

Field Trip to U.S. Silica Mine in Montpelier, VA

By

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On Saturday June 7th, 2014, two members of the Southern Maryland Rock and Mineral Club were joined by invitees from two other local clubs --- Richmond (VA) and Montgomery County (MD) --- with six and three members each --- on a morning field trip to the U.S. Silica mine near Montpelier, Virginia in Hanover County. The weather was beautiful --- clear and in the 70's.

Our host was Mr. Elmo Hall who has been the Mine Manager for several years. During his introductory safety brief and remarks, he mentioned that the aplite which they were mining was approximately 1,030,000,000 (one billion 30 million) years old. Incredible! Another fact mentioned was the mine originally began as a titanium mine. Interestingly, today, titanium dioxide (rutile) bring \$1,600 to \$1,800 per ton while their current product --- basically aplite sand --- brings only \$40 to \$50 per ton.

Elmo led our caravan of vehicles first to the location where several clubs had found an isolated lens of massive rutile last Fall, however only a few small pieces of rutile were found. As a group, we spread out and searched the area for other minerals and located a stockpile of gray and silver flash moonstone (basically gray feldspar). A few pieces of translucent moonstone were also found. One of the Montgomery County club members (Jonathan) also searched for materials that fluoresced under UV light --- so there was large black cloth bag moving slowly around the mine floor.

After an hour or so at this location, we all moved to the traditional area where we could find more gray and silver flash moonstone. We were not disappointed as the supply was plentiful and well washed off. We all found some excellent specimens as well as some bronzeite (enstatite) which polishes beautifully with unique internal brassy or coppery colored reflections. Inside one large chunk of material we found some very translucent moonstone which will also probably show a nice schiller when polished.

We then moved to the very bottom of the mine for our last hour where we again spread out and searched. I saw specimens of small, but very gemmy almandine garnets embedded in white aplite. Some folks spent most of their time collecting almandine garnets --- which ranged in size from marbles to lemons and which had weathered out of the material so completely that they could be picked up like pebbles. Some other folks collected similar garnets embedded in a black biotite mica matrix --- which made for very attractive specimens of yard rock.

Other collected specimens which I saw during the field trip included the iron titanium mineral "ilmenite" and nice sized chunks of blue quartz.

All in all the weather cooperated nicely, everyone found some specimens to take home and we all remained safe.