology 2003, D.S. Emond and L.L. Lewis (eds.), Yukon Geological Survey.

MC CRORY, KEVIN AND DAVIS, HARRIS, Jun/88. Assessment Report #092479 by R. Robertson.

NEWMONT EXPLORATION OF CANADA LTD, Jan/2001. Assessment Report #094190 by M. Stammers.

NEWMONT EXPLORATION OF CANADA LTD, Nov/2001. Assessment Report #094246 by M. Stammers.

ROSS RIVER MINERALS LTD, Jun/2003. Assessment Report #094416 by R.S Tolbert.

ROSS RIVER MINERALS LTD, Mar/2004. Assessment Report #094445 by R.S. Tolbert.

ROSS RIVER MINERALS LTD, Apr/2003; Jun/2005. Web Site: www.rossriverminerals.com/

YUKON EXPLORATION 1985-1986, p. 232; 1987, p. 161-162; 1988, p. 82; 2002, p. 9-10, 25, 26; 2003, p. 13, 26; 2004, p. 12-13, 32, 33.

YUKON EXPLORATION & GEOLOGY 2001, p. 9-10

Work History

Date	Work Type	Comment
12/31/2003	Geochemistry	
12/31/2003	Geochemistry	
12/31/2002	Pre-existing Data	Company reinterpreted airborne geophysical data.
12/31/2001	Geochemistry	
12/31/2001	Drilling	Four holes, 451.1 m.
12/31/2001	Geology	
12/31/2000	Geochemistry	Extended soil sampling grid, later in the summer to cover this occurrence.
12/31/2000	Airborne Geophysics	Also flew magnetic survey over entire area including this occurrence.
12/31/1988	Trenching	
12/31/1987	Geology	
12/31/1987	Geochemistry	
12/31/1987	Trenching	
12/31/1987	Airborne Geophysics	Also VLF and magnetic surveys.

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
095218	2010	2009 Diamond Drilling Program	Diamond - Drilling, Diamond - Drilling	10	1868
094445	2003	2003 Program of Prospecting and Geochemical Surveys on the Tay-LP Claims	Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology		
094416	2002	2002 Diamond Drilling Assessment Report On the Tay-LP Project	All Weather Road - Development, Surface, Reclamation - Development, Surface, Diamond - Drilling, Drill Core - Geochemistry	11	910.92
094264	2001	2001 Diamond Drilling Assessment Report on the Tay-LP and Ram Claim Group	Diamond - Drilling, Bedrock Mapping - Geology	6	
094190	2000	2000 Geological, Geochemical and Geophysical Assessment Report on the Tay-LP Project	Electromagnetic - Airborne Geophysics, Electromagnetic - Airborne Geophysics, Magnetic - Airborne Geophysics, Magnetic - Airborne Geophysics, Auger - Drilling, Rock - Geochemistry, Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Detailed Bedrock Mapping - Geology, Prospecting - Other		
091735	1987	1987 Geophysical Assessment Report on the Pass Peak Property	Electromagnetic - Airborne Geophysics, Magnetic - Airborne Geophysics		
092096	1987	Geological, Geochemical & Geophysical Report on the Ram 1-178 & Mat 1-12 Mineral Claims	Soil - Geochemistry, Bedrock Mapping - Geology, EM - Ground Geophysics, IP - Ground Geophysics, Magnetics - Ground Geophysics		