

# Littleton Gem and Mineral Club

## November 2020 Highlites Newsletter.



November Program: Ed & Susan Wakefield, Arkansas quartz at the Ron Coleman and Phantom Mines

## President's Message

November 2020

This month's virtual General Meeting presentation, on Nov. 20, will be hosted by LGMC members Ed & Susan Wakefield. They will discuss their field trip seeking beautiful Arkansas quartz at the Ron Coleman and Phantom Mines as well as others in the area. Ed & Susan had several other LGMC members joining them for parts of the trip so it should be an interesting story. We'll send an email to all members with the Zoom meeting link prior to the meeting.

We continue to look for volunteers for the 2021 LGMC office positions. We have openings for President, Vice-President, President-Elect as well as field trip leaders. If you are interested in a volunteer position contact me at [rwankner@msn.com](mailto:rwankner@msn.com)

Fall is a good time to start cabbing and faceting or start learning how. If you'd like to learn about these crafts you should consider joining the Cabbers and Faceters group meetings. John Kleber and other members have a wealth of knowledge that they share every month. If you're interested contact John or me about the next meeting.

Thanksgiving is just around the corner and I hope that everyone enjoys the holiday in a fun and safe manner. This year I'm especially thankful for finding creative ways to have fun and being surrounded by positive, supportive friends, family and club members.

Ron Wankner

President LGMC

## Selected upcoming LGMC and Earth Science Events

**November 17th** **Faceters and Cabbers** - The Faceters and Cabbers group continues to use Zoom for our regular monthly meetings. Our next meeting will be on Tuesday evening, November 17th, at 7:30pm. Two topics picked for November discussion are turquoise as the cabbing material and spodumene as the faceting material. We will not be meeting in person for now. If you would like to join our group, and are not on our email list, contact me at [jkleber@att.net](mailto:jkleber@att.net) for the meeting information.

**November 20th** **LGMC November Meeting**, at 7:30pm via Zoom, a link will be sent to your email.

# Grab Bag News



## November Grab Bag News

If you would like to sew some bags while stuck at home, contact Lynette Warren at [flywithle123@comcast.net](mailto:flywithle123@comcast.net) or 303-956-4634 if you need any information on that. We would welcome any that you can make during our time of social distancing.

If you have any specimens at home to donate for grab bags, let me know and I can arrange to pick them up. I can also arrange for supplies if you need any. Contact John Kleber at [jkleber@att.net](mailto:jkleber@att.net) or 303-570-8164 to make arrangements.

The Bag Party Lady and the Bag Beggar  
Lynette Warren and John Kleber

# Geology Corner



## *Diamonds in Colorado! The State Line Kimberlite District, Colorado & Wyoming, USA*

While small compared to the great diamond-bearing kimberlite pipes of the African continent or more recent discoveries in northern Canada, Colorado is nonetheless endowed with a relatively substantial kimberlite district, many of which contain diamonds. With a history of exploration spanning a mere ~45 years, the Stateline District of northern Colorado and adjacent southeastern Wyoming is an exciting target for future diamond exploration, as well as a window for petrologists into the lower crust and mantle beneath the Wyoming craton province. Gem-quality diamonds up to 28.3 carats have been found in the Stateline District, most notably from the Kelsey Lake Mine, a cluster of 8 diamondiferous pipes near the Wyoming border and the only deposits in the Stateline District to have achieved commercial diamond production. (*Rocktalk* Vol. 3 #2, 1999). Additionally, near flawless stones up to 14+ carats have been found at several other nearby deposits, valued at up to \$350,000 each in modern terms (*The Business Report*, 2000). While most kimberlite pipes in the Stateline District do contain diamonds, relatively few of those tested were shown to be of economic diamond grade. However, diamond grades of up to 100 carats/100 tons of kimberlite (1 carat/ton) were found in several pipes, which is considered competitive with larger deposits in countries such as Russia and Australia (McCallum & Waldman, 1991).



While diamond exploration has only occurred in the Stateline District since the early 1970's, in this brief time there have been instances of helicopters carrying field geologists narrowly escaping gunfire from armed cowboys, speeding oil tycoons en-route from Denver International Airport to the new 'diamond fields of Colorado', and ex-military guards with Kalashnikov's roaming the scrubby pine forests of far Northern Colorado (*Krajik*, 2001). However, when it comes to the timeless allure and obsession with diamonds, one perhaps should expect no less.

### **Introduction and Geologic Overview**

The Stateline Kimberlite District is hosted within the Archean age (~2.7 Ga) Wyoming Craton, and is the largest concentration of kimberlite and lamproite pipes in the United States (Hausel, 1998). As of 2003, more than 15,000 carats of diamond have been recovered in the District, placing it ahead of Murfreesboro, Arkansas as the most productive diamond district in the United States (Coopersmith et al. 2003). Diamonds from Colorado are typically

sharp to rounded octahedra, occasionally showing cubo-octahedral modifications, and are generally white to clear, though fine canary-yellow to brown stones have also rarely been found (Hausel, 2010). Many Colorado diamond crystals show fascinating resorption patterns, etched faces, and triangular facets, often telling of the conditions they were formed in (Falk, 1992). The Wyoming Craton, part of the core of the ancient North American continent, covers a large portion of Colorado, Wyoming and adjacent states, but is only exposed over small areas, due to a thick cover of Paleozoic and younger age sediments which fill basins between these exposures (Houston et al., 1979). Within the Wyoming craton, the State Line Kimberlite district is hosted by the Green Mountain terrane, a slightly younger basement complex on the southern edge of the craton, consisting of 1.9-1.6 Ga gneisses and schists which are locally intruded by rocks of the 1.4 Ga 'A-Type' Sherman granite (Coopersmith et al. 2003).

The Kimberlites and associated diatremes (pipe-like volcanic intrusions which sometimes host diamonds) have been dated most recently by Carlson et al. (2004) and Lester et al. (2001) as having a relatively broad temporal spectrum, ranging from ~380 Ma for the Sloan kimberlites to 620-640 Ma for the Chicken Park pipes. This broad age range is inferred to represent intermittent faulting and zones of deep-seated structural weakness within the evolution of the interface between the Wyoming Craton and the younger Proterozoic Yavapai province to the south, which allowed diamond-bearing kimberlites to erupt to the surface (Carlson et al. 2004).

Kimberlites themselves are best thought of as carrot-shaped bodies composed of an exotic breccia of various rock types from the surface all the way down to the upper mantle of the earth. In the Stateline District, these pipes typically originated from a depth of 85-150 km. below the surface (Hausel, 1998). It is at these tremendous depths and pressures (900-1300°C / >50 KPa) that diamonds can form from carbon (*Rocktalk, 1999*). It is important to remember that diamonds are not an essential component of these kimberlite pipes themselves- rather, they are found in 'accidental' rock inclusions called *xenoliths*, which can be thought of as a sort of 'raisin in the pudding.' These mantle xenoliths are 'brought along for the ride' as a diatreme begins its long path through 100+ km. of crust to the surface of the earth. These xenoliths typically consist of rocks such as ilmenite, eclogite, peridotite, websterite, dunite and harzburgite. These are all essentially high-pressure, high-temperature rocks of the lower mantle and upper crust, and have common geochemical and petrogenetic features. While these rocks sound quite exotic to the average mineral collector and are rarely seen at the surface, they are in fact major bulk constituents of the earth. So, in a sense diamonds are not actually all that rare, if one were to travel to a depth of 100+ km. beneath the 'root zone' of a large craton, it's just unusual that they make it to the surface where we can collect them (Hausel, 1998).

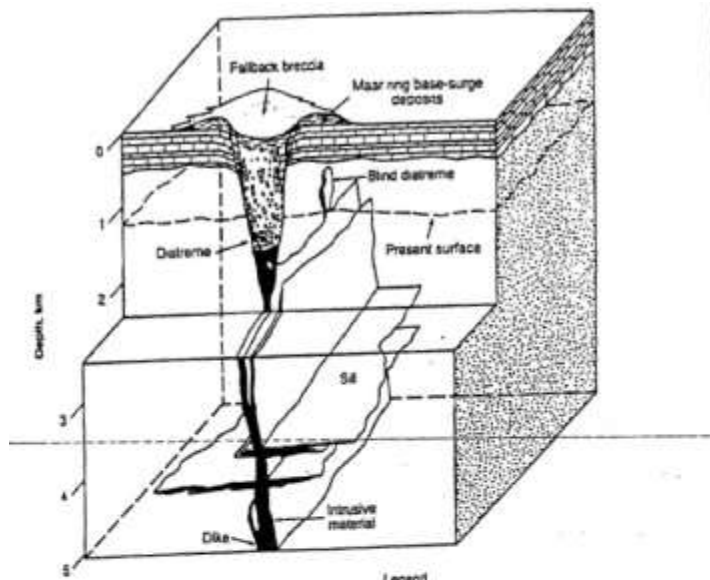
### **Other Notable Diamond-Bearing Kimberlites of the Stateline District**

**Chicken Park Kimberlite Group:** The Chicken Park Kimberlite complex is a swarm of several small diatremes in the SW section of the Stateline District, discovered in 1980. These diatremes were dated at ~614.5 Ma, which is older than most of the Devonian-age kimberlites of the district (Heaman et al. 2003), and consist of a highly autolithic breccia containing abundant ilmenite xenocrysts and secondary green serpentine veins. During bulk sampling of the largest pipe, CP-1 in the early 1980's by Cominco & Superior Oil, an irregular 2.7-carat gem crystal was found, and an approximate diamond grade of 7-8 carats/hundred tons (cpht) was established (Coopersmith et al. 2003). Many diamond crystals from Chicken Park show deformation features, as well as extreme late-stage surface etching and resorption of faces (Falk, 1992).

**Sloan Diatremes:** This series of 5 kimberlite pipes, amongst the largest known in the Stateline District, intrude the 1.4 Ga Log Cabin Granite, part of the Sherman pluton, and consist of diatreme to hypabyssal-facies kimberlite and kimberlite breccia (McCallum, 1991). The largest 2 pipes, Sloan 1 and 2, cover a surface area of ~500 x 1800' 200 x 2000', respectively. These irregular intrusions are believed to be structurally controlled by the intersection of nearby faults (Hausel, 2010). They are noteworthy in their abundance of xenolithic inclusions, ranging from large car-size blocks of Precambrian granite and younger Paleozoic sediments to the more desirable diamond-bearing mantle rocks such as garnet peridotite. Additionally, large xenocrysts of attractive 'indicator' minerals such as wine-red pyrope garnet (many of the G-9/G-10 diamond stability field) and emerald-green Chrome Diopside have also been found (McCallum, 1991).

The Sloan 1 & II diatremes were extensively sampled in the 1980's and early 1990's by Superior Minerals and Cominco American, and were again sampled by Royalstar Resources of Canada and the DiamondEx Corporation

from Australia, as recently as 2006 (Hausel, 2010). While numerous diamonds were found, including a 5.51 carat gem-quality crystal, the very small average size of these stones (<.1 carat average) as well as low grade (.01-.6 carats/ton but typically on the low end of this scale) precluded a full-scale mining effort (Hausel, 1998). Interestingly, the Sloan 1 diatreme was actually the first-place kimberlite was recognized in the Stateline District. In 1964, Dr. M.E McCallum of the USGS visited a small quarry in the pipe, where ‘terrazzo stone’ for local buildings was being quarried by a local sand & gravel company. This ‘terrazzo stone’, actually diamond-bearing kimberlite, can be seen in such places as the men’s room of the Cheyenne, Wyoming airport! (Krajick, 2001)



Smith, C. B., M. E. McCallum, R. G. CooperSmith, and D. H. Eggler, 1979. Petrochemistry and structure of kimberlites in the Front Range and Laramie Range, Colorado-Wyoming, pp. 178-189 in F. R. Boyd and H. G. A. Meyer, Eds., *Kimberlites, Diatremes, and Diamonds: Their Geology, Petrology, and Geochemistry*, Washington D. C.: Amer. Geophys. Union, 400 pp.

Typical Kimberlite Deposit near Kelsey Lake

According to Frank Yaussi (personal comm., 1978), quarrying operations from the Sloan I diatreme had terminated in 1960 as the tile company refused to purchase any more of the ‘terrazzo’ stone from the Sloan Quarry, as small diamonds in the kimberlite, unknown at the time, were damaging their tile-cutting equipment! A small test diamond processing mill, the first such facility in North America, was built near the Sloan pipes in the early 1980’s by Superior Minerals. While samples from the Sloan pipes proved ultimately disappointing, some of the first bulk kimberlite samples from Chuck Fipke’s fabulously rich diamond discovery in Northern Canada were processed at this mill, the only one of its kind in North America in the late 1990’s (Hausel, 2010). While it is doubtful that the Sloan pipes will ever economically produce diamonds, the abundant small gem-quality crystals of chrome diopside and violet to red pyrope garnet may hold some potential as faceting material.

While this article focuses of diamond occurrences within Colorado, there are several noteworthy diamond-bearing kimberlite pipes just across the Wyoming border from the Kelsey Lake mine, including the Aultman, Ferris, & Schaffer pipes. The Aultman & Schaffer pipes were bulk tested by Cominco in the early 1980’s, yielding ~50% gem quality stones up to .985 carats (Hausel, 2010). No further development has taken place on these deposits. Excellent mantle xenolith nodules have also been found

in these pipes, containing unusual minerals and some small gem-quality examples of pyrope garnet and chrome diopside. Other small diamond-bearing pipes in the district include the Nix, George Creek, Diamond Peak, and Moen kimberlites. Many of these have not been sampled beyond surface float collecting and perhaps some shallow trenching in the 1980’s and 90’s.

### Conclusion and Outlook

In a relatively short ~50-year period, Colorado and Wyoming have produced a flurry of diamonds, including large, significant gems, but relatively little in the way of organized large-scale mining or exploration has taken place. Modern tools such as ‘Google Earth’ allow the average prospector to use high-resolution aerial imagery to spot distinctive cryptovolcanic structures from above, which may indicate a buried kimberlite pipe. Indeed, a quick scan of the Stateline District by *Google Earth* reveals a number of these potential structures, and future prospecting will probably lead to additional exciting discoveries. While some petrologists believe that the Stateline District is unlikely to host large, economic diamond deposits due to the relatively recent deformation and disturbance of the Wyoming craton as recently as ~1.4 Ga (for comparison, the Kaapvaal Craton in South Africa is 2.5-3.6 billion years old), the number of kimberlites in the district, their geochemistry, and the diamonds found all indicate this is still an exciting exploration target and a possible source of true ‘American Diamonds’ for the next generation.

# Field Trip Photo's

## SUMMARY OF 2020 LGMC FIELD TRIPS

As you all are painfully aware, 2020 has been a very challenging year. We tried to make it a little bit more enjoyable by including 8 Field Trips scattered from June through October. Here is a brief highlight of these trips.

After carefully considering the pros and cons of scheduling club field trips, we decided to go ahead and plan a limited number of trips, with a strict following of the recommended guidelines for groups to minimize the spreading of the COVID-19 virus. Everyone cooperated extremely well, and, to my knowledge, there have not been any reports of people getting sick after all 8 trips.

Thanks everyone!

Jim Hooten

### **Devil's Head, on June 13, 2020**

The **Devil's Head** trip was the first one, and it was attended by approximately 11 members. Travis Leach and Stacey Lestina led the trip on a beautiful spring day. They took everyone to a new collecting locality a few miles on down the Rampart Range Road from where the club normally collects. This former area has had so many new mineral claims filed recently that it is difficult to dig without trespassing on someone's claim. Regardless, everyone still had a fun day and there were even a few instances of some quartz crystals being found.



Stacy Lestina



Nick Kimber



Travis Leach

## Smoky Hawk June 19, 2020

Despite a threatening weather forecast, and a cloudy morning, there were still about 20 club members who participated in this dig. Thanks again to Joe Dorris for again making this available to us. Those who did make it were rewarded with a great time, at least for about 4 hours. Dark clouds and light rain moved in around 2:00 PM, but before then everyone was able to collect some amazonite and smoky quartz specimens, and even watch Joe and his team clean out a nice pocket that they had opened up earlier. Ron Wankner found a beautiful single amazonite crystal which was one of the better finds of the day. As usual, Joe had some great specimens available at discounted prices, which many club members took advantage of to add to their collections. Very pleased with the turn out, especially considering that this trip had to be scheduled on a Friday.



Carol Nielsen-Alt



Ron Wankner (with nice amazonite)



Jim Hooten



Ann Wankner

## Hartsel Barite trip, June 27, 2020

No problem with the weather on this trip. A beautiful day in South Park Basin to collect blue barite, and all 12 club members who attended were able to do just that. As usual, there was ample barite for everyone to go home with many fine specimens. Ron Wankner found a number of great barite crystals and crystal clusters, as did Willard Lewis. This trip is always great fun, as you are guaranteed to find some barite specimens to take home.



Ron Wankner (with nice Barite crystal).



Ron & Ann Wankner  
(with Nancy Kimber in  
background)



Ron & Ann Wankner and Chuck Borawa

## Topaz Mountain July 11, 2020

Again, a sketchy weather forecast for the day kept a number of previously signed-up members from attending. Nevertheless, there were still 18 members who showed up. As it turned out, the weather cooperated, and everyone was able to collect until 4:00 PM when the area was closed. A number of freshly dug piles of gravel were made available for people to dig through, and there were quite a few topaz specimens that were found. One of the nicest, if not the best of the day, was a beautiful clear-yellow topaz found by Doug Mazezka. Doug and his son, Matthew, were very excited with the stunning topaz crystal. Joe Dorris introduced everyone to the claim (there were a number of first-timers), and everyone left for the day with their large bag of stream gravel with included topaz specimens (for the required \$50 fee---well worth the price). Never did get the forecasted rain.



Doug Mazezka's nice topaz



Matthew Mazezka & dad, Doug and Nick  
Warren



Rachel Warren



Hedy Anselman & Lynette Warren



David Deard and Christine Spitznagle

### Montana Trip July 24-28, 2020

A fun 4-day trip to Beaverhead County, Montana was enjoyed by a small group of LGMC members. Participants included Lynette Warren, Ron and Ann Wankner, and Ed and Susan Wakefield (former Denverites who moved to Mesquite, NV, but are still club members). They actually brought along a member of their Mesquite Rock Club, so the total number of diggers was 6. During their time together, the group helped Ron and Ann celebrate their Wedding Anniversary. Ron and Ann also celebrated by finding a number of beautiful quartz crystals, clear and smoky and amethyst, with some even sceptered. Lynette found an especially interesting (and spirited) smoky quartz arrangement with multiple terminations. Apparently, everyone says that collecting in this area is getting more difficult, due to several factors, but that sure didn't appear to slow this group down as is evident by the beautiful assortment of crystals found. It's a long drive to this collecting locality, but well worth it. Way to go everyone.



Unusual cluster of smoky quartz crystals



Lovely scepter, faintly amethyst



Ann Wankner with nice quartz crystal



Ron Wankner, with nice amethyst



Susan & Ed Wakefield



## Magnetite Ridge July 25, 2020

Once again rain was in the forecast, but never really materialized, and the approximately 12 participants who made the trip were able to get in plenty of digging. This is another fun location to collect as everyone is assured of finding plenty of magnetite, some even in nice crystalline form. Jim Hooten led the trip and was excited to be able to bring along his son and grandson from Durango to join in the fun. They got into a really nice zone of magnetite crystals, small (about the size of a marble), but faceted on all sides. Again, everyone did their best to maintain social distancing, and even wore masks when necessary.



Small magnetite Crystal  
from location



Jim Hooten



Christine Spitznagle



Christine Spitznagle and Nancy Kimber



Ray Vigil



Sanya Richardson



Chuck Borawa and Willard Lewis

## Florissant Fossil Quarry September 26, 2020

This was a new adventure for the Club, both the location and the collecting target. The target was fossils (instead of minerals), and the location was immediately south of the tiny town of Florissant, CO. It is a private quarry, and is adjacent to the Florissant Fossil Beds National Monument. The quarry owners provided plenty of shale material for all their customers (as well as appropriate tools), and gave instructions on how to best split the shale to look for leaves, insects or fish. Most everyone found some leaves and other plant material. Jim Hooten split one slab of shale to reveal a nice 34 million-year-old spider. On another slab he found a well-preserved elongated rust-colored leaf. Although there was a small fee to collect (\$10 per person per hour), it was well worth it, and everyone had a great time.



Fossilized Leaf



Carol Nielsen-Alt; quarry employee; Lynette Warren, Danny and Brittany MacRostie,



34 million-year-old spider (both sides of split shale).

## Honey Bee/Queen Bee Club Claim October 17, 2020

This was the final club-sponsored field trip for the 2020 season. A good group of 10 club members made the trip, among which were a number of first-timers to our claims. Weather was chilly, but clear, but warmed up as the day progressed. Everyone found some nice specimens to take home, both on the surface and from digging. Greg Jensen found a nice plate of microcline crystals. Mike Sheehan found some good-sized smoky quartz crystals (2-inch diameter/5 inches long). Christine Spitznagle dropped down into a previously dug pit and pulled out some nice smoky quartz and feldspar crystals. All in all, it was a great day, and a great way to conclude our latest field season. Looking forward to next year, and a more “normal” field season and life! Everyone stay healthy in the meantime.



Greg Jensen

Ann Wankner and Nancy Kimber



Christine Spitznagle



Michael Sheehan



Paula Kautzman

## Calendar of Coming Earth Science Events!

**Nov. 19**, Colorado Scientific Society November Meeting. “The Rock that cried Silver Tears – The Early Jurassic Springdale Sandstone and its unusual precious metal mineralization at Silver Reef, UT, revisited”. Uwe KackCU Geological Science Colloquium (Online via Zoom - Wednesdays, 4 p.m.) see <http://www.colorado.edu/geologicalsciences/colloquium> CSU Dept. of Geoscience Seminars (online via Zoom - Fridays, 4 p.m.), see <https://warnercnr.colostate.edu/geosciences/geosciences-seminar-series/> Denver Museum of Nature and **Science, Earth Science Colloquium series**, VIP Room unless noted, meeting dates and day of the week vary. Museum admission is not required; see <http://www.dmns.org/science/research/earth-sciences/>

**Golden Beer Talks** , 2nd Tuesday, 6-8 p.m.), At Home Editions of Golden Beer Talks! These at Home Editions will include short videos providing an informational talk along with some details about local beers. “Golden’s grassroots version of TED talks, Expand your mind with a beer in your hand”. See <http://goldenbeertalks.org/> for more information.

**Rocky Mountain Map Society RMMS**; Denver Public Library, Gates Room, 3rd Tuesday, 5:30 p.m.), Online via Zoom until further notice. For further information see: <http://rmmaps.org/>

**Western Interior Paleontological Society (WIPS)**; WIPS has virtual meetings (rather than their usual meetings in person on the 1st Monday of the month, 7 p.m., in Petroleum Hall, Green Center, 924 16th St., Colorado School of Mines campus, Golden) See <http://westernpaleo.org/> for more info.

# Door Prizes

Make sure you attend this month's zoom meeting for a chance to win door prizes. Three names will be drawn each month. You could be the lucky winner!

## Congratulations to the October door prize winners:

Nancy Kimber- 1st  
Tammy- 2nd  
Ann Wankner- 3rd



(crocoite, pyrite and stibnite)



November door prizes:

# Club Announcements

## Welcome to our new members:

**Randy and Barbara Carlson**

## Moving? Change of Address, Email or Phone Number?

Ready to go paperless?

Please notify **Ian Duncanson** of any changes at [idunc@q.com](mailto:idunc@q.com) or 303-798-9174.

**Club Vests** Show your club support **Ian Duncanson** has club vests available for sale. Price includes vest, sewed on club patch (on back) and a club pin

- \$18 for small and medium sizes
- \$19 for large and X-large sizes
- \$20 for XX-large and XXX-large

*Do you know someone who could use some sunshine?* Nobody knows everybody. If you know of a club member or family who is having a health problem or other problem, and who could be encouraged by receiving a thinking-of-you card, please let us know so that we may encourage them. Send a note to our sunshine coordinator and let her know, **Lynette Warren**, [flywithle123@comcast.net](mailto:flywithle123@comcast.net).

## LGMC Website

**Our website has been updated!**

Please check out the new "Member" section of the website! We'll archive Newsletters, share photos, and get details of upcoming field trips.

To view the "Member" section, you must register as a member of the website:

<https://littletongemandmineralclub.com/register/>

As only LGMC members will have access to this material, we'll be checking your name against the current club roster, so if you haven't yet, reach out to Ian Duncanson to pay your 2020 dues!

Thanks,  
Gus



*Like us on FaceBook*

LIKE and FOLLOW us @LittletonGemAndMineralClub

**What are you working on?**

Send us what you are doing and we will include it in next month's newsletter.

[Jacobstammy80@gmail.com](mailto:Jacobstammy80@gmail.com)

Thanks to everyone who contributed to the newsletter! ~Tammy

<b>☞ 2020 Board of Trustees ☞</b>		
President	<b>Ron Wankner</b>	303-618-5549
Vice President and Membership Chairman	<b>Ian Duncanson</b>	303-798-9174
Secretary	<b>Larry Havens</b>	303-757-6577
Treasurer	<b>Lesley Sebol</b>	720-999-1372
President elect	<b>Ron Wankner</b>	303-618-5549
Program Chairman	<b>Brittany MacRostie</b>	630-699-2415
Field Trip Chairman	<b>Jim Hooten</b>	303-770-7177
Highlites Newsletter Editor	<b>Tammy Jacobs</b>	303-489-7525
Trustee (Year of 2019 as past President)	<b>Travis Leach</b>	303-887-9787
Trustee (2-year term 2019 & 2020)	<b>Lynette Warren</b>	303-956-4634
Trustee (2-year term 2018 & 2020)	<b>Charlie Wall</b>	303-933-0368
<b>☞ Chairpersons &amp; Appointed Officers ☞</b>		
Sunshine Chairperson	<b>Lynette Warren</b>	303-956-4634
Refreshments	<b>Anne Jenkins</b>	303-730-7696
Librarian	<b>Mary Davis</b>	303-680-5112
Historian	<b>Open</b>	
Facebook Editor	<b>Nicole Bolger</b>	720 344-5280
Hospitality	<b>Nick North</b>	303-840-1177
Grab Bags	<b>John Kleber</b>	720-851-8510
Web Administrator	<b>Gus Hansen</b>	480-489-3978
Show Committee Representative	<b>Lynette Warren</b>	303-956-4634
RMFMS & AFMS Representative	<b>Larry Havens</b>	303-757-6577
Denver Council Representative	<b>Nick North</b>	303-840-1177
Cabbers & Faceters Group	<b>John Revis</b>	720-569-6685
“ “	<b>John Kleber</b>	720-851-8510
Mineral Study Group	<b>Bob Zartman &amp; Nick North</b>	303-973-0405

**Meetings:** The Littleton Gem & Mineral Club meets the third Friday of each month, September through May, at the St Philip Lutheran Church, 7531 S. Kendall Blvd, Littleton, CO 80128. Doors open at 7:00 p.m. and the meetings begin at 7:30 p.m. All meetings are open to the public. Club and section meetings may deviate from their regular schedules due to holidays, shows, inclement weather, etc.

The Littleton Gem and Mineral Club is affiliated with the American Federation of Mineralogical Societies, The Rocky Mountain Federation of Mineralogical Societies, The Colorado Federation of Gem and Mineral Societies, and the Greater Denver Area Gem and Mineral Council.

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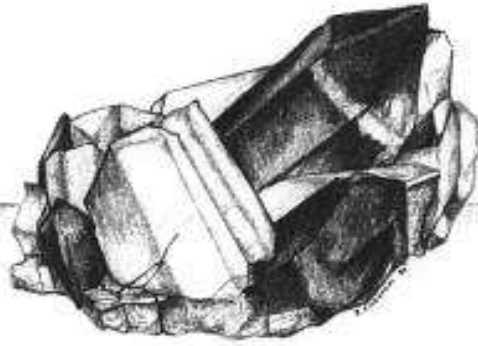
**\*\*The deadline for submissions is the 1<sup>st</sup> Friday of each month.** Please send your material by email to [jacobstammy80@gmail.com](mailto:jacobstammy80@gmail.com).

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# *HighLites*

LITTLETON GEM & MINERAL CLUB



HARRIS PARK AMAZONITE & SMOKY QUARTZ

LITTLETON GEM & MINERAL CLUB  
P.O. Box 283  
Littleton, Colorado 80160

FIRST CLASS MAIL

