

### **Occurrence Details**

Occurrence Number: 1150 184

Occurrence Name: JF

Occurrence Type: Hard-rock

Status: Showing

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## **General Information**

Primary Commodities: gold

Deposit Type(s): Vein Au-Quartz

Location(s): 63°52'41.33" N - -139°12'44.51" W

NTS Mapsheet(s): 115014

Location Comments: Coordinates provided by Klondike Gold Corp. in 2019.

Hand Samples Available: No

Last Reviewed:

### Capsule

#### Work History

The JF occurrence is associated with a historical shaft sunk on a quartz vein. The area surrounding the JF shaft was re-staked in 1979 as the ND cl (YA49724) by Klondike Ken Ventures Inc., which did a minor amount of bulldozer trenching near the old Pioneer workings. The property was acquired in 1980 by Dawson Eldorado Gold Explorations, which carried out soil sampling in 1984.

In June of 1986, the property was optioned to Arbor Resources Inc. Arbor completed airborne magnetics, EM and VLF-EM surveys across the property in 1987.

Kennecott Canada Inc. optioned the Lone Star property in August of 1992. Kennecott did no significant work proximal to the JF occurrence and in January of 1995 terminated the option agreement for the entire Lone Star property. In January of 1996, Arbor Resources Inc. changed its name to Klondike Gold Corp. Klondike Gold Corp. optioned a 50% interest 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 in 2005.

Trenching work was performed by Klondike Star Mineral Corp. (KSMC) in 2006 as part of their exploration program and a trench was dug in the JF shaft area. In 2007, KSMC extended the 2006 trench and performed soil sampling and an IP survey over the area.

Klondike Gold Corp. resumed work in 2011 and purchased Klondike Star Mineral Corp. in 2015 to restore a 100% interest. In 2012, Klondike Gold Corp. performed property wide prospecting, as well as contracted AECOM to provide a detailed surficial terrain map for the entire property, including the ND claims containing the JF shaft.

In 2015, Klondike Gold Corp. performed regional ground magnetics and orthophoto imagery over the entire Lone Star Property including the ND claims containing the JF shaft. A regional program in 2018 performed airborne magnetics and detailed structural mapping over the claims.

## Regional & Property Geology

The JF showing, similar to the nearby Pioneer occurrence (MINFILE occurrence 1150 150), 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 metavolcanics 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 (D1 to D5) 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 S2 and S3 foliation fabric in the schist units.

The lithological units of the Klondike region commonly contain both large, foliaform quartz veins associated with D3 folding and thrusting and discordant quartz veins possibly associated with D4 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. A structural mapping program completed by SRK Consulting Inc. in 2018 on the Klondike claims in the Lone Star property area identified a newly defined "D4" fault system interpreted to be the primary conduit for gold mineralization fluids that suggests a younger mineralization age than previously assumed. 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.

Trenching in the JF showing area showed the lithological units near the JF occurrence to be dominantly weathered, fissile intermediate (muscovite) schist with sections of blocky quartz augen schist.

## Mineralization & Results

Trenching results show mineralization as gold-bearing, 5-10 cm thick, deformed quartz veins dominantly associated with gouge zones and brecciated quartz in fissile, crenulated intermediate (muscovite) schist.

Trenching performed by Klondike Star Mineral Corp. (KSMC) in 2006 returned samples from a quartz vein containing up to 0.56 g/t Au in trench Tr-06-06. In 2007, KSMC extended trench Tr-06-06 and samples returned up to 0.72 g/t Au over 2 m. Soil sampling performed in 2007 returned anomalous gold over 30 ppb in 26 samples with a maximum value of 2444 ppb Au located near the west end of trench Tr-06-06.

# **Work History**

Date	Work Type	Comment
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7/1/2019	Geochemistry	
7/1/2019	Remote Sensing	
12/13/2018	Airborne Geophysics	
12/13/2018	Geology	Structural and lithological mapping.

12/13/2015	Airphotography	
12/13/2015	Ground Geophysics	
12/13/2012	Geology	
12/13/2012	Other	
12/13/2007	Geochemistry	
12/13/2007	Ground Geophysics	
12/13/2007	Trenching	
12/13/2006	Trenching	
12/13/1987	Airborne Geophysics	As well as EM and VLF.
12/13/1984	Geochemistry	

12/13/1984	1	Geochemistry				
Assessment Reports that overlap occurrence						
Report Number	Year	Title	Worktypes	Holes Drilled	Meters Drilled	
097066	2015	Report on Diamond Drilling, Prospecting, and Ground Magnetics on the Lone Star Property, Dawson Mining District, Yukon Territory, Canada	Diamond - Drilling, Rock - Geochemistry, Magnetics - Ground Geophysics	19	1369.30	
096398	2012	Diamond Drilling, Trenching, Soil Sampling, Rock Sampling, and Prospecting at the Lone Star Property	All Weather Road - Development, Surface, All Weather Road - Development, Surface, Diamond - Drilling, Diamond - Drilling, Drill Core - Geochemistry, Drill Core - Geochemistry, Rock - Geochemistry, Rock - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Detailed Bedrock Mapping - Geology, Prospecting - Other, Prospecting - Other, Backhoe - Trenching, Backhoe - Trenching	8	2762.20	
094919	2007	Diamond Drilling, Rotary Drilling, Geological Mapping, Rock and Soil Geochemistry, IP Geophysics, Trenching and Bulk Sampling on the Lone Star Property	Diamond - Drilling, Percussion - Drilling, Drill Core - Geochemistry, Drill Cuttings - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, IP - Ground Geophysics, Bulk Sample - Lab Work/Physical Studies, Petrographic - Lab Work/Physical Studies, Resource Estimate - Studies, Hand - Trenching	11	1314.10	
094638	2006	Diamond Drilling, Geological Mapping, Rock and Soil Geochemistry, IP Geophysics, Trenching and Bulk Sampling on the Lone Star	Diamond - Drilling, Drill Core - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, IP - Ground Geophysics, Bulk Sample - Lab Work/Physical Studies, Resource Estimate - Studies, Mechanical - Trenching	23	2892	
094579	2005	Diamond Drilling, Geological Mapping, Rock and Soil Geochemistry, Trenching and Bulk Sampling on the Lone Star Property	Diamond - Drilling, Drill Core - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Bulk Sample - Lab Work/Physical Studies, Prospecting - Other, Backhoe - Trenching, Mechanical - Trenching	32	5429.40	
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			
093320	1994	1994 Annual Report on the Lone Star Project	Diamond - Drilling, Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology	2	397.60	
093208	1993	Assessment Report on a 1993 Prospecting, Soil Sampling, Mapping, and Drilling Program	Reverse Circulation - Drilling, Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Prospecting - Other	1	99.10	
<u>093075</u>	1992	Geological, Geochemical and Trenching Report on the Dawson Property	Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Prospecting - Other, Mechanical - Trenching			
092162	1991	Geological, Geochemical, and Trenching Report on the Lone Star Property	Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Backhoe - Trenching			
092860	1989	Geological, Geochemical and Trenching Report on the Dawson Property	Drill Core - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Bedrock Mapping - Geology, Heavy Mineral Concentrate - Lab Work/Physical Studies, Mechanical - Trenching			
092691	1988	Geological, Geochemical, Geophysical and Trenching Report on the Dawson Property	Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, EM - Ground Geophysics, IP - Ground Geophysics, Bulk Sample - Lab Work/Physical Studies, Column Leach Test - Lab Work/Physical Studies, Heavy Mineral Concentrate - Lab Work/Physical Studies, Metallurgical Tests - Lab Work/Physical Studies, Petrographic - Lab Work/Physical Studies, Petrographic - Lab Work/Physical Studies, 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			
091760	1987	Report on Combined Helicopter Borne Electromagnetic, Magnetic, and VLF-EM Survey Bonaza-Eldorado Creek Area	Electromagnetic - Airborne Geophysics, Magnetic - Airborne Geophysics, VTEM - Airborne Geophysics			
092132	1987	Geological, Geochemical, Geophysical, Diamond and Rotary Drilling Report on the Lone Star Property	Magnetic - Airborne Geophysics, Diamond - Drilling, Rotary - Drilling, Drill Core - Geochemistry, Drill Cuttings - Geochemistry, Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, EM - Ground Geophysics, IP - Ground Geophysics,	50	5753.40	

			Mechanical - Trenching
091683	1984	Report of 1984 Exploration on the Lone Star Property of Dawson Eldorado Mines Ltd.	Rehabilitation - Development, Underground, Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Regional Bedrock Mapping - Geology, Line Cutting - Other, Surveying - Other
<u>091535</u>	1983	Summary Report 1983 Mapping and Interpretation Lone Star Gold Property	Detailed Bedrock Mapping - Geology, Regional Bedrock Mapping - Geology, Process/Interpret - Pre-existing Data
091399	1981	Gold Potential Evaluation Report Klondike District on Violet Gold - Quartz Property	Orthophoto - Airphotography, Cursory Property Visit - Other, Data Compilation - Pre-existing Data
091064	1981	Summary Report of 1981 Exploration on the Lone Star Ridge Property	Orthophoto - Airphotography, All Weather Road - Development, Surface, Rock - Geochemistry, Soil - Geochemistry, Detailed Bedrock Mapping - Geology, Heavy Mineral Concentrate - Lab Work/Physical Studies, Line Cutting - Other, Prospecting - Other, Surveying - Other, Data Compilation - Pre-existing Data, Hand - Trenching, Mechanical - Trenching
060149	1972	Geological and Geochemical Report Yukon Quartz Mineral Claims	Silt - Geochemistry, Soil - Geochemistry