

CHICAGO SECTION NEWSLETTER

February 2008



Newsletter of the Chicago Section of the Society for Mining, Metallurgy, and Exploration, Inc. - Founded Spring 1987 - www.chicagosme.org

MEETING: Wednesday, March 5, 2008

Topic: *The New Menomonie, Wisconsin, Silica Sand Mine and Fairmount Corporate Sustainability Philosophy.*

Guest Speakers: Rich Budinger, Fairmount Minerals, Menomonie, WI and Scot Lord, Fairmount Minerals, Chardon, OH

Time: 5:30 PM Social Hour
6:00 PM Dinner and Program

Meeting Location: Arrowhead Golf Club
26W 151 Butterfield Road, Wheaton, Illinois

Directions: **From I-355:** Take to I-88 and then take I-88 West to Winfield Road. Go north on Winfield to Butterfield and turn right. Arrowhead is on the right about 2 miles east.

From the West on I-88 East: Take Winfield Road exit and go north on Winfield to Butterfield and turn right. Arrowhead is on the right about 2 miles east.

From I-294: Take the exit to I-88. Take I-88 West to Winfield Road. Go north on Winfield to Butterfield and turn right. Arrowhead is on the right about 2 miles east.

Note: As can be seen on the map, one could also take the Naperville Road exit from I-88. However, although there is a left turn lane for the golf course, there is no traffic light and at evening rush hour, on-coming traffic can be heavy. Therefore, we recommend the right turn into the golf course coming from Winfield Road.

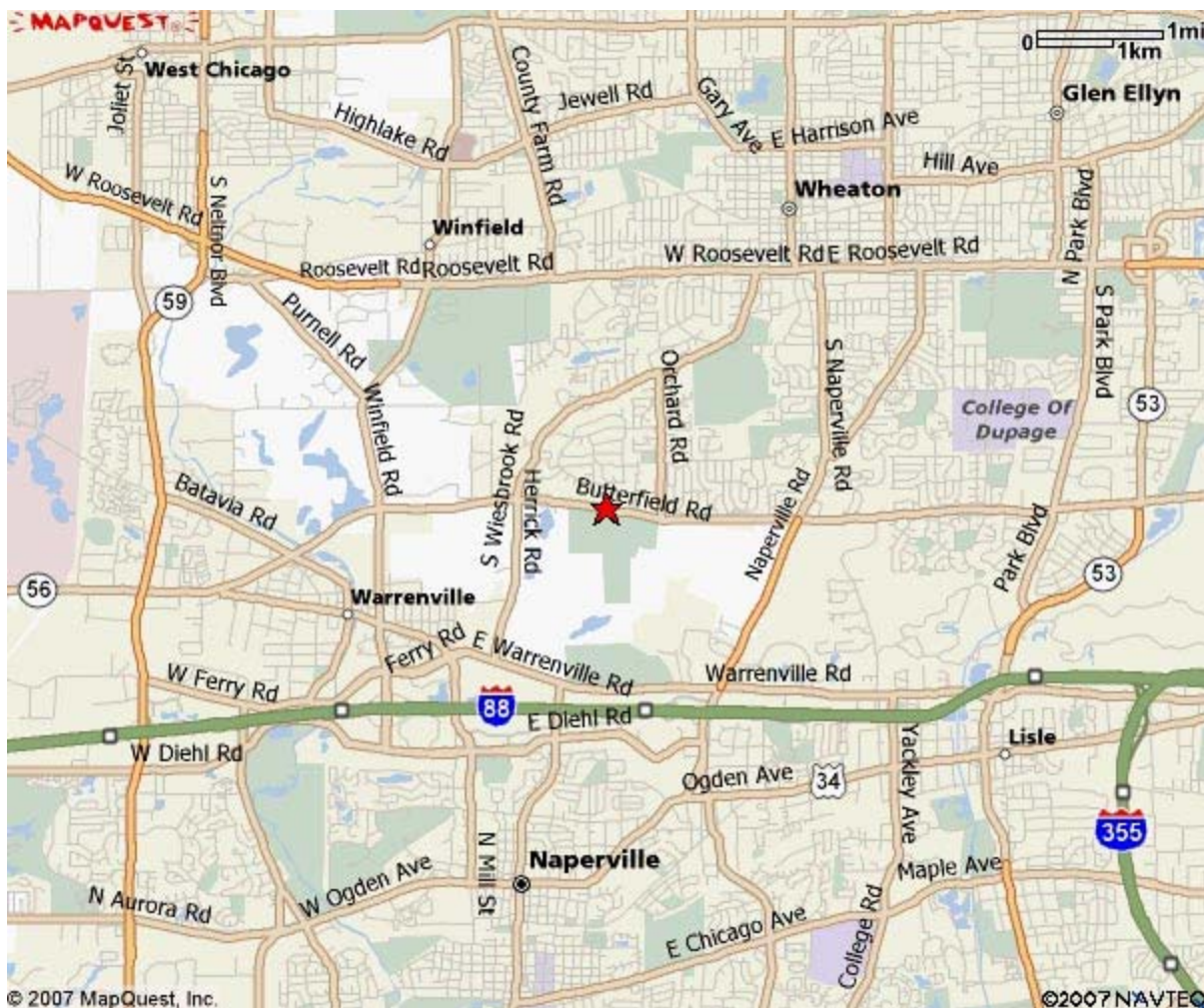
Map on next page.

Menu: **Slow Roasted Prime Rib au Jus** with baked potato and vegetables
Cedar Plank Salmon with asparagus and red skinned mashed potatoes
Grilled Portabella Mushroom Caps with sautéed vegetables and red skinned mashed potatoes
Chicken Scaloppini served over linguini pasta with a lemon butter sauce.

Dinner includes coffee, tea or soft drinks with dinner, rolls and butter, choice of soup-of-the-day, Caesar or garden salad and dessert.

Cost: \$35 for dinner/meeting for Members, \$40 for Non-Members
Science teachers or professors are considered guests of the Section and will get dinner free.
Students' dinners are \$5.

If you plan to attend, RSVP; PLEASE before Monday, March 3, 2008. Call or email Agapito Associates, Inc. at either 630-792-1520 (office), 630-544-7821 (Joe Crawford's cell) or jcrawford@agapito.com.



From the Program Chairman Next Meeting:

Abstract: After a brief introduction outlining Fairmount Minerals' business and markets, the speakers will discuss Fairmount's Corporate Responsibility and Sustainability Commitment. They will explain how the company's philosophy and reputation has helped during public hearings on the permitting of the Menomonie, WI plant that under construction.

Rich will then discuss the current status of the project using photos and charts. This part of the presentation will also focus on the LEED Certification for the office and shop and discuss some of the incentives Fairmount is anticipating through "Focus on Energy" for the installation of high efficiency motors and VFDs.

Speaker Bios: Richard Budinger is the Site Manager for Fairmount Minerals' Menomonie, WI Plant. He will become Plant Manager upon completion of the construction and development of the sand

in July 2008. Rich graduated from the University of Missouri-Rolla School of Mines and Metallurgy in 1996 with a BS in Mining Engineering and has an extensive background in geology, mine development, and process engineering.

Scot Lord is the Sustainable Development Leader for Fairmount Minerals, and is located in Chardon, Ohio. He acts as a liaison between plant managers, Sustainable Development teams and Corporate Staff. Scot graduated from the United States Military Academy at West Point with a BS in mechanical engineering. He is new to the mining industry but is a veteran of team organization and logistics.

The Last Meeting: *Horizontal Air-Decking Underground to Reduce Overbreak* by Dennis Dunham, P.E., Foam Concepts, LLC, Cloquet, MN

Dennis Dunham of Foam Concepts, gave a very interesting talk on Foam Air Decking. Fifteen long-lost and some new members braved a nasty snow storm to attend. The temperature dropped some 30° during the dinner and meeting.

Overbreak, or blast damage beyond the neat excavation line, results in dilution, increased scaling and bolting, decreased short- and long-term opening stability, and increased operating cost. Overbreak can be reduced by shooting to natural partings, or by optimized blast design, which includes proper choice of hole diameter, burden and spacing (optimized drilling) and use of techniques such as pre-splitting and trim blasting to control the opening perimeter (optimized loading and blasting).

With both pre-splitting and trim blasting, the blasting agents or explosives loaded in the perimeter holes in a round are decoupled from the rock mass to reduce the energy transferred to the rock. Decoupling techniques include low density powder, tracing, core decking and air decking. In practice, the air-gap concept requires separating columns of explosives or blasting agents with stemming. The FoamPlug™ concept was developed to provide an enhancement to rock stemming and facilitate decking. The plugs can also be used to isolated water, hold emulsion in

place in “up-holes” and plug old exploration and observation holes. The concept has been used in limestone mines with a) no natural roof partings and b) rib control difficulties. *Contributed by the Editor*

Looking for Speakers for This Year:

The Chicago SME is in the process of scheduling speakers for this year. If you have a subject you are interested in hearing presented, know of someone you would like to have speak to our group, or would like to give a talk yourself, please contact our program chair, **Frank Kendorski at 630-792-1520** or you can e-mail him at frank@agapito.com

NEWS OF MEMBERS



Dean Ennes has been elected to the Board of Directors of the International Trade Association of Greater Chicago, a voluntary business association dedicated to promoting international commerce. With some 400 members, it is the largest organization of its kind in Illinois. Dean Ennes International, a consultancy focused on the planning and financing of infrastructure projects in developing countries.

Submitted by Dean Ennes

Bob Archibald Now Independent Consulting Engineer

Bob Archibald, has left his former employer to set up shop as an independent consultant in mining engineering and operations. Bob is a native of Butte, Montana, and is a third-generation mining engineer. Bob has over 35 years of experience in mine operations, quarrying, consulting, and publishing. He is a long-time member of SME. Bob Holds a BS in Mining Engineering from Montana Tech, an MBA from Oklahoma City University, and is a Registered Professional Engineer. His office is in Elburn, Illinois, and he can be reached at bob@archibald.com or 630-608-3678, where he loves to discuss elk hunting.

Agapito Involved in Gold Mine Way Up North



Frank Kendorski and Joe Crawford of Agapito Associates, Inc., in Lombard, Illinois, have been working on kinematic analyses of rock slopes for a new open pit gold mine in far northern Saskatchewan, Canada. Field work was completed in early October 2007 just before the snow set in for the winter.

Diamond drill core was sampled for rock mechanics testing and shipped from the mine site to Denver. The core had visible gold, so a rigorous Chain-of-Custody procedure was in place

On the same project, **Doug Hambley**, also of **Agapito Associates, Inc.**, in Lombard, performed stability and seepage determinations on waste rock and mill reject storage area structures.



Typical Gold Ore Outcrop

NEWS ITEMS

Prairie Assets Purchased by Brazilian Conglomerate

Votorantim Cement North America Inc. Announces the Acquisition of Certain Assets of **Prairie Material Sales, Inc.** and Selected Affiliates

On February 1, 2008, Votorantim Cement North America ("VCNA"), through its US affiliate, **Votorantim Cimentos North America, Inc.**, acquired **Prairie Material Sales, Inc.** and certain of its affiliated ("Prairie") ready-mix concrete, aggregates and related cartage businesses.

Prairie has been in business for over 60 years. Headquartered in Bridgeview, Illinois, Prairie is a leading supplier of



Brazilian Samba – Hey! We’ve all seen concrete yards, but Samba?

ready-mix concrete - with 81 plants in Illinois, Michigan, Indiana and Wisconsin; and aggregates - with 17 aggregate mining operations in Illinois and Indiana. Prairie is also a major

distributor of brick, which business was not acquired by VCNA. Based solely on projections for the acquired assets, Prairie's 2007 sales were approximately \$450 Million. Prairie employs over 1800 people within the businesses related to the acquired assets.

The asset acquisition described herein is an important component of VCNA's strategy to expand its operations in North America and to further integrate VCNA's business platform in the Great Lakes region.

VCNA is the North-American subsidiary



of Votorantim Cimentos, an international cement manufacturer and part of the Votorantim Group of companies, one

of Brazil's largest industrial conglomerates. VCNA oversees the Group's cement, ready mix and aggregate operations in North America, which include **St. Marys Cement Inc. (SMC)**, a leading manufacturer of cement, ready-mixed concrete and aggregates in the Great Lakes region of the United States and Canada. VCNA is headquartered in Toronto, Ontario - Canada.

From Votorantim Press Release

Lafarge Modernizes and Expands Cement Manufacturing Facility in Joppa, IL

Lafarge announces the modernization its Joppa, Illinois cement plant in the United States. This 2 million ton plant, which will start up at the end of 2010, is part of the Group's major emphasis on cost reductions and will generate \$75M additional earnings annually. This modernization will also help to enhance the plant's environmental performance significantly in terms of

alternative fuels and emission control. The project represents an investment of around €285 million.

This strategic investment will decrease the company's need to import cement to meet demand. The new kiln will use the most modern processes and will allow Lafarge to maintain highly competitive positions in terms of safety, product quality, and production costs. Overall, the new line will increase operating efficiency, reduce energy use, reduce costs and enhance environmental protection.



Silo Manufactured with a Special Lafarge Cement Manufactured at Joppa

"The expansion of the Lafarge Joppa facility is part of our long-term strategy to strengthen our market position in North America by building high-efficiency, low-cost operations. It significantly improves our ability to service our customers in a competitive manner by improving product quality," said Jean-Marc Lechêne, President of Cement in North America.

From a Lafarge Press Release

Martin Marietta Materials, Inc. Announces the Election of Michael J. Quillen to Its Board of Directors

RALEIGH, N.C., Feb 01, 2008 (BUSINESS WIRE) -

- Stephen P. Zelnak, Jr., Chairman and Chief Executive Officer of Martin Marietta Materials, Inc. (NYSE:MLM), today announced that Mr. Michael J.



Mike Quillen

Quillen has been elected as a member of the Board of Directors of Martin Marietta Materials. Mr. Quillen (59) is Chairman and Chief Executive Officer of Alpha Natural Resources (NYSE:ANR), which is headquartered in Abingdon, Virginia, and generates annual revenues of

approximately \$2 billion. Alpha Natural Resources is a leading supplier of high-quality Appalachian coal to electric utilities, steel and coke producers, and industrial customers. Alpha is also one of the nation's largest producers and exporters of metallurgical coal, a key ingredient in steel manufacturing. Alpha and its subsidiaries currently operate mining complexes in four states, consisting of 58 mines feeding 11 coal preparation and blending plants.

Mr. Quillen has over 30 years of experience in the coal industry starting as an engineer. He has held senior executive positions in the coal industry throughout his career. His involvement with Alpha began in 2002 when he led its formation along with affiliates of First Reserve Corp., a private equity firm. Under Mr. Quillen's leadership, Alpha acquired coal production and marketing operations in Virginia, West Virginia, Pennsylvania, and Kentucky, and has become a leading producer of coal.

Mr. Quillen holds Bachelor's and Master's degrees in Civil Engineering from Virginia Polytechnic Institute.

Commenting on the election, Zelnak stated, "The Board of Directors of Martin Marietta Materials is extremely pleased to have a person of Mike Quillen's caliber and expertise join our Board. His role as Chairman and Chief Executive Officer of Alpha Natural Resources makes him well-versed in corporate-related governance issues. His strong credentials and experience in mining will enable him to make a very meaningful contribution to our Board. In addition, he has considerable experience with the investment community, having overseen the initial public offering of his company. We believe Mr. Quillen will be an important addition to our Board and a great asset to Martin Marietta as we continue to deliver value to our shareholders."

From a Martin Marietta Press Release

Vulcan Announces Record Operating Earnings for 2007

Birmingham, Alabama – February 13, 2008 – Vulcan Materials Company (NYSE:VMC) today announced that 2007 full year sales, net cash provided by operating activities, operating earnings and earnings before interest, taxes, depreciation and amortization ("EBITDA") were at record levels. Consolidated net sales were \$3.1 billion in 2007, an increase of 2 percent from the prior year's level. Net cash provided by operating activities of

\$708 million increased 22% from the 2006 level of \$579 million. Operating earnings for 2007 were \$714 million, up 3 percent



Donald M. James

from the 2006 level of \$695 million. EBITDA in 2007 was \$982 million, up 3 percent from the \$950 million reported in 2006. Don James, Vulcan's Chairman and Chief Executive

Officer, stated, "Our business generated improved results in 2007 despite weaker demand for our products. The sharp downturn in residential construction activity was only partially offset by increased levels of highway construction and nonresidential construction. The pricing environment for aggregates remained favorable during 2007. The average selling price for aggregates increased 13 percent in 2007 despite a 9 percent decline in aggregates shipments. "The past year also was highlighted by Vulcan's purchase of Florida Rock Industries on November 16, 2007. This acquisition, which includes significant aggregates reserves in attractive markets, continues our long-term strategy to position our company in markets where reserves are limited and where demand for aggregates is expected to grow at above average rates. The short time that Vulcan owned Florida Rock during this seasonally weak period, coupled with the one-time earnings effects from the transaction, resulted in the acquisition providing limited contribution to 2007 EBITDA. Integration of this acquisition is proceeding smoothly and according to our plans."

From a Vulcan Press Release

DO YOU KNOW YOUR ILLINOIS MINING HISTORY?

The Great Cherry Coal Mining Disaster

Work in the underground tunnels of the early coal mines in Illinois was dark, dirty, and always dangerous. There was always the likelihood of death or injury faced by the men and boys as they dug coal from the often narrow seams, sometimes lying many hundreds of feet below the surface. Worst of all were the great disasters; an explosion under ground, the sudden flooding of the

shafts, the silent spread of poisonous gasses, or fire.

In the early years of mining, there were few safety regulations or procedures required by the State. The mining companies showed minimum concern for the safety of the workers. Replacements could always be found from among the immigrant workers pouring into America from Europe. Financial liability to injured or even killed workmen was limited. Since they were paid by how much coal they had dug by the end of the day, miners went about their work in a hurry with little time and attention to safe practices.

The wives and mothers of the miners lived in dread of the wail of the mine whistle, sounding the alarm that an accident had happened.

The coal fields in northern Illinois experienced more than a few such dreadful disasters. One of the worst took place on November 13, 1909 in a mine near the little town of Cherry, just a few miles northwest of La Salle, IL on Illinois Highway 89. By 7:00 a.m. that morning, 481 men and boys had descended the shaft to reach the coal, in some cases more than 500 feet below the surface.

It began as a day like any other, except that the electrical system had broken down and the mines were lit the old-fashioned way. Kerosene torches were placed along the walls; but the miners were used to that and nobody was alarmed. Around lunch time several bales of hay were dropped down the hoist to feed the mules. Forty mules, were stabled underground. There were 259 men and boys who were never saved despite great deeds of heroism by volunteer rescue teams. Sadly, that heroism was rewarded with death for no less than twelve of the rescuers. They were a hastily assembled team of people from the town who went down in the cage six times, each time dragging more miners to safety. From the seventh trip into the hell below, however, none returned alive.

There were tales of unbelievable suffering and endurance. One group of miners, 500 feet underground, had built a wall of mud, rocks, and timbers to block off the poisonous gasses. They were in total darkness with only a pool of water leaking

from a coal seam to drink. After eight days of confinement, they could bear it no longer. They tore down the barricade and began crawling through the tunnels. Finally, they heard the sounds of a search party. Twenty-one men still alive from this group were rescued.

After 25 days the Cherry Mine was sealed. The question of compensation for the lost lives of the miners and rescuers remained to be resolved. The laws governing worker's compensation and employer liability were not yet on the Illinois statute books, and the mine company had gone into bankruptcy. At length, it was agreed that the settlement of claims would be based on standards set in the Workmen's Compensation Act, which had recently passed in the British Parliament.

Impelled by the public outcry over the tragedy, in 1910 the Illinois legislature established stronger fire and safety regulations governing mines. A year later, the State adopted a liability act, which later developed into the



Illinois Workmen's Compensation Act.

Adapted from the Illinois Labor History web page. Submitted by Frank Kendorski

Erected as a memorial to the

Cherry Creek Victims, this statue of a miner is in Chicago. It is entitled "Miner's Homecoming." Can you identify its location?

Gold!

As I write this gold just passed US\$960/ounce. Some perspective:

Unadjusted for inflation:



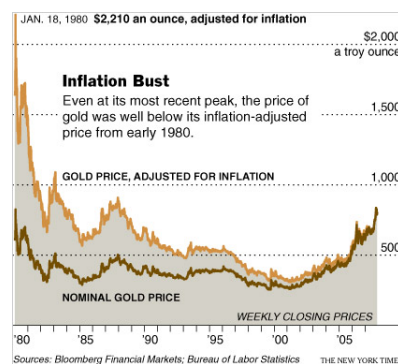
From American Museum of Natural History:

It has been estimated that, worldwide, the total amount of gold ever mined is 152,000 metric tons, only enough to fill 60 tractor trailers. In comparison, each year 907 million metric tons of iron are produced worldwide. This is equivalent to 6,000 times the total gold produced throughout history.

All the gold that has ever been refined throughout history could be placed in a cube measuring 65.5 feet (20 meters) on a side.

More than 90 percent of all gold ever used has been mined since 1848, when gold was discovered at Sutter's Mill, California, sparking the greatest gold rush of all time. Most gold—78 percent of the yearly gold supply—is made into jewelry. Other industries, mostly electronics, medical, and dental, require about 12 percent. The remaining 10 percent of the yearly gold supply is used in financial transactions.

Adjusted for inflation:



UPCOMING MEETINGS & EVENTS

For your schedules:

March 3 to 8, 2008 Prospectors and Developers Association Convention (PDAC), Toronto, Ontario

March 11 to 15, 2008 CONEXPO-CON/AGG, Las Vegas, Nevada

May 4 to 7, 2008, CIM Annual Conference and Exhibition, Edmonton, Alberta.

2007-2008 Chicago Section SME Officers

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Vice-Chairman	vacant	Newsletter Editor	Doug Hambley Agapito Associates, Inc. Lombard, IL 630-792-1520 Fax 630-792-1580 dfhambley@agapito.com
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Membership	vacant	GEM Coordinator	Anne Leslie Raimonde Drilling, Inc. Chicago, IL rdcdrill@rdc-drill.com

SME Chicago Section Membership Dues Form - NOTE: You do not need to be a national member to join the local section. To become a member of SME at the national level, please join at www.smenet.org or get an application from Gordie Stevens.

NAME: _____

AFFILIATION: _____

ADDRESS: _____

E-MAIL: _____ @ _____

DAYTIME TEL. NUMBER: _____

SPONSOR'S NAME: _____

STUDENT _____ **RETIRED** _____

Make Check for \$20.00 (\$10.00 for Student or Retired) out to “**Chicago Section – SME**” and mail to: Brad Renwick, Treasurer, Chicago Section SME, Civil & Environmental Consultants., 3041 Woodcreek Drive. Suite 210, Downers Grove, IL 60515