



Presidents Message:

Hello To All,

What a winter it has been, and I'm afraid its not over yet. We have cancelled every collecting field trip since November on account of rain or snow. We have had a lot of indoor time for several months now, and I hope you have used your time wisely. If you can't collect rocks you can learn more about them. Get out your rock & mineral books and give them a good read. Or go to the magazine rack and buy a new copy of Lapidary Journal or Rock & Gem Magazine. Or better yet, access the Club library at Dave Woolley's house and get a magazine or book on your favorite subject and learn how to do something with the rocks and gems you have already collected. Speaking of that, my wife, Nona, and I have started learning how to facet gem stones for use in jewelry making. We hope to take some lessons in wire wrapping basics for creating faceted stone necklaces

and maybe purchasing easy mount ring sets for setting your own stones to make women's and men's rings. I've heard this is a fairly simple process, even for those of us that are not very experienced in jewelry making. Remember to pass along what you have learned, that is how my wife and I have picked up on most of what we know how to do, by others teaching what they have been able to learn. Don't be afraid to ask questions about things you are not sure of, that's the way we all learn. So get out there and wade right in.

We had a great workshop at Dave Woolley's house on February 24th with some 12 members in attendance. Dave has a collection of core drill

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From the First VP:

We are privileged to have Gary Danzer and Roger Griesinger, both members of our club and now living in NC, speak to us about fluorescent minerals at our March 17 meeting. Gary Danzer worked as a miner at the Sterling Hill mine in Franklin, NJ when the facility was actively mining zinc ore. Roger Griesinger was the club's field trip chairman when Natalie Darling first joined. He conducted many workshops especially for the young rockhounds and always had some neat rocks in his pockets for the kids. Many of you will surely remember those good old days way back then and well be eager to see Roger again. What an opportunity for us to learn all

we can about fluorescent minerals before the field trip scheduled April 24th.

Anyone going to the Diamond Hill prospect in Antreville, SC March 13th? You'll want to look for skeletal quartz and amethyst for sure. Milky, clear, and smokey quartz are found as well. Perhaps you'll be lucky and find some cacoxenite, a relatively scarce phosphate mineral first found in late 2002. Those going to the Vulcan quarry in Manassas, VA will benefit from Dave Callahan's collecting tips as follows;

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2010 ELECTED OFFICERS**John Haskins - PRESIDENT**

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JoAnn Mason &

Tom Powers

COMMITTEE**CHAIR PERSONS:****Field Trips**– David Callahan**Hospitality**-**News Articles**– Natalie Darling**Silent Auction**– Warren Darling**Swap for Rocks**–Warren Darling**Website**– Alan Rice**Workshops**– Dave Woolley**FRA Adult Liaison-****Membership**- Ralph Torning**February Meeting Minutes****Meeting:** Wednesday, Feb. 17th, 2010**Attendance:** 34**Hospitality:** Thanks to Bernard Rivera for the refreshments this evening. Tom Davis is in charge of this for March and Bruce/Hunter Bunnell will provide for April. If anyone is interested in being the Hospitality Chair, contact John Haskins.**On Time Drawing Winners:**

Debbie Kennedy, David Young, Hunter Bunnell, Jon Glass, Warren Darling, Nona Haskins, Dave Hardin and Tom Davis

Old Business: For those that ordered turn tables, they are in and need to be picked up. The cost was 65 cents more due to shipping. So please see David Callahan as your earliest convenience.

Dave Callahan has arranged with Casper Voogt to be our new web master. Be sure to go to the web site and see the changes. If you have any information to provide, send to Dave and he will forward to Casper. Some of you with older computers may have trouble going to the new site. If this happens to be you, contact Dave Callahan or Casper Voght. Someone in the membership has asked if their business can be linked to the web site; this has been deferred to the Executive Committee for consideration.

First Vice President: Jack Curtin reported the survey taken at the last meeting has been calculated and the top three topics are:

1) Fluorescent minerals, 2) Identification of minerals, and 3) Learn about specific minerals prior to the field trip.

Second Vice President: Dave Callahan announced that the two trips (Smithsonian and Dale Quarry) planned for this coming weekend has been cancelled and will be rescheduled for March or April.

Southeast Federation will be going to Glendon, NC to dig for pyrite. There are 120 slots. For more information contact Dave Callahan.

On March 13 the Dixie Mineral Council has arranged for a trip to Diamond Hill. You may find amethyst, quartz, smoky quartz, or some other treasured rocks. This trip is a go on your own. There is another mine close by that Dave is going to check on to see if it could be open to us. Upcoming field trips: 3/27 Vulcan Manassas Quarry; 4/24 Sterling Hill, NJ (Fluorescents); 4/20-4/25 Mushroom Festival in Kentucky – Look for more information on these.

Treasures Report: Franklin Midkiff reported a balance of \$4,017.59. He has just received the insurance bill for the trailer and a few membership renewals. These will be reflected next month.*Continued on page 11*

The purpose of the Gem & Mineral Society of Lynchburg, VA, INC. is to promote education in The Earth Sciences including: Mineralogy, Geology, Gemology, Paleontology, and Crystallography

*The Gem and Mineral Society of Lynchburg VA, Inc.
Meets on the third Wednesday of each month,
From 7:00pm– 9:00pm
In the auditorium of the Parks and Recreation Building
301 Grove St. Lynchburg, VA 24501
Public is invited, Please join us!*

Programs



Our February Program: David Young's Presentation on Mining, submitted by Brenda Glass

David started looking at the ground at a very early age and loved digging up things. His top three favorites are fossils, rocks, and minerals. He has found that Virginia and North Carolina are his top two states to collect in. You can get some of your best finds within a 50-mile radius of Lynchburg.

He began his underground mining as a Minerals Extraction Contractor, which means he paid to go into closed mines. The mines in Viburnum, Missouri were comprised of 7 mines connected by tunnels that cover 100s of miles. Mineral specimens that we would want are considered waste rock to the miners.

The Virginia Iron Mine in Minnesota is a wonderful mine to visit. There is an exhibition mine in Beckley West Virginia for those wanting to go close by.

To go underground you need to get a certification on underground mining and how to survive (stay alive). The certification is 40 hours of training and requires 8 hours of recertification time annually.



Mining equipment:

- ?? Roof bolts
- ?? Pillars
- ?? Dust collectors (collects 80% of the dust you breathe)
- ?? SCSR – self contained self rescue – pure carbon dioxide which allows you 15-30 minutes to live in an emergency
- ?? Lamps – carbide lamps, oil lamps, and in days gone by they used candles
- ?? Methane Gas Detector – miners used to use canaries to detect the gases; then they used “fire bosses” – someone would go in first with a lamp or candle and if there was gas present they would be burned. Most would bear scars from the burns.
- ?? Before entering the mines each miner would take a brass plate with a number on it. At the end of the day you returned the number to the board. Those not accounted for were still in the mines. This is how they kept account of everyone who went in.
- ?? Steam governor – sits on a boiler or engine using steam. David found the one he has near Mitchell's mine in Bedford. This mine closed prior to WWII.
- ?? Blasting Box and Shots – in the mine you drill your hole, pack it with explosives, pull the wire, set it on the explosives, and go back to the blasting box to detonate. David was given this experience at the Moorefield Mine when Bill Bosley owned it. Bill was a great mentor to David. Have David explain “mucking” to you sometime.

Other items of information:

- ?? Always get permission to go on someone else's land
- ?? You can learn a lot of basic information from children's books
- ?? Research is the key
- ?? Talk with other club members – there is a lot of knowledge available from this resource.

Other areas of interest:

- ?? Forest/ Moneta – pegmatite mine district - #1 rock, 75% of gems are found in this rock
- ?? Graves, Baker, and Willis Mountain – Beryl crystals
- ?? Glory Hole – Crystal/Beryl

March Program

Special guests Roger Griesinger and Gary Danzer, club members from North Carolina, will give a presentation on Fluorescent Minerals. This is great timing on the subject, since the Franklin/Sterling Hill (NJ) annual spring open house will be at the end of April. So you won't want to miss this opportunity to get your fluorescent fix, and have your questions answered.

March 17th, 2010; 7:00 PM at our
monthly club meeting.

Field Trip Report



*Field Trip Report submitted by
Dave Callahan,
Field trip chairman.*

For further information on field trips, contact David Callahan, 540-297-1853
Email dbc11@aol.com

February Field Trips

Our scheduled trips on February 20th to the Vulcan Dale Quarry and Smithsonian Institute were both cancelled due to the weather.

Up Coming Field Trips

VULCAN DALE QUARRY CHESTERFIELD, VA.

I am waiting on word from the Richmond Club to set a date for the rescheduled Dale Quarry field trip. This will depend on the weather, safety conditions in the quarry and Vulcan Quarry personnel availability.

As soon as I am notified of the new date, I will call everyone on the February 20th sign-up list to give you the first chance to attending on the new date. Any vacancies will be offered to those on the stand by list in the order in which they signed up. If you would like to have your name added to the stand by list, please contact me at 540-297-1853.

DMC Program of the SFMS Field Trip Committee
An Official Field Trip of the MONTGOMERY GEM &
MINERAL SOCIETY (Montgomery, AL)(HOST)
Sign-in: 8 to 9AM - Dig: 10 AM to 5 PM EST
Saturday - April 17, 2010

HOGG MINE, LA GRANGE, GEORGIA

FEE SITE- Adults - \$ 17.00 & children under 18 are free with paying adult. (Regular fee is \$35.00)

COLLECTING: Rose quartz, tourmaline, beryl, and aquamarine. The Rose Quartz will star if cut correctly; some of the beryl can be gem quality. Plus a chance to buy, sell, or trade minerals with local dealers!

www.dixieuhedrals.com/page8.html

Trip Chair: Jeff Edwards, (334) 312-0572 or email thestonehunter@hotmail.com

THE SMITHSONIAN INSTITUTE MUSEUM OF NAUTRAL HISTORY WASHINGTON, DC

The new date for this trip is set for May 15, 2010. We had considered April but there were just too many conflicts.

Please contact me, or see me at the meeting if you want to reclaim your standby seat on the February 20th sign-up sheet. I will send out a new broadcast and have a new sign-up sheet available at the March 17th meeting but will give the first choice to those on the February 20th sheet. We have a 54 seat Trailways Bus so there should be seats available. If we fail to fill the bus this year, we will seriously consider discontinuing this opportunity to visit the Smithsonian in the future. The \$10.00 you pay for the seat is only a small portion of the actual cost. The Roanoke Club pays the majority of the cost as a benefit of membership. The Washington, DC area is about the maximum distance we can practically travel and back in the same day. Any greater distance would require an 8-hour undisturbed rest lay over for the driver, which means a much greater expense for the club and individuals.

Up Coming Field Trips continued on next page.

An Official Field Trip of The Gem and Mineral Society of Lynchburg Inc. & The Roanoke Valley Mineral and Gem Society Inc.

The Southeast Federation of Mineralogical Societies, Inc
The Friendly Federation - Founded in 1976 to serve.

DMC Program of the SFMS Field Trip Committee

An Official Field Trip of the Western South Carolina Gem and Mineral Society, Greenville, SC. (HOST)

9:00 AM to 5:30 PM EST Saturday, March 13, 2010

Diamond Hill Mine, Near Antreville in Abbeville County, South Carolina

THIS IS A FEE SITE (see below)

SIGN-UP REQUIRED

Plan to leave Friday and return home Sunday

Collecting: Quartz crystals in numerous forms such as amethyst, smokey quartz, clear crystals, milky quartz, skeletal quartz, and quartz coated with hematite or manganese. Also some micro minerals such as cacoxenite are found there. In recent years machines uncovered new veins of amethyst and smokey quartz.

Directions: The Diamond Hill Mine is located near the small town of Antreville in northeastern South Carolina.

From the north: Exit I-85 at US 178 at Anderson, SC (exit # 21). Drive south on US 178 for approx. 1 mile and then bear right onto SR 28. Follow SR 28 south approx. 20 miles to Antreville. Upon entering Antreville you will see Crawford's Store on the left. Drive past the store and then watch on the right for Emanuel Baptist Church. Turn right just before the church onto SR 284. Drive east on SR 284 for 2.3 miles watching carefully on the right for Suber Road (S-01-508). Turn right onto Suber Road and follow it approx. 0.7 mile to Diamond Hill Road (on right, gravel, S-1-538). Turn right onto Diamond Hill Road and follow it about 0.5 miles. The mine entrance will be on the right.

Driving time from Roanoke and Lynchburg will be about 6 to 7 hours to Anderson, SC. depending on your route and the number of stops you make. There are many Motels at exit 19B and 19A in Anderson, SC. Allow 45 minutes drive time from Anderson to the mine.

Fee: Adult fee is \$15.00, \$6.00 for children under 16 and for non-digging spouses and elderly. A filled out release of liability form will be necessary for each person attending. Some forms will be available, but you can avoid delays by going to www.gamineral.org/commercial-diamondhill.htm and printing off the form found under permission procedure for private individuals. Bring the completed form and fee with you.

What to bring: Buckets, picks, shovels, rock hammers, sledge hammers, chisels, scratching tools, sun screen, drinks, and a picnic lunch, hat, gloves, and sturdy shoes. Bring rubber boots and a change of cloths if it is going to be a rainy or wet day. No power equipment is allowed.

Lynchburg and Roanoke VA. Field Trip Chairman

David Callahan.... Phone: 540-297-1853.....Cell: 540-874-5201... e-mail DBCALL1@aol.com

WSCG&M Contact person if needed: Bill Wetzel email williamperri@bellsouth.net or (864)-306-6749 The day of the dig my cell will be (864)-569-5404.

"Field trips are open to all members of associated clubs of the DMC program of the SFMS Field Trip Committee and to all members of SFMS member clubs who have provided their membership with SFMS liability insurance. Because of insurance requirements, members of the GENERAL PUBLIC are NOT invited on this or any DMC program field trips!"

Up Coming Field Trips continued on next page.

**Combined Lynchburg/Roanoke Field Trip opportunity with the Northern VA Mineral Club
Vulcan Manassas Aggregate Quarry
Saturday March 27th, 2010 7:30am-noon**

Meeting Time --- Meet at the Quarry Office parking lot at 7:30 a.m. (no later!!) for a Safety Briefing and the signing of waiver forms.

Northern Virginia Trip Leader --- Ted Carver (703) 754-2050 (Home) email jtcarve@msn.com

Age Limit---Any youth 18 or younger, must be accompanied by a responsible adult. All safety equipment is required.

Directions --- From the Lynchburg / Roanoke area, take I-81 north to I-66 east to Manassas Exit 44. Go south on Rt 234 (Bypass) for 3.3 miles. Turn Left on Wellington Rd. (at light) --- go ½ mile and turn left on Vulcan Road. Cross railroad tracks and take immediate right into office parking lot.

In looking at the map, it appears that you can save a little time by following Rt. 29 north thru Culpeper. Look on the right for State Rt. 28 in Remington, VA. This will be 10 to 15 miles north of Culpeper on US 29. If you come to US 17 you have gone 3 miles to far. Follow State Rt. 28 for 20 miles or so to the Rt. 234 Bypass. Turn left or north for about 2 miles to Wellington Rd. There should be a traffic light. Turn right and go ½ mile and turn left on Vulcan Road. Cross railroad tracks and take immediate right into office parking lot.

Safety --- Vulcan requires steel-toed boots, hardhat, safety glasses, long pants and heavy gloves. Stay clear of all high walls. Note to Experienced members --- please keep a watch on all of us and say something to those who may not recognize danger before they get into trouble.

What to Collect --- Prehnite, datolite, byssolite, pyrite, pectolite, apophyllite, many other minerals and other zeolites.

Equipment/ clothing --- Rock hammer, 3 - 4 pound crack hammer, chisels, 5 gal. bucket, old newspaper for wrapping specimens, small pry bar. Optional -- large sledgehammer, long pry bar, extra buckets and a hand truck. Your best tools are sharp eyes. Clothing depends on the weather. Rain poncho nice to have.

Quarry Description / Hints --- Manassas Quarry is a trap rock quarry -- large square, deep hole in the ground with multiple levels. The predominate rock is dark gray diabase which is mined for crushed rock for road construction. Prehnite is the main thing we will try to find --- **Hint:** look for a white or light green streak of color in the gray rock and examine carefully. Breaking that rock open may reveal a pocket of light green prehnite. Prehnite is not abundant here, so it has been a hit or miss thing. Due to the severe economy, little blasting has been done at the quarry recently. Therefore, pickins may be slim. **Hint** ---Carefully search and investigate anything that is different.

Vehicles --- We should be allowed to drive our vehicles into the quarry. The roads are generally good --- wide and relatively smooth --- but sometimes with water standing in pools on the lowest level. If it is wet and muddy, consider carpooling with someone who has a truck or SUV.

Misc. --- Due to the vagaries of weather, the event may be canceled at any moment. If there is any question as to whether the trip will come off, contact Ted Carver at jtcarve@msn.com or 703.754.2050. or David Callahan, email dbcall1@aol.com Phone 540-297-1853

Sterling Hill, NJ
Fluorescent Mineral Field Trip
April 24, 2010

This is the latest information from Jeff Winkler, Tripmaster. If you plan to attend, please make your own reservations.

Greetings GlowHounds!

Things are shaping up well again this year for our annual event. REGISTRATION IS OPEN now -- you can click through from our website at <http://www.UVworld.org> Please use the PayPal option if at all possible (that takes credit cards; you don't need a paypal account) -- paying by check takes your time and time for the treasurer, opens more chances for loss and errors, and generally is a pain for the volunteers!

I've been up to Sterling Hill several times over the winter to check on things. The folks up there are very excited about April 24th - last year was again a simply "smashing event" and the great news this year is -- The registration fee is still only \$20, the same as it has been for many years.

We will have a full repeat of all the exciting special events we did last year, and once again those who attend will have their chance to "pick a piece of history" by selecting their choice of a piece of ore that still sits on the mill's conveyor belt from the day the Sterling Hill Mine was shut down - Good Friday, March 28th 1986. Every year, the choice gets smaller since nothing gets added to the belt!

The "upper mill" area is still not open to normal tours or even any access to the public, so our guests at the Sterling Hill Digg have a very unique privilege extended to them on this one day of the year. In addition to the special tour of the highest part of the mill structure and a walk across (inside) the conveyor you see way up in the air in all the photos of the site, we're also planning to have an

extended "blackout tour" of the lower part - the mine itself. Maybe we will even be able to go back into two or three tunnels, in the dark with only your black lights on - time permitting. And again this year, a very special feature has been added -- an animated blast display. Wait until you see this! and hear it!! The kids will love it. Keep in mind also that, weather permitting, the Ellis Observatory will be open after dark - the 20-inch telescope is amazing!!

As in past years, we will have many useful door prizes donated by our supporters (see their links on the main webpage, and check out their websites) including special prizes just for our young diggers. We are waiting to hear from several of our sponsors, so more details will be coming later.

Once again... I'm so excited this year, I just have to say it again: There's an unbelievable amount of stuff on site to be collected this year... it's a "collector's paradise." (You can get a list of all the rare minerals KNOWN to be in the mine area by clicking the link on our web page). And remember, there is no other place on Earth where some of the Sterling Hill minerals can be found; and we're the only dig at Sterling Hill where you can do a "night dig" plus see the "rainbow wall" of fluorescent rocks, lit by large UV lamps. So if you have to, take a nap in the afternoon so you can be "bright and bushytailed" in the evening. If you have ANY questions not answered by info on the website, email me at: TripMaster@Uvworld.org and be sure to include your telephone number - I have "unlimited calling" and will be glad to call you back. I enjoy very much talking with our collectors, and I want to be sure you have the best possible experience with us at Sterling Hill on April 24th. (By the way, we do not share your private info with anyone other than the registration crew). Remember to check the website at <http://www.UVworld.org> now and then for new and updated info. I look forward to hearing from you, and seeing you on Saturday at the Dig.

Your Trip Master again this year,
 Jeff Winkler

The Mountain Mushroom Festival
April 20 thru 25, 2010 - Irvine,
Kentucky

The Mountain Mushroom Festival, Kentucky agate hunt and the Bluegrass Gem and Mineral Club Show will be held on April 20th thru the 25th in Irvine Kentucky. Several of our members will attend and if you would like additional information, please contact me at dbc11@aol.com or 540-297-1853.

The Kentucky agate hunt will be on Tuesday April 20, Wednesday, April 21 and Thursday, April 22. Reservations and a fee are charged for each day collecting. A different site will be covered each day. In the past, there has been a lot of walking and fording of streams so come prepared. Small low-slung cars just will not make it on some of the back roads. We will be collecting in the creeks and rivers on mostly private land. Waders and rubber boots are recommended.

The Mountain Mushroom Festival will be on Thursday April 22 thru the weekend. The Bluegrass Show will be Friday, April 23 thru the weekend. Dee Tinsley will have a booth at the show.

Up Coming Events

March 2010

Shows and Trips

March 19th-20th-Catawba Valley Gem & Mineral Club 40th annual show. Metro Convention Center, Hickory, NC

March 24th- **Inn at Virginia Tech** -

Brooks/Cole, a part of Cengage Learning, is sponsoring a Geology Seminar in the Smithfield Meeting Room. on Wednesday, March 24, 2010 from 3:30 pm-6 pm.

Free, pre-registration required Info and registration at

<https://www.SignUp4.net/public/ap.aspx?EID=4LTR11E&OID=130>

March 26th-28th- 37th annual Atlantic Micromounters Conference hosted by the Micromineralogists of the National Capital Area, MHA Conference Center, Elkridge, MD. Registration: Steve Weinberger <cscrystals2@verizon.net>

April 24th& 25th- 38th annual New Jersey Earth Science Gem & Mineral Show (with outdoor swap). Co-sponsored by the Franklin-Ogdensburg Mineralogical Society, New Jersey Earth Science Association and Sterling Hill Mining Museum. Franklin School, Franklin, NJ.

April 23rd-25th- 47th Annual Rock, Gem, Mineral and Jewelry Show sponsored by the Blue Grass Gem & Mineral Club. Mountain Mushroom Festival, Irvine, KY.

May 15th- **Rescheduled Smithsonian Museum Field Trip**- Sign-up is required--you will receive a confirmation number to confirm your seat...if you do not receive the number, you have no seat. Call me, email me or see me at the meeting.

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17 Meeting 7PM	18	19	20
21	22	23	24 Workshop @ Woolley's 7-9PM	25	26	27
28	29	30	31			

Places to visit:

Fairy Stone State Park
967 Fairystone Lake Drive
Stuart, VA 24171-9588
Phone: (276) 930-2424



Learn more about park offerings by calling 1-800-933-PARK. Be sure to specify the park of interest.

If you would like to learn more about this natural wonder, you can visit Stone Cross Mountain Museum, Just outside of Martinsville, VA on Highway 58 west, just 2 miles from the 220 bypass. (17529 A.L. Philpott Hwy, Martinsville, VA)
For more details and hours of operation, contact Don Hopkins, 276-957-4873.

Geology Concepts Part II

Dave Woolley, Geologist

Water

Rainwater penetrates soil and rock depending on porosity, permeability, and discontinuities. Water flows vertically through pores in the earth by gravity towards the elevation of sea level. Water may be blocked by impermeable rock or saturate the pores in slowly permeating earth-materials, rising up to elevations above the level of the oceans. This buildup of height forces water to flow within the earth downhill towards the nearest ocean. The upper surface of this pore-saturated down-slope flowing water within the earth is called **the water table**. *The water table* lowers to sea level unless replenished by rain or melting ice. Any body of pore-saturated water within the earth is called an **aquifer**. Gravity pushes water into the sea from rivers, unconfined aquifers, and confined aquifers. *The water table* is located on an **unconfined aquifer**.

A **perched aquifer** is an aquifer that is located on an impermeable barrier that occurs above *the water table*. Examples: the clay of hardpan can create a shallow barrier retaining water; certain clay-sediment layers, shales, weathered diabase, and weathered volcanic ash. The upper surface of water retained on a perched aquifer is called a **perched water table**. A perched aquifer is often recognized by noticing wet sampled soil or the depth at which wet drilling tools are withdrawn, above later-measured water standing in a boring. At some locations water leaks from the edge of a perched aquifer: water travels vertically from one perched water table to another, to *the water table*. Water may become trapped between two impermeable layers, encapsulated as a **confined aquifer**. The top elevation of water in a well, sealed to a confined aquifer, is a **hydraulic head**, as opposed to elevations of perched water tables and *the water table*, any of which can be *lower or higher*. The elevation of water tables and hydraulic heads are time and location specific, usually measured in wells. Some places water travels in erratic directions along discontinuities, downwards by gravity, and horizontally or upwards by a hydraulic head: joints, faults, and cavities, plus fractured quartz veins in residual soil, act as **high-speed conduits**. Discontinuities can be ideal sources for wells due to the access of larger quantities of faster moving water. Adjacent earth material and discontinuities may lack water depending on whether they contain or access an aquifer.

Note: Water is attracted by capillary action to a thin zone above any water table. Capillary attraction also can hold some water in the pores of unsaturated earth.

An unconfined aquifer may intercept the earth's surface as a spring.

A confined aquifer may produce artesian flow at the surface or from a wellhead. A discontinuity in rock can become a small confined aquifer.

The water table typically intercepts streams, creeks, and rivers, although it may sometimes be just below the bed of an intermittent or wet-weather creek, and a *losing-creek*. The water table is located above a creek's elevation at a *gaining-creek*. Gaining-creeks speed some of an aquifer's water to the ocean.

Caution: A driller may recognize water at a particular depth, but the boring itself can become a high-speed conduit to lower water from a perched aquifer, or to lower or raise water from a confined aquifer. A short period of time tends to stabilize the top elevation of water standing in a boring, but that elevation might not represent *the water table*. Borings and wells should be sealed to prevent cross contamination of aquifers, and from surface contamination.

Combined with carbon dioxide from the atmosphere, rainwater forms weak carbonic acid [H₂CO₃]. Plant acids and the break down of pyrite which yields sulphuric acid contribute: acid solutions percolate through soil into rock causing chemical weathering.

Did You Know...

Reprinted from February 2008 issue of Crack'N Cab, Bulletin of the Gem and Mineral Society of Syracuse, Inc.

If all the diamonds mined in the world were fused into a cube how big would it be? *Answer: about 10 cubic feet.*

Half the silver ever mined was mined in this country.

Half the gold ever mined lies at the bottom of the oceans, in the holds of ships.

Lake Erie differs from the other Great Lakes in that the bottom is above sea level.

Via Glacial Drifter 3/99

Zinc

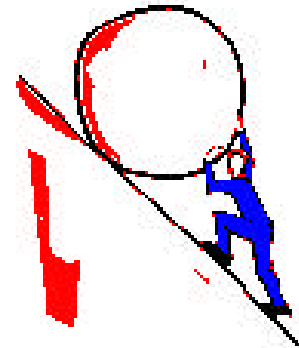
All you may have ever wanted to know about zinc and more? Zinc is never found in a pure state. Its ores are found in most parts of the world. The main ore is sphalerite, a compound of zinc, carbon, and oxygen. These principle ores and some of the lesser ones are collected by rockhounds because of their beautiful crystals and colors. Some of the lesser ores are calamine, willemite, zincite, and adamite.

Zinc is readily alloyed with copper to form brass, with copper and tin to form bronze and with copper and nickel to form German silver.

Via Gem City Rock News 1999

Welcome New Member

Michael
Coombs
Lynchburg,
VA



Solar Turntables

The shipment has been received. I will bring those remaining to the March 17th meeting. The only ones not picked up belong to Steve Blanchard (5) and Cindy Mitchell (10). Please arrange to pick them up at the March meeting. There was a slight increase of 65 cents per unit due to a freight increase. Please have this fee at the meeting when you pick up your order. If you pay by check, please make it out to me (David Callahan) as I have advanced these additional costs.

When you open your unit, be sure to carefully remove all packing materials. Carefully press the center of the clear plastic table on the square shaft of the solar unit. Place the unit under a light. If it does not start rotating, carefully turn the clear plastic table a little by hand. It looks like it will turn equally well in either direction. You can change direction by removing the unit from the light. After it comes to a complete stop, turn by hand in the desired direction and place it back under the light. It should continue in this direction. Be careful not to overload the unit. You should not exceed ½ pound and be sure the load is centered. If it appears to be slow in starting or sluggish, lighten the load or use a stronger light.

Presidents Message: *continued from pg. 1*

samples from all his years of drilling for VDOT. There was a large wooden box filled with samples from all over the central VA area, with labels for most of them that were in need of an upgrade. Information put on the new labels included the road and drill site along with the rock name and any minerals or crystal forms present. It was a good opportunity to see what some of the local rocks and minerals are under our highway bridges and overpasses. We did see the location of some pegmatites and gem bearing materials in our area. There was one creek bridge located in Prince Edward Co. that may be a good source for some pegmatite material that would look nice as a sphere or a pair of bookends. I will check it out and let you know.

Please remember to bring your fluorescent mineral specimens and Ultraviolet lights to the March meeting, as we are having a program about the Sterling Hills Zinc Mines of Franklin, NJ. I hope to see you there on March 17th.

Keep Looking Down,
John Haskins

February Meeting Minutes *cont. from pg. 2*

New Business: We are in need of a liaison for the Rock Raiders. Gina Hatcher has resigned the position. Please contact John Haskins we are interested.

20% coupons for Big Lots are available. The coupons are good for this coming Sunday, February 21, 2010 only.

The club has two new faceters: John and Nona Haskins
Dave Woolley has donated core drill samples to the club. At the workshop next Wednesday, we will begin to label them.

Program:

David Young, sole proprietor of Stones and Bones, spoke on mining equipment and safety issues. David provided lots of useful information and some funny experiences. Thanks David for all that you do for this club and the community!

Minutes submitted by:
Brenda Glass, Secretary

From the First VP: *continued from pg. 1*

The Vulcan Quarry is a trap rock quarry -- a large square, deep hole in the ground with multiple levels. The predominate rock is dark gray diabase which is mined for crushed rock for road construction. Prehnite is the main thing we will try to find --- **Hint:** look for a white or light green streak of color in the gray rock and examine carefully. Breaking that rock open may reveal a pocket of light green prehnite. Prehnite is not abundant here, so it has been a hit or miss thing. Due to the severe economy, little blasting has been done at the quarry recently. Therefore, pickins may be slim. **Hint** --- Carefully search and investigate anything that is different.

Here's some information garnered from a field trip by another group to the quarry two years ago.

"A pale green stripe was spotted across the face of a gray hunk of diabase 160 feet below the surface of the ground. The area was searched around the first piece and ten bread loaf-sized rocks and many smaller rocks all with green prehnite showing were found. A few of these even had small clear crystals of apophyllite in cavities. Splitting the larger rocks with a chisel and 3-pound hammer, revealed numerous specimens of prehnite covered variously with small crystals of datolite, calcite, apophyllite, and some nice micros of byssolite and some small white needle-like crystals.

Among the best specimens were some iridescent chalcopryite and bornite and a truly beautiful fist-sized specimen of tan colored stilbite crystals (look like small wheat sheaves) loosely overlaid with translucent milky calcite crystals (in rhombohedra-scalenohedral crystal form). Some more chalcopryite, bornite as well as a few pieces of prehnite were found. Rockhounds found some of everything, including prehnite, stilbite, bornite and calcite.

Happy hunting,
Jack

The Gem & Mineral Society of Lynchburg, VA Inc.

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The purpose of the Gem & Mineral Society of Lynchburg, INC. is to promote education in The Earth Sciences including: Mineralogy, Geology, Gemology, Paleontology, and Crystallography



Lynchburg Rock Raiders is the official FRA association of The Gem & Mineral Society of Lynchburg, VA INC



http://www.dcr.virginia.gov/state_parks/fai.shtml Fairy Stone state park
<http://www.stonecrossmountain.com/> Stone Cross Museum

Websites to visit: Lynchburg Gem and Mineral Society:

www.lynchburgrockclub.org

The SFMS Newsletter, the Eastern Federation Newsletter, and the AFMS Newsletters are available for all members to read on line at the Federation Websites:

www.amfed.org/sfms, www.amfed.org and www.amfed.org/efmsl

Hobby Related Newsletters are available free of charge by emailing the editors below. Both are great sources of information and worth checking out.

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