



CELESTINE for State Mineral

Testimony of John P. Ambler

One might ask, "Why is there a need for a recognized 'State mineral'?" Of our 50 states, 22 have designated minerals; 37 have designated gemstones; 31 have designated rocks. The following have no designations: KA, NJ, ND, PA, and VA.

Pennsylvania is known as the "Keystone State". Of course, this is not referring to natural stone, but to the fact that the Keystone holds the others together. DE may be known as the first state, but PA is where our nation started. We have that designation because we (PA) were and are the Seed of the Nation. PA forged the way, and the nation followed. Apparently this did not follow through with bringing attention to our natural resources.

Pennsylvania, at one time had the largest nickel mine - at Gap (Nickel Mines, Lancaster County, PA); chrome was mined in Lancaster and Chester Counties; copper was mined in Adams County; Cornwall Mine in Lebanon County was mined for magnetic iron ore from 1742 to 1972 until Hurricane Agnes; central PA was mined for limonite and hematite iron ore. Our coal resources, and now, gas resources appear unlimited; and coal, contrary to popular opinion, is a fossil fuel, not a mineral. Our vast mineral resources provided lead for ammunition for American colonial armies; cannon and other armaments during the civil war, yet we continue to concentrate on fossils - dinosaur tracks; large boned prehistoric animals and side track what minerals have done to build this great commonwealth.

The mineral for which we are asking recognition as the state mineral is named CELESTINE - originally found in Bell's Mills, Huntingdon County, PA, and sent to Germany for analysis. The mineral was originally called COELESTIS referring to the heavenly. The specimen occurred in a vertical fibrous form with a pale blue color, and was translucent. Bell's Mills became known as Bellwood and the area of note became Blair County. The mineral was found on what is now the Benedetto Farm, and is located in Antis Twp., not Bellwood. When I spoke to Mr. Benedetto, he told me that the site had been washed away in the 1970's during a major rainstorm when the river was in flood.

Part Two: Testimony regarding Celestine

John Penrose Ambler - collector of minerals since 1965; founded Blair Rock and Mineral Club in 1968; member of Friends of Mineralogy since early 1970's member of The Nittany Mineralogical Society and former member of The Central PA Rock and Mineral Club, Inc.

The Blair County book from the Pennsylvania Second Geological Survey of 1881, states: celestine occurs near Bell's Mills in the bank of the stream, at the top of the Clinton formation and the bottom of the Lower Helderburg formation. Red rocks are in the bank only 30 feet away, and the celestine lies in the bed plates of the limestone, but in lenticular masses running in and out. The crystals range from 1/2" to 1".

F. A. Genth in his Mineralogy of Pennsylvania, published in 1875, and part of the PA Second Geological Survey. On p. 146: Celestite or sulphate of strontia crystallizes in forms similar to those of barite, but in Pennsylvania only one variety has been observed, which is found at Bell's Mills, in Logan's Valley, near Frankstown, Huntingdon County. It occurs in thin seams of a pale grayish-blue color and parallel-fibrous and columnar structure. It has been analyzed already as early as 1797, by Klaproth, who found:


Strontia	42%
Sulphuric Acid	<u>58%</u>
	100%

The Mineralogy of Pennsylvania by Samuel Gordon, states on p.142, about celestite: Composition: Strontium Sulfate. Locality: Blair County: Bellwood (pale blue fibrous layers); and Williamsburg (faintly bluish crystals measuring 2 cm in length. Form: fibrous masses, radiated, granular, tabular or prismatic crystals.

In PA, I have personally collected celestine specimens of all these forms. Some occur in the same quarries – New Enterprise Qy. in Roaring Spring; Meckley Qy. In Mandata. I have collected Celestine in Blair, Huntingdon, Mifflin, Union, York, Lancaster, Northumberland, Bedford, Cumberland, Juniata, and Snyder Counties. Not all are blue. Some are clear, some white, some gray and some blue. In Lancaster Co., some are yellow. Occasionally, some are green or yellow, when collected, but most turn to blue when exposed to light.

Dana's Textbook of Mineralogy, Fourth Edition, states: Celestite. Coelestine. Celestite is found in Pennsylvania at Bellwood, Blair Co., in blue fibrous layers (this was the first celestite described). Named from coelestis, celestial, in allusion to the faint shades of blue often present.

Frederick H. Pough, in the Fourth Edition of A Field Guide To Rocks and Minerals describes celestite as a blue fibrous vein material from Bellwood, Blair Co., Pennsylvania, described in 1791, was the original celestite, the first discovery of this mineral.



Correspondence between John Barnes, Mineralogist of PA Topographic & Geologic Survey, and Dr. Joseph A. Mandarino of Toronto, Canada, who was Past Chairman of New Minerals and Mineral Names for the International Mineralogical Association. The correspondence was from August, 2002. Dr. Mandarino's reply was:

The mineral was originally called coelestis (heavenly) by Werner in 1700 because of its heavenly blue color ("himmel-blauer Farbe"). This was later Anglicized by J.D. Dana to celestite in 1868. At some later date, the name was changed to Celestine presumably to more accurately reflect the original name. Celestine is now considered to be the proper name. This is outlined on page 118 of "Hey's Mineral Index" by A.M. Clark. Chapman & Hall, 1993.