

## Futures in Energy

### Opening Minds to Careers in the Petroleum Industry

With demand for skilled workers increasing and competition among industries heating up, it is more important than ever to promote science, mathematics, and technology education to students of all ages. To meet the future needs of our industry, we must help ensure an adequate supply of scientists, engineers, and technicians for energy-related research and production activities.



Milby High School was the first academy on board; nine teachers attended industry training at the PETEX Houston Training Center in March.

### Starting Early

Every year, The University of Texas at Austin (UT-Austin) opens its doors so thousands of elementary and secondary-level students can experience the incredible enterprise of education and become inspired to attend college. At UT-Austin's annual Explore UT event in March, exhibit booths displayed information and provided hands-on activities on learning and career options. PETEX participated with a lively exhibit to introduce young Texans to the oil and gas industry.



Thanks to Nancy Hanson, executive assistant, and Amanda Koss, graphics designer, of PETEX for creating the engaging displays for young Texans to enjoy.

The oil rig made the exhibit easy to find. In the Drilling for Oil game, a mini derrick stood atop a lease and visitors could search for oil on a map of Texas. Prizes were awarded to the lucky producers who turned the wheel and "struck oil." There was also an interactive Slang Game to introduce visitors to the industry's unusual lingo.

### Setting Sail

At a time when career paths are being explored, high schools are providing an excellent training ground to introduce the many interesting aspects of the oil and gas industry.

The Independent Petroleum Association of America (IPAA) agrees. Doris Richardson is director of the IPAA Education Center in Houston and is helping establish three area high school Academies for Petroleum Exploration and Production Technology. With help from an IPAA Educational Foundation grant, the academies will provide the necessary resources, information, and contacts to help facilitate careers in the oil and gas industry. Opening doors this fall are academies at Charles H. Milby, Westside, and Lamar High Schools in the Houston area. A total of 250 top-performing students and 35 teachers have been selected for the pilot program.

Teacher training is an important component of the program. The academy teachers will go through a three-phase immersion training, one week of which includes the PETEX Fundamentals of Petroleum training course at the Houston Training Center.

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## PETEX PERSPECTIVES

From Director Greg McCormack



Today, with the click of a mouse, you can travel around the world and explore deep below the earth's surface. You can grab a block of rock, turn it on its side, and zoom in on the detail of enormous geological formations.

The world of computerized imaging is just one avenue used by petroleum explorers. Three-D computerized visualization powered by high-end graphics software is helping geologists identify reservoirs at faster rates than ever before. Today, scientists can see formations underground in detail and with clarity.

That's good, because with world energy demand rising, we need every tool possible to find and extract more oil. New technologies can help us, but can methods be developed and implemented fast enough? The race for more oil is on.

Already at work are state-of-the-art methods. For example, horizontal drilling can tap pockets of petroleum previously unreachable. And advances in remote drilling and production operations let us explore in deep waters further and further offshore. The limits keep being expanded.



Field trips such as this to BJ Services Company help students at the Houston Training Center see what happens in a lab. BJ specializes in worldwide oilfield services.

But can innovations such as directional drilling and 3D imaging help us replace known oil supplies before they are used up? Can the industry develop its engineers and field workers to innovate and apply new tech methods to get the oil we need in time?

At the core of new technologies are well-trained personnel that support oil companies' efforts, big and small. In all areas, workers' attitudes are key in developing a top-performing, highly skilled workforce. A commitment to safety and a willingness to question and learn are attitudes paramount to successful operations.

Developing appropriate attitudes in personnel is as important as acquiring specialist skills and knowledge. This makes an ongoing training program more important than ever—and more challenging. Technology can turn hidden resources into reserves if we can successfully train people to use the tools. And that's what PETEX does best.

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- Mr. Steve Vorenkamp, Wild Well Control, Inc.

### Pubs + Courses: A Dynamic Duo

Did you now that many of the PETEX courses have publications designed to supplement the course material? We make every effort to provide comprehensive training, and that means supplying a reference you can use after class and on the job.

See our Summer Training Schedule on the back of this newsletter for courses that have associated publications. Visit [www.utexas.edu/ce/petex](http://www.utexas.edu/ce/petex) or order at 800-687-4132.



## Rule of 7-11 Controls Wells

By Steve Vorenkamp, Director of Training, Wild Well Control, Inc.

Eighty percent of all events today involve a chain of occurrences or warning signs. Wild Well Control, Inc. calls this “the Rule of 7-11.” We have determined that 7 to 11 warning signs of a blowout will occur prior to an event. If they are not responded to, they will become the sequence of a disaster. Awareness and effective communication are the best defense against this “domino effect.”

Wild Well Control, an oilfield emergency response company and a training specialty group, focuses on communication as part of its training

*Teaching good team safety and communication skills are the bedrock of successful operations.*

curriculum. Wild Well helps the oil industry avoid potential disasters such as blowouts through its training division that teaches our industry how to avoid problems.

We are constantly comparing statistics from events to identify key factors contributing to the failure of controlling a well. As a whole, our industry spends millions of dollars

every year on safety training, crew awareness about well control, offshore safety operations, and best drilling practices. Teaching good team safety and communication skills are the bedrock of successful operations. A well-trained employee should only do the job for which they were trained to ensure they pay full attention to their area of responsibility.

It is critical that our current industry has personnel that are mindful of “four Rs”: Recognize changes in daily routine, React to changes with the proper Response,

and develop a healthy Respect for Mother Nature’s ability to make life interesting. Continuously promoting the safe and proper management of risks also means that training divisions such as ours and PETEX are prevailing.

One major element is worth noting: our industry is and always will be a dangerous business by the very

## CALL FOR EXPERTS

If you are a subject-matter expert and would like to review publication projects in the following areas, please contact us:

- Balanced pressure drilling
- Open-hole fishing
- Spread mooring systems
- Jacking systems and rig moving
- Diving and equipment
- Offshore operations
- Oil and gas fundamentals

Contact Fran Kennedy-Ellis, Assistant Director, at 512-471-6160 or email [fkennedyellis@austin.utexas.edu](mailto:fkennedyellis@austin.utexas.edu).

nature of what we do and what we try to accomplish. We can search for oil and gas anywhere in the world and technologically push the limits of our human capabilities to find commercial reserves in the remote jungles of Peru, the deserts of Yemen, the ice fields of Northern Russia, and beyond. But no matter the location, best practices must apply.

To do the job, more is expected of personnel to ensure a safe and profitable venture. In the words of my wise father, “You are the best deterrent—but only if you are paying attention.”

*Steve Vorenkamp directs training for Wild Well Control, Inc., a world-renowned well control company whose training division operates schools for the International Association of Drilling Contractors and the American Petroleum Institute. Vorenkamp also instructs classes on well control at PETEX’s Houston Training Center and is a member of the PETEX Advisory Board. He has 35 years of oil industry experience specializing in pressure detection and target drilling.*



Vorenkamp, known for his field expertise and engaging teaching style, frequently instructs well control classes at PETEX’s Houston Training Center.



## SUMMER TRAINING

For the complete 2008-09 schedule, visit [www.utexas.edu/ce/petex](http://www.utexas.edu/ce/petex)

School	CEUs	Length	Dates	Tuition
* Introduction to Offshore Operations	3.3	4½	July 14-18	\$1,720
* Elementary Electronics for Nonelectrical Personnel	1.9	2½	July 22-24	\$1,250
* LNG: Basics of Liquefied Natural Gas	3.3	4½	July 21-25	\$1,600
* Field Handling and Plant Processing of Natural Gas	7.1	9½	Aug. 4-15	\$3,100
* Instruments and Controls	3.4	4½	Aug. 4-8	\$1,525
Introduction to Programmable Logic Controllers	1.9	2½	Aug. 12-14	\$1,160
Supervisory Control and Data Acquisition Systems	1.9	2½	Aug. 19-21	\$1,160
Advanced Petroleum Measurement	3.3	4½	Sept. 22-26	\$1,625
* Basic Petroleum Measurement	3.3	4½	Sept. 15-19	\$1,625
* Pipeline Technology	10.8	14½	Sept. 22-Oct. 10	\$4,520

\* Indicates courses that have associated publications available by enrolling in the training class or by ordering from the *2008 Petroleum Extension Service Catalog*; call 800-687-4132.

All courses are held at the PETEX Houston Training Center, 2700 W.W. Thorne Blvd., Houston, TX 77073. Training dates are subject to change.

To enroll, call 800-687-7052; fax 281-443-8722; or email [petexhtc@www.utexas.edu](mailto:petexhtc@www.utexas.edu).

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