



## Press Release

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### For Immediate Release

## New Arizona Institute on Sustainability and Mineral Resources

### A multi-million dollar collaboration positions Arizona to become a global leader in eco-friendly mining

PHOENIX, Ariz., (November 18, 2008) – Science Foundation Arizona and several mining industry partners have agreed to collaborate on a multi-million dollar initiative with The University of Arizona to create the Institute of Mineral Resources, a partnership that will position the state to become a world leader in all aspects of mineral resource development.

The work of the institute will provide greater economic and educational opportunities throughout Arizona, and will continue to advance the industry's best practices in mining, safety and environmental stewardship. It will further maximize and build on all of the important efforts already under way by the industry partners through a truly collaborative effort.

"Arizona has one of the most important mineral endowments on the planet and is the number one mining state in the country in terms of the value and benefits of minerals produced," said Mary Poulton, head of the UA's department of mining and geological engineering.

The institute's industry partners include: Freeport McMoRan Copper & Gold, Inc., Newmont Mining, Resolution Copper Mining Co., Caterpillar, Rosemont Copper, BHP Billiton, Anglo American, Barrick Gold, Lowell Exploration, Peabody Energy, Mineral Zone, Quadra Mining, Bronco Creek Exploration, Animas Resources and Riverside Resources.

"What we're looking at are ways to continue the long-term improvement of the Arizona economy through sustainable practices that strengthen the economy and develop technologies that will create more companies that contribute to the global mining picture and create jobs in Arizona."

"The UA brings one of the strongest earth and environmental science and engineering groups of faculty in the world" to this collaboration," Poulton said. "We're probably one of only three universities in the world that have the depth and breadth of faculty who can address these kinds of mineral resource exploration and development issues, and to the best of our knowledge we are unique in having such a strong mining and public health collaboration."

"This partnership has the potential to transform mining and create a significant competitive advantage for our state," said William C. Harris, president and CEO of Science Foundation Arizona. "This investment begins to demonstrate the important role SFAz can play in creating value for the state and stimulating a focus on excellence and performance. We are excited by this industry-university partnership."

"This partnership represents an outstanding opportunity to bring together industry, technical and academic experts to 'dig in' to untapped ideas and innovations in improved scientific understanding of mineral resources, and technologies and methods related to production, efficiency and safety. All of these things have

(more)

tremendous potential to have lasting benefits for our communities, the environment, the economy, and our company” said John Marsden, president of Freeport McMoRan Copper & Gold, Inc.

“We look forward to getting the project off the ground with the UA, and we commend Science Foundation Arizona for leveraging their resources to foster collaboration and create value in the state.”

Major research efforts include:

- Developing new methods to minimize the impact mining has on the environment. Projects include substituting low-quality water for high-quality fresh water and decreasing energy consumption in mining operations.
- Improving mine safety. UA faculty, in collaboration with industry partners, are developing the San Xavier mining laboratory into one of the world's premier test sites for safer underground mining technologies. These include finding ways to more precisely track miners and equipment working underground. Dr. Jeff Burgess, Division Director of Community Environment and Policy and co-investigator for this new SFaz project, will be studying the health effects of particulates in exhaust from bio-diesel and synthetic diesel as mining companies look to “greener” energy sources and working to identify and promote safer mine safety practices. In addition, investigators from Northern Arizona University and Arizona State University will characterize dust exposure in communities near mines.
- Basic research toward greater understanding of southwestern geology, which is needed to understand where minerals are located at depth. “There is potential for significant new mineral resources to be found in existing mining districts within the state that can continue to economically benefit the state for a long time,” according to co-investigator and UA Professor of Geosciences, Mark D. Barton. New, exotic elements as well as copper and other traditional elements will be needed by industry developing new alternative energy sources, for example, Barton added. “We’ll run into issues of supply and conflicts with other land use needs, unless we better understand where and how mineral resources have formed and are distributed in Arizona and around the world. ”

“Mining is not something that is purely of historic interest to this state, it really is part of the future,” Poulton emphasized. “Unlike factories, which can pick up and move somewhere else depending on economic conditions, some of the world's biggest mineral deposits are here and can be managed for the state's long-term economic benefit. We’re in a short-term economic downturn right now, but what we’re really focused on is the long-term benefit to the state. This is very important to Arizona's rural economies, as well as its urban economies.”

“This collaboration is very significant to Arizona, and a strong industry-university partnership that SFaz has catalyzed,” enthuses Bill Konopnicki, Arizona State legislator. “This has the potential to transform mining and create a significant competitive advantage for our state. The efforts will ultimately impact all counties in Arizona.”

Poulton calls the new institute a global education center that will attract people from all over the world. “The UA has generated a lot of technology companies for the mining industry over the years, and we want to invigorate that ability to create new technologies, companies and jobs for an industry that is going to be very important to the state's economy,” Poulton said. “It's amazing, what we're going to be able to do to enhance the sustainability of mineral development ”

With the mission of spurring new innovation in Arizona and developing a diversified, robust knowledge driven research and education infrastructure, SFaz, a 501(c)(3) public/private partnership, has to date awarded \$33.6 million in 59 innovation investments in communications technology, sustainable systems including renewable energies, and biomedicine. In just one year, these investments have demonstrated clear strategic advantages to Arizona by attracting an additional \$43.8 million in outside research dollars, seeding the development of eight new companies, and fostering science, engineering and math skills in over 10,800 students statewide.

Located in Tucson, Ariz., the UA is one of the nation's leading public universities, with a long history of academic excellence, research innovation and a student-centered approach. A member of the prestigious Association of American Universities, the UA is ranked 13th among public universities by the National Science Foundation with total research expenditures last year of \$530 million. With more than 38,000 students across three campuses representing 50 states and 124 nations, the UA is on the forefront of discoveries – from the depths of space to the medical and genetic mysteries of life, from emerging trends in climate change to the broad complexities of the human condition.