

C.M. 85 Rock Candy Groups
and
Adjacent Claims

800785

Rock Candy

3 Copies

Claims

The Rock Candy, the most important known fluorapatite deposit in British Columbia is situated on Kennedy Creek, a small tributary entering the North Fork of the Kettle River about 15 miles north of Grand Forks, B.C. Nine C.G. claims comprise the Rock Candy groups. To date any significant work & exploration have been confined to the Rock Candy, Rabbit, and Portal M.C.'s.

Rock Candy Terminal reached by 12 mi. highway and 8 mi. secondary road

The Spar, Lake View, Eagle, and Falcon groups (see map), and staked by us in 1953, cover the southward and northward extensions of the Rock Candy veins.

Location and Accessibility

The above claims lie at an elevation of about 2600 feet, and are easily accessible by motor road to within one half mile of the old Kennedy Creek camp. Some reconstruction of a steep section on the last one half mile is necessary.

One would, at present be loaded at Grand Forks on the C.P.R. railroad.

Rain and snow-fall within this dry belt area are light, and present no obstacles to year-round motor traffic. Water and timber are in plentiful supply on and adjacent to the claims.

Geology.

Within the whole claim area the vein maintains a uniform northerly strike and steep westerly dip (see map).

To the east, or beneath the footwall, of the vein lies a wide body of medium- to coarse-grained syenite. This is believed to be either an elongated lens or sill striking northerly, or parallel with the vein. To the west of the syenite contact is an older, rather uniform group of bedded volcanic rocks - the main type being a rather fine grained greenish feldspar porphyry.

The vein itself is believed to be a contact structure, lying generally within the feldspar porphyry, developed by differential movement between the sediments and intrusive.

The vein, as exposed in the Rock Candy mine workings and open cuts on the Lakeview group, varies from about 8 feet to 45 feet wide. It is composed of vuggy quartz and minor calcite carrying bands of clear or mixed fluorite up to 30 feet in width. Quartz, calcite, and barite, form the gangue minerals associated with the fluorite. The bands and disseminations of fluorite are generally so numerous and closely spaced that the whole vein may be mined from foot- to hanging wall.

Rock Candy Deposit

This deposit lies immediately north of Kennedy

Creek. The outcrop has been exposed for a length of 500 feet and width up to 45 feet. On the surface it is exposed for a vertical distance of 200 feet, and underground through a vertical distance of 250 feet. The outcrop, carrying good mineralization, passes under glacial drift at both ends. Southward, its extension has been proved for a considerable distance by diamond drilling. To the north there is little evidence of exploratory workings that would give information of its continuity in this direction, although the vein, where exposed on the extreme north end, contains some of the best widths and grades of fluorite. When last operated the ore body was mined selectively as no satisfactory method of concentrating mixed ore had been developed at that time. Consequently good widths of well-mineralized material remain on the foot- and hanging wall side of the vein. This material is of sufficiently high grade to be mined and concentrated by modern heavy-media and flotation processes.

Sample by us on the deposit gave the following returns.

- # 2976 - Hanging wall band in place 10' @ 35.15% CaF_2
- # 2977 - Central band - pillar 7' @ 50.53% CaF_2
- # 2980 - Hanging wall band. N. freesteps 5' @ 53.04% CaF_2
- 2981 - Central section " " " 8' @ 60.28% CaF_2

across the north face, a minimum width of 25 feet

of good ore is available for mining.

It is estimated that 30,000 - 50,000 tons of commercial ore have been left within the old workings.

A hand-sorted sample taken to determine what grade of concentrate or pure material could be expected assayed as follows:

| | | |
|----------------|--------|------------------------------|
| Fluorine | 47.29% | } → CaF ₂ = 96.6% |
| Calcium | 50.0 | |
| Carbon Dioxide | 0.11 | |
| Silica | 2.00 | |
| Barium Oxide | 0.27 | |
| Iron, total | 0.007 | |
| Sulfur, total | 0.05 | |
| Lead & Zinc | nil | |

Adjacent Claims

(a) Spar Group

The outcrop of the vein lies wholly within and along a north-trending stream course and swamp. This depression was evidently produced by differential erosion of the generally softer vein outcrop. Exploration here would require diamond drilling.

(b) Lakeview Group

Three open cuts spaced at 1500-foot intervals show that the vein and mineralization are present on this section. The most northerly open cut carries over 6 feet of 15-20% fluoro ore, in its full exposure. The central and hanging wall sections lie within a similar

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swampy depression as that along the Spar
group. The other two open carry significant
mineralization (see map).

(C) Eagle and Falcon Groups

No open cutting or other exploratory work
has been done on these claims. However, the
outcrop depression and the banded syenite
and feldspar porphyry exist in the same relation
as about the Rock Candy. Open cutting adjacent
to a tributary creek north of the Falcon group
has exposed the vein and fluore mineralization,
showing the structure to be continuous over at least
a 4 mile length.