

From: Mark Coolbaugh [sereno@dim.com]
Sent: Monday, March 21, 2011 9:13 AM
To: Greg Brower
Subject: Support for Nevada Bureau of Mines and Geology

To: The Honorable Senator Greg Brower
Nevada State Senate
gbrower@sen.state.nv.us

Dear Mr. Brower:

I am writing as a University of Nevada alumnus and former researcher who has been involved with the University of Nevada, Reno geothermal research program for the last 9 years. During that period I have watched the geothermal energy program at the University of Nevada, Reno acquire national and international status, based largely on what the program has accomplished for renewable energy in Nevada. The Nevada Bureau of Mines and Geology plays a key role in this program, and without its support, the geothermal program would cease to be what it is today.

For the benefit of Nevada, this geothermal program has directly resulted in the discovery of a dozen previously unknown geothermal systems, directly resulted in geothermal lease revenues of over nine million dollars to date, and directly encouraged the expenditures of many millions of dollars in geothermal exploration and development drilling.

Geothermal energy is a tough business. Geothermal power plants are profitable, but the industry faces tough competition from conventional coal and gas-fired power plants. For this reason, the industry desperately needs help in terms of locating subsurface resources and optimizing the expensive and currently risky process of siting successful production wells to generate electricity.

The Nevada Bureau of Mines and Geology supports the geothermal program at the University of Nevada with three fundamental activities: 1) basic research on faults, crustal motion (geodesy), and geochemistry to identify subsurface fault patterns that can host high-temperature geothermal systems, 2) development of field exploration tools and completion of temperature and geochemical surveys to identify geothermal sites, and 3) development of a comprehensive data repository of geothermal well core samples, geophysical logs, and digital databases that geothermal companies need in order to optimize their exploration and development efforts.

Each of these three NBMG activities benefits from, and needs, state support. In the case of fault and geodetic work, even though current researchers are nationally and internationally competitive and manage multi-million dollar grants, grant funds do not completely cover salaries, and the state has been making up the difference. In addition, non-federal match funding is often required for grant applications. In the case of field exploration tools and temperature

and geochemical surveys, it is commonly difficult to acquire grant funds these non-pure-research-based activities. But implementation of these tools and surveys has been crucial in the discovery of additional geothermal systems and fostering a geothermal exploration industry in the state. In the case of data repositories and digital databases, federal funding is typically problematic, patchy, and episodic; thus state funding fills in the gaps to ensure continuity and availability.

Renewable energy production is increasing in Nevada, but desperately needs continued seed funding and support to optimize long-term growth potential. The Nevada Bureau of Mines and Geology has state-of-the-art research expertise and is highly leveraged in terms of federal research dollars, and thus is ideally positioned to continue providing effective and economical research, survey, and database support for geothermal energy development in the state.

As a taxpayer interested in the long-term economic future of the state, I ask that you please consider advocating and supporting continued funding of the Nevada Bureau of Mines and Geology. If we can get through the next few tough budget years without destroying our research capabilities, we will emerge stronger than ever.

Sincerely,

Mark Coolbaugh

Mark Coolbaugh, Ph.D. tel: (775)
337-1545
Chief Geoscientist, Renaissance Gold Inc. cell: (775) 771-5564
940 Matley Lane, Suite 17, Reno, NV 89502

From: Mark Coolbaugh [sereno@dim.com]
Sent: Saturday, March 19, 2011 9:44 AM
To: Jason Geddes
Subject: Support for the Nevada Bureau of Mines and Geology

To: The Honorable Jason Geddes, Ph.D.
Vice Chairman, Board of Regents
Nevada System of Higher Education
750 Putnam Dr.
Reno, NV 89509

Dear Dr. Geddes:

I am writing as a University of Nevada alumnus and former researcher who has been involved with the University of Nevada, Reno geothermal research program for the last 9 years. During that period I have watched the geothermal energy program at the University of Nevada, Reno acquire national and international status, based largely on what the program has accomplished for renewable energy in Nevada. The Nevada Bureau of Mines and Geology plays a key role in this program, and without its support, the geothermal program would cease to be what it is today.

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From: Mark Coolbaugh [sereno@dim.com]
Sent: Monday, March 21, 2011 9:21 AM
To: Randy Kirner
Subject: Support for Nevada Bureau of Mines and Geology

To: The Honorable Randy Kirner
Nevada State Assemblyman
rkirner@asm.state.nv.us

Dear Mr. Kirner:

I am writing as a University of Nevada alumnus and former researcher who has been involved with the University of Nevada, Reno geothermal research program for the last 9 years. During that period I have watched the geothermal energy program at the University of Nevada, Reno acquire national and international status, based largely on what the program has accomplished for renewable energy in Nevada. The Nevada Bureau of Mines and Geology plays a key role in this program, and without its support, the geothermal program would cease to be what it is today.

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From: Mark Coolbaugh [sereno@dim.com]
Sent: Saturday, March 19, 2011 10:09 AM
To: Governor Brian Sandoval
Subject: Support for the Nevada Bureau of Mines and Geology

To: The Honorable Governor Brian Sandoval Capitol Building Carson City, NV
89701

Dear Governor Sandoval:

I am writing as a University of Nevada alumnus and former researcher who has been involved with the University of Nevada, Reno geothermal research program for the last 9 years. During that period I have watched the geothermal energy program at the University of Nevada, Reno acquire national and international status, based largely on what the program has accomplished for renewable energy in Nevada. The Nevada Bureau of Mines and Geology plays a key role in this program, and without its support, the geothermal program would cease to be what it is today.

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