Occurrence Details

Occurrence Number: 115O 067
Occurrence Name: Hunker Dome
Occurrence Type: Hard-rock
Status: Prospect
Date printed: 4/29/2025 7:12:44 AM

General Information

Secondary Commodities: gold, silver
Aliases: Dome Lode
Deposit Type(s): Vein Au-Quartz
Location(s): 63°51'47" N - -138°54'38" W
NTS Mapsheet(s): 115O15
Location Comments: .5 Kilometres
Hand Samples Available: No
Last Reviewed:

Capsule

Work History

The earliest staking was probably Pride of the Mountain cl (4218) by H.N. Coleman in June, 1900. Re-staked as a forty claim property by Aaron Knorr, commencing with Discovery, etc (6926) in May, 1904 and optioned to Dome Lode Development Company Ltd., which traced four veins on surface for 460 m with 4 shafts (4.3 to 24 m deep) and a number of trenches. In 1909-1910, a 792 m crosscut was driven at a cost of $70,000. About 25 claims were taken to lease, including some up to 3.2 km northeast. Sam Thurber blasted an open cut on the Hunker claim, adjoining to the east, in 1912. Near the road, 1.6 km to the north, W.D. MacKay put in a 15 m shaft and an open cut on the Jennie claim and J. Cameron did some trenching on the Summit claim, all prior to 1912.

Re-staked as Eleventh Hour cl (15037) in June, 1924 and Bridge, etc cl (39010) in September, 1937 by A.J. Matheson, who explored with hand pits until 1940-1942, when he cleaned out and resampled the crosscut and drifted 37 m.

Re-staked as Dominion cl 1-4 (86971) and King Solomon cl 1-7 (86975) in August, 1965 by Orekon Ltd., which bulldozer trenched in 1966 and 1972. The adit was re-staked in November, 1980 as Dominion cl 1-4 (YA55110) and King Solomon cl 1-36 (YA55114) by Lindex Exploration Ltd. and transferred to Orekon Ltd. in 1982.

Cominco added KSD cl 1-140 (YA49490) to the west in January, 1980 and carried out mapping, geochemistry and IP surveys later in the year. I. Mahoney staked a single Junker cl (YA55283) 2.5 km to the east in May, 1981 and drilled two holes (11.3 m) in 1982.

Dawson Eldorado Gold Explorations Ltd. re-staked the KSD group as Klook cl 1-48 (YA65751) in June, 1983 and explored with mapping and geochemical sampling later in the year. A joint venture between United Keno Hill Mines Ltd. (UKHM) and Falconbridge Ltd. added Dom cl 1-149 (YA80272) to the southwest in June, 1984, re-staked the old workings as Kin cl 1-82 (YA89442) in July, 1987 and performed mapping, geochemical sampling, VLF-EM surveys and bulldozer trenching in 1987 and 1988.

Barramundi Gold Ltd. staked LP cl 1-13 (YB68565) to the east in March, 1996. In March, 1999 Barramundi completed 3,850 line km of detailed airborne magnetometer and VLF-EM surveying that covered a 16 km x 24 km area centered about King Solomon Dome and included this occurrence. In 1999, Barramundi optioned the majority of Klondike claims, excluding those under option from UKHM and JAE resources, to KSL Exploration (Yukon) Ltd.

Klondike Gold Corp. (formerly Arbor Resources Inc.) staked the nearby GRE claims in 2003 and performed soil sampling and prospecting in 2004. Klondike Gold Corp. optioned a 50% interest of the claims to Klondike Star Mineral Corp. (KSMC), which became a 50/50 joint venture in 2005. Klondike Star Mineral Corp held a 55% interest in the claims by 2005 and staked the GATA and GOTTA claims. Trenching was performed by KSMC near the Hunker Dome prospect on the GATA claims in 2006 in the vicinity of historical UKHM trenches. Several lines of a Mobile Metal Ion (MMI) soil survey were also taken along the Hunker Dome prospect in 2006. The SHE and TIE claims were also staked by Klondike Gold in 2006 and the claim group (GATA, GOTTA, SHE, GRE and TIE) became known as the Dominion property.

Klondike Gold Corp. resumed work in 2011 and purchased Klondike Star Mineral Corp. in 2015 to restore a 100% interest. Klondike Gold Corp. performed soil sampling and chip sampling in a series of trenches dug with a backhoe in 2012 on the GRE claims. In 2013 and 2014, Klondike Gold performed small prospecting and rock sampling programs on these claims. Regional orthophoto and ground magnetic surveys were performed over the Dominion claims in 2015 by Klondike Gold. Prospecting in the Hunker Dome area was also performed in 2015. In 2016, Klondike Gold drilled 10 NQ holes along a 900 m strike length in the Hunker Dome area as a follow-up to the 2015 exploration program.

Regional & Property Geology

The Hunker Dome area is located within the Klondike region, which is underlain by the Permian Klondike Schist Assemblage of the Yukon-Tanana terrane (YTT). The Klondike Schist represents a transition from plutonism to arc volcanism that has undergone greenschist facies metamorphism and consists of metaplutonic Sulphur Creek orthogneiss in the west that transitions eastward to a package of metavolcanic and metasedimentary units including: felsic to mafic (quartz-mica ± chlorite) schist, graphitic schist, and quartz augen schist (PKf and PKs). Evidence of five deformation events (D_1 to D_5) are present in within the Klondike Schist Assemblage as a result of obduction and regional thrusting and faulting related to uplift, which have produced a visible S_2 and S_3 foliation fabric in the schist units.

The Dominion group of claims owned by Klondike Gold Corp., including the Hunker Dome area on the GATA claims, straddles a north-south trending thrust fault within the Klondike Schist (Mortensen, 1996). The area is underlain by medium to dark green chlorite-quartz-actinolite schist (unit Psc) and minor metagabbro (unit Pg) in the gangingwall, which has been thrust on top of a package of micaceous quartzite and quartz-muscovite schist (unit Psq) forming the footwall.

The lithological units of the Klondike region, including the Hunker Dome, commonly contain both large, foliaform quartz veins associated with D_3 folding and thrusting and discordant quartz veins possibly associated with D_4 brittle faulting. Mineralization is generally hosted in the discordant quartz veins, however, the exact mineralization age and timing in the Klondike region is currently unknown. The white to locally oxidized, discordant veins are generally mineralized with sulphides (pyrite, rare galena, chalcopyrite), as well as visible gold, and are rarely more than 2-3 metres thick. Where present, visible gold is commonly noted along the selvages of both fresh and oxidized pyrite grains and can also occur as free grains within the quartz veins.

The Mitchell and Orekon veins, which lie north and northwest of King Solomon Dome and the veins on the ridge between Upper Dominion and Lombard Creeks form a large-scale en-echelon sheeted vein system. Individual veins strike north-south and dip steeply east. Some veins in the Orekon system have faulted margins, but generally the veins appear to be simple fillings of tension fractures.

Mineralization & Results

Mineralization at the Hunker Dome is commonly noted within discordant vein sets. The vein material consists mainly of white, coarsely crystalline quartz with minor ferroan carbonate and pyrite. Concentrations of galena with traces of chalcopyrite and sphalerite are present locally. Traces of tetrahedrite and arsenopyrite have also been reported from the nearby Mitchell vein (MINFILE occurrence 115O 068). Free gold occurs sporadically in the veins, generally associated with sulphides. Wallrock alteration adjacent to the veins consists of widespread introduction of brown weathering ferroan carbonate and more restricted zones of pyritization. Assay values from veins in the vicinity of King Solomon Dome vary widely. Values of up to 48.0 g/t Au and 10,457 g/t Ag have been obtained from samples of the Mitchell and Orekon veins, although most samples contain only trace amounts.

The veins on the ridge between Upper Dominion and Lombard Creeks have received the most development work of any in the Klondike District. Four veins were uncovered on surface and were explored in the early 1900's by trenches and a shallow shaft. MacLean (1914, p. 112-114) examined the property in 1912 and sampled some of the surface showings. Three samples from trenches and shafts averaged 2.7 g/t Au and 3.4 g/t Ag. The 790 m tunnel was collared approximately 150 m vertically below these showings. Between 250 m and 600 m from the portal, the tunnel intersected six veins ranging from 0.6 to 1.8 m in thickness. Very little information is available on the results of this work, but newspaper accounts report assays of up to 857 g/t Au and 125 g/t Ag.

Quartz veins containing traces of galena and pyrite are also present in old trenches and shafts on the ridge immediately west of Hunker Summit (MacKay and Summit occurrences). MacLean (1914) sampled quartz from both of these showings, but the highest assay was only 1.4 g/t Au. In 1987, United Keno Hill Mines Ltd. uncovered a system of en-echelon quartz veins which were traced in bulldozer trenches 3.5 km north from the Hunker Dome grid onto the Mackay grid. The veins are discontinuous, less than 1 m wide and carry traces of disseminated pyrite and galena. Gold values were generally low, but one sample from the Hunker Dome grid assayed 15.3 g/t Au over 3.0 m.

Hoymann and Friedrich (1992) analysed gold with pyrite inclusions from the Hunker Dome vein and found an average silver content of 12.74 wt% and an average tellurium content of 0.08 wt%. Gold intergrown with galena from the same location had an average silver content of 22.07 wt%. Three stages of mineralization were identified: (1) quartz-carbonate-gold-arsenopyrite-pyrite-pyrrhotite-chalcopyrite-galena; (2) quartz-carbonate-chalcopyrite-sphalerite-tetrahedrite-freibergite-polybasite-polyargyrite-argentite-pyrostilbnite-galena; (3) quartz-gold. Fluid inclusions contain CO_2 and have salinities ranging from 0 to 7.2 wt% NaCl equivalent. Homogenization temperatures range from 390°C down to 120°C, and show a systematic decrease from Stage 1 to Stage 3.

Trenching on the Hunker Dome by Klondike Gold in 2006 returned anomalous gold values from oxidized quartz veins in two of the four trenches, with up to 1.284 g/t Au over 2.2 m and 1.5 g/t Au over 2.0 m in trench KS06-02 and 24.72 g/t Au over 0.65 m, including 1% galena and 1-2% pyrite, in trench KS06-03.

Prospecting and sampling programs performed by Klondike Gold Corp. in 2013 on the GATA claims hosting the Hunker Dome occurrence returned anomalous gold values in grab samples with up to 81.3 g/t Au near a historical shaft and 27.78 g/t Au in a quartz vein sample with galena and chalcopyrite. The follow-up 2014 and 2015 programs also yielded anomalous Au values in grab samples up to 42.6 g/t Au. Quartz veins exposed in the 2006 trenches were also resampled and returned gold values between 1 g/t Au and 371 g/t Au with up to 930 g/t Ag.

In 2016, Klondike Gold Corp. drilled 10 NQ holes on the Dominion claims, including the GATA claim, targeting outcropping gold-mineralized quartz veins that returned two significant intersects beneath historic shafts on the property of: 15.4 g/t Au over 0.34 m in DM16-01 and 1.7 g/t Au with 162 g/t Ag over 1.5 m in DM16-08.

Work History

Date	Work Type	Comment
12/31/1999	Airborne Geophysics	Also VLF-EM survey.
12/31/1988	Geology	
12/31/1988	Geochemistry	
12/31/1988	Ground Geophysics	Also VLF survey.
12/31/1988	Trenching	
12/31/1987	Geology	
12/31/1987	Geochemistry	
12/31/1987	Ground Geophysics	Also VLF survey.
12/31/1987	Trenching	
12/31/1983	Geology	
12/31/1983	Geochemistry	
12/31/1980	Geochemistry	
12/31/1980	Geology	
12/31/1980	Geochemistry	
12/31/1980	Ground Geophysics	
12/31/1972	Trenching	
12/31/1966	Trenching	
12/31/1942	Geochemistry	
12/31/1942	Development, Underground	Also minor drifting.
12/31/1942	Trenching	
12/31/1941	Trenching	
12/31/1940	Trenching	

12/31/1912	Trenching	Blasted on open cut.
12/31/1912	Development, Underground	Sunk a 15.24 m shaft.
12/31/1910	Development, Underground	
12/31/1904	Trenching	
12/31/1904	Development, Underground	Sunk 4 shafts (4.27 to 24.38 m deep).
12/13/2016	Drilling	A total of 10 NQ holes were drilled near the Hunker Dome area.
12/13/2015	Airphotography	
12/13/2015	Ground Geophysics	
12/13/2015	Other	
12/13/2014	Geochemistry	
12/13/2014	Other	
12/13/2013	Geochemistry	Rock and chip sampling from 2006 trenches.
12/13/2013	Other	
12/13/2006	Geochemistry	Mobile Metal Ion (MMI) survey.
12/13/2006	Trenching	Trenching performed in the vicinity of historical UKHM trenches.
12/13/1982	Drilling	Two holes, 11.3 m.

Assessment Reports that overlap occurrence

Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled
096818	2014	Prospecting Report on the Dominion Project	Rock - Geochemistry, Prospecting - Other		
096879	2014	Ground Magnetics, Orthophoto and Prospecting Report on the Dominion Project	Orthophoto - Airphotography, Magnetics - Ground Geophysics, Prospecting - Other		
096563	2013	2013 Geochemical Assessment Report on the Dominion Project	Rock - Geochemistry, Rock - Geochemistry, Prospecting - Other, Prospecting - Other		
094783	2006	Geological Mapping, Trenching, Rock, and Soil Geochemical Sampling on the Dominion Property	Soil - Geochemistry, Bedrock Mapping - Geology, Backhoe - Trenching		
094021	1999	Detailed Airborne Magnetics and VLF-EM over the Klondike District, Dawson City - 1999	Electromagnetic - Airborne Geophysics, Magnetic - Airborne Geophysics		
093711	1996	JAE Mapping Report 1996 A Geological and Geochemical Report for the Hunker Dome Project	Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology		
092743	1988	Geological Mapping and Trenching of the 1987 Soil Geochemical Anomalies on the Mackay, Dominion, Hunker, Dome, and King Solomon Dome Grids	Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Mechanical - Trenching		
092600	1987	Geological and Geochemical Exploration of the Mackay, Dominion, King Solomon Dome, Hunker Dome, Lombard, Lloyd, Lloyd II, Lloyd III, Green Gulch, and Dominion Mountain Grids - Hunker Summit Area	Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other, Mechanical - Trenching		
091634	1984	Report on the 1984 Exploration Program in Klondike Gold Fields	Electromagnetic - Airborne Geophysics, Percussion - Drilling, Drill Cuttings - Geochemistry, EM - Ground Geophysics	95	6900.67
091561	1983	Assessment Report on Klook 1-48 Claims	Soil - Geochemistry, Regional Bedrock Mapping - Geology		
090769	1980	Geochemical Assessment Report on the KSD Claim Group	Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, IP - Ground Geophysics, Line Cutting - Other, Prospecting - Other		
060149	1972	Geological and Geochemical Report Yukon Quartz Mineral Claims	Silt - Geochemistry, Soil - Geochemistry		

Related References

Number	Title	Page(s)	Reference Type	Document Type
1992GeolVol3_18	Gold and sulphide mineralization in the Hunker Creek area, Yukon Territory, Canada		Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report Paper
1992GeolVol3_15	Preliminary observations on the geology and geochemistry of quartz veins in the Klondike District, west-central Yukon		Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division	Annual Report Paper
1996-1(G)	Geological Compilation Maps of the Northern Stewart River Area, Klondike and Sixtymile 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)

1991Rushton	A fluid inclusion and stable isotope study of mesothermal gold-quartz veins in the Klondike Schists, Yukon Territory		University of Alberta	MSc Thesis