

## Bixbite (Red Beryl)

Bixbite is red beryl, which is the rarest variety of beryl. It is Beryllium Aluminium Silicate,  $\text{Be}_3\text{Al}_2\text{Si}_6\text{O}_{18}$ . Other well known varieties of beryl include Emerald and Aquamarine. Pure beryl is a colourless. Presence of trace amounts of Manganese ( $\text{Mn}^{3+}$ ) along with small amounts of iron, chromium and calcium create the red colour in beryl. Its hardness is 7.5 to 8 on Mohs scale and specific gravity is **Gravity** 2.6 to 2.8.



Red beryl discovered in 1904 in Utah was originally named “*Bixbite*” by “*Alfred Eppler*” in honour of an American mineralogist “*Maynard Bixby*”. There is only one known commercial occurrence of gem-quality Red Beryl in the world “*The Ruby Violet*” mine in the “*Wah Wah Mountains*” of Beaver County, Utah. Beryl occurs most often in Igneous rocks and Metamorphic rocks within gas cavity in Rhyolite in association with quartz, feldspar, mica and muscovite. With only one magnificent Crystal found for every 150,000 diamonds, Red Beryl is extraordinarily rare and prohibitively expensive.

Red beryl is naturally fractured, crystals and faceted stones are commonly treated with colorless substances such as paraffin wax, Opticon, cedar wood oil, and Canada balsam to improve their apparent clarity. Synthetic Red beryl have been produced by hydrothermal methods. Diagnostic inclusions are similar to Synthetic Emeralds. Gemologists familiar with the materials are able to distinguish synthetics from natural red beryl on the basis of crystal shape, inclusions and absorption spectra. Gemmological Institute of India (GII) has full fledged Gem testing Laboratory and can identify all the treatments performed on Red Beryl as well as identify Naturals from Synthetics.

### *Bibliography.*

1. [www.geology.com](http://www.geology.com)
2. [www.crystalvaults.com](http://www.crystalvaults.com)
3. [www.treasuremountainmining.com](http://www.treasuremountainmining.com)

