

# Geysers Steamline

GEYSERS GEOTHERMAL ASSOCIATION

VOLUME XXIII, NUMBER 1

Spring 2007

## Meet Curt Robinson, New GRC Executive Director



*Curt Robinson*

Curt Robinson is currently the Executive Director of the 1,100-member Geothermal Resources Council, headquartered in Davis, California. He has served in this capacity since

August 2006. Prior this appointment, he was the Assistant Vice President for Enterprise Activities and Executive Director of the California State University, East Bay Foundation, in Hayward.

He brings a broad breadth of experience to the Geothermal Resources Council, having served previously in four executive and entrepreneurial assignments in higher education and state government. He has also taught courses in geography at six colleges and universities.

Prior to his work at CSU, he served the California Department of Water Resources (DWR), California State Teachers Retirement System Board (CalSTRS), and California Department of Education (CDE).

Before working in California State Government, Curt Robinson worked as Director of Marketing and Public Relations for University Extension at the University of California, Davis for ten years.

He earned his B.A. degree (1974) in history, M.A. degree (1981) in geography, and Ph.D. degree in geography (1995), all at U.C. Davis.

*E-mail: curt\_robinson@yahoo.com or crobenson@geothermal.org*

## GGA Dinner March 6th



Reserve your spot today for the GGA Annual Membership Spring meeting on Tuesday, March 6<sup>th</sup> at Charlies @ Windsor Golf Club, 1320 19th Hole Drive, Windsor. The Buffet includes Salmon Picatta and Tuscan Chicken. The cost is \$35.00 per person.

Dr. Curt Robinson, GRC Executive Director is the keynote speaker and will discuss "GRC's Vision and Outlook for the Geothermal Industry"

No-host bar begins at 6:00 PM.

Contact Pam Bordi, NCPA at (707) 987-2381 or e-mail at [pbordi@ncpageo.com](mailto:pbordi@ncpageo.com).

## NEW RIGS AT THE GEYSERS

US Renewables Group, LLC ("USRG"), Riverstone Holdings LLC ("Riverstone") and The Carlyle Group announced that they will provide growth capital to ThermaSource, a Santa Rosa, California-based provider of drilling, engineering and consulting services to the geothermal energy sector. Funds will come from USRG and Carlyle/Riverstone Renewable Energy Infrastructure Fund ("CRREIF") and be used to acquire new and reconditioned drilling rigs. US Renewables Group and Carlyle/Riverstone are making their investment through their affiliate GRR Holdco, LP, an owner of geothermal drilling rigs. Financial details were not disclosed.

"We are enthusiastic about the opportunity to partner with two proponents of geothermal energy, USRG and Riverstone," said Lou Capuano, Chief Executive Officer of ThermaSource.



## President's Message

By Ron Suess

### Constant Change

Socrates posits that wisdom starts by recognizing that "I know that I do not know anything". No matter how much we know or think we know, we must confront the prospect that, when push comes to shove, we really do not know everything. Seems like common sense to me to recognize this fact and then, from this point, move forward.

We experienced an interesting conundrum here at The Geysers that is challenging what we think we know about all the sources and behavior of hydrogen sulfide in The Geysers area. We recently experienced an event where the ambient H<sub>2</sub>S level spiked during conditions that are puzzling.

Rightfully, the obvious first place to look for the source of that odor, are the geothermal operations at The Geysers. When it becomes evident that the source may not be from The Geysers operations, then we are forced to ask new questions. What other source could it be? Where is it located? This is when we collectively begin to scratch our heads as we contemplate the answers to these two fundamental questions. The temptation to grab at straws is enormous.

Just to put it into perspective, The Geysers community has charted a significant track record with respect to understanding the sources of H<sub>2</sub>S and how to abate the offensive gas that is contained in the geothermal steam. The geothermal industry has gained significant knowledge that has allowed the industry to make major contributions in reducing this nuisance odor to regulated levels.

And everybody has benefited. A key outcome of applying this knowledge about H<sub>2</sub>S

*Continued on page 8*

### Attention GGA Members:

## Fred Haley Memorial Scholarship

The Geysers Geothermal Association is pleased to announce the availability of the Fred Haley Memorial Scholarship for \$1,000 that will be awarded to one high school senior whose parent(s) are directly involved and spend a majority of their working time in Geysers Geothermal related work. The scholarship program is one of the ways the Geysers Geothermal Association endeavors to be of service to the geothermal community.

Selection of recipients will be based upon the student's academic record, student activities, and citizenship. Please note that there is no formal application form for applying for this scholarship.

Your application must include:

1. A current transcript through seven semesters of high school.
2. A listing of student activities including offices held.
3. A listing and brief elaboration of activities away from school including work experience, volunteer programs, etc. (Make sure home address is also included).
4. A statement of verification by the applicant's school counselor.
5. A one-page statement (essay) by the applicant.
6. A brief statement by the parent(s) describing their work relationship to The Geysers Geothermal Field.

Applications must be postmarked by April 14, 2006. Successful recipients will be notified by May 12, 2006.

Applications or questions should be addressed to:

Scholarship Committee  
Geysers Geothermal Association  
P.O. Box 6501  
Santa Rosa, California 95406

## Noell Sturdevant Joins BLM Geothermal Steam Team



*Noell Sturdevant*

Noell Sturdevant, a highly experienced petroleum engineering technician, has joined the Bureau of Land Management's "geothermal steam team" in California. Her region will include The Geysers, Wendel-

Amadee, and the Glass Mountain-Medicine Lake areas. She will be based in the Ukiah Field Office.

You will observe her in the Geysers field witnessing meter plate changes, calibrations of well and plant flow meters, performing surface use inspections, plant meter readings, and well plugging operations. When new drilling occurs, she will conduct drilling inspections of casing and cement operations, blowout prevention equipment tests, and monitor compliance with federal regulations and permit conditions of approval. Occasionally, she will also verify fluid level tests on injection wells, and perform production audits.

Noell grew up in Vernonia, a small logging community in northwest Oregon. Before joining the BLM, she earned a bachelor's degree in Geology (1981) from Hanover College, Hanover, Ind.; began graduate studies on a master's in sedimentary geology at the University of Wyoming, Laramie, and then worked (and played) in the National Park Service for several years. Her years with the park service included positions at Grand Teton National Park, Wyo; Lava Beds National Monument, Calif., and Grand Canyon National Park, Ariz.

She was a petroleum engineer technician in the BLM's Buffalo Field Office for 11 years and supervised petroleum engineer technicians in Pinedale, Wyo., for two years prior to leaving the BLM's oil and gas program and moving to the geothermal program.

## CHANGES AT DOGGR

Elizabeth Johnson is the new Geothermal Officer in Sacramento for the Division of Oil, Gas, and Geothermal Resources (DOGGR). Most recently she was Geothermal District Engineer for G-1, prior to that she was Energy Mineral Resources Engineer in Santa Rosa.



*Elizabeth Johnson*

Jack Truschel is the new District Engineer for G-1, he moved from the DOGGR Bakersfield Oil and Gas District. Ali Khan is the District Engineer for District 3, which includes The Geysers and Mike Woods is the District Engineer for G-2 (Imperial Valley).

DOGGR recently finished scanning all Geothermal well logs in California (mud logs, electric logs and all other types of logs). This scanning is in addition to all well files that were previously scanned. All scanned material, maps, production/injection and related data and reports may be either downloaded from the DOGGR web site ([www.conservation.ca.gov](http://www.conservation.ca.gov)) or may be requested by calling one of the district offices listed below.

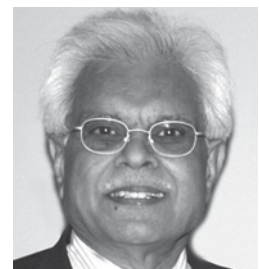
District G-1  
801 K Street, MS 20-21  
Sacramento, CA 95814-3530  
Phone: (916) 323-1788  
Fax: (916) 323-0424



*Mike Woods*

District G-2  
1699 W. Main St., Suite E  
El Centro, CA 92243-2235  
Phone: (760) 353-9900  
Fax: (760) 353-9594

District G-3  
50 D Street, Suite 300  
Santa Rosa, CA 95404-4772  
Phone: (707) 576-2385  
Fax: (707) 576-2611



*Ali Kahn*

# GGA BUSINESS DIRECTORY

## Support the businesses that support the GGA

The following businesses are Corporate Members who are the backbone of the GGA.  
Keep our organization strong by calling on them when you need the following services:

### CONSULTANTS & ENGINEERS

#### Blaydes and Assoc.

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1275 Fourth Street, #214  
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325 Tesconi Circle  
Santa Rosa, CA 95401  
707 542-6465

#### Carlile•Macy

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707 542-6451

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310 639-3523

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Salt Lake City, UT  
84104  
801 973-6667

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#### Jonas Oil

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#### Mahl Tool Tek, Inc

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707 433-5581

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707 644-6968

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#### Northern California

#### Power Agency

• Steve Eneydy  
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707 987-4033

### SPECIAL SERVICES

#### A-1 Milmac

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707 994-5068

#### Alliance Cooling Products

123 West North Street  
Healdsburg, CA 95448  
707 431-0108

#### Babin & Seeger, LLP

• Martin L. Seeger IV  
3550 Round Barn Blvd  
Santa Rosa, CA 95403  
707 526-7370

#### Geothermal Resources Council

• Curt Robinson  
2001 Second St., St. 5  
Davis, CA 95616  
530 758-2360

#### Morgan Stanley

• Leon Ballew  
3558 Round Barn Blvd,  
Suite 201  
Santa Rosa, CA 95403  
707 524-1000

#### Northern Industrial Construction

• Frank Karp  
P.O. Box 1352  
Kelseyville CA 95451  
707 279-0381

#### Turbocare

• Dave Stenson  
184 Malbert Street  
Perris, CA 92570  
800 659-5908

#### Univar

• Dave Wiley  
2256 Junction Avenue  
San Jose, CA 95131  
800 659-5908

## *In Memorium*

### *Gudmundur “Bo” Bodvarsson*

Gudmundur Svavar Bodvarsson, director of the Earth Sciences Division of Lawrence Berkeley National Laboratory since 2001, and a Berkeley Lab scientist since



*“Bo” Bodvarsson*

1980, died on November 29, 2006. His loss is deeply felt by those who knew him in the GGA. He contributed greatly to our understanding of how steam is produced at The Geysers, through his work and leadership on reservoir simulation. His success in geothermal studies and leadership abilities were recognized by US DOE management, and he was appointed to lead an effort of national importance: the development of a model of the proposed permanent underground repository for high-level radioactive waste.

My memories of Bo are of a man of strong character and engaging personality, full of energy and always passionate about his work. In the late 1980's we were both working on reservoir simulation of The Geysers - he for the State of California, and I for Unocal, both of us raised in wild, remote corners of the North Atlantic, now settled in beautiful Northern California. It was a time of tension at The Geysers as the magnitude of pressure decline and its consequences were becoming clear. We were both anxious to see the results of the other, but were bound by confidentiality agreements for a several years. Each January, we would meet at the Stanford Workshop and over a few beers, each trying to extract information from the other with little success, other than the establishment of an enduring friendship. In the process I came to respect this energetic, gifted scientist, who obviously loved life, and brightened the lives of those around him. I am fortunate to have known him.

Bo was born on Nov. 11, 1952, in Ljosafoss, Iceland, a town of about 100 people.

### *Margaret Hess*

Margaret Hess always was at the side of her husband, Hamilton, when he was out and about advocating for Friends of Cobb Mountain. Margaret loved the Cobb Mountain area as reflected in the memory note provided at her memorial service. The beautiful panoramic view of Cobb Mountain bathed in a forest of evergreens make it easy to see why she felt about the area as she did and why she joined Hamilton in his advocacy efforts.

Margaret did not hesitate to express her views on matters related to the Cobb area and was most definitely a balanced teammate with Hamilton as they sought to preserve the Cobb area, as they believed it should be. She also showed that she was an intrepid person when she moved to England with Hamilton as he studied at Oxford University. Nevertheless, Margaret did find time and energy, aside from being a wife, mother, and Cobb advocate, to cultivate her own individual areas. Singing in the Sonoma County Chorus for fifteen years was special to her. Margaret found a lot of pleasure by hiking, gardening, and spending time in the mountains and at the seacoast. Somehow, it seems altogether fitting that she died on Christmas Eve surrounded by her loving family. Margaret will be missed by all who worked with her and knew her and her devotion to whom and what she loved.

*~Ron Suess*

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He earned a bachelor's degree in physics and mathematics in 1974 Catawba College in Salisbury, North Carolina, a Master's degree in civil engineering at North Carolina State University in 1976 and a Ph.D. in hydrogeology in 1981 from UC Berkeley. At the time of his death, he was division director of the Earth Sciences Division, Lawrence Berkeley National Laboratory and one of his responsibilities was leading the development of a 3-D site-scale model of Yucca Mountain Project in Nevada.

*~Ken Williamson*

## *Remembering...*

We were all take aback by the news of the passing of Mary Jadiker and Jim Matzinger in December. Both Mary and Jim have long histories with The Geysers and were integral to the evolution of positive and productive relations between geothermal development and the surrounding communities. We are better neighbors because of Mary and Jim's stewardship of community interests and, as Jim would often remind me, together we have solved many issues.

The following is a collection of personal memories of Mary and Jim by agency representatives and members of the geothermal industry:

My fondest memory of Mary Jadiker was the first meeting of the Advisory Committee for the update of Lake County's Geothermal Element. Mary was immediately recognized as a leader with planning experience and was nominated as chairperson followed by unanimous vote of approval. I recall Mary graciously accepting, looking over the committee and then announcing that she felt that a co-chairperson was in order and she nominated me with the promotion "after all folks, he has the key to the Calpine Geothermal Visitor Center." This was followed by a round of laughter and a second unanimous vote. This is how I will always remember Mary –witty, smart, fair and a good person.

*Bruce Carlsen*  
Calpine

Mary was a County Planning Commissioner so this speaks to her community spirit. I worked with her cooperatively on many geothermal use permits along with the Friends of Cobb. She was always straight forward in her approach. She was very pragmatic and practical and detail-oriented. A fond memory for me was her "trademark" way in which she commented on draft use permits. She would write very neat yet small text on the margins of the 8 ½ X 14 pages, and her comments were voluminous. While it resulted in a lot more work for me, it made for better use permits for the County as well as the company being regulated. We all

## *Mary Jadiker*

understood what our roles and responsibilities were for each project. You have probably heard Robert Stark say this previously but it does describe Mary very well. Her philosophy on geothermal development like Robert's was "mitigation not litigation".

*Mark Dellinger*

Lake County Special Districts

I have known Mary for 27 years; she was one of the strongest, courageous and smartest women I have ever known or had the privilege to work with. She had a great love for the human spirit, was truthful and factual in her dealings with industry and public agencies, and made us all a better community. She believed in a better environment, community and society, and was a tireless activist in attempting to achieve such. She has served on numerous commissions and committees and worked for positive legislative change. She is one of the major reasons Lake County's air quality is now in attainment and healthful; and, made myself, and numerous AQMD staff, better public servants and better people.

*Bob Reynolds*

Lake County AQMD

Mary was an advocate's advocate. I've known and worked with Mary Jadiker for many, many years within the context of a wide variety of affairs. As an advocate she was always a little bundle of energy, industrious, and equipped with a sense of humor that often eased a potentially tense situation, and she was always well prepared. I knew that she knew what she was talking about.

Mary was an invaluable co-worker that made the workload lighter because you could count on her to "get it done". She was always willing to do the nitty-gritty details that needed to be done when no one else would do it.

Most importantly, Mary was a great friend. Even though we sometimes advocated issues that were in opposition to each other, we developed a friendship that grew because of our advocacy positions. I will always remember Mary for the person she was and the life she lived.

*Ron Suess*

## *Remembering...*

I was saddened to learn of Jim's passing. As a geothermal industry employee, I often represented positions opposed to his, yet I always respected his gentle voice as one of reason and clarity. I also admired that he and Sharon were able to make it to all those meetings, enduring what must have been considerable effort and pain in order to stand up for what they believed in. We'll miss you, Jim!

*Mitch Stark*  
Calpine

I too will feel the loss of Jim. I, as some others not living in Lake County, only got to know him because of his active participation in the meetings of the Lake County Seismic Monitoring Advisory Committee as well as the meetings of the Geothermal Resources subcommittee for revision of the Lake County General Plan. In both of these venues Jim was a separate and distinct resource who could and invariable did display a calm resolve in describing to the local geothermal industry representatives what truly mattered to those living in the neighboring communities, with his purpose being to help lead us all to find mutually satisfactory resolutions to accommodate our respective needs. He certainly expected this industry to listen to and respect its neighbor's concerns, but Jim in turn was fair in respecting the fact that ultimately there are some practical limits as to what the geothermal industry can do to minimize the environmental impacts of its operations. He was a person who you wanted to listen to because he was not there to simply find fault- his purpose was to find ways to improve the quality of our local conditions. We will miss his contributions, but will fondly remember the lively discussions he promoted.

*Bill Smith*  
Northern California Power Agency

## *Jim Metzinger*

I knew Jim for more than 27 years, and have not met a man with greater love for the natural environment and especially the environment of the land he lived on. He was always a positive force for progress, and often compromised with others to facilitate a peace in the community and what was considered the best interest of the community. He worked tirelessly to protect the environment of Lake County, and instilled in others an appreciation and awe for nature by his example. He has been a relentless advocate for the use of technology to solve environmental problems, to include air quality and geothermal energy, and served on GAMP and numerous other committees to facilitate a better environment. He was a friend, a calm, reasonable and kind voice and will be missed.

*Bob Reynolds*  
Lake County AQMD

Jim was a special man in many ways that I've known for many, many years in a variety of scenarios. Getting to know Jim was quite an experience. It was immediately apparent that Jim was committed to securing and enhancing the environment and that he had a special love for birds. It was also apparent that he was a dedicated advocate for what he believed in and that he especially loved the Cobb Mountain area.

It's hard to imagine the energy and passion Jim had at one time, especially in view of the most recent memories of Jim dealing with his illness. His physical energy may have been affected, but not his passion, dedication, and commitment to his causes and convictions. Jim was blessed in life in so many ways in spite of his illness.

Sharon was a blessing to Jim that only he can truly appreciate. All in all, Jim was a blessing to the earth and to those with whom he worked and knew him. It was my privilege to have known and worked with Jim these many years.

*Ron Suess*  
The Geysers

## **GGA President Note:**

is that Lake County has achieved “attainment status” designation for many years running that continues to this very day. This is no small achievement, and there are many groups of people that have contributed to that benchmark.

Now, suddenly, we are confronted with the notion that we really do not know all the answers. We don't know all potential sources of H<sub>2</sub>S in The Geysers area, nor do we know everything about its behavior. Even though we have gained so much knowledge about and have been very successful in controlling the sources and levels of H<sub>2</sub>S, we realize that we do not always have convenient or obvious answers. The specter that we just do not know everything humbles us.

This is tough. We must admit to ourselves that we really do not know much of anything. That admission is the beginning of new knowledge and understanding.

The one who does not learn from history is doomed to repeat it. So let's learn a lesson from Socrates and recognize we do not know everything and start afresh. Here's the bottom line. We'll figure out what caused this particular event. We will learn what is this particular mysterious source, and we will learn its whereabouts. Most importantly, we will learn more than we hoped for, and we all will benefit. We will learn a key point about ourselves. We will learn that we don't know everything. There is still lots to learn.

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