



Lake City Rockhound News

Newsletter of the North Idaho Mineral Club, Inc.
P.O. Box 1643 Hayden, ID 83835

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We meet on the 3rd Thursday of the month at the Lake City Center, 1916 Lakewood Drive, Coeur d'Alene in the Library, from 6:00PM to 8:00 PM. Visitors and Guests are Welcome.
Our web site: <http://www.northidahomineralclub.com>

Contents

Meeting Information.....	1
Meeting Minutes.....	1
Diamond.....	1
Building A Mineral Collection.....	2
Lapidary Lovers Blog....	2
Eliminating Flats.....	2
Hints and Tips.....	3
Calendar of Events.....	4

This Month's Meeting

Regular Meeting – February 16, 2017

The Meeting Program:

Rock Identification – Bring your rockhounding knowledge

Refreshments: Corey Brenner and Marilyn Kohler

There will be a silent auction and scholarship raffle tickets will be sold.
Buy your tickets today.

Meeting Minutes

The NIMC meeting for January was canceled because of bad weather. There are no meeting minutes.



Diamond

by Amethyst Gallery - "First Internet Rock Shop"
<http://mineral.galleries.com/>

Diamond is the ultimate gemstone, having few weaknesses and many strengths. It is well known that Diamond is the hardest substance found in nature, but few people realize that Diamond is four times harder than the next hardest natural mineral, corundum (sapphire and ruby). But even as hard as it is, it is not impervious. Diamond has four directions of cleavage, meaning that if it receives a sharp blow in one of these directions it will cleave, or split. A skilled diamond setter and/or jeweler will prevent any of these directions from being in a position to be struck while mounted in a jewelry piece.



As a gemstone, Diamond's single flaw (perfect cleavage) is far outdistanced by the sum of its positive qualities. It has a broad color range, high refraction, high dispersion or fire, very low reactivity to chemicals, rarity, and of course,

extreme hardness and durability.



Diamond is the April Birthstone. In terms of its physical properties, diamond is the ultimate mineral in several ways:

Hardness: Diamond is a perfect "10", defining the top of the hardness scale.

Clarity: Diamond is transparent over a larger range of wavelengths (from the ultraviolet into the far infrared) than is any other solid or liquid substance - nothing else even comes close.

Thermal Conductivity: Diamond conducts heat better than anything - five times better than the second best element, Silver!

Melting Point: Diamond has the highest melting point (3820 degrees Kelvin)

Lattice Density: The atoms of Diamond are packed closer together than are the atoms of any other substance.

Diamond is a polymorph of the element carbon. Graphite is another polymorph. The two share the same chemistry, carbon, but have very different structures and properties. Diamond is hard, Graphite is soft (the "lead" of a pencil). Diamond is an excellent electrical insulator, Graphite is a good conductor of electricity. Diamond is the ultimate abrasive, Graphite is a very good lubricant. Diamond is transparent, Graphite is opaque. Diamond crystallizes in the

Isometric system and graphite crystallizes in the hexagonal system. Somewhat of a surprise is that at surface temperatures and pressures, Graphite is the stable form of carbon. In fact, all diamonds at or near the surface of the Earth are currently undergoing a transformation into Graphite. This reaction, fortunately, is extremely slow.

PHYSICAL CHARACTERISTICS

Color is variable and tends toward pale yellows, browns, grays, and also white, blue, black, reddish, greenish and colorless.

Luster is adamantine to waxy.

Transparency crystals are transparent to translucent in rough crystals.

Crystal System is isometric; 4/m bar 3 2/m

Crystal Habits include isometric forms such as cubes and octahedrons, twinning is also seen.

Hardness is 10

Specific Gravity is 3.5 (above average)

Cleavage is perfect in 4 directions forming octahedrons.

Fracture is conchoidal.

Streak is white.

Associated Minerals are limited to those found in kimberlite rock, an ultramafic igneous rock composed mostly of *olivine*.

Other Characteristics: refractive index is 2.4 (very high), dispersion is 0.044, fluorescent.

Notable Occurrences include South Africa and other localities throughout Africa, India, Brazil, Russia, Australia, and Arkansas.

Best Field Indicator is extreme hardness.



Building A Mineral Collection

by David F. English

From the 7/07 Mini Miners Monthly via Pick & Pack,
7/07 Via The Leverite News 10/07

When I choose a mineral specimen, either when I am trading or when I am buying, I find the following ideas give me a feeling of success.

First, I try to buy specimens that are not damaged. What is "damage"? Look for chips and places where the mineral has been banged up. Look all over the specimen. If the damage is hidden on the back of the specimen, it may not be a big deal. But, if the damage is on a crystal face or edge that is right in front, you may want to choose a different one.

Second, remember that this is your collection. The goal is to choose the specimen that looks good to you. This is your

collection. Collect the minerals that you enjoy. What looks good to you may not look great to another collector. That doesn't matter. What matters is that you are happy with your choice.

Third, you will have to learn by reading and by experience. The more you know about minerals, the more you will be able to identify a higher quality specimen. I find that a high price does not always mean the specimen is better. One year I saw magnetite crystals for \$30 on one table, and larger, better crystals for \$10 on another! Study mineral books, visit shows, go to mineral museums. The more you see and learn, the more expert you will become.

Good luck building your collection. I hope you will find it to be a rewarding experience.



Lapidary Lovers – a blog just for us!

Lapidary lovers now have a blog just for us! www.LapidaryWhisperer.com has just come online and I hope you will check it out. It's an online community for lapidary lovers where I'll post a new blog entry every other Wednesday.

Yes, rocks and slabs whisper and tell me what they want to be, then I commit lapidary on them to bring out their stories.

I'd love to hear what you think about the blog. Please write me directly at Donna@LapidaryWhisperer.com or directly on the blog.

Let's enjoy this wonderful art and craft together!

Your Lapidary Whisperer, Donna Albrecht



Eliminating Flats

by Ted Robles

Via The RockCollector 2/08

A while back, someone was saying that he was having problems with getting "flats" on his cabs, that there was

insufficient “give” in his wheels, and it didn’t seem to make any difference no matter how much pressure he applied. That was his first mistake.

Diamond and corundum are two different animals; relatively speaking, about the same difference as between quartz and chalk. If you “lean into” a diamond wheel, you will get lousy results (flats, etc.) on your stone, and your wheels will wear out long before their time.

On diamond, you try to do your cutting (and everything else) by almost not touching the wheel. Use essentially no force. Don’t “grind” the stone, let the diamond wear it away, but keep it spinning. The technique is simply to use the whole face of the wheel, and keep your cab moving. Any time you stop, you just bought a “flat”. Can’t help it!

It’s the same principle as sharpening a knife on an emery wheel. If you don’t want notches in your blade, you keep it moving. Do almost all of your cutting on the coarsest wheel you have.

If you leave any flats on the pre-form, you’re going to have them on the final piece...can’t help it.



Hints and Tips

When working with soft stone, such as alabaster, marble, onyx, howlite, or petosky stone, soak the stone in water for a day or two before cutting in oil. The oil will not soak in, and when polished, a better finish will result. (via Moroks, 7/99)

A fine chain necklace can be very frustrating when it knots. Put a drop of salad oil on a piece of waxed paper. Lay the knot in the oil and pick at it with two straight pins. It should come apart. (Back Benders Gazette, via Moroks, 7/99)

When you want two stones to be the same size and shape, glue a piece of paper between them then grind and shape. Soak the stones apart when finished.

To remove marking pens from specimen, make a small dike around the area using plumbers putty. Saturate a cotton ball with undiluted household bleach, and place cotton in the dike, making sure the bleach covers the stained area. Let it set for an hour or more. It will remove the stain. Do not leave the bleach on longer than necessary, as it may bleach color from the stone. Rinse. (Breccia, via The Prospector, 7/99)

To keep tools rust free, toss a piece of charcoal into your toolbox. (Roc Toc, via Moroks 7/99)

Slab Saw Coolant — When cleaning your slab saw you can put the mud from the bottom of the tank in a paper bag from the grocery store. Place the bag on a screen over a bucket or tub. The oil will seep through the bag and collect in the tub ready for reuse. After a few weeks the mud in the bag will be dried up and can be disposed of, bag and all. Some large saws have room at the rear where you can hang a muslin bag to put the sludge in. The oil then seeps through the bag and falls directly into the tank. The muslin bag will empty easily once the mud is dry and can then be reused many times. (Bill Deput, Mojave Desert Gem & Mineral Society)

Use a glass cutter to do your trimming of slabs. Saves your diamond saw blades for more detailed work. Use the one with the carbide wheel, not tungsten, (available at Sears), put a good solid handle on it so you can bear down hard, then use pliers to break the slab along the score line. (via Rock Lore, and others, via Midwest Federation Newsletter 10/93, via The Glacial Drifter 10/99)

Lapidary Word Find

Find the following words in the grid. They can be horizontal, vertical, diagonal or reversed.

AGATE, CARNELIAN, CHALCEDONY, FLUORITE, GARNET, GEODE, HEMATITE, JADE, JASPER, MALACHITE, MOONSTONE, OPAL, PERIDOT, QUARTZ, SARDONYX, SERPENTINE, SODALITE, TOURMALINE, TURQUOISE, ZOISITE

A	X	V	Z	Y	P	L	Z	N	Z	D	Z	U	T	I	W	E	H
Y	I	G	A	R	N	E	T	C	G	U	X	H	Q	H	L	I	F
P	E	R	I	D	O	T	F	A	V	K	P	Y	L	O	L	L	T
R	I	S	C	A	L	M	A	L	A	C	H	I	T	E	U	E	I
E	Q	A	N	A	I	L	E	N	R	A	C	J	V	O	Q	Y	D
N	S	A	R	D	O	N	Y	X	Z	V	A	P	R	C	W	C	B
I	R	P	K	H	C	I	D	O	M	D	R	I	S	X	E	D	N
T	U	E	S	D	B	Z	I	D	E	S	T	G	S	C	N	T	W
N	A	G	P	S	Q	S	A	J	E	E	V	O	Y	E	I	N	V
E	G	V	E	S	I	U	G	U	Z	Z	D	M	X	T	L	P	H
P	R	U	E	T	A	S	A	G	G	A	R	X	W	I	A	Z	C
R	W	Q	E	N	R	J	T	R	L	E	T	T	D	T	M	L	H
E	E	F	K	K	D	Z	E	I	T	G	O	U	B	A	R	A	F
S	N	L	I	W	Z	A	T	L	Z	Z	K	D	O	M	U	P	G
F	H	G	F	P	D	E	C	Z	O	O	Q	W	E	E	O	O	R
D	P	Y	D	G	E	N	O	T	S	N	O	O	M	H	T	H	H
N	G	M	Z	A	Y	C	H	A	L	C	E	D	O	N	Y	G	A
Y	T	X	Z	D	D	E	K	E	S	I	O	U	Q	R	U	T	L

North Idaho Mineral Club
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First Class Mail

NIMC Officers			
President: Marilyn Kohler (208-967-2545)			
Vice-President: Mike McConnell (406-360-4944)			
Treasurer: Carl Chapin (208-772-9049)			
Secretary: Diane Rose (208-659-6173)			
Other Positions			
Show Chair 2017: Dale Ruperd/Dean Hutchinson			
Newsletter: Michael Burton (208-772-9347)			
Federation Director: Dale Ruperd			
Federation Delegate: Bill Johnson (208-765-3099)			
Webmaster: Michael Burton			
Programs/Membership: Bev Bockman (208-773-5384)			
Affiliations			
AFMS – American Federation of Mineralogical Societies			
NFMS – Northwest Federation of Mineralogical Societies			
S.C.R.I.B.E.			
ALAA – American Lands Access Association			
Gem Show Schedules			
Mar 11-12	10:00-5:00 10:00-4:00	Magic Valley Gem Club	Twin Falls Cty Frngds, 215 Fair Ave, Filer, ID
Mar 24-26	10:00-6:00 10:00-6:00 10:00-4:00	Rock Rollers Club of Spokane, WA	Spokane Cty Fair & Expo Ctr, N. 604 Havana, Spokane, WA
Mar 25-26	10:00-6:00 10:00-5:00	Mt. Baker Rock & Gem Club	Bloedel Donovan Comm Ctr, 2214 Electric Ave, Bellingham, WA
Apr 7-9	9:00-6:00 10:00-6:00 10:00-4:00	Golden Spike Gem & Mineral Society	Golden Spike Ctr, Weber Cty Frgnds 1000 N 1200 W, Ogden, UT
Apr 8-9	9:00-6:00 10:00-6:00	Maplewood Rock & Gem Club	Maplewood Rock & Gem Clubhouse, 8802 196 th St SW, Edmonds, WA
Apr 22-23	10:00-6:00 10:00-4:00	Yakima Rock & Mineral Club	Centrl WA St. Frngds, 1301 S. Fair Ave, Yakima, WA
May 6-7	10:00-6:00 10:00-5:00	Everett Rock & Gem Club	Everett Comm. College, 2206 Tower St, Everett, WA
May 6-7	9:00-5:00 10:00-4:00	Umpqua Gem & Mineral Club	Douglas Cty Frngds, I-5 Exit 123, Roseburg, OR