

Occurrence Details

Occurrence Number: 105M 148 Occurrence Name: Johnson Occurrence Type: Hard-rock

Status: Deposit

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General Information

Secondary Commodities: gold, lead, silver, zinc

Aliases: Haldane

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

Location(s): N - W

NTS Mapsheet(s): 105M13

Location Comments: Georeferenced from AR 097337 (Figure 4).

Hand Samples Available: No

Last Reviewed:

Capsule

Work History

Silver-lead mineralization was probably found on Mt Haldane prior to 1906 and was staked as Lookout, etc cl (2332) in March 1915 by A. Johnson and J.V. Smith. The south (Middlecoff) zone was explored by surface trenching and two short adits prior to 1918 and was optioned in 1919 to Yukon Silver-Lead Mining Company Ltd., which drove a third adit at Johnson and shipped 24.7 tonnes grading 3 101.7 g/t Ag and 59% Pb in 1920 between the zones.

Re-staked by E. Bleiler and M. Ewing in October 1944 as Middlecoff cl (55320) which was optioned in 1952 to Lookout Mountain Mines Ltd., and in 1964 to Silver Titan Mines Ltd., which added DB, May, Ted, etc cl (83403) in May 1964 and conducted geochemical sampling, buildozer trenching and adit rehabilitation and found the Haldane zone (MINFILE occurrence 105M 032) about 457 m north of the Johnson zone in 1964-1965.

The property was transferred to Haldane Silver Mines Ltd in 1966 and the Middlecoff and Johnson zones were explored by 701 m of overburden drilling and 487.7 m of drifting. In 1968, Paramount Mining Ltd acquired control of Haldane Silver Mines Ltd.

Re-staked as Middlecoff, etc. cl (YA1913) in April 1967 by M.H. Ewing and optioned in 1978 by Barry Way, who added Gopher, etc. cl (YA17722) in April and performed grid soil sampling, bedrock mapping and prospecting in 1978.

Re-staked as Black cl 1-163 (YC02090) in November 1999 by Expatriate Resources Ltd. which carried out a cursory examination of the veins in 2000.

Re-staked and consolidated as Haldane cl 1-99 by Equity Exploration Consultants Ltd. in 2008 who carried out rock geochemistry and bedrock mapping. Equity optioned the claims to Habanero Resources Inc. in 2010 who carried out bedrock mapping and diamond drilling (2 holes, 280.5 m). Habanero carried out diamond drilling (2 holes, 274.9 m), prospecting, bedrock mapping and soil geochemistry in 2011.

Alianza Minerals Ltd. entered a purchase agreement in 2018 with Equity for the Haldane claims. Alianza carried out rock and soil geochemistry and bedrock mapping in 2018 and prospecting in 2019.

Regional & Property Geology

The Mt. Haldane area is underlain by the early Carboniferous Keno Hill quartzite. The quartzite overlies mid to late Devonian Earn Group quartz- and feldspar-phyric chloritic phyllite metavolcanics (Roots, 1997). Carbonaceous Earn Group phyllite and siltstone underlie the metavocanics. A large regional thrust fault, the Robert Service Thrust, is present in the area, which puts Keno Hill quartzite into thrust contact with Proterozoic Hyland group phyllite and schist. Numerous Triassic age metadiorite sills intrude both the Keno Hill quartzite and Earn Group rocks located around the occurrence. Several small Cretaceous age granitic dykes and intrusions also intrude the sequence (AR 097320).

Mineralization & Results

The Mt. Haldane vein system contains three main mineralized zones, named from north to south, Middlecoff (MINFILE occurrence 105M 148), Johnson and Haldane (MINFILE occurrence 105M 032) zones. All three zones appear to be part of a single, north-trending, transverse type vein fault with many branches, which cuts the Mississippian aged, Keno Hill quartzite. The vein faults are located in the footwall of the Robert Service Thrust and are believed to cut the thrust and continue into the Hyland Group, although no significant silver mineralization has been discovered above the thrust. Mineralization within the system is primarily galena with manganiferous siderite gangue (AR 095930). Surface mineralization is hosted by manganese and iron oxides breccias (AR 097230).

Grab sampling in 2008 by Equity returned a sample with 16.9 g/t Au, 955 g/t Ag, and 42.1% Pb (AR 095638).

Diamond drilling of the Johnson adit in 2010 encountered a 3.65 m zone of mineralization with 77.5 g/t Ag, 1.54% Pb, 0.64% Zn and 0.015 ppm Au in HLD10-01 (AR 095682). Follow-up drilling in 2011 encountered a 2.69 m section of mineralization that assayed 19.9 g/t Ag, 0.274 g/t Au, 0.073% Pb, and 0.448% Zn in a zone of oxidized and broken quartzite (AR 095930).

Work History

| Date | Work Type | Comment | | | | |
|------------|--------------|---------------------------|--|--|--|--|
| 12/13/2019 | Geochemistry | Prospecting grab samples. | | | | |
| 12/13/2019 | Other | | | | | |
| 12/13/2018 | Geochemistry | Grab sampling. | | | | |
| 12/13/2018 | Geology | | | | | |
| 12/13/2018 | Geochemistry | | | | | |
| 12/13/2011 | Geochemistry | Prospecting grab samples. | | | | |

| 12/13/2011 | Drilling | Two holes, 274.9 m. |
|------------|-----------------------------|---|
| 12/13/2011 | Geology | |
| 12/13/2011 | Geochemistry | |
| 12/13/2011 | Geochemistry | |
| 12/13/2011 | Other | |
| 12/13/2010 | Drilling | Two holes, 280.5 m. |
| 12/13/2010 | Geology | |
| 12/13/2010 | Geochemistry | |
| 12/13/2008 | Geochemistry | Prospecting grab samples. |
| 12/13/2008 | Geology | |
| 12/13/2008 | Other | |
| 12/13/1978 | Geochemistry | |
| 12/13/1978 | Geology | |
| 12/13/1978 | Geochemistry | |
| 12/13/1978 | Other | |
| 12/13/1966 | Drilling | 701 m of overburden drilling at Middlecoff and Johnson. |
| 12/13/1966 | Development, Underground | 487.7 m of drifting. |
| 12/13/1964 | Geochemistry | |
| 12/13/1964 | Trenching | |
| 12/13/1919 | Development, Underground | One adit was sunk on the Johnson vein. |

| Related References | | | | | | | |
|----------------------------|---|---------|--|--|--|--|--|
| Number | Title | Page(s) | Reference Type | Document Type | | | |
| <u>z</u> | Geology of the Mayo Map Area, Yukon Territory (NTS 105M) | | Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division | Bulletin | | | |
| <u>GM1996-</u> <u>4</u> | Geological Map of Mt. Haldane area, Yukon (105M/13) | | Indian & Northern Affairs Canada/Department of Indian & Northern Development: Exploration & Geological Services Division | Geoscience Map (Geological - Bedrock) | | | |