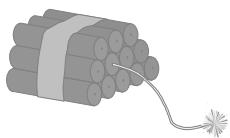


The Primer



*Newsletter of the Golden West Chapter, International Society of Explosives Engineers
Alpha Explosives, P.O. Box 310, Lincoln, CA 95648*

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Summer 2015

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Articles may be submitted to:

*Mike Burneson - editor
P O Box 2540
Napa, CA 94558*

or

mburneson@syar.com

President's Message...

Hey Members,

Our next big event of 2015 is our Annual Sporting Clays Shoot and it's just around the corner on July 18th. Don't miss this special event. Get up to four of your friends, family or work buddies together and join us for a fun filled day complete with lunch and refreshments. We have several awesome sponsors supporting this event . All of the profit from this event goes directly to our Scholarship Fund. For a \$100.00 per person you get 100 shells and a two and a half hour round of golf with a shotgun. For just \$ 10.00 dollars all non-shooters are welcome to join us for a great BBQ lunch.

You don't want to miss it!

Check out our flyer for details and call me or any other board members to reserve a spot or make a donation towards our expenses.

Thanks everyone! I will see you on the 18th of July!

Be Safe!

Your President,

Mike Chiurato

Golden West Chapter Summer Scholarship Fundraiser

When: 8:00 am on Saturday July 18th

Where: The Coon Creek Trap & Skeet Club
5393 Waltz Rd, Rio Oso, CA 95674

Cost:\$100.00 per person

Coon Creek Trap & Skeet Club Located in Lincoln California



The cost is \$100.00 per person. For that \$100.00, each participant will get 100 shells, a two and a half hour round of sporting clays and lunch. All of the profit from this event will go into the scholarship fund.

Those that want to bring RV's can for \$10.00 per night. They get electrical and water. They need to reserve in advance. We will have an early lunch of BBQ Ribs & Chicken after we shoot. We will have raffle prizes and we will hold a 50/50 raffle where you have a chance to win some cash. We will award trophies to the top team, male, female and youth score .The top gun will receive a gift certificate to Bass Pro Shop.

Come on out and support the chapter.

Contact: Mike Chiurato at 916-645-3377 if you plan on attending by July 13, 2015.

Coon Creek offers many different shooting disciplines, from Trap, International Trap sometimes called Olympic Trap, Bunker Trap, Skeet & Sporting Clays.

Editor's Notes...

It is time for you to pick up the phone and call your buddies or customers and register for the shoot today. We are planning on more prizes and trophies and a really great lunch. We will have a clinic prior to the start of the event on how to shoot the clays. Don't wait another minute pick up the phone and call Mike Chiurato at (916) 645-3377. The scholarship fundraiser at Coon Creek is like playing golf with a shotgun. We need your support. The chapter has just recently approved a second scholarship and we need you to come on out and pull the trigger. We have the following generous sponsors for the event, Accurate Energetic systems (AES), Alpha Explosives, Atlas Copco, Bodean Company, Wesley L. Bender, Furukawa and Syar Industries. You still have time to call and help sponsor the event if you are not able to attend. We are a 501 (c) (6) Non Profit Organization.

Thank you Wes Bender for writing the interesting article in this issue called "Ghosts Don't Complain About Blasting".

Check out our web site. We have a tremendous resource at your finger tips. We need you blasters to share your knowledge with us please email me a letter with your story. Check out the story on electronic detonators in the latest issue of the Explosives Engineering it is very interesting.

The Primer

Call for Scholarship application Starting June 1, 2015

Scholarship Eligibility: Graduating high school seniors or students already enrolled in college who are sons or daughters of an employee of an Explosives or other industry employing explosives may apply for the scholarship.

Judging Committee: Scholarship applications will be reviewed and judged by a panel, including the Chapter Officers and Board and the past President of the GWC or their respective designees.

Application Deadline and Scholarship Presentation: The scholarship application process will be an Internet-based process. Starting June 1, 2015 applicants will be able to apply via GWC on-line application process at <http://iseegoldenwest.org>.

The deadline for applications is August 31, 2015. The winning applicant will be named by September 30, 2015. The Scholarship will be issued to the winner at five hundred dollars per semester provided the student is considered by the institution as a full time student and maintains a grade point average of 3.0.

For more information, contact Gerald Fulghum 916-481-1421 or at

GRFULGHUM@SBCGLOBAL.NET

To apply for the Scholarship please include these four items:

The completed application.

A letter of recommendation from your industry representative.

A 300 to 500 word statement of your plans for a career in the explosives or aggregate industry;

If you have work experience in the aggregate or explosives industry as a summer employee, an intern or through a cooperative work program, please include one or more recommendation letters from your employer(s).

Ghosts Don't Complain About Blasting

(Current owners of their buildings are likely to though.....)

by Wes Bender

Back in the late '80s and early '90s, I was involved in resolving blasting complaints at the sites of three different ghost towns. All of these ghost towns got their start because of mining, but fears of the impacts of new mining (or the potential for new mining) was what brought about complaints and concerns.

Don't get me wrong. I like ghost towns and I'm all for preserving them. I've been fishing the lakes and streams on the east side of the Sierras since I was about 9 or 10 years old and I've read about and visited many ghost towns both in that area and throughout the west.

The first issue came up in the ghost town of Shakespeare, just south of Lordsburg, New Mexico. A new mining operation had started just south of the site of Shakespeare and the owners of the ghost town were concerned that blasting could be causing the adobe walls in some of the buildings to be crumbling. The mine operator was leasing a seismograph from me at the time and he called and asked if I would come down and help resolve the complaints.

I packed up my equipment and drove to Shakespeare to monitor one of the blasts. I asked that the mine operator load a fairly large blast so that we could get a better idea of what the town was experiencing. People sometimes suspect that such monitored blasts might be smaller than normal and I didn't want any complaints regarding the process. On the day of the blast, the wind was howling across the desert. While I also wanted to record the airblast from the shot, any air overpressures would have been totally masked by the wind gusts. Sand was blowing everywhere and stung my face whenever I ventured out from behind one of the buildings. I set the trigger level low enough to capture the blast and obtained a good record of the vibration. It was fairly obvious that the intensity of the vibration of the blast was not causing any damage. It was also pretty obvious that some of the buildings were losing a fair amount of adobe to the sandblasting that they regularly got from the wind. Boards on the wooden buildings were also being eroded. I expressed this to the owner of the ghost town and she agreed that the blowing sand was a problem. After going back to the office and sending the mining company my report, I heard nothing more about potential damage to Shakespeare from their blasting. Some time later the mining company discontinued their efforts at the site as it proved unprofitable to mine.

Shakespeare is located just off I-10 near the town of Lordsburg, NM and is worth a visit if you are traveling through that area.

The second ghost town where I was called to help investigate damage potential from blasting was Rhyolite, Nevada. Located about five miles west of Beatty, most of the buildings in Rhyolite were either gone, were getting that way, or at least were in a badly decaying state. One building, the Bottle House, had been built in about 1906 out of numerous whiskey and beer bottles, those being more plentiful and considerably less expensive than bricks or boards at the time of its construction. Nothing had been done recently to repair or reinforce the structure and a portion of it had collapsed.

Adjacent to the site of Rhyolite, a mining company had opened the Bullfrog Mine, an open pit operation. There were people in the area who were opposed to the new mining operation and were using the sad state of the Bottle House as an excuse to try to stop it. They were enlisting the aid of various agencies in their fight. A park ranger at Death Valley National Monument even made the claim that blasting was the cause of damage to the Bottle House. In his words (from the Sacramento Bee, 1/20/91), "From what we hear, a blast caused the damage. It's a shame because there aren't many historic buildings left in Rhyolite, and there aren't many bottle houses left in the west. They blast every single day and it's bound to take a toll." It was true that the mining company had been blasting almost daily since about August of 1988, but blasts were from two thousand to three thousand feet or more from the Bottle House. I'm not sure about that particular individual's experience or qualifications in the area of blasting or blast effects, so I hesitate to comment thereon.

On January 18, 1991, I recorded the vibration from one of the Bullfrog Mine blasts. The seismograph was located immediately adjacent to the Bottle House, 3,275 feet from the nearest point in the blast. The mine detonated a little over 76,000 lbs in the blast, with the largest charge weight per delay being 6,311 lbs. Vibration recorded at the Bottle House was 0.073 in/sec (L), 0.034 in/sec (V) and 0.068 in/sec (T). The vibration frequencies were in the range of 4 to 9 Hz. The vibration intensities were far below those that could cause damage to structures, even as fragile as those in Rhyolite. My report included the comment that other forces such as wind and weather, and possibly even ground motion from nuclear tests at the Mercury Test Site could be putting the Bottle House at greater risk than the blasting at the mine.

Several months later, on April 4, 1991, a large nuclear test was to be conducted at the Mercury Test Site and the mine suggested I come down and see if I could capture its ground motion and compare it with their blasts. I drove down to Beatty and, to make sure I captured the event, set up three instruments adjacent to the Bottle House. On one of them I attached a 10X amplifier in case the ground motion was too low to reach the lowest trigger level available of 0.02 in/sec. I had to raise that unit's trigger level to 0.07 in/sec because ground motion amplified by 10 meant that it took only 0.002 in/sec to trigger the unit at 0.02, and it kept false triggering on our footsteps as we moved away from it.

Another instrument was set to record automatically as long as the vibration intensity remained above 0.02 in/sec. The third instrument was set up normally, with a trigger level of 0.02 in/sec and a recording duration of 12 seconds.

All three instruments were triggered at 11:00:11, probably indicating an actual detonation time of 11:00:00 at the test site. Particle velocities were 0.078, 0.084 and 0.083 (L); 0.044, 0.043 and 0.039 (V); 0.068, 0.0684 and 0.068 (T). Frequencies were 2 – 3 Hz for all channels on the three instruments. The unit set to record as long as the ground motion exceeded 0.02 in/sec recorded for 16 seconds before vibration dropped below that level. Comparing the resulting ground motion from the nuclear test to the motion recorded from the mine blast, the velocities are similar but the frequency of ground motion is higher for the mine blast. This means displacements from the mine blast were lower and bears out my original thought about the mine blasts possibly being less harsh on the Bottle House than some of the tests at Mercury. Later, when the mine wanted to open a new haul road, the same predictors of doom now claimed that haul truck vibration would damage the Bottle House. I recorded vibration from truck traffic some 2000 ft away and it revealed that the wind blowing through the creosote bushes near the Bottle House caused more vibration than the truck traffic did.

Rhyolite is an interesting place to visit, even if most of it has disappeared. Hopefully more effort has now gone into actually preserving this historic site rather than complaining about possible outside adverse impacts.

The third ghost town to which I was called to address issues was Bodie, just north of Mono Lake and southeast of Bridgeport, California. The family that had owned Bodie had previously donated the town site to the California Department of Parks and Recreation (hereinafter called the Department) and it was being developed as a state park. Unfortunately, while the family retained ownership of the adjacent lands and intended to either mine them or lease them for mining, they didn't put any stipulations into the gift deed to the state that would protect those rights or keep the state from fighting their efforts. It was the Department's intention to maintain Bodie in its existing "arrested state of decay" and to let visitors experience a REAL ghost town. As a result, the Department was dead set against any mining development near the ghost town. If mining were to take place nearby, they felt it would destroy the ambience that they were seeking.

Initially I was contacted to assist in the preparation of a Draft Environmental Impact Report (DEIR) for a mining operation that was to be conducted on leased land just east of the Bodie town site. My portion of the DEIR pertained solely to blasting and related vibration. While no blasting was foreseen in the initial exploratory phase of the operation, it would definitely be part of any subsequent mining that might take place on the property. Patented claims existed on Bodie Bluff, immediately to the east of the Bodie State Park boundary and it was anticipated that most of the bluff would probably be mined.

Eventually the exploratory work was able to proceed and the mining company started drilling sampling holes on the bluff. When the drills were operating on the side of the bluff facing the state park, they were screened with hay bales to alleviate the visual impact. Meanwhile park rangers and others opposed to the potential mining operation went to great lengths to enlist support from mine opponents.

At some point in the process, a television station in the Bay Area jumped into the fray and ran a special report on the potential mining operation at Bodie. It was heavily slanted against the proposed mining operation, depicting a peaceful green meadow, complete with a few deer and surrounded by green trees, with the warning that it would all be destroyed if the mining was allowed to go forward. Normally one expects a documentary to be reasonably accurate in its reporting, however the meadow depicted certainly did not exist anywhere near Bodie. Probably not even on the east side of the Sierras. (One guess was that it was possibly filmed in Marin County, but that was only speculation.) In any case, mine management was quite upset with the documentary and contacted the TV station, demanding that their side be heard too. Eventually the station, to avoid further trouble, acquiesced and agreed to send a reporter and cameraman over to the site of the proposed mine and interview company personnel.

At this juncture, expecting that they would be quizzed extensively by the reporter on various environmental issues, including blast vibration, airblast and cyanide heap leaching, mine management asked me to come over to Bodie for the TV interview. That way I could respond to any questions that the reporter might ask regarding blasting. The mine had also contacted their heap leach consultant in the east and asked him to be present at the mine for the interview.

On a cold, wintry day I drove over the Sierra, stopped at the Reno airport and picked up the heap leach consultant and drove down to Bridgeport, where we met with mine management for breakfast. Afterward, we drove out to Bodie and awaited the TV crew. It was bitterly cold and was spitting snow when the reporter and his cameraman finally showed up. He was initially briefed on who all the personnel were and given a tour of the property. He then proceeded to ask his questions and document the mining company's responses.

We all drove back into Bridgeport for lunch and I sat at a smaller table with the TV cameraman, who was an interesting guy. At some point during lunch, the cameraman chuckled a bit and then indicated to me that the reporter had bragged to him on the drive over about how he was going to make the mine people look bad by asking very pointed questions about several issues, including blasting. After he found out that the heap leach consultant and I were there expressly to address these issues, he never even brought them up. The entire process was over later that afternoon, and neither of us had been called upon to address our specialties, marking the only time in my career that I was ever paid to be a Deterrent Consulting force.....

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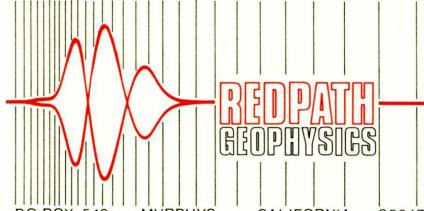
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Mike Chiurato, Golden West Chapter President celebrates 20 years of employment with Alpha Explosives. From left to right; Denise Underhill-Controller-Senior Mgt Team; Gerald Hackler-Director of Operations/Senior Mgt Team; Lars Johansen-CEO-Senior Mgt Team; Mike Chiurato-HSE Officer-Senior Mgt Team and Jon Combe - Dyno Nobel.



Fire in the Hole...

A redneck was stopped by a game warden in Texas recently with two ice chests of fish. He was leaving a cove well known for its fishing. The game warden asked the man, "Do you have a license to catch those fish?"

"Naw, sir, I ain't got none of them there licenses, no. You must understand these here are my pet fish."

"Pet fish?" said the game warden.

"Yeah. Every night I take these here fish down to da lake and let them swim 'round for a while. Then I whistle and they jump rat back into this here ice chest and I take them home."

"That's a bunch of hooey! Fish can't do that!" says the warden

The redneck looked at the game warden for a moment and then said, "It's the truth Mr. Government man, I'll show you. It really works."

"Okay," said the game warden, "I've GOT to see this!" The redneck poured the fish into the lake and stood and waited. After several minutes, the game warden turned to him and said, "Well?"

"Well, what?" said the redneck.

The warden said, "When are you going to call them back?"

The redneck said, "Call who back?"

"The FISH!" replied the warden.

"What fish?" answered the redneck.

We in Texas may not be as smart as some city slickers, but we aren't as dumb as most game wardens.