



# *the CMS Tumbler*

February  
2017

The monthly newsletter of the **Cascade Mineralogical Society, Inc.** Kent, Washington

**Next Meeting:**  
**February 9, 2017**  
**7:00 p.m.**

**American Legion Hall  
25406 97th Pl S  
Kent, WA**

The Program is all about GOLD!!!!  
Chris Holden of Black Jack's Metal  
Detector's in Renton is going to speak  
about finding gold in our area,  
equipment needed & etc.

The Show & Tell Theme is Gold,  
Fool's Gold (Pyrite) and Gold or  
Yellow Crystals or Rocks

We will have door prizes for just attending our  
meeting plus our regular raffle.  
Hope to see all of you at this meeting. Guests  
and children are always welcome.



***This month remember  
to wish a  
Happy Birthday to  
Peter Williams on  
February 18,  
and also remember  
to wish a  
Happy Anniversary to  
Angie & Brian Bayer on  
February 8 (5 years)***



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Tips, suggestions, recipes and experiments printed in this newsletter are the experiences and/or opinions of the individuals submitting them. We are not responsible for their authenticity, safety, or reliability. Caution and safety should always be practiced when trying out any new idea.

When on field trips this organization uses CB Channel 7.

CMS Club Address

*Rich Russell  
14431 SE 254th St.  
Kent, WA 98042*

*Keith Alan Morgan, Editor*

Postal, or Email, Exchange  
Bulletins are welcome.  
Email preferred.  
morgangraphix@yahoo.com

## **Officers & Directors 2017**

*President* Kat Koch president@cascademineralogicalsociety.org  
*Vice President* Diana Horsfall  
*Treasurer* Richard Russell  
*Secretary* Pete Williams  
*Director* Roger Pullen  
*Director* Mark Hohn  
*Past President* Bob Pattie  
*Federation Representative* Michael Blanton  
*Federation Representative* Kat Koch  
*Mineral Council* Bob Pattie  
*Mineral Council* Jacquie Pattie  
*Refreshment* Diana Horsfall  
*Membership*  
*Health & Welfare* Bev Williams  
*Library* Bob Pattie  
*Video Library*  
*Raffle/Display* Stanley Loreen  
*Show & Tell* Michael Blanton  
*Field Trip* Tony Johnson  
*Tumbler Editor* Keith Alan Morgan morgangraphix@yahoo.com  
*Webmaster* Mark Hohn  
*South Sound Show*  
*Events Coordinator*  
*Public Relations* Kat Koch  
*Club Historian*  
*Donations* Kat Koch  
*Shop Operations* Bob Pattie  
*Open Shop*  
*Shop Instructors:*  
    *Faceting*  
    *Jewelry*  
    *Lapidary* Bob Pattie

2017 CMS Dues are \$30. Send or deliver dues to:

*Richard Russell*  
*14431 SE 254th St.*  
*Kent, WA 98042*

(or pay him at the meeting)

The object of the Society shall be to stimulate interest in the study of the earth sciences, lapidary arts and related subjects.

This Society is affiliated with the *American Federation of Mineralogical Societies*; the *Northwest Federation of Mineralogical Societies*; and the *Washington State Mineral Council*.

Every member of the club should be receiving a copy of the Northwest Newsletter. If you are not receiving a copy contact Mike Blanton

To get information to the Tumbler via the Internet send it to **morgangraphix@yahoo.com** Please put Tumbler and subject in the Subject Line. The deadline is the 20th of each month.

The CMS external website is <http://www.cascademineralogicalsociety.org>

Our Facebook page is <http://www.facebook.com/pages/Cascade-Mineralogical-Society/194320760605196>



SUN	MON	TUE	WED	THUR	FRI	SAT
1	2	3	4	5	6	7
8	Board Meeting 7 PM 	9	General Meeting 7 PM 	10	11	12
13	14	15	16	17	18	Green River Gorge Trip
19	20	Lapidary Shop	21	22	23	24
25	26	27	28	29	30	31
						Into each life, some love must fall!

Lapidary Class Hours:.....Closed until further notice

Lapidary Shop Hours:.....3rd Tuesday..... 4:00 pm to 8:00 pm

Lapidary Shop Hours:.....4th Saturday..... by appointment (call a few days ahead to set time)

South Sound Show Committee Meeting...1st Tuesday.....11 am to 12 pm

CMS Board Meeting:.....Monday before the General Meeting.....7:00 pm to 8:00 pm

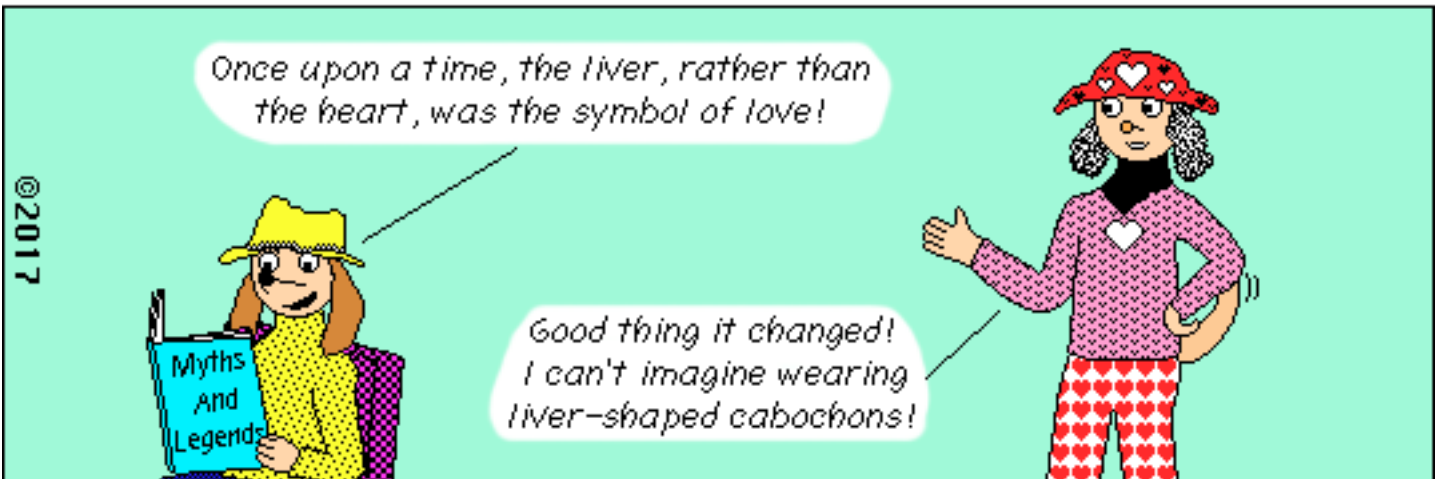
CMS General Meeting:.....2nd Thursday.....7:00 pm to 9:00 pm

More Field Trip info can be found on Page 9

More Show info can be found on Page 10

Mr. and Mrs. Rockhound

by KAM



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**CMS Board Meeting Minutes January 9, 2017**



by Pete Williams, 2017 Secretary

Members Attending

Treasurer Rich Russell

Federation Mike Blanton

Director Roger Pullen

Meeting called to order at 7:06

Secretary Pete Williams

Past President Bob Pattie

Director Mark Hohn

Rich presented the 2016 Financial Statement. The club did fine, but that was due to getting the money that was reserved for the South Sound Show. Without that we would have had a loss of \$1,500 for the year. The biggest expense is the 10x25 storage unit. The 2016 costs were \$2640 and will be going up to over \$3000 in 2017. We will need to vacate that storage unit in 2017 by selling off un-needed equipment and material. Potentially, we could rent a smaller unit at a better price after selling the equipment. April may be the best time to have a club sale to the public. Bob will check with Albertsons Corporate offices for a possible location to have the sale. Next month the Board will decide if we should have a booth again at the Puyallup club show in June to sell material.

Bob reported that he sent a letter commenting on the process used to do the Snoqualmie/Mt. Baker travel assessment plan. It appears that 13 of the 14 Greenwater area sites will still remain open. Also, of the 40 House and 20 Senate bills introduced so far in Washington none appear to have any effect on rockhounding.

For the club's 2017 meeting programs the recommendation was to try to obtain live speakers every 3-4 months. They would need to be ones that did not charge a fee. Pertinent topics will need to be identified and then speakers found.

The intent is to have a club show in 2018 possibly in the Spring. Kat is talking to dealers about open dates. Mark will set a tour of Green River CC as a possible site. He will obtain a cost estimate for a 2 day show.

The next meeting will be February 6 at Panera Bread in Kent.

Meeting adjourned at 8:17

**March 9th Meeting: It's "Rock Bingo" Night**

Let's all plan ahead and all of us start looking through your rocks for donations to our "Rock Bingo" night. We will need everyone to bring 3 items: polished rocks, slabs, crystals, clay baby, fossils, cabs or rock related to contribute to our prize pool. Please wrap your donation in anything from gift wrap paper from any holiday to a brown paper bag.

We had so much fun last year at this event. Let's all do it again.

This will be a great night for the kids. Be sure to bring your kids and their friends, grandkids, scout troops, or anybody else that you think might enjoy playing Bingo.

**Looking Ahead To The Washington State Fair, Puyallup**

The Fair receives very few entries for it's Lapidary section. Therefore, they have notified us they are going to close down this category if entries do not pick up. We don't want this to happen! So plan on entering into the Fair a sample of your hobby or lapidary work.

If you do anything with rocks, crystals, fossils, silversmithing, etc. there is a category for your work. You do win prize money at every win level.

Online registration open May 2017. They have not posted the close date yet. The Fair is held for the entire month of September so entry forms probably have to be in by early August.

**Young Richard's Almanac** by Dick Morgan



A heart carved from stone is a simple token to remind the recipient that they are forever in the hearts of their friends.

Pure water, which doesn't exist in the environment, won't conduct electricity.

from USGS Twitter, 3/31/15

To prevent metal costume jewelry from tarnishing, store it with a piece of white chalk.

via Gem & Mineral Journal, 2/16; from The Quarry, 2/16

Glass takes one million years to decompose, which means it never wears out and can be recycled an infinite amount of times!

from Rockhound Ramblings, 2/16

**CMS General Meeting Minutes January 12, 2017**

by Pete Williams, 2017 Secretary

Meeting called to order at 7:09.

Minutes were approved as written. Stan, Keith and Roger won door prizes.

**Tumbler Editor:** There were a few in attendance that did not get an email copy of the Tumbler.

**Treasurer's Report:** Rich was not able to attend, but the club did okay financially in 2016. However, to make the 2017 budget we will need to stop paying for storage of equipment and material. Paid members will be the first to get informed when equipment and material will be put on sale.

**Field Trip Report:** The next field trip will be for fossilized clams in the Green River gorge in February. No field trips in January due to the weather conditions. Tony has prepared a schedule for trips each month in 2017, but this can be revised based on member's suggestions.

**Federation Report:** The Federation Show is May 19-21 in Hamilton, Mt. February 18 is the due date for entering newsletter for competition with other clubs. There will also be a web site competition.

**Mineral Council:** The third option put forth by native Americans was selected for the Snoqualmie/Mt. Baker forest assessment. This is expected to have only a minimal impact to the Greenwater area. We have heard that up north about 16-17 sites will no longer be available due to road closures.

**Show Committee:** The club is committed to doing a show in 2018. There will be a tour on January 20 at Green River CC to check out that venue. We will also look at the Kent Commons. If anyone has experience with shows and would like to help out let any board member know.

**Old Business:** We are still looking for a location for a shop of around 800 sq. ft. Let Kat know if you have any ideas.

**New Business:** We will participate with the Puyallup club at the next Gem Faire on March 31-April 2 at the Puyallup Fairgrounds. Let Kat know if anyone would like to do a demonstration. We will also be allowed to have a spin wheel to raise funds. We will also jointly participate at the Washington State Fair with the Puyallup club again this year. Be thinking about what items you can display at the fair for cash prizes. Previous winners have had vary basic entries. Judging is 2 weeks before the fair opens. Volunteers will be needed for each of these fairs.

**Program:** Video from Central Washington University science department on Yakima river rocks south of Ellensburg.

**Meeting Adjourned:** 8:10 followed by the raffle.

**Displays:**

*Rich Morgan* - Washington State petrified wood, with a piece of Arizona petrified wood for contrast, and several pieces of Ellensburg blue.

*Kat Koch* - Thomsonite from Montana, fossilized black coral from Florida.

**Editor's Note: Display Slips**

We had more than two people displaying items at the January meeting's show and tell, but after the meeting only two of the display slips could be found.

The display slips are those sheets of paper you fill out and put next to your display. After the meeting they are supposed to be collected and given to the editor to add to the General Meeting minutes so people know who displayed what at the meeting.

Please do not take, or throw away, the display slips when you are packing up your display.

**Cleaning Chalcedony Roses**

First, put about 5 pounds of roses in a pan, cover with water, place in the oven and bring to a boil. Set this aside and let soak for a week.

Second, wash the roses with clean water and a stiff bristle brush.

Third, if you haven't already — move outdoors! Using an acid-resistant pan, put one quart muriatic acid in the pan. Place the roses in the acid and then remove as soon as the acid stops bubbling. Put the remaining acid in a container for storage.

Fourth, wash the roses in baking soda water, then with clear water.

Fifth, add one pound oxalic acid to two gallons of water, and soak the roses for a week. If left too long, the roses will take on a pink cast.

Sixth, neutralize with baking soda, water, rinse, and then brush the roses again.

Safety tips include wearing protective rubber aprons, rubber gloves and eye protection when working with acid. Always add acid to water — never the reverse, and be careful not to breathe any of the obnoxious fumes given off when acid is mixed with water. Work in a well-ventilated place. Also, use wooden tongs.

via Rockhound Ramblings, 12/15; via The Delvers Delvings, 10/15; from the Santa Ana Rock and Mineral Club newsletter, 12/81

In times of old the liver rather than the heart was considered to be the seat of love and the heart represented courage, intelligence and memory.

**A Note From The President's Desk...**

By Kat Koch, 2017 CMS President

I am sitting here planning our meetings and events for 2017. It looks like our Club is going to have a very busy year.

The Board has officially started our 2018 Rock & Gem Show. It's no longer all talk and speculation. We are a relatively small club and this is going to be a huge event for us. It's going to require all members on deck. We are seriously looking at venues and dates and will be making a decision very soon.

I am excited about having our own show next year. I hope all of you are too.

Our meeting topic in February will be GOLD!! Our speaker, Chris Holden, will be speaking on gold panning. He is the owner of Black Jack's Metal Detector's in Renton. He carries supplies and tools for gold panning, metal detecting and rock hounding.

Let's give him an enthusiastic welcome by having a good turnout for this meeting.

**Gem Show Fakery** by Jack Curtin

I recently attended a gem show, and was somewhat appalled at the number of blatantly fake minerals for sale there.

Dyed stones, heat-treated minerals, reconstituted amber and turquoise being sold as the real thing - and in some cases, cheap minerals being sold as more expensive look-alikes.

Dying or altering of minerals is not necessarily wrong - up until the moment the dealer tries to scam the customer into believing that it's a natural stone, not a man-made object.

In most cases, when I asked, the dealers assured me that these fakes were, of course, completely natural and unaltered. Some of them may have thought they were telling the truth, I don't know. But as a mineral collector, it is becoming more and more important to know exactly what you are buying, and how to identify the scams.

I thought I'd give a brief overview of some of the most common fakes I saw.

True citrine is almost never orange-tinted. It is lemon-yellow, or even a bit greenish. And I have never seen it in geode form. If it's in a geode or crystal vug, it's probably amethyst. Real citrine crystals tend to be longer and slenderer than fake ones, which are usually short and stubby. And fake citrine is usually very colored at the tip, fading to white at the base.

Another clue is price. True citrine is a valuable and rare gemstone, and it's very unlikely you're going to find it tossed around in the bargain bin at a rock show.

Tiger's eye is usually brown/gold in color. Sometimes you will find reddish pieces [in Tiger Iron, for example] but if it's natural, it'll likely only be a small reddish streak or patch in an otherwise normal-colored piece. Fully red specimens have been heat treated to create the color.

There's a variety of blue-gray tiger's eye, called hawk's eye, but it is rarer than the gold color. Beware when buying blue, because it is often dyed rather than natural. If it's a particularly bright blue rather than gray-blue, it's probably fake.

Bright green tiger's eye is dyed. Don't ever believe green tiger's eye.

Most of the agate jewelry and slabs you will see have been dyed - brilliant greens, yellows, blues or pinks. True agate is generally more muted in color. If the quartz crystals in the center of an agate slab are colored, it's probably dyed. And dyed agate bands usually appear more blurred than the naturally-colored pieces. If there's a whole bunch of complete different colors all being sold in the same case, they're probably all fakes.

Aurora Borealis Coating: This is a synthetic coating, the same stuff that gives rhinestones their glitter. It's used to make mineral specimens more sparkly and colorful. When asked, the dealer selling A.B.-coated aquamarines insisted that they were "totally untreated!". It was only when confronted with the little note of "AB" on the label, that she finally fessed up.

Turquoise is another popular fake. Much of what you'll see sold as turquoise is plastic, howlite coated in blue dye, or lumps of plaster. Sometimes it'll be real turquoise dust from scrap material, glued together into a lump.

Always ask where the turquoise came from, and if the dealer can't give a convincing answer, don't buy it. It should not be patchy white, although it may often have black lines running through it. It should also be opaque, not translucent.

"Peacock ore" is another name for the mineral Bornite, but most of what you'll see at rock shows is actually chalcocite which has been chemically treated to bring out the rainbow-colored effect.

Fake amber is, fortunately, not too hard to identify once you know what to look for. Commonly what you'll see is reconstituted amber, where scraps have been melted down and re-formed. This treatment is made obvious by circular, dish-shaped fractures within the material. Real amber rarely has any interior fractures, and certainly is not filled with them.

The other common scam is fake insects within the amber - if you see a piece that has a single, perfectly laid out dragonfly in dead center, assume it's fake - unless it's in a museum somewhere.

Remember, the bugs in amber were stuck in tree sap, and you can see that they were trying to escape - they'll have broken wings, be twisted at odd angles, and generally LOOK like bugs trying to get out of tree sap. Also, there's usually a bunch of debris in any piece of amber. If there's one large bug and no smaller ones, bits of leaves, broken off wings, or dirt, be suspicious.

Interesting, huh? I'm going to check on some of my "minerals" to see if they are indeed the real thing.

from Gem & Mineral Journal, 1/16



## Field Trips

The club or clubs sponsoring the field trips are shown in italics. When known I have listed a phone number and contact person for each sponsoring club below the listed trips. If you are not a member of the sponsoring club, you should phone and ask permission to go on their field trip.

Some trips have fees to non club members, so they can be a day member, and be covered under club insurance. The usual fee is \$.50 a day.

Information from the Washington State Mineral Council webpage (<http://www.mineralcouncil.org>).

***February 18***    **Green River Gorge** (North of Enumclaw, east of Black Diamond near a ghost town called Franklin) - Fossil clams. - Hard rock collecting. Must rope reel down a small cliff to river bed and back up. Be sure to dress warmly. Just in case bring rain gear and boots.  
Meet at the Black Diamond Community Center, 31605 3rd Ave, Black Diamond, WA 98010. The group leaves PROMPTLY at 9 am so don't be late.

***February 18***    *Darrington Rock Club* - **Walkler Valley** - Meet at Big Lake Store 9:00 am - Geodes & Agates - Bring hard rock tools

## Common Igneous Rocks

1. Obsidian - glassy texture. Obsidian is volcanic glass without gas bubbles. It is usually black or dark brown in color and breaks with a conchoidal (shell-like) fracture. Be careful not to cut yourself on the sharp edges. A variety of obsidian with white to light gray crystallized patches surrounded by black glass is known as snowflake obsidian.

2. Pumice - Pumice is volcanic glass filled with gas bubble holes (vesicles). It may be thought of as a glass foam. Because of the large number of holes, pumice is very light-weight; it will float on water. Pumice comes in many colors, but the most common color is gray.

3. Rhyolite - fine-grained (aphanitic texture). Rhyolite is a high-silica, fine-grained rock. You cannot see the mineral grains with the naked eye. Its colors are gray, light brown, tan, pale yellow, pink, and other earth-colors. Sometimes there may be a sprinkling of small crystals, but most of the rock is fine-grained. Using food terms, it resembles baloney (unidentifiable components). Rhyolite has the same chemical and mineral content as granite.

4. Andesite - Andesite is the name of fine-grained igneous rocks that are midway in color and mineral composition between rhyolite and basalt. Andesites are commonly gray or some shade of medium brown. Commonly they have a porphyritic texture; there are larger visible crystals surrounded by the gray or brown andesite.

5. Basalt - Basalt is a fine-grained igneous rock rich in iron that gives it a black to brown color. Fluid lava flows, such as those in Hawaii, produce basalt. If basalt has a large number of gas bubble holes it is called vesicular basalt or scoria. Basalt that has been exposed to air and water for a long time may oxidize to a red color.

6. Granite - coarse-grained (phaneritic) texture. Granite is a coarse-grained igneous rock often with a pink to reddish color. A large portion of the granite is made of small crystals of orthoclase feldspar which give the rock the pink or reddish color. Other minerals present are quartz (usually gray), albite feldspar (white) and either white mica (muscovite) or black mica (biotite). The word granite means grain-rock; it weathers, it crumbles into loose grains.

7. Diorite - Diorite is a coarse-grained igneous rock intermediate in composition between granite and gabbro. It can sometimes be described as "white granite" because of the abundance of albite, a white feldspar. Depending upon the amount of iron rich minerals present, diorite can range from nearly white to quite dark. Diorite has the same mineral content as andesite.

8. Gabbro - Gabbro is a dark, coarse-grained igneous rock. It has the same mineral content as basalt, but the grains in gabbro are visible to the naked eye.

9. Porphyry - mixed grain sizes (large and small). The term porphyry simply refers to the two distinctly different grain sizes present in an igneous rock. The larger crystals are called phenocrysts and the finer crystals are the groundmass. The groundmass can be rhyolite, andesite, or basalt and even, rarely, granite. The phenocrysts are often feldspar crystals or hornblende crystals.

10. Pegmatite - very large grain size. Pegmatite is very coarsely crystallized. Some of the largest crystals in the world have been found in pegmatites. Pegmatites often have the same mineral composition of granites with large crystals of mica and feldspar. Gem minerals, such as tourmaline and beryl are found in pegmatites.

via The Quarry, 3/15; via The Rockcollector, 3/15; from Delvings, 11/14

## Old Milk Jugs

Cut a hole in the side for rocks, then label them with your name and the different kinds of rock you've picked up.

from Beehive Buzzer, 3/15



## Shows

***February 11 & 12:*** Saturday 9 am - 5 pm; Sunday 9 am - 4 pm  
**Whidbey Island Gem Club, 52nd Annual Sweetheart of Gems Show**  
Oak Harbor Senior Center  
51 SE. Jerome Street  
Oak Harbor, WA

***February 24 - 26:*** Friday - Sunday 9 am - 5 pm  
**Oregon Agate and Mineral Society, OAMS Gem and Mineral Show**  
OMSI  
1945 SE Water Avenue  
Portland OR 97214

***February 25 & 26:*** Saturday 10 am - 6 pm; Sunday 10 am - 5 pm  
**Idaho Gem Club, Annual Show**  
Expo Idaho  
5610 Glenwood  
Boise Idaho



### **Tonopah Broken Arrow Variscite** by Terry Vasseur

After Thanksgiving was over it was time to make some jewelry. If you are any good at it, you will find you have an endless list of relatives and friends hoping you will make them something. It's a burden and blessing at the same time.

This year's theme was variscite. It is relatively cheap and easy to cut and polish (hardness of 4 to 4.5). When I was shaping some of the rough on my Genie, mostly Tonopah Broken Arrow Variscite; I noticed an odd odor. Curiosity sent me to the Internet where I found a couple of blog sites on cutting variscite. There I found two guys asking, "What's with this strange odor?" There was no answer; time for a little more research.

I remembered reading something about a study on guano deposits, how the phosphates react with various rocks. It was an attempt by the author to understand how the Fairfield, Utah deposits were formed. That gave me pause. Was the foul odor somehow due to bird droppings? Not likely, the phosphates that were necessary to the formation of Utah's variscite are believed to have leached out of the Permian strata that was laid down over 250 million years ago on top of where the variscite deposits are found.

As I said, the odor came from Tonopah Broken Arrow Nevada variscite I purchased from a miner at the Stoddard Wells Tailgate. Nevada variscite deposits differ from Utah deposits in that their sources of phosphates generally come from igneous rocks, particularly from disseminated apatite. The apatite group of phosphate minerals is usually referring to hydroxylapatite, fluorapatite and chlorapatite.

I began to wonder, could the odor be from another element's presence? Arsenic (As), the 27th abundant element in the planet's crust, is known to give off a "garlicy" odor when it or minerals containing it is heated.

Arsenic is found in two parts per million almost everywhere. Where it concentrates is in hydrothermal deposits in igneous rocks often together with silver ores like those deposited at Candelaria, Nevada (where the Tonopah Broken Arrow mine is located).

I didn't see anything that looked like arsenopyrites ( $F_3AsS$ ) in the Variscite nuggets. Although gold, copper and silver metal ores are formed in a completely different manner than turquoise and variscite are; somehow pyrites are known to get mixed in turquoises in some mines.

Anyway, I can't confirm the source of the odor but purely out of caution, I would suggest if you ever come across something like this, take care to avoid contact with abraded particles when cutting, grinding, and polishing. Use a mask, wear rubber gloves, and dispose of the water laden with the detritus.