



# PASADENA LAPIDARY SOCIETY

## Field Trip to the Palos Verdes area

### Saturday, July 18<sup>th</sup> 2015

### 9am - 4pm

Field Trip Leader: Chris Kyte 626-794-0519 [ckyte60@att.net](mailto:ckyte60@att.net)

Meet: 9:00am at Livingston Quarry - also known as Forrestal Reserve. It is located at the end of Forrestal drive off of Palos Verde Drive South. The address is best described as 32200 Forrestal Drive, Rancho Palos Verdes, CA.

#### **First Collecting Area: Livingstone Quarry for Barite, Dog-Tooth Dolomite and Selenite. 9am - 11:30am**

We will go to a collecting site that is several hundred yards inside the quarry and up a steep hill to the right. There are loose pieces of minerals on and just below the surface to collect or you can use rock picks and chisels to break up pieces of Barite from the large veins. There are other, less visited, collecting spots further in the hills to the right of the road - the trail is more difficult but I can show you how to get there.

#### **Second Collecting Area: Bluff Cove for Glaucophane, Barite and Borate. 12pm – 4pm** -- Across from address 650 Paseo del Mar, Palos Verdes Estates CA.

The beach at Bluff Cove is accessed by a wide dirt path, about 300 yards long, which gradually descends about 100 vertical feet to the water's edge. Borate crystals are found along the cliffs above the trail. Once to the bottom of the path we will be looking for collectible minerals amongst the beach rocks and along the green cliff above the beach. The glaucophane will appear green when wet. It is a quick walk down to the rocky beach and the walk back up carrying rocks should be done slowly, with frequent rests and with 16 oz of water. Some collectors have found that a carrier with 6" or larger wheels is handy for pulling your collected minerals back up the path.

**What to Bring:** Collecting bag, bucket or knapsack to carry your finds in; Small rock pick, hand or garden spade or a collapsible shovel for removing surface dirt to uncover minerals or to scoop up rocks from the water's edge; A gad or chisel, sledges and eye protection if you plan to chip barite from a larger vein; Newspaper and zip-lock bags to wrap your more fragile specimens. Be sure to bring lunch, water and snacks, sun screen, basic first aid and a wide-brim hat. Start drinking water early!

**Clothing:** sturdy shoes, drinking water, lunch, gloves, suns creen and a large wide-brim hat. At the beach shorts are good, but bring a sturdy pair of shoes or boots - it's very rocky and walking is required. At the old quarry we will surface collect in the brush, so wear long pants for brush at this location.

**IMPORTANT:** Please let me know if you are going to go on the field trip in case there are changes at the last minute. Call or email me with your name, club, number of people coming with you, your cell phone and email in case there is any last minute changes due to the weather or other factors. If I don't know you are going on the field trip, I won't be able to contact you if the field trip is canceled. Please don't wait until the day before to confirm.

# The Minerals

**Glaucophane:**  $\text{Na}_2\text{Mg}_3\text{Al}_2(\text{Si}_8\text{O}_{22})(\text{OH})_2$  or Hydrated Sodium Magnesium Aluminum Silicate We will find Electric colored material in the sands. It is a semi translucent stone in multicolored green hues. Black and wine red can be found. Recognizable by the semi translucent, variegated pattern. Great for tumbling, cabbing, spheres, etc.

**Barite:**  $\text{BaSO}_4$  or Barium Sulfide. This is a deep golden honey colored, translucent, cockscomb mineral or it may be tan colored with curved crystals or it may be almost clear. Some sources are the beach cliffs as crack filled seams, or eroded down to the shoreline as fist-size chunks. These are great Display pieces. Perfect addition to any mineral collection.

**Selenite:**  $\text{CaSO}_4 \cdot 2(\text{H}_2\text{O})$  or Hydrated Calcium Sulfate. From the Greek σελήνη, for "moon," in allusion to the moon-like white reflections of the mineral or to the quality of the light transmitted by semi-pellucid gypsum slabs of cleavages used as windows.

**Dog-Tooth Dolomite:**  $\text{CaMg}(\text{CO}_3)_2$  or Calcium Magnesium Carbonate. Usually found as druzes or clusters of small rhombohedral crystals with a somewhat "saddle"-like shape, white to tan to pink in color.

**Borate:** is a form of boron with small crystals and may dissolve in water.