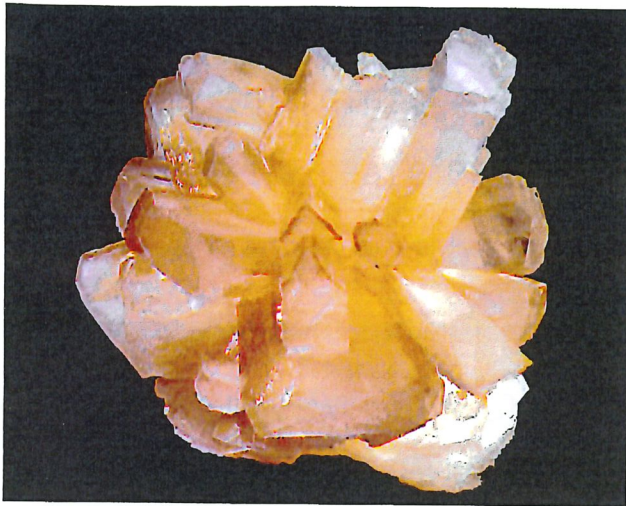


# Borax Visitor Center AND GIFT STORE

E-Mail: [visitor.center@riotinto.com](mailto:visitor.center@riotinto.com)



## Borax Crystal

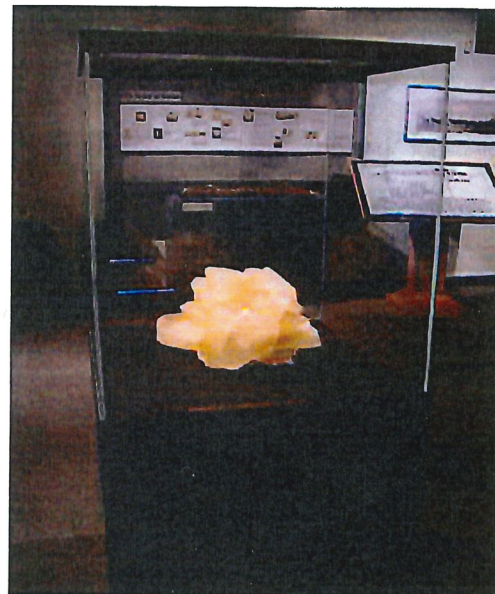
Borax Visitor Center  
Boron, California

Collected by Joe Siefke  
Senior Geologist  
U.S. Borax Inc.

- Hydrated sodium borate -  $\text{Na}_2\text{B}_4\text{O}_7 \cdot 10 \text{H}_2\text{O}$
- Most abundant ore mineral in the Boron Deposit - more than 2/3 of the original deposit.
- Specimen found and collected on March 21, 2001.
- Approximate size 15" h x 15" w x 13" d.
- This specimen was located on "C" level (400 feet below the desert floor) in the Baker underground mine in a drift lined with timbered ore chutes. The chute-lined drift was abandoned in about 1940 and the waist-deep brine accumulated due to groundwater from a nearby fault. The specimen was submerged in brackish borate brine. It was found by "feel" and pried off the corner of a 12" x 12" vertical timber, then boxed and carried to the surface on a stretcher.
- Borax is usually colorless to white. The color of this specimen is thought to be due to the tannins from the timbers that lined the drift.
- The specimen formed between 1940 and 2001.
- In order to maintain the specimen in the condition it was found, the display case holding it is sealed and contains a hydration unit that keeps the relative humidity at 70 percent.

### BORAX FACTS - MINERALOGY:

● Crystal Form	Monoclinic, prismatic
● Color:	Usually clear to white
● Cleavage:	One perfect, one nearly perfect
● Fracture:	Conchoidal, brittle
● Hardness:	2 - 2 1/2 (Mohs scale)
● Luster:	Vitreous to resinous
● Streak:	White
● Clarity:	Translucent to opaque
● Gravity:	1.70 (water is 1.0)
● Reference:	No. 25.1.4 in Dana's System



**Ulexite** – takes on many different shapes. It can look like a mushroom a cauliflower, a snowball or a bunnytail...which is why it's often called "cottonball".

**Kernite** – is the second most abundant type of ore. Kernite is named after our home county, **Kern**. Crystals of Kernite more than 5 feet long have been found in the mine.

**Borax** – is the most abundant ore in the deposit. Romans made glass with borax. Egyptians used it to mummify their dead.

**Colemanite** – gets its name from one of Borax's founding fathers "**Willaim T. Coleman**" even though he made a name for himself mining cottonball.

**These samples are all mined here in Boron, the largest open pit mine in California.**