



Bixbite

Wah Wah Mountains,
Beaver Co., Utah

Bixbite is a very rare red variety of the mineral beryl. Beryl is a group of minerals that is only different in color. They all crystallize in the hexagonal system, have a chemical formula of $\text{Be}_3\text{Al}_2\text{Si}_6\text{O}_{18}$, and have a hardness of 7 1/2 to 8.

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Sapphire

Sri Lanka

Sapphire is the blue, yellow and colorless variety of the mineral corundum. It is number 9 on the Mohs' Hardness Scale. Because it is so hard, corundum is used to make grinding wheels and papers for grinding and polishing softer materials like porcelain, metals and wood. Pure corundum is aluminum oxide, Al_2O_3 , and is colorless. The presence of the elements iron and titanium in corundum gives sapphire its blue color.

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Diamond

South Africa

One of the most famous, popular and valuable of all gems is the diamond. Diamond is number 10 on Mohs' Hardness Scale, making it the hardest substance on Earth. It is so hard that it is actually 4 times harder than corundum (number 9 on the hardness scale) and 8 times harder than topaz (number 8 on the hardness scale). In very rare situations, diamonds can have deep colors, like blue, yellow, red, orange or pink.

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Benitoite

San Benito County

Benitoite is a relatively new gemstone. It was first discovered in 1906 in San Benito County, California (can you see how it got its name?!) by James M. Couch who was camping in the hills. The story goes that he woke up to find the sunshine bouncing off of the faces of benitoite crystals that were on the ground around his campsite. Not only is benitoite a rare mineral but gem-quality crystals are even rarer.

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Emerald

Colombia

Emerald is the green variety of beryl. People have believed emerald to have many different "powers" through the ages. The Romans thought it was a symbol of the power of nature to reproduce. The ancient Greek scientist, Theophrastus, claimed emeralds could bring rest to the eyes and relieve eye problems. Others believed an emerald could help a person predict the future.

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Aquamarine

Pakistan

Aquamarine is the blue variety of beryl. The name aquamarine comes from two Latin words, aqua marina, which mean water of the sea or ocean. Deep blue aquamarines are popular gemstones, both as gems and as specimens. In ancient times, sailors wore aquamarine because they believed it would give them courage and protection from the dangers at sea.

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Amazonite

Pike's Peak Region, Colorado

Amazonite is also called Amazon stone. It is opaque (this means light does not pass through it) so it is not faceted like diamonds or emeralds. It is carved into small figurines and polished to make semi-precious gems for rings, necklaces and ear rings.

Amazonite is a variety of the group of minerals called feldspars. Specifically, it is the turquoise-colored variety of microcline feldspar.

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Brazilianite

Minas Gerais, Brazil

Brazilianite was named after the country in which it was first discovered, Brazil. It is yellow to yellow-green, rarely occurring as dark, olive green specimens. It was discovered in 1945 making it a fairly new gemstone. Brazilianite is often found growing on and with silvery muscovite crystals. These muscovite crystals form a shape that looks like a star.

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Topaz

Skardu District, Pakistan

Topaz is number 8 on the hardness scale. It can be colorless, red, blue, pink, yellow, golden brown, sherry red, and even orange. Orange topaz is also referred to as Imperial Topaz. Colored topaz gems are beautiful and very popular. Topaz crystals can be less than an inch long and can be as large as a boulder. The world's largest topaz crystal is from Minas Gerais, Brazil and weighs almost 600 pounds!

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