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# BULLETIN

Volume 88 Number 3

May—June 2013

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**Part 2**

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**NEW TECHNOLOGIES**

IN THE

**MID-CENTRINT**

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### MID-CENTRINT SECTION MEETING

### WICHITA - OCTOBER 12-15 2013

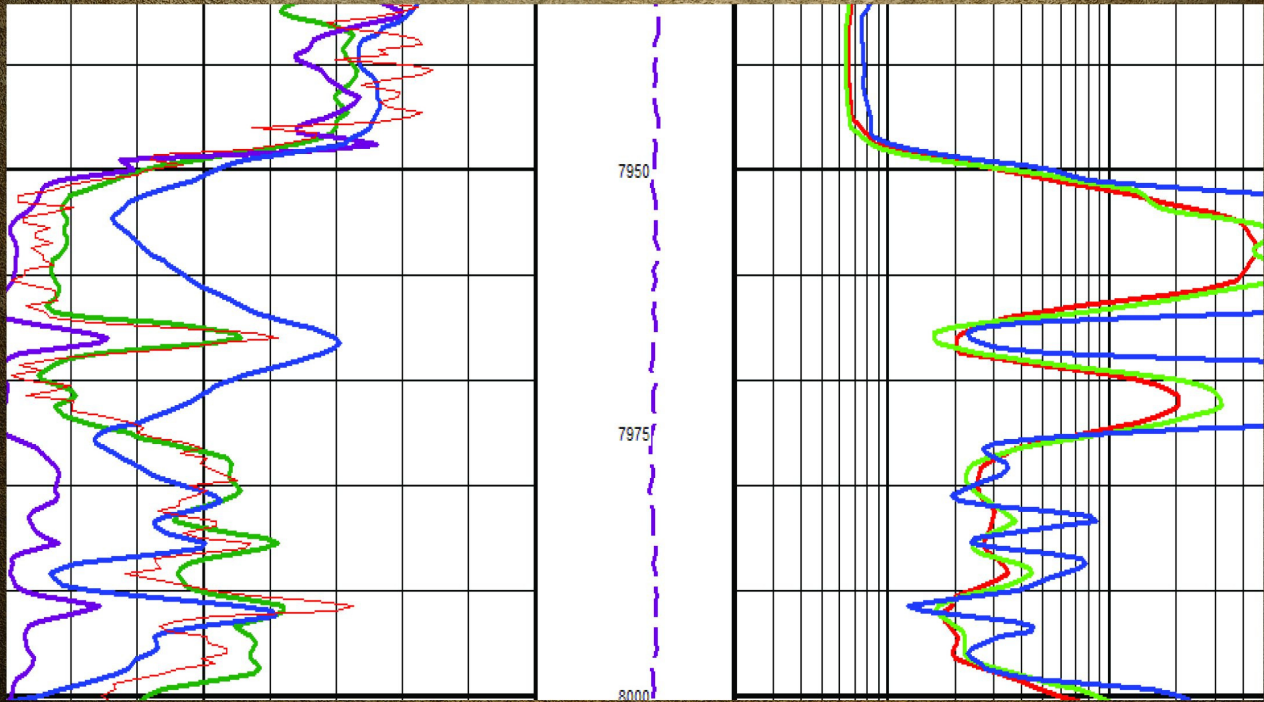
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## ON THE COVER:

The Kansas Geological Society is hosting the AAPG Mid-Continent Meeting in Wichita on October 12-15 , 2013. Registration will be on-line or by mail in forms. If you are an AAPG member, you will receive an announcement in the mail. On-line registration will open June 18th at [aapgmcs.org](http://aapgmcs.org).

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## CALL FOR PAPERS

The Kansas Geological Society Bulletin, which is published bimonthly both in hard-copy and electronic format, seeks short papers dealing with any aspect of Kansas geology, including petroleum geology, studies of producing oil or gas fields, and outcrop or conceptual studies. Maximum printed length of papers is 5 pages as they appear in the Bulletin, including text, references, figures and/or tables, and figure/table captions. Inquiries regarding manuscripts should be sent to Rebecca Radford, [manager@kgslibrary.com](mailto:manager@kgslibrary.com) or mailed to 212 N. Market, Ste. 100, Wichita, KS 67202. Specific guidelines for manuscript submission appear in each issue of the Bulletin, which can also be accessed on-line at the Kansas Geological Society web site at <http://www.kgslibrary.com>

# SOCIETY Technical Meetings

May 7—Edith Wilson, “Mississippi Lime Play East of East of the Nemaha Ridge”

May 28—Larry Richardson’s WSU class “Field Studies”

Our Technical Meetings will take  
a break for summer.

We will resume meetings in September

## *Location for Technical Meetings*

*All KGS technical presentations are held at 12:30 p.m. at the **Wichita Bar Association**, located at 225 N. Market, ground floor conference room, unless otherwise noted.*

*Note: For those geologists who need 30 points to renew their licenses, there will be a sign-in sheet*



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Robert Cowdery 2012	Douglas Davis 2012
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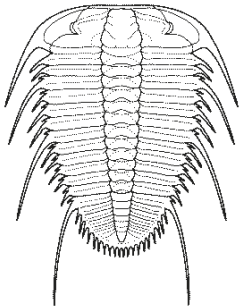
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**Tom Dudgeon correctly identified the critter  
in the last issue. Congratulations Tom!**

**“Odontopleuridae kettneraspis”**

**Bulletin committee members and PhD's in  
Paleontology are prohibited from entering.**

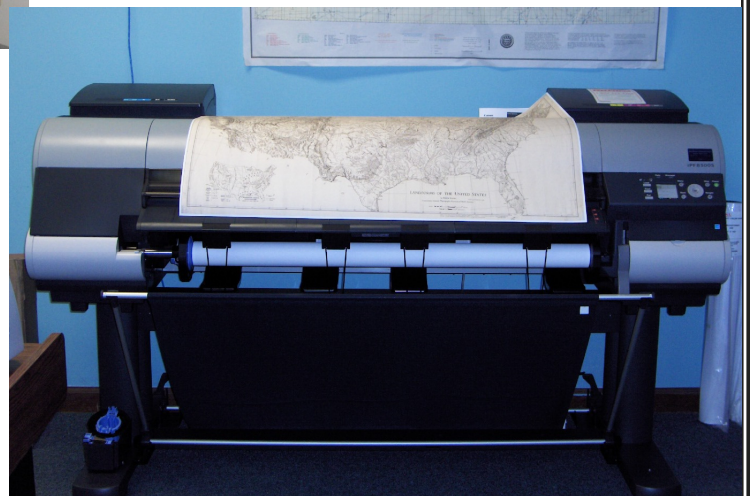


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# President's Letter

Dear Colleagues,

My year as President is going by very quickly. I've spent almost every Tuesday since the first of the year at the Petroleum Club for lunch - either with the many interesting speakers Bob Cowdery has brought in for our technical programs, or with the KGS Board. I've also met with Chuck Brewer's Lease Renewal/Building committee on a number of occasions to look at our options at the end of the current lease at 212 N. Market on 12/31/2013.

After touring a number of buildings, including the present location, Chuck's committee has made a proposal to both the KGS and KGF Boards to purchase a building for the Library and the foundation. This proposal was approved at the April meetings of both Boards, and the Building committee is working to negotiate a purchase contract with the owners of the building.

Upon successful completion of a purchase contract the membership will be given more details about the building, including a chance to tour it. Because the building is an active real estate listing, the location can't be disclosed until a contract is in place.

With the weather getting warmer, it's time to think about the KGS golf tournament and picnic. Dave Barker and his committee have been hard at work, and are planning to move the tournament to Terradyne this year. I hope to see all of you there. Wes Hansen and his wife, Betty, are going to chair the picnic committee, and I'm looking forward to a fun get together with all of our families later this summer.

I'm very grateful for the rain we've been receiving this Spring, but I know it's made all of our field operations a little tougher. I hope that while you're fighting the mud, you're finding new production.


Until next time, enjoy the Kansas Spring and best of luck in the field.

Respectfully Submitted,  
Dave Clothier—President 2013



## REMINDER

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be closed  
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# From The Manager

Dear Members,

I am writing this on April 24th and it snowed here last night. Just a dusting, not as much as you all got up north but I do believe we are all ready to say Good-Bye Winter!

As we move into May, I am preparing for AAPG Pittsburgh meeting where the Society will have a booth and will be promoting our AAPG Mid-Continent meeting here in Wichita in October. The committee has worked very hard to get great papers and posters and there will be a Mississippian Symposium as well as other topics covered. It should be a good meeting and I hope we will see many of you here in October. Registration will be opening up in June.

We have established a web site for the Mid-Continent AAPG where you will be able to register on-line. That website: [aapgmcs.org](http://aapgmcs.org). There is a link to it from our website.

I want to thank Wes Hansen for accepting the position of Picnic Chair for this years picnic. I think it will still be in August. As soon as we have a date, I will post it on our website.

Our students working for the Foundation have been very busy getting the basement cleaned up. Because we are considering a move for the library, they have been going through boxes, reorganizing and consolidating and it has made a tremendous difference in the amount of "stuff" other than data we have down there. I can't brag enough on these students: John Daniels, Kyle Lawson, and Nick Lara.....thank you guys!

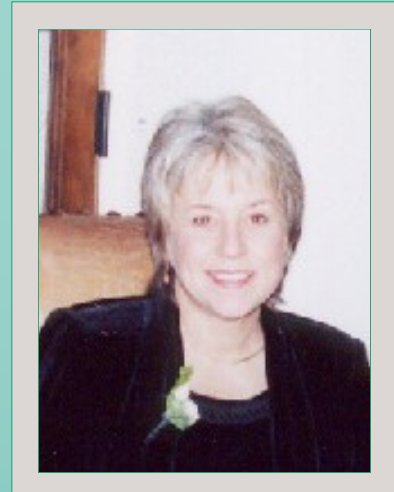
Dates to Save: **Thursday, May 23rd** will be the **Foundations Spring Mixer**. See the insert enclosed in this Bulletin—on-line go look at the Events Tab.

**Monday, June 24th** will be the **KGS Golf Tournament**. For a change of pace this year, the committee has moved the tournament to Terradyne Country Club. Registration is included in this issue or you can find it on-line under Events tab.

Respectfully submitted,

*Rebecca Radford*

Manager



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# Kansas Geological Society Board Minutes

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The monthly meeting of the Board of Directors of the Kansas Geological Society was held on March 12, 2013 at the Wichita Petroleum Club. Mr. Clothier called the meeting to order at 11:40 AM.

- A. **Treasurer's Report**- Mr. Bayer presented us with the Treasurer's report for February 2013. Mr. Bayer reported that the current CD's earned estimated \$521.73 interest.
- B. **Manager's Report**- Mrs. Radford presented the Manager's Report for February 2013. Monthly income was \$57,878.31 and expenses were \$63,086.14, making the loss \$5,207.83 for the month. The reports shows, 644 society members, 145 Library members and 247 Walters Digital Library members. The Digital Library earned \$12,349.09 in February after expenses, a drop from last month; YTD earnings are \$33,870.27.

## OLD BUSINESS

- A. Cost of moving estimated to be between \$18,000 and \$20,000 according to quote received by Mrs. Radford.
- B. Decision to renew current lease must be made before the Fall season.

## NEW BUSINESS

Board member Tim Hellman is on a committee to study possible purchase of a building. Committee will report back to the board. Bob Bayer made motion (11:45 AM) to start moving money out of CD's to money market accounts in order to improve liquidity. Motion was seconded and accepted. Tim Hellman made motion (12:50 PM) to pay first \$1500 of expenses for two delegates (\$3000) to attend the AAPG national convention in Pittsburgh this May. Motion seconded and accepted. Some concern expressed that reduced horizontal drilling activity in Kansas could translate to lower revenue for the Library. Kent Crisler asked about the status of scanning Cowley County records.

**Mr. Clothier adjourned the meeting at approximately 2:00 PM.**

Respectfully submitted, Paul Ramondetta Secretary

The monthly meeting of the Board of Directors of the Kansas Geological Society was held on April 9, 2013 at the Wichita Petroleum Club. Mr. Clothier called the meeting to order at 11:44 AM.

- A. **Treasurer's Report**- Mr. Bayer presented us with the Treasurer's report for March 2013 at 12:09 PM. Mr. Bayer reported that the current CD's earned an estimated \$521.73 interest. The Treasurer's report was approved at 12:11 PM after Mr. Scribner made the motion.
- B. **Manager's Report**- Mrs. Radford presented the Manager's Report for March 2013. Monthly income was \$88,600.59 and expenses were \$53,476.26, making the net income \$35,124.33 for the month. The reports shows 247 Walters Digital Library members. The Digital Library earned \$22,955.49 in March after expenses, an increase from last month; YTD earnings are \$56,825.76.

## NEW BUSINESS

- A. The respective boards of the KGS and KGF toured a potential building on April 8<sup>th</sup>.
- B. Mrs. Radford said that the landlord of the Landmark Building is aware of the KGS committee looking into moving the library, but is insistent that the KGS not move, and that he would provide more space and do what is necessary to keep the library at the Landmark Building. The KGS board President & Rebecca will meet with Landmark Square owner and see what he can offer us.
- C. A motion was advanced by Mr. Clothier to approve the committees recommendation to purchase a building for KGS Library and KGF, subject to completion of the following actions: - First, An Independent building appraisal will be conducted in order to determine the fair market value and subsequent negotiation of purchase price. - Second, upon completion of the appraisal and successful negotiation of a purchase price, a purchase contract will be entered into with contingencies for building inspection, proper notification of the general membership, successful completion of a Capital Campaign and any other contingencies deemed necessary by both Boards of Directors, and final approval of the project by both Boards, for a period of no less than 60 days from initiation of the purchase contract until closing.
- D. Mr. Hellman indicated that adding space to the current library facility by evicting the lawyers in the front of the building will still cost considerable money.
- E. Extra space in the new building can be used for meetings and socials etc.
- F. Mr. Ramondetta indicated the greater vulnerability to storms in the new building because it is only one level. This adds urgency to getting all library data scanned as soon as possible.

**VIII. ADJOURNMENT- Mr. Clothier adjourned the meeting at approximately 12:58 PM.**

Respectfully submitted, Paul Ramondetta, Secretary

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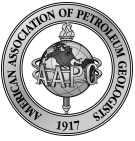
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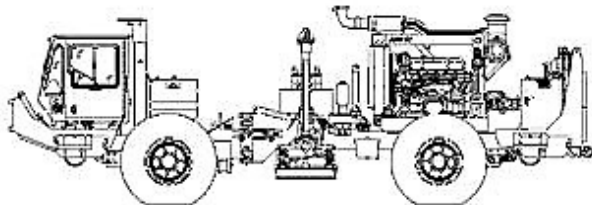
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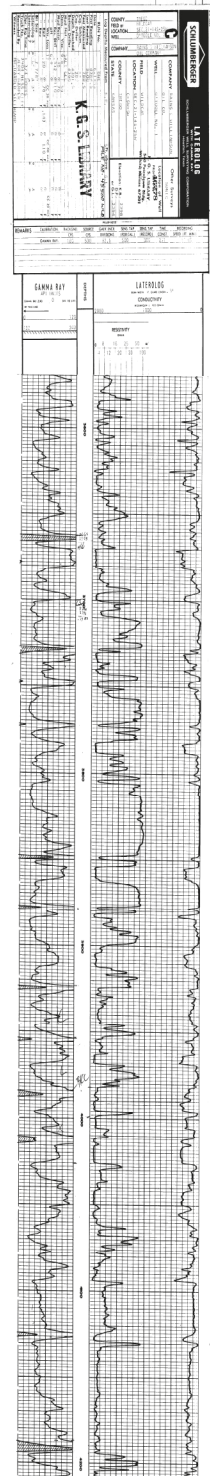
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## A DIFFERENT VIEW OF GEOLOGIC TIME

Lawrence H. Skelton, Geologist  
Wichita, Kansas

### Part II

**November 17 – 1:44 A.M.** – The year is late! The **Phanerozoic Eon** is at hand with its opening act, the **Paleozoic Era**. The Paleozoic opens with the momentous **Cambrian Period**. Pannotia completes disintegrating and forms four major continents: Gondwana, Laurentia, Baltica and Siberia along with numerous lesser-sized “islands.” Major marine transgressions overtake much of the land surface. Atmospheric oxygen content may be ten percent and enough calcium carbonate has dissolved in the oceans to permit the first hard-bodied animals to form. Primitive brachiopods, trilobites, gastropods, sponges and reef-forming archeocyathids thrive in the shallow seas. Both red and green algae abound. Graptolites show up during mid-Cambrian. The first certain conodonts (the first chordate animals) appear. Tiny jawless fish are swimming in the Yangtze Platform (present south China) that is part of an island arc off the coast of Gondwana. This “Cambrian Explosion” has representatives of every modern animal phylum. Archeocyathids become extinct at the end of the Cambrian.

**November 21 – 9:53 A.M.** – The **Ordovician Period** arrives. The Gondwana landmass drifts southward from the Equator and will center around the South Pole by the end of this period. Primitive non-vascular plants develop on land but remain close to streams and lakes. Graptolites abound as do conodonts. The variety of primitive fish increases and early bryozoans, crinoids and nautiloids are found. The first eurypterids are creeping about and tentative shark traces are being left on the future Colorado plateau. During the Ordovician, the Taconic island arc smashes into east Laurentia wreaking geologic havoc and building new Appalachian Mountains while tacking modern New England onto the continent. Near the end of Ordovician time, the polar location of Gondwana causes a new period of continental glaciation. The colder temperatures and shallower seas result in deletion of 60% of marine invertebrate genera and 25% of all families. Hard times!

**November 24 – 10:47 P.M.** – A month left in the year and the **Silurian Period** is here. The “continents” continue drifting. Another large island arc, Avalonia, bulldozes into Laurentia causing the Acadian Orogeny that raises mountains in eastern Canada and New England. Baltica welds onto Laurentia and a new mega-continent, Laurasia, is formed. The collision starts the Caladonian Orogeny which builds a mountain chain from the future northeastern U.S. through eastern Canada, Scotland and Norway. There is no major extinction but a few important species of conodonts and 52% to 79% of graptolites die out. Penteramid brachiopods which began their “run” in the Cambrian reach their peak. The first true land plants and the first land animals in the form of primitive arachnids and centipedes are up and about. There is a wide variety of crinoids and mollusks and numerous types of jawless fish. Stromatoporoids, possibly a type of sponge, are building reefs.

**November 27 – 12:24 A.M.** – The **Devonian Period**: the Age of Fishes! Atmospheric oxygen averages 15% by volume and CO<sub>2</sub> starts out of around 2200 ppm (parts per million) (Compare to present-day 380 ppm.) The abundance of CO<sub>2</sub> probably initiated development of plant life. The first ferns, horsetails, seed plants and scale-tree plants grow in the first forests – some 30m (100 feet) high. As CO<sub>2</sub> content is absorbed and turned into plant carbohydrates, its atmospheric concentration declines through Devonian time. The first cartilaginous fish (sharks) appear in the seas along with bony fish, armored fish (placoderms) and other fish with jaws, bony lobefish (possible predecessors to land tetrapods) and ammonites. Brachiopods recover in numbers to 200 genera, tabulate and rugose corals, trilobites and bryozoa continue on until late Devonian when a minor extinction of uncertain cause cuts the numbers of brachiopods, trilobites, tabulate corals, acritarchs and completely eradicates jawless fish, placoderms and the by-then ancient stromatoporoids. Crinoids still abound and their cousin blastoids are at their peak. Worldwide climate is mild and the first land-living vertebrates creep about, some dining on the newly ashore arthropods which include wingless insects and the earliest arachnids. The three major continents, Gondwana, Laurasia and Siberia, continue to shift positions with Gondwana moving northward toward the Equator and Laurasia. Something, possibly relocation of the land masses causes an large anoxic event in many of the ocean basins and thick black shale deposits form in basins around the world.

**November 30 – 11:28 P.M.** – **The Lower Carboniferous (or Mississippian Period in the U.S.)**. World sea level rises following the Devonian and large areas of the continents are flooded by warm, shallow seas creating lush swamps within large, sluggish deltas. Atmospheric oxygen content is now nearing 35%, a level that accelerates wildfires in the dense forests. CO<sub>2</sub> levels are down to 800 ppm. The increased oxygen probably promotes existence of giant insects and the many amphibians now present. Crinoids, now the most numerous of the echinoderms, and bryozoans both burgeon in the shallow continental shelves and thick beds of limestone accumulate. Single-celled foraminifera, especially *Fusulinidae*, make their appearance. Brachiopods flourish and productid brachiopods make their debut. Bivalves increase in numbers and importance. Nautiloids are becoming common but the trilobites are waning in variety and quantity. Insects are diversifying and some types of eurypterids are coming ashore. The first scorpions (one variety up to 70 cm (28 inches) long) scurry through underbrush looking for food. There are many marine fish and fresh water fish are abundant. Sharks increase in numbers and variety. The most important event among animals is the first appearance of the amniotic egg, which will promote the development and advancement of land animals. Many forms of new plants develop and thrive forming coal deposits as they die and accumulate. The first appearance of lignin in plants occurs during this time. There is volcanism in Europe and parts of Asia bump into and are welded to Euro-

pean Laurasia forming the Ural Mountains. Tectonic activity further elevates the Appalachians and raises extensions forming the Ouachita Mountains. Late in Mississippian time, the seas retreat and vast amounts of sand, mud and gravel erode from the Catskills and form sandstone, shale and conglomerate deposits as far away as present day Illinois.

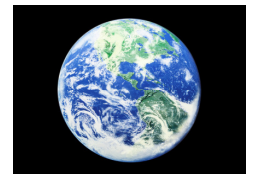
**December 5 – 1:52 A.M. – The Upper Carboniferous (or Pennsylvanian Period in the U.S.).** World average climate and atmosphere are probably nearer to that of the present day than at any other time before or after. Vegetation booms and major coal beds are started in many basins around the world. Giant dragonflies zoom about and more than 800 species of cockroaches scurry over the ground avoiding the nearly 100 species of amphibians that range in size from a few inches long to that of large crocodilians and are searching for lunch. The first land snails are present. The first diapsids (reptiles) are present as well as the first synapsids (pelycosaurs), mammal-like reptiles which are considered to be ancestral to mammals. Abundant single-cell fusulinids near the ocean surface are swept up by currents and deposited in coves along coastal areas. At about the middle Pennsylvanian, world climate dries some indicating a cooler climate. The temperature decrease is caused by developing continental glaciers in Gondwana. Resulting glacial advances and retreats cause lowering and raising of sea levels which result in regular cyclic sediment changes in coastal areas. (Geologists call these cyclic stacks of sediments “cyclothems.”)

Gondwana and Laurasia are nearly finished colliding and a new megacontinent, Pangaea, is formed. The Alleghenian/Hercynian Orogeny results forming the Allegheny mountains which overprinted the southern Appalachians and formed a range perhaps as high as the modern Himalayas. As collision progressed, mountains were pushed up to the west, resulting in the Arbuckles and Wichita mountains in present-day Oklahoma and Marathon mountains in Texas. The orogeny also stressed a Precambrian weak zone to the north-northwest that yielded to push up the Ancestral Rocky mountains located about where the present Rockies are. The ancestral range, however, is estimated to have been only 10,000 feet high. The Hercynian (European) part of Laurasia was impacted by the east African part of Gondwana which pushed up part of the European Alps, the Caucasus mountains and the Mauritanide mountains in North Africa. This upheaval continued.

**December 6 – 2:31 P.M. - The Permian Period** opens with a figurative bang! Laurasia and Gondwana finish consolidating and form one massive continent: Pangaea that is centered over the equator. The remainder of the Pennsylvanian southern icecap melts away as world climate warms. One huge single ocean, the Panthalassa Ocean surrounds the Pangaeian mega-continent. Pangaea is shaped like a gigantic letter “C” and three minor continents or terranes: North China, South China and Cimmeria are strung out between the cusps of the “C” forming a large oceanic gulf, the Paleo-Tethys Sea. Climate was substantially changed by the single continental mass: the interior of Pangaea dried, leaving thick salt deposits and red beds wherever the sea had formerly been. Since several previous continents were incorporated into one, the length of continental shelf was reduced, providing less area for marine invertebrates. Coastal areas remained warm or temperate giving rise to many new species of plants and animals. Conifers, ginkgos and other gymnosperms dominate the plant world. Many new insect species including the first beetles creep and fly providing food for new species of amphibians and reptiles. Early on, reptilian, predatory, sail-backed Dimetrodons up to four meters (12 feet) long waddle about riverine flood plains hoping perhaps to nab any Eryops, a predatory 1.5 M. (4.5 feet) amphibian that ventured from its nearby swamp. Vast deserts were created in the interior: areas torrid in the summer and bitterly cold in winter. About half-way through Permian time, during the Guadalupian Epoch, a large extinction event occurred. It may have been caused by a massive lava outpouring: the Emishan traps in the North China craton. Near the end of the Permian Period, several large meteors strike Pangaea; among them one in the eastern area of future Antarctica (Wilkes Land Crater) leaves an approximately 450 KM (300 mile) diameter crater and another in present offshore northwestern Australia (Bedout Crater) leaves a 200 km (120 mile diameter) “hole.” During the late Permian, a momentous catastrophe occurs: massive basalt lava flooding in Siberia. During a period of around two million years, two to four million cubic km (480 to 960 thousand cubic miles) of lava and ash poured out of several vents and covered an estimated area of four to seven million square km (1.5 to 2.7 million square miles) to a depth ranging from over 4 km (13,000 feet) in the north to 1000 to 1800 m (3280 to 5900 feet) in the south.

This massive eruption which formed the present Siberian Traps was accompanied by huge outflows of CO<sub>2</sub>, SO<sub>2</sub>, CH<sub>4</sub>, Cl, F and water vapor, all of which resulted in greenhouse warming, acid rain, damage or destruction of the ozone layer and an anoxic ocean. These jointly seem to be the cause of the greatest mass extinction known. 90% to 95% of all marine species became extinct: the majority of brachiopods, all reef building cnidarians, most crinoids and bryozoans, the majority of ammonoids, all trilobites, the fusulinids and many other foraminifera and many fish species. Deep water biota were among the survivors. On land, about 70% of life forms were wiped out: several orders of insects, the pelecosaurs, large amphibians, and numerous plants. Atmospheric oxygen declined to 15% and the relative amount of CO<sub>2</sub> increased. Finally, Pangaea began to separate into two continental masses.

*Note: This is the second part of a series. The next portion will be in the July—August Bulletin.*

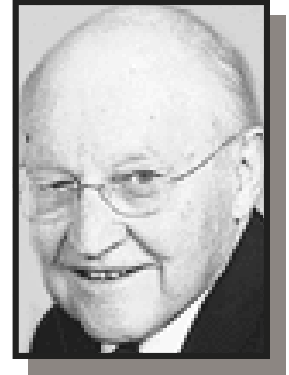


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# Memorials

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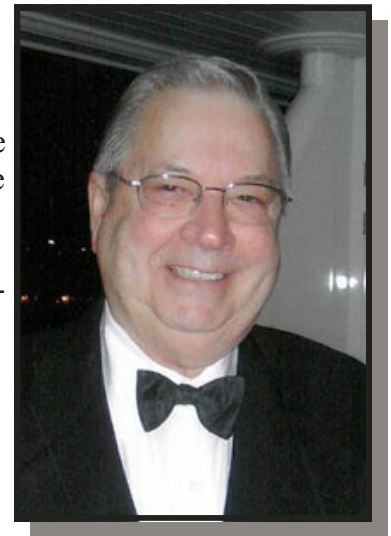
**Jack L. Yinger.,** 89, retired geologist, passed away March 17, 2013. Memorial Services were held at 10:30 am, Thursday, March 21, at First Evangelical Free Church, 1825 N. Woodlawn. Survivors include his wife of 62 years, Wanda Yinger; son, Kent (Deborah) Yinger of Portland, OR; daughter, Jane (Lyle) Schrag of Blaine, WA; six grandchildren; three great-grandchildren; nieces, nephews, and friends. Memorials to: First Evangelical Free Church. Share condolences at [www.CozineMemorial.com](http://www.CozineMemorial.com). Services by Broadway Mortuary.



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**Jay Swanson,** a long time member of the Kansas Geological Society, passed away on April 29, 2013. Jay was born March 13, 1933, raised in Wichita and graduated from East High. For higher education, he considered University of Wichita, but a friend of his persuaded him to go to Norman Oklahoma to attend the University of Oklahoma. He enrolled in geology in part because of his knowledge of oil geologists in the Wichita area who prospered in that field. Jay graduated from the University of Oklahoma in 1956 and was employed in the Geophysical Department of Phillips Petroleum in Bartlesville, Oklahoma. After six months employment he was called into service with the Air Force. He flew fighters out of Selfridge Air Base in Michigan with the 71<sup>st</sup> Fighter Squadron.



Mr. Swanson returned to Wichita selling cars for the former Dick Price Motors until he could find another job in the oil industry. Eventually, he did, first with Jayhawk Mud Co. in El Dorado, and later with Davis Mud and Chemical Co., a Great Bend-based oilfield services company in which he was part owner and vice president for 30 years. They maintained offices in Denver, Houston, Oklahoma City, Tulsa and the Williston Basin. They had their own source for barite and bentonite. Over the next couple of decades, Mr. Swanson was involved in the leadership and ownership of a number of other area companies, including First National Fixture, W.W. Grinder Co. and VIM Trailer Manufacturing.

In the 1960's they were actively involved with an Algerian company in North Africa. They also owned Pawnee Salt Company which was active in Brazil. There was also involvement in commercial warehousing in Oklahoma City. After the liquidation of Davis Mud and Chemical, Jay renovated the old Kress store at Broadway and Douglas into the Kress Energy Center.

Even though he had been involved in many commercial ventures, Jay had found the time to serve the community in many different ways. He had served as mayor of Eastborough, Treasurer of the State Republican Party, and active in the Wichita Chamber of Commerce. He also received recognition as a 50 year member of the Kansas Geological Society and had been a member of the AAPG and KIOGA.

Jay is survived by his wife of 58 years, Susan, son Tim Swanson and daughter, Michelle Sanders of Wichita; and four grandchildren. Services were held at 4 p.m. Friday, May 3, 2013 at Central Christian Church by Downing & Lahey Mortuary.



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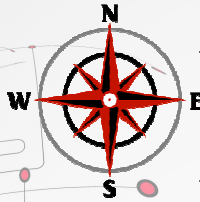
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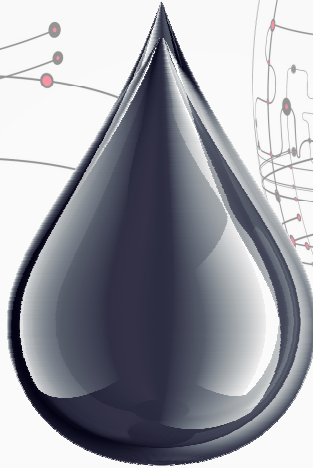




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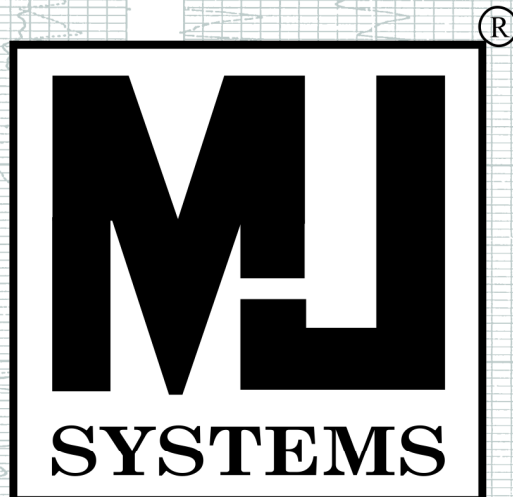
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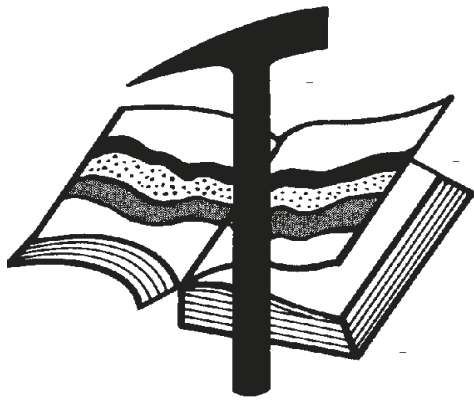
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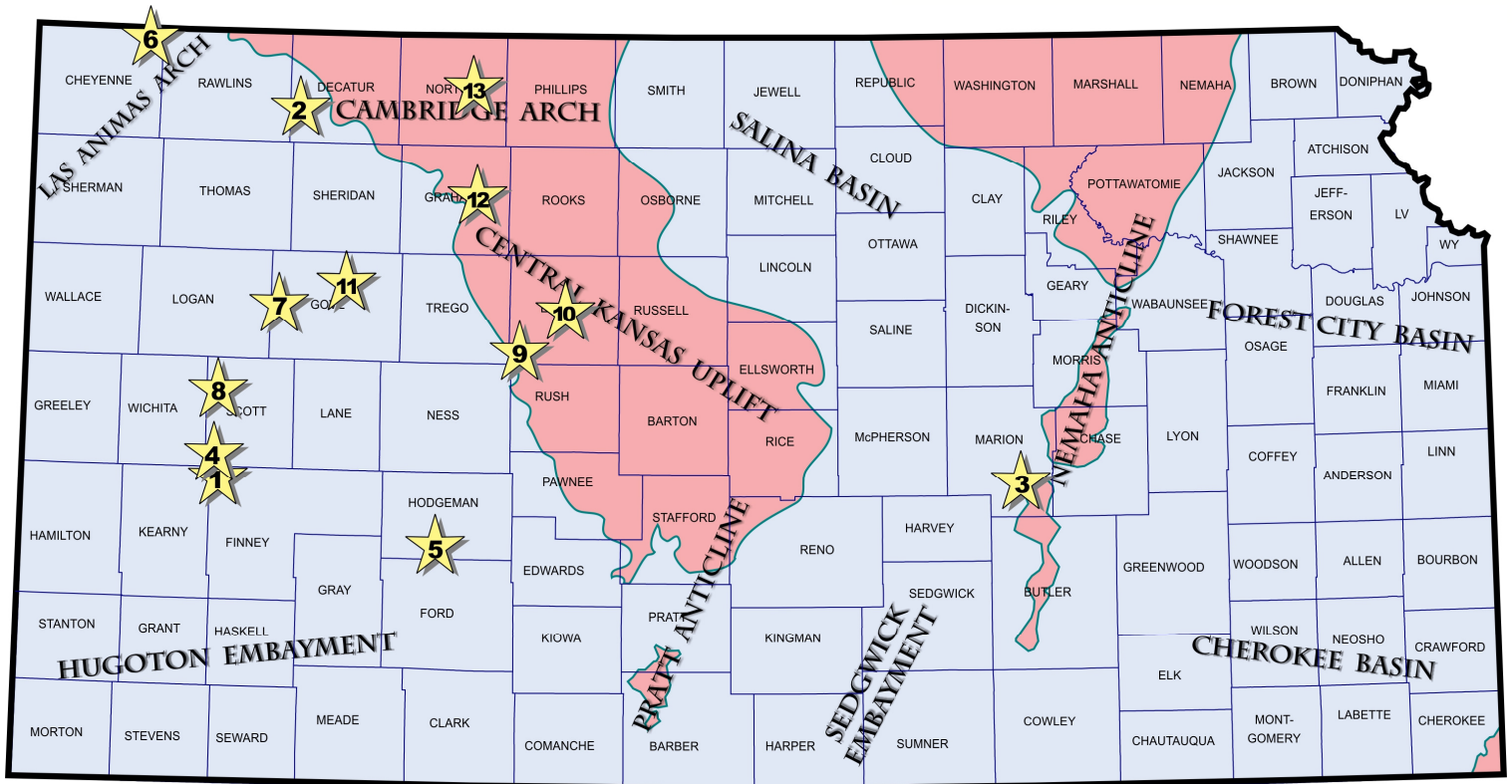
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# Exploration Highlights

By John H. Morrison, III  
Independent Oil & Gas



(1) Murfin Drilling Company, Inc., Wichita (KS), has successfully completed two new pool discoveries in the State. In Finney County, Marmaton oil reserve was found at the 1-4 Marabelle (API 15-055-22179), located in the NW SE SE of section 4- T21s- R34W, nearly seven miles west of Friend, Kansas. The wildcat well was drilled nearly one and one-quarter miles north of Mississippian oil production in the Fleagle West pool with the closest recognized Marmaton production in the vicinity located two and one-half miles away. Company tools drilled the well to a total depth of 4900 ft. No completion details have been released. The new field has been named Fleagle Northwest.

(2) In Decatur County, northwest Kansas, Murfin's 1-22 Phillips 'A' (API 15-039-21161) is on pump producing an undisclosed amount of oil from the Lansing-Kansas City zones. The Bassetville Township Northeast pool discovery is located in the NE SW NE in section 22- T4s- R30W, almost eight miles south and seven miles west of the city of Oberlin. Nearest recognized production (also Lansing-Kansas City), can be found over one and one-quarter miles to the southwest of Murfin's latest find in the Bassetville Township oil field. Rotary total depth was obtained at 4450 ft.

(3) Range Oil Company, Inc., Wichita (KS), has discovered new oil reserves in the Hunton formation at their 1 Savage 'A' (API 15-115-21435) in Marion County. Summit Drilling's Rig 1 drilled the wildcat well to a total depth of

2410 ft at site located in the SE NE NW in section 22- T21s- R4E. The new deposits were discovered over three-quarters mile east of the nearly 93 year old Covert - Sellers oil field which has produced LKC, Viola and Hunton oil. Range's new Savage field is situated almost two miles south and two and one-half miles west of Florence, Kansas.

(4) Abercrombie Energy, LLC, Wichita (KS), has a Marmaton oil discovery at the 1-9 Moore (API 15-171-200918) - a 4982 ft deep wildcat well located one and one-half miles southeast of the Whitesand Creek (Marmaton) oil field in Scott County. The well, located in the SE NW SE of section 9- T20s- R34W, is producing an undisclosed amount of crude. Completion details are confidential. The new Whitesand Creek South oil field is positioned eleven miles south of Modoc, Kansas.

(5) Ritchie Exploration, Inc., Wichita (KS), has established a new Mississippian oil field in Hodgeman County with the completion of the 1 Rebein (API 15-083-21846) in the SW NE SE of section 32- T24s- R24W. The uSaw Duck Northwest pool discovery was drilled to a total depth of 5070 ft at site located eleven miles south and four miles west of Jetmore, Kansas. Reserves were found nearly five miles southwest of the Stella (Arbuckle) oil field. Completion information is confidential.

(6) BEREXCO, Inc., Wichita (KS), is pumping 44 barrels of oil and 11 barrels of water daily at the 1-9 Mears 'A' (API 15



-023-21354), located in the NE SE NE of section 9- T1s- R37W, Cheyenne County, northwest Kansas. The remote wildcat well is producing 33 degree gravity crude from the Pawnee limestone in the Marmaton Group. Perforations were shot at four holes per foot from 4486 to 4492 ft. Pay zone was treated with 1000 gallons of 15 percent mud cleanup acid. First oil was sold on January 3, 2013 at location about sixteen miles south and three miles east of Bird City. The new Jones Canyon Southeast oil field is situated nearly four and one-half miles east of the one-well Ketler field, which produced a little over 10,000 barrels of oil from the Marmaton formation during a seven year span from 1989 to 1995.

**(7)** Crawford Oil & Gas Company, LLC, El Dorado (KS), has completed their 1-24 Zimmerman (API 15-063-22032) new pool opener for 43 barrels of oil and 8 barrels of water per day in Gove County. The wildcat well was drilled to a total depth of 4590 ft by WW Drilling tools. Well site lies in the SE SE NE of section 24- T13s- R31W, or about three miles south and eleven miles west of Gove, Kansas. Operator found productive zones in the Lansing-Kansas City 'J' zone from 4116 to 4120 ft and the Cherokee (Johnson Zone) from 4468 to 4481 ft overall. The new Swift Fox Southeast oil field is located slightly over one mile northeast of the Antelope Ridge East field (Marmaton and Cherokee) that was established last year by Shakespeare Oil Company.

**(8)** New Gulf Operating, LLC, Tulsa (OK), has discovered new Marmaton oil reserves at the 1-26 Pammenter (API 15-171-20902), spotted in the SW NW NE of section 26- T17s- R34W, in Scott County. The wildcat well was drilled nearly two miles east of the one-well Modoc oil field, which has produced over 16,000 barrels of crude from the Marmaton zone. The field was discovered by North American Resources in late 1985. New Gulf's latest oil strike is located four miles north and two miles east of the city of Modoc. No completion details have been released. Total depth was obtained at 5050 ft. The well establishes the Isbel Northeast oil field.

**(9)** Zinszer Oil Company, Inc., Hays (KS), has established the new Shooting Star East oil field in the southwest corner of Ellis County. The firm's 1 Armbruster (API 15-051-26433), spotted in the NE NW NE of section 2- T15s- R20W, was placed on production in early January this year making 62 barrels of oil per day, no water. Production comes from a single upper Lansing-Kansas City zone at 3378 to 3380 ft and three feet of open hole in the Arbuckle formation from 3691 to 3694 ft. The new field is situated about four miles north and nine miles west of the town of Schoenchen, Kansas.

**(10)** Downing-Nelson Oil Company, Inc., Hays (KS), has completed its 1-7 MWE (API 15-051-26422) in Ellis County for a daily production rate of 49 barrels of oil, no water. Located in the SE NW SE of section 7- T13s- R18W, the well further develops and extends Lansing-Kansas City oil production westward in the Brull oil field. The well is producing crude from perforated depth of 3629 to 3634 ft. Downing- Nelson discovered the Brull field in 2007. This is the sixth successful completion in the field for Downing-Nelson. Field area lies about three miles north and one mile west of Hays, Kansas.

**(11)** Ritchie Exploration, Inc., Wichita (KS), has discovered new Lansing-Kansas City oil deposits at a remote wildcat site in Gove County. The 1 Kuhn 19-A (API 15-063-22065) was drilled to a total depth of 4616 ft at location in the NE SW NE of section 19- T12s- R28W, nearly seven miles from closest recognized production in the Twilight (Mississippian oil) field, or about two and one-half miles northeast of Gove, Kansas. Completion details have not been released. The new field has not been named.

**(12)** H & C Oil Operating, Inc., Plainville (KS), has stepped-out over three-quarters mile north of the Mickelson Northeast oil field (established 1969) to discover new Lansing-Kansas City oil reserves at their 14-1 Faulkner (API 15-065-23889), spotted in the NE SW SW of section 14- T8s- R22W, in Graham County. The new Uplands Northwest pool opener was drilled to a total depth of 3760 ft by American Eagle Drilling tools. Completion details are confidential. The new field is located about three miles west of Bogue, Kansas.

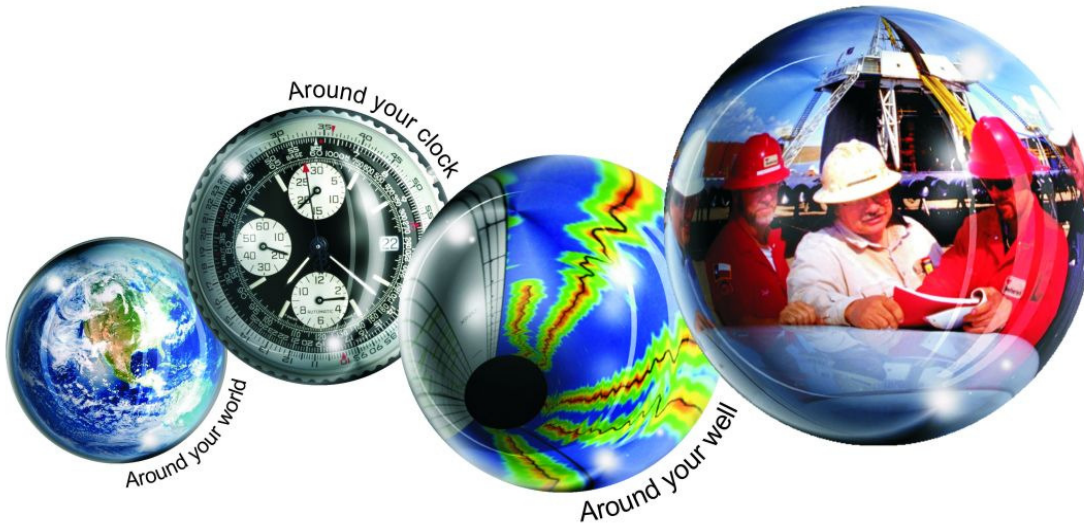
**(13)** Baird Oil Company LLC, Logan (KS), has discovered Lansing- Kansas City oil reserves at the 1-27 Esslinger Ranch Inc. (API 15-137-20635) in Norton County. The wildcat well is producing an undisclosed amount of crude oil at site located in the NW SW SE of section 27- T3s- R22W, or a little over four miles south and five miles east of Norton, Kansas. No details have been released. Well site lies over one mile west of LKC oil production in the Red Fox field which Baird Oil established in 2010. The Red Fox field has given up eleven producers and nearly 250,000 barrels of oil since its inception. Baird's latest pool discovery is unnamed.

# Kansas Geological Foundation Memorials

KGS Member	Date Deceased	Memorial Established	KGS Member	Date Deceased	Memorial Established
Dan Bowles	09/89	1990	Jerold E. Jesperson	06/01	2001
John Brewer	10/89	1990	William A. Sladek	06/01	2001
George Bruce	08/89	1990	Harlan B. Dixon	06/01	2001
Robert Gebhart	01/90	1990	Edward B. Donnelly	08/01	2001
Ray Anderson, Jr.	11/90	1990	Richard P. Nixon	02/02	2002
Harold McNeil	03/91	1991	Robert W. Frensley	12/01	2002
Millard W. Smith	08/91	1991	Gerald W. Zorger	01/02	2002
Clinton Engstrand	09/91	1991	Don L. Calvin	03/02	2002
M.F. "Ted" Bear	10/91	1991	Claud Sheats	02/02	2002
James & Kathryn Gould	11/91	1991	Merle Britting	2002	2002
E. Gail Carpenter	06/91	1993	Harold Trapp	11/02	2002
Benton Brooks	09/92	1992	Donald M. Brown	11/02	2003
Robert C. Armstrong	01/93	1993	Elwyn Nagel	03/03	2003
Nancy Lorenz	02/93	1993	Robert Noll	09/03	2003
Norman R. Stewart	07/93	1993	Benny Singleton	09/03	2003
Robert W. Watchous	12/93	1993	Jay Dirks	2003	2003
J. George Klein	07/94	1994	J. Mark Richardson	02/04	2004
Harold C.J. Terhune	01/95	1995	John "Jack" Barwick	02/01	2004
Carl Todd	01/95	1995	Richard Roby	03/04	2004
Don R. Pate	03/95	1995	Ruth Bell Steinberg	2004	2004
R. James Gear	05/95	1995	Gordon Keen	03/04	2004
Vernon Hess	06/95	1995	Lloyd Tarrant	05/04	2004
E. K. Edmiston	06/95	1995	Robert J. "Rob" Dietterich	08/96	2004
Jack Rine	07/95	1995	Mervyn Mace	12/04	2004
Lee Cornell	08/95	1995	Donald Hoy Smith	04/05	2005
John Graves	10/95	1995	Richard M. Foley	06/05	2005
Wilson Rains	10/95	1995	Wayne Brinegar	06/05	2005
Heber Beardmore, Jr.	09/96	1996	Charles B. Moore	09/96	2005
Elmer "Lucky" Opfer	12/96	1996	Jack Heathman	05/06	2006
Raymond M. Goodin	01/97	1997	Charles Kaiser	09/06	2006
Donald F. Moore	10/92	1997	Rod Sweetman	08/06	2006
Gerald J. Kathol	03/97	1997	Karl Becker	10/06	2006
James D. Davies	08/88	1997	Frank Hamlin	10/06	2006
R. Kenneth Smith	04/97	1997	Marvin Douglas	12/06	2006
Robert L. Dilts	05/97	1997	Robert W. Hammond	04/07	2007
Delmer L. Powers	06/72	1997	Eldon Frazey	04/07	2007
Gene Falkowski	11/97	1997	Pete Amstutz	05/07	2007
Arthur (Bill) Jacques	01/98	1998	Charles Spradlin	05/07	2007
Bus Woods	01/98	1998	Donald R. "Bob" Douglass	09/07	2007
Frank M. Brooks	03/98	1998	Vincent Hiebsch	11/07	2007
Robert F. Walters	04/98	1998	Glen C. Thrasher	03/08	2008
Stephen Powell	04/98	1998	Peg Walters	06/08	2008
Deane Jirrels	05/98	1998	Theodore "Ted" Sandberg	07/08	2008
William G. Iversen	07/98	1998	James Ralstin	11/08	2008
Ann E. Watchous	08/98	1998	Earl Brandt	04/09	2009
W.R. "Bill" Murfin	09/98	1998	Walter DeLozier	05/09	2009
Donald L. Hellar	11/98	1998	Don D. Strong	01/10	2010
Joseph E. Rakaskas	01/99	1999	John Stone	02/10	2010
Charles W. Steincamp	02/99	1999	Craig Caulk	03/10	2010
Robert and Betty Glover	10/96	1998	Joseph E. Moreland, Jr.	03/10	2010
Howard E. Schwerdtfeger	11/98	1999	Gene Garmon	03/10	2010
W. W. "Brick" Wakefield	03/99	1999	James F. Dilts	05/10	2010
V. Richard Hoover	01/00	2000	Jerry Pike	05/10	2010
Warren E. Tomlinson	01/00	2000	Donald Hollar	06/10	2010
James A. Morris	01/00	2000	Delbert Costa	08/10	2010
Eric H. Jager	03/00	2000	John Tanner	08/10	2010
Kenneth W. Johnson	03/00	2000	William (Bill) Owen	09/10	2010
Dean C. Schaake	03/00	2000	Harold (Hal) Brown	10/10	2010
Fred S. Lillibridge	05/00	2000	Edmund G. Lorenz	11/10	2010
Jerry A. Langrehr	07/00	2000	Thomas E. Black	05/11	2011
Clark A. Roach	07/00	2000	Wayne E. Walcher	07/11	2011
Floyd W. "Bud" Mallonee	10/00	2000	Henry F. Filson	07/11	2011
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5	6	7 Tech Talk	8	9	10	11
12	13	14 KGS Board	15 KGF Board	16	17 WSU Graduation	18
19	20	21	22	23 KGF Spring Mixer	24	25
AAPG Meeting Pittsburgh, PA						
26	27 Library closed 	28 Tech Talk	29	30	31	

## June 2013

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						1
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9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24 KGS Golf Tournament 	25	26	27	28	29
30						