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TAILINGS TO TILES Turning Gold to 'Green'

- Carrie Andreotti
Public Relations & Communications

Did you ever imagine that recycled waste materials from a gold mine would be worth as much as the gold itself?

Emgold Mining Corporation (Emgold) imagines just that, and is taking steps to reopen the Idaho-Maryland Mine, located in Grass Valley, California. The Idaho-Maryland Mine is historically the 2nd largest underground gold mine in California and produced 2.4 million ounces of gold between 1861 and 1956. Part of the proposed project is to build and operate a tile factory on the mine site using Ceramext™ technology to recycle the mine tailings into high quality stone floor, wall, counter top, and roof tile products.

"By recycling the mine tailings, we are implementing a responsible form of gold mining," says David Watkinson, Chief Operating Office of Emgold and President of its subsidiary company, the Idaho-Maryland Mining Corporation (IMMC).

Garage technology, just like Google and Microsoft.

Golden Bear Ceramics Company (GBC), a second subsidiary of Emgold Mining Corporation, is currently operating a 45,000 square-foot research and development facility in Grass Valley to commercialize Ceramext™ technology. Local geologist Ross Guenther invented the Ceramext™ process in his garage. GBC acquired rights to commercialize the technology in 2003 and has spent the last few years developing the invention.

The Ceramext[™] technology was acquired by Emgold originally to complement the reopening of the historic Idaho-Maryland Gold Mine. Use of the process will minimize surface land disturbance and





costs, minimize reclamation costs associated with the mine, and eliminate long-term environmental concerns that are associated with surface disposal of mine wastes. IMMC plans to process up to 2400 tons of gold ore per day. The proposed ceramics plant will recycle up to 1,200 tons of tailings per day. The remaining 1,200 tons will go back into the ground as engineering backfill required for mining activities.

GBC has successfully tested the technology on numerous materials including quarry fines, mine tailings, and fly ash from coal fired power plants.

Why Green Equals Green

The products made by GBC are considered green products because they are made from wastes that would normally end up in landfills.

GBC products will qualify for LEED credits. LEED (Leadership in Energy and Environmental Design) is a system for ranking the environmental sustainability of a construction project. LEED-certified buildings

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WHAT HAPPENED IN VEGAS

- David Forchheimer **Marketing Manager**

> "It is our stated goal to be the employer of choice; the place where everyone wants to work whether they're in our profession or not. I can't say we work hard on that because it doesn't feel like work, it's just who we are."

> > - Uri Eliahu **ENGEO President**

In Las Vegas, on June 25th, ENGEO was named one of the 25 Best Small and Medium companies to work for in America.

The award was presented in front of more than 20,000 people at the Society for Human Resource Management's 59th Annual Conference Exposition. Their 4th annual list ranks America's top 25 small and top 25 medium-sized companies.

Each company evaluated was given a score based on employee responses to a detailed questionnaire about their organization's workplace culture.

The award was accepted by ENGEO President, Uri Eliahu, and the ENGEO Human Resources team, Valerie Davis, Jenny Ludwig and Jenny Swanson.

What it's like to be in the Top 25

"It is our stated goal to be the employer of choice; the place where everyone wants to work whether they're in our profession or not. I can't say we work hard on that because it doesn't feel like work, it's just who we are," says Eliahu.

"It was amazing to be part of such a wonderful celebration and to be receiving such an honorable award was a truly humbling experience," adds Davis. She continues, "If you believe in it, you can achieve it! This award is confirmation that when we set our sights on being a great place to work, our ENGEO team can do it - by everyone coming together with positive spirits, lofty goals, and a strong desire to make this award possible. It starts from the top."

What it's like to work at a Top 25 company

"I joined the ENGEO family over 10 years ago. What initially impressed me was the positive attitude and cando spirit and culture of all the staff that I met during the interview process. I was also influenced by the technical challenges, strong staff, lack of egos, willingness to share ideas, client focus and family atmosphere that is pervasive throughout the firm."

Don Bruggers, GE—Principal



ENGEO President and Human Resources team receive the award for #22 Best Place to Work in the Nation at the SHRM 59th Annual Conference & Exposition in Las Vegas. From left to right: Jenny Swanson, Uri Eliahu, Jenny Ludwig, Valerie Davis.

"I'll never forget that Uri Eliahu came up to me on my 3rd day at work and asked if there was anything he could do to help me. Uri invites open discussion in companywide meetings, contributing to a strong sense of family." Bob Boeche, CEG, Associate

"I came to ENGEO and stay here for the same reason: I like the quality of work, the people and the work environment. I have an opportunity to mentor the younger staff."

Raymond P. Skinner, CEG, Principal

"ENGEO provides the opportunity to help others succeed by utilizing experience and positive attitudes allowing the opportunity for career growth and success." Robert Delk, Senior Construction Services Technician

"The atmosphere is stimulating, positive, and promotes personal achievement. ENGEO is one big family in which everyone's ideas and decision-making input is valued and encouraged."

Gail Fitzsimmons, Executive Administrator

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ENGEO ON THE MOVE...

Trading Spaces

ENGEO Principal Shawn Munger and Associate Jeff Fippin traded office space this month. As our Rocklin office is excited to welcome Shawn to the team, our San Ramon office is equally excited to bring Jeff aboard. The opportunity is great for both leaders as they bring their experience and knowledge to serve their new teams.

Shawn Munger, CHG, REA II, has been serving projects in the Sacramento region, working closely with local and state agencies for many years. His leadership and technical expertise are unmatched. He brings 20+ years of experience providing environmental engineering, hazardous materials remediation, groundwater supply evaluations, hydrogeologic studies, chemical assessments, phase one and two site assessments, UST investigations, risk-based corrective action (RBCA), VOC remediation, and agricultural impact evaluations.

"After spending 22 years in ENGEO's main office in Contra Costa County, I am looking forward to new surroundings, new clients, and new staff with whom to collaborate," says Shawn. "The Rocklin office and Sierra Region will bring new technical and professional challenges, which I embrace. My family is also excited about all of the recreational activities the area affords."

Jeff Fippin, GE, has contributed heavily to the success and growth of ENGEO's Rocklin office and the development and mentoring of our young professionals. He joined ENGEO in 2002. Since 1997, Mr. Fippin has provided geotechnical engineering consultation and design services to clients in the public and private sector. He has proven skills in soil mechanics, soil-structure interaction, and preparation of reports, specifications and design drawings for public and private industry. He returns to the Bay Area, having worked in the past on projects such as the Joint Intermodal Terminal, Oakland; the Port of Oakland Wharf and Embankment Strengthening Program; and the Los Vaqueros Dam, Contra Costa County, among many others.

"Not only will I appreciate the cooler weather, I look forward to new challenges and the opportunity to work more closely with the amazing staff in San Ramon," says Jeff.

What does all of this mean to you?

This strategic change will allow ENGEO to better serve you, our clients. Our multidisciplined teams continue to grow and become more diversified – increasing the knowledge and experience of our staff and enhancing their abilities to bring valuable solutions to projects of all sizes and complexity.

ENGEO Flies South

f you build it, we will come. That is how it has happened for much of our expansion into new markets throughout the years. We've been serving our clients' Southern California projects for some time, often by setting up operations in their offices until we become established in our own spaces. Now, at the request of our clients, the time has come to formally set up shop. What better place to do it than by Magic Mountain? Our new office is located at:

27433 Tourney Road, Suite 160 Valencia, CA 91355 (661) 257-4004

CONGRATULATIONS TO THESE TEAM MEMBERS FOR THEIR RECENT ACCOMPLISHMENTS!



B.H. Bronson Johnson, PE, CEG passed the CHG and is an Associate



Michael Turner passed the PG and is a Project Geologist



Paul Cottingham passed the PG and is a Project Geologist



Matthew Harrell passed the PG and is a Project Geologist



Pedro Espinosa passed the PE and is a Project Engineer



Andy Firmin passed the PE and is a Project Engineer



Jason Preece, CEG passed the CHG and is a Senior Geologist



EVALUATING 300 MILES OF LEVEES INNOVATIVE TECHNOLOGY & Methods

REGION 1

REGION 2

REGION 3

- Jeff Fippin, GE **Associate**

n November 2006, California voters passed Propositions 84 and 1E: two major flood control bonds that provide about \$5 billion in funding for water safety and flood prevention. With this funding, the California Department of Water Resources (DWR) has initiated studies to evaluate and upgrade aging and deteriorating levees along the Sacramento and

San Joaquin River Valleys and Delta. In the winter of 2006, DWR and a team of consultants began performing geotechnical evaluations of more than 300 miles of urban project levees in these areas, with plans to later survey the entire 1,600 miles of project levees in the Central Valley. This study has an aggressive schedule of completion within a 3-year time-frame.

The urban current project levee evaluation is utilizing both conventional exploration methods (geotechnical drilling and laboratory testing, Cone Penetration Tests, geologic mapping, and geomorphology studies) as well as new methods

to develop a comprehensive understanding of the levees' subsurface conditions. Some of the innovative technologies being used to evaluate the levees include:

Light Detection and Ranging (LiDAR) topographic surveys - In the spring of this year, helicopter flights equipped with LiDAR performed aerial topographic surveys approximately 500 miles

Detail

of levees stretching from Oroville to Lathrop



Geophysical Electromagnetic (EM) surveys - In late 2007, DWR will perform EM surveys of the levees and surrounding ground from both helicopters and ground vehicles to determine if important irregularities can be detected in the upper 100 feet of the subsurface soil

Underwater Bathymetric surveys - In order to determine surface contours of the water side of the levees below the water surface, boats equipped with multibeam sonar equipment will perform a survey of many of the levees.

ENGEO is one of the consultants working on the geotechnical analyses of the urban levees. We are in the process of performing exploration and analyses (including seepage, stability, settlement and seismic performance) for a segment of levees within Region 1 of the study area.

CAP-TO-CAP RECAP

- Carrie Andreotti **Public Relations & Communications**

f you attended the 2007 Sacramento Metropolitan Chamber of Commerce's Capitol-To-Capitol (Cap-to-Cap) lobbying trip to Washington, D.C., then you're likely aware of what seems like a secret handshake. ENGEO realized the value of Cap-to-Cap this year by sending Bryan Yates, Project Manager from ENGEO's Rocklin office.

"The best part of the trip was working with the more than a 300-member-strong delegation on regional issues and speaking with one voice," says Bryan. "I would absolutely recommend this trip for anyone living or working within the Sacramento Metro area who has interests that are governed at the federal level."

The lobbying focused on Water Resources/Flood Management, Transportation, Economic Development, Air Quality, Aviation, and Land Use and Natural Resources, all of which play an integral part in our clients' daily business. The more we learn about your business, the better we can serve you.



Bryan Yates, REA, CSEPC, CEM **Project Manager**

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are often mandated by government jurisdictions and viewed as more desirable by tenants. Qualified projects with sufficient LEED credits are frequently fast-tracked through the regulatory process. GBC is a member of the U.S. Green Building Council, an organization that monitors and awards LEED certifications.

GBC officials point out that their "green" stone and ceramic tile production requires less energy per pound than glass, steel or plastic. Also, the Ceramext™ process uses less energy per square foot to produce tiles, as compared to traditional ceramic tile production.

Investors Wanted

GBC is hoping to attract investors to fund its first proposed stone tile production facility producing 24,000 square feet of tile per day, to be located somewhere in Northern California. The Idaho-Maryland Project will not be in production until around 2011, but GBC is ready to build its first commercial production plant today. Plans are to separate GBC from Emgold,

Learn More:

"Gold in Quartz, The Legendary Idaho Maryland Mine," by Jack Clark www.idaho-maryland.com

www.goldenbearceramics.com

http://cbs13.com/beatenpath/local_story_219185032.html



PHOTOS PROVIDED BY IDAHO-MARYLAND MINING CORPORATION AND GOLDEN BEAR CERAMICS

"By recycling the mine tailings, we are implementing a responsible form of gold mining."

to allow independent development of the tile business globally.

This Could be a 'Gold Mine' for Grass Valley - pardon the pun.

It's expected the re-opening Idaho-Maryland Mine and an adjacent tile factory will produce approximately 400 direct jobs, an estimated 3,000 indirect jobs, over \$750-million of direct and indirect revenue to local businesses, and almost \$700,000 per year fiscal contribution to the City's general fund.

ENGEO's Role

ENGEO is providing geotechnical and environmental services including characterization of the existing conditions at the site, as well as services for the following future planned improvements: a gold processing tile processing facility. facility. maintenance shop, office building, service building, educational center, equipment storage building, drill core storage building and water treatment facilities. Other improvements include

two hoist equipment houses and head frames for approximately 3,000-foot-deep shafts. Additionally, Centennial Drive will be extended southward through the site to connect with East Bennett Road. A buffer zone has been left for future development of Wolf Creek Parkway.

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"I can tap into hundreds of years of experience by sending an e-mail or picking up the phone, and can trust the people serving me. I like being surrounded by smart, talented technical people, while still given the freedoms to make my own mistakes, create my own experience, and not be micromanaged."

Craig Wright, Staff Geologist

"As we grow and change, we have held onto the company's core values of providing the best service possible, both to our clients and to each other. It's definitely the people who, leading by example, pass those values on to new employees as we grow."

Michelle Shriro, PE, Senior Engineer

"It's simple: company-wide support, excellent communication, family type environment, strides for excellence, and the open door policy."

Jose Tamez, Manager of Construction Services

The harder you work, the luckier you get.

In addition to the national honor, recently ENGEO was voted the #1 Best Place to Work in the Bay Area in the 101-500 employee category by the Business Journal/Business Times, for the second year in a row. In 2006, ENGEO was the only engineering firm to receive an award in its category.

