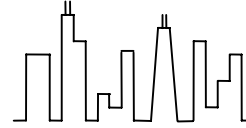


# CHICAGO SECTION NEWSLETTER

## May 2005



Newsletter of the Chicago Section of the Society for Mining, Metallurgy, and Exploration, Inc. - Founded Spring 1987 – [www.chicagosme.org](http://www.chicagosme.org)

## MEETING: Tuesday, May 24, 2005

**Topic:** “QUARRYING INDIANA DIMENSION STONE --  
An Ancient Product Using Modern Technology”

**Guest Speaker:** **Y.J. Zhang,**  
**Chief Engineer, Indiana Limestone Company**

**Time:** 5:15 PM Social Hour  
6:00 PM Dinner *Please - We need advance reservations.*

**Place:** **Ramada Inn at Burr Ridge, IL** 300 South Frontage Road,  
Burr Ridge, IL. 630-325-2900

**Directions:** *From I-55:* Exit # 276A - County Line Road South, go to the first traffic light  
Turn Right, then the road turns an immediate right; follow the road  
around until you are parallel to the freeway, past the Extended Stay America.  
The Ramada will be another 150 yards ahead on the left.  
*From I-294:* Exit on I-55 Westbound. County Line Road will be the next exit  
*From I-88 & I-355:* Exit to I-355 southbound, go to end of freeway at I-55  
Head east toward Chicago: County Line Road is just east of Kingery  
Highway (IL # 83)



**Menu:** Service will be restaurant style, with [your choice of two entrées](#):

**Breast of Tom Turkey,** Presented with raisin sage dressing, natural pan juice gravy  
and cranberry sauce or

**New Zeland Orange Roughy,** A broiled tender flaky fillet served with citrus  
hollandaise

*Dinner will include an appetizer, salad, vegetable, potato or rice and dessert.*

A vegetarian plate is available on request.

**Cost:** \$25 for dinner/meeting for Members, \$30 for Non-Members. Science teachers or professors  
are considered guests of the Section and will get dinner free. Student’s dinners are only \$5.  
If you are coming RSVP; **PLEASE.** Call or e-mail either

Gordie Stevens of Civil & Environmental Consultants at 630-963-6026 [gstevens@cecinc.com](mailto:gstevens@cecinc.com)

Rick Ackermann of Patrick Engineering at 630-795-7246 [rackermann@patrickengineering.com](mailto:rackermann@patrickengineering.com)

*And give us your dinner selection (see above) we can do some late reservations, but...*

### From the Chairman:

As we draw this “meeting year” to a close, I would like to thank each of the members of the Chicago  
Section for all of your support this year. Our attendance has again improved. I continue to get positive  
feedback on how well our Section is performing and providing a forum for fruitful interchange of ideas. We  
have been provided the opportunity to hear many great speakers who presented topics of interest to the  
Section. Funds have been donated to GEMS-related activities and other worthy causes. I would like to  
remind you to get a link on our website by donating to GEMS. Only a few have taken this opportunity.

Another good sign of a healthy organization is the renewed interest in — and the influx of new talent into — the Executive  
Committee. I especially want to thank the Executive Committee for all of their hard work in helping all of this to come  
together so successfully. If you get a chance, please send your encouragement to each of these individuals, who put  
significant time and effort into the Section on your behalf. Have a great summer and I hope to see you next fall...but first I’ll  
see you next week at our last meeting until fall.



Gordie

## *From the Program Chairman*

### **At This Meeting:**

## **“QUARRYING INDIANA DIMENSION STONE – An Ancient Product Using Modern Technology”**

**A Brief Synopsis:** Dr. Zhang will start with a brief history of Indiana Limestone Company, which goes back over 80 years, and a description of the quarry location and its geological conditions. He then will then describe quarry operations and the technology applied, both historically and currently. The technical description will start with the exploration process for this type of stone and continue through the planning and production scheduling process. Overburden stripping will be described. Mr. Zhang will then give a through description of the production sawing operation and the procedures used for limestone block quarrying.

Grading, tagging and staging of the product will be the final element of the technical discussion. He will also include a description of the marketing and inventory process for this type of product, and finish with a description of the challenges currently facing the operation.

### **The Speaker**

Y.J. Zhang received his college degree in Mine Construction in China prior to coming to the United States. In 1986, he earned his M.S. degree in Mining Engineering at West Virginia University; his Ph.D. degree in Mining Engineering at University of Kentucky followed in 1996. Since 1996 he has been with Indiana Limestone Company as a mining engineer and then chief engineer, based at the company headquarters in Bedford, IN. This past December he completed his MBA program with Indiana Wesleyan University while working for Indiana Limestone. Dr. Zhang is a Registered Professional Engineer in both Indiana and Kentucky.

### **The Last Meeting**

**Bruno Reumueller** of VOEST ALPINE talked on the application of Roadheaders to the mining and tunneling industries. While the presentation lasted until almost 9 PM, the unusually large group stayed tight in their seats. After a short history of roadheader development, Herr Reumueller talked about the conditions that make for a successful roadheader application, and what factors, including ground conditions, create uneconomic applications or operational problems. Some of the factors favoring roadheader use include limitations on the use of explosives, and issues relating to vibration, particularly in an urban environment. Rock strength, fracture characteristics and abrasivity has a major effect roadheader success. He noted that rock containing over 70% silica may be too abrasive for roadheaders, resulting in excessive cost. Another problem that occurs is insufficient preliminary investigation. Reumueller gave examples where Voest Alpine correctly predicted such critical items as bit consumption per ton, and advance rate during cutting. This required a significant pre-investigative cost and commitment by both Voest-Alpine and the company using the roadheader. One example presented in detail was a Canadian subway tunnel job, where the roadheader, was pitted head-to-head for Phase I against a drill and blast approach. The roadheader was so successful that the client required a roadheader bid for Phase II. Due to the prior investigation into the rock and job conditions, Voest Alpine did a very good job of predicting the operating parameters and the related costs for the contractor.

In successful roadheader applications, there can also be advantages in the control of overbreak and the cost of tunnel lining and other ground support. For additional information check out the Voest-Alpine website: <http://www.vab.sandvik.com/>

### **More on Local Roadheaders...**

A Voest-Alpine roadheader ATM-105 model will soon be starting to drive twin 1,100+ foot declines at a -15% grade through the Maquoketa shale in the Chicago area. This project has generated great interest among the mining and engineering community around the Chicago area. As the company that is

doing the work approves, more information about this project will be made available in this newsletter or via e-mail to those on our e-mail list. Therefore, if you want to be on the SME contact list over the summer, give us your e-mail address or inform us if you change yours. Contact our newsletter editor Rick Ackermann by phone at 630-795-7246 or via e-mail at: [rackermann@patrickengineering.com](mailto:rackermann@patrickengineering.com).

*By the Editor*

### **Speakers for Next Fall:**

**The Chicago SME is in the process of scheduling speakers for next year.** If you have a subject you are interested in, know of someone you would like to have speak to our group, please contact our program chair, **Frank Kendorski at 630-792-1520**. Or talk to any of our executive committee; Gordie Stevens at 630-963-6026 John Head at 630-407-0800 x 103 John Magyar at 815-547-9211 Steve Tivy at 847-741-2590 Rick Ackermann at 630-792-7246.

If you would like to present a talk or personally know someone who you would like to have as our speaker, please give **Frank Kendorski** a call or e-mail. He can be reached at the phone number given above or via e-mail at:

[frank@agapito.com](mailto:frank@agapito.com)

### **Chicago Section SME Officer Nominations for 2005-2006**

At this meeting we will be electing the Chicago Section officers for next year. Nominations will be open from the floor for all elected officers.

#### **Elected positions:**

Chairman – Gordie Stevens  
Vice Chair – John Head  
Treasurer – Brad Renwick  
Secretary – Steve Tivy

#### **Appointed Positions**

Program Chair – Frank Kendorski  
Newsletter – Rick Ackermann  
Membership Chair – Jim Martin /Nalco  
GEMS Chair – Anne Leslie  
Section Representative – John Magyar  
Website coordinator – Sarah Schlichtholz  
Student Relations – Open

## UPCOMING MEETINGS & *EVENTS*

For your schedules

### 2005 RETC Rapid Excavation & Tunneling Conference & Exhibit June 27-29, 2005 The Westin Seattle Hotel

Exhibits  
Technical Sessions  
Short Course  
Field Trips

For information & registration

<http://www.retc.org/Attendee/index.cfm>

### Conference on Business Process Improvement (BPI) in the Extractive Industries

Denver, Colorado  
September 21-22, 2005

Sponsored By  
Penn State and Colorado  
School of Mines

The second annual meeting of the  
*Industry Summit on Mining  
Performance: How to Improve  
It, How to Sustain It, How to  
Reduce Costs*

Join us to learn how your  
organization can achieve and  
sustain 20 to 40% improvements  
in cost and productivity through  
process improvement initiatives.

Visit the conference Web site for  
more information on registering or  
submitting a paper for  
presentation:

[http://www.outreach.psu.edu/pst/  
BPI](http://www.outreach.psu.edu/pst/BPI)

## Great Lakes Chapter Of the International Society of Explosives Engineers

Summer Meeting  
July 21, 2005  
At the Holiday Inn at Willow Brook  
At 6:00 PM  
For information contact  
Barbara A. Schue-Wendt  
(815) 838-2270  
[blwendt@aol.com](mailto:blwendt@aol.com)

## TRAINING COURSES

### National Stone, Sand & Gravel Association Training Courses

If you click on the NSSGA link below, it  
will take you to the list of training courses.  
Click on any contact to e-mail for  
information, or click on the underline  
seminars for the brochure. For a link to all  
the training courses:

<http://www.nssga.org/meetings.cfm>

NSSGA courses include

[Dredging Seminar & Expo](#)  
June 5-7 in New Orleans

[Noise & Dust Workshop](#)  
September 13-15 in Phoenix, AZ

[Drilling & Blasting Seminar](#)  
October 2-4 in Hershey, PA

[Basic Supervisory Training Course](#)  
Nov. 11-14 in Downers Grove, IL

## ILLINOIS STATE NEWS

From Aggregate Research & the NSSGA

### NEWS ALERT!

## GOP Can't Avoid Gridlock on TEA-21 Bill

There's a showdown looming in Congress  
that has been brewing for nearly two years  
and could come to a head as soon as the  
end of this month. Both sides are firmly  
entrenched. Neither has even hinted at the  
possibility of a compromise.

The issue: a six-year highway and mass  
transit-funding bill. The last six-year  
highway bill, funded at \$218 billion,  
expired in September 2003. Unable to  
come up with a new bill, Congress  
continues to pass temporary extensions of  
the old measure. The latest extension, the  
sixth, is due to expire May 31.

The parties involved in the dispute are the  
White House and the GOP-controlled  
Congress. In a rare break with the  
President, Senate Republicans joined  
Democrats on 11 May in rejecting a  
transportation bill spending ceiling set by  
President Bush.

Mr. Bush initially proposed a spending cap  
of **\$256 billion** on highways, bridges and  
mass transit and threatened to veto any  
measure proposing more spending. But  
after the House settled on \$284 billion in  
March, the White House waffled and  
vowed to go along, but again threatened to  
veto any highway bill that exceeds the  
**\$284 billion** limit.

But 33 Senate Republicans joined  
Democrats on 11 May in support of a **\$295  
billion** highway-spending plan.

The forces at work here are lawmakers'  
desire to bring home the pork and the  
President's aspirations for voters to see him  
as fiscally responsible and firm in his veto  
promise\*.

Source=[http://www.aggregatesearch  
.com/article.asp?id=6357&s=m](http://www.aggregatesearch.com/article.asp?id=6357&s=m)

\*NOTE: to the best of the SME newsletter editor's knowledge the  
President has not vetoed any bill since coming into office in 2001.

### *What's At Stake For YOU:*

For every **\$1 billion** the U.S. government  
spends annually on roads increases sales  
for the following markets:

**\$100 million** at **machinery makers** such  
as Caterpillar Inc. and Komatsu Ltd.,

**\$100 million** for **asphalt sales** for  
companies such as CRH Plc's Oldcastle

**\$90 million** for **concrete sales** at  
companies such as Lafarge SA

**\$50 million** for **aggregate sales** at  
companies such as Vulcan Materials Co.  
the group has estimated.

(from American Road and Transportation  
Builders Association 2004 estimates)

The Texas Transportation Institute has reported that urban traffic congestion wasted 2.3 billion gallons of fuel in 2003, a 69 million gallon increase from the previous year. The Institute is part of Texas A&M University.

*Information from a Bloomberg article dated 5/9/05*

If you are interested in expressing your opinion, check the newsletter from last month on page 4 concerning how to contact your House and Senate representatives in Washington D.C. Word is that both the Illinois Senators are for the \$11 billion increase, but politics being what it is, anything goes.

*The Editor*

### **From The PIE & GEM Committees**

#### **Corporate Sponsor Links**

<http://www.chicagosme.org/sponsors.htm#sponsor>

The Chicago SME section has added a sponsor page of links on our web site. The links will be added for a small annual fee, with the money going solely to support our GEM (Government, Education & Mining) Committee educational outreach efforts.

This is a small way to add to your company exposure and support educational efforts by the industry at the same time. For information, call Gordie Stevens at 630-963-6026 or e-mail him at [gstevens@cecinc.com](mailto:gstevens@cecinc.com)

### **MEMBER NEWS**

#### **John Magyar Co-Authors Paper on Raise Grouting**

John Magyar, PE, of International Mining Services and Al Campoli, Business Development Manager for Minova USA, are coauthoring a paper titled "Using Foaming Grout to Stabilize a Ventilation Raise in Very Poor Rock" The paper will be presented at the 24th International Conference on Ground Control in Mining held in Morgantown, WV, August 2-4, 2005.

The paper describes a technical approach used to stabilize and secure caving ground

in a newly-reamed, 12.5-ft diameter, underground ventilation raise. Two zones of very poor Rock Mass Rating (RMR) material were encountered during reaming of a ventilation raise at Placer Dome's Turquoise Ridge mine in northern Nevada. These zones caved to large cavities, continued failing, and could not be safely secured using standard procedures, e.g. rock bolting, wire mesh, and shotcrete. In stable sections of the raise, the ground control plan called for the contractor to install 8-ft and 12-ft length resin grouted No. 7 Dywidag bolts, chain-link fence mesh and shotcrete. This work was conducted on three decks installed on the raise bore reamer.

The first of the caved areas was approximately 1,500 cubic yards in volume and extended out to 40 ft beyond the wall of the raise. Placer considered several options for structural fill to repair the area including: pumped shotcrete, concrete, and placing and grouting aggregate. A safe, cost effective, and expedient method of stabilizing the raise with foaming grout and bolted liner plate was selected and successfully executed. The foaming grouts used (Tekfoam and Tekseal by MINOVA) are based on special fast-setting cement. The raise was then placed in service. Factors in selecting a foaming grout will be presented in this paper

*Submitted by John Magyar*

#### **Brad Renwick Takes New Position**

**Brad Renwick** has recently taken a new position as a Project Hydrogeologist at **Civil & Environmental Consultants, Inc.** in Downers Grove. Brad will continue to work on jobs within the mining industry as well as other engineering and environmental assignments. He can be reached at (630) 963-6026 or by e-mail at [brenwick@cecinc.com](mailto:brenwick@cecinc.com). The CEC website can be found at: <http://www.cecinc.com/>

#### **Bill Louis Joins New Firm**

**Bill Louis** has recently joined **Civil & Environmental Consultants, Inc.** in Downers Grove as an Assistant Project Manager. Bill, a geologist will work on assignments within the mining industry and other engineering and environmental

projects. He can be reached at (630) 963-6026 or by e-mail at [wloouis@cecinc.com](mailto:wloouis@cecinc.com). The CEC website can be found at: <http://www.cecinc.com/>

### **Recent News About Syria – of a Different Sort**

In a new book entitled "Mari, the Metropolis of the Euphrates," a French archeologist describes the city, located in modern day Syria, as being created from scratch about 2,900 B.C. "in one phase of construction with the specific goal of becoming this (metallurgical) centre." The book described the city as "one of the first modern cities of humanity." "In fact the metallurgy was everywhere in the city. It was the existence of this lucrative activity - - Mari produced arms and tools - which justified everything which we had found previously," said French archeologist Margueron. A major navigable canal was discovered which followed the Euphrates river for 120 kilometres (75 miles) and allowed the transport of copper and wood from the Taurus Mountains of modern Turkey to support the metallurgical activities of Mari. They also discovered an irrigation channel which allowed agricultural production in an area which otherwise did not receive sufficient rainfall to grow crops. A third canal protected the city from flooding and allowed large boats to enter the city, which was also protected by a levy bank and double ramparts. "The builders of Mari knew the profits they could make from a economic hub between the south of Mesopotamia and the north, between the east and the Mediterranean. "The innumerable riches of the archaeological discoveries made during these excavations shows they were right."

*Information provided by Dick Phelps  
From a AFP news article*

When mining operations are successful, they have historically generated large profit margins. Apparently this has been true for thousands of years.

*Comment by the Editor*

## 2004-2005 Chicago Section SME Officers

<b>Chairman</b>	<b>Gordie Stevens</b> Civil & Environmental Consultants, Inc. Downers Grove, IL 630-963-6026 Fax 630-963-6027 gstevens@cecinc.com	<b>GEM Coordinator</b>	<b>Anne Leslie</b> Raimonde Drilling, Inc. Chicago, IL 708-583-9290 Fax 708-583-9491 rdcdill@rdc-drill.com
<b>Vice-Chairman</b>	<b>John Head</b> Continental Placer, Inc. Wheaton, IL 630-407-0800 x 103 Fax 630-407-0799 jhead@continentalplacer.com	<b>Newsletter Editor</b>	<b>Rick Ackermann</b> Patrick Engineering, Inc. Lisle, IL 630-795-7246 Fax 630-434-8400 rackermann@patrickengineering.com
<b>Secretary</b>	<b>John Magyar</b> International Mining Services Belvidere, IL 815-547-9211 Fax 815-547-8552 imsjmm@aol.com	<b>Website Coordinator</b>	<b>Sarah Schlichtholz</b> Continental Placer, Inc. Wheaton, IL 630-407-0800x109 Fax 630-407-0799 sschlic@continentalplacer.com
<b>Treasurer</b>	<b>Steve Tivy</b> Boncosky Oil, Inc. Elgin, IL 847-741-2577 Fax 847-741-2590 svtivy@comcast.net	<b>Program Chairman</b>	<b>Frank Kendorski</b> Agapito Associates Lombard, IL 630-792-1520 Fax 630-792-1580 frank@agapito.com

***SME Chicago Section Membership Dues Form***

*Note: To become a member of SME at the national level, please join at [www.smenet.org](http://www.smenet.org) or get an application from Gordie Stevens.*

**NAME:** \_\_\_\_\_

**AFFILIATION:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

\_\_\_\_\_

**E-MAIL:** \_\_\_\_\_ @ \_\_\_\_\_

**CITY, STATE, ZIP + 4:** \_\_\_\_\_

**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: Steve Tivy, Treasurer, Chicago Section of SME, Boncosky Oil Inc., 739 North State Street, Elgin, IL 60123

**NEXT MEETING  
Tuesday, May 24, 2005**

**“QUARRYING INDIANA DIMENSION STONE --  
An Ancient Product Using Modern Technology”**

**Y.J. Zhang,  
Chief Engineer  
Indiana Limestone Company**

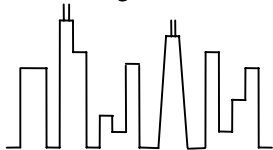
**At the  
Ramada Inn at Burr Ridge:  
300 South Frontage Road, Burr Ridge, IL.**

*THANKS to Patrick Engineering, Inc. for Newsletter Editing, Paper, Copying, Stapling, and Grunt Work*

Rick Ackermann  
Newsletter Editor, Chicago Section SME  
464 Waubensee Circle  
Oswego, IL 60523  
630-795-7246

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