

Kananaskis Gypsum Deposit  
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August, 1965

Location and Access

The gypsum deposit is in the Bow River Forest of the Rocky Mountain Forest Reserve on the eastern slope of Mt. Invincible at an elevation of about 6900 feet, about 2 1/2 miles on an azimuth of 245 degrees from the outlet of Pocaterra Dam on Lower Kananaskis Lake. The deposit lies in the SW 1/4, Sec.9, Tp. 20, R.9, W.5.

It may be reached partly by road from Calgary, by travelling 43 miles west on the Trans Canada Highway to Fort Chiniquay and then 35 miles south on the Kananaskis Forestry road to the Pocaterra Dam. One of two routes may then be taken. The first is about eight-tenths of a mile by boat to the west side of Lower Kananaskis Lake to the north end of a fan at the mouth of a small creek about eight-tenths of a mile south of the mouth of Smith-Darrien Creek and then westerly about 2 miles on a game trail along the north side of the creek and its tributaries. The second route crosses Pocaterra Dam\* and continues westerly about two miles on the Smith-Darrien road; crosses Smith-Darrien Creek and then about 1 1/2 miles south to the deposit. The writer is not aware of any trails to the deposit after leaving the Smith-Darrien road. Should the deposit ever be developed, the second route is most likely to provide easiest access.+

Gypsum from this deposit would have to be trucked more than 35 miles by forestry road to the Trans Canada Highway or the mainline line of the C.P.R. at a point 43 miles west of Calgary. From Pocaterra Dam to Fort Chiniquay the Kananaskis Forestry Road crosses 4 to 5 bridges whose present weight limits are 12 tons each.

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\* A locked gate restricts vehicles from crossing the dam to those having obtained a key from the Kananaskis ranger.

+ Since this report was written an access road is reported to have been built to the gypsum deposit from the west side of Pocaterra Dam.



Description of the Deposit

The gypsum is exposed in a slide area partway up the slope. Here the slope strikes 105 degrees and dips 50 degrees north. About 80 feet of gypsiferous rocks are exposed in what are probably Middle Devonian strata/a few hundred feet above the Bourgeau Fault. Layers of relatively pure gypsum up to 10 or 11 feet thick are separated by impure gypsum, dolomite and shale. The gypsiferous strata dip into the side of the mountain so that underground mining would be required for exploitation.

Cliff and ridge forming limestone in beds on foot of more thick is 300 to 400 feet stratigraphically above the highest gypsum exposure. These beds strike 320 degrees to 330 degrees and dip 28 degrees to 35 degrees S.W., but slumping makes these attitudes unreliable.

A lithoigic description of the gypsiferous section is given as follows. A 6" band of black-brown shale marks the top of the exposed gypsum succession.

- 7.5" Fairly pure white fine grained gypsum with a few shaly beds up to 2" thick.
- 4.0' (11.5') interbedded dolomite and gypsum. Dolomite laminae are only a fraction of an inch thick at the top of this interval-increasing to 2 inches or more at the bottom. The lowest half foot appears shaly. Laminae of dolomite and gypsum are fractured and offset with fractures up to 1/2" thick-irregular-filled with gypsum.
- 5.5' (17.0') White gypsum with laminae less than 1" shale in lower part.
- 5.0' (22.0') Black shale approx. 1'  
White shale approx. 0.5'  
Shale-grey approx. 3.0' cut with thin 1/4 vertical veins of gypsum.
- 4.0' (26.0') White gypsum.

- 3.0' (29.0') Dark greyish dolomite - cut with gypsum veins.
- 3.5' (32.5') White gypsum and shale interbedded.
- 10.0' (42.5') Partly covered - what is visible is white gypsum with thin shale bands.
- 12.0' (54.5') Covered mostly - white gypsum and dolomite visible in places.
- 4.0' (58.5') Black dolomite.
- 5.0' (63.5') white gypsum. May be slumped block-  
attitude does not agree  
with others.
- 2.5' (66.0') Black dolomite - gypsum in fractures.
- 2.0' (68.0') White gypsum.
- 2.0' (70.0') Dolomite with gypsum in fractures.
- 3.0' (73.0') Dolomite with gypsum in fractures.
- 9.0' (82.0') White gypsum. Dolomite with gypsum in fractures.