

## Price Chart Toppers : Some Expensive Gemstones: Part 2

### 4. Benitoite – \$3,800 per carat



Benitoite is a barium titanium cyclosilicate ( $\text{BaTiSi}_3\text{O}_9$ ). With its striking blue colour body and higher dispersion than diamond makes Benitoite an attractive gemstone for collectors. It looks fascinating under UV light where it fluoresces glowing blue chalk colour. Benitoite was discovered in headwater at San Benito River in San Benito County, California and thus it was named as Benitoite. It has similar appearance to sapphire but differs in the specific gravity 3.65 and hardness 6- 6.5 on mohs scale. Benitoite is also found in Montana, Arkansas, Japan and Australia, but quality of the gem stones are same as those found in San Benito.

### 5. Padparadscha Sapphire – \$8,000 per carat



Padparadscha sapphire, the world's rarest sapphire from Corundum family, has a beautiful pinkish orange colour that exhibits the mixture of the hues of ruby and yellow sapphire. Its name is derived from the Sanskrit/Sinhalese word for "aquatic lotus blossom" due to its colour. Padparadscha is one of the world's most expensive gems, with prices similar to those fetched by fine ruby or emerald. The chemical formula is  $\text{Al}_2\text{O}_3$ , and its colour is due to the

presence of trace amounts of trivalent Chromium ( $\text{Cr}^{3+}$ ) and Iron ( $\text{Fe}^{3+}$ ) replacing Aluminium ( $\text{Al}^{3+}$ ) in the crystal lattice. It has a specific gravity of 3.99 and hardness of 9 on Mohs scale. It is more durable due to its high hardness. Most of these gemstones are mined from Sri Lanka but they can also be found in Madagascar and Tanzania. The finer ones are mostly found in Sri Lanka and the ones which are found in Madagascar are pinkier and of lower price.

Due to its rarity, the stones shape may be unusual as cutters try their best to maximize its carat weight.

#### 6. Red Beryl – \$10,000 per carat



Red beryl, also known as Bixbite, is an extremely rare type of beryl having raspberry pink to purplish red colour. It was discovered by Maynard Bixby in 1904 and hence it got its name Bixbite. The chemical formula is  $\text{Be}_3\text{Al}_2\text{Si}_6\text{O}_{18}$  and colouration of Bixbite is the result of replacement of aluminium atom ions by trivalent manganese ( $\text{Mn}^{3+}$ ) during the growth process. It has a specific gravity of 2.76 and hardness 7.5 to 8 on Mohs scale, which makes it highly wearable gemstone. Red beryl is a rare mineral because its formation requires a unique geochemical environment. The crystal of Red beryl is found in many locations like Wah Wah Mountains, Beaver County, Utah; Paramount Canyon and Round Mountain, Sierra County, New Mexico, but the gem quality red beryl are found in only one site of Wah Wah Mountains in Utah. Red beryl is 8000 times rarer than rubies, this makes it one of the expensive gemstones.

#### Bibliography

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