

Cuyuna Rock, Gem and Mineral Society

The Agate Explorer

April 2018

Show Volunteer List

If you have not signed up to work at the show, May 5 and 6, PLEASE consider doing so. Many hands make light work!

Show Set up: Vern Iverson,
Ed Walton, Butch and Cindy Goldenstein,
Bev Williams, Lori DuBois, Joan Guerra

Baked Goods—Packaged in single servings to be sold for \$1 each.

Kids' Corner

Sat. 9-1 Judy Frampton
Sat. 1-5 Sandi Hilsen?
Sun. 10-1 Sheryl Yassim
Sun. 1-4 Sheryl Yassim, if needed

Club Table

Sat. 9-1 Joanie Hanson
Lilly Peterson
Sat. 1-5 Sherry Busse
Sandi Hilsen?
Sun. 10-1 Joanie Hanson
Judy Dick
Sun. 1-4 Joanie Hanson
Ron Dick

Set up Display Cases Friday afternoon:
Karen Knierim, _____

Rock Saws/Geode Cracker

Sat. _____
Sunday Strassburg Family

Wizard of Rocks

Sat. 9-noon Ron Weinhold
Sat. noon-3 _____
Sat. 3-5 _____
Sun. 10-1 Ron Weinhold
Sun. 1-4 _____

Silent Auction

Sat. 9-noon Don & Diane Trieglaff
Sat. noon-3 _____
Sat. 3-5 _____
Sun. 10-1 Kathy Peterson
Sun. 1-4 _____

Concessions

Sat. 9-1 _____
Sat. 1-5 _____
Sun. 10-1 _____
Sun. 1-4 _____

Door Admission

Sat. 9-noon Richard Salzwedel
Meredith Sternaman
Sat. noon-3 _____

Sat. 1-5 Linda Schuety, _____
Sun. 10-1 Judy Frampton, _____
Sun. 1-4 Richard Salzwedel
Meredith Sternaman

Security

Sat. 9-noon _____
Sat. noon-3 Jerry Shield at back gate
Mark & Kathy Kiel
Sat. 3-5 Gerry and Tucker Schuety
Sun. 10-1 Jerry Shields at back gate
Sun. 1-4 Gerry Schuety

Door Prizes/Vendor Survey

Keith Lorensen

Spinning Wheel

Sat. 9-noon Lori DuBois
Sat. noon 3 Lori DuBois
Sat. 3-5 Lori DuBois
Sun. 10-1 Saliah Kako
Sun. 1-4 Linda Schuety

Show Tear Down

Ed Walton, Bev Williams, Gerry,
Linda and Tucker Schuety, Erich Ess, Joan Guerra

Monday AM Clean Up

Dolores and Tony Sibet



To sign up, please
contact Joanie Hanson
at 218-831-2665
or Ed Opatz
at 320-250-1363.



Franklin Art Center

Club Information

Meeting Place

Lower level
Franklin Arts Center
1001 Kingwood St, Brainerd, MN 56401

Directions

.4 mile east of Business Hwy. 371
& Hwy. 210 intersection.
(Castle turret water tower.)

Date/Time

the 2nd Saturday of each month
at 2 p.m. unless otherwise noted.

Club Dues

\$20/ family

Free /unaccompanied juniors
Membership runs
from Jan. 1-Dec. 31st.

Club Calendar

April 14—Board Mtg at 12:30;
General Mtg at 2:00; show preparation and presentation by Mike Braun on Polyhedral Agates.
May 5 & 6—Rock Show
May 12—Meeting
June 8 and 9—Kids' Day Camp
June 9—Meeting
Information subject to change.

Club Purpose: To foster an interest (& encourage young & old) to study earth science, enjoy the art of lapidary, hunting for rocks, and semi-precious stones. We also strive to use what we know and acquire to further educate everyone who has an interest in our hobby.

We are a not-for-profit organization.

Mineral Encyclopedia



Limonite

Before modern mineral analysis, the name limonite was given to many of the yellowish to

yellowish brown iron oxides produced during the weathering of iron-bearing rocks or deposited as bog, lake, and shallow marine sediments.

Researchers who studied limonite discovered that it is amorphous and has a variable composition. It often contains significant amounts of iron oxide minerals such as goethite and hematite. This research revealed that the material called limonite does not meet the definition of a mineral. Instead, limonite is a mineraloid composed mainly of hydrous iron oxides that are often found in intimate associations with iron minerals.

Today the word limonite is used as a field and classroom term for these materials because they cannot be identified in hand specimens and their identity is unknown without laboratory testing. The time and expense required to do this testing is generally not needed, unless the material is going to be used in industry or it is the subject of a detailed study. Thus the name limonite is not obsolete; it is still meaningful and useful.

Limonite usually occurs as a secondary material, formed from the weathering of hematite, magnetite, pyrite, and other iron-bearing materials. Limonite is often stalactitic, reniform, botryoidal, or mammillary in habit rather than crystalline. It also occurs as pseudomorphs and coatings on the walls of fractures and cavities.

Some limonite is found in stratified deposits where hydrous iron oxides form as precipitated sediment on the floor of shallow swamps, lakes, and marine environments. These can be of inorganic or biogenic origin.

Limonite often forms as a precipitate at springs and mine openings where acidic, iron-laden waters emerge from the subsurface. Most subsurface waters contain very little oxygen, and when they discharge to the surface, they often encounter oxygenated waters. Dissolved metals in the groundwater rapidly combine with the dissolved oxygen of the surface water to form a

precipitate that falls onto the bed of the stream. This precipitate is a characteristic sign of acid mine drainage.

Limonite is very resistant to weathering and often accumulates as a residual deposit. It is often the main form of iron and colorant in lateritic soils.

Uses of Limonite

Limonite has been used by people since prehistoric times. Their first use of limonite was probably as a pigment. It is found in many Neolithic pictographs, and throughout history it has been one of the most important pigments for creating paints in the yellow to brown color range known as ocher. Its use as a pigment continues today. It can sometimes be used directly from the deposit with minimal processing, but it is often heat treated to drive off water, simplify the production of a powder, and improve color.

Limonite has been used as a low-quality iron ore for thousands of years. Commercial mining of limonite as a source of iron is no longer done in areas where reasonable deposits of hematite and magnetite are present or readily imported. Limonite deposits are usually too small and too impure for use in modern metallurgy.

Names such as "brown iron," "brown hematite," "bog iron," and "brown ocher" have been used by miners to relate limonite with its potential uses. Their use has declined significantly, and the name "limonite" is now used for these various materials.

<http://geology.com/minerals/>

Physical Properties of Limonite

Chemical Classification: Amorphous, mineraloid

Color: Yellowish brown to brown to black

Streak: Yellowish brown

Luster: Dull to earthy

Diaphaneity: Opaque

Cleavage: Does not cleave because it has an amorphous structure.

Mohs Hardness: 1 to 5 (weathered material can be deceptively soft)

Specific Gravity: 2.7 to 4.3 (varies due to impurities)

Crystal System: Amorphous to cryptocrystalline

Diagnostic Properties: Variable - can be yellow-brown, brown, reddish brown

Chemical Composition: A hydrated iron oxide of variable composition

Crystal System: Amorphous to cryptocrystalline

Uses: Ocher pigments, a minor ore of iron

Jewelry Making Tip

By Brad Smith

www.BradSmithJewelry.com

Drilling A Stone

One of the things my students often ask to do is drill a hole through a piece of gemstone. The usual thought is to get a diamond drill, but I've been disappointed with them. I think the reason is that the tip of the drill is just pivoting in the hole and fails to cut well. When it looks like the drill isn't cutting, the tendency is to push with more force. The drill gets hot, and the diamond grit falls off.

A much better approach is to use a core drill. This is a small hollow tube with a coating of diamond grit at the business end. The diamonds easily carve out a circular arc without undue pressure or heat buildup.

Core drills are readily available from lapidary and jewelry supply companies.

They come in sizes as small as 1mm and are very reasonable in price. For instance, a 2mm diameter drill is about \$6.



Chuck the core drill in a drill press, Dremel or Foredom and be sure to keep the drilling zone wet to cool the tool and to flush out debris. Also, if you're drilling a through hole, go very easy on the pressure as the drill is about to cut through. Otherwise you will usually chip off some of the stone surface around the hole.

We're on Facebook!



Cuyuna Rock, Gem & Mineral Society

This is a closed group, so you must ask to join. After being approved you can follow the members' posts and add your own information.

Open Shop Days

Do you want to use the machines in the Clubhouse? Contact a board member (see the back page for phone numbers and email addresses) to set up a time.

Cuyuna Rock, Gem, and Mineral Society Board Meeting Minutes March 10, 2018

The meeting was called to order at 12:35 pm by Vice-president Chuck Durnan, present were: President Ed Opatz (by phone) Secretary Joanie Hanson, Treasurer Kevin Martini, board members- Sharon Smith and Vern Iverson.

Treasurer's Report- Kevin Martini: Motion approved to pay bills- details posted at the clubhouse. Motion approved to make a donation to Kinship Partners again this year.

Notice from Brainerd Chamber-the rock box at the welcome center sold 10 bags from Dec 1 to Feb 28. They owe us \$40.00.

The club is continuing to look at possibly purchasing work tables etc. from Lily Peterson's previous employer that is closing down.

There have been issues with the large vibrating tumbler in the clubhouse that is

too noisy for other activities in the building. This has been resolved with the help of Chuck Knierim, a club member who lives in the building.

Ed purchased a geode cracker for the club. \$489.00 cracks up to a 6-inch size geode.

Marcia and Ed are working on a club business card that will have the web address on it.

Vern is talking to various t-shirt companies to get best pricing for new club t-shirts. They should be ready by show time.

Franklin is letting the club use a display case to showcase what we do and advertise for the show. It will be available for us the months of April and May. Be sure to go see it at the main entrance of the building.

Keys to the club- All board members now have keys as well as Chuck Knierim. If you need to get into the clubhouse contact one of board members.

Kid's Camp- dates: June 8 & 9, Marcia is working on forms and flyers for schools.

Summer shows and festivals- as soon as dates and times are available Joanie will get signup sheets out for members to volunteer.

Show updates- Sharon Smith: The show is sold out for tables- 98 inside plus Krystle Dorris's tables. 28 outside as of this meeting. The board voted and the motion was passed to set the date for the 2019 show on May 10th & 11th, 2019.

Travis Sykes that did security last year said that he would do it again, this year, along with another security person. Ed is negotiating pay for this year with them.

The new rock room is done and needs to be painted. Will need help to move supplies to there. Looking for any other storage space on lower level to rent.

Tabled- Charging for shop days, amount club pays to members for prize drawing item, theme for next years' show, wire wrapping station.

Respectfully submitted,
Joanie Hanson

Rox Box

A place to advertise rock items to sell and to inquire about items to purchase.



The Cuyuna Rock, Gem & Society accepts no responsibility for any dissatisfaction that may occur by either party, seller or buyer. The Society does not profit in any way by sales transactions.

For Sale: Thumler Model B Tumbler 15 lb. capacity; hex steel barrel, rubber liner. 2 units available. \$150 each. Contact Harry Wagoner—218-927-9983 or hpwagy@centurylink.net



Wanted: Rough specimens of orbicular granite especially from Peru. Also orbicular diorite or other plutonic rocks. Harry A. Wagoner 218-927-9983

For Sale: Knapped Replica Points; Many to choose from - most priced at \$5 per inch or less. Many made by Cherokee native in Oklahoma. Contact Harry Wagoner 218-927-9983 or hpwagy@centurylink.net



Cuyuna Rock, Gem, and Mineral Society General Meeting Minutes March 10, 2018

The meeting was called to order at 2:05 pm by Vice-president Chuck Durnan. He welcomed the new members and guests. 38 people were present.

It was decided by votes that the late summer/fall trip will be to Utah with possible stops in Montana and Wyoming. More information will be coming later.

Summer festival/show/fair time is here. Joanie is working up schedules and will have them ready as soon as dates are set for these. We will be needing volunteers to help

at these events.

We need more volunteers for kid's camp June 8th & 9th. Please contact Marcia or Joanie to volunteer.

We need Hosts for the meetings. This involves coming early to set up club table, setting out snack items and coffee, making sure all people present at meeting get signed in, making sure people have their name badges, helping and welcoming new members and guests, helping to clean up at the end of the day.

Treasurer's Report- Kevin: posted in the clubhouse.

Show updates- Sharon: the show is sold out for vendors, Krystle Dorris from the show

the "Prospectors" will be our guest vendor this year. We met her when we went to Colorado last summer.

Lily Peterson is in charge of the rock room and she has been working very hard to get the pricing set for all items in there. Authorized personnel must be present in order to shop in the rock room. Rock room is done and volunteers have started painting.

Jim Magnuson spoke on How To Tumble Rock. Joanie Hanson ran the Kids' Program; they made wire wrapped trees.

Door prizes were won by Ron Dick and Gary Stracek.

Respectfully submitted,
Joanie Hanson



The World of Jaspers

Dead Camel Jasper

Dead Camel Jasper, from Nevada, is a relative new-comer to the lapidary scene,

but it has rapidly grown to be one of the current favorites. It's a very hard jasper, with busy, brecciated patterns in a mix of pink, yellow and blue. Excellent material to work with, it takes a very glossy polish and makes one of a kind cabs.

The Dead Camel mountains are a mountain range located in western Nevada, separating the Lahontan Reservoir from Fallon, Nevada.

In 1855, under the direction of then-Secretary of War Jefferson Davis, Congress appropriated \$30,000 for "the purchase and importation of camels and dromedaries to be employed for military purposes." Within a decade, though, each

and every one would be sold at auction.

An entrepreneur of the frontier named Samuel McLaughlin bought the entire herd in February 1864, then shipped several camels out to Nevada to haul salt and mining supplies in Virginia City. According to Gray's account, the animals that remained in California were sold to zoos, circuses, and even back to Beale himself: "For years one might have seen Beale working camels about his ranch and making pleasure trips with them, accompanied by his family."

And as for the rest? Many were put to use in Nevada mining towns, the unluckiest were sold to butchers and meat markets, and some were driven to Arizona to aid with the construction of a transcontinental railroad. When that railroad opened, though, it quickly sunk any remaining prospects for camel-based freight in the southwest. Owners who didn't sell their herds to travelling entertainers or zoos reportedly turned them loose on the desert.

The Dead Camel Mountains were named for the discovery of one of these feral camels found by local prospectors in 1891.

Cuyuna Rock, Gem, & Mineral Society on the Web

www.cuyunarockclub.org

Agates From Around The World

Tuledad Agate



Drive out to the boondocks of northwestern Nevada, to the Duck Lake region, to be

specific, and you can hunt for some really beautiful, colorful agate known as Tuledad agate. The Tuledad region lies in the high country west of the lake.

Although this region has been collected over for many years, surpassingly, as many more prize agates are found by lucky and persistent collectors. The agates appear to remain hidden within the earth until such time as heavy rains and melting snows uncover them, or flush them away down the ravines.

Another reason that not more Tuledad are found is that, unless you know exactly what to look for in these agates, you can easily pass them up because they possess a tough, though thin rind of a somewhat yellowish and pink-brown color very like their country cousins. So when you pick up an extra heavy rock, be sure to knock off a corner and check the interior for agate.

These lovely agates are found in many colors from soft pastels ranging from cream, buff, pinks, salmon, tan, yellows, orange and brown, to palest green on to deep green. Many possess beautiful "scenes" in their color patterns. A few I have seen had drusy centers, some actually in crystal.

<https://www.pugetsoundparent.com/gemstones/hunting-for-nevada-agate/>

Help Fill the Egg Cartons!



The kids' day camp will have a station on the rocks of Minnesota. In that

class kids will learn about local rocks and fill their own egg carton with samples. We need about 50 small specimens (think bottle cap to egg size) of the following:

Mary Ellen Jasper	Binghamite
Ely Greenstone	Hematite
Jasper	Taconite
Basalt	Limestone
Silkstone	Iron Ore
Morton gneiss	

Please bring the specimens to the April or May meetings. If you have questions, call Ed Opatz at 320-250-1363.

WANTED TO BUY

Tumbled rocks or small rocks to be tumbled for the spinning wheel. Rough, small (less than golf ball size) Lake Superior agates. Also, donations of rocks for the rock room.

Call Ed Opatz at 320-250-1363, or Sharon Smith at 218-343-7037.

We need someone who can call the people that do not have email. Usually that is for last minute agate pick information, deadlines for events, etc. There are 12-15 people on the list.

Please call Ed Opatz at 320-250-1363.



April Birthdays

Jim Magnuson	4/9
Keagan Du Bois	4/11
Philip Johnson	4/16
Laura Bedard	4/17
Vernon Iverson	4/18
Judi Dick	4/19
Lori Du Bois	4/28

April Anniversaries

Tony & Dolores Sibet	4/01
Paulette & Chuck Durnan	4/22
Dave & JoAnne Moe	4/23

Sunshine Requests

If you know someone who could use a little sunshine—birth, illness, surgery, family death—please contact Christi Higgins at 320-224-6650.



April Rock Shows

March 2018-April 2018

29-1—JOSHUA TREE, CA: Sportsman's Club of Joshua Tree, 6225 Sunburst Street; Daily 9-6; Free; Website: jtsportsmansclub.com

30-1—SANDY, UT: Gem Faire Inc, South Towne Expo Center; Fri. & Sat. 10-6, Sun. 10-5; \$7, Under 12 free; Website: <http://www.gemfaire.com>

30-1—ALPINE, TX: Chihuahuan Desert Gem & Mineral Club, Alpine Civic Center; Fri. & Sat. 9-6, Sun. 10-5; Free; e-mail: ocoent895@gmail.com

31-1—SWEET HOME, OR: Sweet Home Rock & Mineral Society, Sweet Home High School Gym; Sat. 10-6, Sun. 10-5; \$.50, Under 13 free; e-mail: ela4rocks@gmail.com

April 2018

5-7—WYOMING, MI: Indian Mounds Rock & Mineral Club, Rogers Plaza Town Center; Thu. & Fri. 9:30-9, Sat. 9:30-7; Free; Website: indianmoundsrockclub.com

6-8—PUYALLUP, WA: Gem Faire Inc, Washington State Fair Events Center; Fri. 12-6, Sat. 10-6, Sun. 10-5; \$7, Under 12 free; Website: <http://www.gemfaire.com>

6-8—RALEIGH, NC: Tar Heel Gem & Mineral Club, NC State Fairgrounds, Fri. 3-8, Sat. 10-6, Sun. 10-5; Free; Website: tarheelclub.org

6-8—ORLANDO, FL: Central Florida Mineral & Gem Society, National Guard Armory; Fri. 1-6, Sat. 10-6, Sun. 10-5; \$5, Students \$2, Children Free; Website: www.cfmg.org

6-8—INDIANAPOLIS, IN: Treasures Of The Earth Gem & Jewelry Shows, Indiana State Fairgrounds; Fri. & Sat. 10-6, Sun. 11-5; \$5; Under 16 free; Website: www.toteshows.com

6-8—VISTA, CA: Vista Gem & Mineral Society, Vista Antique Gas & Steam Engine Museum; Fri. & Sat. 9-5, Sun. 9-4; Free; Web site: <http://www.vistarocks.org/>

7—MADISON, TN: Middle Tennessee Rockhounds, Amqui Station; Sat. 10-4; Free; Website: www.rockhound.org/swap

7-8—SILOAM SPRINGS, AR: Northwest Arkansas Gem & Mineral Society, Siloam Springs Community Building; Fri. 9-5, Sun. 10-4; \$3; Website: www.nwarockhounds.org

7-8—EUGENE, OR: Springfield Thunderegg Rock Club, Goshen Grange; Sat. 9-5, Sun. 10-3; Free; e-mail: cadnshac2@comcast.net

7-8—MARIPOSA, CA: Mariposa Gem & Mineral Club, Mariposa County Fairgrounds; Sat. 10-5, Sun. 10-4; \$3, Children free; Website: Mariposagemclub.org

7-8—JOHNSON CITY, NY: New York Southern Tier Geology Club, Johnson City Senior Center; Sat. 9-5, Sun. 10-4; Adults/Srs \$4, Under 12 free; e-mail: stonecut-tertom@yahoo.com

7-8—POCATELLO, ID: South East Idaho Gem & Mineral Society, North Bannock County Fairgrounds; Daily 10-5; \$2, Under 12 free; e-mail: joe.rodriquez@itd.idaho.gov

7-8—HELLERTOWN, PA: Saucon Valley Lions, Saucon Valley High School; Sat. 10-6, Sun. 10-5; \$6; Website: www.sauconvalleylions.org

7-8—ORANGE, CT: New Haven Mineral Club, Amity Middle School; Sat. 9:30-5, Sun. 10-4:30; \$6, Children free; Website: www.newhavenmineralclub.org

7-8—LINCOLN, NE: Lincoln Gem & Mineral Club, Inc., Lancaster Event Center; Sat. 9-6, Sun. 10-5; Adults/Srs \$6, Children free; Website: <https://www.lincolngemmineralclub.org>

7-8—CANTON, OH: Stark County Gem & Mineral Club, Stark County Fairgrounds; Sat. 9-5, Sun. 10-5; \$5; Ages 6-14, \$1; e-mail: 1timothy412@att.net

7-8—CENTRAL POINT, OR: Roxy Ann Gem & Mineral Society, Jackson County Expo- Olsrud Arena; Sat. 9-5, Sun. 10-4; Adults \$5, Srs \$3, Students \$2, Children Free; Website: www.craterrock.com

13-15—HILLSBORO, OR: Gem Faire Inc, Washington County Fairgrounds; Fri. 12-6, Sat. 10-6, Sun. 10-5; \$7, Under 12 free; Website: <http://www.gemfaire.com>

13-15—OGDEN, UT: Golden Spike Gem & Mineral Society, Weber County Fairgrounds; Fri. 9-6, Sat. 10-6, Sun. 10-4; \$3, Students \$2, Under 12; Website: golden-spikegem.org

13-15—RICKREALL, OR: Willamette Agate & Mineral Society, Polk County Fairgrounds; Fri. & Sat. 9-6, Sun. 10-4:30; Adults/Srs \$2; Website: <http://www.wamsi.net/>

13-15—SARASOTA, FL: Frank Cox Productions, Sarasota Municipal Auditorium; Daily 10-5; \$5, Under 16 free; Website: frankcoxproductions.com

14-15—STANDISH, MA: Maine Mineralogical & Geological Society, Saint Joseph's College; Sat. 10-5, Sun. 10-4; \$4, Srs/Students \$3, Children Free; Website: mainemineralclub.org

14-15—MIDLAND PARK, NJ: The North Jersey Mineralogical Society, Midland Park High School; Sat. 10-6, Sun. 10-4; \$5, Srs \$4, Under 12 free; Website: www.nojms.webs.com

14-15—EDMONDS, WA: Maplewood Rock & Gem Club, Maplewood Rock and Gem Clubhouse; Sat. 9-5, Sun. 10-5; Free;

e-mail: collmal@comcast.net

14-15—MARION, IL: Southern Illinois Earth Science Club, Pavilion of the City of Marion; Sat. 10-6, Sun. 10-5; Adults/Srs \$2, Under 19 free; Website: siesclub.org

14-15—ABILENE, TX: Central Texas Gem & Mineral Society, Abilene Convention Center; Sat. 10-6, Sun. 10-4; \$3, Ages 6-12, \$1.50; Under 6 free; Website: www.new.calichetimes.com

14-15—DOVER, NH: Southeastern New Hampshire Mineral Club, Cover Veteran's Community Center; Daily 10-4; \$3, Under 12 free; Website: senhmc.org

14-15—PINECREST, FL: Miami Mineralogical & Lapidary Guild, Evelyn Greer Park; Daily 10-5; \$6, Children free; Website: www.miamigemandmineral.com

14-15—DECATUR, IL: Central Illinois Gem & Mineral club, 4140 E. 2nd Progress St; Sat. 9-5, Sun. 10-4; \$5, Srs/Students \$3, Children free; Website: rmkapta.wix.com/cigmc

14-15—CHICO, CA: Paradise Gem & Mineral Club, Silver Dollar Fairgrounds; Sat. 9-5, Sun. 9-4; \$4, Children Free; Website: www.paradisegem.org

15—WATERLOO, IA: Black Hawk Gem & Mineral Society, Waterloo Center for the Arts; Sun. 12-5; Free; contact Dave Malm, IA, (319)-266-6433

20-22—SAN DIEGO, CA: Gem Faire Inc, Scottish Rite Center; Fri. 12-6, Sat. 10-6, Sun. 10-5; \$7, Under 12 free; Website: <http://www.gemfaire.com>

20-22—WICHITA, KS: Wichita Gem & Mineral Society, Cessna Activity Center; Fri. 9-6, Sat. 10-6, Sun. 10-5; \$5, Ages 12-17 \$1, Under 12 free; e-mail: ghonas@sbcglobal.net

20-22—SOUTH JORDAN, UT: Wasatch Gem Society, Salt Lake County Equestrian Park & Events Center; Fri. & Sat. 10-6, Sun. 10-4; \$2, Under 13 free; Website: wasatchgemsociety.com

20-22—OCEAN CITY, MD: Treasures of the Earth, Inc., Roland E. Powell Convention Center; Fri. 12-6, Sat. 10-5, Sun. 10-4; \$5, Under 17 free; Website: www.TreasuresOfTheEarth.com

21—SEVERNA PARK, MD: Patuxent Lapidary Guild, Inc, Earleigh Heights Volunteer Fire Hall; Sat. 10-5; \$6, Children Free; Website: www.patuxentlapidary.org

21-22—KENNEWICK, WA: Lakeside Gem & Mineral, Benton County Fairgrounds; Sat. 10-5, Sun. 10-4; \$5, Under 13 free; contact Mary Lou Omstead, (509)-783-2798

21-22—EAU CLAIRE, WI: Chippewa Valley Gem & Mineral Society, Eau Claire County Exposition Center; Sat. 9-5,

Sun. 10-4; Free; e-mail: bizpam1@charter.net

21-22—NEWBURY PARK, CA: Conejo Gem & Mineral Club, Borchard Park Community Center; Sat. 10-5, Sun. 10-4; Free; Website: www.cgamc.org

21-22—IDAHO FALLS, ID: Idaho Falls Gem & Mineral Society, Idaho Falls Recreation Center; Sat. 10-6, Sun. 10-5; \$3, Under 13 free; Website: <http://ifrockhounds.com>

21-22—WEST PALM BEACH, FL: Frank Cox Productions, So. Florida Fairgrounds; Daily 10-5; \$7, Under 16 free; Website: frankcoxproductions.com

21-22—THOUSAND OAKS, CA: Conejo Gem & Mineral Club, Borchard Community Center; Sat. 10-5, Sun. 10-4; Free; Web site: cgamc.org

27-28—ADA, OK: Ada Gem, Mineral, & Fossil Club, Pontotoc County Agriplex; Fri. 8-6, Sat. 9-5; Free; e-mail: bobby.freeman@chickasaw.net

27-29—PORTLAND, OR: Mt. Hood Rock Club, Jackson Armory; Fri. & Sat. 10-5, Sun. 10-4; Free; Web site: www.mthood

rockclub.com

27-29—IRVINE, KY: Mountain Mushroom Festival, Estell County School; Fri. & Sat. 9-6, Sun. 10-5; Free; Website:

www.mountainmushroomfestival.org

27-29—YAKIMA, WA: Yakima Rock & Mineral Club, Central Washington State Fair Park; Fri. & Sat. 0-6, Sun. 10-4; \$4, Students \$2, Under 15 free; Website: www.yakimarockclub.com

27-29—SANTA ROSA, CA: Gem Faire Inc, Sonoma County Fairgrounds; Fri. 12-6, Sat. 10-6, Sun. 10-5; \$7, Under 12 free; Website: <http://www.gemfaire.com>

28—CORNVILLE, AZ: Verde River Rockhounds, Windmill Park; Sat. 9-5; Free; Website: <http://www.verderiverrockhounds.com>

28-29—TROY, OH: Miami County Gem & Mineral Club; Miami CoFairgrounds, Sat. 10-6, Sun. 10-4; \$2, Srs \$2, Children free; Website: Miami County Gem and Mineral Club

28-29—CUYAHOGA FALLS, OH: Akron Mineral Society & Summit Lapidary Cluby, Emidio & Sons Expo Center; Sat. 10-6,

Sun. 10-5; \$5, Srs/Students \$4, Children \$1; Website: gemboree.org

28-29—RENO, NEVADA: Reno Gem & Mineral Society, Inc., Reno Livestock Event Center; Sat. 10-5, Sun. 10-4; \$6, Srs/Students \$4, Children free; Website: www.renorockhounds.com

28-29—SEATTLE, WA: West Seattle Rock Club, Alki Masonic Temple; Sat. 10-5, Sun. 10-5; Free; Website:

www.westseattlerockclub.org

28-29—ELMA, WA: Grays Harbor Gem & Mineral Club, Elma County Fair & Event Center; Sat. 10-5, Sun. 10-4:30; Free; -mail: Melissa624@hotmail.com

28-29—MEMPHIS, TN: Memphis Archeological & Geological Society; 7777 Walnut Grove Rd; Sat. 9-6, Sun. 10-5; \$5, Children \$2; Web site: www.theearthwideopen.com

28-29—FRANKLIN, NJ: NJESA, Robert E. Littell Center; Sat. 9-5:30; \$6, Under 14 free; e-mail: RNB515@aol.com

28-29—SANTA CRUZ, CA: Santa Cruz Mineral & Gem Society, Santa Cruz Civic Auditorium; Daily 10-5; \$1; Website: <http://www.scrockngem.org>

Agates of different colors seem to have association with various physical and mental properties. Every color of agate has certain features and hence those who wear agate, look out for the appropriate color to address their needs. This gemstone is considered to be a great gemstone for conditions related to pregnancy and it is said to protect the mother and the child.



Science Museum of Minnesota Offers Opportunities at the Hill Annex Mine

The Science Museum of Minnesota has many opportunities for volunteers to work as field crew at the Hill Annex Mine, near Calumet.

Tentative dates are April 21, 22, May 19, 20, June 23, 2, 25, Jul 6, 7, 8, July 21, 22, August 11, 12, and August 24, 25, 26.

The Hill Annex Mine is also looking for fossil interpreters for their fossil tours, which are available every Friday and Saturday from Memorial Day weekend through Labor Day weekend. Stipends are paid for these guides.

If you would like more information or are interested in helping with field trials or tours, please contact John Westgaard, Paleontology Volunteer Project Lead/Research Collection and Preparation at the Science Museum of Minnesota, 120 West Kellogg Boulevard, Saint Paul, MN. 55102, jwestgaard@smm.org, (651) 221-9405.

The website for the Museum is smm.org/hill.

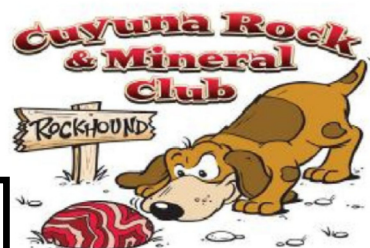
Pebble Pups Day Camp

Do you love rocks? Come find

Friday, June 8: 8:30 to 4
Franklin Arts Center, lower level
1001 Kingwood St., Brainerd &

Saturday, June 9, 9-12
Lake Superior agate pick
Brainerd area location

\$25/non-member; \$10
2nd/3rd sibling; \$15 member



Ages groups: 6-9 and 10-12.

Snacks provided.

Bring own lunch & beverage;
refrigeration available.

Do you love rocks? Come find out what rocks are in Minnesota.
Learn how to pan. Wire wrap your own necklace.
And there's more!

Do you have a mystery rock?
Bring it for the Wizard of Rocks to identify!

For more information or to register:
www.cuyunarockclub.org, 320-250-8120, or 218-831-2665.

Sponsored by the Cuyuna Rock, Gem, and Mineral Society

***Club members have the opportunity to sign up first,
beginning at the April meeting. Forms will be available then,
and after the meeting on the website.***

16th Annual

2018 Cuyuna Agate & Mineral Show

Saturday, May 5, 9-5

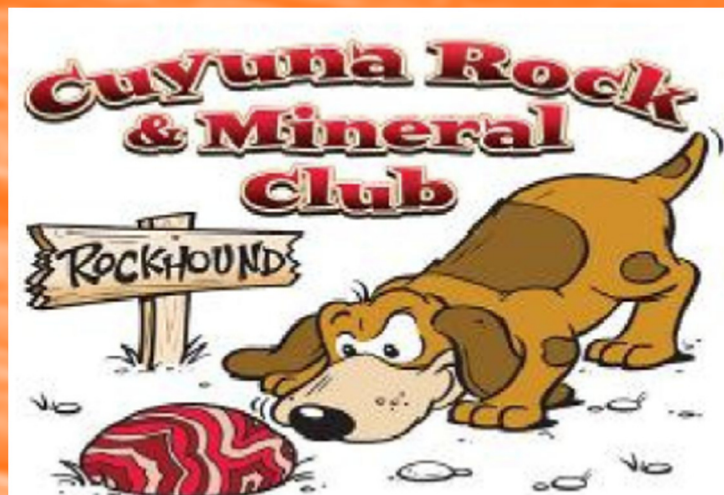
Sunday, May 6, 10-4

Rain or Shine

Crow Wing County Fairgrounds

2000 S.E. 13th St.

Brainerd, Minnesota



**Featuring vendor
Krystle Dorris
from the TV Show
The Prospectors.**

**Over 60 Vendors
Inside & Outdoors**

**Handcrafted Jewelry ♦ Crafts
Unique Décor Items ♦ Art
Door Prizes ♦ Specimens
Displays ♦ Kids' Corner
Silent Auctions
Minerals ♦ Crystals
Rock Cutting ♦ Geode Cracking
Ask the Wizard of Rocks
Rough Rock ♦ Flint Knapping**

Admission \$1 Donation Kids free on Sunday!
Free polished stone to first 1000 on Sunday!

***For more information or to reserve space:
call Sharon Smith at 218-343-7037
or email: Sharon@agatesrock.com***



**Member
MW Federation of Mineralogical & Geological Societies
American Federation of Mineralogical Societies**



ATM on site

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FIRST CLASS MAIL



The Agate Explorer

April 2018

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Members of AFMS & MWF



Notes from the President

This time of the year it's all about the show. We are working on the layouts inside and outside, checking things off the show preparation list, coming up with new places to advertise and contacting newspapers, radio stations, and schools. Then, Marcia and I have both inside and outside booths at our show so we have a long to-do list: cutting, polishing, tumbling, and creating. We brought home hundreds and hundreds of pounds of rocks we found and bought. Wait until you see them! I am especially proud of an agate I found in Arizona, that is REALLY spectacular. I have been calling it my triple homerun because I was so excited. It is perfect, with no fractures, tight, colorful banding, with shadows and "snowflakes."

Are you doing your part for the show by signing up to help? There are jobs that everybody can do before, during, or after the show. PLEASE help. If everyone takes a turn not one gets exhausted and everyone can see the show.

And even though there is still snow on the ground, spring will come, and I'm antsy to get out looking for Lakers. I'll bet you are too. NO ONE has suggested any places near Brainerd to look, so at this point we have NO WHERE to go with the Club. Start networking and find somewhere for us to go!

Ed Opatz

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