Rhode Island Mineral Hunters
A 501 (c) (3) HP Organization

BOWEN-LITE

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CUMBERLANDITE –OFFICIAL STATE ROCK

BOWENITE – OFFICIAL STATE MINERAL

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RIMH

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Bill Wilson - Historian
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Edited by Paul Koczwanski pakman844@aol.com
*If anyone would like to submit an article or anything for future publication let me know

HAPPY NEW YEAR

2017

Upcoming Meeting Details

Executive Meeting date in January is:
Tuesday January 3rd. All meetings start at 7pm.

This year meetings will be held at Lou Fazzinas' rock shop (Apple Valley Minerals)
7 Homestead Avenue
Smith field, RI 02917
*Homestead is off Farnum Pike.

There are no general meetings this month
Congratulations to new board members ; Ernie Zielinski, Tony Cesana , Rachel Cesana (new field trip Coordinator, Claire Cooper(new treasurer).

Thanks to outgoing board members ; Jim Brenek , Dante Caprara(treasurer), Joel Russo(field trip coordinator)

Christmas Party 2016

Congratulations to the winners of the RIMH annual awards for rock, mineral, fossil collecting

The Cecil Foster Award went to Paul Monti for a Herkimer diamond collected in New York

Ralph L Carr Jr. Award went to Alex Fisher for a plant fossil collected in Rhode Island

Sal Avella Award went to Paul Monti for a Shark Tooth

William Wilson Award went to Paul Monti for a Herkimer diamond

O. Albert Johnson went to Joel Russo

Birger Anderson Award went to Lou Fazzina for a quartz specimen with amethyst clusters

Eugene Reynolds Award went to Bill Wilson

A note from the new field trip coordinator Rachel Cesana

If anyone knows of any places we can go for a field trip please let her know. She wants to line up some places for the upcoming year. Please relay all pertinent information to her such as place names, contacts(property owners and/ or persons in charge), phone numbers or other means of contact. Rachel's phone number is (401) 766-9076. Email a_cesana@verizon.net

Mineral of the Month

In this continuing series, I am providing information for those members who are new to the field of mineral collecting and need to know what you are looking for when you go out on field trips or just on your own. Some common minerals you may see but, might not know what they are. This month, I will be looking into the mineral *feldspar*.

Feldspar is the name given to a group of minerals distinguished by the presence of alumina and silica (SiO_2) in their chemistry. This group includes aluminum silicates of soda, potassium, or lime. It is the single most abundant mineral group on Earth. They account for an estimated 60% of exposed rocks, as well as soils, clays, and other unconsolidated sediments, and are principal components in rock

classification schemes. The minerals included in this group are the orthoclase, microcline and plagioclase feldspars.

Type Mineral

Mineral Classification Silicate

Chemical Formula KAlSi3O8 – NaAlSi3O8 – CaAl2Si2O8

Streak White

Moh's Hardness 6-6.5

Crystal System triclinic, monoclinic

Color pink, white, gray, brown

Luster Vitreous

Fractur conchoidal, uneven

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Description

Feldspar is the name given to a group of minerals distinguished by the presence of alumina and silica (SiO_2) in their chemistry. This group includes aluminum silicates of soda, potassium, or lime. It is the single most abundant mineral group on Earth. They account for an estimated 60% of exposed rocks, as well as soils, clays, and other unconsolidated sediments, and are principal components in rock classification schemes. The minerals included in this group are the orthoclase, microcline and plagioclase feldspars.

Relation to Mining

The top states producing feldspar are North Carolina, Virginia, California, Oklahoma, Idaho, Georgia and South Dakota, in descending order of estimated tonnage. Feldspar processors reported co-product recovery of mica and silica sand.

Feldspar is mined from large granite bodies (called plutons by geologists), from pegmatites (formed when the last fluid stages of a crystallizing granite becomes concentrated in small liquid and vapor-rich pockets that allow the growth of extremely large crystals), and from sands composed mostly of feldspar.

Because feldspar is such a large component of the Earth's crust, it is assumed that the supply of feldspar is more than adequate to meet demand for a very long time to come. Present mines worldwide are adequately meeting the need for raw feldspar.

Hard-rock mining for feldspars is done by open-pit methods, either by the mine owner or by contractors. After the feldspar ore is drilled and blasted, secondary breakage is performed with a conventional drop ball. Ore is then loaded with a hydraulic shovel onto trucks and hauled to the crushing plant, which is adjacent to the flotation plant.

Substitutes and Alternative Sources

Feldspar can be replaced by other minerals and mineral mixtures of similar physical properties. Minerals that could be used to replace feldspar include pyrophyllite, clays,

talc, and feldspar-silica (quartz) mixtures. The abundance of feldspar will make these substitutions unnecessary for the foreseeable future.

Uses

Feldspar is used to make dinnerware and bathroom and building tiles. In ceramics and glass production, feldspar is used as a flux. A flux is a material that lowers the melting temperature of another material, in this case, glass.

For more information see http://mineralseducationcoalition.org/minerals-database/feldspar/