



THE OHIO GEOLOGICAL SOCIETY



The Newsletter of the Ohio Geological Society

July 2006

An Affiliate (1963) of the American Association of Petroleum Geologists (AAPG)

2005-2006 Officers

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Dear Society Members,

Welcome to the 2006-2007 term. During this term, I will serve as your President. Alison Nutter will be our new Vice-President. Amy Lang will continue as Secretary. In addition, John Miller will be joining the executive committee as Treasurer.

Please mark your calendars for Thursday, September 14, to join us in our next annual golf outing at the Chapel Hill Golf Course, just outside of Mt. Vernon, Ohio. If you are interested in advertising your company's name what a great way to do so by sponsoring a hole! Please contact one of our executive committee members (before they contact you), for more information. We look forward to seeing everyone there and enjoying another year of great fun, and relaxing competition.

This year we look forward to having many interesting events and speakers. If you know of a speaker or have interest in joining us for special topics please let one of the executive committee members know. We hope more members take the time this year to support and participate in our monthly meetings. These are generally held as a luncheon meeting on the third Thursday of each month, September-May at the Mid-West Hotel and Conference Center in Columbus, Ohio.

Remember to check our website at www.ohgeosoc.org for upcoming dates and information.

Don Jennings
President, OGS



The Ohio Geological Society sponsored the Geological Award at the 2006 Ohio Academy of Science's State Science Day. It was held on May 6th at The Ohio State University. Our judges were Dan Bendig, Jim McDonald, Pete MacKenzie and Erik Venteris.

The OGS award winners and their projects are listed below. Each received a Certificate of Merit and cash awards as indicated.

1st Place – Ralph J. Bernhagen Award (\$250)

Alex L. Swain, 12th grade at Huron High School, Huron (Erie County)
Correlation between dissolved oxygen and PH in estuary water

2nd Place (\$200)

Lali J. Reddy, 11th grade at Catholic Central High School, Steubenville (Jefferson County)
The effect of salinity on the heat transfer rate of water in relation to the formation of El Nino

3rd Place (\$150)

Lauren A. Brewster, 11th grade at Fairland High School, Proctorville (Lawrence County)
Acid mine drainage - impact to streams

4th Place (\$100)

Mackenzie E. English, 12th grade at Tippecanoe High School, Tipp City (Miami County)
An evaluation of spray foam insulation when used to stabilize paleontological specimens for recovery

The following projects were in the Superior category and received an Honorable Mention Certificate.

Katherine E. Bauer, 7th grade at Clay High School, Portsmouth (Scioto County)
Got Segments?

Kayla E. Potter, 10th grade at Unioto High School, Chillicothe (Ross County)
The Effects of Porosity on Flooding

**HURRY! Space is
limited to 24
persons**



**More details can be
found at
<http://karl.nrcce.wvu.edu>**

“ Introduction to ArcGIS® Geographic Information System Software”

GREAT BARGAIN!

GREAT BARGAIN!

**Appalachian Region PTTC Workshop – July 27-28, 2006
W.T. Young Library – UK, Lexington, KY
8:00 a.m. Sign-in @ 102 MMRB (Kentucky Survey)
8:30 a.m. - 4:30 p.m. (W.T. Young Library)**

Overview

This course covers fundamental GIS concepts as well as how to query a GIS database, manipulate tabular data, edit spatial and attribute data, and present data clearly and efficiently using maps and charts. Participants learn how to use ArcMap™, ArcCatalog™, and ArcToolbox™ and explore how these applications work together to provide a complete GIS software solution.

This course is for those who are new to ArcGIS and new to geographic information systems in general. Participants should know how to use windowing software.

The workshop will be taught by Matt Crawford of the Kentucky Geological Survey, an ESRI-certified instructor. In addition to the ESRI course work, Brandon Nuttall will present exercises involving oil and gas GIS data. Participants will receive a lecture manual and an exercise training manual (with CD-ROM) published by ESRI. An ESRI certificate of completion and 12 professional development hours (PDH) will be awarded upon completion.

Schedule

Sign-in and workshop material distribution will begin at 8:00 a.m. on Thursday, July 27, 2006. The workshop will begin at 8:30 a.m. and conclude at 4:30 p.m. on both the 27 & 28 of July.

Cost & Registration Information

The fee for the workshop is \$155.00 which includes ESRI manual and all breaks. * **Please make checks payable to: University of Kentucky** and return with this registration form to:

To register: mail or FAX this form, or call Geaunita Caylor at **859-257-2820** or by email: **gcaylor@engr.uky.edu**
FAX (859) 257-2173 Mailing address: **OISTL, 107 Mining & Mineral Resources Bldg., University of Kentucky, Lexington, KY 40506-0107**

NAME: _____

COMPANY: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP CODE: _____

PHONE: _____ FAX: _____

EMAIL: _____

AN AAPG SHORT COURSE!



Reservoir Engineering for Geologists

Location: Buffalo, New York
Date: October 7, 2006, with AAPG Eastern Section Meeting
Tuition: \$50, AAPG Members, \$75, non-members, (additional discount available to DPA members – check with AAPG Education Dept. for more details); includes course notes and refreshments
CEU: .7 CEU

Who Should Attend

The course is designed for personnel who wish to acquire a broad understanding of the factors that influence the production of oil and gas from reservoirs. The course will present information that can be applied by geologists, geophysicists, petrophysicists, land management specialists and managers with no previous training in reservoir engineering. It can also serve as an introductory course for engineers who have not had previous training in reservoir engineering.

Objectives and Content

The basic purpose of every individual in a producing company is the same: to find and produce oil and gas in an efficient manner to the economic benefit of the company. A reservoir engineer cannot predict the production performance of an oil reservoir with any degree of certainty without knowledge of the physical characteristics -- the geology -- of that reservoir.

Nor can a geologist describe the physical characteristics of a reservoir and be sure of his/her work without considering the producing characteristics, as evidenced by production and pressure data. This 1-day condensed version of our popular 2-day course is an attempt to bridge that particular chasm, by providing an introductory description of the field and techniques of petroleum reservoir engineering.

The course will cover:

- Reservoir Rock Properties; as porosity, fluid saturations and permeability

- Reservoir Fluid Properties; as fluid types, reservoir oil, reservoir gas
- Reservoir Fluid Flow; as Darcy's law, reservoir drive mechanisms
- Reservoir Production Evaluation Techniques; as volumetric calculations, material balance, decline curves and deliverability

Reservoir engineering can be defined as the design and evaluation of field development and exploitation processes and programs. As such, it can overlap the fields of geology, drilling and completion, production engineering, and reserves and evaluation. Therefore, some of each of these fields will be included, but the major emphasis will be on the techniques and methods utilized to characterize and predict the flow of fluids within petroleum reservoirs under natural depletion and various secondary and tertiary recovery operations.

Instructor: Richard G. Green began his career in New Orleans, Louisiana with Shell Oil Company in 1973 after graduating from Kansas State University with a BS degree in geology. After working as a production engineer and development geologist in a number of Gulf Coast onshore and offshore fields, he accepted a position with DeGolyer and MacNaughton Consultants in Dallas Texas in 1978. At D&M he prepared volumetric reserve estimates on numerous Gulf Coast oil and gas fields prior to leaving the firm in 1980. He then joined Netherland Sewell Consultants in 1994 as a Vice-President and geologic manager and gained extensive international experience in West Africa, Russia and South America, as well as multiple domestic basins. He co-founded LaRoche Petroleum Consultants in 1998 and has performed numerous studies, both domestically and internationally, since that date.

Registration Form

Name _____ Nickname for Name Tag _____ Male Female
Company _____ Business Phone (AC) _____
Address _____ AAPG Membership Number _____
City _____ State _____ Postal Code _____
Country _____ Also member of: SEG SPE SEPM
E-mail Address _____ FAX Number _____
Professional Specialty _____ Years Experience _____ College Major _____ Highest Degree _____

Registering For: (write in course title and date)

Payment Information: Check enclosed

Credit Card: Master Card VISA American Express Discover Card Diners Club

Card Account Number: _____ Card Expiration Date _____

Printed Name of Card Holder _____ Authorized Signature _____

Charge full tuition Charge \$50 deposit only

All credit card charges will be processed in U.S. dollars only. All checks must be made PAYABLE TO AAPG IN U.S. DOLLARS AND DRAWN ON A U.S. BANK. Checks made to the Education Department should be written to the AAPG EDUCATION DEPARTMENT.

Registration Policy: Mail completed form with full tuition to the AAPG Education Department. **Full tuition is due 4 weeks prior to commencement of course.**

Cancellation Policy: AAPG will refund the tuition, less a \$50 processing fee, if request is received no later than 4 weeks prior to the course (6 weeks on international courses). Cancellation must be made in writing: the registrar will accept cancellation notices by telephone, but all such notices must be followed up by mail, FAX or e-mail. **No refund will be made for cancellations received less than 4 weeks prior to a course being given (6 weeks on international courses).** Nonpayment of tuition does not constitute automatic cancellation. **If no cancellation notice is received by 4 weeks prior to course (6 weeks on international courses), participant is liable for full tuition.** AAPG reserves the right to cancel a course if enrollment is insufficient to ensure proper effectiveness. Substitutions for individuals can be made at any time.

Complete and return this form with tuition to:

AAPG Education Department
P.O. Box 979
Tulsa, Oklahoma 74101-0979

Phone: (918) 560-2650
Toll-free in U.S.: 1-888-338-3387
FAX: (918) 560-2678

AAPG NON-ENDORSEMENT POLICY

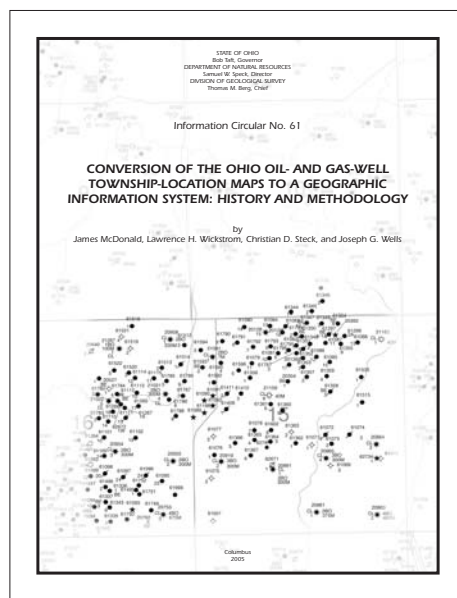
The American Association of Petroleum Geologists (AAPG) does not endorse or recommend any products and services that may be cited, used, or discussed in AAPG publications or in presentations at events associated with AAPG.

Available from the Ohio Department of Natural Resources,
Division of Geological Survey

CONVERSION OF THE OHIO OIL- AND GAS-WELL TOWNSHIP-LOCATION MAPS TO A GEOGRAPHIC INFORMATION SYSTEM: HISTORY AND METHODOLOGY

IC 61
2005

by James McDonald, Lawrence H. Wickstrom, Christian D. Steck, and Joseph G. Wells



Geographic Information System (GIS) technology has become the de-facto standard by which map-based data and graphics are managed. This new publication documents the Ohio Division of Geological Survey's project to convert manually maintained oil-and-gas-well maps and records into an integrated digital data-management system using GIS technology.

Maps and data associated with oil-and-gas wells represent one of the largest datasets at the Ohio Division of Geological Survey. Since 1860, it is estimated that more than 267,000 oil-and-gas wells have been drilled in Ohio. The Ohio Division of Geological Survey has been maintaining information on the oil-and-gas wells in the state since the late 1800s, and producing/maintaining detailed oil-and-gas-well location maps since the late 1950s. By the 1990s, these maps and records had become brittle and difficult to read, and very labor-intensive to maintain. As this information is critical for oil-and-gas exploration and development, land-use planning, and environmental assessments and remediation, a more effective system for maintaining the information was urgently needed.

In 1995, a program was initiated to modernize the procedures for maintaining and updating oil-and-gas-well records using GIS technology. This report tells the history of how the original paper and mylar oil-and-gas-well location maps and well-card records were created, and describes the program by which these records were converted for electronic distribution as digital files and print-on-demand products from the division's Geologic Records Center.

Price: \$9.25

(plus sales tax and shipping)

An order form is on the reverse for your convenience



**OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF GEOLOGICAL SURVEY
2045 MORSE RD., BLDG. C-1
COLUMBUS, OHIO 43229-6693**



World Wide Web: <http://www.ohiodnr.com/geosurvey/>
 Telephone: 614-265-6576 Fax: 614-447-1918 e-mail: geo.survey@dnr.state.oh.us

INSTRUCTIONS FOR ORDERING

Orders to be delivered in Ohio (except to exempt institutions) are subject to state and local taxes. Handling charges are assessed on all orders. A handling-charge schedule is provided below. Prices are subject to change without notice. Please make checks payable to "ODNR, Geological Survey."

Checks from foreign countries must be drawn on a U.S. bank.

**CREDIT CARD ORDERS (VISA, MasterCard) BY TELEPHONE:
614-265-6576, 8:00 a.m. - 4:30 p.m., Monday - Friday**

-----ORDER FORM-----PLEASE PRINT CLEARLY-----

Name _____	My check is enclosed ____ (payable to: ODNR, Geological Survey)
Address _____ <small>(PLEASE USE STREET ADDRESS, NOT P.O. BOX NUMBER)</small>	Please charge my ____ Visa ____ MasterCard
City _____ State _____ Zip _____	Card # _____ - _____ - _____ - _____
County (Ohio residents) _____	Expiration date _____
Telephone (daytime) _____ <small>(In case we have a question about your order)</small>	Authorized signature _____

Item	Quantity	Total cost
Conversion of the Ohio oil- and gas-well township-location maps to a Geographic Information System: history and methodology, IC 61	\$9.25	_____

HANDLING CHARGES

Total cost of order	Handling charge
\$10.00 and under	\$2.50
\$10.01 - \$20.00	\$4.00
\$20.01 - \$50.00	\$6.50
\$50.01 - \$100.00	\$11.00
\$100.01 and over	\$13.00

Total cost of order	\$ _____
Mailing tube \$1.50 (if applicable)	\$ _____
_____% sales tax (in-state sales)	\$ _____
<small>In-state sales are taxed at rate that exists in county where merchandise is shipped to. Calculate tax on total cost of publications plus mailing tube (if applicable).</small>	
Handling	\$ _____
TOTAL	\$ _____

Position & Location:

GIS Programmer/Analyst - Dayton, OH
Relocation is negotiable and travel is not required

Job Skills & Requirements:

- Position requires the ability to design, manage, and perform data conversions of digital and non-digital information from diverse sources into an accurate, verifiable GIS system.
- Candidate must be able to provide, facilitate, and expedite training and troubleshooting capability to the Company's Business Units on GIS, GPS, computer aided dispatching systems, and related technologies, in an easy-to-understand way.
- Most Important **MUST** demonstrate proficiency with GIS related applications and technologies (E.g. Oracle Spatial, Powell Mini-Max application(s), Net, Arc Objects and/or other GIS programming languages.) relational databases, global positioning systems (GPS), and related technologies.

Preferred skills:

- Convert and utilize data and information in digital and non-digital forms from diverse data sources.
- Develop and provide tools to allow converting paper maps into digital files.
- Develop tools to keep GIS information and related databases updated and accessible to users at different locations.
- Develop tools, programs, and protocols to allow generation of maps, reports, statistics, and other information requested.
- Provide end-user manuals and on-site training in the use of the developed applications.

Qualifications:

- Experience in creating and developing methods export and/or import GIS data from existing sources or developing new GIS data.
- Position requires person who is detailed orientated and has experience with most of the following programming languages: VBA, Python, Perl, Visual Basic, C, C++, SQL, COM, and similar application development type tools.
- Bachelor's degree in Geographic Information Science, Geography with GIS emphasis, or Computer Science, preferred.
- Geographic Information Systems Professional (GISP) preferred.

Benefits:

Medical Insurance, Life Insurance, Dental Insurance, Paid Vacation, Paid Sick Days, Paid Holidays, Short Term Disability, Long Term Disability, 401K Plan, Pension/Retirement, Educational Assistance, Special Incentive Plans

Screening Requirements:

Motor Vehicle, Drug Screen, Criminal Background Check, Physical Exam

If someone thinks that this sounds like a position that may be of interest to them, please have them email ASAP with a copy of their most recent resume and salary expectations. Thank you again for your time and consideration.

Jessica R. Morningstar
Technical Recruiter
Hudson Energy
T (724) 275-9975 X239
F (724) 275-9979
jessica.morningstar@hudson.com

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ELECTION RESULTS

President	Don Jennings
Vice President	Alison Nutter
Secretary	Amy Lang
Treasurer	John Miller
Trustee	Nicole Venteris
Trustee	Bill Rike

CALENDAR

Information available for OGS meetings at: www.ohgeosoc.org
or contact Alison Nutter at seismic@sprynet.com, 740-788-8836.

- July 27-28 PTTC Workshop – “Introduction to ArcGIS Software”, University of Kentucky,
Lexington, KY. <http://karl.nrcce.wvu.edu/calendar.htm> or 859-257-2820.
- August 14-15 OOGA Annual Summer Meeting, Wooster Country Club, Wooster, OH.
<http://www.ooga.org/calendar/meetings.htm> or 740-587-0444.
- September 14 OGS Golf Outing, Chapel Hill Golf Course, Mt. Vernon, OH.

Check the OGS website at www.ohgeosoc.org/otherevents.html or the PTTC website at
<http://karl.nrcce.wvu.edu/calendar.htm> for other meetings and events.

Ohio Geological Society
P.O. Box 14304 · Columbus, OH 43214
<http://www.ohgeosoc.org/>

Ohio Geological Society Publications

The in-print publications of the Ohio Geological Society may be purchased from the Ohio Division of Geological Survey. Members of the Society receive a discount; the member price is in parentheses (M:). For more information on the Society, write the Ohio Geological Society, P.O. Box 14304, Columbus, OH 43214.

- OGS 1. Guidebook to the Middle Devonian rocks of north-central Ohio**, by A. Janssens. 30 p., 1970. \$2.50. (M: \$2.00).
- OGS 2. Geology of Silurian rocks, northwestern Ohio**, by C. F. Kahle and J. C. Floyd. Guidebook for First Annual Meeting, Eastern Section, American Association of Petroleum Geologists. 91 p., 1970. Out of print.
- OGS 3. Seminar on industrial self-help programs for natural gas supplies**, edited by Arie Janssens. 55 p., 15 figs., 1 table, 1977. \$3.50 (M: \$3.00).
- OGS 4. Clinton sandstone papers presented at the Ohio Oil and Gas Association Winter Meetings 1961 to 1978** (abridged reprint of 1980 volume). 228 p., 1985. \$25.00 (M: \$20.00).
- OGS 5. The new Clinton collection--1985**, edited by Jack Gray, Andy Maslowski, Warren McCullough, and W. E. Shafer (2nd printing). This edition includes a transcript of "Deeper Clinton-Medina drilling in southeastern Ohio" from a March 1986 Ohio Geological Society meeting. 257 p., 1985. \$25.00 (M: \$20.00).
- OGS 6. Principles of seismic exploration**. A collection of papers from a seminar presented at the 1987 AAPG Eastern Section meeting. 1987. Out of print.
- OGS 7. Computer-aided analysis of geologic data**, edited by Lawrence H. Wickstrom. A collection of papers from a seminar presented at the 1987 AAPG Eastern Section meeting. 100 p., 1987. \$15.00 (M: \$12.00).
- OGS 8. Maps and cross sections of the Cambrian and Lower Ordovician of central Ohio**, by G. G. Shearrow. 31 p., 8 pls., 1987. \$12.00 (M: \$10.00).
- OGS 9. An update on Ohio's subsurface geology**. Proceedings from the October 1993 technical symposium held in Canton, Ohio. 11 papers, separately paged, 1993. \$25.00 (M: \$20.00).
- OGS 10. The Ohio Geological Society anthology, the Morrow County, Ohio "oil boom" 1961-1967 and the Cambro-Ordovician reservoir of central Ohio**, edited by William E. Shafer. 452 p., 1994. \$25.00 (M: \$20.00).
- OGS 11. Major natural gas plays of the Appalachian basin and surrounding areas**. Proceedings from the October 1994 technical symposium held in Canton, Ohio. 11 papers, separately paged, 1994. \$25.00 (M: \$20.00).
- OGS 12. Structural influences on oil and gas reservoirs**. Proceedings from the October 1995 technical symposium held in Canton, Ohio. 14 papers. 129 p., 1995. Out of print.
- OGS 13. Enhanced recovery--historical development and future potential in Ohio and the Appalachian Basin and Integration of geology and geophysics in exploration**. Proceedings from the October 1996 technical symposium held in Akron, Ohio. 16 papers. 209 p., 1996. \$25.00 (M: \$20.00).
- OGS 14. Ohio Geological Society Fifth Annual Technical Symposium**. Proceedings from the November 1997 technical symposium held in Akron, Ohio. 11 papers. 117 p., 1997. \$25.00 (M: \$20.00).
- OGS 15. Petroleum seismology in the digital age**. Course notes from the Ohio Geological Society's 3-D Seismic Seminar presented at the 1998 AAPG Eastern Section meeting. \$20.00 (M: \$15.00).
- OGS 16. Fossil collecting in the Silica Formation at Sylvania, Ohio**. Guidebook for the 1998 AAPG Eastern Section meeting. 16 p., 1998. \$7.00 (M: 6.00).
- OGS 17. Into the new millennium: The changing face of exploration in the Knox play**. Proceedings from the Sixth Annual Fall Symposium held in Akron, Ohio, October 1999. 16 papers. 120 p., 1999. \$25.00 (M: \$20.00).
- OGS 18. Exploration and Development of the Trenton-Black River of the Appalachian Basin**. Presentation workbook from the PTTC workshop held in Canton, Ohio, April 25, 2002. 10 papers. 2002. \$15.00 (M: \$10.00).

To order any of the Society's publications contact: The Geologic Records Center, Ohio Division of Geological Survey, 2045 Morse Road, Columbus, Ohio 43229-6693. Telephone (614) 265-6576. FAX: (614) 447-1918. E-mail: geo.survey@dnr.state.oh.us.