



MINFILE NTS 082J - KANANASKIS

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The Kananaskis map area, with 68 known mineral occurrences, almost wholly covers the Foreland tectonic belt. The map area is dominated by rocks of the Ancestral North America terrane and post-terrane accretion overlap assemblages.

The southwest corner of the map sheet covers the Rocky Mountain Trench where a thick accumulation of dominantly clastic rocks of the Helikian Purcell Supergroup forms the core of the Purcell Mountains and is exposed in thrust sheets along the western edges of the Kootenay Ranges. The area east of the Rocky Mountain Trench is underlain by rocks of three structural sub-provinces of the Rocky Mountains (from east to west - the Front, Main and Western ranges) which are separated from each other by major faults. Stratigraphy of the Front Ranges is characterized by thrust sheets of mainly Upper Paleozoic carbonates and relatively minor amounts of Cambrian, Ordovician and Cretaceous sedimentary rocks. Jurassic-Cretaceous coal measures occur in the Front Ranges. The Main Ranges sub-province is composed of competent Cambrian and Precambrian sedimentary rocks with considerable areas of less competent rocks of Ordovician(?) age. The Western Ranges are comprised of principally Cambrian, Ordovician and Silurian sediments with some Precambrian and Middle Devonian rocks.

Exploration potential includes precious and base metals, industrial minerals and coal. Industrial mineral and coal occurrences dominate the map sheet with exploration emphasis on phosphate, magnesite, barite and gypsum. Deposit types include evaporites, veins, replacements and marine sedimentary deposits. Production was recorded from the Baymag, 082JNW001 (magnesite), Lussier, 082JSW009 (gypsum) and Windermere, 082JSW028 (gypsum) deposits. Fording River (082JSE012) and Greenhills (082JSE007) are the major coal producers.

SELECTED REGIONAL REFERENCES (082J - KANANASKIS)

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