# GPR Website Link: www.goldprospectorsoftherockies.com

# THE GOLD NUGGET

April 2015

# 2015 Member Dues are Past Due Now

All Members will need to complete a new Application to update the Club Records We sincerely appreciate your doing this and apologize for any inconvenience.

## The Prez Sez by Jim Long



Gold, gold, gold.....!!! What a most powerful four letter word. And when shouted out loud when one is out on the creek, it is a word that is sure to attract immediate attention. Gold is known as a 'noble' metal. It has a luster when it comes out of the ground that is absolutely beautiful. Gold is far more beautiful than a diamond, or a ruby, or a great many of the coveted minerals when it is first found. But did you know that the mineral pyrite, known commonly as "fools' gold", actually is gold?

Whoa, I bet that got your attention, didn't it. However, experts in the field of mineralogy will tell you that it is true, well, kind of. Pyrite is actually pyrite. However, the Colorado Mineral Belt is quite well

known and has been fairly accurately depicted as early as the 1880's when it was drawn fairly accurately on the Colorado Territorial Map. Now there were some areas of Colorado that didn't quite fit into the Mineral Belt, such as Cripple Creek and the plateau around Craig that did produce gold and other minerals. But that is quite often the case as there are anomaly's in just about everything in the physical world. But the Colorado mineral belt's pyrite is unique among the world's many deposits of pyrite, because Colorado pyrite contains gold.

Pyrite, or iron pyrite is an iron sulfide mineral that is also commonly called fool's gold. It is a mineral with a metallic luster and a pale brass-yellow hue that gives it a superficial resemblance to gold. Back in the day, it was used to 'salt' played out gold mines to sell to unsuspecting and unknowing investors. Pyrite enjoyed a little popularity in early 16<sup>th</sup> and 17<sup>th</sup> centuries as a source of ignition in early firearms. It has long been used to make jewelry and was often set in or with silver back in the Victorian era as well. Pyrite is distinguishable from gold by its hardness, brittleness and crystal form. Natural gold tends to be irregular shaped, whereas pyrite is usually cubed or multi-faceted crystals. Pyrite was highly prized by the Incan and Aztecan civilizations and was used by the shaman for healing and when polished, made fairly decent mirrors. Pyrite, which is iron sulfide, is the most common of the sulfide minerals. Today, it is used primarily as a source of sulfur dioxide for the manufacture of sulfuric acid. Pyrite, while found throughout the world, is also found in large quantities here in Colorado, Utah, Illinois and Pennsylvania. The Great Mineral Belt extends from the Michigan and Pennsylvania regions in a southwesterly direction all the way to Arizona.

Did I say that your pyrite actually does contain gold? Well, interestingly enough, the various forms of pyrite found in the specific Colorado mineral belt is uniquely different from all the pyrites in the rest of the world in that it does contain gold. Now, I guess I should break your bubble now so that you don't all run out in a tizzy and try to sell all the pyrite samples that you have in your garage and basement. Yes, Colorado pyrite has gold in it, real gold, not that silly old fool's gold, but real gold. It is microscopic and in values that doesn't make it cost effective to extract. But by



golly, it is there. And it is unique pretty much too just the Colorado part of the mineral belt. Now I think that is pretty dang cool!

When I sometimes stop working in the creek and just sit back to take a little rest break and my mind begins to wander a little as it does from time to time, especially for us older folk, I often think about the 'old timers' and what they went through in their search for that yellow gold. How did they first learn to tell gold bearing formations from a non-productive formation? Where did they learn all the little 'tricks of the trade' that made the difference between success and failure? How much was learned knowledge and how much was just fool's luck? Many of the early prospectors were fairly illiterate and uneducated in terms of what we consider to be literate and educated. But by the 1850's, they were poking their noses into distant nooks, crannies, and mountain ranges all over the continent that had been known previously to only the native Indians. And the great discoveries of the California Mother Lode in 1849, the Colorado Gold Rush of 1859, and the Alaskan Klondike Rush of 1892 resulted.

Today, our technology has resulted in high tech gold prospecting and high tech extraction. We can take x-ray machines and spectrometers and identify the individual signatures of most minerals. We don't have to rely on Aqua Reagent and fire assay to reveal the presence of minerals. And that unique and new technology has found gold in the most unlikely place of all, in pyrite, and more specifically, pyrite from the Colorado mineral belt. I still that that is pretty cool!



And that is the view from here and I wish you all Good Luck in your search! And until we meet again, keep your sunny sides up and may the bottoms of your pans turn bright with that treasured 'Yaller Gold'!

You may contact me at 303-452-6087 or at <a href="mailto:inslong945@msn.com">inslong945@msn.com</a>. Happy and safe prospecting to all!!!

## The V.P. Corner by "Klondike" Mike



Well folks get ready for prospecting season, and I don't mean catch and release. I know that we will have a great year, the color yellow will fill every pan, our schedule with (GPR), will be busy. Pothole Gold, I found this article and maybe some of you folks had a chance to see this type of formation. When you think about pot holes, you probably picture annoying driving hazards in the middle of the road that you try to avoid at all costs. That hole in the asphalt can cause a flat tire and help throw your car's alignment out of whack! But a pot hole in a rock that's located in a gold-bearing stream or river is something you don't want to steer clear of the next time you're out prospecting. There are basically two kinds of potholes in bedrock

channels—vertical and lateral. Vertical potholes formed on rock surfaces that were at one time part of the channel's rock floor. These potholes are now exposed because that portion of the channel has been raised above the river or are just below the surface, making them pretty easy for you to spot. Lateral potholes are cut into the rocky sides of the channel sides of rocks that stuck out of the channel as mini-islands. Lateral potholes formed near the river's surface, where rock, water meet, instead of at the river bottom. In the same way that tree roots, huge logs, and big boulders can catch gold as it is moved downstream by fast-moving water, holes are natural gold catchers, too. Rocks and debris can settle in the potholes and act as a "cap" for bits of gold that are also into the depression. Often the cap will completely hide gold that is underneath it, that is until some lucky prospector like you comes along and knowing where to look, and moves the cap out of the way to expose the GOLD, once again I hope everyone will see plenty of yellow in there pans. Good luck and be safe. Well again if you have any questions you can contact me at 720-443-9545. Klondike-Mike

## From the Treasurer/Secretary Ledger by Linda Luchtenburg



The April Meeting will feature a nine nugget give away totaling 10.3 grams of gold with the largest nugget being a beauty of 2.8 grams. We will also be selling tickets for the 'special nugget'. Don't miss your opportunity to purchase tickets for these nuggets in which your chances of winning are far better than the Colorado Lottery.

## Planned GPR Meeting Programs:

Apr. 15: We will be showing another video with pictures and such of the **Homestake Mine of South Dakota as filmed** in 1985, to show the difference in mining techniques from 1940 to 1985.

May 20: We will be presenting a 45 minute presentation by **Richard Sweeney** on **Modern Gold Assaying Techniques**. Richard will have some 'show and tell' items of the trade and puts on a fantastic program about gold assaying. You don't want to miss this one!

Jun. 17 The first of a 2 part video from the Natl. Geographic Channel entitled <u>"Lost Gold of the Dark Ages".</u> This video uncovers the secrets of the largest hoard of Saxon Gold ever found.

July 15 This will be part 2 of the NG Channel video "<u>Lost Gold of the Dark Ages</u>". This will conclude the story of the discovery of the largest hoard of Saxon Gold ever found.

Aug 19 This month we will be showing History Channel DVD of the "Klondike Gold Rush". This 50 minute program will highlight what the 'Old Timers' went through in the search for gold in Alaska.

Sept 16 This month will be a presentation from the A&E Channel titled "<u>Inca Gold</u>". This 50 minute DVD highlights an expedition into the Ecuadorian wilderness in search of a legendry gold horde of 750,000 pounds.



## Where is 'Prospector Pete', the GPR Gold Miner?

We assign our Gold Miner, called 'Prospector Pete', to a lucky recipient by drawing each month. The idea is to take 'Prospector Pete' along with you during your travels and take a photograph of you and he doing something related to mining. Take a photograph at the location and bring 'Pete' back to the next meeting for the next person to win. Send your photograph of yourself and 'Pete' to President Long at inslong945@msn.com and we will publish it in the Newsletter each month. It should be fun to see where our Gold Miner winds up throughout the coming year. There are no limits, just take care of 'Pete' and treat him gently and show him the big world out there. At the February meeting, 'Pete' selected D.D. Tucker as his caretaker until the March meeting. Here are pictures from Pete's March excursion





#### **Board Meeting Minutes From Mar 2015**

X James Long	X Joe Shubert	X Joe Fortunato	X John Johnson
X Mike Hurtado	X Joe Johnston	X Terry Weatherly	Brandon Luchtenburg
X Linda Luchtenburg	X Bobby Manning	Andy Doll	

Quorum present? Yes

**Call to Order:** By Mike at 6:05 pm

Reading and Approval of Minutes: Yes Corrections: None

Approved as read/corrected: Yes

Treasurer's Report: Questions: None Approved: yes **Correspondence**: 6 phone calls, 12 e-mails, 13 mailings Webmaster: Total Hits139442 Hits for last month 385.

**Committee Reports:** 

- WMMI membership has been renewed and the \$100 donation made for 2015.
- PO Box has been renewed.
- Club picnic space has been reserved and paid.
- Non-profit Corp status has been renewed and paid.
- PLP 2015 membership pending.

**Unfinished business**: LLC Process still pending.

**New Business**: None at this time.

Planned Outings for 2015: Apr. 11 Sat **Prospecting Outing** on Clear Creek, 68<sup>th</sup> and Washington in Adams County. 9am until done.

#### From the Board:

- Bobby M. reported that he had supplied brochures to all of the outlets.
- Dan and Becki McConnel had volunteered to take over the Registration Table. Their offer was accepted and they started tonight. John J. will oversee the Table for 2015.
- Joe J. advised that he still has folks who haven't returned materials checked out from the Library.
- Pres. Long requested VP Mike to print more sample newsletters since the GPAA Gold Show was coming in May. Mike H. advised that the Show will be hosted by Foothills GPAA Chapter, GPR, and the Colo. Springs. Chapter GPAA. We will be receiving discounted tickets to sell to members who desire to go.

#### **QUESTION OF THE MONTH**

Found years ago in Venezuela, how much does the world's largest single gold crystal weigh??

2015 GPR Board of **Directors Members** 

#### **President**

James Long

#### Vice President

Mike Hurtado

#### Secretary/Treasurer

Linda Luchtenburg

#### 2 Year Board Members

Joe Johnston (2013) Joe Shubert (2011)

#### 1 Year Board Members

Joe Fortunato

Terry Weatherly

Andy Doll

Brandon Luchtenburg

John Johnson

**Bobby Manning** 



**Announcements**: Next Board Meeting Apr. 15, 2015 at 6:00pm. Next General Meeting Apr. 15, 2015 at 7:00pm **Tonight's general meeting program**: A 45 minute talk by Deb Zack from the Colorado Dept. of Nat. Resources. She is assigned as a project manager for the Inactive Mine Division.

**Adjournment**: Meeting stands adjourned at 6:41 pm.

## **General Meeting Minutes From Mar 2015**

- 1. Meeting was opened at 7:07 pm by **Pres. Long** with the Pledge of Allegiance.
- 2. **Pres. Long** then announced the evening program which will be a 45 minute presentation by Deb Zack, Project Manager and Reclamation Specialist for the State of Colorado Department of Natural Resources Division of Reclamation, Mining, and Safety inactive Mine Program.[DVD from the History Channel entitled 'The Quest for King Solomon's Gold' which will run about 50 minutes.
- 3. **Pres. Long** gave the Metals Report with gold at \$1166.90 an ounce, silver at \$15.89, platinum at \$1113.00 and palladium at \$779.00.
- 4. Web hits for last month were 385.
- 5. **Treasurer Linda Luchtenburg** reported that the Club remains very comfortable in the black. Report is available for review for anyone who wishes to see it. Also, be sure to buy tickets for the 15.1 gram 'Special Nugget' drawing that is now on sale. This is an Arizona nugget that was a metal detector find.
- 6. **John Johnson** reported from the Membership Table that we had approx. 80 members in attendance. There were also 6 guests present, as well as 4 new members. The meeting attendance was 90.
- 7. **Pres. Long** read the 'Question of the Month', which was 'What Company was the world's largest producer of gold during 2012/2013?
- **8. Pres. Long** advised that there was time to enter items at the break for the '**Finds of the Month**' table and everyone was encouraged to check them out and vote accordingly during the break. Remember, only one entry per person per category. Winners of the Finds of the Month for tonight will need to be saved for competition in November.
- 9. **John Johnson** announced the new **Cache Clue #5**.
- 10. **Pam and George Schmitt** were back after their illness and advised they had lots of stuff in the **Club Store**, including some bags of concentrates for sale. Members were encouraged to support the Club by buying Store products.
- 11. **Pres. Long** informed the membership that **Dan and Becki McConnell** had volunteered to take over the **Registration Table**. A reminder that the 2015 dues are due. Pres. Long informed the membership that the upcoming GPAA Gold Show in Denver will be co-hosted by the Foothills Chapter of the GPAA, the GPR, and the Colorado Springs Chapter of the GPAA. We hope to have discounted admission tickets to sell to members by the April meeting. Pres. Long also reported that the Club WMMI membership had been renewed for 2015 and members could get in free as long as they had their badge with them. Members were encouraged to check out the pamphlets on the front desk. The Mar. 21 Tour was cancelled and moved to Mar. 28 at 3:30pm. Also, on Mar 28, the Beginners Panning/sluicing Class will be held at 6811 N. Washington in Adams County starting at 9am. On Apr. 11, we will have our first Outing of the year on Clear Creek, again at 68<sup>th</sup> and Washington in Adams County, starting at 9am and going until done. Pres. Long apologized for his error last month in announcing that DD Tucker had 'Prospector Pete' when Jackie Snyder actually had him. DD graciously stated that she would take him for April though. Members who have checked out materials from the **Club Library** are encouraged to return them promptly. There was nothing else of note to be discussed and nothing was offered from the Floor.
- 12. **Pres. Long** announced the break at 8:15pm Meeting was called back to order at 8:35pm.
- 13. **Pres. Long** announced that there were 24 winners of the 'Question of the Month'. The answer was 'Barrick Gold'. The extra drawing tickets were passed out to the lucky winners.
- 14. **Pres. Long** announced that there were 4 winners for the 'Finds of the Month'.
  - **Best Coin**, winner was **George Sullivan** with a 1942 Australian penny found near Longmont with a metal detector.
  - **Best Artifact**, winner was **Tina Fleming** with an old oil additive can she found near Blackhawk.



- <u>Most Jewelry</u> winner was **Chuck Cown** with a white gold ring with 9 cubic zircon diamonds on it, found with a metal detector in Commerce City.
- **Best Bottle** winner was **Bobby Manning** with a circa 1850 bottle he found in the South Platte river.
- 15. **Pres. Long** concluded the evening with drawings for the numerous door prizes donated by the **GPR and Pres. Long**, followed by drawings for the 9 gold nuggets. A reminder that holders of drawing tickets for the regular gold drawings who did not win and want to redeem those tickets may present them at the end of the Meeting and they will be reimbursed at .01 cents on the dollar, or they can choose to donate the tickets back to the Club. Those assisting in the drawings were **Chuck Cown** and **Linda Luchtenburg**.
- 16. **Pres. Long** reminds the members that sometimes during the meetings, The President's time is overwhelmingly taken up by the many who wish to speak to him and he apologizes if anyone ever feels like he is unavailable. It is not his intent to be inaccessible and he encourages anyone with questions to contact him by e-mail or phone at any time. His e-mail and phone number are on the web site.
- 17. **Pres. Long** thanked **Tina and Tim Fleming** who were subbing for Chris and Joe Kafka (who are in Hawaii, and all those who contributed to the Refreshment Table. Any member is encouraged to chip in and add to the spread each month. With the number of attendees skyrocketing recently, this really helps the folks who run the table and those who volunteer up front each month. The Club appreciates the efforts that each and every one of you to make the refreshment table enjoyable.
- 18. The scheduled **Program for April** will be a 25 minute video of the "**South Dakota Sage**" which features the Homestake Mine and demonstrates some of the mining techniques used in circa 1940
- 19. Until next time, remember to prospect safely, live long and be grateful for that golden bounty from the stars, that gleaming magical miracle, called 'gold'!
- 20. The Meeting was adjourned at 9:00 pm.

## **Schedule of 2015 Planned Outings:**

We are starting another new year and are in the process of scheduling speakers and programs, outings, tours and other events for the year. If anyone has any suggestions, please contact a Board Member with your ideas and information. We want to try to provide the things you are interested in. We tentatively have at least 20 or more events planned for 2015. We are no longer printing the schedule in the newsletter as a copy was provided in the last email and copies will be sent in future to new members and as changes to the schedule occur, So print it out and hang it up.

## Finds of the Month

February winners were as follows:

<u>Best Coin</u> – George Sullivan with a 1942 Australian penny found while metal detecting.

**<u>Best Bottle</u>** – **Bobby Manning** with a circa 1850 bottle found in the South Platte River.

**Best Artifact** – **Tina Fleming** with an oil additive can found near Blackhawk.

**<u>Best Jewelry</u>** – **Chuck Cown** with a white gold ring with 9 cubic zircon diamonds in it.











Great job guys and gals!!!!

Be sure and bring your treasures and finds in to share with the rest of the Club. Winners each month will have their name published each month in the Newsletter. There are six (6) categories to choose from when entering. Thanks to Rich Beasley and all those who submitted additional finds that were not judged to be winners.



#### **Prospecting/Mining Notes**

(mostly from the Denver Post, Internet and other wire services)

- *3-3-15* **Newmont Settles Death Suit**: A lawyer for the Utah family of a contract worker at a Nevada gold mine that paid over a \$1000,000 in US safety fines after he was killed there in 2011 says they've settled a wrongful death suit with Newmont USA, subject to a judge's approval. Settlement terms are confidential.
- 3-5-15 **Mine Explosion Kills at Least 24:** A rebel held city scarred by months of conflict in eastern Ukraine suffered more tragedy Wednesday when a methane gas explosion in a coal mine killed at least 24 workers and left 9 missing. The blast occurred before dawn more than 3200 feet underground at the Zasyadko mine in the city of Donetsk in the coal rich Donbass region. Rebel officials said the accident was caused by the ever present danger of methane gas and not artillery fire.
- 3-8-15 Gold Erases 2015's Jump on Concern US Rates Will Rise Soon: The more the US economy improves, the worse things get for gold bulls. People don't see much need for safe haven assets. Gold dropped 29% in the previous 2 years as the dollar surged and inflation remained low. (Usually good for buying and bad for selling...JJ)
- 3-12-15 **Newmont, Barrick Settle Pollution Charges:** The world's two largest gold mining companies have agreed to pay \$600,000 of combined penalties in a deal with the US and Nevada environmental regulators that signal more stringent enforcement of pollution laws in the state.. This action settles allegations they violated hazardous waste laws with mercury releases recorded during inspections at two huge open pit mines in northeast Nevada.
- 3-25-15 **There is Gold in Them Thar Swills:** Federal scientists investigating sewage from wastewater plants are finding gold and other precious minerals that they say are in sufficient quantities to be sold if they can be recovered. The minerals are small but gold, silver, platinum, and palladium are present along with other heavy minerals. Researchers cannot say for sure where the minerals ore originating but think they come from household appliances. There is some thought that they could be coming from human waste as well. Americans annually flush 7 million tons of biosolids through sewers to about 16,500 municipal plants. Half becomes fertilizer while waste contaminated with heavy metals must be burned or buried in landfills.

## Western Museum of Mining and Industry 1025 No. Gate Blvd., Colo. Springs., Colo.

Remember, your Club has a Club Membership at the museum. Simply take your ID badge with you and inform them at the desk that you are a GPR member and your admittance is always free.

## **A Miner's Laugh**

them to him.

One An old miner was driving his car when a Texas State trooper pulled him over on I-35, about 2 miles south of Waco Texas. When the trooper asked the old miner why he was speeding, the old miner replied that he was a part time Magician and Juggler and was on his way to Austin Texas to do a show for the Shriners children's Circus. He didn't want to be late for the kids. The trooper told the old miner that he had always been fascinated by juggling and said if the old miner would do a little juggling for him then he wouldn't give him a ticket. The old miner told the trooper he had sent his all of his equipment ahead and didn't have anything to juggle. But the trooper said he had some flares in the trunk and asked the old fellow if he could juggle them. The old miner said that he sure could, so the trooper got 5 flares, lit them and handed

While the old miner was juggling, a car pulled in behind the State Troopers car. A drunken good old boy from west-central Texas got out, watched the performance, then promptly turned and went over to the Trooper's car, opened the rear door and got in. The trooper observed him doing all this and went over to his car, opened the door, and asking the drunk what he thought he was doing.

The drunk replied, "You might as well take my drunken butt straight to jail, cause there ain't no way I can ever pass that test." (Taken from the internet and revised just for all us 'old miners') 04/15



## Where is 'Prospector Pete', the GPR Gold Miner with Dave and Jackie

Snyder?



Here is Prospector Pete at Steele Elementary, a Denver Public Elementary School, in March! He went to do a map activity with the 4/5th grade students. Prospector Pete explained to them that he finds gold right here in Colorado! He showed them real gold nuggets and some gold flakes that he has found with Dave and Jackie Snyder! They had to read the key to a Colorado commodities map (so excited to see the gold/silver mines) and many other maps. At the end of the lesson they were very excited to have their picture taken with good old Prospector Pete! He is off to his next adventure and only wishes he was going with Jackie on her cruise next week, but then, he has already been to the Caribbean.!

## Announcing an Amazing Book, Mineral, and Fossil Sale CSM Museum

1310 Maple Street, Golden, CO

Saturday and Sunday, April 25+26, 2015, 9 A.M. - 4 P.M. Hundreds of books, minerals, rocks, maps, U.S.G.S. folios, fossils, etc. Prices vary by item or box. Most prices will be reduced throughout the event.

Additional Information: 303-273-3815

#### What is Comminution?

**Comminution** is the reduction of solid materials from one average particle size to a smaller average particle size, by crushing, grinding, cutting, vibrating, or other processes. In geology, it occurs naturally during faulting in the upper part of the Earth's crust. In industry, it is an important unit operation in mineral processing, ceramics, electronics, and other fields, accomplished with many types of mill. In dentistry, it is the result of masticating of food. In general medicine, it is one of the most traumatic forms of bone fracture. Within industrial uses, the purpose of comminution is to reduce the size and to increase the surface area of solids. It is also used to free useful materials from matrix materials in which they are embedded, and to concentrate minerals. There are several methods of comminution. Comminution of solid materials requires different types of crushers and mills, depending on the feed properties such as hardness at various size ranges and application requirements such as throughput and maintenance. The most common machines for the comminution of coarse feed material are the jaw crusher, cone crusher and hammer crusher. Primary jaw crusher product in intermediate feed particle size ranges can be ground in Autogenous or Semi-Autogenous (AG or SAG) mills depending on feed properties and application requirements. For comminution of finer particle size ranges machines like the ball mill, vertical roller mill, hammer mill, roller press or high compression roller mill, vibration mill, jet mill and others are used. For yet finer grind sizes (sometimes referred to as "ultrafine grinding"), specialist mills such as the IsaMill are used. Trituration, for instance, is comminution (or substance breakdown) by rubbing. Trituration can further be described as levigation, Trituration of a powder with an insoluble liquid, or pulverization by intervention, which is trituration with a solvent that can be easily removed after the substance has been broken down. In mining, comminution is all just part of the sizing process, or classification.

## Mill (grinding)

A mill is a device that breaks solid materials into smaller pieces by grinding, crushing, or cutting. Such comminution is an important unit operation in many processes. There are many different types of mills and many types of materials processed in them. Historically mills were powered by hand (e.g., via a hand crank, working animal (horse mill). Wind mill or water mill. Today they are usually powered by electricity. The grinding of solid matters occurs under exposure of mechanical forces that trench the structure by overcoming of the interior bonding forces. After the grinding the state of the solid is changed: the grain size, the grain size disposition and the grain shape. Milling also refers to the process of breaking down, separating,



sizing, or classifying aggregate material. For instance rock crushing or grinding to produce uniform aggregate size for



construction purposes, or separation of rock, soil or aggregate material for the purposes of structural fill or land reclamation activities. Aggregate milling processes are also used to remove or separate contamination or moisture from aggregate or soil and to produce "dry fills" prior to transport or structural filling. In mining, a mill is a tool we can use to remove minerals from the host rock and prepare them for extraction.

#### Crushers



#### Table top crusher

Mining operations use crushers, commonly classified by the degree to which they fragment the starting material, with primary and secondary crushers handling coarse materials, and tertiary and quaternary crushers reducing ore particles to finer gradations. Each crusher is designed to work with a certain maximum size of raw material, and often delivers its output to a screening machine which sorts and directs the product for further processing. Typically, crushing stages are followed by milling stages if the materials need to be further reduced. Additionally rockbreakers are typically located next to a crusher to reduce oversize material too large for a crusher. Crushers are used to reduce particle size enough so that the material can be processed into finer particles in a grinder. A typical processing line at a mine might consist of a crusher followed by a SAG mill followed by a ball

mill. In this context, the SAG mill and ball mill are considered grinders rather than crushers. In operation, the raw material (of various sizes) is usually delivered to the primary crusher's hopper by dump trucks, excavators or wheeled front-end loaders. A feeder device such as an apron feeder, conveyor or vibrating grid controls the rate at which this material enters the crusher, and often contains a preliminary screening device which allows smaller material to bypass the crusher itself, thus improving efficiency. Primary crushing reduces the large pieces to a size which can be handled by the downstream machinery. Some crushers are mobile and can crush rocks as large as 60 inches. Primarily used in-pit at the mine face these units are able to move with the large infeed machines (mainly shovels) to increase the tonnage produced. In a mobile road operation, these crushed rocks are directly combined with concrete and asphalt which are then deposited on to a road surface. This removes the need for hauling over-sized material to a stationary crusher and then back to the road surface.

## **Beginners' Panning/sluicing Class**

On Saturday, March 28, the President Long conducted a beginners' panning and sluicing class in Clear Creek. Some 20 participants learned how to know where to find gold and where to look. They then learned what type of basic equipment was required and learned the importance of classification of materials. Then following a careful demonstration of the panning technique, each participant got the opportunity to practice until each person had observed real gold in their gold pans. Following the panning lessons, we then moved to the sluice box and they learned the 3 critical steps in sluicing set up. The sluicing demonstration showed how a lot more material could be moved as opposed to mere panning alone and the sluice box had a pretty



good amount of gold in it as well. Many thanks go to Mike Hurtado, John Johnson, Bobby Manning and George Sullivan for their invaluable assistance in making sure that this Class was a success. Pres. Long and Bobby Manning took a few photographs.

## **Club Tour of School of Mines Geology Museum**

On Saturday, March 28, following the Beginners Panning Class, Club members met at the Colorado School of Mines Geology Museum in Golden for a tour of the Museum conducted by Dr. Bruce Geller. The theme of the museum for this year is 'Minerals' of the Southwest'. Dr. Geller focused more on the gold and silver exhibits since the Club focus is on prospecting for gold. There were so many beautiful specimens of gold and silver as well as all the other minerals that one would expect to find within the 'Great Mineral Belt' which runs through





Colorado. The tour of the upstairs and downstairs portion of the museum that is open to the general public was fascinating and they now have the section open where the translucent minerals are displayed. There are some truly awesome exhibits there as well. At the end of the tour, Dr. Geller treated us to a short tour of the inner warehouse in the museum basement that is not visited by members of the general public. In that warehouse are hundreds and hundreds of exhibits that are rare and fascinating, but not of sufficient quality to make the general viewing exhibits that the general public gets to view. All in all, it was quite an excellent climax to a great day. Pres. Long took a good photograph of Dr. Geller illustrating some of the exhibits many minerals.

## **TYMKOVICH MEATS**



Established 1952 6911 N. Washington St, Denver, CO 80229 (303) 288-8655 Open Wed-Sat 9:30 to 5:30 (Closed Sun-Tue)





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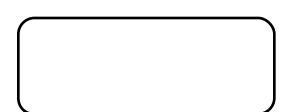
#### **The Gold Nugget**

Gold Prospectors of the Rockies PO Box 150096 Lakewood, Co 80215-0096

# ADVERTISING IN THE GOLD NUGGET Commercial Ads

#### **Contact the GPR President**

(Layout Design Subject To Additional Cost)



#### **Coming Announcements and Special Events for May 2015**

(WMMI - Western Museum of Mining & Industry, 225 North Gate Blvd. Colorado Springs, CO 80921 (www.wmmi.org))

SUN	MON	TUE	WED	THU	FRI	SAT
					Loyalty Dav	2 Newsletter Advert/Article Copy Deadline
3	4	Cinco de Mayo	6	7 National Day of Prayer	8	9
10  MOTHERS DAY	11	12	13	14	15	Armed Forces Day
17	18	19	20 GPR Club Meeting	21	22	23
24/31	25 Memorial Day	26	27	28  WMMI  PICNIC-N-PLANES  Watch the  Thunderbirds Flv		30