Letter addressed to Jimmy Lozano and Andy Ellis:

Thank you so much for donating the AADE Tech Conference Bags to the Engineering Team students at the Harmony School of Excellence. The picture below shows the elementary students

These students recently competed in the Odyssey of the Mind Regional Tournament. Odyssey of the Mind is an international educational program that provides creative problem-solving opportunities for students from kindergarten through college. Team members apply their creativity to solve problems that includes building mechanical devices. This year’s teams had to build mechanical arms and also competed to build a 18g balsa wood structure that could hold the most weight. They bring their solutions to competition on the state, and World level. Thousands of teams from throughout the U.S. and from about 25 other countries participate in the program. Three of the four HSE teams qualified to go the state competition this year and they will all be proudly taking their AADE Tech Conference bags with them.

Thank you again for your generous donation.

Regards,
Kristina Hardwick
HSE Engineering Team Assistant Coach

![Picture of elementary students with AADE Tech Conference bags]
I began writing this article talking about the drastic downward spiral of the rig count and the low commodity price for gas. After a few sentences, I immediately realized that this type of depressing news circulating throughout our industry and around the globe will not inspire anyone. With that, I decided to talk about our stellar organization, the AADE. As most of you are aware, the AADE was founded by a forward looking group of individuals in New Orleans in 1978. From there, it has expanded into nine independent licensed chapters governed by an AADE National Board. Our total membership today exceeds 5,000 with the Houston Chapter providing nearly half of that number. I recently learned that the AADE Houston Chapter celebrated its 20th anniversary. Our mission statement is clear and concise: To provide the forum for the dissemination of practical technology to those employed or interested in the drilling industry. The Houston Chapter engages in four premier social events that assist in generating membership and providing financial support for our organization and the community. Over the past five years, our organization has donated over $700,000 to various charities within the Houston area. Our Chapter supports two Student Sections at the University of Texas and Texas A & M. These student sections have always been an integral component of our organization but recently and under new management, we see a renewed focus and dedication. As I ramble to a close and given today’s environment, I view our organization as healthy and ready to meet tomorrow challenges.

**CHAPTER BUSINESS:**

We began the year with our Las Vegas Night which has turned into one of the premier events of the metroplex. This was the second year the venue was hosted at the Marriott Woodlands and George Scoggin along with his committee just continue to knock it out of the park. Good job guys!

Next we find ourselves in New Orleans for The AADE National Tech Conference and Exhibition. This technical event attracted 343 attendees including with 129 students.

The Houston Chapter annual Golf Tournament held at Cypresswood Golf Course was well attended this year and fielded 88 teams. The weather was crisp and clear with plenty of food, beverages and prizes for all the attendees.

Just around the corner is the Saltwater Fishing Tournament which will be hosted in Galveston. The tournament is scheduled for May 29 and 30 so please make plans to attend this outstanding event.

The Drilling Technology Committees have been active this year. The Fluids Management Group has already met twice discussing issues regarding displacement and lost circulation while cementing and fluid issues for unconventional reservoirs. The Deepwater and Emerging Technologies Group has also been equally as busy discussing such topics as Managed Pressure Drilling and Dual Gradient drilling utilizing subsea mudlift technology. These meetings are always well attended and provide a great platform for technology exchange.

Houston will again host the National Fluids Conference in April of 2010. The committee held their kick-off meeting last week and discussed roles and responsibilities for various individuals.

**CLOSING REMARKS:**

Being the eternal optimist that I am, I believe our industry will see some recovery soon. Our chapter continues to grow and our luncheons are drawing larger crowds monthly. Please tell a friend about AADE and encourage them to join. For those of you that are already members, please continue to support our Houston Chapter by attending our functions. Thanks again.

Steve Hayes
President
AADE Houston Chapter
AutoTrak eXpress™—Overcomes Challenges of Complex Well Profiles

Woodford Shale of Oklahoma, is emerging as one of the fastest-growing natural gas fields in North America. Due to low porosity and permeability, complex well profiles and extended length laterals are required to maximize productivity.

Long laterals posed several drilling challenges, such as excessive slide drilling time, difficulty controlling well trajectory, unacceptably low penetration rates, high torque, and high drag. Engineers determined that wellbore tortuosity and high friction factors caused inefficient transfer of weight on bit and reduced rate of penetration.

To overcome these challenges, Baker Hughes’ AutoTrak eXpress™, a new state-of-the-art automated rib-steering closed-loop system specifically designed for drilling 3D wellbores was developed. Since the introduction of this innovative system, many wells have been drilled in North America with build/drop of 8°/100 ft with excellent results.

The new design has significantly improved drilling performance. The results achieved are excellent control over the well trajectory in the curve and lateral, improved transfer of weight to the bit, minimum torque and drag. Drilling complex well profiles has increased the length of laterals by several hundred feet. This has enabled additional recovery of gas, and the days required to drill the lateral interval have been reduced by more than five days.

For more information contact: sandeep.janwadkar@inteq.com or visit www.answerswhiledrilling.com/autotrack.

New Lost Circulation System Reduces Nonproductive Rig Time

Lost circulation problems significantly increase nonproductive rig time as well as the costs associated with lost time and fluids. A system that will stop the losses and also withstand the increased pressures associated with drilling ahead can drastically reduce these unwanted costs.

BJ Services’ new StrataSeal™ lost circulation system is a time-, temperature-, and pH-activated polymeric pill that can be mixed and pumped at low viscosities through a bit or open-ended pipe. Once activated, it forms an ultrahigh-viscosity gel with both elastic and adhesive properties. Nonproductive time is reduced due to the fast setting time, which quickly indicates if there is a need for further pills. Due to its elastic quality, as pressures increase and fractures widen this system will deform to fill fractures and maintain wellbore stability, reducing the risk of future losses.

With four systems — HV50 and HV25 (high viscosity), XL (crosslink), and HT (high-temperature crosslinked) — it can be used over a wide range of applications, temperatures (40°F to 220°F) and densities (6 to 23 ppg). It can also be used for temporary zonal isolation and cementing off bottom.

For more information contact your local BJ Services representative or visit http://www.bjservices.com.

Directional Drilling Technical Breakthrough

Encore Bits based in Houston Texas has begun field testing a new directional PDC bit. The SideWinder™ is unique in that there are no gage pads whatsoever. In lieu of traditional gage pads, this novel design continues the cutting structure around the sides of the bit.
and even upwards, for maximum lateral cutting capability. This patent pending design was conceived to optimize PDC bits for directional work, reflecting the current and future trends in the drilling market.

Multiple test runs have indicated this design can produce build rates equal to or exceeding 3-cone bits, while drilling at PDC penetration rates. Sliding in horizontal laterals has been reduced by 60% or more, resulting in ROP increases of 25-150%. Trips for motor and BHA changes are being eliminated due to the ability of this bit to build angle at sustained high rates on reduced offset motors, and improve ROP in both the curve and the lateral.

SideWinder™ bits can be run on steerable motors or RSS, and improve directional response markedly on either tool.

For more information contact: Jim Shamburger at jshamburger@encorebits.com, 281.310.6197 or visit www.encorebits.com

Expandable Technology Increases Savings

Enventure Global Technology added to their toolbox of solutions by combining solid expandable tubulars and swellable elastomers to eliminate the need for underreaming and cementing operations. In a multi-well project, 6 x 7-5/8 in. SET® Openhole Systems garnered the planned objectives of reducing drilling time and lowering the cost-per-foot to drill. This expandable system application facilitated a slimmer profile that enabled 10-3/4 in. surface casing, 7-5/8 in. intermediate casing, and 4-1/2 in. production casing at ~15,000 ft TD. Drilling time was reduced on average 19 percent per well and drilling costs were lowered $79 per foot.

After over 40 successful applications for this project, Enventure initiated another step change that significantly impacted wellbore construction by utilizing swelling elastomers above the expandable liner shoe. In previous installations, the 6 x 7-5/8 in. SET® Openhole System required underreaming the 7-1/4 in. hole section for effective zonal isolation. Hard rock formation characteristics and the efficiency of solid expandable tubulars with the swellable elastomers eliminated the need for underreaming because the swellable seal effectively isolated the zone in lieu of cement. Dispensing with underreaming and cementing operations saved another four to six days of rig time, equating to an additional ~$300,000 (USD) in savings.

For more information contact: Joe Wallace at 281.552.2200 or joe.wallace@enventuregt.com.

New Development in Flange Separating Systems

THIN JACK™ is a unique and revolutionary flange separating system, recently developed in the UK and now available in the U.S. Gulf of Mexico, exclusively from Francis Torque Service. Hydraulic jacks so thin they can be inserted between any two corroded flanges on wellheads, trees, DSAs, bonnets or any API - ANSI flanges. Hydraulic jacks so tough they can be pressurized to exert hundreds of tons of force, causing the toughest of problem flanges to separate.
Ultra thin, ultra tough, sheets of stainless steel are computer cut into flat, semi circular shapes, then meticulously seamed together to create a 2mm thin, stainless steel envelope designed to fit between any two circular flanges. When pressurized, the tough metal envelope expands up to 10mm and exerts thousands of pounds of separating force.

When combined with THIN SHIM™, our matching stainless steel shims designed to eliminate any voids and THIN FLATE™, our high pressure pump and manifold system, the THIN JACK™, flange separating system can exert up to 1,000,000 pounds of pure brute force, separating the toughest of stuck together flanges.

For more information contact: General Manager, J. Dodd Smith at dodd@francistorque.com or 800.368.7153 or visit www.francistorque.com/FRANCISTORQUE/flangeseparation.html.

GaugePro XPR Expandable Reamer

Hughes Christensen’s GaugePro™ XPR expandable reamer eliminates the chronic reamer problems facing the industry: complexity, activation, downhole failures, and vibration/stability dysfunction. The reamer remains closed until triggered, opens on command, reams an in-gauge hole, and closes and comes out of the hole properly. With the pilot bit design synchronized to the expandable reamer in a fit-for-purpose drilling assembly, operators are achieving
- improved performance
- reduced vibration
- superior hole quality

SIMPLE DESIGN

The one-piece body is constructed from high-tensile, fatigue-resistant material. This design with proprietary interchangeable, hardfaced wear pads eliminates body welding, heat-affected zones, and crack propagation. Strategically placed interchangeable nozzles for each cutter blade improve cuttings removal and transport. The blade motion—angled radially outward and upward—is a fail-safe measure to ensure cutter blade retraction.

- First patented drop-ball method to trigger an expandable reamer, which eliminates premature triggering independent of WOB, flow, or BHA pressure.
- First documented, significant vibration reduction by limiting aggressiveness of the pilot bit without reducing ROP using patented depth-of-cut control technology.
- First documented use of an expandable stabilizer above a reamer to significantly increase drilling efficiency by eliminating collar whirl for higher ROP with lower WOB.

For more information: visit www.bakerhughes.com/gaugepro.

Tension Nut improves Load Accuracy

JETYD Corporation introduces the first tension nut that achieves bolt load accuracy to within 5.5% as measured by Gausine in Holland. An ASME approved product, the Loadisc is designed for use on flanges with or without gaskets. The torque machine to apply this disc is equipped with an inner and outer socket. The disc is dry-lubed to reduce usual friction scatter. This allows hands free operation in any position and a reliable facial friction of the nut is assured. Action and reaction become coaxial. The usual friction causing side load is eliminated.

A threaded segment in the inside of the disc creates a counter-nut effect with the nut thread. It stops the bolt from turning as the nut turns. Further turning of the nut creates an axial bolt elongation which pulls along the thread segment if the inside of the disc.

The counter-nut effect remains intact throughout the assembled state of the fastener, so that despite the use of a low-friction dry lubricant, inadvertent nut loosening even under vibration is eliminated.
Focus on New Technology

This inexpensive ASTM compliant disc perfects leak free bolting without affecting the integrity of your fastener.

For more information contact: Tom Ludwig, JETYD Corporation, 1511 Ashford Parkway Houston, Texas 77077, or call 832.654.1860.

Low Pressure AutoChoke for Managed Pressure Drilling

Computer assist and/or manual operations using different Managed Pressure Drilling (MPD) technologies have identified precise control of the back pressure choke at low pressures and variable flow rates as a requirement. To effectively use these drilling techniques M-I SWACO has developed a Low Pressure AutoChoke (LPAC) system designed for quick and precise response and control at low pressures for MPD.

The LPAC provides automatic and precise pressure control and regulates casing pressure dynamically at typical low controlled drilling pressures including pressures below 100psi. As drilling continues, within the target pressure margins, the LPAC maintains the preselected back pressure with precision and with or without operator intervention.

The LPAC has three primary components the Auto Choke, the Hydraulic Pressure Unit (HPU) and the Electronic Console (eConsole). The AutoChoke is installed in the drilling manifold and typically one or two AutoChokes are required. The HPU provides the fluid power to operate the AutoChoke and also provides optional control of the AutoChoke at a secondary location. The eConsole has a small footprint and is a remote console that electronically operates the Auto-Choke and with its space-saving and quiet design allows the console to be easily located in the driller's cabin.

For more information contact: Mike Tangedahl at mtangedahl@miswa.com

NaviPulse - New Unmanned MWD System Reduces Drilling Costs

Navigate Energy Services is dedicated to providing the latest in drilling technology and their newest offering, NaviPulse represents the latest in MWD systems. This is an unmanned system that provides Inclination, Azimuth and Toolface measurements. This rugged new system provides a cost effective high-tech alternative for monitoring, surveying and steering of vertical and deviated wells. When used properly the systems not only reduces manpower at the well-site but can also enable faster ROP, straighter & smoother wellbores and the elimination of non-productive time (NPT) related to surveying. In vertical wells, angle control can be achieved by controlled drilling due to the availability of accurate high resolution surveys on every connection. Maintaining a vertical wellbore in a planned vertical well has the obvious effect of eliminating costly correction runs that require steerable motors, MWD and associated personnel. When run in conjunction with a steerable motor, the availability of tool-face data on demand enables accurate steering. Since the system is highly accurate and repeatable, the need to run and re-run wireline surveys is completely eliminated as is the need for gyro surveys. This system is totally unmanned and requires no well-site assembly of downhole components. The system arrives at the well-site in a custom 15 ft. non-magnetic drill collar assembled, tested and all ready to drill!

For more information contact: Daryl Chicken at 832.300.0030 or Email: dchicken@navigateenergy.com
NOV Brandt Constant-G Control™ Technology

One of the limitations of current shale shakers is that their performance varies as the feed changes. Standard shakers operate with vibratory motors running at a constant speed, with a constant force output; resulting in a nominal acceleration on the basket. As soon as mud is added to the system (i.e. more mass), the acceleration (g-force) decreases.

Standard shakers typically have a higher than necessary acceleration when they are lightly loaded just to be able to have adequate acceleration when heavily loaded. Thus, screen life is not optimized when the shaker is lightly loaded, and throughput is not maximized when heavily loaded.

A significant improvement for shale shakers has been achieved with the introduction of the Constant-G Control™ Technology. This new development measures basket acceleration and sends a signal to a VFD to maintain constant g-force even under varying loads. This results in the same performance in top hole as bottom hole. Field testing indicates that a Constant-G Control™ shaker is capable of screening finer than a similar standard shaker while maintaining a similar fluid end point. Use of this technology should allow for improved solids removal efficiency at the shaker.

For more information contact: Eric Scott at 936.523.2638

MWD Azimuthal Surveys in areas of Magnetic Interference

A well path is usually determined from a list of measured depth, inclination, and azimuth values. The standard measurement-while-drilling (MWD) survey system determines azimuth using magnetometers. This down-hole survey standard is inadequate for defining the wellbore azimuth in the vicinity of magnetic interference caused, for example, by the close proximity to casing. The standard alternative is to use gyroscopic measurements, either wireline based or as part of an MWD tool. Measurements using gyros take longer, are subject to accuracy issues and require additional surface equipment and/or personnel.

Many of these problems are alleviated with Gravity MWD™. This method allows for the determination of inclination and azimuth change – and, as a consequence, azimuth – in areas of magnetic interference. It is based on simultaneous measurement made with two sets of rigidly connected, tri-axial accelerometer assemblies. In general, the operator monitors magnetic interference with the MWD, switch into Gravity MWD mode where required, and then returns to standard MWD surveying mode as soon as the interference is cleared. Applications include: drilling out of casing, coming off a whipstock, drilling re-entry work and drilling past a fish. The figure shows a vertical section and plan view of a case study wellbore that was sidetracked with the tool.

For more information contact: Allan Rennie at allan.renniej@pathfinderlwd.com, call 713.996.1299 or visit www.pathfinderlwd.com.
Innovative Density Imaging Service from Pathfinder

PathFinder® recently introduced an innovative density imaging service, designed to optimize borehole geosteering. The primary measurement of the iFinder™ Density Imaging Service is bulk density imaging. Bulk density images are a graphical representation of the variation of bulk density around the circumference of the borehole. Imaging of this measurement is possible due to the collimated source and detectors of the density tool, which focus the density measurement on the formation directly in front of the sensor. As the tool rotates, data is collected around the entire circumference of the borehole.

The bulk density measurement uses a patented stand-off weighting technique to select a sub-set of the rotating data with minimum stand-off. Similarly, our patented imaging algorithm employs a weighting technique to focus the density measurement on discreet azimuths, or sectors, around the borehole. Since the algorithm does not “bin” data, there is no technical limit to the number of azimuths that can be imaged; however, the practical limit derived from the azimuthal resolution of the detectors is 32 sectors for memory images, while images of up to 16 sectors can be transmitted up-hole in real-time.

For more information contact: Heather Heacock at Heather.Heacock@pathfinderlwd.com or 713.996.1709.

Upgraded Flow Simulator Available from Stratamagnetic Software

HEOSIM V3.1, “Non-Newtonian Eccentric Annular Flow Simulator” models steady axial flow of Newtonian and non-Newtonian power law fluids in general eccentric annuli, e.g., concentric circles, off-centered circles or annular regions with arbitrary internal (drill collar with stabilizers or square drill collar) and external (borehole with washout, cuttings bed or fracture) contours. The axial momentum equation with general stress tensor is solved subject to no-slip conditions using boundary-conforming curvilinear meshes for high physical resolution everywhere and for high accuracy and numerical efficiency. The methods are exact geometrically and fluid-dynamically; “slot flow,” “narrow annulus,” and “equivalent hydraulic radius” approximations are not used. Capabilities have been upgraded. Pressure gradient or flowrate may be specified; also, positive or negative rates-of-penetration may be prescribed. The model was first reported in “Borehole Flow Modeling in Horizontal, Deviated and Vertical Wells” (Gulf Publishing, 1992) and “Computational Rheology for Pipeline and Annular Flow” (Elsevier, 2001) by author Wilson Chin, Ph.D., MIT. Computations require just seconds, and detailed color plots for axial velocity, apparent viscosity, viscous stress and shear rate are automatically produced. Applications include hole cleaning, pressure losses, and managed pressure drilling.

For more information contact: wilsonchin@aol.com at Stratamagnetic Software, LLC, Houston, Texas.

Wild Well Control testing Advanced Simulator for Blowout and Dynamic Kill

We are testing a recently developed simulator for advanced modeling of blowouts and dynamic kill. Named “Dynextran” for now, it is designed to meet today’s needs for HP/HT and highly prolific wells. It simulates blowout rate, kill rate, fluid density and other dynamic kill parameters needed to restore control when other kill options are not effective. It helps to determine
the operational feasibility of pumping the kill either through the drill string in the blowout well or through a relief well. A major technical advancement is its high speed and easy setup, allowing multiple scenarios and kill options to be evaluated in a short time. Also, it is a transient multiphase simulator with live graphic display (see attached snap shot), providing comprehensive visualization of both blowout development and effect or progress of the kill operation. Pump rate, fluid density and other operational parameters can be changed in response to well conditions, just as in an actual kill operation. The simulations are driven by the OLGA* engine from Scando-}

power-SPT, and has the same look and feel as their Drillbench suite. Commercial service is expected late 2009, complimented by our current proprietary dynamic kill simulator, DynX*. 

For more information contact: Fred Ng, Wild Well Control, Inc. at fng@wildwell.com.

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Focus on New Technology

Protecting Your Company In International Sales Contracts

As a rule, it is important for you to have your attorney review all agreements of any significance (you set the risk threshold.) A comprehensive review of the relevant contracts surrounding a particular sale of goods should include reviewing the master purchase or sale agreement; the seller’s documents related to the sale (quotation, sales order, invoice) and the buyer’s RFP/RQF and purchase order. The cost to resolve a dispute after it has arisen is invariably more expensive than negotiating beneficial terms on the front end of the sale.

It is critical to focus on a number of key provisions designed to protect you including:

- Indemnities
- Limitation of Damages
- Exclusion of Incidental & Consequential Damages
- Liquidated Damages/Delay Penalties
- Insurance
- Warranties
- Termination
- Delivery/Risk of Loss

If your company does business in or with other countries or states, there are a number of state, federal, and international conventions that directly impact you, including: the Foreign Corrupt Practices Act, the Trading with the Enemy Act, United Nations Convention on Contracts for the International Sale of Goods, the Carriage of Goods by Sea Act, and International Commercial Terms. I will briefly discuss 2 of these areas.

The Foreign Corrupt Practices Act covers corrupt corporate practices involving foreign officials and either domestic concerns or entities that issue securities covered by U.S. laws. The U.S. Department of Justice prosecutes criminal violations of the FCPA. Under the act, companies are required to report their own violations of the law. Full disclosure of payments to foreign governments by companies in the oil and gas business is clearly a priority for the new Congress. The proposed Extractive Industries Transparency Disclosure Act would require oil and gas companies to report how much they pay foreign governments, national oil companies and affiliated entities in royalties, bonuses and taxes to produce and transport oil and gas.

In conclusion, ignore these issues at your own risk. Always have a good commercial attorney review your sales and purchase agreements to ensure that you are protected. In these circumstances, an ounce of prevention is worth more like a ton of cure.

By Randy Burton, Partner, Burleson Cooke L.L.P.
Drilling Technology Groups

DETG November Speakers

The program topic was: “Rigs: Supply vs. Demand for the 21st Century”

- **Collin Gerry** (Raymond James Financial Group - Energy Analysts) Presenting – “Rig Supply/Demand in the Crystal Ball”

Collin Gerry joined Raymond James in May of 2005 as a research associate covering the oilfield services sector and became an analyst in 2007. His primary focus is on diversified oilfield service companies, manufacturers, and offshore drillers. Prior to joining Raymond James, Collin worked for National Oilwell Varco in a project management/business analyst capacity. Collin graduated from the McCombs School of Business at the University of Texas with a bachelor of business administration degree in finance and a minor in Spanish.

- **Tom Horton** (Senior Manager of Business Development, Parker Drilling Company, Alaska Business Unit) Presenting – “New Arctic Rig Technologies for Extreme Drilling Environments”

This presentation summarizes recent developments in rig design and delivery for extreme arctic environments such as Alaska’s North Slope. The discussion includes unique rig design features and a new “Arctic Center of Excellence” for leveraging drilling knowledge and best practices.

Tom Horton has a BS in Geological Engineering from The University of Mississippi, and an MBA from Rice University. He started working offshore during summers while in College and then joined Anadrill Schlumberger as a Field Engineer following graduation. Tom worked for Schlumberger for 11 years in field operations, Training & Development, and Sales & Marketing. He then joined Nabors Drilling and worked in Business Development, Investor Relations, and Operations. In 2007 Tom joined Parker Drilling Company.

- **Chip Keener** (Director of Technical Marketing, Transocean Offshore) Presenting – “A Contractor’s View of the Deepwater Rig Market”

This presentation is a look from the Contractor’s perspective at: Deepwater opportunities; supply demand curves on rig availability; a snapshot of Construction costs and how they have moved in recent years along with a look at who is building rigs; the (operational) experience of speculators; and a summary of challenges being faced, namely Late Deliveries, Commissioning Challenges, NPT, Operating Performance and People.

Chip has 30 years experience in the industry, the last seven with Transocean in recent capacities as operations manager worldwide deepwater … director deepwater marketing … director performance management … and his current posting as the director of technical marketing. His earlier postings include regional manager level responsibilities in the North Sea, West Africa and Brazil.

Chip has a BS degree from the US Naval Academy and an MS in Systems Management from the University of Southern California. He holds unlimited merchant marine licenses as Master and 3rd Engineer, and is a retired Captain in the US Naval Reserve.

FMG October Speakers

The Program Topic was “Drilling Waste Management”

By Randy Burton, Partner, Burleson Cooke L.L.P.

- **Mike Richards** (Technical and Capital Sales Manager, NOV Brandt) Presenting - “Rocky Mountain Challenges”

Presentation Summary: A major operator faced with the challenges of drilling up to 4,000 wells in a proactively low-impact method chose to evaluate two strategies for Solids Control and Waste Minimization on the drill sites. Key objectives for the project were to operate in a safe and environmentally responsible manner while progressively reducing drilling waste volumes and increasing drilling efficiency through proper fluids management. Presently, state regulators are re-writing the policies
regarding many drilling operations, which when implemented will place even stricter guidelines in place.

Mike Richards has worked with NOV Brandt in varying capacities since 1979 including Engineer, Product Development Manager, Senior Project Manager, Training Coordinator, Technical and Capital Sales Regional Manager. Mike has worked in various locations in North America for NOV Brandt and currently resides in Denver Colorado where he is Technical and Capital Sales Manager. Mike was a contributing author to the ASME Shale Shaker Handbook published in 2005 and has also written papers for SPE, AADE as well as served on the API 13 Industry Task Group. He holds a B.A. degree from the University of Houston and continuing education credits from diverse affiliations.

- **Tony Davis** (Managing Partner, Q’Max Solutions Inc.) and Kevin King (Sales Manager, Q’Max America) Presenting - “MudStripper™ Water Conservation Technology”

Presentation Summary: The MudStripper™ is proprietary technology designed for water conservation. It allows drilling from spud to TD with a solids free system (Q’Clear), with density / inhibition in solution. Surface mud is stripped and reused for the subsequent interval. The main hole mud is stripped of any remaining solids to reclaim water for subsequent use on consecutive wells. This is done within the confines of rig mud tanks and the clarifier tank on the MudStripper™. It can also eliminate floc tanks, extra generators and, in most cases, desanders, desilters and centrifuges. Lease size can be reduced because the sump size or pit is reduced or eliminated. Trucking for water hauling & disposal is greatly reduced due to the recycling and reuse of the water.

Tony Davis started in the oil patch in 1979 as a Mud Engineer after studying Chemistry at Memorial University of Newfoundland. Tony worked in the field for 10 years throughout Canada and the Gulf of Mexico holding various technical positions for a major drilling fluids company including Research Technician, Technical DF Programmer and Country Operations Manager. He founded Q’Max in 1993 with four business partners and helped grow the company into a multinational, full service fluids provider. Tony is responsible for the development and commercialization of numerous product and system technologies, including a proprietary water conservation technology used in the drilling process.

Kevin King started as a mud engineer in 1977 after leaving the University of Calgary. He has worked in Western Canada as a mud engineer, operations manager, sales representative and sales manager; Brazil as a senior mud engineer offshore; Egypt as a senior mud engineer; Indonesia as a drilling supervisor; Nigeria as an operations manager; Ecuador as an operations manager and country manager, as well as, work in Bolivia and Argentina as a operations consultant for state run oil companies. He has also been involved in the development, field trials and technical papers for innovative fluid systems.

- **Mike Morgenthaler** (Principal Consultant, CUT-POINT, Inc.) Presenting - “Measuring Performance Improves Results of Closed Loop Operations for Devon in the Fort Worth Basin”

Presentation Summary: “Closed loop” and “dewatering” poorly describe the work required when drilling without a reserve pit. Devon Energy has 30+ rigs drilling horizontal wells in the Fort Worth basin, most without reserve pits. They contract service companies to operate the equipment needed to treat drilling fluid related waste for either re-use or land farm application. In late 2007, Devon implemented a program to measure “closed loop” operations with the goal of quantifying benefits and standardizing performance. The analysis of the data led to performance improvement, cost savings, and some surprising reassessments of benefits.

Mike specializes in designing rig equipment to improve the mechanical treatment drilling fluids and efficiently handle fluid related drilling waste. Mike has been employed in the upstream oil and gas industry since the early 1980s when he entered the industry as a mud engineer for IMCO Services. He has a degree in mechanical engineering from the University of Texas at Austin.
January 27, 2009 FMG Meeting

TOPIC: “Get the Mud Out & the Cement In!”

SPEAKERS:

- Bob Carpenter (Consultant-Cementing Specialist, Chevron Energy Technology Company)

Bob Carpenter has 31 years experience in oilfield cementing and is a Cementing Consultant with Chevron ETC. Before joining Chevron/Texaco in 1999, Bob worked 21 years in field operations, research, and technical services with ARCO and BJ Services. Bob is active in API, SPE, and has served on the SPE Drilling and Completion Advisory Committee. Bob has authored 15 SPE papers and received 23 US patents on cementing technology.

- Kirk Harris (Cementing Specialist - Central Drilling Group, Oxy)

Kirk Harris is the global cementing advisor for Occidental Oil & Gas, and is based in Houston. He has 26 years of experience in cementing research and operations. Before joining Oxy in 2006, Kirk was a cementing advisor for Halliburton in Europe, Asia, and the Gulf of Mexico. He has supervised cementing operations in more than 30 countries, has authored several technical papers, and holds six cementing patents. Kirk graduated from Purdue University in 1982 with a degree in civil engineering.

- Bill Hunter (Halliburton)

Bill Hunter is Product Manager for Halliburton Cementing, with responsibility for new product innovation, development and commercialization. He has 18 years of experience with Halliburton most of which has been spent in applying Cementing technology to address customer well challenges. He has significant experience of most types of cementing operations, offshore, on-shore, deepwater, swamp, HPHT, geothermal, high rate gas wells and thermal recovery wells. Currently based in Houston, prior to this posting he worked in Indonesia, West Africa and the North Sea and is the author of seven industry papers on the subject of well Cementing.

February 26, 2009 DETG Meeting

TOPIC: “Annular Pressure Build-up (APB) Mitigation”

SPEAKERS:

- Ben Bloys (Strategic Planning & Business Manager, Chevron)

Presented – “Trapped Annular Pressure: A Spacer Fluid that Shrinks” (Available Online)

Ben Bloys worked for 17 years at the ARCO Technology Center before joining Chevron in 2000. He is currently the Strategic Planning & Business Manager for Chevron's Drilling & Completions Technology Group. He also manages a number of National Lab and University technology programs. Ben holds a BS degree in chemistry from Angelo State University (1984). He has 27 technical publications, 13 patents and is a member of SPE, AADE, ACS and API.

- P. David Pattillo II, Ph.D. (Tubular Technology Specialist, BP America)
Presented – “Mitigation Strategies for Annular Pressure Buildup: Benefits and Headaches”

Dr. Pattillo has been a member of the Tubular Design Team in EPT Drilling since 2004. He specializes in casing design, finite-element analysis and failure analysis and holds various positions in both API and ISO. David holds a B.S., M.S. and PhD in Theoretical and Applied Mechanics from the University of Illinois at Urbana-Champaign.

- **Chris Mancini** (Deepwater Technical Solutions, Oceaneering) (Available Online)

  Presented - “Trapped Annular Pressure Buildup Mitigation by means of Inter-annular ROV Tap”

  Chris Mancini has worked in the oilfield as an engineer supporting ROV tooling and operations since 1997. He began his career with Oceaneering International, Inc. in 1999. Chris has contributed to numerous projects for the Oceaneering Intervention Engineering group including workover control systems, wellhead resurfacing tools and subsea instrumentation. He specializes in high profile emergency intervention tooling solutions.

March 24, 2009 FMG Meeting

Speakers Left to Right: Dr. Hisham Nasr-El-Din, Shawn Rimassa, Phillip Kaufman and Dave Cramer

**TOPIC:** “Fluid Issues for Unconventional Reservoirs – Shale Gas Drilling”

**SPEAKERS:**

- **Dave Cramer** (ConocoPhillips) (Available Online)

  Presented – “Stimulating Unconventional Reservoirs: Lessons Learned and Areas for Improvement”

  Mr. Dave Cramer is an Engineering Fellow in the ConocoPhillips Completions Technology group in Houston, TX. He has 32 years of experience in designing, implementing and evaluating well stimulation treatments. Dave has authored 37 papers, delivered over 150 technical society presentations on well completion and performance topics, and is a co-inventor of two U.S. patents. Dave is a registered Professional Engineer in the state of Colorado.

- **Dr. Hisham A. Nasr-El-Din** (Texas A&M University) (Available Online)

  Presented – “Fluid Issues for Unconventional Reservoirs – Shale Gas Drilling”

  Dr. Hisham A. Nasr-El-Din is a professor and holder of the Stephen A. Holditch Faculty Fellowship at Texas A&M University in petroleum engineering. Previously, he worked for 15 years as Principal Professional and Team Leader of the Stimulation Research and Technology Team, EXPEC ARC, Saudi Aramco. His research interests include well stimulation, formation damage, cementing, drilling fluids, two-phase flow, enhanced oil recovery, rheology, conformance control, interfacial properties, adsorption, and non-damaging fluid technologies. Nasr-El-Din has several patents and has published more than 340 technical papers. Nasr-El-Din holds BS and MS degrees from Cairo U. and a PhD degree from the U. of Saskatchewan, Canada, all in chemical engineering.

- **Phillip Kaufman** (CESI Chemical) (Available Online)

  Presented – “Critical Evaluations of Additives Used in Shale Slickwater Fracs”

  Dr. Phillip Kaufman serves as Vice President of Chemical Technology of CESI Chemical, a subsidiary company of Flotek Industries, Inc. In this role, Dr. Kaufman is responsible for all aspects of the CESI Chemical’s research and development policies, objectives, initiatives, technical services, and quality control. Before joining CESI Chemical, Dr. Kaufman worked for BJ Services, CARBO Ceramics, Inc., and also for the United States Department of Energy in Pittsburgh, PA. He has authored over 15 technical publications.
Drilling Technologies Study Group

and patents. Dr. Kaufman received a Bachelor of Science degree in Chemistry from The Ohio State University and a Doctor of Philosophy in Chemistry from Clarkson University in Potsdam, New York.

- **Shawn Rimassa** (Schlumberger) (Available Online)

  Presenting – “Are You Buying Too Much Friction Reducer Because of Your Biocide?”

  Dr. Shawn McCleskey Rimassa is a Senior Support Engineer for Schlumberger Oilfield Services. Shawn has

been with Schlumberger for more than 5 years having previously graduated with her Ph.D. degree in organic chemistry from the University of Texas at Austin. Shawn received her Bachelor’s of Science degree in chemistry from University of Central Oklahoma. The bulk of Shawn’s experience is the development of stimulation fluids including cross-linked and linear gel systems (including slickwater) and specialty chemicals (biocides, scale inhibitors, etc). Shawn is a published author in peer reviewed journals and is also the primary inventor on three recent patent applications with Schlumberger.

Casino Night

Another successful and well attended “Casino Night” at The Woodland’s Waterway Marriott was held in late January. Special thanks to George Schoggin and everyone else for another fantastic time as we look forward to another great experience next year. Money was raised and has been earmarked for Boys & Girls Country, Big Brothers Big sisters, SEARCH Homeless Shelter and the Houston Rodeo Art. Please visit our website for additional pictures of this event.
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Shawn has been with Schlumberger for more than 5 years having previously graduated with her Ph.D. degree in organic chemistry. She received her Bachelor’s of Science degree in chemistry from University of Central Oklahoma. The bulk of Shawn’s experience is the development of stimulation fluids including cross-linked and linear gel systems. She has reviewed journals and is also the primary inventor on three recent patent applications with Schlumberger. She looks forward to another great experience next year. Money was raised and has been earmarked for Boys & Girls Country, Big Brothers Big sisters, SEARCH Homeless Shelter and the Houston Rodeo Art. Please visit our website for additional pictures of this event.