



## MINFILE NTS 104A – BOWSER LAKE

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**The Bowser Lake map area covers portions of the Boundary Ranges (Coast Mountains) and the Skeena Mountains and lies within the Intermontane Belt (or accreted superterrane).** This 1:250,000 scale map area contains 175 documented mineral occurrences: 166 precious and base metal and 9 coal. The precious and base metal occurrences are confined to the southwestern part of the map area, where they form part of the Stewart mining camp. The coal occurrences lie within the Groundhog Coalfield in the extreme northeastern portion of the area.

Upper Triassic to Middle Jurassic Hazelton Group arc-derived volcanics and related sediments of the accreted Stikine Terrane occur in the southwest corner of the map area and form part of the Stewart Complex. They are unconformably overlain to the east and northeast by a post-accretion overlap assemblage of sediments of the Upper Jurassic to Cretaceous Bowser Lake Group. Small Mesozoic to Tertiary granitoid stocks intrude all the rocks but are most conspicuous in the Hazelton Group volcanics. Metallogenically important northwest trending Tertiary dyke swarms invade the Hazelton Group rocks in the extreme southwestern corner of the area.

The Stikine Terrane has been intermittently explored since 1899. There is currently no mineral production from the area. Several small mines have been worked in the past; significant tonnage has only been recovered from three deposits. The **Red Cliff** (104A 037) copper-gold-silver mine operated during 1910-12 and 1973, the **Goat** (104A 002) silver-gold-lead-zinc-copper mine operated during 1975 and 1979-81, and the **Roosevelt** (104A 069) lead-silver-zinc-copper-gold mine operated during 1972-73.

Both Jurassic and Eocene mineralization events are represented in the Stikine Terrane where the following types of deposits are present:

1. Jurassic volcanogenic (?), stratabound and stratiform copper mineralization comprises disseminated to semi-massive pyrite and chalcopyrite, with lesser sphalerite. It is hosted within tuffaceous and cherty rocks of the Unuk River Formation (Hazelton Group) (e.g. **George Gold-Copper Lower**, 104A 029).
2. Epigenetic-hydrothermal precious metal veins comprise variable quartz, pyrite, galena, sphalerite and chalcopyrite with minor tetrahedrite, argentite, freibergite, native silver, stibnite and gold (e.g. **Todd Creek**, 104A 001, **Independence**, 104A 038 and **George Gold-Copper Upper**, 104A 129). They are typically associated with, and probably genetically related to, Eocene dyke swarms. Some of the vein mineralization may be Jurassic in age.
3. Tertiary (?) hydrothermal, porphyry-style copper-gold and molybdenum mineralization comprises disseminated and fracture-related pyrite and chalcopyrite and variable molybdenite and scheelite within intrusive porphyries and deeper level stocks (e.g. **Surprise**, 104A 080).

Anthracite coal seams have been known in the Groundhog Coalfield since 1893. They occur within a 2000-metre-thick Lower Cretaceous sequence of folded and faulted shale, siltstone, sandstone and conglomerate of the Upper Jurassic or Lower Cretaceous Currier Formation and overlying Lower Cretaceous McEvoy Formation (both of the Bowser Lake Group). The thicker seams, up to 4 metres, lie within the Currier Formation. There has been no documented coal production in the area. Reserves for the **Panorama North** (104A 085) and **South** (104A 082) prospects are 240 million tonnes of inferred coal. The **Discovery Creek** (104A 078) seams also contain reserves.

### SELECTED REGIONAL REFERENCES (NTS 104A – BOWSER LAKE)

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