



Occurrence Details

Occurrence Number: 1150 079

Occurrence Name: Fork

Occurrence Type: Hard-rock

Status: Anomaly

Date printed: 6/15/2025 11:50:30 AM

General Information

Secondary Commodities: arsenic, gold

Deposit Type(s): Vein Polymetallic Ag-Pb-Zn+/-Au

Location(s): 63°57'7" N - 139°12'26" W

NTS Mapsheet(s): 115014

Location Comments: .5 Kilometres

Hand Samples Available: No

Last Reviewed:

Capsule

Work History

First staked in November, 1898 as Montezuma cl (461) by R.F. Groom. Re-staked as Son cl 1-48 (Y65357) in May, 1972 by R.G. Hilker for Sullivan and Rogers, which carried out geological mapping and geochemical soil sampling later in the year.

Re-staked as With cl 1-40 (YA89727) and Reef cl 1-107, 191-197 (YA88289) in October, 1986 by the Dawson Syndicate (1983) Exploration Limited Partnership, which included W.T. Dawson, Kandgeld and Arbor Resources Inc. The syndicate, which had previously carried out regional heavy mineral and geochemical stream sediment sampling of the area in 1984, completed airborne geophysical surveying of their combined claim holding in the area, including the Reef and With claims, during the winter of 1986-1987. In 1988, the company carried out geological mapping, prospecting, magnetometer surveying, geochemical rock and soil sampling, machine trenching (400 linear metres) and road construction on the Reef and With claims.

In 1990, a joint venture group composed of Klondike Reef Mines Ltd., Arbor Resources Inc. and Appian Resources Ltd. carried out soil sampling and IP and resistivity surveys on the Reef and With claims in the area of the occurrence. In April, 1992 Appian changed its name to Sultan Minerals Ltd. and later in the year W. Dawson carried out trenching and sampling on the Reef cl 81. Kennecott Canada Inc. briefly optioned the With claims in May, 1993 and carried out prospecting, as well as rehabilitating, mapping and resampling the 1988 trenches. Kennecott also reprocessed the 1987 airborne geophysics.

During May, 1999 Barramundi Gold Ltd. extensively re-staked the area, including this occurrence location, with over 1,000+ Wedge and Klondike claims (YC15905). In July, 1999 following a brief visit to the area, KSL Exploration (Yukon) Ltd., a wholly owned subsidiary of Klondike Source Limited (KSL), an unlisted Australian public company, formed a joint venture with Barramundi to explore Barramundi's claim holdings in the area. KSL compiled all available exploration data for the region during the remainder of 1999 and carried out widespread regional soil geochemical sampling in 2000 and 2001. In 2002, the company completed a compilation study of all available geological and geochemical data and undertook a review of all geophysical data including a recently released regional airborne geophysical survey jointly funded by the Geological Survey of Canada and the Yukon Geology Program.

Klondike Star Mineral Corp. (KSMC) purchased the claims at auction in 2006 and staked the adjoining IF claims at Bear Creek in 2012. In 2013, KSMC performed prospecting and "ridge and spur" soil sampling on the Klondike claims in the vicinity of the Fork anomaly.

Capsule Geology

Strongly deformed, rusty weathering muscovite and muscovite-quartz schist (unit Psqm) overlies chlorite-quartz schist (unit Psc) and micaceous quartzite (unit Psq). These units belong to the Permian Klondike Schist Assemblage. Carbonaceous quartz-muscovite schist occurs locally along the contact between the rusty unit and the underlying rocks. Numerous dykes and sills of Eocene aged quartz feldspar porphyry, some carrying up to 2% arsenopyrite, and basalt intrude the schists and quartzite on a local scale.

Work by the Dawson Syndicate focused on a magnetic low outlined over the occurrence by airborne surveying. Follow up soil sampling by the syndicate and by the joint venture in 1990 returned consistently anomalous arsenic with minor coincidental gold values northwest of the occurrence, but still partially coincident with the magnetic low. Trenching in 1988 and 1993 of anomalous areas revealed mostly quartz-muscovite schists, which were locally clay altered. Many of the rock samples collected from the trenches returned high arsenic values (>1,000 ppm), but in most cases gold was below detection limit. A trench dug in 1993 in the vicinity of the occurrence returned slightly anomalous silver, arsenic, copper, iron, molybdenum and zinc values.

The various trenching programs also located several narrow (<20 cm thick) discordant quartz veins cutting the schists. These veins trend 125° and display near-vertical dips. The veins are mainly barren, but occasionally contain trace amounts of pyrite, arsenopyrite, galena and rutile. One such vein containing arsenopyrite was located in trench 88TR-20, a grab sample of which returned 0.2 g/t Au and >10,000 ppm As. Elevated gold values (0.1 g/t Au) were also returned from four chip samples collected across 12 m of variably clay altered carbonaceous schist uncovered in the middle section of trench 88TR-21.

The 1990 geophysical surveys identified several IP chargeability and resistivity features coincident with areas of anomalous arsenic geochemical response. These areas also roughly coincide with the magnetic low feature identified in the course of the 1986/1987 airborne survey.

KSL's work was regional in nature and covered an extensive area. The soil samples were analyzed by a relatively new method known as Mobile Metal Ion (MMI) geochemistry. This method aims to collect and measure very low concentrations of ions which have moved in the weathering zone and are only weakly attached to surface soil particles. The method targets a thin ubiquitous 'A' soil horizon located at the base of the moss overburden. The survey outlined the previously known arsenic anomaly and appears to have extended it to the southeast. A compilation and evaluation study of all previously published data by KSL Exploration identified a series of drill targets labeled A through D. The area near this occurrence was assigned a designation of B5, suggesting it is of moderate importance as a drill target.

Work History

Date	Work Type	Comment
7/1/2019	Remote Sensing	
12/31/2002	Pre-existing Data	Company reviewed of all previously released geophysical data.
12/31/2002	Geochemistry	

12/31/2002	Pre-existing Data	Company carried out evaluation of previous geological mapping and geochemical sampling programs.
12/31/2000	Other	
12/31/1993	Geochemistry	Sampled trenches.
12/31/1993	Geology	
12/31/1993	Other	
12/31/1992	Trenching	W. Dawson on the Reef 81 claim.
12/31/1990	Ground Geophysics	Also IP survey.
12/31/1988	Geology	
12/31/1988	Other	
12/31/1988	Development, Surface	
12/31/1988	Trenching	
12/31/1987	Ground Geophysics	Also VLF-EM survey.
12/31/1972	Geology	
12/31/1972	Geochemistry	
12/13/2013	Geochemistry	
12/13/2013	Other	
12/13/1999	Pre-existing Data	
12/13/1998	Geochemistry	Also silt and soil sampling.

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
096562	2013	2013 Geochemical Assessment Report on the Bonanza Project	Rock - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Soil - Geochemistry, Prospecting - Other, Prospecting - Other		
094568	2004	Assessment Report for the Renewal of Klondike, Bear, Gap, IF, Git, Nug, Act, and Oz Claim Groups	Diamond - Drilling	6	1537.11
094564	2004	Assessment Report for the Renewal of Wedge, Mice, Bobo, and Fur Claim Groups	Soil - Geochemistry, Bedrock Mapping - Geology		
094316	2002	Assessment Report for the Renewal of Klondike, Bear, Gap, IF, Act, Git, Nug, and Wedge Claims	Soil - Geochemistry, Process/Interpret - Pre-existing Data		
094209	2000	Assessment Report for the Renewal of Klondike, Bear and Wedge Claims	Soil - Geochemistry, Bedrock Mapping - Geology		
094119	1999	Assessment Report Klondike and Wedge Claim Blocks	Interpretation - Airphotography, Bedrock Mapping - Geology, Data Compilation - Pre-existing Data, Landsat - Remote Sensing		
093321	1994	1994 Annual Report on the Klondike Gold Project	Magnetic - Airborne Geophysics, Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Magnetics - Ground Geophysics, Prospecting - Other, Backhoe - Trenching		
093200	1993	Assessment Report on a 1993 Program of Prospecting, Hand Trenching, Mapping, and Reprocessing of Helicopter Geophysics With 1-40 Claims	Rock - Geochemistry, Prospecting - Other, Process/Interpret - Pre-existing Data, Hand - Trenching		
093075	1992	Geological, Geochemical and Trenching Report on the Dawson Property	Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Prospecting - Other, Mechanical - Trenching		
092690	1988	Geological, Geophysical, Geochemical, and Trench Report for Work Performed by Mark Management Ltd. on the REEF Grid	All Weather Road - Development, Surface, Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Magnetics - Ground Geophysics, Line Cutting - Other, Mechanical - Trenching		
091757	1987	Geological, Geochemical and Diamond Drill Report for Work Performed by Mark Management Ltd. on the Dawson Property	Diamond - Drilling, Drill Core - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other, Mechanical - Trenching	27	3151
091981	1987	Report on Combined Helicopter Borne Electromagnetic, Magnetic, and VLF-EM Survey	Electromagnetic - Airborne Geophysics, Magnetic - Airborne Geophysics		
060149	1972	Geological and Geochemical Report Yukon Quartz Mineral Claims	Silt - Geochemistry, Soil - Geochemistry		

Related References

Number	Title	Page(s)	Reference Type	Document Type
1996-1(G)	Geological Compilation Maps of the Northern Stewart River Area, Klondike and Sixty mile Districts (115N/15, 16, 115O/13, 14 and Parts of 115O/15, 16)		Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Open File (Geological - Bedrock)
2001-8	Multisensor airborne geophysical survey, Stewart River area, 115O/14		Indian & Northern Affairs Canada/Department of Indian & Northern	Open File

