

Indiana University - SEG Chapter
1st Annual Report (March 2012 – September 2012)

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Executive Summary

Due to the large support from the Department of Geological Sciences, the Indiana Geological Survey, and the incredible enthusiasm of a large department student body, the IU Society of Economic Geologists Student Chapter formed this past March 2012. After only two pre-activation meetings, the executive committee was elected and fund-raising, social, and field trip plans immediately commenced. The chapter was officially activated in late April 2012, just in time to submit our first chapter funding application (see fund raising section below).

Our chapter is a very motivated group that was able to put together a “mini fundraiser”, plan our first major fundraiser for the summer, put together our first local field trip, and vote on our first large annual field trip even before chapter activation! At our first informational meeting in early March 2012, our first group consisted of 12

students (all graduates). By the end of the spring 2012 semester, our group grew to 20 students (including our first handful of undergraduates). With our first meeting of the fall 2012 semester, our chapter experienced a growth spurt that now has a total of 33 students!

Being located in an area of the United States not known for metallic ore deposits, but rather industrial minerals, the IU SEG Chapter will have to operate in a multidisciplinary way in order to be successful in the long term. We intend to do this by focusing on not only metallic deposits (when we have the chance), but also industrial minerals, coal, hydrogeology, and environmental mineralogy/remediation into our chapter activities.

Meetings

The IU Student Chapter holds general meetings every other week, with the executive committee meeting on alternating weeks. During the general meetings, we brainstorm new ideas for fundraising, social, local field trip and outreach activities. We also ensure that earlier plans are progressing as desired, and that an open forum is kept to any rolling ideas that chapter members may have at any time.

Conferences, Workshops & Short Courses

Since the chapter is still very green, we are presenting conference, workshop, and short course opportunities to our members on a rolling basis. We have not yet registered any chapter member participation in workshop or short course venues, but we hope that this will change soon as the chapter's foundation becomes more solidified.

A few conference venues that are upcoming within the academic year that we hope to get significant involvement in are the Geological Society of America annual meeting in Charlotte, NC (with sessions devoted to the economic geology of the Carolina Slate Belt, and mineral deposits associated with tropical laterites), the Prospectors and Developers Association of Canada (PDAC) International Convention in Toronto, Ontario (March 2013) and the Institute of Lake Superior Geology Symposium in Houghton, MI (May 2013).

Social Activities

The chapter has a number of social activities already planned for the upcoming year. Several activities include organizing weekend ultimate frisbee games, teaming up with the American Association of Petroleum Geologists (AAPG) to host a tailgating section for a fall Hoosier football game, weekend camping trips around the state (as well as to Red River Gorge, Kentucky), and going on a spring geode hunt when the melting snow can greatly aid in finding these well-wrapped treasures that Indiana is known for.

A recurring social activity that was considered an early success during our pre-activation time was hosting a weekly “bad science movie night.” During this event we would also sell snacks and drinks. Needless to say, we are continuing this function on a monthly basis starting fall 2012.

Speakers

We already have had two speakers come to IU to speak on their research areas in economic geology. They were:

- **Dr. Martin Appold** (University of Missouri – Columbia): “Origin of Mississippi Valley-type Zn-Pb-Ba-F deposits in the Ozark and Interior Low Plateaus, U.S. Mid-continent.” (September 10)
- **Dr. Christopher Kelson** (State University of New York – Potsdam): “Timing and Character of Mineralization within the Hilltop, Lewis, and Bullion Mining Districts, North-Central Nevada.” (September 17)

Other speakers slated to come speak at IU include:

- **Dave Lankard** (President – Lankard Materials Laboratory, Columbus, OH): The World of Concrete Petrography. (October 2012 - TBA)
- **Brooke Clements** (Vice President – Peregrine Diamonds, Canada): The Canadian Diamond Story. (October 15)
- **Dr. John Rakovan** (Miami University of Ohio): “Structure, Crystal Chemistry and Applications of Apatite Minerals to Heavy Metal Sequestration and Radionuclide Containment.” (January 28, 2013)

“Geochronology of the Llallagua Porphyry Sn District, Bolivia.” (January 29, 2013)

- **Dr. Dean Peterson** (VP of Duluth Metals, Minnesota): “Understanding Magmatic Mush: Insights Gained While Mapping Mafic Magmatic Slurries of the Ferrar Magmatic Complex, Dry Valleys, Antarctica.” (Spring 2013 – TBD)

“Geology, Ore Deposits, and Integrated Ore Deposit Modeling Within the Duluth Complex, Northeastern Minnesota.” (Spring 2013 – TBD)

“Careers in Exploration Geology: Pictures, Insights, and Stories from a 50 year old, grey haired geologist, who plans to retire the day he dies...” (Spring 2013 – TBD)

In order to further increase economic geology education within our chapter, tentative plans are in the works for some graduate students to give short talks on their mineral deposit research during select general chapter meetings.

Fundraising

So far, we have held two fundraisers for our chapter. The first was holding a mineral specimen auction in conjunction with the IU Sigma Gamma Epsilon (SGE) Chapter. Each spring, SGE holds an auction to raise funds to support an annual regional conference, called Crossroads, held at IU. We graciously asked the SGE president if we could include some mineral specimens from the SEG president's personal collection. She was more than happy to team up with us, and in the process raised \$60 from five specimens. Not a bad start at all considering the chapter was only together for a month when this took place.

The second fundraiser was having a table at the 48th annual Gem-Mineral-Fossil Show and Swap that was held at the Bloomington Fairgrounds, sponsored by the Lawrence County Rock Club. Mineral specimens and hand-crafted jewelry were sold to raise funds, and was composed 100% of donations from chapter members and faculty. Seven chapter members volunteered their weekend time to work in shifts. In being surrounded by veteran professional dealers selling world-class crystal specimens, we were unsure as to how we would fare. The end result was \$460 raised, much to our delight! During the three-day event, we also received a request from a customer to come speak to a school group about rocks and minerals. Also, two neighboring dealers took much delight in our chapter mission to spread economic geology education in that they donated several of their specimens for us to sell! Needless to say, we were welcomed with open arms and we plan on continuing with this event for future summers.

We are also indebted to the Society of Economic Geologists for a chapter grant of \$1,500 awarded to us in May 2012, and the Indiana Geological Survey for a \$200 donation to help start up chapter activities.

Field Trips

The chapter has voted to go on its first annual international ore deposits field trip to British Columbia (BC). Tentatively, the trip is being scheduled for seven to ten days from late May to early June 2013. The primary objective is to visit and study the various types of ore deposits that occur in the Canadian Cordillera in the southern part of the province such as: Cu-Mo-Au porphyry, W-Au skarns, Mississippi Valley-Type Pb-Zn, gem-bearing pegmatites, as well as possibly SEDEX and minor komatiite Ni-Cu-PGE deposits. We hope to end the trip with a visit to Mt. Rainier and/or Mt. St. Helens in Washington State.

In the case that logistics for the BC trip are not on our side, a backup trip option is to visit Montana, either during late May-early June or for Spring Break of 2013.

The chapter has booked a one-day local field trip to visit the Enos Coal Mine Reclamation site in southern Indiana for October 20. Mark Stacey, of the Indiana Department of Natural Resources, will lead the chapter on the trip. The trip will also be made open to the entire Geological Sciences department (spaces pending) which will also fully cover all transportation.

Future Plans

As a young chapter, we have numerous future plans in the works. Along with the invited speakers as noted above, the chapter will hold a bake sale in the fall 2012 semester to raise funds for the BC field trip. We are currently brainstorming ideas for a spring 2013 semester fund raiser.

We also have several ideas for local one-day trips for the spring 2013 semester. These potentially include trips to an underground gypsum mine in Shoals, IN, to gallium and germanium-bearing coal mines in Indiana, and the Hastie Gravel Quarry - near Cave-In-Rock, Illinois – for fluorite collecting.

We will also contact various mining companies in which a few chapter members have personal ties, as well as those we want to visit in BC, to request funds in order to offset field trip costs.