

BOARD OFFICERS ELECTED

President	JEF WRIGHT until 5-31-21 or replaced
Vice President	VACANT
Secretary	Fred Floyd
Treasurer	Toni Floyd

BOARD OF DIRECTORS (APPOINTED)

CFMS Chairperson:	VACANT
Field Trips:	Melissa Takagi
Parliamentarian:	Chris Toft
Shop Coordinator:	Alan Mazzola
Program Chair	Karen Wagner
Show Chair	VACANT
Newsletter Editor	Carol Hiestand
Website:	Ian Burney
Membership Chair	Karen Wagner

STANDING COMMITTEES (APPOINTED)

Facebook Page	Admin
Ways & Means	Dawn Wright
Historian	Barbara Bury
Hospitality & Good Cheer	Judy Jessup
Meeting Displays	Barbara Bury
Picnic Coordinator	Moni Waiblinger
Refreshments	Dawn Wright
Redwood Rep	Barbara Bury
Librarian	Chris Toft
Calendar	VACANT

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Open Workshop began Monday, March 1st. The 3 hour sessions will be limited to 4 members and by appointment only. To request an appointment, you may email us at:

PalomarOpenWorkshop@gmail.com

OPEN WORKSHOP HOURS:

Monday 6:30p-9:30p

Tuesday 6:30p-9:30p

Wednesday 11a-2p

Thursday 1-4p

Covid Restrictions are still in place, temps will be taken, 6' distancing encouraged. Hand sanitizer available at shop. Please do not enroll or attend a session if you're sick!

SUCCESS!!! PGM's outdoor rock sale was successful in fundraising for the club on Feb. 21st. \$349.00 was raised selling rocks and slabs, and \$300.00 in 2 donations. Thanks to everyone who participated!!!

**COVID IS STILL IMPACTING US IN SAN DIEGO COUNTY;
WEAR A MASK (OR 2!) GET VACCINATED IF POSSIBLE!!**

**HAPPY BIRTHDAY TO MARCH BIRTHDAY
PEOPLE!!!**

Membership: Dues for the coming year will be voluntary. Members have the choice to pay dues or defer for the year. Your membership will continue until January 2022 when that years' dues will be requested.

FEES: \$25 for individuals (18 and older), \$40 for families with 2 parents, \$35 for single-parent families

Mailing address: P.O. BOX 1583, Escondido, CA 92033 Ph: (760) 743-0809

Credit card donations and dues payments, please call Toni Floyd: (425) 281-6218

CFMS show page was updated for June 2021

June 12-13, 2021, Escondido CA

Palomar Gem and Mineral Club

340 N. Escondido Blvd., Escondido CA 92025

Saturday – 10 AM – 5 PM, Sunday 10 AM-4PM

Palomar Gem and Mineral Show – presented by the Palomar Gem and Mineral Club. Held in the California Arts Centers museum and ballroom. A beautiful indoor facility. Secure for vendors and comfortable for attendees. 30-35 dealers.

Website: pgmcshow@palomargem.org

Gem show leaders

- Chair – Toni
- Vendors - Toni
- Sponsors– Archie
- Volunteers – Chris
- Vendor Floor map
- Advertising
- Printing advertising paper
- Demo coordinator
- Showcases recruitment and coordination
- Supply orders
 - Table covers
 - Wrist bands
 - Raffle tickets

Show day –

Friday

- Friday Vendor check in - Toni
- Electrical and Cases
- Table set up
- Show signs set ups

Saturday and Sunday

- Front door / cashier support - Toni
- Security

VOLUNTEERS NEEDED FOR OPEN SPOTS, PLEASE CALL OR EMAIL TONI OR CHRIS

THE CANADIAN KING - PART 3

By: Gene Ciancanelli

In Parts 1 and 2, This story began with a call from Ian Paisley of The Paisley Mining Group asking for my services to advise him regarding a purchase offer of \$50,000 from Franco Western Petroleum Company for the Howland lease, which is within Utah's Howland Geothermal Field. The Howland lease is owned by Huron Gold Mines Ltd., a company within the Paisley Mining Group. First there was a visit to Middleton, Utah where I met Jack Von Hoene, managing agent for the Ryan Estate, which was the original owner of the Howland lease. Jack accompanied me on a field inspection of what soon was to become the Howland Geothermal Field. I then advised Huron Gold to drill their own well in the Howland Field. I assisted Huron Gold with raising the drilling money through an IPO stock offering. A well was successfully drilled and completed resulting in Ian Paisley and his associates making millions of dollars.

STORIES ASSOCIATED WITH THE HOWLAND PROJECT

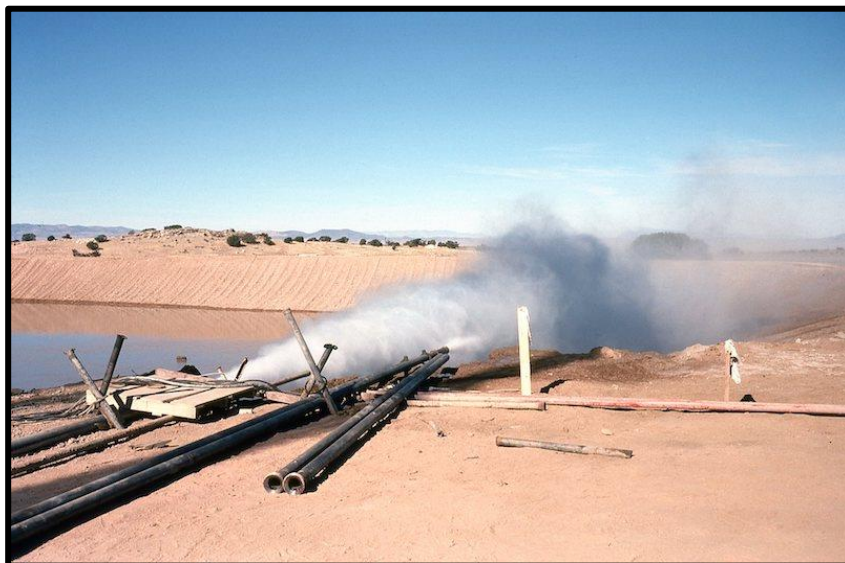
I went to Jack Von Hoene's house on my first visit to Middleton. It is 3 PM and after ringing the doorbell several times, I'm about to leave when the door opens. Standing there is a beautiful young woman in her early twenties wearing underwear and nothing else. (Girlfriend) *"Are you looking for Jack?"* (Gene) *"Yes"*. (Girlfriend) *"JACK, there's some guy here to see you."* Jack comes to the door in his bathrobe. I interrupted one of Jack's community charitable projects – keeping Middleton's young ladies entertained. During the 30 years that I knew Jack, he had 4 wives and a bevy of live-in girlfriends not counting his wives before we met. His life would have made an interesting novel. Jack was from New Orleans, but at the beginning of the Twentieth Century, his family moved south from the family farm in the upper Midwest. Jack still owned the family farm, which was leased to a Norwegian family. Jack was a southern gentleman with Norwegian sharecroppers.

Jack can't be faulted for pursuing amorous recreation in Middleton, because the town offers less than nothing to do. There are two bars and one restaurant, the Peking Café. The Peking advertises it serves Chinese and American food. Every Chinese dish is best described as "celery and goo". The American food is even worse. Steady patrons only eat enough to stay alive, because eating more will make you sick. On one occasion the restaurant is crowded when Keith and I arrive for lunch. Sitting down at the counter, there a dirty flyswatter lying in front of Keith. Clean cut Keith orders a bacon, lettuce, and tomato sandwich with no bacon. The sandwich plate is put down right on the fly swatter. Keith picks the flyswatter up and drops it on the floor. He then looks inside the rather skimpy sandwich. There is one small piece of lettuce and a single tiny 1/8-inch-thick tomato slice. Motioning for the counterman, Keith is not so bold as to ask for more tomato, he just asks for more lettuce. The sandwich reappears a few minutes later and still looks the same. Keith lifts off the bread to discover the original tiny lettuce leaf has now been cut into two pieces.

Frank Denton, Huron's vice president, arrives on a chartered plane with environmental scientists and engineers, from FTN Corporation. They have heard stories about the Peking Café and they all want to eat there. These beautiful pampered educated people consider this a colorful adventure including a chance to sample Middleton's ambience. They are warned not to eat too much food and to avoid certain dishes, which would make a Billy goat sick, but no one listens. In a few hours, these beautiful people are all bent over puking and soon they have to get into a small plane, for a bumpy flight over the mountains, back to Salt Lake City. Thankfully, Gene will not be flying on that plane. The environmentalists never make another visit to the project. With only a two-hour field visit, they manage to do all the environmental work and onsite research from FTN's comfortable offices.

THE HURON WELL TEST

In April, the Huron well is successfully flow tested. Test data are sent to DeGolyer and MacNaughton (D&M), the world's premier petroleum-reservoir engineering firm. The banks and financial institutions have great confidence in a favorable D&M report, which says the Huron well has the potential to generate 12 to 13 megawatts of electric power. It is the largest well in the Howland Field and among the largest geothermal wells in the world.



Flow test of the Huron well. The well was too powerful to fully open the valve for a total flow test. This is the well flowing at 25 percent total capacity.

THE PROSTEC CONNECTION

Huron convinced PROSTEC Exploration to purchase a one-sixth interest in the project. Huron is anxious to form a joint venture with PROSTEC to gain access to PROSTEC's "supposed" geothermal expertise. PROSTEC Exploration is a subsidiary of the PROSTEC Mining Company. Huron and PROSTEC have their roots in the mining business unlike most geothermal companies with ties to the oil business. They forge a close relationship as the blind lead the blind nowhere except to get poorer on each failed future project. Neither company will ever again have a successful project and both companies will cease to exist in about 10 years.

Dean Fenzel is PROSTEC Exploration's president. In December 1976, Dean and several senior staff members visit the Huron well. I'm showing them around and Dean says, *"We have just acquired the James Creek property from Geothermal Resources International (GRI) and have your map and report."* GRI owned the worthless James Creek property when I began working for that firm in 1968. I'm surprised to learn that GRI has paid lease rent on that worthless property for all those years, because I mapped and recommended dropping the property in 1969. Oddly, I was GRI's chief geologist for three years and never knew the company kept the property. (Dean) *"We are planning to drill a deep test well at James Creek and would like to talk to you about the property. How about if we take you to a steak dinner this evening in Prophet Town? We can discuss the project and get some information from you."* I'm thinking Middleton's Peking Café is awful so a good steak dinner in Prophet Town can't be passed up. That evening, I pile into the car with five PROSTEC men for the seventy-five-mile drive to Prophet Town. The restaurant is in an old brick building's second floor with parking in the building's rear. It is mid-week in the winter off-season and we are the restaurant's only customers. After enjoying wine and a nice steak dinner, the table is cleared and PROSTEC spreads out my old maps as we discuss the James Creek Project. I explain the recommendation to drop the property, because it almost certainly does not contain a geothermal reservoir. I was being honest with them, rather than extolling the project to get hired as a consultant. At about 11 PM, I excuse myself to use the restroom, which requires walking to the back of the restaurant and down a stairway to the building's first floor. Returning five minutes later, the restaurant is empty and the waiter hands me the bill. He says, *"Your friends said you are paying for dinner."* I'm surprised and angry, because PROSTEC invited me to dinner. It is a lousy thing for five guys from a big corporation to stick me with the bill after picking my brain all night for free advice. I pay the bill and walk outside into a snow

storm with three inches of snow on the ground. In the parking lot, I discover the car is gone. There are just tracks in the snow, where the PROSTEC gang drove off and left me stranded seventy-five miles from Middleton. It is past 11 PM as I walk back to the main street to rent a motel room for the night. There I discover that Prophet Town's two motels are closed. Standing in a dark empty street in a freezing snow storm, I decide to walk out to the highway to try hitchhiking back to Middleton. The highway, going north from Prophet Town, splits into two highways. The main highway goes to Salt Lake City and a secondary, little used highway, goes to Middleton. In this weather it will take hours to get a ride and no one will be going to Middleton. There is little traffic, as I stand hitchhiking in a blizzard shivering for almost an hour. Then a lone pickup truck stops. I'm thinking wherever this guy is going that's where I'm going. A miracle, thanks to Vulcan the god of geologists. The pickup's occupants, an elderly man and woman, are going to Middleton and I'm not going to freeze to death. PROSTEC drilled a dry hole at James Creek without employing my services, that gave me great pleasure. The PROSTEC geniuses would soon become experts at drilling dry holes.

THE ERDA LOAN GUARANTEE APPLICATION

By now, you're probably thinking, *"I'm glad I wasn't a victim of Huron"*, but your wrong. It does not matter if the Republicans or the Democrats are running the country. No matter how crazy, inept, crooked, and useless the purpose, either Party, with the help of the bureaucrats, can't resist giving away your money. At this time, Ronald Reagan was the president drinking your champagne and eating your oysters, steak, lobster, and caviar. I have seen the same stupidity done to us by every president from Nixon to Trump and now Biden has joined the gang.

Immediately upon completing the well, Huron and its partners decide to apply for a United States Energy Research Development Administration (ERDA) Loan Guarantee to further explore and develop their property. The loan guarantee is a new program and there is little precedent regarding how to prepare such an application. In actuality, this is not a "loan" but a "grant" because the money is never to be paid back. The partners hire FTN to prepare the application. FTN has no experience in geothermal energy or any projects involving exploration, drilling, and development. FTN is paid cash and a percentage interest in the project for their services. That is a substantial reward after most project risk has already been eliminated. In contrast, Huron pays only an hourly fee for my services and expertise to advise them to drill the well, raise project financing, supervise drilling operations, complete the well, prove the resource, assist in forming the development unit, and selling the lease to Franco Western for millions of dollars. FTN's staff begins preparing the ERDA Loan Guarantee Application and it becomes obvious FTN lacks expertise to prepare the document. The partners request I assist FTN's staff and I wrote the technical portion of the Loan Guarantee Application for which FTN eventually received an industry award. As usual, I got nothing.

During that time, I was invited to a cocktail party in Corona Del Mar, with all these beautiful stuffy academic people that I never enjoy being around, but business sometimes takes you to such places. At the party, a group of people are standing around listening to this strikingly beautiful young blond woman, with whom they are obviously impressed. Curious, I go over and hear her mention she is a geologist, who loves fieldwork because that is where "real geology" is done. She goes on to talk about the outdoors, the clean air, and the freedom. One thing you will never hear a real geologist say is, *"I love fieldwork"*. Geology is a nice way to make a living and it is never dull or routine, but you have to take the good with the bad. There are nice pleasant days in the field and then there are most days of excessive heat or freezing cold plus miles of walking and other discomforts including a lot of cuts, scratches, bug bites, cactus spines, sore feet, a dirty sweaty body, thirst, bleeding, and lunchtime dining from a can of sardines plus you're alone carrying a load of rock samples in the middle of nowhere. If you get hurt or in trouble, there is no one to help you and this goes on seven days a week. I'm listening to this geologist in a super model body and I realize her fieldwork is probably roadside geology from an air-conditioned vehicle, because it's late summer and she doesn't have a tan. So, I introduced myself as a fellow geologist and said, *"Can I ask you a question? How do you do field work and keep your hands, skin, and fingernails so perfect and flawless? I'm grubbing around in the rocks and dirt busting rock samples off outcrops and I have cuts, broken fingernails, scars, and calluses."* She replied, *"That is because you're not careful. When I pick up a rock, I'm careful how I touch and pick up the rock. I hold it with just my fingers so my*

hands don't get dirty and I rarely use a rock pick." I politely said, *"That's good advice, I'll have to try that?"* She smiled with a look of triumph and probably thought she taught that guy something. Now I knew she was not a real geologist, but an office geologist hoping to find a mine or oil well in the file cabinet or under her desk.

UNITIZATION OF THE HOWLAND GEOTHERMAL FIELD

I have little contact with Huron for about a year after completing the ERDA Loan Guarantee Report. Until Thermal Power Company retains my services to assist and advise them and their partners Huron, PROSTEC, and FTN in negotiations, with Franco Western to unitize the Howland Field's development. The parties wisely don't trust one another when the negotiation process begins. Franco Western does trust me. Since I've consulted for Franco Western, Huron, and Thermal Power, the parties decide I will serve as an intermediary between the parties. After signing a non-disclosure agreement, I have access to Franco Western's technical data to render an opinion as to whether or not there exists a reasonable chance to unitize the reservoir and establish the reservoir's boundary. In the unitization process, companies owning leases agree to jointly develop and operate the reservoir, with one company acting as field operator. The first step is for the parties to agree on the reservoir's boundary. Fortunately, they accept my determination of the reservoir's size and shape. Once the reservoir's boundary is established, each company's percentage ownership in the reservoir is determined by the percentage of land they own inside the reservoir. Their percentage ownership is their share of development and operating costs and future profits.

Franco Western becomes the field's operator. Unitization Agreement details are established at meetings in Salt Lake City. The Agreement's important terms are easily agreed to, but the parties get stuck on a question regarding which company will pay for a single \$10,000 item. Several meetings occur, during which this \$10,000 item is the only topic and point of contention. Commonly, the people representing the companies have limited technical knowledge regarding the project. No one wants to appear to be ignorant and technical issues are usually easily resolved. There are always one or two minor items that anyone can understand and these often-become major negotiation issues as individuals posture and vie for status. It is basically a testosterone standoff. The \$10,000 item is one of those minor yet easily understood issues and it is here that the managers decide to make a fight. There are usually about twenty people at these meetings in Franco Western's new Salt Lake City office. The Huron people come from Toronto. The Thermal Power representatives fly in from San Francisco. PROSTEC's representatives come over from Denver. The FTN people and I are from California. At the final meeting, the parties are still arguing over the \$10,000 item and I'm sitting there daydreaming and not paying attention. Someone notices I'm neither paying attention nor participating and says, *"It looks like we are putting Gene to sleep."* (Gene) *"Actually this isn't a technical issue and I have nothing to contribute. There have been several meetings on this one issue. I estimate each meeting has cost considerably more than \$20,000 if you include the cost of salaries, travel expense, hotels, and meals. I'm not a financial person, but it seems to me that in total the companies have about ten million dollars invested in the Howland Field and that investment is not making a penny as your all haggle over this \$10,000 item. If you want to pay my time and expenses to watch you waste money, then I'm willing to accommodate you."* A Franco Western accountant now speaks up. *"I have attended all these meetings and this is the first intelligent thing I've heard. We need to settle this \$10,000 problem and get the Unit in operation."* That resolves the final impediment and the parties sign the Unit Agreement. Now they can start spending your tax money to enrich themselves.

Huron comes back to rehire me to prepare a final report titled, *"Evaluation of the Geothermal Properties of Huron Resources Located Within and Immediately Adjacent to the Howland Hot Springs Geothermal Reservoir, Utah"*. Huron requests I attend the Prospectors and Developers meeting while I'm writing that report. The Unit Agreement negotiations are completed and the document is being circulated for the parties to sign. Huron's stock is rising, as investors contemplate the advantages and legitimacy afforded to this small company from associating with larger firms like Franco Western, PROSTEC, and Thermal Power Company. At the annual Paisley Mining Group banquet, Jack Von Hoene and I are seated at the worst table in a back corner. Jack says, *"This is the farthest table back. Now we are among the truly unimportant people. Next year we won't be invited back."* He was right.

Four years earlier, Huron had asked my opinion regarding Phillip's \$50,000 offer to buy their Howland lease. I recommended they drill the lease and since that time, I assisted Huron in every step of the process. The cost for my services including expenses incurred for travel, lodging, meals, etc. over the four years amounted to a total \$55,013.42. The Huron lease's value has increased from \$50,000 to over ten million dollars. I'm sitting in Ian's office at 7:30 PM, on the day the Unitization Agreement is completed. Franco Western has purchased Huron's Howland Project lease and Ian has Franco Western's ten-million-dollar check. (Gene) *"Ian it has been a long road and it must feel good to finally have this project completed and the lease sold for millions of dollars instead of \$50,000?"* (Ian) *"You know what feels good? I have millions of dollars and I don't need you anymore. Now I can afford to hire a good white Protestant geologist and not a God Damn F...ing WOP geologist. I'm through with you and you can leave now."* Ian was an alcoholic, when we first met and over the years his alcohol addiction had grown worse. He displays a cruel-mean-nasty streak when he is drunk, which now begins each afternoon. Having observed his behavior directed at his employees, it is not entirely a surprise when I receive his abuse. However, I'm not an employee and don't take abuse, especially from a man for whom I've just made millions of dollars. Ian is a bigoted bully and I'm not about to take his Canadian version of Anglo-Saxon upper-class crap. I'm not a serf in jolly old England. Without saying a word, I leave the office and return to San Diego. That is my last meeting with Ian Paisley. I desire and assume there will be no further contact with him, but I won't be that lucky.



FEB. MYSTERY PHOTO

Answer: "The Wave"

Sandstone rock formation, Arizona



MARCH MYSTERY PHOTO: WHERE IS THIS?!?



30 million year old Praying Mantis in Amber

CFMS Newsletter March 2021

CFMS SHOW DATES

Shows and Events

*Sponsored by
CFMS Clubs & Societies!*

*Please submit your
Show or Event as soon as possible
to receive maximum advertising value!*

Email to:

SHOW DATES

Use the Online Show Form

at www.cfmsinc.org

(click on Shows)

*You should receive a confirmation
within 5 days after submitting your
Show Date information!*

****Special COVID 19 Message

Our shows are cancelling due the current mandates of not gathering people in groups. If I am notified, we immediately post on line the cancelled show. Notice the future shows listed here lined out, are cancelled. If you have your new dates, get them to me and I will post them.

****Please check the Society Website before planning on attending a show. Stay healthy and safe where ever you are.

Sincerely, Jennifer Rhodes

2021

April 10-11 Mariposa, CA
Mariposa Gem and Mineral Society
Mountains of Minerals
Mariposa County Fairgrounds
5007 Fairgrounds Rd
Hours: Sat 10-5, Sun 10-4
Contact: Meredith Meehan
Email: mgmc@stl.net
Website: mariposagemclub.org

May 1-2; Jackson, CA
Amador County Gem & Mineral Society
Kennedy Mine Gem and Craft Show
Hwy 49 in Jackson CA
Hours: Sat 10-5, Sun 10-4

Contact: Cheryl Smith (209) 296-4061,
Email: blackwolf@vgolcano.net

June 12-1; Escondido, CA
Palomar Gem and Mineral Club
Palomar Gem and Mineral Show
California Arts Center Museum and Ballroom
340 N Escondido Blvd
Hours: Sat 10-5, Sun 10-4
Website: pgmcshow@palomargem.org

August 14-15; Arcadia, CA
Pasadena Lapidary Society
Inspiration Unearthed
62nd Annual Tournament of Gems
Arcadia Masonic Center
50 W Duarte Rd
Hours: 10-5 Daily
Contact: Ellen Ferrell, 727-512-0381
Email: ellenbf2007@aol.com
Website: www.pasadenalapidary.org

September 18-19; Chico, CA
Feather River Lapidary and Mineral Society
Silver Dollar Fairgrounds
2357 Fair St.
Hours: Sat 9 AM – 5 PM, Sun 9 AM – 4 PM
Contact: 1 530 586-7052;
Website: <http://featherriverrocks.org>

October 9-10; Los Altos, CA
Peninsula Gem & Geology Society
One No. San Antonio Rd
Hours: 10-5 daily
Contact: Steve Jobe 408-834-5384
Email: Steve_job@sbcgloball.net
Website: <http://pggs.org>

September 25-26 Palmdale, CA
Palmdale Gem & Mineral Club
Details to follow

National/Regional Shows:

California Federation

June 25, 26, 27 Lodi, CA
Lodi Grape Festival & Harvest Fair
413 East Lockeford Street
Hours: Fri and Sat 10-5, Sun 10-4

Eastern Federation

*2021 July, Syracuse, NY
2022 September,
Harrisburg, PA*

*Midwest Federation
2021 September 10-12
Toledo, OH*

Northwest Federation

*Rocky Mountain
Federation
AFMS June 17-20
Big Piney, WY*

*South Central Federation
2022 AFMS Show
January 29-30, 2022*

Southeast Federation

**DON'T FORGET TO UP-
DATE YOUR CLUB
WEBSITE WITH YOUR NEW
SHOW DATE**

**Check for show links at
www.cfmsinc.org/shows**

REMINDER

Advertise your Show in as many
Free locations as possible!

1. Local newspapers
2. Current events sections!
3. Local TV stations,
4. Community calendars!
5. Other Local Shows

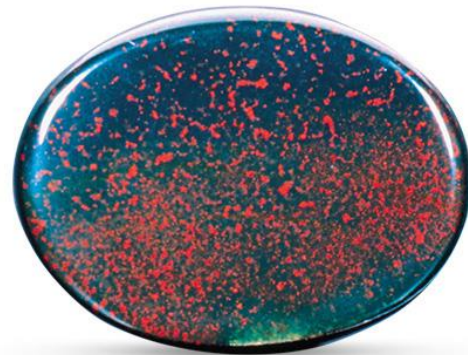
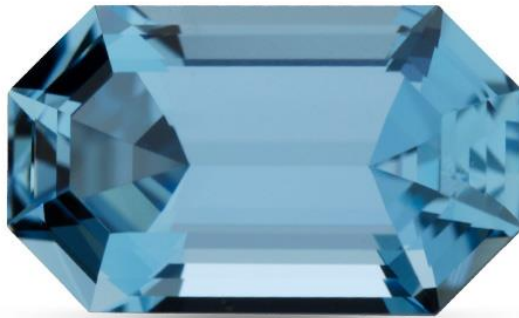
**Advertise your shows in the
Rock & Gem Magazine!**

**[www.rockngem.com/
showdate-submissions/](http://www.rockngem.com/showdate-submissions/)**

***Send the information in early so
it's published in
the magazine as well as online.***

BIRTHSTONES

MARCH BIRTHSTONE



COURTESY: GLEN PREUS (LEFT)

Aquamarine and bloodstone, March's two birthstones, are very different when it comes to appearance, but they share a similar reputation for protecting one's well-being. The aquamarine birthstone evokes the colors of the sea. From deep green-blue to light, slightly greenish blue hues, faceted aquamarines are often free from inclusions and as clear as water, symbolizing purity of spirit and soul. The bloodstone birthstone is typically a dark-green cabochon that contains red spots of iron oxide, the "blood" that brings health and strength to the wearer. Read on to learn more about these two March birthstones – what they mean and where they can be found.

AQUAMARINE BLOODSTONE

AQUAMARINE BIRTHSTONE

AQUAMARINE BIRTHSTONE MEANING & HISTORY

Aquamarine's name comes from the Latin for seawater, and ancient mariners claimed the gem would calm waves and keep sailors safe at sea. This March birthstone was also thought to bring happiness in marriage. Beryl was believed to give the wearer protection against foes in battle and litigation. It was also thought to make the wearer unconquerable and amiable, and to quicken the intellect.

Aquamarine is not only the birthstone for March, but the gem is also given as a present on the [19th wedding anniversary](#). As for famous ones, in 1936 the government of Brazil gave First Lady Eleanor Roosevelt a dark blue rectangular step cut aquamarine that weighed 1,298 carats (ct). It was the larger of two stones faceted from a piece of aquamarine rough that itself weighed an impressive 2.9 pounds (1.3 kilograms). It is now housed at the Franklin D. Roosevelt Presidential Library and Museum in Hyde Park, New York. A celebrated attraction at the Smithsonian Institution is the 10,363 ct (about 4.6 pounds) Dom Pedro Aquamarine – believed to be the largest faceted aquamarine in the world. The approximately 14 inch (36 centimeter) high obelisk was fashioned by acclaimed German lapidary Berndt Munsteiner using the [fantasy cut technique](#).



GIA.edu

The government of Brazil gave this 1,298 ct rectangular step cut aquamarine to Eleanor Roosevelt when she and President Roosevelt visited Rio de Janeiro in 1936. Courtesy: The Franklin D. Roosevelt Presidential Library and Museum, Hyde Park, New York

WHERE IS AQUAMARINE FOUND?

The [Brazilian state of Minas Gerais](#) has been an important source of aquamarine for the past two centuries. Travel there and you'll find a changing panorama of landscapes: rocky hills, rivers and scrub brush dominate the central and eastern regions; savannahs, forests and streams checker the west; and lush green hills roll southward. Aquamarines are found in primary (hard rock) and secondary (weathered) pegmatite deposits in the eastern portion of the state, near the gem center of Teófilo Otoni.

Aquamarine is also found high in the [Karakorum foothills of Pakistan](#). To reach the deposits, miners must climb steep paths to elevations of 9,800 to 13,000+ feet (3,000 to more than 4,000 meters) and work the sides of forbidding cliffs. Below this inhospitable rocky world lie fertile valleys, rushing rivers and small towns. Aquamarine from this area has been described as “water clear.”



A sliver of an opening (on the far left) along this steep mountainside is the entrance to an aquamarine mine. Pakistan’s gem-rich Shigar Valley lies between foothills of the majestic Karakoram range. Photo: Vincent Pardieu/GIA

Aquamarine birthstones are also mined in Kenya, Madagascar, Nigeria, Zambia and Mozambique, as well as elsewhere in Africa. U.S. sources include the Mount Antero area of Colorado (it’s the state gem) and California’s Riverside and San Diego counties. In addition, aquamarine has been found in China, Myanmar, Russia and Ukraine, among other countries.

AQUAMARINE BIRTHSTONE CARE & CLEANING

With a hardness of 7.5–8 on the [Mohs scale](#), this March birthstone is durable enough for everyday wear. Caring for the gem is easy. Use warm water, mild dish soap and a toothbrush to scrub behind the

birthstone where dirt can collect. [Ultrasonic cleaners](#) and steam cleaning are usually safe options as long as there are no fractures or liquid inclusions in the gem.



GIA.edu

This 10.06 ct pear shaped aquamarine is surrounded by 72 round diamonds (0.35 carats) that are set in platinum.
Courtesy: Omi Privé

[MORE ABOUT AQUAMARINE](#) [AQUAMARINE BUYER'S GUIDE](#)

BLOODSTONE BIRTHSTONE

BLOODSTONE BIRTHSTONE MEANING & HISTORY

Bloodstone, also known as heliotrope, is a variety of chalcedony (cryptocrystalline quartz) that is traditionally semi-translucent to opaque dark green jasper with red inclusions of iron oxides, especially

hematite. Bloodstone's alternate name *heliotrope* comes from the ancient Greek word that means "to turn the sun." In ancient times, these March birthstones were believed to turn the sun red if they were placed in water. The name *bloodstone* derives from the belief by some that the color pattern has religious significance, representing the blood of Christ.

Several metaphysical properties have been attributed to this March birthstone. They include increasing strength, giving invisibility, and preserving health and youth. In modern times, many believe the bloodstone birthstone to be a lucky charm, as it is prized by athletes and others who want to grow their strength. Even today in India, fine bloodstones may be crushed into a powder and used as an aphrodisiac.

Although bloodstone does not share the same beauty as the aquamarine March birthstone, many prize bloodstone for its special properties. Bloodstones used as gems are typically cut as cabochons, though some striking examples are faceted.

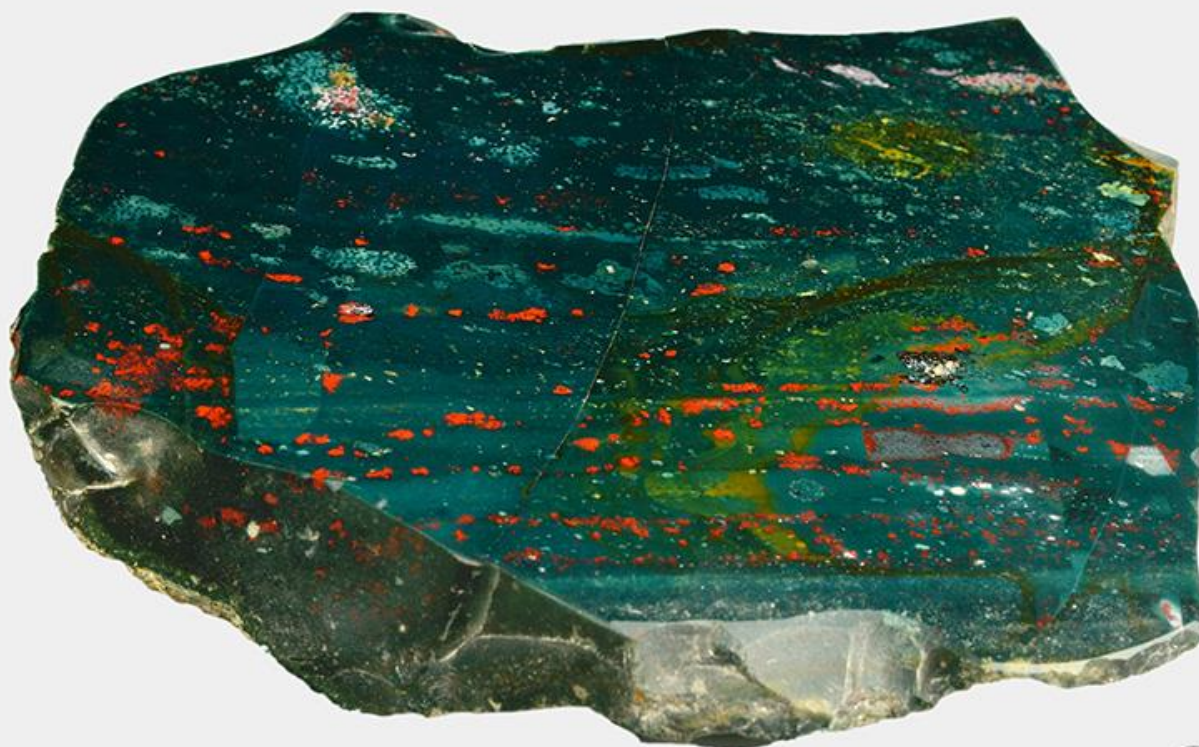


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One of the ninety engraved gems, cameos and bullae from the Roman Empire. Courtesy: The J. Paul Getty Museum

WHERE IS BLOODSTONE FOUND?

Most bloodstone in the marketplace today is from India. However, the bloodstone birthstone also comes from parts of Brazil, Australia, China and the United States, among other countries. Bloodstone can be found filling fractures or cavities in other rocks or as pebbles in riverbeds.



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Slab of bloodstone from Asia.

BLOODSTONE BIRTHSTONE CARE & CLEANING

Your bloodstone birthstone can be easily cleaned at home with warm soapy water and a soft brush. It is important to keep your bloodstone away from harsh chemicals and extremely hot temperatures. Dry off this March birthstone with a clean, soft cloth. To keep the stone from getting scratched (it's 6.5–7 on the Mohs scale), it is important to store your bloodstone birthstone in a soft fabric.

