## TRAILBREAKER RESOURCES LTD.

# McMurdo

A GRASSROOTS GOLD TARGET

### **OVERVIEW** A MODERN EXPLORATION APPROCH FOR AN OLD DISCOVERY AN OLD DISCOVERY

Located in southern British Columbia, 30 km southwest of Golden, British Columbia.

**Road accessible** via maintained active logging roads

A rich mining history with the discovery of high-grade gold veins and strata-bound polymetallic Pb-Zn-Ag replacement-style mineralization in the early 1890s with a couple small scale mines operating intermittently in the early 1900s.

No modern, systematic exploration to evaluate the gold potential of the property has occurred since the turn of century

> evaluation 2020 property The program extended the footprint of historic high-grade gold showings in an area with recent glacial retreat. Grab samples from pyritic quartz veins returned values up to 5.13 oz/ton Au (gold).

# LOCATION



Located in the northern Purcell Mountains of southeastern British Columbia



30 km southwest of Golden, BC.



Great road access via active maintained logging roads





# **CLAIMS**

The McMurdo property consist of a single mineral claim that covers 1,728 hectares and is 100%-owned by Trailbreaker Resources with no underlying royalties or payments.



McMurdo is a regional grassroots exploration target, generated in house by Trailbreaker's exploration team.



The claims cover the small, past producing Roberts E. Burns gold mine and stamp mill that was built in 1892. Historic records show that ore obtained from auriferous quartz veins averaged 25.7 g/t Au.



The claim overlaps the Flying Dutchman mining lease that covers historic adits with quart veins assaying up to 62 g/t Au over 0.5 m (not owned by Trailbreaker Resources).



# **EXPLORATION HISTORY**

#### EARLY PROSPECTORS

First gold discoveries were made in the early 1890s with a small stamp mill setup on Decision Creek to treat gold ore obtained from quartz-sulphide veins from the Robert Burns and Dutchman mining leases. Around the same time, the Crown Point Pb-Zn-Ag replacement style mineralization was discovered on the property at the headwaters of McMurdo Creek. Periodic mining occurred until the 1940s with a total of 762 meters of underground workings.

#### FIRST NUCLEAR CORP SAMIM CANADA LTD

1979 - 1983

The area was regionally explored for Pb-Zn SEDEX deposits over several years with a significant amount of geological, geochemical, and geophysical surveys, followed by exploration drilling. Only a small portion of this work was completed on the McMurdo property. The limited sampling completed on the property shows anomalous gold and silver in carbonate rocks draining into Decision Creek.

#### TRAILBREAKER

Target generation led to the staking of the McMurdo property which was followed by the 2020 first pass exploration program.

2020

#### 1890

#### WEST GATES MINES

First documented exploration with a prospecting program designed to follow up on historic workings and confirm gold showings on the property.

#### **MOUNTAIN STAR RESOURCES**

Completed a property examination for Pb-Zn SEDEX deposit potential as well as its potential to host more extensive gold-quartz vein systems. Very limited field work was conducted on the property with none being conducted on the current McMurdo property.

#### LIMITED EXPLORATION

2000 - 2019

The ground was staked and held by various parties but no documented work was done on the McMurdo property.

## **DEPOSIT MODEL**

Gold-Bearing Quartz Veins – Bulk Tonnage



Narrow, high-grade gold veins have been mined on the property from the 1890s through 1930s.

Although several prospectors and geologists have examined the numerous historic gold showings on the property, no modern systematic exploration to evaluate the gold potential has occurred since the turn of century.



A low-grade, bulk tonnage deposit model has not been applied to the property.



A property examination in 2020 showed that recent glacial retreat has uncovered widespread auriferous quartz veining indicating a bulk tonnage exploration target.





### **DEPOSIT MODEL** SEDIMENT-HOSTED GOLD

The **McMurdo property** is situated in the Kootenay arc - a sedimentary basin deposited along the ancestral North America shelf and intruded by Mesozoic magmas. The property shares a **similar geological setting to that of other significant sediment-hosted gold districts in North America** (Carlin, Nevada & Rackla, Yukon Territory).

Sampling during the early 1980s for stratabound Pb-Zn SEDEX deposits discovered anomalous gold and silver in carbonate units containing no visible sulphides and assaying up 2.5 g/t Au and 1808 g/t Ag.

Gold was vastly overlooked during Pb-Zn SEDEX exploration programs in the early 1980s with very limited geochemical analysis being completed for precious metals. Sediment-hosted mineralization is often microscopic and can be easily walked over by prospectors and missed altogether.

## **GEOLOGY / MINERALIZATION**



Located at the continental margin of ancestral North America and along the Purcell Mountain range that parallels the west side of the Rocky Mountain trench.



Underlain by a thick sequence of Proterozoic marine sedimentary rocks exposed in the core of the northwest-trending Purcell Anticlinorium and intruded by Mesozoic intrusives at its western boundary.



This anticline is deformed by a complex series of thrust faults and folding running parallel to the anticlinal axis (north-south).



Narrow, discontinuous, north-south striking quartz veining is primarily confined to the coarser textured grits and quartzites. These veins locally host gold mineralization with disseminated pyrite.



Lead – Zinc -Silver mineralization is confined to fine-grained stratigraphy; including the limestones, dolostones, and shales.



## **2020 PROPERTY EVALUATION**



The 2020 evaluation program was designed to confirm the presence and grades of historic gold-bearing quartz-sulphide veins and to evaluate the vein density for a potential bulk tonnage model.



A total of 33 soil samples and 74 rock grab samples were acquired for geochemical analysis.



The program was successful in expanding historical showings approximately 600 meters further uphill in an area with recent glacial ice retreat. This new zone, coined "Crown Point" is a 400 X 300-meter area containing auriferous quartz veins hosted in a micaceous grit unit within the crest of an anticline fold hinge.



The quartz veins of the Crown Point zone range from a few centimetres to 3m wide and contain pyrite mineralization irregularly disseminated throughout. Select grab samples from the veins assay up to 175.9 g/t (5.13 oz/ton) Au. The veins are steeply dipping and predominantly strike northwest, parallel to the axial plane of the anticline.



Old workings from the Burns showings on the other side of the mountain, approximately 1.7 km southeast of the Crown Point zone were sampled with rock grab samples obtained from historic trenches assaying up to 76 g/t (2.22 oz/ton) Au. These Burns showings are located along the same regional scale anticline structure as the newly discovered Crown Point zone.



**>700** meters of glacial ice retreat since last significant gold exploration took place at the turn of the century

EXPOSED

GLACIAL

RECENTLY

EREAT

OUTCROP GRAB SAMPLE 3.2 g/t Au IN OUTCROP (remains open to the south) 400 x 300 METER ZONE OF AURIFEROUS QUARTZ VEINING, GRAB SAMPLES ASSAY UP TO **176 g/t GOLD** 

ALC: NO



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#### A CENTRY OF GLAICAL ICE MELT

Spillimacheen Glacier

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ICE EXTENT

NEW

HISTORIC Au SHOWINGS (1930s)

## **CROWN POINT ZONE**



Looking northwest

#### TRAILBREAKER RESOURCES LTD.

Grab Sample - Pyritic Quartz Vein – 176.9 g/t (5.13 oz/ton) Au

Looking northeast

Grab Sample - Pyritic Quartz Vein – 5.6 g/t Au

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Date.

Logged by:

Sample ID

Looking east

## TRAILBREAKER RESOURCES LTD.

Grab Sample - Pyritic Quartz Vein - 2.54 g/t Au

Looking north

Grab Sample - Pyritic Quartz Vein – 8.03 g/t Au





Grab Sample - Pyritic Quartz Vein – 49.7 g/t Au





## **BURNS ZONE**

Looking South

## TRAILBREAKER RESOURCES LTD.

DECISION CREEK

Historic Trench Grab Sample - Pyritic Quartz Vein – 76 g/t Au

### **Head Office**

Trailbreaker Resources Ltd. 650 W Georgia St # 2110 Vancouver, British Columbia Canada V6B 4N9

### Phone: (604) 681-1820

Email: info@TrailbreakerResources.com

Website: TrailbreakerResources.com

# TRAILBREAKER RESOURCES LTD.