

**Appalachian  
Region**



# Newsletter

Winter 2002-2003

Vol. 4 No. 1

## CONTENTS:

From the Director's Desk .....	1
Fractured Reservoir Expert Predicts Good Things for West Virginia .....	2
Call for Papers Issued for AAPG-SPE 2003 Eastern Meeting .....	4
Papers Needed for "Appalachian Case Histories" Session .....	4
Attention Students and Employers! Student Job Quest Coming to the Basin .....	4
Stripper Well Consortium Releases Call for Proposals from Members .....	5
Geologists Honor Trenton-Black River Pioneer with Grant Endowment .....	5
Seismic Imaging of Structural, Stratigraphic and Diagenetic Plays Workshop March 6 <sup>th</sup> .....	6
Reservoir Characterization Workshop Scheduled for April 22-23 .....	7
Well Safety for Well Tenders Workshops to Be Offered .....	8
There's Still a Role for Geology in Deep Gulf of Mexico Plays .....	8
Detailed Surface Structure Maps of Selected Pennsylvania Quads Available .....	9
New Map and Digital Data Set of Original Ohio Land Subdivisions Available .....	10

## FROM THE DIRECTOR'S DESK...

We seem to be having a real, old-fashioned winter here in the northeast. Temperatures are down and gas prices are up, so everybody should be happy, right? Well, maybe not everybody, but at least we're all moving forward and many are optimistic about 2003.

Here at PTTC we are still trying to lock up some interesting workshops for you in 2003. Right now we have scheduled a **3-D Seismic workshop** for

March 6 in Morgantown, the day after the combined evening meeting of the Appalachian Geological Society and the Pittsburgh Association of Petroleum Geologists. Bruce Hart, a well-known geophysicist from McGill University in Montreal will teach this one-day workshop. Bruce currently is teaching seismic interpretation to his students with a dataset from the Trenton-Black River play. Because of space limitations, we can only accept the **first 60 registrants** to this workshop, so please make your

plans early.

We have scheduled the workshop on **“Applied Reservoir Characterization for the Independent Operator”** for April 22-23 at the Racetrack Holiday Inn in Washington, Pennsylvania. Roger Slatt, former Regional Lead Organization (RLO) Director of the Rocky Mountain Region who is now with Oklahoma University, and Sandra Mark, current RLO Director of the Rocky Mountain Region at the Colorado School of Mines, will teach this two-day school.

Matt Vavro has agreed to organize a workshop on **Well Safety for Well Tenders**. Right now we are looking at an April 29 date in Lexington, KY and a possible follow up on May 1 in Buckhannon, WV. Our target audience for these workshops is the large number of well tenders who keep our wells in operating condition. Because we do not have a mailing list that includes most of these well tenders, we will rely on producing companies and the oil and gas associations to help us get the word out to the appropriate people. If you are a producer, please consider sending your field people to this one-time, low-cost workshop.

Your regional Producer Advisory Group (PAG) held a meeting on December 2<sup>nd</sup> prior to the fractured reservoir workshop, and selected a number of potential workshops for 2003. In addition to the three mentioned above, the PAG members requested that we attempt to develop and host workshops on basin-centered gas accumulations, dolomitized reservoirs, coal-bed methane engineering, Trenton exploration methods, basic geophysics and the Oriskany Play. Currently, we are working to develop each of these topics into a Focused Technology

Workshop. The PAG will meet again in Washington, PA on April 22; so if you have any comments or suggestions, please contact one of the members.

A small, but hard working group of petroleum geologists and engineers in the Pittsburgh area is finalizing the technical and social components of the **AAPG-SPE 2003 Eastern Meeting**, which will be held in Pittsburgh next September. The PTTC Appalachian Region is actively involved in this effort. To make this meeting a success, we need a solid technical program, which is dependent on people like you who are willing to submit an abstract and show up to present a paper. Of special interest to PTTC is the proposed session on **Field Studies or Case Histories**, which PTTC will co-host or sponsor. Case Histories are continually identified by workshop attendees as an important technology transfer method. Please read the short note below and seriously consider being a part of this session.

We also need a response from students and potential employers who are interested in participating in the first **AAPG Eastern Section Student Job Quest**. Again, please read the short note below and consider registering for this event if you are in the market for an entry-level geologist or engineer. And, those of you who teach geology, petroleum engineering or education in a northeastern college or university, please pass the word along to your students to watch the meeting website at <http://www.aapg-spe-2003.org>.

## FRACTURED RESERVOIR EXPERT PREDICTS GOOD THINGS FOR WEST VIRGINIA

The well-known fractured reservoir expert, Ron Nelson, had some good things to say about the Trenton-Black River Play; especially in reference to the fracture network that underlies West Virginia. During his day-long, PTTC-sponsored Focused

Technology Workshop on December 3 in Washington, Pennsylvania, Nelson was taking participants through the calculation of pore volume (in barrels) for a fault zone. When dissolution porosity was added to the single porosity model,

participants could see a 20-fold increase in pore space. “I would be shocked if we didn’t have something like this going on in West Virginia,” Nelson stated. He predicted that secondary porosity associated with fracturing and faulting of the Trenton-Black River interval will be discovered and documented as the play continues.

Nelson opened the workshop by making the point that fractured reservoirs are not economic; they only become economic when we apply new technology to enhance production from good wells and eliminate the drilling and completion of non-commercial wells. Because there is a great variability among fractured reservoirs, we must learn from every development well we drill, and change our development strategy on the fly. Nelson referred to this process as the “evergreen” style of reservoir development. This is an extremely important process, he said, because 50 percent of our production comes from just 7 or 8 percent of the wells we drill, if we drill vertical wells in a regularly spaced pattern. We must learn to look for patterns in shear and extension fractures and learn to see the logic in deformation and the origin and orientation of stress patterns. The coal literature is a good starting point, he said, because the cleat directions will give us the regional fracture orientation, and the paleo sigma 3 direction will cut the maximum number of fractures per foot in a well bore. Thus, we should approach normal faults from the foot wall and thrust faults from the hanging wall to intersect the maximum number of fractures.

Nelson also cautioned that “all positions along the fault are not created equal” due to variations in the stress that caused the fault before, during and after slip. When the orientation of the fault changes, extension fractures form along the outside of a bend in the fault, and compression fractures form on the inside of a bend in fault direction. Most of these fractures form on the hanging wall, and the extension fractures are more permeable than the compression fractures. So if you know the geometry of the fault you can predict the location, type and relative permeability of the fractures along it.

Normal faults can be inverted by later compression. Examples of this can be found associated

with the Rome Trough. The older portion of this type of fault exhibits a normal component, whereas the younger portion is a thrust fault. Secondary faults can form parallel to the major inverted faults, but if they format an angle, then we get a strike-slip component. Nelson said that the distribution of faults and stress state that created the faults is important in the development of dolomite in the Albion-Scipio trend.

Nelson discussed the importance of horizontal drilling, and provided an example of 62 horizontal wells that had been drilled without regard to fracture orientation. These wells had been drilled in all directions to find the locations of unproductive reservoirs. However, the wells made a good dataset that could be used to orient future wells more favorably to the fracture swarm direction. Once you know the fracture intensity in the swarm, in fractures/meter, the width of the swarm, in meters, and the distance between swarms, in kilometers, you can begin to calculate pore volume using a single porosity reservoir simulation model.

Nelson cautioned participants not to get overly optimistic and put their wells too close together in a fractured reservoir play. Conductivity, he said, is still the biggest “bugaboo” in fractured reservoir work. The fewer matrixes you have behind a fracture network, the more critical it is to see what is in the fractures. If a core is cut and high-angle fractures are observed at one point and low-angle fractures are observed lower in the core, this indicates that a fold is being cut. The tectonic-scale fractures are pervasive. Fold-related fractures parallel both outcrop-scale and micro-scale fractures, so fractures observed in core can be scaled up to the tectonic scale.

His workshop was very well attended, with 142 participants, of which 109 were from industry. Attendees indicated that this was one of the best workshops that we had offered under the PTTC program, and that Dr. Nelson was one of the best instructors that we had ever brought into the basin.

## CALL FOR PAPERS ISSUED FOR AAPG-SPE 2003 EASTERN MEETING

Mike Canich and Paul Dudenas, Technical Program Co-Chairmen for the combined AAPG-SPE meeting to be held in Pittsburgh, September 6-10, 2003, have released the Call for Papers for this historic meeting. Papers are being sought in nine technical areas: **Gas Technology and Storage**, which could cover storage performance, horizontal well applications, field development and optimization; **Coal-Bed Methane**, including discussions of resource identification, drilling, completion, stimulation and production; **Horizontal Well Technologies**, including short and long-radius techniques and regional applications; **Reservoir Characterizations**, including well testing, core analysis, seismic methods, NCR applications, production logging and coal-bed methane formation evaluation; **Case Histories**, a key session on field development strategies, pilot projects, projects of regional interest and utilization of 3-D seismic; **Stimulation/Production Enhancement**, covering formation damage assessment, stimulation treatment

design, low-pressure liquids removal and stripperwell enhancement; **Formation Evaluation**, including coring, NMR applications, production logging and new mud logging techniques; **Drilling and Completion**, including horizontal well bores, slim hole drilling, coiled tubing applications and air drilling advancements; and **Economic Evaluation**, including reserve analysis and risk management.

Abstracts are due March 10, 2003, and may be submitted to either AAPG or SPE by paper, by e-mail or by mailing a floppy disk. For more information, go to <http://www.aapg-spe-2003.org>.

Abstracts that are selected for presentation will be printed in the Program and Abstracts volume for the meeting. In addition, abstracts selected by SPE will require that a paper be submitted in advance of the meeting. All papers will be included in the Proceedings volume.

## PAPERS NEEDED FOR "APPALACHIAN CASE HISTORIES" SESSION

The Appalachian Region of PTTC will co-host the special session on Appalachian Case Histories at the upcoming AAPG-SPE 2003 Eastern Meeting. PTTC decided to do this because of the importance placed on case histories and field studies by participants at our various PTTC Focused Technology Workshops. PTTC's role in this session will be to recruit high-quality case histories from operators. Ideally, talks should integrate both geology and engineering and discuss the successful application of a new or different technology. These technologies could range from a specific field application to reservoir

characterization that was used to determine a successful plan of action.

Oil and gas operators in the basin are encouraged to submit appropriate abstracts prior to the March 10 deadline. This session is expected to be the most popular of all sessions at the combined meeting, so a large room capable of seating up to 400 registrants has been reserved. You should want to be part of this session.

## ATTENTION STUDENTS AND EMPLOYERS! STUDENT JOB QUEST COMING TO THE BASIN

The Steering Committee for the AAPG-SPE 2003 Eastern Meeting has announced that the first ever AAPG-hosted **Student Job Quest** will be held in conjunction with the September 6-10 meeting in

Pittsburgh. This year's event, which will be a slight variation of the highly successful Student Expos held in Houston and Oklahoma, will be open to all students, both geologists and engineers. Chuck Noll,

former AAPG national Secretary, will chair the event. The Student Job Quest will begin on Saturday night with a reception in the Hilton Hotel for students and potential employers from the oil and gas and environmental industries. On Sunday morning, students who wish to participate can put up posters of their research work in the exhibit area. Industry participants will have adequate time to examine these posters and then schedule interviews with the students. Each student will be allowed a 4' x 8' poster area.

Students who wish to participate will need to submit abstracts well in advance of the meeting, so they need to begin planning now. These abstracts will be included in the Program and Abstracts volume for the meeting. In addition, all posters will be judged for the best student poster award that is given annually by the AAPG Eastern Section

## STRIPPER WELL CONSORTIUM RELEASES CALL FOR PROPOSALS FROM MEMBERS

Joel Morrison, Executive Director of the Stripper Well Consortium (SWC) has announced through the SWC website that proposals from members will be due in late April, and will be for research conducted from July 1, 2003 through June 30, 2004. The contract year is a departure from the contract year during the first two rounds of funded research.

The Stripper Well Consortium, a partnership among industry, government and academic institutions, funds research in three core areas: reservoir remediation, characterization and operations; well-bore clean up; and surface and collection optimization. During the 2002-2003 research year, the SWC funded 14 projects for a total investment of \$1,329,995. Most of these projects (8

of 14) deal with production fluids, including lifting the fluids to the surface, desalting production fluids, separation of fluids and stripper well flow lines.

Two of the recent awards have gone to Penn State and the West Virginia Geological Survey for engineering studies and reservoir characterization of the Wileyville and Taylorstown oil fields, in West Virginia and Pennsylvania, respectively.

To submit a proposal, you must be a member. The membership year coincides with the calendar year, so this is the month to join if you are not currently a member. Visit the SWC website at <http://www.energy.psu.edu/swc/>.

## GEOLOGISTS HONOR TRENTON-BLACK RIVER PIONEER WITH GRANT ENDOWMENT

The Eastern Section of the American Association of Petroleum Geologists (ES-AAPG) has announced that they have established an endowed grant in the AAPG Foundation named in honor of Richard W. (Dick) Beardsley. The new Beardsley Grant will be bestowed annually on a graduate student to support study and research of petroleum,

energy minerals and related environmental geology in eastern North America.

Beardsley, of Charleston, West Virginia, was honored in 2001 as AAPG's first recipient of their Outstanding Explorer Award for his discovery and definition of hydrocarbon production from the Lower

Paleozoic Trenton-Black River interval, which redefined geologic understanding of the Appalachian basin. Beardsley is credited with locating the discovery wells that kicked off this play in New York and West Virginia.

Beardsley first identified the deep potential of the Appalachian basin in 1974 when he began assimilating data and exploring for gas in units ranging from the Middle Devonian Onondaga reef play down through the Ordovician carbonate section. Redefining and mapping the Middle and Lower Ordovician section of the basin became a life-long project.

In 1989, he was elected Vice President of Geology and Geophysics for Columbia Natural Resources, where he implemented an agenda of exploration and mapping of the Appalachian basin. His prediction of the prolific nature of the Lower Paleozoic rocks was proven by Columbia in the 1990s. He retired from Columbia in March 2001 and became an officer of Triana Energy, where he continues to explore new targets in the Appalachian basin.

The Eastern Section founded the Richard W. Beardsley Grant with a \$5500 contribution, which hopefully will be matched by societies affiliated with the Eastern Section. However, individuals and companies also can contribute to this fund through the AAPG Foundation, a 501(c)(3) public foundation

which is qualified to receive tax-free contributions in support of worthwhile educational and scientific programs or projects related to the geosciences. Individuals, companies and geological societies who are interested in contributing may do so through the AAPG Foundation, Beardsley Grant, P.O. Box 979, Tulsa, OK 74101.

First consideration for receipt of the grant will be given to a deserving geoscience graduate student whose thesis or dissertation is related to petroleum exploration in the region of the Eastern Section of AAPG (Appalachian, Illinois and Michigan basins). If no qualified applicant is nominated under these criteria, consideration will be given to any deserving geoscience student enrolled in a college or university, public or private, located within the geographic boundaries of the Eastern Section, which includes the eastern Canadian provinces.

The grant will be awarded for the first time in the Spring of 2003.

For further information on how to contribute or how to nominate a student for this award, contact Pete McKenzie, [petemack@earthlink.net](mailto:petemack@earthlink.net), or 614-781-3271. PTTC thanks Pete McKenzie for contributing the information for this article.

## SEISMIC IMAGING OF STRUCTURAL, STRATIGRAPHIC AND DIAGENETIC PLAYS WORKSHOP MARCH 6, 2003

PTTC has contracted with Bruce Hart, of McGill University, to teach a one-day workshop on the "Seismic Imaging of Structural, Stratigraphic and Diagenetic Plays" on March 6<sup>th</sup> in Morgantown. This workshop will examine the many uses of seismic data, both 2-D and 3-D, to image structural, stratigraphic and diagenetic plays, with examples from the Appalachian basin.

New seismic techniques are leading to improved exploration and development strategies for

geologically complex reservoirs, such as those in the Trenton-Black River Play. Unfortunately, the rapid growth of these new technologies has made it difficult for producers and explorationists to assess or understand how, or if, these new seismic methods could help them.

This course has been designed for geologists, geophysicists, engineers, managers and others who will be involved in 3-D seismic interpretation, making spending decisions that affect 3-D acquisition



or processing, or working with results that are based on 3-D seismic interpretations. No rigorous geophysical background is required to take this short course.

Major topics to be covered include: geologic characteristics of principal play types; fundamentals of the seismic method; importance of data acquisition and processing on seismic data quality; 3-D seismic interpretation; and advanced analyses, including coherency, inversion, attributes AVO and curvature.

Dr. Hart held positions with the Geological Survey of Canada, Pennsylvania State University and the New Mexico Bureau of Mines prior to accepting his current position at McGill in 2000. Since 1993

his research interests have focused on the integration of 3-D seismic and geologic data for reservoir characterization. He is the recipient of the Southwest Section AAPG's Distinguished Educator Award for 2002, and has taught short courses on seismic interpretation in Houston, New Orleans, Denver, Calgary and Cairo. He has published the results of his research in the AAPG Bulletin, Geophysics, The Leading Edge, the Oil and Gas Journal and the Journal of Sedimentary Research.

For further information, go to the Calendar link on our homepage.

## RESERVOIR CHARACTERIZATION WORKSHOP SCHEDULED FOR APRIL 22-23

A two-day focused technology workshop on "Applied Reservoir Characterization for the Independent Operator" is scheduled for April 22-23 at the Holiday Inn, Washington, PA. The workshop will actually include two components. Roger Slatt will emphasize compartmentalized reservoirs and routine techniques for detecting these compartments, and on the afternoon of the second day Sandra Mark will focus on the effective use of computer technology that is available for reservoir characterization research, with an emphasis on cost considerations for the small, independent operator.

Dr. Slatt's course outline includes an introduction to reservoir characterization, followed by segments on examples of compartmentalized reservoirs, geologic controls on porosity and permeability, seismic porosity detection in carbonate reservoirs, flow unit determination and characterization and the basics of sequence stratigraphy. Then the workshop will begin to focus on distinct depositional environments and reservoirs developed within them, including fluvial, eolian, shoreface, deltaic and deep-water turbidite deposits. The final three sections of the workshop will be on borehole image and dipmeter logs and their applications, and structurally compartmentalized reservoirs.

Dr. Mark will present a sampling of cost-effective computer technology that will assist the independent operator in reservoir characterization work, beginning with a discussion of low-cost software for mapping, cross section, log analysis, 3-D seismic interpretation and 3-D modeling and visualization. The second section will review free and low-cost viewing software that can use free data from the USGS and other agencies for GIS mapping. Log analysis software, including neural network technology, the most important computer advance for reservoir work in many years, will be the next topic, followed by a data cost-benefit analysis. Should you buy digitized data or digitize it yourself? Where can you find free or low-cost data on the Internet? This section will lead into the next segment, a discussion of sophisticated search engines and document delivery systems that make it easier to do geological and engineering literature research on-line. The workshop will end with a discussion of electronic reports; eliminating the paper, and delivering information in an interactive, dynamic format using common desktop software. For further information go to our calendar and click on the link provided.

## WELL SAFETY FOR WELL TENDERS WORKSHOPS TO BE OFFERED

PAG member Roger Willis and Matt Vavro have agreed to organize and teach two one-day workshops for well tenders, in Allen, KY near Prestonburg on April 22<sup>nd</sup> and in Buckhannon, WV on April 24<sup>th</sup>. The PAG discussed and endorsed this type of workshop during their December meeting.

Much of the workshop will focus on safety, including emergency first aid, natural gas and oil safety, basic chemical handling and safety, drum handling and safety, oil field pressures and safety, oil field electric safety, fitting and wrenching safety, driving safety and ATV safety. Other segments will review technology and making calculations, such as soap and soaping procedures, tubing plunger lift technology, calculating fluid volumes from surface pressures, compression basics, dehydration basics and basic

reservoir concepts. Troubleshooting will be another element, including production equipment troubleshooting, basic chart integration, basic field meter calibration and repair, proper valve installation and use, regulator choice, installation and use, troubleshooting pump jacks, electronic metering and control and casing plunger lift.

Matt Vavro has more than 20 years of experience in the Appalachian basin with Quaker State, Mark Resources, Vista and Clearwater, and currently provides oil and gas management consulting, production enhancement, operation optimization, facility design and construction and technical training to clients.

## THERE'S STILL A ROLE FOR GEOLOGY IN DEEP GULF OF MEXICO PLAYS

AAPG Distinguished Lecturer Cindy Yeilding made a case for using basic geology to understand deep, high-cost, high-tech plays in the Gulf of Mexico, particularly BP's Thunder Horse discovery. Speaking to a group of largely graduate students and faculty members at West Virginia University on January 29<sup>th</sup>, Ms. Yeilding said that it was necessary to go back to a basic exploration philosophy rather than continuing with their conventional attribute-driven play philosophy after drilling seven straight dry holes in an attempt to offset the Mars discovery in the early 1990s.

Following these seven dry holes, the BP team "took a drilling holiday" to learn what the Mars play really was. To do this, it was necessary to forget their acreage position and do the geology of the entire region and sub region, rather than continuing their attempts to identify prospects only with seismic. The team spent nearly two years (1991-92) conducting a regional geologic study to identify source, reservoirs and seal lithologies, using their knowledge of

depositional systems and rocks in updip settings on the shelf and even on shore. This enabled them to develop a chronostratigraphic chart of thick deposits versus areas of suspected non-deposition. During the next year (1992-93) the team conducted a sub regional study, looking for elephants in one of the areas where they had identified a thick rock sequence with good reservoir potential. At this point in time, the team then shifted back to a high-tech mode of exploration.

In 1994, they had 3-D seismic only in the northern half of the play area, but by 1997 the entire area had been shot in a cooperative venture with other companies. They began drilling their first well, the Metallica prospect, but due to drilling problems, did not get down to the target before their second well, the Thunder Horse prospect, discovered a 1 billion barrel field.

The message for the students seemed to be that moving into new areas challenges traditional exploration philosophies in the deep-water Gulf



plays, requiring a back-to-the-basics approach that focused on the geologic elements of the area, beginning with the source rock and working up. This approach steered the team toward targeting older stratigraphic intervals in previously untested deeper structures.

Ms. Yeilding received a Master's degree in geology from the University of North Carolina after

completing her thesis on the Mississippian Greenbrier Limestone in West Virginia. She currently is BP Global Geoscience Technology Manager, Upstream Technology Group, Houston, Texas.

## DETAILED SURFACE STRUCTURE MAPS OF SELECTED PENNSYLVANIA QUADS AVAILABLE

Phil Martin, retired petroleum geologist and Appalachian photogeologic specialist, has announced the availability of surface geologic structure maps for 10 quadrangles in Clearfield, Indiana and Cambria counties, Pennsylvania. An additional 15 quadrangles will be offered at a later date in this mapping project that is designed to provide insight into Upper Devonian depositional surface paleotopography as well as deep exploration leads in the Huntersville Chert, Oriskany Sandstone and Trenton Limestone.

According to the author, the careful mapping of surface geology on aerial photos in the low-dip Appalachian Plateau Region provides structural details that reveal hints of deep structure, and possibly even subsurface stratigraphy. When the geology from the aerial photos is accurately transferred to 7.5 minute topographic maps, the intersections of outcrop traces and topographic

contours produces a dense network of control points for surface structural mapping. Experienced geologists can then recognize subtle, and not so subtle, relationships between surface structure and subsurface structural and stratigraphic frameworks influencing natural gas trapping in Upper Devonian sandstone and Huntersville-Oriskany reservoirs. Previously unmapped structures, including folds, terraces, "steep zones," and CSDs (cross strike discontinuities) may provide insight into deep potential and may contribute to local and regional geologic understanding. For further information, contact Phil Martin in Bridgeport.

PTTC provides this information as a public service announcement, and it should not be implied that we necessarily endorse these products.

## New Map and Digital Data Set of Original Ohio Land Subdivisions Available

The Ohio Department of Natural Resources has announced the availability of a new map and digital data set depicting the original land subdivisions of Ohio. The full-color, wall-size map and data set were produced by the ODNR Division of Geological Survey.

According to the Geological Survey, this map represents the first digital compilation of the original Ohio land subdivisions on a statewide basis. Ohio was the first state where lands were subdivided by the federal government and then sold off or given to the public. Soon after the end of the Revolutionary War, land in Ohio was sold to assist in paying the national debt or was given to veterans of the war to compensate them for their service. Various land subdivision schemes were tried in portions of Ohio before the standard Public Land Surveying System

(PLSS) of subdivision was adopted. The PLSS scheme, originally applied in northwestern Ohio more than 200 years ago, subsequently was used for surveying the rest of the United States.

The map and data set were compiled for use at county-to statewide-scale purposes, and cannot be used for applications such as determination of property boundaries. However, the map and data do provide an important index of the original land subdivisions for use as a geographic and historic reference and within many geographic information system (GIS) applications.

For further information contact Lawrence Wickstrom, ODNR Division of Geological Survey, (614) 265-6598.