# American Jan/Feb/March 2014 Volume 1, Issue 1 Rockhounds, for Rockhounds



New Kids on the Block! Our new magazine and staff

Field Trips Crabtree Emerald Mine

Ghost Mines Shingletrap Quartz Mine

Kids' Corner With Steve Barr

Rockhound News Forest Service Rules for North Carolina



# North Carolina Emeralds



# 11th Annual Western North Carolina Rockhound Roundup!

July 21st-27th, 2014 Hosted by M.A.G.M.A.

Directions: Take exit 33 off of Interstate 26 just outside of Asheville NC. Go west on Brevard Road/Hwy. 191. Drive 3.5 miles to Clayton Road on the left, turn left and drive 2/10ths of a mile to the entrance to Camp Stephens on the left. I will have a large MAGMA Roundup sign at the entrance.

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Rob Stine is a professional artist and Rockhound. He enjoys painting landscapes of the various mines he visits and collects at. His painting "Crabtree Emerald Mine" can be seen on page 24 in this issue. If you would like to view and purchase prints of his mine paintings, contact him for more information. **American Rockhound** is sponsored by and is the official publication of the Mountain Area Gem and Mineral Association (M.A.G.M.A.) published by Jacquot & Son Mining and Publishing. To find out more about M.A.G.M.A. contact Rick Jacquot, P.O. Box 542, Leicester, NC, 28748, rick@wncrocks.com.

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Top left: The "NAEM Emerald" from North American Emerald Mines in Hiddenite, North Carolina. Specimen Houston Museum of Natural Science, photo Harold and Erica VanPelt. Bottom right: The "Carolina Emperor" from the Adams Farm in Hiddenite, North Carolina. Specimen North Carolina Museum of Natural Sciences, photo Richard Jacquot. See related article titled "North Carolina The Emerald Capital of North America," beginning on page 10.



# American Rockhounds





Left to right: John Deney, Steve Barr and Richard Jacquot working a vein in the floor of the quarry at the North American Emerald Mines, May, 2012. Pete Hornish photo

# The New Kids On the Block!

Welcome to the first issue of American Rockhound Magazine! We are very happy to be here and I hope you will find this publication to be an effective tool to help advance and enhance the hobby of rock, gem, mineral, fossil and artifact collecting. We want this magazine to be a useful source to keep you up to date on new dig sites, mine closures, collecting on private property and current information on Forest Service and BLM rules and regulations for rockhounding. We offer advertisement for our readers to promote their various hobby related venues, show dates and a classified section for those wanting to get their message out to our readers.

We have some great regular features as well to include interviews with professional miners, rockhounds, prospectors and mine and land owners, to let them give you first hand information on the status of their latest finds, adventures and get the latest collecting site information straight from the source.

Each issue will feature fantastic gems, minerals, fossils and cover historic finds made across the country, plus lots of other cool hobby related stuff. The "Kids Corner" is hosted by rockhound and professional cartoonist Steve Barr. Steve will keep the kids informed and educated about the hobby while making the learning fun. Our "Field Trips" section will cover trips to locations all over the United States. Many trips will be M.A.G.M.A. hosted trips here in the southeast, while others will be submitted by our members and readers across the country. Our "Rockhound News" section will cover every aspect of the hobby. If it is news that affects our readers and mineral collecting, we will have it here. "Rockhound Reflections" will give our readers a chance to share with us how this great hobby has changed their lives.

We are just getting started and the magazine will grow as we get settled in. If you have suggestions for us on how we can make this publication better, new categories to add, new features, information that you feel needs to be shared with our readers, please don't hesitate to contact us. I can be reached anytime by email: rick@wncrocks.com, phone: 828-683-1048, 828-779-4501 or write us at: American Rockhound, PO Box 542, Leicester, NC, 28748.

This is all new to us, so give us time to adjust and get things rolling, I guarantee you won't be disappointed!



**Rick Jacquot** 



Me and R.J. digging at Buck Creek, Clay County, North Carolina, 1995. R.J. knew more about minerals than most adult collectors.

# Our Staff

I have been rockhounding since I was 8 years old, camping with my family as a child in the mountains of Pennsylvania and West Virginia. By the time I was a teenager, I had built quite a collection. Most of which I still have today, my most treasured rocks!

In 1987, I moved to Western North Carolina and ended up driving a tractor trailer for a few years before becoming an Asheville, North Carolina Police Officer. I began hunting the mountains for gems and minerals in 1989 while driving a tractor trailer through the town of Franklin, NC. I had stopped at a roadside rock shop to check out all the various rocks on display, sitting outside on big wooden spools. It turns out that most of the "rocks" were actually slag glass. I developed a friendship with

> one of the shop owners, and each time I was in town he would share with me information on spots where the locals collected, rubies, sapphires and amethyst. I was hooked once again.

> When my son R.J. was about 5 years old, he began hunting with me. Together we built a respectable collection of local minerals, all native to Western North Carolina. In 1998, we formed our business, "Jacquot & Son Mining". Our main service was conducting mine tours for visiting rockhounds to the many sites we had learned about over the years.

> I had been compiling information and creating maps for collecting sites since 1995. In 2003, my first book, "Rock, Gem and Mineral Collecting Sites in Western North Carolina," was published. It was also in 2003 that I founded the Mountain Area Gem and Mineral Association (M.A.G.M.A.). With access to the Internet and the ability to create a website, the club grew quickly.

> Over the years, I have written numerous articles for magazines like Rock & Gem and Rocks and Minerals. I spent seven years hosting the "Mineral Minute" radio show on Nature News radio here in Asheville, NC. Jacquot & Son Mining quit the tour business to concentrate on opening new dig sites for rockhounds and reopening some old ones as well. We also

started filming videos on rockhounding and fossil hunting. In 2006, I took up SCUBA diving for fossils and artifacts in the rivers of South Carolina and Florida. In 2008, I published my second book "Bone Hunter", about black water diving for fossils and artifacts.

In 1995, I married the love of my life, Sandy Jones Jacquot. I was working as a Police Officer at the time. Together, we hunted gems and minerals with the kids. I remember the first place we dug together was the old Wood Creek Sapphire Mine in Canton, North Carolina. When old man Tom Wood would see Sandy he would tell me "she's purty." Sandy would sometimes sit on the hill and talk to Tom while I hunted.

On our first anniversary, I took her to the Herbert Corundum Mine in Clay County, North Carolina. It was November and sleeting and raining, but she never complained while I dug for hours for sapphires.

Sandy prefers the host rock to the gems. She likes to incorporate them into garden patio mosaics along with

granite or marble countertop remnants. Sometimes we return home from collecting with one bucket of specimens and ten buckets of host rock.

Sandy worked for 23 years at Memorial Mission Hospital in Asheville, North Carolina as a Medical Technologist. The last ten years she worked on computer software customization and policy and procedure manual preparation and editing. Sandy was the editor for my book, Bone Hunter, so it makes perfect sense to have her as the editor for American Rockhound Magazine.



Patio constructed using discarded recycled marble countertops, quartz and slate. Photo Sandy Jacquot.



Sandy Jones Jacquot



Since 1996, Sandy and I have spent many good times digging for rubies and sapphires at Chunky Gal Mountain and Buck Creek in Clay County, North Carolina.



**Steve Barr** 

Steve Barr is a well known Cartoonist and successful author. His "1-2-3 Draw" series of books for Peel Productions has been quite popular over the years. He's recently written and illustrated "Draw Crazy Creatures" and "Draw Awesome Animals" for Impact books. His cartoons have appeared in a wide array of publications, including the Complete Idiot's Guides and the Chicken Soup for the Soul series. He's also provided the art for quite a few educational products and publications for children.

It may sound crazy that someone who earns his living with his hands would risk injury to them by constantly digging for rocks and gems, but he just cannot help himself. He's addicted! Originally hailing from New Jersey, Steve now calls the beautiful mountains of Western North Carolina his home.

Whenever he can slip away from his drawing table and his computer, you'll find him out digging for minerals and searching for new locations to explore. As one of the leaders of M.A.G.M.A (the Mountain Area Gem and Mineral Association) rockhounding club, Steve has access to an incredible array of collecting sites and loves sharing them with other mineral collectors. He handles all of the email correspondence for the famous Jackson Crossroads Amethyst Mine in Georgia and is one of the caretakers for the historic Crabtree Emerald Mine in North Carolina.

Through his affiliation with M.A.G.M.A., he's developed contacts and friendships with mine owners all over the United States and mineral collectors from other countries as well. If you were to ask him to choose whether cartooning or mineral collecting is his favorite activity, it would probably be a question he'd be unable to answer.





**Rob** Whaley

Rob Whaley began collecting minerals in 1967 when he was fortunate enough to visit the Cherokee Mine in Franklin, North Carolina to collect rubies. He found some and has been enthused ever since. He became a serious digger in 1980 by striking a major quartz/anatase pocket at Shingletrap Mountain in Montgomery County, North Carolina.

For the past 34 years he has made significant finds in Montgomery, Randolph, Stanley, Catawba, Guilford, Rutherford, Chatham, Henderson and Cleveland counties in North Carolina as well as Anderson, Union and Abbeville counties in South Carolina.

Through the years he has had the pleasure of knowing and digging with a number of outstanding area collectors. Boyd Mattison, Steve Whitlow, Jack Hanahan, Tommy Capps, Luther Thomas, Russ Holshouser, Roger Barnette, Shorty Peeler, Bill

Hoyle, Mike McDuffie, Louis Ormond, Rick Jacquot and the MAGMA crew were a few of many who added to his knowledge of mineral collecting.

I am working with Rob on a series of short stories and field trip reports to various lesser known sites and closed locations. This "Ghost Mines" series we are putting together is to document the history of the gems and minerals that have come from the southeast. Some will be about small sites that produced a very small amount of material and some will be about the great national forest sites that have been closed due to the forest service rules and unethical digging by a small group of individuals. We want rockhounds to see what has been lost and the treasures that came from these sites. This first story in the series, of Rob's first adventures at the Shingletrap Mine is a great read. I hope you will enjoy this tale of discovery, learning and the rewards that created the knowledgeable rockhound that Rob has become over years of field experience since then.



Adam Flinchum

Adam Flinchum's first hounding experience was with his father at Fairy Stone State Park in Stuart, Virginia when he was eight years old. He's been collecting seriously for around 10 years. He also facets gemstones. He is very passionate about the outdoors and is an avid hunter and fisherman.

He has two wonderful children, Carmen and Zev. He loves music, especially the Grateful Dead. He has been cooking for 20 years and has owned two restaurants. He earned a Culinary Degree from Johnson and Wales in Charleston South Carolina in 2001. He is currently Executive Chef/Director of food and beverage at a premier nursing-rehabilitation facility.



## North Carolina The Emerald Capital of North America Hiddenite Mining District

### **Richard Jacquot**

In all of North America, there is one shining star when it comes to emeralds, North Carolina. The town of Hiddenite and the Grassy Creek Township are home to the top producing emerald mines in the country. It's no wonder that emerald is the official North Carolina state stone.

We'll start in Hiddenite. This small town, located in Alexander County in the mountain foothills of Western North Carolina, has consistently produced record setting emerald specimens since the 1800s. The current record holders are the 1,869 carat "NAEM Emerald", the largest emerald specimen ever mined in North America (NAEM, 2003), the 64.83 carat cut stone "Carolina Emperor" which holds the North American record as the largest faceted emerald (Adams Farm, 2009) and a 591 carat, 10" twin crystal found at NAEM in 2006, the longest emerald in North America. While emeralds have been found sporadically at a few locations in Alexander County, there are two main mine sites in Hiddenite that produce these gems, the Adams Farm (formerly the Warren Farm) and the North American Emerald Mines (formerly the Rist Mine.)

The emeralds were first discovered in 1874, but it was a man named John Adlai D. Stephenson who first brought the emeralds of Hiddenite to light in 1875. He realized what the emeralds were and began purchasing them from local farmers. The farmers called the emeralds "Green Bolts," believing the emeralds were fused green glass caused by lightning strikes. Stephenson also found pieces of another green stone that he originally thought was diopside, which was later identified as spodumene and given the name "Hiddenite" after the mineralogist William Earl Hidden.

One of the early dig sites in Hiddenite was known as the Warren Farm, which was the site of the first commercial mining operations in the area. W.E. Hidden formed the Emerald and Hiddenite Mining Company in 1880 and mined the Warren Farm until 1888. Early finds included a 1,270 carat twin crystal found in 1881 and a 1,276 carat hexagonal crystal found in 1886. These two emeralds held the record as North Americas largest emerald specimens at the time. The 1,276 carat crystal resides in the Smithsonian Institute in Washington D.C.. The 1,270 carat twin crystal specimen was deposited in the American Museum of Natural History in New York. Unfortunately, in 1950 it was stolen and never recovered.

After the Emerald and Hiddenite Mine was closed, the property was mined off and on with moderate success by various other entities including the American Gem Mining Syndicate and the Hiddenite Mining

Company. In 1971, local rockhound, Robert "Red" Reitzel found a 1,493 carat twin crystal, at what was now known as the Adams Farm. That crystal still holds the record as the third largest emerald crystal found in North America and resides in the Smithsonian Museum. The finds by Reitzel and others after that put the Adams Farm back on the map as a top collecting site for gem hunters.

In the early 2000s, commercial gem miner, Terry Ledford formed a partnership with Adams Farm owner, W. Renn Adams. Ledford, a native of Spruce Pine, North Carolina had a long history of gem mining in his blood. Along with his father and brother, they mined numerous sites over the years including the Crabtree Emerald Mine in Mitchell County, North Carolina. For the next several years, Terry and his crew dug numerous emerald and hiddenite crystals from the farm, but it wasn't until August of 2009 when Terry and digging partner Steve Faucette hit the find of a lifetime, a 310 carat gem grade emerald crystal. This crystal was later cut down to a 64.83 carat faceted stone and dubbed the "Carolina Emperor", the largest cut



The three emeralds that were donated to the NC State Museum in Raleigh, along with the Carolina Emperor.

# Map of Hiddenite Area Emerald Mines

Mines in the Hiddenite, Alexander County area, that have produced emeralds, past and present.



Map courtesy of Geologist Wade Edward Speer











### Photographing the Carolina Emperor

I spent a day at Terry Ledford's in 2011 with Mark Randle and Ed Speer photographing the Carolina Emperor. It was mined in North Carolina and remained in North Carolina at the state museum in Raleigh. A big thank you to Terry Ledford, Renn Adams and the anonymous donor that made that happen.

*Top left: Getting a close up with my macro lens. Photo Wade Edward Speer* 

Top right: Two of the smaller stones that were cut from the same crystal as the Emperor. Photo Richard Jacquot

*Left: Mark getting a closer look at the Emperor. Photo Richard Jacquot* 

Bottom left: Ed Speer positioning the Emperor for a picture. Photo Richard Jacquot

Bottom right: Holding the Emperor. Photo Richard Jacquot





### On the Cover

Left: The 1,869 carat "NAEM Emerald" mined in 2003 by Jamie Hill at the North American Emerald Mines in Hiddenite, North Carolina, now resides in the Houston Museum of Natural Science. It holds the record as the largest emerald specimen ever found in North America.

Photo courtesy Harold and Erica VanPelt

Right: The 64.83 carat "Carolina Emperor" mined by Terry Ledford, Steve Faucette and Renn Adams at the Adams Farm in 2009 was cut from a 310 carat emerald crystal. The specimen now resides in the North Carolina Museum of Natural Sciences. It holds the record as the largest faceted emerald in North America.

**Photo Richard Jacquot** 



emerald in North America. It is often compared to an emerald that belonged to Catherine the Great of Russia.

The Emperor wasn't the last big find at the Adams Farm for Terry and crew. In 2011, Terry and digging partner Mark Randle unearthed a pocket containing numerous emerald crystals. The largest, which Randle dug, is almost four inches long and weighs in at 1,225 carats. The three largest emeralds from this pocket and the Carolina Emperor are now on display at the North Carolina Museum of Natural Sciences, thanks to an anonymous donor and the efforts of Terry Ledford, Renn Adams and Mark Randle. Sadly, not long after the big find and the emeralds being placed in the museum, Renn Adams died at the age of 92. The site is not currently being mined.

The Warren Farm was not the only site producing emeralds back in the 1800s. It was 1877 when emeralds were first discovered at what is now known as the North American Emerald Mines. In 1969, the property was opened as a fee dig site and named the Rist Mine. In July of 1969, rockhound, Michael "Butch" Finger dug the 1,438 carat "Finger" emerald, later renamed the Stephenson Emerald, now in the LKA collection. At the time, Butch's emerald was the largest ever found in North America. It remains one of the top twenty largest emeralds ever found in North America.

The Rist Mine was mined by American Gems Inc. from 1971 until 1982. From 1982 through 1995, the mine was owned and operated by LKA International Inc.. During this time, a 1,686 carat emerald was discovered and took the crown as North America's largest recorded emerald crystal.



Carolina Prince



Carolina Queen

This emerald now resides in the LKA collection. In 1995, the Sulphur Springs Properties LLC acquired the 94 acre tract of land that encompassed the old Rist property.

James K. Hill (Jamie) founded the North American Emerald Mines (NAEM) and began mining a 6 acre pit at the old Rist Mine site. In 1998 Jamie made his first big discovery at the site. I still have the newspaper articles that were published when



Butch Finger in 1969 with his 1,438 carat emerald crystal, the "Finger Emerald."

he hit it big. This find consisted of 3,300 carats of emeralds from pockets 12 feet below the surface. Several significant emeralds came from these pockets, including a 71 carat crystal that produced

> North America's largest cut emerald at the time, the 18.8 carat "Carolina Queen" and the 7.85 carat "Carolina Prince."

> The Carolina Queen was valued at over \$1,000,000 while the Prince sold for \$78,850 a carat, the most ever paid per carat for an emerald (2007 dollars.) I remember visiting the Colburn Gem and Mineral Museum in Asheville, North Carolina back then to see these two



*Jamie Hill holding the 591 carat, 10" long emerald found in 2006. This is the longest emerald ever found in North America.* 

emeralds. It was 2003 when Jamie hit the mother lode with his discovery of the 1,869 carat "NAEM Emerald", which still holds the record as North America's largest emerald specimen. Many say this is the finest mineral specimen ever mined! Today, this specimen resides in the Houston Museum of Natural Science in Texas.

Over the past few years, Jamie has continued the systematic mining of the site, occasionally finding unique mineral specimens and emeralds. These include the longest emerald ever found in North America, a 591 carat 10" long crystal found in 2006, a 965 carat crystal found in 2006, a 1,400 carat crystal found in 2007 and many more.

During the winter of 2012, I got a call from Jamie Hill. He asked me to come to Hiddenite to meet with his board of directors. Sandy and I drove there the following week to meet with Jamie, his mother Lynn, several board members and employees. After 18 years, they had decided to open the site to mineral collectors. They researched the local clubs and decided to allow the Mountain Area Gem and Mineral Association (M.A.G.M.A.) to be the first club to collect on the site in over 40 years. Our club's reputation as being a well organized group that could conduct field trips to the mine preceded us.

On March 23, 2012, the MAGMA club was at the mine bright and early and ready to dig! We had arranged a two day dig for the 23rd and 24th. Minutes after the members were allowed into the main pit, the first emerald was found. Club members Kevin and Libby Barrieault found a 50.5 carat emerald after turning over a rock lying on top of the ground. It was a medium colored stone and it sent a wave of anticipation through the crowd of almost 300 members that had come for their shot at the emeralds.

Members were finding numerous specimens of dolomite, siderite, quartz, calcite, rutile, pyrite, beryl and other rare and unusual stones. It was a collector's paradise. Club member Tracey Moore was in a vein pulling out nice smoky quartz crystals. Other members were breaking down boulders that were strewn over the mine floor with 20 pound sledgehammers, finding veins and cavities of crystals inside.

Jamie had used his track hoe to dig deep into the water in a flooded area where he knew there had been a pocket. He was dumping the material onto an island in the middle of the pit and the members were finding hundreds of specimens in the tailings. We called it the "Treasure Island Dig." It just kept getting better as the day wore on. The news of the emerald find earlier in the day had made it to town. That afternoon, the local newspapers were already at the site getting interviews from the members and Jamie Hill. It was an exciting first day and we knew the second day was going to be just as good, if not better.

On the morning of the 24th, the members were once again lined up to sign in for another day of digging. As they descended into the pit you could feel the energy coming from people as they began the hunt. I was walking through the mine listening to the sound of sledgehammers cracking rocks and excited people as they found another unusual or interesting piece. Occasionally someone would find a small but nice emerald specimen as a single







Emerald crystal Mined September 2005 Jamie Hill, NAEM 387 carats Wade Edward Speer photo

Closeup of emerald cluster Mined September 2007 Jamie Hill, NAEM 190.5 carats, 6.5 x 3.5 x 3 cm Wade Edward Speer photo

Emerald crystal Mined March 2012 Lofgren/Kehoe, NAEM 41.25 carats, 3 x 1.2 cm Amberlyn Studios photo



Emerald with quartz and muscovite Mined 2007 Jamie Hill, NAEM Approximately 3 cm Wade Edward Speer photo



Emerald and muscovite Mined January 2007 Jamie Hill, NAEM 97 carats, 7.6 oz cluster Wade Edward Speer photo





Top left and center: The Lofgren, Kehoe emeralds with a total weight of almost 400 carats. Some of these emeralds have since been cut into nice faceted stones.

Photos courtesy Terry Lofgren, John Kehoe, Richard Jacquot and Amberlyn Studios.







"You know in life you have things happen that you consider as one of the best things that could ever happen, and this emerald find is up there as one of my top picks." Terry Lofgren



Top: Libby Barrieault and her rock pup showing off her 50.5 carat emerald crystal. The stone was found within 10 minutes of the beginning of the dig! Pup photo Libby Barrieault.

Bottom: Rockhounds Tracey Moore and Tim Heafner with some nice smoky crystals found at NAEM.





crystal or in matrix. I noticed a couple from Florida, Terry Lofgren and John Kehoe, working near the base of the south wall in a hole that Tracey Moore had been working the day before. Jamie had seen Tracey working there and said that finding smoky quartz crystals was usually a good sign and that if you dug beyond the quartz cap rock, you may hit an emerald pocket. Tracey could not make it back for the second day of the dig, so she had passed off her dig spot to John and Terry.

I don't remember exactly what time it was, but someone came up to the office and said that a club member had found a really nice emerald and for me to bring my camera. I jumped in the truck and headed down into the pit. When I got out, I noticed a good size crowd had formed at an area near the south wall. I walked over and Terry Lofgren was showing off a deep green emerald she had found. It was about an inch long and almost half an inch wide and the deep gem green color that you look for in the emeralds from the mine. She had found a real treasure and we all knew it. Jamie saw it and immediately got excited. She explained how she and John had continued digging the quartz hole and the emerald just popped out while they were bailing water out of the hole. After talking with Jamie a while and getting some pointers on how to proceed, John and Terry went back to digging and everyone went back to hunting. I noticed that a lot of the members were working a lot closer to John and Terry after that. Later that day, they hit the pocket.

At that point, everyone was involved. Jamie had his crew member Shayne guarding the spot until he could come and evaluate the situation. I guess I should explain what the situation was. One of the conditions of our club gaining access to the mine were stipulations that were written into the release form we all had to sign. One of those stipulations was that if anyone found an emerald valued at more than \$10,000, it would be the property of NAEM and that the member who found it would either get to keep any minerals they had found up to that amount, or they would be reimbursed that amount once a top specimen was sold. The emerald found earlier that day was already at the \$5,000+ mark, so the pocket they found was well above and beyond the terms of the release.

Jamie came down and looked over the spot. He

gave more advice, but instead of him taking over and digging it for himself, he let Terry and John continue to work the pocket, with occasional help from Mark Randle and some expert advice from me and at least a dozen other instant emerald experts that surrounded them in the hole. After removing much overburden, a nice rock appeared with numerous emeralds showing, and within another hour or so, it was time to extract it. Then it was one nice piece after another, for a total of almost 400 carats of emerald crystals and matrix pieces.

Jamie Hill did not keep any of the emeralds that Terry and John dug. He could have stuck to his rules and kept a large majority of the emeralds, but he realized that this was a huge deal for them. How many times in the life of a rockhound do you get to dig at a world class site, and find real treasure? Jamie was a gracious host and he understands that it is not all about the money. It is about the hunt and that feeling you get when you unearth a gem for the first time. I have since become friends with Jamie. He truly understands what this hobby is all about.

The dig was a huge success. Terry and John went on to appear on the Anderson Cooper show in New York, to show the world the treasures they had found. I have never seen so many club members as happy as they were at the North American Emerald Mines digs. Over the next three months that the site was accessible, our group conducted five extremely successful trips to the mine. Our veteran collectors and rockhounds knew right away that we were being given the opportunity of a lifetime. We acted accordingly by expertly extracting some of the finest specimens to come to light in years. After a little over three months, the mine went back to private commercial operations and is off limits to hobby collecting today.

As of January, 2014, the NAEM site is currently being mined by owner Jamie Hill and his digging partners Mark Randle, Terry Ledford and Shayne Purdin. They are digging some nice material and we will take a look at some of what they are finding later in this issue.

We have talked about the glory days and past and current history of the Hiddenite area mines and have learned that collecting there is not an option at this time. So where does one go to hunt for North Carolina emeralds?



"Treasure Island", North American Emerald Mines, March 23rd and 24th, 2012 Jamie used his track hoe to dig into a pocket area that was underwater and deposited hundreds of specimens onto the island for the members to find.





Left: 965 carat emerald mined 2006 North American Emerald Mines

**Right: 15 carat emerald** *mined 2008* North American Emerald Mines

10.5 carat emerald mined 2007 North American Emerald Mines

The June Culp Zeitner emerald, 15.47 carats set in 18k gold with diamonds and matching ring and earrings.

All of the emeralds were mined in 1974 from what is now known as North American Emerald Mines.

All photos and emerald information courtesy Wade Edward Speer.







### Emeralds in matrix at the North American Emerald Mines

Top left and top right, from the same pocket, mined January 2002. Total of 160 carats, sold as a 4.5 carat set of cut gems for \$76,000. That's \$17,000 per carat.

Center left and bottom left, 1,400 carat emerald crystal mined in 2007, still in the ground.

Bottom center and bottom right, Jamie Hill with the 1,400 carat emerald mined in 2007.

Photos courtesy of Wade Edward Speer and Jamie Hill





![](_page_22_Picture_10.jpeg)

![](_page_23_Picture_0.jpeg)

Michael "Butch" Finger, 1947 – 2014 Butch Finger and Jamie Hill at the NAEM, MAGMA club dig, March 23rd, 2012

One of the highlights of the trip for me, Jamie, Mark Randle and others who know the history of emerald mining in Hiddenite, was meeting Michael "Butch" Finger. He joined MAGMA prior to the dig and I was anxious to meet him, having heard about his emerald finds for years. Earlier in this article I mentioned Butch. He was the one who found the 1,438 carat emerald back in 1969 that put this mine on the map as an emerald hot spot. Butch was a legend in the emerald hunting world. We lost Butch this year. On January 9th, 2014, Butch passed away at the age of 66 after suffering a stroke. We will miss you Butch .

![](_page_24_Picture_0.jpeg)

### Crabtree Emerald Mine Grassy Creek Township

**Richard Jacquot** 

Now that the NAEM mine is off limits again, where can you go to hunt some emeralds? Options are very limited. There is only one site in all of North Carolina that is currently producing emeralds and is open to the public, the Crabtree Emerald Mine, operated by M.A.G.M.A.. We have been managing this site for the mine owners since 2006. The site used to be open to anybody to walk in and poke around for minerals. That all ended one day back in early 2006 when one of our members went there to collect and was confronted by a drunken belligerent local who was trying to charge everyone \$50 a day to collect. The member contacted me and I called the owners of the mine. When I told them what was going on, their first response was to fence off the site and close it down for good. I talked with them and we worked out an arrangement where I could lease the property and operate it as a fee dig site. Since that time, we have cleaned the place up, used heavy machinery to dig deep into the old dump piles that had been gone through for years and brought new material to the surface that has not been seen since the 1980s. We recently used a 48,000 lb. track hoe to open the site even more and our members found some fantastic pieces. Before we look at the report, I'll give you a brief history of this mine.

The Crabtree Emerald Mine is one of the most famous emerald mines in North America. The

![](_page_25_Picture_0.jpeg)

1967, emerald bearing ore being hauled up from the mine on a steel sled at the Crabtree Emerald Mine. Photo courtesy of Tony Elwood.

mine has been worked for emerald since the late 1800s. In 1890 the first emeralds were found by farmer Alfred Chrisawn on the Thomas Sparks Sr. property. In 1894 J.L. Rorison of New York and D.A. Bowman acquired the mineral rights and began mining the property. The Crabtree was mined by Tiffany & Company of New York from 1895 until around 1900. In 1905 the mineral rights were acquired by the American Gem and Pearl Company. This company mined the site from 1906 until 1908. During this time many nice emeralds were found, some measuring one inch long and one inch in diameter. Another attempt to mine the site took place in 1919. From 1930 until 1935 the Crabtree was mined by Edward Fortner and J.P. Grindstaff. From 1939 until 1957 the Crabtree was idle with the exception of the occasional rockhound. In 1957 the site was opened again by Little Switzerland Emerald Mines. After 1957

25 American Rockhound

the mine was again idle.

The Crabtree was mined commercially from 1965 until the 1980s by the partnership of Bill Collins and Peggy Fortner (widow of Edward Fortner,) during which time fee collecting was allowed on the dumps. The workers would go into the mine and load the ore cart. The cart would then be hauled to the surface and dumped for the mine customers. Many beautiful specimens were collected during this time. In 1979 the famous "Lineberger Emerald" was found. This emerald was reported to weigh 1,492 carats. It's whereabouts are unknown today. In the early 1980s the mine was closed for some time. The mineral rights were purchased in 1984 by the partnership of Ted Ledford, Bert Roper and Dal Duppenthaler. The new owners actively mined the site and public collecting was allowed on the dumps. In the late 1980s the state mine inspectors visited the site and the mine was eventually

![](_page_26_Picture_0.jpeg)

Emerald crystals on matrix Mined 1974 Ken Kyte Crabtree Emerald Mine 77 pound plate, largest crystal measures 25.4 mm Richard Jacquot specimen and photo Emerald crystals on matrix Mined December 2013 Tom Leary Crabtree Emerald Mine Largest crystal measures 10 mm Tom Leary photo

Emerald crystals on matrix (Magnified) Mined November 2013 John Lichtenberger Crabtree Emerald Mine Field of view 1 cm John Lichtenberger photo Emerald crystals on matrix Mined November 2008 Mike Bamfield Crabtree Emerald Mine Large crystal measures 24 x 10 mm Mike Bamfield photo Emerald crystal Mined May 2009 David Hoteling Crabtree Emerald Mine Crystal measures 13 mm Richard Jacquot photo

![](_page_26_Picture_6.jpeg)

![](_page_27_Picture_0.jpeg)

1967, miners and collectors examine the ore just hauled out of the Crabtree Emerald Mine in hopes of finding a gem. Photo, courtesy of Tony Elwood.

shut down for various safety reasons. Since the late 1980s, the mine has set idle with the occasional collector visiting the site.

Over the last 100 years, the mine has been dug into the mountain more than 200 feet. The adit/shaft today is under water and the area looks like a natural pond. If you walk around the edge of the pond, you will see the old ore cart tracks running into the mine. In 2003, Roper and Duppenthaler acquired sole ownership of the mine property and mineral rights. Almost 20 years of collecting had taken their toll on the mine dumps. The piles had been thoroughly picked over and the site was becoming unproductive. In May, 2006, the current mine owners, Mineral City Mining Company, formed a partnership with local rockhound, Richard Jacquot to manage the site for them. Richard is also the president of a local mineral club, the Mountain Area Gem and Mineral Association. Today, through management of the club, the mine has been rejuvenated. M.A.G.M.A. has brought in heavy equipment to dig deep into the old tailings

piles that are 20-40 feet deep in places. Many beautiful emeralds have come to light in recent years and the mine is experiencing a re-birth of sorts with many new rockhounds getting the chance to experience finding emeralds at this famous and historic site. Down in the mine, the emeralds occur in a pegmatite vein approximately five feet wide with well defined walls. This pegmatite matrix encased the emeralds along with associated minerals, garnet and tourmaline. These stones were cut en-cabochon with the crystals in the host rock and given the name emerald matrix.

There are many notable specimens from this mine that were found before our club began working the site. They include the 1,492 carat Lineberger Emerald found in 1979, a 200 carat crystal found by Bill Collins in 1976 and an 83.11 carat emerald found by Seth Hammer in 1985. Since our group has been working the site, many more emerald specimens have been found as well as some rare and hard to find species.

## The Future Of Emerald Mining In North Carolina

### **Richard Jacquot**

What is the future of emerald mining in North Carolina? I can speak for the Crabtree Emerald Mine and say that as long as the mine owners want to continue to work with us, we will continue to keep the site open, accessible and productive for our members and others who would like to come and try their luck finding some rare North Carolina emeralds. If you want to arrange a trip for your club or family, visit our website at www.crabtreemine.com for all the details.

As far as I know there are no other locations, other than the mines we have discussed in North Carolina that are producing emeralds. That being said, I will briefly cover the news of a few other finds that have been announced in recent years. Some other mines in the southeast have claimed to have found emeralds since 2010. I know that geologist Ed Speer visited one of these sites and disproved the claim of emeralds there. Another site was claiming huge fist sized emerald crystals which would have made the mine owners instant multi millionaires. It has yet to happen. Another rockhound from Georgia was claiming to have a secret treasure map to a Georgia emerald mine. Again, no more news after the initial claim and no instant millionaire.

The truth is, there is a lot of green beryl found at many locations in the United States and there are a lot of rockhounds out there that are hoping to strike it rich. What better way to make money if you are a mine owner, or someone selling minerals and gems for a living, than to claim a new discovery of emeralds in your mine or on your property. People that are new to this hobby and uneducated about the differences in the various types of beryl will take some people at their word and might end up paying a lot of money for a green beryl that may only be worth a few hundred dollars or less. Educated rockhounds know the difference between the green in a beryl crystal and the green in an emerald. The difference can be verified and distinguished several ways.

One way, the way I prefer, is to have the specimen tested with X-Ray Diffraction. It will give you an accurate evaluation of the stone and provide an accurate identification. A well trained gemologist can easily give you an appraisal of your piece if you think it may be an emerald. In my opinion, the green beryl that is claimed as emerald will have a brilliant green color or "green fire" to emerald hunters. This color is much different than the light to dark green color of beryl. It is not just the color that makes an emerald though, it's what's inside. Green beryl is colored by trace elements caused by iron inclusions. I have had lengthy conversations with emerald hunters in North Carolina, and they all say the same thing. A real emerald will have the element chromium in it. Chromium is what gives a true emerald the brilliant green that emerald hunters look for. It is also what makes a 4" long green beryl, that would be worth maybe \$50 to \$200, worth into the millions to high end collectors and museums. If your green beryl does not have chromium, it is not an emerald in my book.

In recent years, some mineral dealers and collectors have come to accept the element vanadium as a coloring agent for emerald, but I believe that is being promoted as a marketing technique. Even though it is being accepted in many circles, those emeralds do not command nearly the price of a chromium based emerald. But this is my opinion and I want to learn more from someone that has literally made millions selling chromium based emeralds, Jamie Hill and the geologist that has studied the emeralds from the NAEM for many years, Wade Edward Speer. Jamie Hill, Mark Randle, Terry Ledford and Shane Purdin are currently searching for emeralds on Jamie's property at the NAEM site and surrounding property. They have had a lot of success in recent weeks uncovering some interesting pockets of quartz crystals and associated minerals, the minerals they are finding are a good sign that the emeralds are close.

# Interview with Emerald Hunters Jamie Hill, Mark Randle and Geologist Wade Edward Speer February 5th, 2014

### **Richard Jacquot**

**AR:** I'm here today at the North American Emerald Mines in Hiddenite, North Carolina, with mine owner Jamie Hill and his digging partner Mark Randle and Geologist Ed Speer. I'm pretty sure that all our readers know who Jamie Hill is and most know Mark from our MAGMA club and his connection to the emerald finds that have been made in recent years while he was working with gem hunter, Terry Ledford. Ed has worked with and documented every emerald find made at this mine since Jamie began mining the site in 1998.

**AR:** I'll start off with a basic question for you guys. What got you interested in gem and mineral collecting and when did you get started?

Jamie: I started rockhounding when I was 6 years old, crawling around in my grandmothers garden. There were quartz veins and rutile in the garden.

AR: When did you get serious about digging for emeralds specifically?

**Jamie:** In 1992, I decided to really get serious, get a piece of machinery and start knocking on some doors. My first dig contract was from 1992-1998 at the Larry Mattlock property. I had an extend-a-hoe back hoe with a 19 1/2 foot reach. You could slide the boom out so I could get deeper than most back hoes. We only found two emerald pockets on the whole property, and we had dug hundreds of pockets.

**Mark:** I got started as a kid, like most people that stay in this for any length of time. I was probably 5 or 6 years old when I started picking stuff up, which like you (Rick) I still have some of. Unfortunately I was in Alabama where there wasn't a lot to pick up. We had coal bed fossils and some agate. Quartz crystals were rare in the area I was in.

**AR:** Did you get to collect any of the Brilliant Alabama petrified wood when you lived there?

Mark: Not until years later.

**Ed Speer:** As a kid growing up in the mountains of Western North Carolina, I was always intrigued by the emeralds found near my home. By the third grade, I'd started my own rock collection, a passion I eventually turned into an exciting career. After two college degrees specializing in geology, I began earning my living as an exploration geologist and worked on some very exciting and rewarding mineral deposits around the world.

**AR:** Jamie, as an avid rockhound and gem hunter myself, I remember when you bought this land in 1995. I also remember when you made your first big hit in 1998. I went to the Colburn Museum to view the Carolina Queen and Carolina Prince that you had cut from the emeralds found in the 98 pockets. For many rockhounds, a hit like this would have been the find of a lifetime. After you hit the pockets in 1998, did you think you would ever find a bigger pocket or better finds, or did you think you had hit the mother lode and that this was your "find of a lifetime ?"

**Jamie:** No, I had been doing it so many years before then. To all of a sudden find thousands of carats, all that does is pump you up. I spent six years on the Mattlock property striking out. I came over here (NAEM Mine) and within the first couple of weeks of serious digging, I hit thousands of carats of emeralds. It (the story of the emerald find) went to the Charlotte Observer. The next thing I know, the phone is ringing off the hook. Oprah Winfrey, Inside Edition, People Magazine, everybody wanted to know, what's this guy

finding in Hiddenite. That's when all the publicity exploded.

**AR:** Ed, you have been working with Jamie and documenting the finds from here for years, I know you are the man to talk to about the geology of this mine. Can you tell us about the geology of the NAEM site and how it differs from the geology of the pegmatite that carries the emeralds at the Crabtree Emerald Mine near Spruce Pine, North Carolina?

**Ed Speer:** Migmatite is the name of the rock. The emeralds are occurring in quartz veins and that is most unusual. Most of the emeralds around the world occur in pegmatites like the Crabtree, or they occur in ultramafic rocks. These are not ultramafic rocks here in Hiddenite and they are not pegmatites. They are occurring in quartz veins. These quartz veins are not only unusual because they have emeralds in them, they are also unusual because they have open cavities in them. The emeralds get big because they are

![](_page_30_Picture_3.jpeg)

Jamie Hill and Geologist Ed Speer having fun during our interview.

growing inside those open cavities, with more room to expand and nothing to obstruct them. The only other place in the world where there are emeralds occurring in open cavities is Columbia, South America. Those veins are very similar to the veins that we have here.

AR: What is the geologic time frame for the rocks occurring here at NAEM?

**Ed Speer:** The rock itself was laid down as a sediment 400 million years ago. The quartz veins didn't come into existence until 200 million years ago. Between the 400 million and 200 million years, the rock was subjected to three, possibly four episodes of continental collision. Each one of those episodes was a major event. This rock was drastically altered and changed over the 200 million years from when it was laid down as a sediment to when the quartz veins came in. The rock was subjected to two to three periods of intense metamorphism. The rock was heated up to the melting point and it was under great compression. The quartz veins have open cavities. That's not a situation in which the rock was under great compression or those cavities wouldn't be able to open up. When the quartz veins occurred, the

rock was now under tension. The rock was being pulled apart. That's the reason the cavities were able to come into existence.

**AR:** While the emeralds were forming in these open quartz pockets, was it a matter of how long it took them to cool that determined how large the crystals grew?

**Ed Speer:** Yes, there's differences between the pockets because not every pocket has the same mineralogy. Not every vein or pocket has emerald. It is a cooling event, not a time in which the rocks are heating up. Rocks had to cool down to the point where the crystals could grow. Each pocket is a separate system. They are not interacting with each other. Some have emerald in them, some have no emerald in them. Some have hiddenite in them, some don't have hiddenite in them. Two pockets side by side can be totally different.

**AR:** I know we (Jamie and I) have talked about this before and I'll ask your opinion too. It seems that everybody in the southeast has an emerald mine these days. I know I'm old school about this. If it doesn't have chromium in it, it's not an emerald in my book. Some people say that vanadium makes a beryl an emerald. What are your thoughts about this and how would you accurately define an emerald?

**Jamie:** The color of vanadium is so deep green it has a hint of blue. Vanadium won't show up under a Chelsea filter. Vanadium will actually fade with time in the sunlight, emerald with chromium won't.

**Ed Speer:** Some green beryls are very close to emerald in color. The seller is going to call it an emerald. Most emeralds around the world, the gems that most people will call an emerald, if they're chemically analyzed, will have chromium and vanadium both, which are substituting for the aluminum in the beryl formula, not iron. It will be chromium and vanadium and it will always be more chromium than vanadium. It's a ratio of 5:1. There's five times as much chrome as an impurity as there is vanadium. However, there are some green beryls in the world which are almost all vanadium. They are a nice green color and the question is, does that qualify as an emerald. I've seen some green beryl, which I would swear was an emerald. They're gemmy and I'm just surprised that the seller is not calling it emerald. It looks like an emerald, but chemically, it doesn't have the 5:1 ratio. The seller is being honest and he's not calling it an emerald. It is in the eye of the beholder and the eye of the buyer. The seller should always be suspect, buyer beware.

**Jamie:** To me it's not emerald unless its chrome. I know the difference having mined them all these years, being to Tucson and seeing pure vanadium emeralds and comparing them to the finest Muzo and our emeralds.

**Ed Speer:** If iron is the impurity that's coloring the beryl, iron can be yellow, the common green or blue. Those are all just different oxidation states of the iron substituting for the aluminum in the beryl chemical formula. If it's manganese that's substituting for the aluminum, it can be pink or red morganite or bixbite. If it's chrome and vanadium in the correct ratio, you get the beautiful emerald green. Some sellers in the southeast are calling their beryl "Oriental Emerald," which is a marketing term. It just means common green beryl. I'll tell you why the beryls here are colored with chrome and vanadium. It's a geological story. If chrome and vanadium and iron are present, all at the same time when the emerald was forming, the emerald's going to be iron colored. It's going to be common green, the yellow or blue. It won't be emerald green because the iron will supersede the chromium and vanadium. So why here and other places around the world, does the emerald turn out to be colored by chromium and vanadium? The chromium and vanadium have to be present, but the iron has to be absent. There's iron in the veins. We have siderite, iron carbonate, pyrite, chalcopyrite and marcasite. So iron is available, but why didn't it get into the emerald?

AR: Was the iron introduced to the pocket after the emeralds were formed?

**Ed Speer:** No, it came in before. The siderite sucked up the iron. If we didn't have siderite, we wouldn't have emeralds.

AR: The secondary minerals sucked up the iron and left the chromium and vanadium for the beryls?

**Ed Speer:** The minerals that formed first sucked up all the iron out of the fluid that's inside that little cavity, leaving behind the chromium and vanadium. Now the emerald starts to grow and there's no iron available to discolor the beryl. This same explanation explains why the emeralds from Columbia, South America are so green and bluish green. They have iron too, but the iron got sucked up with the early minerals.

**AR:** In the other southeastern sites that have a lot of green beryl that is being called "Oriental" emerald, what's lacking? Is it chromium and vanadium or is it missing an earlier mineral to suck up the iron that is present?

**Ed Speer:** They're lacking an earlier mineral that would have sucked up the iron. The siderite we have here (NAEM) is the reason we have emeralds. That's what sucked up the iron and took it out of solution.

**AR:** You two are the experts as far as I am concerned. If there is a 5:1 ratio of chromium to vanadium present in the beryl, it is an emerald. If it is colored by iron, it is not an emerald. I have been saying that for years. I know I plan to stick with my American emeralds and pass on the Oriental emeralds!

### Beryl: Be3Al2Si6O18, Colored: Fe (Iron) = green, yellow, blue (aquamarine), Mn (Manganese) = pink, red, Cr & V (Chromium and Vanadium) = emerald green, emerald.

**AR:** Mark, having known you for many years, I know that you, like me, place value to some extent on every crystal specimen you find, whether it be a quartz or calcite crystal or an emerald. I know that you guys are looking for the emeralds as they are what pays the bills. With the extremely complex mineralogy of this mine and the wide variety of rare and unusual species found here, how much time and care is taken when you encounter these other species. I know that the emeralds are the goal, but do the monetarily lesser pieces get taken care of as well?

**Mark:** The mentality had been, to a degree, not so much. But you know how I am about that stuff. So anything that is cool or unusual, I'm going to try and get it out and take a look at it later. The same reason I go through a lot of pocket content that appears to be void. For the miniatures and micros to see what's in here.

**AR:** To clarify, when I say value, to many of us that means the thrill of the find and the respect we have for the gems and minerals. I know that I personally keep my best finds and the ones that have some sentimental attachment. I know that over the years, you have developed a network of high end collectors and museums across the country, that keep a close eye on what you are finding. I would imagine that the other species you find, calcites, quartzes, rutile, dolomites, siderites and pyrites would be of great interest to many collectors and maybe even affordable to some of us. I know that just about every North Carolina collector I have met greatly prizes anything from your mine as it is inaccessible to the average collector. Do you have, or do you plan to have an outlet where mineral collectors could purchase some of these minerals for their collections?

Jamie: Terry Ledford is the one that has bought the most minerals from this mine over the years.

**AR:** If the average mineral, hobby collector wants to buy a specimen from your mine, they should look for Terry at a local gem show?

Jamie: Yes, Terry specializes in North Carolina minerals and the Georgia amethyst. He's gotten more out of here than anyone.

Mark: I hope what we are going to see from NAEM is that we can become a direct conduit for minerals

from Hiddenite that are going to fall between a wholesale and retail price scale, so that collectors can afford them and dealers can also get some if they want them in larger lots when we are into larger lots of stuff.

**AR:** Mark, do you plan to have some of this material for sale at our MAGMA gem shows we have each spring?

Mark: I plan to have some there, yes.

**AR:** Jamie, I said the site was inaccessible to collectors, but you did allow our club, the Mountain Area Gem and Mineral Association in to collect several times back in the spring and summer of 2012. First, I want to thank you again for allowing our group to be the first gem club to have access to this mine in

![](_page_33_Picture_4.jpeg)

Working a wall at the NAEM, February, 2014. Ed Speer, Mark Randle and Shayne Purdin pulling out smoky quartz crystals, the quartz crystals are a sign that they may be close to the emeralds!

over four decades. I was wondering, do you think that maybe at sometime in the future, we will be able to return for a field trip to your mine?

**Jamie:** I can open a recreational mine here if I wanted to, but I would not put people in the pit again. I'm not saying I wouldn't have another MAGMA dig in the pit, but we would have to have some guidelines. Safety is a big concern, so we will have to figure that out.

**AR:** I know that when I announced the trip to the NAEM mine back in 2012, I got many new members signing up to join us for the dig. One of those members was Butch Finger. I had heard about Butch as a local legend for his emerald finds. I got to know Butch a little at digs over the next couple of years. As you know, he passed away at the beginning of the year and will be missed by many. I did not know him well, but what I did know was he always had a smile and a kind word when I saw him. If you could say something to him, what would you like to say?

**Jamie:** I didn't know him very well, but the time that I met him, I saw him as a kindred spirit, a fellow passionate rockhound. We shared a comradery right off the bat. I've always known who he was. His name has echoed my ears since I was 8 or 10 years old. I actually held the emerald that he found. I had always wanted to meet him. I really enjoyed meeting him at the club dig.

**Mark:** As I had gotten interested in Hiddenite 25 years ago, Butch Finger was already legendary on the continuum of collectors that had come through here and made famous or historic finds. I had never met Butch until 2 or 3 years ago and saw him a few more times after that. I found him to be just a great humble fellow. He didn't have any particular pretentions and up to the end loved digging rocks.

**AR:** Jamie, you have been probably the most successful gem hunter, specifically emerald hunter, in the history of North American gem mining. Your 2003 find of the 1,869 carat "Hill Emerald", is said by many to be the finest mineral specimen ever found. With a total of over \$9,000,000 worth of gems found since you began mining the site, how does this affect your view of rockhounding as a hobby? Do you still enjoy the digging as a collector or has it become a business for you?

Jamie: I love it. It's always been the same thing. It's a passion. It's been in my heart and blood since I was a child.

**Mark:** If you lose the love for the material and you don't respect the material anymore, it just represents dollars. I know some people like that, you know some people like that, locally and nationally. When it gets to that point, I think it's time to find something else to do, play the stock market or something. If you can't take joy from the least little thing that comes out of the ground that's been there for 200-300 million years, then you shouldn't be doing this.

**AR:** Mark, with so many mines and dig sites being closed to collecting, whether they be private property or Forest Service or BLM land, what is your opinion and thoughts on the future of mining here in North Carolina and the rest of the country?

**Mark:** If we want to continue working on any public lands whatsoever, rockhounds are going to have to figure out how to come together, federation or non-federation, because it's really not that big a group of people to start with. We are not being represented well at this point and you know what happens if you fail to represent yourself with government agencies. You become marginalized and pretty soon you will not be considered in any way.

**AR:** I'll agree with that. We (MAGMA) have been trying for years to work with other groups in the area with little or no success. It seems it is all about territory to some clubs and this, I believe, will sadly be the end of this hobby for future generations if we don't do something about it.

**AR:** Jamie, I know you have met the late Mel Fisher, and being an avid treasure diver myself, I have read all the books about him and the treasures he found back in the 1980s. And Mark, I know you know who he was. He had a famous quote he would say every time he would go out to dive for treasure, "Today's The Day". If you could say something to our readers and fellow rockhounds to inspire them to get out and never give up the hunt for treasure, what would you say?

**Mark:** You always have to believe you're going to find it every time you go out, or else you shouldn't be doing it!

Jamie: Anything's possible, you just gotta keep on digging!

**AR:** Thanks guys, I know our readers appreciate hearing how things are going here. I know I have learned a lot about the geology of the mine and more about the emeralds found here. It is good to know that there is a future for mining here.

While researching information for the Hiddenite, Alexander County area emerald mines for this article, I found my friend, Ed Speer's book (The Geological Society of America Fieldtrip Guidebook, Hiddenite District Alexander Co, NC, Wade Edward Speer, April, 2008) and website (www.speerminerals.com) to be the most reliable sources of information. I highly recommend his book and website to anyone that wants to learn more about the detailed history and geology of this area.

![](_page_35_Picture_0.jpeg)

Mark Randle and Shayne Purdin working a wall at NAEM in search of the elusive emeralds.

![](_page_35_Picture_2.jpeg)

Mark moving some earth to expose the crystal bearing pockets and veins.

![](_page_36_Picture_0.jpeg)

![](_page_36_Picture_1.jpeg)

Mud included quartz crystal, mined December 2013, NAEM

2" smoky quartz crystal with multiple enhydro inclusions, mined December 2013, NAEM

![](_page_36_Picture_4.jpeg)

Large twin smoky quartz crystal specimen, mined December 2013, NAEM

![](_page_37_Picture_0.jpeg)

Old mine equipment on site at the Crabtree Emerald Mine. This old truck has become an iconic sight and landmark at the mine.

### Crabtree Emerald Mine Grassy Creek Township, North Carolina Field Trip December 5th-8th, 2013

### **Richard Jacquot**

Our most recent club trip to the Crabtree Emerald Mine was on December 5th-8th, 2013. Our dig crew had just finished installing a new culvert in the road leading into the mine and we used the track hoe to dig to the bottom of the ancient dump piles. We immediately began finding many rare and unusual pieces, some I have never seen before from the mine. Many specimens of massive and cubed pyrite on matrix, purple fluorite and emeralds mixed in the matrix rock. I had seen the fluorite from this site rarely in the past, but I have never seen any pyrite from Crabtree. The machine work we had done was producing multiple specimens of both the pyrite and fluorite.

While I was removing the damaged road culvert to replace it with a new one, the water level went down. Water has flooded the old mine shaft being fed by underground springs. It is usually not seen at all. The only evidence that there is a mine is the old ore cart tracks sticking out that lead into the underground tunnel. The low water level exposed a large section of pegmatite rock. Upon closer examination, we observed numerous emerald and beryl crystals showing on that pegmatite. One of the tools we keep in our arsenal is a gas powered diamond saw. Jesse got the saw running and began removing sections of the emerald bearing rock. We knew we had to work fairly fast, as we did not know how long it would

be before the water level would rise, once again hiding the massive exposure. We managed to collect several nice emerald specimens from that section of pegmatite as well as some nice golden beryl in matrix.

The following weekend the club came in for the re-opening of the site. Members were once again able to camp on site with the new culvert in place and restored access to the camp area at the back of the mine. I saw many nice pieces of emerald in matrix as well as fluorite, some large beryl crystals, pyrite, garnet, tourmaline and more. This site has produced some of the finest black tourmaline (schorl) specimens I have seen from any North Carolina location. We have recently been finding a green tinted variety of tourmaline as well. I have not had the green variety tested yet, but many years ago I found several nice specimens of green tourmaline at another local mine, the Ray Mica Mines in Burnesville, North Carolina.

I wanted to have a test done to have an accurate ID. I took the piece to the local university, UNCA in Asheville, North Carolina. My friend and geologist Bill Miller teaches Geology at the university

and has access to one of the only X-Ray diffraction machines on the east coast. We placed a small piece of this tourmaline in the machine and it came back positive for elbaite, something new and rare for the Ray Mine! I am hoping the green tourmaline we are finding at the Crabtree will also test positive for elbaite tourmaline. I will know soon enough and will give a report in a future issue.

Many members showed up for this dig. They knew it was a great opportunity to dig where no one had been in decades. We had a special guest join us for the dig. Steve Brancato from the TV show Prospectors came out from Colorado. He spent ten days digging and camping with us at the mine. I think he had a blast digging for emeralds and enjoyed meeting our members. Many great pieces were found during the dig. Club member Adam Flinchum found a rare single cube of purple fluorite. I have seen fluorite in the host rock, but never a single piece like this. Other club members found some of the most unusual sprays of tourmaline I have seen from the mine. Danny Glover found the second largest beryl crystal to date. The largest being the one club member Michelle Sexton found back in 2008. We also found many nice emeralds, loose crystals and matrix specimens. While digging with the machine, I unearthed some very large boulders covered with a thick biotite mica cap. On some of the larger rocks, the cap is almost an inch thick with small emeralds and beryl crystals ringing the outside edges of the boulders.

One specimen I did not expect to find was a large snapping turtle. We were using the machine to clean out the drainage ditch to replace the culvert. I was piling the dirt and rock to left side of the roadway. I looked over as I was dumping a bucket of material and there he was, a giant, very mad looking turtle! I checked him to make sure he did not get hurt by the machine and then returned him to his home in the pond.

If you would like to visit the Crabtree Emerald Mine go to our website at www.crabtreemine.com.

![](_page_38_Picture_8.jpeg)

Dude! What's your problem, I was asleep!!! Photo Mitch Lewis Volume 1, Issue 1 January/February/March 2014 38

![](_page_39_Picture_0.jpeg)

Jesse Sackett uses a diamond saw to remove specimens of emerald in matrix from a huge piece of exposed pegmatite. The diamond saw enables us to remove these specimens without damage.

![](_page_39_Picture_2.jpeg)

Prospectors' Steve Brancato and MAGMA member Jesse Sackett examine a piece of pegmatite matrix containing emerald and golden beryl.

![](_page_40_Picture_0.jpeg)

![](_page_40_Picture_1.jpeg)

![](_page_40_Picture_2.jpeg)

Top Left: Danny Glover shows off a large beryl crystal he found in the freshly dug dump material during the December, 2013 dig.

Top Right: Danny's Crystal is the second largest beryl I have seen found at the mine since MAGMA took over management of the site.

Bottom Left: The largest beryl crystal I have seen found at the Crabtree Emerald Mine. Found by MAG-MA member Michelle Sexton during a 2008 club dig.

![](_page_41_Picture_0.jpeg)

Since taking over management of the Crabtree Mine in 2006, the MAGMA club has routinely brought in heavy equipment to maintain the road, camp area, turn over the gem and mineral bearing spoil piles and keep the site clean to make it more accessible and fun for club members.

![](_page_41_Picture_2.jpeg)

![](_page_42_Picture_0.jpeg)

![](_page_42_Picture_1.jpeg)

### A few pieces found by MAGMA member Drew Smith

Above left: A nice golden beryl in matrix.

Above right: Matrix piece with deep green emeralds showing.

Center: A gem grade emerald that may cut a 1-3 carat stone.

**Photos Drew Smith** 

![](_page_42_Picture_7.jpeg)

A view of the mountains from the Crabtree Mine. After decades of digging by rockhounds, the Crabtree Emerald Mine is still producing excellent specimens for collectors from all over the United States. Photo Richard Jacquot

![](_page_43_Picture_0.jpeg)

*Members search for emeralds and other rare minerals and crystals in the recently dug material at the Crabtree Emerald Mine.* 

![](_page_43_Picture_2.jpeg)

We have recently been finding a green variety of tourmaline at the mine, I am hoping that testing will identify the green tourmaline as elbaite, as has been found at the nearby Ray Mica Mines in Burnesville, North Carolina.

*Excellent specimen of multiple black tourmaline (schorl) crystals on pegmatite matrix. Collected at the Crabtree Emerald Mine, November, 2013.* 

![](_page_44_Picture_0.jpeg)

Top: Pegmatite host rock with emerald, purple fluorite, schorl tourmaline and smoky quartz. Collected November, 2013, Crabtree Emerald Mine. Field of view is 2" x 3". Fluorite is a rare mineral from the Crabtree Mine. It is very unusual to see fluorite and emerald in the same specimen.

Bottom left and right: A small, rare piece of purple cubed fluorite found by MAGMA member Adam Flinchum.

![](_page_44_Picture_3.jpeg)

![](_page_45_Picture_0.jpeg)

Blast From the Past 2003, MAGMA members John Deney and R.J. Jacquot III collecting at the Crabtree Emerald Mine.

![](_page_45_Picture_2.jpeg)

# Crabtree Specimen In Space

![](_page_46_Picture_1.jpeg)

![](_page_46_Picture_2.jpeg)

Ken Brandt

![](_page_46_Picture_4.jpeg)

The bolo tie Crabtree emerald was flown aboard the International Space Station, Expedition XII. Astronaut William S. McArthur commanded the expedition, which was aboard station from October 2005-April 2006. He asked me for something to fly with him to represent the state of North Carolina. I suggested the state gemstone (emerald) in a specimen of the state rock (granite). He agreed that it would be a fitting tribute to the county and state.

Upon landing, Col. McArthur presented the tie to me for 'the students of Robeson County'. It resides in display at the Robeson Planetarium and Science Center in Lumberton and is worn on ceremonial or special occasions. I last wore it to celebrate the 10 year anniversary of Opportunity Roving Mars.

I brought the emerald specimen to the Crabtree camp-out over 4th of July weekend, 2008 to share with the MAGMA members present and to show off Crabtree's 'furthest flung' specimen!

#### Ken Brandt, M. Ed.

Astronomy Lecturer Robeson Planetarium and Science Center Director JPL/NASA Solar System Ambassador Master Teacher

### Kids' Corner with Steve Barr

![](_page_47_Picture_1.jpeg)

# Keep Track of All of Your Mineral Finds!

As you begin to build your collection of rocks and minerals, you'll want to catalog what they are, where they came from and the date that you found them.

Most rockhounds number their specimens. Some paint a little number on the bottom of the piece or attach a sticky note to it.

Then, they keep a notebook where they record the information for future reference. You should start your own catalog of your discoveries so you never forget what they are or where they came from.

And, if you ever sell some of what you've found, collectors place more value on a piece if they know the location it came from.

![](_page_47_Picture_7.jpeg)

# Be a Good Rockhound - Code of Ethics

- □ I will respect private and public property and will not collect anywhere without permission.
- □ I will find out about laws and rules for collecting on all lands I visit and will observe them.
- □ I will leave all gates as I found them.
- □ I will fill any holes that may be dangerous to livestock or any other animals.
- □ I will not contaminate wells, creeks, or other water supplies.
- □ I will cause no damage to collecting material and will only keep what I can reasonably use.
- **I** will pick up any litter I find, whether it is mine or someone else's.
- □ I will cooperate with Field trip Leaders and those in charge at all collecting sites.
- □ I will protect our heritage of Natural Resources.
- □ I will observe the 'Golden Rule,' and will use Good Outdoor Manners at all times.
- □ I will conduct myself in a manner that will be good for the image of Rockhounds everywhere.

![](_page_48_Picture_0.jpeg)

# Rockhound News A Current Look At The Rules And Regulations For Mineral Collecting In The North Carolina Forests

### **Richard Jacquot**

![](_page_49_Picture_2.jpeg)

In January of 2003, my first book was published, "Rock, Gem and Mineral Collecting Sites in Western North Carolina." At the time, I included the current rules and regulations for rockhounding in the Forest Service in North Carolina. I did this because many of the sites included in my book were located on Forest Service managed land.

At the time, the most current rules posted on their web site were from 2000, so that was what I published. The rules back then were subject to interpretation by the rangers in charge of each district, but we never had a problem using a pick and shovel to dig for and collect minerals. Times have definitely changed, take a look at the 2000 rules.

#### ROCKHOUNDING ON NATIONAL FOREST LAND IN NATIONAL FORESTS IN NORTH CAROLINA

### A Rockhound is a person who hunts and collects rocks and minerals as a hobby

A wide variety of igneous, sedimentary and metamorphic rock types are found within the National Forests in North Carolina, and many individual minerals are found in association with these rocks. As a rule, there is no objection to taking a handful of rock, mineral, or petrified wood specimens from the surface of the National Forest System lands. No fee, special permission, or permit is required as long as: The specimens are for personal, non-commercial use.

The specimens are not of archeological value (all artifacts, including projectile points, chips and flakes may not be collected).

No mechanical equipment or blasting is utilized.

No significant surface disturbance results, and collection does not conflict with existing mineral permits, leases, claims, or sales.

There are many areas scattered throughout the forests where the United States owns the surface of the land, but does not own the minerals. There is no objection to collecting specimens of the local rock types exposed on the surface; however, mineral specimens that may have some value can only be collected with permission from the mineral owner(s). These may be identified from maps in offices of the Forest Supervisor and District Rangers.

Rockhounding must not be confused with commercial mineral activities. Mining and mineral leasing laws are applicable to all activities of a commercial nature. During the course of collecting rock and mineral specimens, the rockhound may feel that an area is worthy of detailed exploration to determine whether or not a mineral is present in commercial quality and quantity. This type of detailed exploration can be conducted only under a Forest Service or Bureau of Land Management (BLM) Permit. Applications and additional information may be obtained from: Eastern States Office, BLM, 7450 Boston Boulevard, Springfield, Virginia 22153.

Certain areas are designated as archeological sites or geologic interest areas. Ground disturbance of any sort is prohibited in these protected areas. Unrecorded archeological sites are also protected areas.

Included with rockhounding is panning for gold in the beds of many streams crossing National Forest land. Stream-bed (placer) gold, in most cases, does not exist in sufficient quantity to constitute economically recoverable deposits. Ordinarily, no more than a few cents worth of gold can be panned per hour; however, there is always a chance of finding that stray nugget or odd pocket of finer gold. No fee, special permission or permit is required as long as only shovel and pan techniques are employed and no significant stream disturbance results, but one should first check with the local District Ranger. On National Forest land, where the minerals are privately owned, panners should obtain written permission from the mineral owner(s) prior to beginning collection. In the National Forests in North Carolina, recreational suction dredging is not allowed. A closure order was signed by the Forest Supervisor on September 14, 1993.

In relation to mineral activities, disturbance is considered significant when:

**1**. Natural recovery would not be expected to take place within a reasonable period of time.

2. There is unacceptable air or water degradation.

3. There is unnecessary or unreasonable injury, loss or damage to National Forest resources, i.e., use of explosives or mechanical equipment.

Collectors and panners are advised to contact Forest Service offices about access to National Forest lands. Some areas may be readily accessible by family auto, while others may be accessible only with difficulty by four-wheel-drive vehicles or hiking. Some roads may be seasonally closed. Remote areas may be accessible only by foot.

The best sources for such information are state geological survey offices, university geology departments and libraries, mineralogical societies, rockhounding and lapidary clubs, etc. The Forest Service obtains authority for managing rockhounding from 43 CFR 3560.7 (Hard rock Mineral Specimen Collection), Final Rules-Federal Register, April 22, 1986, Page 15250. "

The rules for collecting were definitely less restrictive back then, but there were, and still are many gray areas that have yet to be defined. There are also a great many "rockhounds" that either did not read the rules, or just don't care to follow them. I want to touch on a few things that need to be addressed, not just by the Forest Service, but by us. As a rockhound community, we need to police our colleagues, fellow mineral collectors, and educate them on proper etiquette for mineral collecting, not only in the national forest, but on private property as well. If you are part of a club, make sure your members know the rules. If you are an independent collector, make sure to keep up on the current rules for your area and follow them, so as not to jeopardize collecting for us all.

Let's look at some of the 2000 rules;

The specimens are for personal, non-commercial use. This seems to be a pretty self explanatory rule. But I cannot tell you how many times I have been to a local gem show and seen rockhounds selling gems and minerals from local sites like the Ray Mines or Walker Creek. Some of these people even go as far as labeling the specimens as being from the Forest Service land. I have never been able to determine whether they just did not know that what they were doing is illegal, or they were too arrogant or ignorant to care! It is people like this that we, as a rockhound community need to police, educate, inform, or report if necessary to the proper authorities so their actions do not affect us all.

**No mechanical equipment or blasting is utilized.** Again, this is, or was pretty self explanatory to me, and I'm sure many others. I have always considered mechanical equipment to be anything that is "powered" by anything other than manpower. Electric, battery powered or gas powered would not be allowed. Tools like a pick, shovel, chisel, hammer, pry bar and any other tool that you use by hand would be allowed. And of course, no dynamite! It seems that the Forest Service now has a different view of "mechanical equipment" which we discuss later.

**No significant surface disturbance results.** This is where is gets fuzzy. There has always been a gray area with the Forest Service and rockhounds as to what is considered "significant surface

disturbance." As a collector that has been digging and collecting since 1989 in Western North Carolina, I always looked at the area I was collecting. The Ray Mines or Buck Creek Mining District for instance, have been mined since the 1800s. The material we are searching through has been brought from deep underground and deposited on the surface to create many acres of dump piles. These piles are many feet deep in places and it would take years for a person digging by hand and shovel to even get through a minimal amount of what is there. There is no archeological value to sites like these. It has been disturbed by commercial mining by both private entities and our own government for many years before the first hobby collector arrived on the scene. On the other hand, many rockhounds enjoy the thrill of finding a new location to prospect, as mineral outcrops are a common thing here in the WNC mountains. I know that I, and many of my friends have found new exposures of gems and minerals. How those minerals are removed is now an issue with both the rockhounds and the Forest Service. This leads into another statement made in the 2000 Forest Service rules.

"There are many areas scattered throughout the forests where the United States <u>owns</u> the surface of the land." Unless they are talking about the citizens of the United States, the last time I checked, the United States government manages the forest land through the Forest Service, specifically the North Carolina Forest Service here in NC. The forest land is owned by the citizens of the United States and is here for our use and recreation. Many people here in NC use the forest land for a variety of hobbies and sports to include; hunting, fishing, four wheeling, mountain biking, hiking, bird watching and rock climbing. Rockhounding and collecting is <u>OUR</u> hobby. We have every right to enjoy our hobby as these other people do theirs. Within reason, we should have access to mineral resources and the ability to reasonably extract the minerals we are looking for without extreme, unreasonable restrictions. Every Rockhound I associate with is more than willing to work with the Forest Service to come up with reasonable rules and regulations to allow us to continue to use the forest resources to enjoy our hobby. <u>WE</u> own the land; the Forest Service manages it for us.

"Shovel and pan techniques are employed and no significant stream disturbance results." This is listed in the section on gold panning. It is significant to me and others, as it is a double standard to us. "Gold panning" using shovels is considered as acceptable to the Forest Service and Rockhounding is not? More on that later in this article.

### "In relation to mineral activities, *disturbance* is considered significant when:

**1.** Natural recovery would not be expected to take place within a reasonable period of time." Another gray area? What is a reasonable amount of time? Over the years I have talked with many forest rangers and have had numerous responses to this question. A week, a month, a year, five

### "2. There is unacceptable air or water degradation."

Again, what is unacceptable? I believe that screening and washing material in a creek, stream or river would be considered as acceptable as long as you not using a shovel to dig a deep hole in the waterway. I know fisherman use the creeks and waterways to clean their fish, four wheeler trails cross through creeks, etc.. How is it that a rockhound screening a small screen of rocks is considered "water degradation" especially when it is perfectly acceptable for a person who is gold panning in the same creeks and streams?

# "3. There is unnecessary or unreasonable injury, loss or damage to National Forest resources, i.e., use of explosives or mechanical equipment."

We touched on this earlier. I don't think any hobby rockhounds are using dynamite to extract minerals. If they are, they are not hobby collectors. They would be either commercial collectors

vears?

and have a permit for such activities or they are criminals and should be prosecuted as such. As a hobby collector, I used to visit many sites in the forest to collect. I would dig at various sites occasionally to find crystals for my collection. If on the other hand, someone is digging at a site repeatedly over many days or weeks, creating huge holes and excavations in the forest, dismantling entire rock outcrops, and if this is being done by one individual or small group of individuals, I would have to believe that those people are more than just hobby collecting. I would say that they are collecting to resale the minerals they are finding.

So let's look at the 2014 rules and regulations posted at North Carolina Forest Service site.

### 2014 Current Rules for Gold Panning and Rockhounding

Some visitors to the national forest like to try their hands at finding minerals or panning for gold. Visitors are asked to following these guidelines when rockhounding or gold panning in the National Forests in North Carolina.

Rockhounding and gold panning may take place on most national forest lands, provided only small quantities of material are removed for personal, non commercial purposes.

Recreational rockhounding and gold panning are not allowed in congressionally designated wilderness areas or in the corridors of designated wild and scenic rivers.

Recreational rockhounding and gold panning are not allowed in forest areas where mineral rights are owned by a private party, or in an area that is under mineral lease to a private party.

Permits are required for removal of mineral materials for scientific and research purposes.

Commercial removal of minerals requires a prospecting permit from the Bureau of Land Management.

Materials must be removed using small hand tools without mechanical means or motorized equipment.

Removing mineral materials with a pick, shovel, sluice box or similar large tools can cause significant impacts to resources and is considered mechanical so therefore not allowed.

Suction dredges are not allowed by forest closure order.

Gold pans may be used for gold panning in the beds of streams, but the banks of streams cannot be disturbed by digging or removing materials.

Any disturbance to or removal of historical or archaeological artifacts is prohibited by federal law.

The main thing that has changed is the "Materials must be removed using small hand tools without mechanical means or motorized equipment. Removing mineral materials with a pick, shovel, sluice box or similar large tools can cause significant impacts to resources and is considered mechanical so therefore not allowed." The Forest Service is now including picks and shovels as "mechanical equipment"? I don't know what part of a hand held pick or shovel is mechanical, but there must be some explanation for this rule. I'm sure it is not just in place to restrict our rights as hobbyists to collect minerals on Forest Service managed land.

Of course, the double standard for gold panning is still in place as before. You can still disturb a creek, stream or any other waterway if you say you are gold panning. If you are looking for a sapphire with a sifting screen you are breaking the rules?

Sadly, I have witnessed firsthand all the violations that are leading to these restrictions being put

on us; monster holes dug at sites like the Walker Creek Kyanite site (Meeper Mine), rerouting creeks and streams to hydro mine crystals at sites like the Ray Mines, selling gems and minerals at rock shows that were collected from the Forest Service, destruction of entire rock outcrops by a handful of greedy diggers for financial gain, camping for weeks at a time at sites like the Shingle-trap Mine and leaving beer cans and garbage lying everywhere. All these things have been done by a small group of people. All these sites have either been completely shut down to collecting or are in jeopardy of being shut down. These people are criminals that are killing this hobby for us all. Some of them have even posted videos of their criminal activity on web sites like youtube. They are actually proud of the destruction they have caused.

I have been working with the Forest Service to try and get some sites designated for rockhounds to collect. The North Carolina Forest Service is currently revising the Forest Plan. This "Forest Plan Revision" began in October of 2012 and we have been attending meetings for the past two years lobbying for our hobby. It is very important that we, as responsible rockhounds continue to work with the Forest Service representatives to get reasonable rules and regulations applied to rockhounding that will keep our hobby both fun and productive. There are meetings coming up in various areas in North Carolina to address this revision plan. We need to be there to show them that we want to continue actively pursuing our hobby in a responsible way in the national forests. We need to make them aware that the actions of a handful of criminal renegades do not represent the whole of our community. I for one, will be working to help get these people out of our forests and hopefully restore the reputation and opinion of rockhounds in the eyes of the forest rangers. I want them to see us as they see every other hobbyist that utilizes the resources the forest has to offer. We are no different than the hikers, mountain bikers, hunters, fisherman or horseback riders that use the forest. Every group has bad apples. We do not want to be judged by those bad apples.

Here is a breakdown of the timeline for the plan revision from the Forest Service:

Plan revision began in October 2012 with the notice of initiation.

March 2014 - scoping begins with the publication of the Notice of Intent and the preliminary need for change.

May 2014 - plan revision team considers scoping comments and identifies issues.

Spring/Summer 2014 - public meetings to discuss issues, and develop the proposed plan and alternatives.

Fall/Winter 2014 - effects to social, economic, and natural resources are analyzed for the draft environmental impact statement (DEIS).

March 2015 - DEIS is released for public comment, public meetings held.

Summer 2015 - public comments are analyzed and changes to DEIS are made.

March 2016 - final environmental impact statement (FEIS) is released to the public and objection period begins.

### August 2016 - final decision signed.

The following are excerpts from a letter I received from the Forest Service regarding the plan revision and some of the topics they will be addressing.

Geology, Minerals, and Energy:

There is a need to clarify plan direction regarding recreational metal detecting, mineral collection, and gold panning.

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### **Designated Areas:**

# There is a need to clarify and update plan direction regarding designated areas including Special Interest Areas. There is a need to update the current list of Special Interest areas and consider other proposals for special designations.

This is important for us as we need to get some areas designated for rockhounding. What I have taken from the Forest Service reps I have talked with, is that we will no longer be able to wander and prospect for mineral deposits in any area of the forest. They instead have stated that they may consider some designated sites for rockhounding, maybe with a permit or license system in place. This would be good in one way. We would have our places to hunt without fear of fine or arrest, but I don't like the fact that we would be limited to certain areas. I would like to see some wording in place that if a person discovered a valuable mineral resource while out hiking in the woods, there would be some type of process where that resource could be collected/extracted without repercussions or fines. I also want less restrictive rules on the type of tools and equipment that can be used and a clear definition of significant ground disturbance so there is no gray area.

Several charges have been made against people digging in the forest recently. One man was charged after getting caught digging at the Walker Creek Kyanite Site. Several others have been charged for digging deep holes at the Ray Mines. I have an issue with this. The last ranger in charge of that area told us (the rockhounds) that collecting at Ray was OK, as long as we stayed up the hill and away from the creek. It seems that has changed with new rules taking effect.

I recently talked with the new ranger in charge for the Appalachian Ranger District, Matthew Mc-Combs. He had the following advice. If at the Ray Mine or anywhere else in the forest digging, you should be aware of how you are digging. If you are digging a 5' x 5' hole you might get a citation. If you are digging and causing minimal ground disturbance you might not. If you dig any hole, fill it in when you are done, leave the ground just as you found it (and do not say you found a 5' deep hole and dig in it.) Do not go anywhere near the open mine shafts and pits or the creek. All those areas are completely off limits. Of course all of this today is still as it has been for the past few years, up to the discretion of the individual ranger that sees you in the woods and you may be fined for even the most minimal ground disturbance.

The Forest Service Plan Revision meetings are coming up. I will post dates and times for those meetings as I learn about them on my website at www.americanrockhound.com. Mr. McCombs did say that during recent internal meetings, it has been discussed that they need to look at rock-hounding as a valid hobby that should be allowed on the forest service land. As we discussed, it may end up being a yearly permit or license type system and there may also be some designated areas that would allow us to dig in a way that would be productive for our hobby. My advice is, if you dig, dig smart, don't videotape yourself tearing up rock outcrops. Respect the land and leave it as you found it. If you come upon a 5' hole in the woods, walk away. Do not dig in it or make it bigger. If you make any ground disturbance at all, fill it in when done. Or do like me, find some private property to dig on and wait till the Forest Service gets the plan revision finished. I much prefer collecting and enjoying the outdoors without having to look over my shoulder every few minutes in fear of being arrested.

I plan to continue working with the Forest Service in hopes that we can have some positive impact on our hobby with this plan revision. If you would like to learn more about how to send comments to the Forest Service on this subject, or find meeting locations, dates and times, contact Heather Luczak at 828-257-4817.

![](_page_55_Picture_0.jpeg)

# Memories of Shingletrap

### **Rob Whaley**

Shingletrap Mountain is located in Montgomery County, North Carolina, in the Uwharrie Mountains off Highway 109 about midway between the hamlets of Uwharrie and Eldorado. It sits a few hundred feet above the east bank of the Uwharrie River, nearly where that stream empties into Badin Lake. Wonderful quartz crystals and clusters with anatase and albite have been found there for 50 years.

The geology of the area is described by Carpenter in "Metallic Mineral Deposits of the Carolina Slate Belt, North Carolina." Maps from that publication show numerous faults running northeast to southwest going for miles in the Shingletrap area; no doubt these had some role in the formation of the quartz

outcrops found there. What to call the quartz formation on Shingletrap remains a mystery to me. I have heard it referred to as hydrothermal in origin, pegmatic and even alpine-type fissures.

From a prospecting point of view, the presence of other quartz (and gold) mines along this NE to SW line in the Uwharries is a significant fact. So too is the location of the Shingletrap quartz deposit on a hill above a stream; I have found many crystal digging sites by following streams in piedmont NC/SC.

The quartz/anatase crystal site on Shingletrap has been visited by scores of collectors from the 1960s until 2014, when it was recently ended. Thanks to the misdeeds of a renegade rockhound, the National Forest Service has declared Shingletrap to be off limits to rock collecting. Unless the Forest Service can be

persuaded to reopen the site to legitimate collectors who will

![](_page_55_Picture_8.jpeg)

Anatase on quartz

follow the rules, the enjoyment of many will once again be spoiled by the selfishness and unethical behavior of a few.

I first laid eyes on Shingletrap in 1980 as a member of a Charlotte Gem & Mineral Club field trip. The trip

![](_page_56_Picture_0.jpeg)

Topography and Uwharrie River at Shingletrap

![](_page_56_Picture_2.jpeg)

*Remnants of Dike at Shingletrap in 2009, photo by Shaun Shelton* 

leader had bad information and so led us up the steep side of the mountain when an easy mine road was available. The chosen route led to outcrops of massive milky quartz; that site was nearly void of the prized euhedral crystals with anatase that had been reportedly found at the location. Forty club members found about forty nondescript crystals that day.

I felt I could do better, so the following week I set out alone to blaze my own trail. No blazing was necessary, because I soon discovered the old road used by trucks in the 1950s to carry the milky quartz ore to processing plants; there the material was crushed for emplacement on concrete slabs to be hung as curtain walls on skyscrapers, First Union Bank in Charlotte being so decorated.

Anyway, I followed the road up the mountain until it ended in a quarry area located behind the area hunted by the Charlotte club. I continued on past the quarry a few hundred feet on a scant trail that led to a 7 foot high dike of the most brilliant milky quartz I have ever seen. The dike was undisturbed for about 30 feet, although there was rubble down the hillside toward the river apparently coming from above and below the dike. This was to be the site for years of collecting by me and others with whom I shared information. I later sought and received permission to dig from the Head Ranger in Troy, NC (hand tools only and no significant disturbance of vegetation.) Today, the formation is entirely gone. I poked about at the foot of the dike in some soil covered by moss and found a one inch very clear double-terminated crystal. With darkness falling I left without further digging, convinced I was on to something. Shortly before my next visit it had rained, and in the primitive track below the dike I spotted a fine clear crystal that had been unearthed by my previous digging. There I started a hole that became the start of serious mineral collecting for me. Here, the soil was gray compacted clay glistening with microcrystals. Down about 18 inches I dug into greasy clay that was homogeneous; no one had dug here before! Next, I struck a small rock which was covered with druzy crystals on the bottom. Continuing down, more crystallizing quartz appeared with larger and larger crystals finally leading to free floating clusters of high quality crystals; I had hit an undisturbed pocket!

It took me visits on three additional days to excavate that pocket, which ended up being about the size of an old fashioned washtub. It is a testament to the isolation of my dig that no other collector noticed what I was doing. Only after several months of collecting did someone become aware of my dig; then the quartz rush was on!

The largest cluster in my first pocket weighed 5 pounds and there were many other clusters and numerous single crystals, some up to 6 inches long. A few of the water clear crystals had green, white, and brown chlorite inclusions. Patches of tan albite crystals were nested in the clusters and on individual quartz crystals. Both the quartz and albite were sometimes topped with blue anatase crystals. These were rice-sized and smaller bi-pyramids, sometimes colored with bands of yellow and blue. A few quartz crystals had entirely included anatase.

Discovering this pocket proved to be a lifelong gift to me from Shingletrap Mountain. The experience I had there gave me lessons in prospecting and excavating quartz that I was able to use through the years to find numerous locations in Montgomery, Randolph, Catawba, Lincoln and Cleveland counties in North Carolina as well as several in South Carolina. It's an example of the rich getting richer - you get better at finding and digging crystal locations with each one you do; there's no substitute for experience. Here is what I learned at Shingletrap and beyond.

### Prospecting for Quartz Crystals

- 1. Generally research possible locations within your area. Typically, the best quality and quantity of specimens come from proven locations and their immediate surroundings. Mineral locality books, magazine articles, and state mining reports are good sources. For example, I found good specimens at a dozen locations described in "Mineral Localities of North Carolina" despite the availability of that book to hundreds of mineral collectors for 50 years. Although Zeitner's "Appalachian Gem Trails" is vague about locations, it has gotten me to the right mineral neighborhoods. Highway and building construction are themselves neighborhoods that may be prospected. The smoky and amethyst found at the famed Tate Blvd. location in Hickory, NC was discovered with grading for new factories. Widening a road near Cat Square, NC yielded superb clay-included smoky crystals. Reading labels at museums and mineral shows can be productive. Talking to rockhounds, dealers, farmers, park rangers, hunters, quarry operators and local residents can give unique information. Beware of those who say, "you can't find anything there anymore." This may be stating the fact they couldn't find anything or it might be disinformation. One digger I know would discourage collectors from visiting Shingletrap by saying it was crawling with huge diamondback rattlesnakes; I saw one blacksnake in a tree in nearly 100 visits to the area.
- 2. Once you have narrowed your search to a specific area, get topo and geologic maps to further focus your efforts. Streams and steep grades increase your chances, because faulting there may have created crystals and erosion there may have exposed them. Trails of mica, particularly larger crystals, frequently accompany crystallizing veins. Topo maps may show abandoned mines.
- 3. Begin to look in these likely areas for loose milky quartz float rocks in plowed fields, hillsides and stream banks. The sharper the float rocks, the closer you are to the source. These fragments may lead you to undisturbed quartz outcrops or veins; here is where you will most likely find the best crystals. I remember collecting in Cleveland County with Shorty Peeler, who would look for "leader quartz" in plowed fields. It was very bright in the sun and breaking it would create quite reflective, translucent pieces. I saw him follow these indicator rocks to a vein of superb clay-included quartz that was two feet
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underground but had been partly exposed by the farmer's rip plowing. Brilliant milky or clear quartz is the first stage of crystallization leading to euhedral crystals.

- 4. Once you have located a vein or outcrop, begin exploring it with pick, hammer and screwdriver (or better yet sharpened bamboo that will not chip the crystals.) In striking the host quartz, if it resists and makes the tool ring, you are not yet close to the crystals, or there are none. If the tool thuds dully and shatters the quartz into sharp pieces, you are close to the zone of crystallization. Increasing quality of crystallization may be seen in the following stages:
  - A. Brilliant milky quartz that is sharp, glassy or translucent when broken;
  - B. Milky quartz that is blocky or "shapy" (shapes resembling crystals;)
  - C. Milky quartz showing crystal faces and/or cavities;
  - D. Complete crystals milky, translucent, or transparent;
  - E. Fancy (euhedral) transparent crystals with twinning, double termination, sceptering, color, inclusions, free of matrix or points of attachment, and clustering. Congratulations, you are in a pocket!

Speaking of locating pockets, Shingletrap still has some undug ones, despite the efforts of scores of collectors over the years. There are boulders at my initial site that have never been moved; mud-filled cracks full of exquisite floater crystals are likely adjacent to these unmoved rocks.

Aside from breaking the law to get at these treasures, there may yet be an opportunity to create a local "Crater of Diamonds" sort of park for rockhounds. All it will take is for some concerned collectors to make plans for regulating digging on Shingletrap, plans that the Forest Service can find acceptable. Believe me, the effort will be worth it!

![](_page_58_Picture_9.jpeg)

*Five anatase crystals on quartz termination* 

![](_page_58_Picture_11.jpeg)

Rice-size anatase on quartz, completely included anatase at center right

![](_page_58_Picture_13.jpeg)

Small-cabinet cluster showing twinning

![](_page_58_Picture_15.jpeg)

Six inch double terminated crystal with albite

![](_page_58_Picture_17.jpeg)

Five pound floater crystal cluster

## Rockhound Recipes Grilled Southwest Chicken Tenders With Roasted Corn And Cilantro-Lime Butter!

### **Adam Flinchum**

![](_page_59_Picture_2.jpeg)

A few things to keep in mind when using a camp fire to cook. Always use hard wood. Never use a conifer (pine, spruce, etc) as these contain a high amount of carcinogens. Always cook food to their proper temperature; nothing is worse than listening to your friends finding minerals while you are behind a tree losing your insides. I will provide all necessary temperatures for my recipes. I will start with a super simple recipe. I try to base my food on campfire, so always bring along a grill top. A little prep goes a long way, so start at home and eat at camp!

Ingredients bamboo skewers 2 chicken tenderloins per person 1 ear corn per person, yellow is best I think for this application 6-10 cloves of fresh garlic 2 bunches of fresh cilantro 1 lb whole butter...REAL BUTTER 4 fresh limes vegetable oil salt and pepper to taste

### PREP AT HOME

**Marinade:** Finely mince all garlic and combine with one bunch finely minced fresh cilantro. Add to this the juice of two limes, salt and pepper to taste. Then add just enough vegetable oil until this mixture becomes slightly looser than a paste. Put chicken on skewers and place in an accommodating Tupper-ware container and cover with marinade. This will hold for three days in a cooler.

**Butter:** Leave butter out at room temp until it becomes soft, then add minced cilantro, salt and pepper, and juice of two fresh limes. Mix the heck out of it. Freeze, and this will hold indefinitely.

### AT CAMP

First things first, soak skewers in hot water. This will keep them from cooking before the chicken.

### ТІМЕ ТО СООК

Start with a good bed of coals. Wrap corn in 4 layers of tin foil, making sure 1/4 cup of your butter is inside the wrap with each ear of corn. If I'm using a 6 inch bed of coals, I usually give the corn 1 hour to cook, inside the coals. Chicken is simple. Place your grill top over a good bed of coals. I usually elevate my grill top with rocks 3-4 inches above coals. Let the top get real hot. Place chicken skewers on, usually 3-5 minutes on each side, or until internal temperature reaches 166 degrees. The only sure way to know this is with a food thermometer or experience, as chicken turns a white color at 145 degrees, so be careful! I always keep a little water nearby in case of a flare up from the coals. I try to time my chicken so it starts cooking about 15 minutes before my corn is done. Thanks and enjoy!

# Rock Shopper & Shows

### WEBSITES

Bo's Minerals For Sale Website: www.bo-smith.net/bosmineralsforsale

KapsRocks Custom Stonework, Jewelry, Knives and Specimens Website: www.kapsrocks.com Email: keithphagan@gmail.com

Jacquot & Son Mining Gem, Mineral and Fossil Sales Specializing in gem and mineral estates Website: www.jacquotandsonmining.com Email: rick@wncrocks.com

### **MINE - DIG SITES**

Hogg Mine Come dig for beryl and rose quartz. For more info: www.hoggmine.com

Crabtree Emerald Mine Come dig for emeralds at a real emerald mine in the mountains of Western North Carolina! www.crabtreemine.com 828-779-4501

Mason Farm Staurolite Hunt for Fairy Crosses in North Carolina! 828-779-4501

Treasure Valley Group Outings & Field Trips on private property (Site of old Gold Mine) Gold/Gems/Metal Detecting Contact Buckshot For Details: Richard@bucksfarm.com (828) 460-2655

### SHOWS

Graves Mountain Rock Swap and Dig April 25<sup>th</sup>-27<sup>th</sup>, 2014 Info: 706-401-3173

11<sup>th</sup> Annual Rockhound Roundup! July 21<sup>st</sup>-27<sup>th</sup>, 2014 Info: 828-779-4501

Mother's Day Weekend Rock/Gem/Arts Show Macon County Community Center 1288 Georgia Road (US441), Franklin NC May 9/10/11 2014 Contact: Norm Holbert, 828 634-0350 Email: normholbert@comcast.net

USFG Franklin Faceters Frolic (FFF7) The Factory 1024 Georgia Road (US441),Franklin, NC 28734 July 24<sup>th</sup> (9-5), July 25<sup>th</sup> (9-8), July 26<sup>th</sup> (9-4) Contact: Norm Holbert, 828-634-0350 Email: normholbert@comcast.net

### JEWELRY FOR SALE

Hand crafted Lapidary Designer Jewelry encased in gold and/or silver selling in my ARTZEE-ITEMS ebay store.

View items at www.stores.ebay.com/Artzee-items. For more information contact: thesoyka@aol.com

![](_page_60_Picture_18.jpeg)

![](_page_61_Picture_0.jpeg)

# 11th Annual Western North Carolina Rockhound Roundup! July 21st - 27th, 2014

Mineral Collecting Field Trips Local Franklin, NC Gem Shows Lapidary Instruction Stone Cutting Camping, Food and Fun!

> For more info: rick@wncrocks.com 828-779-4501

www.americanrockhound.com

![](_page_61_Picture_5.jpeg)

![](_page_61_Picture_6.jpeg)

![](_page_61_Picture_7.jpeg)

![](_page_61_Picture_8.jpeg)