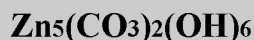


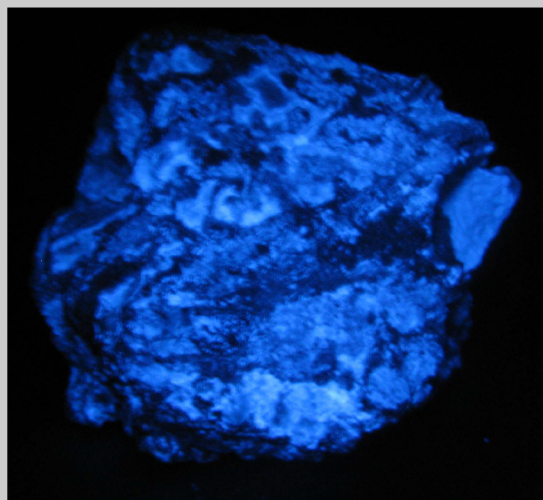
Mineral Showcase

Hydrozincite



Hydrozincite is a secondary mineral formed mainly from sphalerite in the oxidation zone of hydrothermal replacement deposits exposed to weathering that is deep and long continued. Thus, it develops best in arid regions, and is common in the lead-zinc mines of the Goodsprings District. The color is generally white, but can be found in a wide variety of colors due to impurities. In the field it is recognized as usually earthy to compact dull white masses, often coating the local host rocks. However, under a microscope the specimens appear more crystalline than earthy, composed of minute, fibrous crystals. It is interesting to note that Fredrick H. Pough, in his **Peterson Field Guides Rocks and Minerals Fourth Edition** page 155, claims that hydrozincite *does not* occur in crystals. Yet I have specimens in my collection that present pockets of impressive vitreous, needle-like acicular crystals several millimeters in length. Very rare indeed!

Visitors to the Goodsprings mines may get the false impression that hydrozincite is a common mineral, which it is in this corner of the world, but globally, hydrozincite is actually a rare mineral due to the limited conditions under which it will form. An experienced prospector or collector will recognize the mineral without the need for confirmatory tests, but otherwise its brilliant blue fluorescence when exposed to short-wave UV light is enough. It is for this reason that the mineral is popular among collectors. If one feels compelled to go further, the tests for zinc, carbon dioxide, and water are easy to perform and interpret. *See tests for zinc on page 23 in this issue.*



Specimen VII 36 D in the **G. Miles Lehman Collection** showing its common appearances under ordinary light (left) and short-wave UV light (right)



Earthy specimen with pocket of very rare acicular crystals. Spectacular under 20x microscope. A treasure!

VII 24 D

Argentena Mine

2.75 x 2 inches

Customary compact habit. Actually, difficult to mine in large display pieces due to its brittle nature. Hammering the vein tends to fracture and disintegrate potential specimens.

VII 23 C

Argentena Mine

2.75 x 2.75 inches



Purple, manganiferous hydrozincite with colorless smithsonite crystals outlining right and bottom edges.

VII 27 C

Argentena Mine

3 x 2.25 inches

VII 116 D



G. Miles Lehman Collection

Two more specimens of purple, manganese-bearing hydrozincite
from the Argentana Mine in the Goodsprings District.
This is the only mine where I have found such specimens.

VII 27 D



G. Miles Lehman Collection



Classic Relationship Specimen

This specimen from the Argentana Mine in the Goodsprings District displays a classic development from primary to secondary minerals. The dark brown areas are corroded sphalerite that supplied the zinc for later minerals. Next to form in the series was the earthy white hydrozincite and tanish, massive smithsonite, followed finally by the formation of colorless, vitreous smithsonite crystals that found room to grow in vugs of the matrix material. Note that some of the hydrozincite has been colored purple by manganese impurities. Specimen dimensions: 6.75 x 5.5 inches.

Specimen VII 17 C

from the

G. Miles Lehman Collection