

NEW MINERALS

LORETTOITE

ROGER C. WELLS AND ESPER S. LARSEN, of the U. S. Geological Survey: *Lorettoite, a new mineral. J. Wash. Acad. Sci.*, 6, (20), 669-672, 1916.

NAME: From the locality, Loretto, Tennessee.

PHYSICAL PROPERTIES

Color: honey yellow, (Ridgway). Streak: strontian (pure) yellow, (Ridgway). Cloudy due to minute gas bubbles. Luster: adamantine. Form: compact masses of coarse fibers or blades. H. about 3. Sp. Gr. 7.6. Fusibility, about 1.

CRYSTALLOGRAPHIC AND OPTICAL PROPERTIES

Probably tetragonal with a perfect basal cleavage. Optically—. Sensibly uniaxial, the optic axis being normal to the cleavage. $\omega_{Li} = 2.40$; $\epsilon_{Li} = 2.37$.

CHEMICAL PROPERTIES

Comp. approximately 6 PbO.PbCl₂.

Easily soluble in hot dilute HNO₃; slowly soluble in hot HCl, with the separation of lead chloride. Decomposed slowly by H₂SO₄. Analysis by Wells gave: insoluble 0.58, PbO 93.98, Cl 3.98, P₂O₅ 0.11, CaO 0.48, MgO 0.56, Al₂O₃ 0.08, ZnO 0.31, CO₂ 0.20, Br, I, F none, H₂O 0.03, sum 100.31, less O eq. of Cl 0.90 = 99.41. A second determination of Cl gave 4.09.

Found at Loretto, Tennessee, and a single specimen (without locality) in the collections of the University of California. S. G. G.

EL DORADOITE

S. L. WATKINS, of Pleasant Valley, California: *List of Minerals*, 1916.

NAME: After locality, El Dorado County, California.

GENERAL CHARACTER: A variety of quartz, usually blue of various tints, also sometimes yellow or bronze.

OCCURRENCE: Occurs in a coarse grained pegmatite.

DESCRIPTION: No scientific description of this material appears to have been published, but Mr. Watkins has furnished the following descriptive notes:

El Doradoite runs thru various shades of color, blue predominating. The blue shades run from the faintest perceptible shading of water color blue to light blue, cobalt blue, dark blue, deep amethystine blue and vivid black blue, also there are beautiful grades of milky blue, opalescent blue, and smoky blue. In the same formation is a lode which yields a beautiful silvery colored mineral, which also varies into rich straw color and into a copper-yellow colored stone. This type of el doradoite, of greatest brilliancy and clearness, is cut into faceted stones. The copper-yellow variety when cut resembles a drop of liquid gold, flashing with many colored fires of light. The silvery transparent blue variety makes a wonderfully showy gem, as it has the same blue-white, silvery fires that the best diamonds possess.

El Doradoite occurs in a granite formation at an altitude of 6000 feet above sea level. In mining we take out blocks of sometimes tons in weight, but for gem purposes the clearer portions only are used. Some blocks are so transparent that objects can be seen distinctly thru 12 or 14 inches of solid material; a remarkable feature is that one block of material may be intensely clear and transparent and the one resting on this may be of a dark smoky tint, and the one on top of that a clear straw color. As depth is attained the amethystine shades predominate and there is less clear material.