• Archean conglomerate-hosted gold mineralization similar to Novo Resources Karratha gold discovery in the Pilbara district of Australia.

• Gold & alluvial hosted in Mesoarchean to Neoarchean (2940-2700 Ma) quartz-pebble conglomerate with pyrite (± arsenopyrite ± sphalerite ± stibnite) and carbonaceous laminations in the matrix.

• Historical grab samples reported up to 142 g/t Au and channel samples to 0.35 m @ 63.15 g/t Au.

• Host formation mapped over for 4.8 km, 15 to 20 m thick; background gold concentration > 100 ppb Au with numerous samples > 1 g/t Au.

LOCATION & ACCESS

The Tree River property is centred at 67° 08’ N 112° 09’ W on NTS 86 P01, 155 kilometres southeast of Kugluktuk in the Kitikmeot Region of Nunavut. The property is accessible by float plane or helicopter from Kugluktuk or Yellowknife.

EXPLORATION HISTORY

Gold mineralization was discovered in the general area by BHP Billiton (BHP) during reconnaissance work in the early 1990’s. BHP’s prospecting located gold in conglomerate unit and mapped for about 5 km. Along a “western horizon”, they collected numerous samples greater than 1 g/t Au while much higher grades were returned from locations along an “eastern horizon”.

BHP conducted additional prospecting and sampling on the property until 1997 but then allowed it to lapse. The property was restaked by 4763 NWT Ltd. in 2002 and optioned to Strongbow Exploration Inc. Strongbow explored the property from 2002 through 2006, conducting airborne magnetic field surveys, prospecting, channel sampling, geologic mapping and petrographic analysis. They identified widespread Witwatersrand-style gold mineralization and several high-grade showings. Strongbow allowed the property to lapse and it was subsequently acquired under Prospecting Permits by Silver Range Resources in February 2018. Silver Range conducted sampling on the property in 2018 and 2020. University of Alberta researchers reported the recovery of diamonds in the host horizon in 2020.
Permit locations
Property geology & gold mineralization (after Stubley 2003 & Light 1997)
GEOLOGY & ECONOMIC MINERALIZATION

The Tree River Property is located at the northern end of the Anialik Greenstone Belt. The property is underlain by mafic volcanic rocks overlain by clastic marine sediments, subsequently metamorphosed to greenschist facies. The sedimentary rocks are dated at between 2940 and 2700 Ma based on detrital zircons. A monomictic, clast-supported quartz pebble conglomerate (Tree River Conglomerate of TRC) from 15 to 20 metres thick, lies approximately 80 m stratigraphically up-section from the volcanic / sedimentary contact. This laterally extensive unit has been traced for 4.8 kilometres. and is particularly enriched in gold, with background values in excess of 100 ppb Au, numerous grab samples in excess of 1 g/t Au and local occurrences of high grade gold. The most significant high-grade showing is in the eastern portion of the property where grab samples have returned assays up to 142 g/t Au and a channel sample returned 0.35 m @ 63.15 g/t Au. Past exploration on this remote property has been restricted to mapping, prospecting and limited channel sampling with no drilling to date. The full extent of the host conglomerate is unknown. In 2020, researchers from the University of Alberta reported the recovery of alluvial, kimberlitic diamonds from the TRC immediately west of the Tree River Property.

The TRC contains abundant pyrite within the matrix, with a background concentration of 1-25 and up to 25% in localized pods. Arsenopyrite, stibnite and sphalerite together with a green mica identified as fuchsite also occur in the matrix. The pyrite is detrital with grains described as rounded to “muffin-shaped”. In addition, the matrix contains up to 5% carbonaceous material in layers parallel to bedding.

Mineralization in the Tree River Conglomerate is similar in setting and style to gold mineralization recently discovered in the Pilbara district of Australia and fits currently proposed models for Witwatersrand-style gold mineralization:

- Gold is hosted in a regionally extensive shallow marine conglomerate.
- Pods of high grade gold mineralization are present within a much larger envelope of lower grade material.
- Primary carbonaceous material is present.
- Pyrite is abundant and a significant proportion is reported to be rounded and detrital in origin
- The TRC is dated between 2,940 to 2,700 Ma, placing it in the favourable time window for the Mesoarchean gold deposition event associated with atmospheric oxygenation.

PROPOSED EXPLORATION PROGRAM

Silver Range intends to conduct systematic sampling, geological mapping and focused prospecting at Tree River in the coming season, building on the solid technical data collected by Strongbow and incorporating the latest insights into the developing Witwatersrand 2.0 deposit model.