



Occurrence Details

Occurrence Number: 1050 007
Occurrence Name: Cynthia
Occurrence Type: Hard-rock
Status: Prospect
Date printed: 8/6/2025 1:45:53 AM

General Information

Secondary Commodities: antimony, arsenic, bismuth, copper, gold, lead, silver
Aliases: Art
Deposit Type(s): Plutonic Related Au, Vein Au-Quartz
Location(s): 63°23'16.4" N - -131°21'16.81" W
NTS Mapsheet(s): 105006
Location Comments: Near mid-point of Intersection zone.
Hand Samples Available: No
Last Reviewed: Mar 28, 2014

Capsule

Work History

*In Mar/2014 the occurrence location was moved approximately 1.5 km to the southwest to an area which returned the highest gold assays and where Golden Predator collared their diamond drill holes.

Staked as Art cl 1-8 (Y14156) and cl 9-12 (Y14214) in Oct/67 by the Hess Project (Atlas Explorations Ltd, Quebec Cartier Mining Company and Phillip Brothers (Canada) Ltd), which conducted grid soil sampling, magnetic and electromagnetic ground surveys in 1968.

Restaked as Emmy cl 1-16 (YA75914) in Sep/81 by Union Carbide Canada Ltd. The company re-assayed stored samples from the area and carried out a reconnaissance prospecting and silt sampling program in early July before staking the claims. The following year the company carried out a geological mapping and rock sampling program on the claims.

Restaked as Hess cl 1-64 (YB18664) by Noranda Exploration Company Ltd in Aug/91. It appears that the company did not carry out any assessment work and the claims were allowed to expire the following year.

Restaked within EM cl 1-106 (YB44695) and cl 107-112 (YB64001) in May/95 by B. Lueck. The claims were subsequently optioned to Yukon Gold Corp which carried out mapping and rock and soil sampling later in the summer.

Sometime in 1997, Yukon Gold sold its interests to Alliance Pacific Gold which in turn optioned the claims in Jun/97 to Cyprus Canada Inc. Cyprus Canada carried out a helicopter reconnaissance program later that year. Cyprus Canada dropped its option in Jun/98 and returned the claims to Alliance Pacific Gold.

Restaked as Cynthia cl 1-50 (YC10257) in Jun/2002 by Klad Enterprises Ltd which added cl 11-28 (YC10730) in Jul/2002, cl 29-38 (YC10710) in Aug/2002 and cl 39-50 (YC10764) in Nov/2002. The company carried out a reconnaissance scale exploration program in late June to early Jul/2002 followed by a more detailed program in late July to early August/2002. In Nov/2007 the claims were transferred to 18526 Yukon Inc. During 2009 various Cynthia claims were allowed to lapse. At the end of 2009 the Cynthia property was comprised of 35 claims in good standing.

In 2009 18526 Yukon Inc carried out a ground based total field magnetics and VLF-EM survey over the Intersection zone, an area where several high grade gold bearing rock samples had been collected.

In Jun/2010 18526 Yukon Inc surrounded the remaining 35 Cynthia claims with C cl 1-4 (YD61677) and cl 5-184 (YD61801). In Jul/2010 Golden Predator Corp optioned a 100% interest in the Cynthia and C claims in return for cash, shares and certain work commitments. Later in the summer the company carried out a detailed geological mapping program over the Intersection zone the results of which were used to locate a 7 hole (1 099.77 m) diamond drill hole program.

In 2011 Golden Predator carried out reconnaissance exploration on the property.

Capsule Geology

The area is located northwest of Nidderly Lake and the Hess River and south of Emerald Creek in northeast central Yukon. Although the area has not yet been remapped by the Yukon Geological Survey, Gordey and Makepeace (2003) of the Geological Survey of Canada released a geological compilation of the Yukon which covers this area. According to Gordey and Makepeace the area lies in the northeastern end of the Selwyn Basin and is underlain by metasedimentary rocks ranging in age from Lower Cambrian to Permian.

The oldest rocks in the area are Lower Cambrian sedimentary rocks assigned to the Gull Lake assemblage. They are overlain by Ordovician to Devonian Road River black shales, chert and minor limestones. The Road River Group is overlain by Devonian to Mississippian Earn Group shales and metavolcanics. Unlike other geologists Gordey and Makepeace show a wedge of Carboniferous to Permian shales siliceous slate, siltstone, minor quartzite and limestone assigned to the Mount Christie Formation running through the centre of the occurrence area. At the eastern end of this wedge, Mississippian Keno Hill Quartzite occurs in two long thin bodies. This entire sequence of rocks is intruded by two Late Cretaceous granitic intrusions which are informally referred to as the Twin Batholiths. The two batholiths may actually be one batholith which outcrops in two areas.

The original occurrence location was located on the southeast side of the northern most batholith and covered anomalous copper, lead and zinc values in soil overlying Devonian to Mississippian Earn Group graphitic shale. The anomaly which was discovered on the Art claims by the Hess Project is likely related to the intrusion. The same Cretaceous intrusion has produced an area of locally pyritic hornfels on the west side of the Art claims. High zinc and copper values are associated with the hornfels and an area of fairly intense quartz veining in black chert.

Union Carbide restaked the area to cover gold and silver stream sediment anomalies and located a pyrite-arsenopyrite vein from which specimens assayed up to 3 130 ppb gold, 775 ppm silver, 2 618 ppm arsenic, 795 ppm antimony, 375 ppm bismuth and 1.7% lead. Breccia zones adjacent to the vein returned gold values up to 660 ppb, and a specimen of black chert breccia with visible galena assayed 3.7% lead and 948 g/t silver. However, most samples returned values of less than 160 ppb gold and 6 ppm silver. Lueck staked the EM claims for their potential to host "Fort Knox type" (more commonly called intrusion related) mineralization. Cecile (Open File 1118) mapped a large contact metamorphic aureole between the metasedimentary rocks and surrounding the batholiths.

Work carried out by Yukon Gold identified an area of anomalous results between the two batholiths. The area is comprised of brecciated argillite and was previously identified by Union Carbide. Five grab samples returned up to 628 ppb gold and 1.4 ppm silver. Sample descriptions were not reported but likely comprise quartz veins containing pyrrhotite, pyrite and bismuthinite +/- galena and chalcopyrite in hornfelsed argillite. Additional grab samples and a line of soil samples collected westward across the claim group returned anomalous gold values up to 70 ppb.

In 1997 Cyprus Canada resampled the hornfelsed sedimentary rocks located between the two batholiths. A grab sample collected in the same area and consisting of quartz feldspar dyke containing 2 - 8 % pyrrhotite returned 1.8 g/t gold. Eight other samples collected throughout the hornfelsed sediments returned between 0.5 and 1 g/t gold.

Klad Enterprises explored their claim block in an effort to pinpoint the source of various gold-in-silt anomalies reported by the Geological Survey of Canada. Geological mapping and sampling outlined three areas of mineralization. The Ted zone lies overtop a series of north-northeast trending faults that trend along the eastern side of both batholiths. The zone hosts several quartz-feldspar porphyry dykes and numerous chalcodony and druzi quartz veins as well as intensive quartz stockworks. Chalcodony veins located in the northern half of the zone return values as high as 2.56 g/t gold. Chalcodony veins and pervasively silicified material located in the southern half of the zone returned values up to 1.24 g/t gold over 0.9 m and 1.25 g/t gold over 1.1 m. The Ted zone shows a strong enrichment in arsenic as arsenopyrite and pyrite is wide spread.

The Gary zone trends west northwest through the centre portion of the Cynthia claim block, across the northeast end of the southernmost batholith. The zone host numerous dyke swarms, intensive quartz stockworks and thicker linear veins with minor chalcodony veining. Sampling of the dike swarms along the southeast end of the zone returned values up to 296 ppb gold. The west-northwest end of the zone returned generally lower results although anomalous values up to 679 ppb gold were reported. The quartz stockwork bears low-sulfide gold mineralization associated with minor fine-grained pyrite and trace arsenopyrite.

The Intersection zone is a 1.5 by 1.5 km area, located northeast of the southernmost batholith, marks the mutual intersection between the Ted and Gary zones. This zone is characterized by intensive fracturing, brecciation and the highest density of quartz stockwork on the claim block. The area also contains the strongest silicification and hydrothermal alteration and hosts the highest gold grades. Gold grades range from 1.0 to 4.0 g/t gold, with one sample returning 16 g/t gold. Gold mineralization is hosted by both high arsenic and low sulphide assemblages and grades are higher than either of the respective assemblages hosted by the Gary or Ted zones. The Intersection zone also hosts a third mineral assemblage, consisting of a highly sulphidized, highly arsenical gold-rich assemblage that also contains high silver (up to 479 g/t), lead (up to 3 100 ppm), bismuth (up to 780 ppm) and antimony (up to 6 720 ppm). This set of mineral assemblages suggests an epithermal affinity to the mineralization. Structural observation of the Intersection zone suggests a southeast plunge. At the end of Klad’s exploration program the property was considered “drill ready”.

*In Mar/2014 the occurrence location was moved approximately 1.5 km southwest from its original location to an area which returned the highest gold assays and where Golden Predator collared their diamond drill holes.

The 2009 ground based total field magnetics and VLF-EM survey was centred over the Intersection zone and included the occurrence location. This area is historically known to contain the highest assayed gold mineralization on the property. The survey found a generally poor correlation between areas of low magnetic field strength and crossovers in inphase and quadrature of the VLF response, although several areas of magnetic lows likely representing mineralized quartz veining and stockworks were identified.

Golden Predator focused their exploration program on the Intersection zone. The company carried out a geological mapping program focused on structural geology prior to commencing the diamond drill program. The drill program was designed to test mineralized zones hosted by structural corridors. The first three holes (DD-CY10-01, 02 and 03), were directed toward a prominent northwest-trending shear zone containing a quartz porphyry dyke in its hanging wall. Drillhole 01 intersected 1.5 m of 1.31 g/t gold; the second hole (02) returned similar results. Drillhole 03 returned 14 m of 0.70 g/t gold. The four remaining holes targeted extensions of the shear zone as well as an area of intense silicification. All holes intersected strong alteration.

Work History

Date	Work Type	Comment
12/31/2002	Geochemistry	Reconnaissance and detailed.
12/31/2002	Geology	Reconnaissance and detailed.
12/31/2002	Geochemistry	Reconnaissance and detailed.
12/31/1997	Geology	Program was reconnaissance in nature.
12/31/1997	Other	Program was reconnaissance in nature.
12/31/1995	Geochemistry	Also collected soil samples.
12/31/1995	Geology	
12/31/1981	Geology	
12/31/1981	Other	
12/31/1968	Geochemistry	Grid based.
12/31/1968	Ground Geophysics	Also magnetics data collected.
12/13/2011	Other	Carried out reconnaissance exploration program.
12/13/2010	Drilling	Seven holes (1,099.7 m) tested Intersection zone.
12/13/2010	Geology	Mapped Intersection zone with emphasis on structural geology.
12/13/2009	Ground Geophysics	Also collected VLF and total magnetics data.
12/13/1982	Geochemistry	
12/13/1982	Geology	Mapped claim area.
12/13/1981	Geochemistry	Re-assays previously collected silt and rock samples.
1/1/2022	Geochemistry	
1/1/2022	Geochemistry	one soil sample collected
1/1/2022	Geology	Prospecting, geologic mapping, assessing mineral potential
1/1/2022	Remote Sensing	3.34 square kilometers of surveys completed using an UAV

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
095692	2010	Assessment Report, 2010 Diamond Drilling Program Cynthia Project	Diamond - Drilling, Detailed Bedrock Mapping - Geology	7	1099.77
095671	2009	2009 Assessment Report for the Cynthia Property VLF and Magnetics Surveys July 12-16, 2009	EM - Ground Geophysics, Magnetics - Ground Geophysics		
094432	2002	Assessment Report on the Cynthia Property	Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology		
093827	1997	1997 Geological Assessment Report on Emerald Lake Claims	Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry		
093501	1995	Geological and Geochemical Assessment Report for the EM 1-106 and EM 107-112 Claims	Rock - Geochemistry, Silt - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology		
091377	1982	The Geology of the Emmy Claims	Orthophoto - Airphotography, Bedrock Mapping - Geology		
019809	1968	Hess Area Project Proposed Property Follow-Up 1968 Field Season	Research/Summarize - Pre-existing Data		
019033	1968	Atlas Explorations Limited Project Report 1968 Hess River Area	Silt - Geochemistry, Soil - Geochemistry, Regional Bedrock Mapping - Geology		
018947	1967	Hess River Project Report	Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology		
019032	1967	Hess River Project Report	Data Compilation - Pre-existing Data		

Related References

Number	Title	Page(s)	Reference Type	Document Type
ARMC001071	Hess River Area Geological Legend		Property File Collection	Miscellaneous Company Documents
ARMC008033	Geochemical results and claim group map of sheet 105-O-7 - Ross River		Property File Collection	Geochemical Map
YEG1982	Yukon Exploration and Geology 1982	166-167.	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG2002_23	Structural settings and geochemistry of the Cynthia gold prospect, Tintina Gold Belt, Hess River area (1050/6), Yukon	285-294	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report Paper
YEG1996	Yukon Exploration and Geology 1996	25, 30.	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG2002_OV	Yukon Mining, Development & Exploration Overview 2002	8, 24.	Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report
YEG2010_OV	Yukon Exploration and Geology Overview 2010	45, 58, 64.	Yukon Geological Survey	Annual Report
YEG2011_OV	Yukon Exploration and Geology Overview 2011	34, 63.	Yukon Geological Survey	Annual Report
2003-9(D)	Yukon Digital Geology (version 2)		Yukon Geological Survey	Open File (Geological - Bedrock)
1989-3	Yukon Gold-Silver File Description of Occurrences		Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Open File (Geological - Bedrock)
ARMC016466	Geology map overlay - 1050/6		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC016465	Geology map overlay with claims marked - 1050/6		Property File Collection	Geoscience Map (Geological - Bedrock)
BROCK00090	Geology map - Geochemical results and claim group map of sheet 105-O-6 - Fig. 19		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC015535	Map of Niddery Lake area with geological notations - 1050/6		Property File Collection	Geoscience Map (General)
ARMC015533	Geochemical results and Claim group map of sheet 105-O-6		Property File Collection	Geochemical Map
ARMC011933	Geochemical results and claim group map of sheet 105-O-6 - Ross River		Property File Collection	Geochemical Map
ARMC011934	Map of 105-O-6 showing geology		Property File Collection	Geoscience Map (Geological - Bedrock)
ARMC018191	Field sheet of 1050 Niddery Lake with notations re: streams where silt samples have been taken		Property File Collection	Geoscience Map (General)
ARMC018192	Field sheet of 1050 with notations		Property File Collection	Geoscience Map (General)
ARMC018193	Field sheet of 1050 Niddery Lake with geology notations		Property File Collection	Geoscience Map (General)
ARMC015534	Correspondence with partial map of Niddery Lake with geochemical notations		Property File Collection	Miscellaneous Company Documents