



MINFILE NTS 092ISW – LYTTON

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The Lytton map area, with 101 known mineral occurrences, lies within the Intermontane Belt comprising the Quesnellia, Bridge River, Methow, Shuksan and Cache Creek terranes as well as undifferentiated Post Terrane Accretion Overlap Assemblages. Much of the map sheet is underlain by plutonic rocks, mainly Jurassic/Triassic Guichon Creek Batholith dioritic rocks in the northeast, Mount Lytton Complex diorites and amphibolites of the same age in the centre, Late Cretaceous Scuzzy Pluton granodiorites in the southwest and Eocene Nicola Batholith granodiorites north of the Scuzzy Pluton. Stratified rocks include Upper Triassic Nicola Group volcanics, metasediments of the Lower/Middle Jurassic Ladner and Jurassic/Cretaceous Relay Mountain groups, Lower/Middle Cretaceous Jackass Mountain Group sediments and Middle/Upper Cretaceous Spences Bridge Group volcanics.

Volcanics and sediments of the Eocene Princeton and Kamloops groups occur as outliers within the Mount Lytton Complex as well as small Miocene intrusions of intermediate composition. Quaternary sediments occur as thick drifts along the main rivers and some of the larger creeks.

Metamorphic assemblages consist of Carboniferous to Jurassic Cache Creek Complex melanges, Permian to Lower Cretaceous Bridge River Complex metamorphic and ultramafic rocks and Upper Triassic Nicola Group volcanics.

The Guichon Creek Batholith is by far the most extensively explored and documented region and hosts large Cu-Mo porphyry deposits. The **Highland Valley Mine** (092ISW012) has measured reserves of 776 million tonnes grading 0.41 per cent copper (1989). Ore milled in 1989 totalled 32 million tonnes. In 1980, **Lornex** (092ISW045) reserves measured 412 million tonnes. The **O.K.** (092ISW010), a past producer, contains approximately one million tonnes of ore grading 2.33 per cent copper and 11.6 grams per tonne silver in six zones. The **Victor** (092ISW005 - past producer) has possible reserves of 100 000 tonnes grading 1.5 per cent copper. In 1985, the **Hightmont West** (092ISW036) contained measured reserves of 21 million tonnes at 0.25 per cent copper and 0.047 per cent molybdenum. These deposits occur within the core (Bethsaida phase) of the Guichon Creek Batholith. Numerous showings and prospects have been discovered and worked using mainly geophysical techniques. Other small copper showings within the batholith are hydrothermal vein and shear-hosted deposits. The Mount Lytton Complex also contains copper mineralization. Lead and zinc are conspicuous by their absence.

Precious metal showings occur mostly in Bridge River-Relay Mountain groups, the **Serpentine/Summit** showing (092ISW055), east of Pyramid Mountain, being the best known historically. Industrial minerals are common in the Bridge River and Nicola groups as well as in Fraser River gravels (agate, jade, garnet). The **H** showing (092ISW063), southeast of Pyramid Mountain, contains low grade talc (62 per cent) in Bridge River serpentinites; the **Rawhide** showing (092ISW051), east of Antimony Mountain, assayed 94.48 per cent talc. The **Bob** skarn showing (092ISW058) occurs in limestone lenses within the Mount Lytton Complex.