

CHANGES IN LA

BUT WE AREN'T QUITE THERE YET

The Craft & Hawkins Department of Petroleum Engineering has settled in comfortably to our second new home in the past three years, and we enjoyed the spring 2015 semester as the students slowly began to find our temporary home. If you have not found time to visit yet, we are located on the first floor in the spacious, new (to us) confines of the Old Forestry Building just to the north of Patrick F. Taylor Hall. With only five boxes left to unpack, we are ready to embark on another new semester as construction across the parking lot to our south is well underway.

The timeline of the construction period is as such: since May 2015, renovation of the north side of Patrick F. Taylor (where we previously resided) and construction of the ChemE Lab addition has been underway; by October, the precast of the

building will be erected and the exterior of the building will transform to resemble the artist rendering above; in July 2016, the north end of the building and lab addition will be complete and efforts to move the teaching and research labs will begin; by September 2016, construction of the south side of Patrick F. Taylor will proceed; and in November 2017, all renovation is expected to be complete. The department anticipates that faculty and staff will relocate to our new offices the following month. At this time, the construction is ahead of schedule.

A news release written and published by the State of Louisiana's Division of Administration on May 12 reports that, "Once complete, Patrick F. Taylor will be among the largest free-standing engineering buildings in the nation, with more than 462,000 square feet that includes laboratory space, a 250-

> seat auditorium, academic support center, and addition connected by an atrium.

Taylor said, 'The renovations and expansion Patrick Taylor Hall at LSU will help

"Phyllis A view of the progress from the northwest end of PFT on Aug 6

Continued on Pg 4



raft & Hawkins epartment of Petroleum Engineering

IN THIS ISSUE

MESSAGE FROM THE CHAIR PERTT LAB WORKOVER AND TURNAROUND/NEW LAYOUT RETIRING DR. JOHN ROGERS SMITH NOTABLE QUOTES ABOUT JOHN ROGERS SMITH OMING FACULTY AND AWARD RECOGNITION NNECTING WITH ALUMNI



MESSAGE FROM THE CHAIR

Dear Alumni and Friends,

Greetings from LSU as we hit our stride in another fall semester. This year we write to you from the Forestry Building—our temporary home while Patrick F. Taylor Hall (formerly CEBA) undergoes its \$110 million transformation. Read on for details and pictures of the renovation, news about new faculty and a retirement, and upgrades at the well facility.

Clearly, the industry situation is vastly different than last time I wrote in this column. Now, the question I

hear daily from all of you is how the downturn is affecting our students. Collectively, May 2015 grads fared quite well (as did last year's juniors in receiving summer internships). However, these results were certainly bolstered by offers made before the downturn, so the situation for May 2016 is of more concern. If there's a silver lining for employers, it's the size and strength of the class of 2016, which a number of us feel is one of the best academically we have seen. If you are in a position to hire, please make a point to take advantage of this situation.

The effect on enrollment is harder to quantify, but preliminary freshman numbers show a decrease of about



Karsten E. Thompson, Chair

25 percent relative to last fall. This decrease is welcome: coupled with enrollment other management strategies such as the higher GPA limit for petroleum students, it will help us get back to an optimal size.

While we are cognizant and sensitive to the impact of the downturn on students, alumni, and our industry partners, we have to take a long view, and our outlook is positive. LSU administration lobbied very effectively to get past threats from the state's budget problems. The department is searching for

three new faculty this academic year and is planning for significant facility upgrades at the PERTT Lab. We continue to evolve our curriculum to meet today's needs and push for excellence in teaching and research.

I'm excited to be a part of all this, and hope all of you find a way to connect with us either virtually or face to face. For those of you who live in Houston or will be at the ATCE meeting, make special note of our alumni reception at BB's Café the Saturday night prior to the meeting—see page 10.

Thanks for your support, best wishes for the remainder of 2015, and Geaux Tigers!

-Karsten E. Thompson

INDUSTRY ADVISORY COMMITTEE

The Craft & Hawkins Department of Petroleum Engineering would like to thank our current members serving on the Industry Advisory Committee and our recent graduates subcommittee:

Dr. F. Eugene Beck

Mr. Steven M. Bohnet

Mr. Lee Boothby

Mrs. Ashley Doyle Brignac

Mr. Russ Buettner, Jr.

Mr. E. Clyde Crouch

Ms. Jahnette deBlanc

Ms. Tricia Dixon

Mr. A. Norman Duplantis

Mr. John Eldred

Mr. William S. Flores, Jr.

Mr. Charles E. Gibson

Mrs. Alida Chaumont Guzzetta

Mr. Lars Herbst

Mr. William D. Hunter

Mr. Ray J. Lasseigne

Mr. Tim Lindsey

Mr. Harry J. Longwell III

Dr. Eric E. Maidla

Mr. Roy Marker

Mr. Chris Marshall

Mr. Walt Navoy

Mr. William Pecue II

Mr. James Prosser

Mr. Donald Remson

Mr. Taylor Russell

Dr. Pedro Silva Lopez

Mr. Brandon Sanchez

Mr. Michael J. Sparacino

Mr. Brian Stewart

Mr. William H. Stone

Dr. Jacob Thomas

Mr. Claiborne Vansant

Mr. Jerome F. Wenzel, Jr.

Mrs. Lauren Fogarty Woitha

Mr. Ted Zaleski

PERRT LAB WORKOVER AND TURNAROUND FOR A NEW LAYOUT

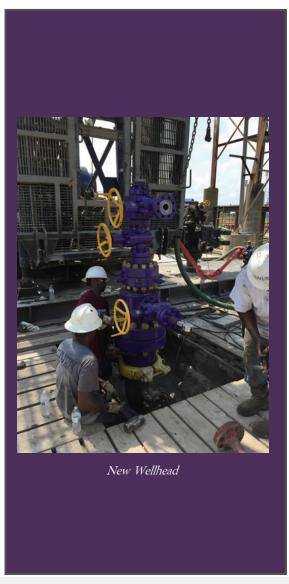
The PERTT Lab is in the middle of a dynamic change. Since early spring, work was started to allow for the workover of Well #3. Due to a leaking wellhead, the well had been out of service for some time. A unique project proposed by industry to perform downhole testing of completions tools created the perfect opportunity to rework the aging well. Preparations required the flare line to be relocated, the intermediate gas storage well piping to be disconnected, and the pipe rack and electrical systems to be removed from the area. Also, the students had plenty of house cleaning chores.

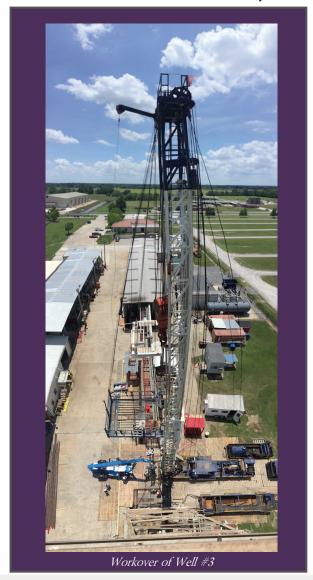
The workover began the first week of May. The old wellhead and production tube were removed. The testing was performed and was very successful in spite of the rough weather. A new purple and gold wellhead was installed along with new production tubing. The upgrades and repairs were desperately needed, yet these renovation projects have forced

us to remember and preserve the history. History is especially important when pulling up tubing and finding the tally comes up 200 feet short. After a brief panic attack, and a trip to PERTT historians (namely, Darryl and Ted Bourgoyne), the PERTT crew learned something new about something old. The missing tubing was cemented into the bottom of the well accidentally during the construction of Wells #3, #4, and #5. The tubing had to be jet cut back at a shallower depth to allow for circulation. Documenting PERTT's downhole "fence posts" on paper was likely a bit embarrassing at the time.

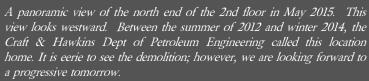
It was a fantastic learning experience in performing workovers and remediating aging wells. The lab now has new confidence, a new capability for workovers, and a functioning well. As always, there is more work to be done, but overall, the new and improved PERTT Lab is starting to take shape.

-Wesley Williams











A westward view of second floor of the north hallway. The doorway at the end of the hall was the entrance to the department chairman's office suite.

answer the much needed demand for engineers. It will also continue to honor the legacy of Patrick, my late husband, and his passion for providing educational opportunity. I am most appreciative of the support of the governor and many private donors who made this possible.' State funding makes up \$55 million of the \$110 million project. The remainder of the project was funded with private donations."

The new and renovated complex will include: expanded modern laboratory space for teaching and research; enhanced and expanded space for student services; updated graduate student space; an academic support center; dedicated capstone project space; enhanced student lounge areas and further multi-

disciplinary space for student projects. More specifically for the department, we will have renovated office spaces and a faculty conference room; a large teaching auditorium; updated teaching lab spaces; an undergraduate computer lab with more than double the current capacity; and the Chevron Reservoir Characterization Laboratory will be refurbished, among other exciting improvements.

While the change is admittedly a bit distracting at times, we are looking toward the big picture and the greater good. We look forward to the final product.

-Andi Donmyer



The west end of PFT was once a faculty and staff parking lot. On Sept 3, the footprint of the new ChemE Lab Annex is becoming more prominent.



A view to the northwest of the progress of the ChemE Lab Annex as Tiger Stadium looms in the background.



A south-facing "peek through the fence" view of the construction on the northeast corner of Patrick F. Taylor Hall. Past the grassy area and dirt mound in the picture to the left, you can see the imprint of where the northeast stairway/entrance previously resided. We eagerly await progress on this area as it is the view from our main office area.

The northeast stairwell is new construction and will house a vertical shaft designed by Dr. Waltrich, which will be used for his research experiments.



The first floor will house food services, the second will feature research lab space, and the third will have mechanical engineering faculty offices.



Pipeline is published annually by the Craft & Hawkins Dept of Petroleum Engineering, Louisiana State University, 142 Old Forestry Bldg, Baton Rouge, LA 70803. Telephone 225-578-5215. Fax 888-965-9518. Web: www.pete.lsu.edu Andi Donmyer, Designer and Editor in Chief. Email: adonmyer@lsu.edu

IN MEMORIAM

The Craft & Hawkins Department of Petroleum Engineering would like to dedicate this issue of "Pipeline" in memory of the following alumni, family, and friends who will be greatly missed:

Theodore H. Becker (B.S. 1954), George C. Calongne, PE (B.S. 1953), Billy W. Dawkins (B.S. 1949), Theodore A. Falcon (B.S. 1958), Wayne Hardin (B.S. 1962), Dale E. Hamaker (B.S. 1950), James M. Hicks (B.S. 1947), Roger G. Ishee (B.S. 1957), Jack Langford (B.S. 1953), Otho R. LeBlanc (B.S. 1958), Rep. Abel J. McNamara (B.S. 1959), Edmund McCollam (B.S. 1959), Richard V. Murphy (B.S. 1957), Jan N. Pederson (B.S. 1945), Douglas J. Ramagos (B.S. 1958), Gus L. Roux (B.S. 1954), Allen L. Smith, Jr. (B.S. 1959), Ryan W. Smith (B.S. 2010), W. C. Simpson, Jr. (B.S. 1951), John P. Street (B.S. 1948), Justin R. Spiehler, Jr. (B.S. 1962), James T. Walker (B.S. 1948), Fred Wilson (B.S. 1944), Donald R. Wisinger (B.S. G.S. 1963, B.S. PetE. 1965), and Lida L. Ziegler (B.S. 1963).

RETIRING DR. JOHN ROGERS SMITH

Craft & Hawkins Department of Petroleum Engineering celebrated the retirement of Dr. John Rogers Smith on Friday evening, December 5, 2014. While Dr. Smith officially retired from the university in June 2014, he agreed to stay and teach drilling engineering in the fall and help mentor our new faculty hire, Dr. Babak Akbari, for the well control and blowout prevention course in the spring 2015. To help us celebrate, we invited our current faculty and staff, their spouses and families, and the retired faculty and their spouses. We were fortunate that Dr. and Mrs. Ted Bourgoyne, Dr. and Mrs. Julius Langlinais, Mr. Bill Hise, and Mrs. Julia Hawkins could join us. With proximity to the holiday season, the occasion felt very much like a gathering of family to show our appreciation to one of our own. The party, held in the LSU Student Union's Atchafalaya Room, was marked with many stories, food, and laughter.

Considered one of the leading experts in well control and drilling optimization for onshore, offshore and deepwater operations, Dr. John Rogers Smith has been on the front lines using both his industry background and passion for teaching to provide a generation of students with the tools to safely operate and manage drilling operations since he began at LSU in the mid-90s. John came to LSU to obtain his MS and PhD degrees after 23 years in industry, simply so he could pursue his passion for teaching, offer a quality instruction, and carry on the tradition of hands-on teaching experience that is synonymous with petroleum engineering at Louisiana State University.

His extensive field experience led to a redesign of the well



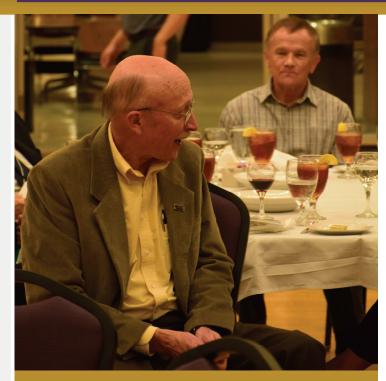
Above: As a joke to John and to thank Mrs. Gayle for her patience, the department bought retirement gifts for both John and Gayle. He is pictured holding up one of the books she received.

Left: John and Gayle seated with other retirees from the department.



control and blowout prevention lab to teach students how to prevent disasters from occurring. As a leading expert in this field, Dr. Smith was thrust into the center of one of the worst blowout disasters in the history of the United States during the Deepwater Horizon incident. Integral to the research presented to the U.S. Coast Guard and the U.S. Department of the Interior Minerals Management Service, Dr. Smith was tasked by the Joint Investigation Team to piece together the last 24 hours leading up to the fatal blowout from very minimal operational data and to provide testimony to that team on his findings. The majority of Dr.

NOTABLE QUOTES ABOUT JOHN ROGERS SMITH



Dr. John Rogers Smith tells a story while Dr. Andrew Wojtanowicz looks on. In Sept 2014, when asked who would teach the blowout prevention course if we didn't find a suitable replacement, Dr. Smith replied, "Get the guy who taught me! Get Andrew to do it!"

Smith's research focuses on managed pressure drilling and drilling optimization. In his spare time, he enjoys racing and working on cars. As teaching is ingrained in his character, senior project teams and the LSU Tiger Racing team in the mechanical engineering department often learn racing skills from Dr. Smith.

-Andi Donmyer and Richard Hughes

"It is hard to believe that 20 years have passed since we met you in the fall of 1994 at your first official petroleum function. We look back with fond memories on our time spent at LSU, and thank you for contributing to our success. Best wishes for a long and fulfilling retirement."

-Justin and Pam Brothen (BS 1998 and BS 1997)

"I'm sure he does this ever year, but I remember on the day we began to talk about bits, Dr. Smith emerged from the storage closet with what appeared to be a very real, very heavy PDC bit, which he then casually hurled into the first three rows of students. This definitely got our attention, and I'm pretty sure at least one person let out a scream. After realizing it was made of plastic, we all had a good laugh, but you can bet I'll sure as hell never forget what a PDC bit looks like. I'm not a drilling engineer, but Dr. Smith was one of the most effective teachers I've ever had, and I don't know of any student who didn't have an extraordinary respect for his knowledge and experience."

-Stephen Merrick (BS 2010)

"Dr. Smith always made class fun by making it feel like a real-world training class with tons of relative stories from his experiences. He was always focused on getting us ready for our future jobs. His classes were always fun to go to, and he was always great to work with as a TA for the lab."

-Nick Zaeff (BS 2014)



NOTABLE QUOTES ABOUT JOHN ROGERS SMITH

"In my four years at LSU, few professors had the level of impact on my career that Dr. Smith did. The degree of passion that he possessed for his work and his students was reflected in every class that I attended with him. Coming out of school and entering the industry on the drilling side, I have been astonished at the number of former students I have come in contact with that trace their interests in drilling back to his classes

The level of professionalism that he demonstrated translated into high expectations for his students, of which many went on to have great success. I believe that my success so far is due to the quality of education I received from Dr. Smith and his fellow faculty members.

To John, I sincerely wish you the best of luck and many years of enjoyment in the retirement that you have more than earned. It was a privilege to have been one of your last students."

-Kenneth Boothby (BS 2013)

"I met Dr. Smith a few years back when I came to his office to discuss me taking classes on and off during the fall semesters. He was very welcoming and helpful while at the same time withholding the department and university standards of being fair and consistent. Since then we have developed a good relationship. I took drilling in fall 2014 with him and have enjoyed it immensely. One thing I have learned about him is he is very passionate about what he does. For me this is as high a compliment you can give someone. You can tell he genuinely wants the students to learn the material so they can go out and succeed in the workplace; not just do well on his test. He has been a huge influence and help to me as I continue to pursue my degree, and for that I will forever be thankful."

-Austin Ross (current student)

"I wonder if this is going to be one of those Brett Favre' retirements. Seriously though, Dr. Smith is one of the most intelligent men I have ever met in the drilling industry. Hopefully the next teacher will be half as knowledgeable on drilling wells percussively."

-Tyler Shoultz (BS 2014)

"Congratulations on your retirement. It is greatly deserved and has been too long in coming. I consider myself fortunate that Mrs. Gayle let you come back and teach drilling. Please tell her 'Thank you' for sharing you with us one more time.

The things that impress me most from your classes are how you always put students first and the passion you have for teaching subjects you love. As both a student and instructor, I have repeatedly watched you work to ensure that students are a priority and to help us learn relevant, applicable material.

When I came to LSU, I did not know how I would fit into the petroleum industry, but you helped me find my love for drilling. For this, I will be eternally grateful. You inspired in me a love for drilling and a desire for a career, growing not only my skills, but of those around me.

I was fortunate to learn well control techniques under your tutelage. Consequently, this reinforced my love for drilling, and you provided me the ability and opportunity to teach others. The lessons I learned through teaching will empower me throughout my career.

For 17 years, you have prepared students to step in and have an impact in our industry. Because of your teaching, many students, including myself, are ready to step in and handle the 'Great Crew Change'. Thank you, Dr. Smith, for your tireless efforts and contributions, and enduring commitment to your students and LSU. I wish you nothing but the best in retirement. And in every race, may you finish first."

-Brett Downen (BS 2015)



John and Gayle Smith



Jon Knowles (BS 1995) and teaching assistant for Dr. Smith this past year; Fred Thurber, Undergraduate Coordinator; and Dr. Arash Dahi, Associate Professor



Dr. Seung Kam, Associate Professor; his wife Jeong You; Mrs. Arti Singh; Dr. Mayank Tyagi, Associate Professor

WELCOMING FACULTY AND AWARD RECOGNITION



Babak Akbari, Asst. Prof.

In the past two years, the Craft & Hawkins Department of Petroleum Engineering has been very fortunate to have hired some excellent faculty members from a very competitive group of candidates.

In January of this year, we welcomed Dr. Babak Akbari to our growing family of faculty members. Dr. Akbari completed his PhD in petroleum engineering at the University of Tulsa in 2014 and is replacing Dr. John

Smith's very big role of teaching drilling engineering and well control and blowout prevention. Kindly, Dr. Smith and Mr. Jon Knowles provided some overlap and assistance in well control and blowout prevention over the spring course. We are very excited to have Dr. Akbari here.

Dr. Yuanhang Chen, also a recent PhD graduate of the University of Tulsa, joins the faculty this fall. His research interests include transport process modeling and simulation, downhole and surface measurement, drilling fluids and drilling

a u t o m a t i o n a n d geomechanics. He will teach fluid flow and heat transfers in wellbores. We are very happy to have Dr. Chen and Dr. Akbari here.

In August 2014, we hired two additional professors to join our faculty. Dr. Mehdi Zeidouni, currently teaching natural gas engineering, earned his PhD in petroleum engineering at the University of Calgary in Canada and worked as a research associate at the University of



Yuanhang Chen, Asst. Prof.

Texas at Austin. His research interests are in analytical and numerical modeling of fluid flow in porous media.

Dr. Wesley Williams, hired in 2014 as a professional in residence, has 13 years of industry experience working on various multi-disciplined engineering projects in industry and academia. His PhD is in nuclear science and engineering from MIT. Currently, he co-teaches senior design and petrofluids and manages operations at the PERTT Lab.

-Andi Donmyer

AWARD RECOGNITION: BILL HOLDEN FACULTY EXCELLENCE

The department is proud to recognize Dr. Richard G. Hughes as the recipient of the 2015 Bill Holden Faculty Excellence Award. This is the third year that this award has been presented, and the seventh year an award of this kind has been contributed for faculty members at the Craft & Hawkins Department of Petroleum Engineering. We are very appreciative of and humbled by the support we have received. A cash award is associated with this honor.

The award, donated by the Boothby family, recognizes outstanding professorship and instruction in the department and professional citizenship. It is named in honor of Professor Bill Holden, who taught in the department from 1955 to 1994 and was widely viewed as an outstanding educator. The award recognizes excellence in instruction as characterized by faculty members who inspire interest in the subject, communicate engineering principles clearly and simply, and promote creativity and innovation in engineering design. In addition, the honor acknowledges excellence in citizenship characterized by faculty members who instill an appreciation for ethical and responsible practice.

All instructors, professors, and professionals in residence who have a 50 percent or greater appointment in the department are eligible to win the award. Exceptions are the current department chairman and the winner of the Zaki Bassiouni Excellence in Instruction Award for the same academic year. Nominations are submitted by alumni who graduated in the previous two to five

academic years, current members of the Industry Avisory Committee (excluding Mr. Boothby), and current faculty in the department. Self-nominations are not considered.

The recipient is selected by a committee including the department chair, an impartial faculty member from another department, and the dean of the College of Engineering or his/her designee. In the event that more nomination input is desired by the selection committee, current seniors are solicited for votes.



Dr. Richard Hughes accepts the third annual Bill Holden Faculty Excellence Award from Mr. Lee Boothby (B.S. 1983) at the 2015 SPE and department crawfish boil.

RECONNECTING WITH ALUMNI

Please join the Craft & Hawkins Department of Petroleum Engineering as we continue to reconnect with our alumni. This year, our annual SPE ATCE Alumni Party will be a "watch party" in Houston during the LSU vs. Syracuse game on Saturday, September 26. It will take place at BB's Café in the Heights at 2701 White Oak Dr. Select members of the faculty and staff will be on hand to greet alumni an hour before kickoff. Please watch for the Tag-a-Tiger email campaign and reply if you plan to attend. BB's can accommodate about 100 people, and our goal is to create a "block party" by extending across the street to Little Woodrow's. However, we can't plan for 150-200 attendees if we don't know you are coming. Stay in touch with us at pete@lsu.edu. Also, you can update your contact information at www.pete.lsu.edu/alumni.

In lieu of the SPE ATCE Alumni Party, which was held in Amsterdam last year, the department hosted a "pregame tailgate" at the BB's—Heights location before the Auburn game. Here are a few highlights from our 2014 party:















WE WOULD LIKE TO ACKNOWLEDGE AND THANK OUR 2014-15 SUPPORTERS AGAIN:

Mr. Mark R. Alexander American Association of Drilling Engineers -Houston Chapter American Association of Drilling Engineers -Lafayette Chapter American Association of Drilling Engineers - New Orleans Chapter American Petroleum Institute - Houston Chapter Anadarko Petroleum Corporation Avco Charitable Foundation Mr. and Mrs. Christopher G. Arnold Mr. and Mrs. Raymond J. Battalora Mr. and Mrs. Michael B. Begland Mr. and Mrs. Lee K. Boothby Mr. and Mrs. John B.

Brock, III Mr. and Mrs. Justin E. Brothen BP Fabric of America Fund BP Foundation, Inc. Campanile Charities, Inc. Mr. and Mrs. Charles and Joanne Carraway Mr. Randal G. Cazenave Chevron Humankind Matching Gift Program Chevron Products Company Mr. Shannon R. Chollett Mr. Harold E. Colvard ConocoPhillips Mr. and Mrs. F. Baron Craft Mr. and Mrs. John R. DCP Midstream Mr. and Mrs. A. Norman Duplantis, Jr. ExxonMobil Corporation ExxonMobil Foundation GDL Foundation Mr. Michael L. Geldmacher Mr. Alex J. Goodwin Halliburton Foundation,

Mr. Chadwick Hill Mr. William B. Huthnance Kakeco, LLC Mr. Neil H. Klock, Jr Mr. Eric M. Kocian Mr. and Mrs. Edmond J. Langhetee, III LSU-Houston Petro-Tigers Ms. Anne W. Maliff Marathon Oil Corporation Mr. and Mrs. Matthew F. McKenzie MorganStanley Global Impact Funding Trust Murphey, Jr. Ms. Diane Naquin Newfield Exploration Company Network for Good Mr. Thomas H. Nunnally Occidental Petroleum Co. Mr. and Mrs. Stuart L. Oden

Pi Epsilon Tau – LSU Chapter Ms. Sally W. Pool Ms. Lynne M. Prevot Mr. and Mrs. Joseph E. Reid Mr. and Mrs. Kenneth J. Sample Schlumberger Mr. Wayne A. Schneider Sere' Family Foundation Shell Oil Company Silicon Valley Community Foundation Dr. and Mrs. John Rogers Smith Society of Petroleum Engineers - Dallas Section Society of Petroleum Engineers - Delta Section Society of Petroleum Engineers - Evangeline Section Society of Petroleum

Engineers - Gulf Coast Section Society of Petroleum Engineers - LSU Student Section Southern Specialty & Supply Mr. and Mrs. Brian R. Stewart Mr. and Mrs. Michael W. Stewart Dr. Jacob Thomas YourCause, LLC Mr. and Mrs. Kent J. Veron Mr. and Mrs. William K. Ward Estate of Emmett C. Wells, Mr. J. Tullos Wells Mr. Thomas G. Willoughby Dr. and Mrs. Andrew K. Woitanowicz Mrs. Lida L. Ziegler

PROGRAMMATIC FUNDING OPTIONS

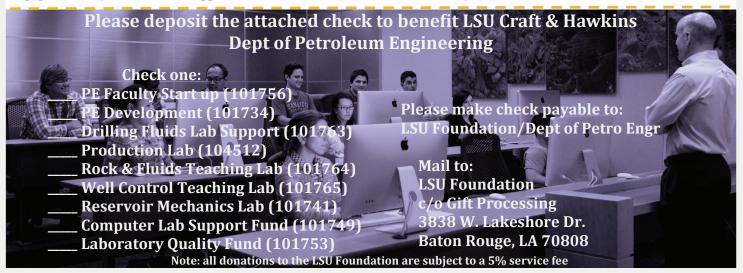
As the College of Engineering's campaign to fund the renovations to Patrick F. Taylor and the ChemE Lab have wrapped up, we look toward programmatic funding options to benefit the department. Recently, our focus has been on the following:

- 1) Teaching Labs include: Drilling Fluids, Production, Rock & Fluids, Blowout Prevention and Well Control, Reservoir Mechanics, Computer Lab Support, and Laboratory Quality Fund (which serves as a general "catch-all" lab fund).
- 2) Faculty Start-up: this account directly benefits new faculty hires in that the department can offer competitive start-up packages. The funding can be used for such items as travel to conferences, purchase of books, hardware, software, research equipment and graduate student support.
- 3) Development and Enhancement: supports a number of activities including visiting professors for recruitment and/or Graduate Seminar Series and alumni events.

Should you choose to donate using a credit card online through the LSU Foundation's secure online giving site, please visit: www.lsufoundation.org/contribute. Designate your gift by selecting "College of Engineering" and then Petroleum Engineering.

To mail a contribution, please fill out the information below, cut/rip at the dotted line, and mail to:

Gift Processing LSU Foundation 3838 W. Lakeshore Dr. Baton Rouge, LA 70808





College of Engineering
Craft & Hawkins
Department of Petroleum Engineering

142 Old Forestry Building Baton Rouge, LA 70803 Non-Profit Org.
U. S. Postage
PAID
Permit No. 733
Baton Rouge, LA 70803

