

AMERICAN INSTITUTE OF MINERAL APPRAISERS

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Minutes of 2004 Annual Meeting

Denver, Colorado

February 24, 2004

The AIMA Annual Meeting followed two excellent morning and afternoon Valuation Sessions at the SME Annual Meeting, these sessions having been developed by AIMA members Trevor Ellis and Robert Frahme, respectively. In the SME sessions, papers by AIMA members John Gustavson, Edwin Moritz, Charles Melbye, Robert Frahme and Trevor Ellis were presented.

The informal reception of AIMA members and guests begun at 5:00 PM, and the formal Annual Meeting convened at 5:30 PM, in a private room at the Wynkoop Brewpub in lower downtown Denver. John Gustavson, AIMA Secretary chaired the Meeting in the absence of the outgoing President Sam Pickering, who is still incapacitated by a leg injury. The AIMA Vice President, Edwin Moritz was in Afghanistan on business and could not attend. Chair Gustavson appointed Trevor Ellis, immediate Past President to Secretary of the Meeting. It was noted that a quorum of members and the necessary two officers were present.

A number of guests, including some membership candidates attended the reception and were present as observers of the AIMA business meeting.

International guests were:

Robert Croll, Chair, SAMVAL Committee of the South African Institute of Mining and Metallurgy;

William Roscoe, Co-Chair, CIMVal Committee of the Canadian Institute of Mining, Metallurgy and Petroleum;

Michael Bourassa, Secretary CIMVal Committee of the Canadian Institute of Mining, Metallurgy and Petroleum

Domestic guests were:

Kerry Barker
Fred Barnard
William J. Crowl
Mel Janeck
Terry Kirkpatrick
John Morgan
Stephen D. Olmore

Certified AIMA Members present for voting were:

Richard Bate, CO
John Brower, MT
Trevor Ellis, CO
Robert Frahme, CO
John B. Gustavson, CO
Wesley Lilley, CO
Charles Melbye, AZ

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Also present was David A. Rasmussen, CO, Associate Member.

The Meeting Chairman read the results of the election for the 2004 Officers toward which many members had graciously allowed themselves to be nominated. There were several close races, but the following slate was elected:

President, Edwin Moritz
Vice President, Donald Warnken
Treasurer, Alan Stagg
Secretary, John Gustavson
Past President becomes Sam Pickering

After installation of the 2004 Officers, it was observed that by now the only 2004 Officers present was John Gustavson. Unfortunately, newly elected Donald Warnken, 2004 Vice President was absent and was recovering from a kidney operation, while Alan Stagg was unable to attend for family reasons. The Meeting wished for recovery and all possible health for Don Warnken and Sam Pickering and thanked Sam for two years of presidency "well done."

The Meeting thanked Donald Warnken for the "great job" he has been doing with maintaining and improving the AIMA website. The meeting also thanked him for his work in producing the AIMA Newsletter in a timely manner. The Chairman reported that Don Warnken had agreed to continue as our Web Master and Newsletter Editor.

The presence of only one 2004 Officer meant that in accordance with the AIMA Bylaws the Meeting could no longer formalize any resolutions that it might pass, since it lacked the necessary presence of two Officers. The Chairman and members present agreed to continue the Meeting, and to have resolutions voted upon *provisionally* at the Meeting and subsequently mailed to all Certified AIMA Members for Member approval or rejection.

The Treasurer's Report from the outgoing Treasurer, L.T. Gregg, was read:

Bank balance, \$6,714.64
Increase since 2003 Annual Meeting report,
\$1,300.00
Expenses since 2003 Annual Meeting report, \$722.88

The Treasurer reported that 2004 dues payments from many members have yet to be received, with the expectation of approximately an additional \$1,200.00 in dues to be received.

The Treasurer's Report was approved.

John Gustavson as Chair of the Ad Hoc Standards Committee gave the floor to Trevor Ellis, Committee Member, who read the following four proposed resolutions to the meeting. He and

the Chairman informed the meeting that much of the justification for the proposed resolutions was contained in two papers that he had presented in the morning Valuation Session. Trevor said that his slide presentations and the published text of one of the two papers could be made available on his and the AIMA websites (minevaluation.com and mineralsappraisers.org).

Each proposed resolution was introduced, seconded, extensively discussed, and then voted upon, prior to the reading of the next proposed resolution. Discussion supporting the resolutions centered around the need for the AIMA to be a leader in supporting uniform national and international appraisal standards, appraiser qualifications, and current value financial reporting standards, for the minerals and petroleum industries.

Resolved that the AIMA endorse the work of the International Valuation Standards Committee in developing and publishing the *International Valuation Standards*, including valuation standards for the extractive industries of minerals and petroleum.

Resolved that the AIMA endorse the proposed work of the World Association of Valuation Organizations toward global harmonization of valuation educational and professional standards, particularly as they relate to global promulgation of the *International Valuation Standards*.

Resolved that the AIMA members must abide by the *Uniform Standards of Professional Appraisal Practice* or the *International Valuation Standards* when conducting value appraisals of assets or business interests of the minerals (including petroleum) industry, except in cases where regulations require the application of an alternative set of valuation standards.

Resolved that the AIMA support the International Accounting Standards Board, the Financial Accounting Standards Board (US), the Canadian Accounting Standards Board, and the International Organization of Securities Commissions, in their development and promulgation of standards for the reporting of market value assets in financial reports. The AIMA endorses the October 2003 *Toronto Valuation Accord* of North American and international professional valuation organizations, which includes the statement, "The move toward market value in financial reporting is in the best interest of the public, investors, government, and business decision makers."

All four resolutions were approved by unanimous votes and submitted for mailing to the membership.

Robert Frahme, Continuing Education Ad Hoc Committee gave a summary reading of an AIMA Education Committee report written by Ed Moritz. The report provides findings of the Committee's research of continuing education require-
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ments in related professions (geology, engineering, real estate appraisal) nationally and internationally, for licensed and certified professionals.

To keep abreast with the requirements in such professions, and to maintain the creditability in front of the public of the AIMA's certification, the report then provides recommendations for proposed continuing education for AIMA's Certified Members. The Committee recommends a continuing educational requirement of 16 hours every year or 48 hours every 3 years on a rolling basis. This requirement can be fulfilled by membership through:

1. Taking formal courses and training;
2. Attendance at professional conferences; and/or
3. Preparation and presentation of professional papers, short courses and training seminars involving minerals appraisal.

In elaborating on a recommendation submitted to the Committee by Past President, Sam Pickering, circulated to the AIMA's 2003 Officers, Robert Frahme emphasized the need for the education requirements to maintain a careful balance between value appraisal education and technical education pertaining to the minerals and petroleum industries.

The Meeting Chairman, John Gustavson, in supporting the recommendations of the Education Committee, proposed the following resolution:

Resolved that the AIMA adopt the concept of requiring a Continuing Education program for its Certified Minerals Appraisers.

[Note: The specific CE requirements are to be worked out by the CE Committee, reviewed and approved by the Executive Committee, and presented to the Membership for adoption.]

The resolution was seconded, discussed and approved by unanimous vote. In the discussion it was noted that member attendance and participation in the AIMA supported Valuation Sessions at the SME Annual Meetings could meet much of the continuing education requirement. The Chairman on behalf of newly elected 2004 President Edwin Moritz instructed the Education Committee to develop a plan for instituting the continuing education requirement and submitted the Resolution for mailing to the membership.

The Meeting agreed that there should be two Valuation Sessions again at the 2005 SME Annual Meeting in Salt Lake City in late February. John Brower volunteered to help in developing one of the sessions. Trevor Ellis offered to Chair the second session, if nobody else took that role.

Wesley Lilley offered to act as Assistant Editor of the AIMA Newsletter, to help provide more petroleum industry interest

and information. This offer was gratefully accepted by the Membership on behalf of Don Warnken.

The Meeting continued over dinner and adjourned at approximately 7:30 PM.

Trevor R. Ellis, Meeting Secretary

Annual Dues

Most of our Members have paid their year 2004-2005 dues. However, we do have some delinquencies. A dues reminder will be mailed to those who have not paid up. Any Member not in good standing by August 1, 2004 will be deleted from active membership and will be deleted from the AIMA web site directory.

Competent Person

By Trevor Ellis and Donald Warnken

Valuation Standards (Codes) for financial reporting for the minerals and petroleum industries have been or are in the process of being prepared worldwide. All include provisions requiring the appraiser to be a defined competent/qualified person, who has no material links with the client company or subject property. Terms used for the qualified appraiser include Expert (Australia) and Qualified Valuator (Canada). Typically, the qualified appraiser must have demonstrated relevant experience, and be a member in good standing of a recognized self-regulating professional organization (SRO) that has disciplinary powers to suspend or expel a member for violation of its Code of Ethics. AIMA is a SRO with such disciplinary powers, though it has not yet had an enforcement need that demonstrates those powers. An appropriately accredited specialist, or a defined technical expert, must be retained if specialized skills are required that the qualified appraiser is lacking, in geology, resource and reserve estimation, engineering, economic and environmental aspects relevant to the subject natural resource type and geological setting. If the appraiser relies on a written technical assessment, particularly involving a resource or reserve estimate, the assessment may need to be signed by an independent technical expert who is also a member of an SRO.

Clays

Editor's note: Member, Wes Lilley, has furnished the following article. It is a reprint from Geotimes, March 2004, Copyright 2004, the American Geological Institute. Their Web site address is www.geotimes.org

Clays represent one of the largest mineral commodities in the world in terms of mineral and rock production and use. Many people, however, do not recognize that clays are used in an amazingly wide variety of applications. Use continues to increase worldwide as populations and their associated needs
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Clay sold or used in the United States in 2002 (value)

Clays, Continued from page 3

increase. Robert Virta, clay and shale commodity specialists for the U.S. Geological Survey, has prepared the following information about clays.

Contrary to popular belief, clays are not just the orange dirt that mars household halls in wet weather. In addition to the more obvious brick, pottery and roofing tile applications, there are also thousands of unseen uses for clays.

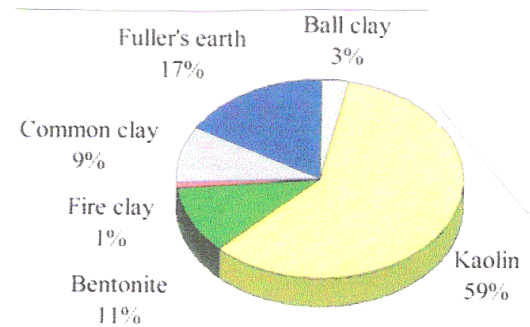
Manufacturers use the electric charge on clay surfaces to bind chlorophyll and other organics in semi-processed oil to clay particles that are later removed. Companies are able to make hand lotions and paints that have a smooth, even consistency because the solid clay components stay in suspension due to their edge-to-plate bonds, which form a stable network. Clays also give a glossy surface to this magazine paper by forming a smooth thin, ink-receptive film over the rough cellulose paper surface. Additionally, clays play a role in light-weight aggregate for construction applications because gases that generate from shale at high temperatures cause the viscous material to expand or bloat into a porous, low-density structure.

Industry uses six types of clays: ball clay; bentonite, common clay, and shale, fire clay, fuller's earth and kaolin. Mineral composition, particle size, plasticity, absorption qualities, firing properties and oil clarification properties are a few of the major characteristics used to distinguish among the different industrial clay types. The term "clay" is applied to particles less than 2 micrometers in size, but clay minerals can have particle sizes ranging from tens of angstroms to millimeters.

In 2002, about 39 million metric tons of clays were sold or used in the United States. This averages out to about 270 pounds or 123 kilograms of clay used annually for each man, woman and child in the United States.

Common clay and shale dominated the clay industry with a production of 23 million tons in 2002. In its primary uses were the manufacture of brick, cement and lightweight aggregate. Kaolin ranks next, with about 8 million tons sold or used in 2002, primarily for paper coating and filling applications. Bentonite, with about 4 million tons sold or used in 2002, was the third most used clay. Major uses were in absorbents, drilling mud, foundry sand bond and iron ore palletizing. Fuller's earth, ball clay and fire clay followed respectively by use. Although there is no accurate accounting of world clay production, it undoubtedly exceeds 150 million tons per year.

For more information on clay and shale, visit <http://minerals.usgs.gov/minerals/pubs>.



Total Value = \$1.6 billion

Molybdenum

Editor's note: Member, Wes Lilley, has furnished the following article. It is a reprint from Geotimes, April 2004, Copyright 2004, the American Geological Institute. Their Web site address is www.geotimes.org

U.S. Geological Survey Molybdenum Commodities Specialists Michael J. Magyar has prepared the following information on molybdenum – one of the most important ferrous metals and the only one for which the United States is a net exporter.

Molybdenum is a metallic element that is most frequently used in alloy and stainless steels, which together represents the single largest market for molybdenum. Molybdenum has also proven invaluable in carbon steel, cast iron and superalloys. Its alloying versatility is unmatched because its addition enhances material performance under high-stress conditions in expanded temperature ranges and in highly corrosive environments. The metal is also used in catalysts, other chemicals, lubricants and many other applications.

Molybdenum does not occur in metallic form in nature. Although a number of molybdenum-bearing minerals have been identified, the only one of commercial significance is molybdenite – a natural molybdenum sulfide. Roasting plants convert molybdenite concentrate to molybdc oxide (generally known as "tech-oxide"), which produces intermediate products, such as ferromolybdenum, metal powder and various chemicals. A unique feature of molybdenum, in contrast to other heavy metals, is low toxicity of its compounds.

In World War I, molybdenum was widely used in steel as a replacement for tungsten, which was in short supply. The increased use of molybdenum led to the development of flotation technology to concentrate the molybdenite ore from a massive, disseminated porphyry deposit in Climax, Colo., which became the site of the world's premier molybdenum mine. *Continued on page 5*

Molybdenum, Continued from page 4

After the war ended, the Climax Molybdenum Company established a research laboratory to expand the uses of molybdenum. Initial successes included the introduction of low-alloy steels into the automobile industry and development of a line of molybdenum-bearing high-speed and tool steels. After World War II, additional research resulted in development of markets for molybdenum-containing structural steel.

A unique feature of molybdenum, in contrast to other heavy metals, is the low toxicity of its compounds.

About half of the world's known reserves of molybdenum are found in the Western Cordillera of North America and South America. More than 95 percent of the world's supply of molybdenum is mined from porphyry copper-molybdenum deposits in which primary copper sulfides and/or molybdenite occur as disseminated grains and in stockworks (mineral deposits) of quartz veins. About half of the molybdenum mined worldwide comes from mines where it is the primary mineral produced, and the rest is recovered as a byproduct from copper mining.

Metallurgical applications dominated molybdenum use in 2003, accounting for about 80 percent of total consumption. In 2003, ferromolybdenum accounted for 39 percent of the molybdenum-bearing forms used to make steel, a 3 percent increase from that of 2002. In 2003, exports of molybdenum contained in materials (molybdenum content of exported molybdates, oxides and hydroxides not included) were about 21,000 metric tons, valued at \$168 million. Imports for consumption of molybdenum contained in materials (products) were about 10,500 metric tons, valued at \$125 million.

In 2003, U.S. mine production (molybdenum contained in concentrate) was estimated to be 34,100 metric tons, a 5 percent increase from 32,600 metric tons in 2002. World mine production of molybdenum in 2003 increased to 127,000 metric tons, a 3 percent increase from 123,000 metric tons in 2002. In descending order of production, the United States, Chile, China, Peru, Canada, Armenia and Mexico produced almost 94 percent of the world production of molybdenum. The U.S. share of world production was 27 percent in 2003, the same as in 2002. Chile, China and the United States also possessed about 85 percent of the estimated 19 million metric tons of molybdenum in the world reserve base.

Visit <http://minerals.usgs.gov/minerals> for more on molybdenum.

Comments On Clays As “Mineral Resource Of The Month”

**By Sam Pickering, Jr.
Industrial Mineral Services, Inc.,
Macon, GA, AIMA Cert No. 98-01**

A few notes on Bob Virta's excellent USGS article on industrial clays, from an AIMA geologists specializing in exploration, processing, new product development, and appraisal of these common but very valuable minerals. Although the average economic geologist seldom thinks of clays as worthwhile mineral resources, the commercial clay business is today one of the larger growth segments of the U.S. mining industry. The six clays which are shown in the Mr. Virta's pie chart as totaling \$1.6 billion in 2002 U.S. sales, in order by value, can be further explained as follows:

1. **KAOLIN**: Aquite pure hydrous alumino-silicate, this rather rare white clay mineral is sold as a pigment to the paper industry as a highly ink-receptive flat reflective coating on fine and writing papers; as a pigment in paints, plastics, adhesives and sealants; and as a refractory and ceramic raw material for making bathroom sanitary-ware fixtures, table and dinnerware, high temperature resistant firebricks and grogs, etc. Kaolin is also a valuable industrial mineral due to its natural very fine crystalline particle size, and its ability to form a low viscosity fluid when dispersed at high solids in water or liquid polymers. In its refined form, kaolin clay sells in the \$35 to \$500 per ton range, and is principally mined in Georgia and South Carolina in the U.S., in the eastern Amazon area of Brazil, and in the Cornwall and Devon areas of England.

2. **BENTONITE**: A blue-gray to yellowish gray sodium and/or calcium based hydrous alumino-silicate mineral, bentonite deposits were typically formed by glassy siliceous volcanic ash falling into brackish alkali lakes and shallow seas in the western U.S., and then altering to hydrous clay minerals. Bentonite is valued for its ability to swell when wet to form a dense, viscous water based gel at low solids, that is used in oil & gas exploration and water wells as a drilling fluid to remove cuttings from around the drilling bit and flush them by borehole circulation to the surface; as a sticky pelletizing agent to form prills of iron ore and other material; as a sticky binder to hold molding sands for casting iron, steel, aluminum, brass, bronze and other metals; and is impermeable slurry-walls, mats, and sealants for isolating unsanitary garbage, waste and hazardous materials in landfills. Dry processed bentonite is principally mined in Wyoming, South Dakota, Nevada, and California in the U.S., and sells in the range of \$26 to \$7 per refined ton.

3. **FIRE CLAY**: This rather common type of tan to brown clay is sometimes found as an underclay beneath coal seams. In its rather impure form, it is used as a lower temperature
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Comments On Clays As “Mineral Of The Month”, *Continued from page 5*

refractory material for making crucibles, firebrick, and heat resistant ceramic bodies. Fire clay sells for \$12 to \$21 per ton, and is produced in the U.S. in Missouri, Ohio, and Alabama.

4. **COMMON CLAY & SHALE:** This type of brown, gray, and multicolored earthy material has been typically formed by residual weathering or alluvial processes, and is often found along river floodplains. It is used for making heavy clay products such as building brick, tile, sewer and drain tile pipe, structural and decorative terra cotta tile, as the alumina content of Portland cement clinker, and as a swelling lightweight aggregate material. Common clay sells in the range of \$5.50 to \$8.50 per un-refined ton, and is most prominently mined in North Carolina, Alabama, Texas, Ohio, Georgia, and Indiana.

5. **FULLER’S EARTH:** This is a magnesium, calcium, and/or sodium based hydrous alumino-silicate clay mineral, and is found in shallow marine restricted shoreline sedimentary deposits where the clay has been deposited in reducing conditions. The name fuller’s earth goes back as least to medieval Europe where it was used to “full” or clean the greasy lanolin from sheep’s wool so it could be dyed and spun into cloth. Due to its high alkali content, fuller’s earth is highly adsorptive, sticky when wet, and has a very high surface area. It is much used as a granular semi-calcined adsorptive animal litter. (“kitty litter”); as an adsorptive carrier granule for insecticides, herbicides, and other agricultural chemicals for aerial or on-ground applications; as a purifying filtering agent to clarify wines, oils, and jet aircraft fuels; as a gelling agent to thicken paints and liquid detergents; and as a pellet-binding and anti-caking agent. Refined and semi-calcined fuller’s earth products sell in the range of \$20 to \$400 per ton, and is most prominently mined in Georgia, Florida, Mississippi, Alabama, Illinois, Nevada, and California.

6. **BALL CLAY:** This type of industrial clay was formed by slow sedimentary deposition in quite marginal marine coastal plain environments, and is a dark hydrous alumino-silicate material with a high organic content. The name ball clay comes from medieval England, where the very sticky clay was dug from pits, rolled into large balls rather like snowballs around an axle-stick, and transported from the pit to the firing kilns by rolling along the roads. Ball clay is used for making ceramic bathroom sanitary-ware fixtures, dinnerware, structural and decorative terra cotta tile, and as a fine particle size filler and pigment for linoleum-type polymer floor coverings. Refined ball clay sells in the range of \$30 to \$65 per ton, and is mined in Kentucky, Tennessee, Mississippi, Missouri, and Texas.

Letter From AIMA President

Dear AIMA Members:

I would like to thank the membership for electing me to the Presidency of AIMA. It is even more amazing that I accepted this position without having to go through grueling debates and an expensive campaign.

I will do my best to serve the membership and help advance the cause of the Institute. I would also like to express my appreciation to Sam Pickering for his service as President during the preceding term.

Several important issues were discussed and tabled for a vote at the recent annual meeting. These issues included continuing education requirements and the endorsement of various valuation standards. I think we have the general consensus that approval of these issues will improve the Institute and ourselves in the field of mineral appraisal.

Regarding continuing education, I think that we all can benefit from the individual expertise of our membership. Therefore, it is my vision that next year, we will be able to offer customized courses regarding mineral appraisal. The idea is also to make these courses open to the public (particularly government agencies and other potential customers) so that we better serve their requirements.

Don Warnken has suggested that we network with other professional organizations such as the Appraisal Institute and the American Society of Farm Managers and Rural Appraisers, Inc. to coordinate continuing education courses. This is an excellent idea and should be pursued. Please advise of your thoughts and ideas on this important issue. I think this will benefit everyone!

On a personal note, I would like to share some experiences that have made for an exciting year so far. I have been to Afghanistan twice this year on a World Bank contract that is targeted to help promote development of the petroleum sector. Afghanistan has some exciting potential for hydrocarbon development and there is already some interest expressed on the part of oil companies during the recent American Association of Petroleum Geologists convention in Dallas this year.

As part of the project, I visited the producing gas fields in the northwestern part of the country (see photo) [*editors note: photo not shown because of technical difficulties*]. The fields were developed in the 1970s and 1980s in cooperation with advisors from the Soviet Union but have since fallen into disrepair when the Soviets departed in 1989. There are still many discovered, undeveloped fields and un-drilled structures waiting to be tapped!

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Letter From AIMA President, *Continued from page 6*

In closing, I would also like to extend my gratitude to all other officers who volunteer their time to perform duties for AIMA. I also extend special thanks to Don Warnken for his patience and persistence in getting the Newsletter out.

I look forward to serving the membership and hearing from each of you through out the year.

Yours truly,

Edwin C. Moritz
President, AIMA

Results of Resolution Balloting

All Members were furnished a ballot to vote on the Resolutions presented at the AIMA 2004 Annual Meeting. All Resolutions have been approved.

*The NEWSLETTER is published by the American
Institute of Mineral Appraisers, 5757 Central Avenue,
Suite D, Boulder, CO 80301
Phone: (303) 443- 2209; Fax (303) 443-3156
E-Mail: gustavson@gustavson.com*

*Editor: Donald Warnken
E-Mail: Dongene32@sbcglobal.net*
