Newsletter

of the
Petroleum Engineering Department
Colorado School of Mines

Vol. 3, No. 1 September 1998

Greetings From Craig Van Kirk

What an extraordinary year it has been since our last Newsletter of September 1997. The Petroleum Engineering Department here at CSM is growing in every way, enjoying the support of a solid foundation established over a period of many years.

The most fantastic event for me personally during the past 12 months was the birth of our second grandchild on the fourth of July. After a few months of uncertainty, baby girl Grace did in fact go full term before joining big brother Gus (age 2½) and the folks (our son Sam and wife Amy) in Portland, Oregon. Sam has just finished his first of four years of residency in OB/GYN. Our daughter Connie has just started her third year teaching the 4th grade in a country school in Elbert County, southeast of Denver. She loves it, and the kids love her.

My wife Denice and I are very happy and feel fortunate to have a healthy family. We have been home for a year now after our sabbatical leave during the 1996-97 academic year, and we've almost caught up with all the personal and CSM responsibilities which had fallen behind during our absence. My mother died this past April at age 75. She had a great life, full of family and love, and we were fortunate to be at her side when she passed.

As I pointed out in the first paragraph, the PE Department is in excellent shape and is experiencing a high level of activity. We've got a new CSM president, three new PE professors, lots of new students, and plenty of energy on campus and jobs after graduation (100 percent job placement, as usual).

New CSM President Ted Bickart joined us this summer from Michigan State University. I have had the pleasure of meeting with him on several occasions already, and I'm sure you will enjoy his company whenever you have the opportunity.

We have been able to add three new great professors to our staff this year, and their articles appear later in this Newsletter. In January Jon Carlson joined us to manage our PERFORM research consortium, teach, and conduct research in well completions and stimulation. In July Erdal Ozkan started on our staff to focus teaching and research in transient well test analysis, and in August John Fanchi came on board to take on reservoir simulation in the classroom and research. You'll enjoy reading more about these three new professors on the following pages. I am pleased to report that the rest of the department's staff continues in place, except that professor Shameem Siddiqui has left to return to private industry with Aramco.

One of the most exciting events of the year is our new Department of Education grant. We were awarded funding of $227,000 annually to fully support nine new Ph.D. candidates in Petroleum Engineering, an area of national need, to help fill a national shortage of teachers, professors, and researchers. We have been told that we are the only PE program in the country to receive this

What a nice greeting in Beijing

Craig Van Kirk (continued)

type of award from the DOE. The grant is designed to cover full costs for U.S. citizens in the program. After advertising for applicants in the spring of 1998, we interviewed during the summer, and welcomed our nine new Ph.D. graduate students to campus in August. Each of the nine candidates is unique and strong, five have BS degrees in PE, four have BS's in Geology or a closely related field, four are women, one graduated as recently as 1997 while another did so way back in 1975. To satisfy the Department of Education requirements, we have contributed $77,000 to the program to supplement DOE's funding.

This fall semester we welcomed 17 new graduate students, bringing our total graduate program to 50, a healthy number for the size of our staff. Also, our undergraduate program is so successful, what a pleasure. During the past academic year we graduate 21 BS degrees along with 13 Masters and 3 Ph.D.'s, with 100 percent job placement before graduation. A year ago we sponsored 52 of our students to attend the SPE Annual Technical Conference in San Antonio, and this September we expect approximately 65 students to join our staff for the Conference in New Orleans.

Craig Van Kirk

Don't forget to join us at the SPE Conference in New Orleans on Tuesday evening from 5:30 p.m. to 7:30 p.m. for an informal reception and visiting with old and new friends. Meet alums, students, and faculty. New CSM President Ted Bickart will join us for the evening. I'm sure you'll enjoy visiting with him. The reception is at the New Orleans Hilton Riverside Hotel, third floor, the Belle Chasse Room.

This past summer we took 47 PE sophomores to Alaska for two weeks as part of our annual Summer Field Session. Many CSM alumni and industry friends hosted our group; thank you very much. Also, as usual, our junior class of 28 enjoyed their field-oriented Summer Field Session

These two owls have been roosting over the faculty parking lot since the beginning of the 98 Fall semester.

CSM Petroleum Engineering Department Industrial Advisory Board			
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in the "modern cabins" at our camp near Rangely, Colorado. Many thanks to our corporate friends in the area who hosted our visits.

CSM has recently adopted a new undergraduate curriculum, not totally new, but seriously revised after a multi-year review and redesign. The primary changes are: more integration of classes, subjects, students, and professors; an earlier exposure to engineering projects and major options; and more team teaching in multidisciplinary courses.

At the graduate student level and in the research arena we have been awarded some new and unusual grants, from developing lasers for drilling on earth, to extraterrestrial drilling, and to assist the National Geographic Society in developing educational material for K-12 on the theme of energy.

Van Kirk inconspicuously blending in with the Great Wall

On February 26 and 27 we welcomed our Visiting Advisory Committee to campus for two days of meetings to review our program; meet with the students, faculty, and CSM President; and share opinions on education, research, and forecasts. Our current committee membership is as shown in the box on the previous page.

During 1998 we started new programs training Chinese professionals on campus in several areas of expertise, from drilling through international investments and business management. The Shengli Oil Fields Group is sending four separate teams of 12 to 15 mid-career professionals for intensive training for two to three months. Two modules on Geology and Economics were completed during the summer, while the two other modules, Drilling and Reservoir, will be conducted during this academic year.

Also, a separate group from Daqing, China was on campus for training throughout the summer. I had the pleasure of accompanying the group to Daqing in early August to make presentations. It was a great trip, a new adventure, very interesting and fun. Fortunately, my visit to Daqing was completed prior to major flooding of the city and the oil field.

Again this past summer we held another SuperSchool Program on campus for four weeks of intensive training. Petroleum industry professionals without formal degrees in PE, are sponsored by their companies for full immersion into petroleum engineering.

CSM's GEODES, the four Geo-Departments of Mining, Geology, Geophysics, and Petroleum Engineering are working closer together than ever before. We have joint research projects and team-taught courses at the undergraduate and graduate levels; and we share lab facilities, computers, and software.

Our exchange program with the Mining University, Leoben, Austria (MUL) continues to prosper. Every semester we enjoy the company of several new students from Austria, and we sponsor both CSM graduate and undergraduate students for a semester abroad at MUL. This exchange truly adds some spice to our program.

Our computer lab continues to expand to meet our ever growing needs, thanks mostly to our alumni and friends in industry. Your support has enabled us to invest a quarter of a million dollars in state-of-the-art hardware, while donated software (such as reservoir simulators) would demand a street value of $1.0 million per year in annual rentals.

Support of our successful program is expressed in many ways, eg.

1. Our Visiting Advisory Committee's commitment to our success.
2. Hosts of our visits to Alaska, California, Gulf Coast, Rangely, and the Denver area.
3. Sponsors of our research programs, from many private industry partners to several U.S. Government agencies.
4. Recruiters of our students and the job market.
5. Daily inquiries from prospective students, visiting scholars, post doctorates, professors, and exchange programs.
6. Donors to our general support funds, several hundred thousand dollars in cash annually.

A few examples of the investments we make in support of our program are:

1. Computer lab hardware and software. Several hundred thousand dollars on location now,

with annual updates. Costs of maintenance, approximately $40,000 per year. All PE students have 24-hour, 365-day access to the lab.

2. SPE Annual Technical Conference travel expenses for students, approximately $16,000 per year.

3. Summer Field session trips to Rangely, Alaska, et al, approximately $25,000 per year.

4. Thanksgiving lunch for students and staff, $1,000 per year.

5. Receptions for graduating students and family members each semester the afternoon prior to the graduation ceremony, $1,000 per year.

6. Assistance to needy students, working for the department, $8,000 per year.

7. Professor expenses for computers, books, expenses for conference, $25,000 per year.

The results of all these activities are the continuing strengths and successes of our program. Our senior class is approximately 35 to 40 students, demonstrating excellent character, abilities, and enthusiasm. The new crop of SPE student officers appears to be a group of fine young leaders, quite capable, and dedicated to success.

Well, that's enough for now. I hope you enjoy this Newsletter and keeping up with the department. Please keep us informed of your status, share your new news, and come and visit when you can. We love showing and sharing.

Best Wishes, Craig

Jon Carlson


Jon Carlson

I started at CSM in January 1998 after some 30 years in the oil industry. Most of this experience involved well performance technology including research, technical services, training/teaching, research management and operations while working for Conoco, Montana Tech, Gulf/ Chevron and Maxus Southeast Sumatra.

At CSM, I teach both undergraduate (426) and graduate (522 & 598) courses on well completion and stimulation. In these courses, I try to emphasize fundamentals of engineering and science as well as how these fundamentals are currently applied to solve field problems. This provides the student with up to date know how along with the basis to participate in the evolution of new technology.

Two years ago, CSM successfully initiated an industry-sponsored research consortium to study ways to enhance well performance. This program, called PERFORM, currently has 10 industry sponsors and supports 8 graduate students who are working on both experimental and theoretical well productivity enhancement problems. Guidance for these students is shared by faculty from the Petroleum Engineering, Geology and Engineering Departments. I serve as the director for the PERFORM program.

My research interests include: fracturing, acidizing, sand control, perforating, formation damage and production operations.

Richard Christiansen


Richard Christiansen

Greetings. Since starting at CSM in 1990, I have been able to watch the growth of many young people who now have moved on to careers. I have fond memories of experiences with many of them, and hope that they are doing well in their lives. With other faculty, I look forward to seeing alumni in New Orleans.

Summer Field Session: NOT! I have had few responsibilities since joining CSM in 1990 that compare with the challenges of organizing the PE 315 Summer Field Session. I am relieved to report that the 315 baton passed to Prof. Eustes last Spring. I am sure he did an excellent job. Or, as Prof. Thompson and I would say, from our experiences with 315, as long as we don't have to do it, it was excellent!

Instead of 315, I spent the majority of the summer with grad student Bharath Rajappa developing my rheological skills, getting three viscometers into working condition, and testing non-Newtonian fluids for research on placement of proppant in hydraulic fractures. Two of the three viscometers were donated by Marathon Oil Company. The third viscometer is home-made. The results of these summer efforts were quite rewarding as the data answer some important questions generated by previous research funded by the PERFORM consortium. And indeed, our rheological skills have increased to the "dangerous" level. So, if you have some rheological questions or problems, please call. This summer's work was funded through the Los Alamos National Laboratory.

Progress on Other Fronts

A primary objective of CSM research is to produce new engineers for industry who can lead

the development and application of technologies. Toward this objective, I sent another student off into the cold, cruel world: Hiro Yamamoto completed his MS last Spring, and now works for Mobil in Midland. Hiro's research on lifting liquids from gas wells continues with the efforts of Satya Putra and Witsarut Thungsuntonkhun. The results of their research promise relief for aging gas wells. This research is funded by the PERFORM consortium.

I expressed the hope in last year's newsletter that another student could continue research on composition gradients in reservoirs that was started by Nelson Maan. I would like to report that Karim Al-Jaziri will continue this interesting effort. While other researchers have worked this area to death with theoretical analysis, we have embarked on an experimental adventure that could clarify issues raised by the theorists.

During the week of September 14, I will be in The Hague reporting on research of Osamah Al-Omair and Salah Al-Modhi. These two young men have developed some intriguing experimental techniques in core analysis for measurement of capillary pressures and relative permeabilities with a centrifuge. Their work shows that there is room in our industry for many new ideas!

New Faces

It should be clear to readers of this Newsletter that we have three new faces among the faculty: Drs. Jon Carlson, Erdal Ozkan, and John Fanchi. As the chair of the search committees that hired these individuals, I am particularly happy to have them here. Each of them brings new breadth, power, and zest to the department. Profs. Bill Eustes, Ramona Graves, Neil Hurley, and Robert Thompson served with me on the committees. The search was helped also by individuals in industry who provided valuable counsel.

Bill Eustes

It has been another busy year.

Bill Eustes

Alaska 1998

This last May, Mark Miller and I had the pleasure of taking 47 students to Alaska. As a 1974 graduate of Eielson High School located on Eielson A.F.B. near Fairbanks, I was eagerly anticipating my return to the state after 24 years of absence. I was not disappointed.

The field session started on campus with discussions on drilling, artificial lift, and surface facilities. We also saw a video called "Remember Charlie". It is a safety soliloquy that was a sobering reminder that safety requires continuous diligence.

The next day we drove out to the high plains of Colorado to visit Evergreen's Bonny field. Hosted by Bob Brady, we saw compressors and workover units. We also had an excellent feast. The food was great.

Then it was time to leave for Alaska. We arrived at Anchorage International as the sun was setting at 11:00 P.M. Assisting Mark and I on this part of the trip were Dee and Joe Brown, Chris Cardwell, and Roger Potuzak. The next morning started with a railroad trip on the Alaska Railroad to Seward. It was a beautiful sunshiny day for this trip. At Seward, we jumped onto the Kenai Fjords, a Resurrection Bay charter ship. We saw an incredible variety of wildlife and had a great lunch on Fox Island. The food was great. Then, after a too short of a visit to the new Alaska Wildlife Center, we rode the train back to Anchorage. We are indebted to Johne Binkley for this great beginning to a memorable field session.

The next three days were spent in Anchorage at the ARCO Alaska and BP offices. Our thanks go out to all who presented on these days. A special thanks to Andy Bond at ARCO and to James Seccombe at BP. By the way, the Alumni picnic on Tuesday, hosted by Tom Walker, was a lot of fun. Soccer appears to be very important to some of the students. Also, the food was great.

Thursday, we left on an ARCO chartered Convair turboprop and we flew to the North Slope. After checking into the Main Contractors Camp, we broke up into two groups and toured various places on the Slope. Three things stand out in the students minds': the equipment is huge, it was also cold, and the food was free.

The day we arrived was the first day of 24-hour daylight. Some students stayed up to 2:30 A.M. waiting for the sun to set when they realized, "the sun don't set up here". Many thanks goes to Scott Goldberg, Tom Walker, Gina Luckey, Oliver Smith, and many others at ARCO, Dowell, Anadrill, Schlumberger, Alaska Clean Seas, Baker Hughes Inteq, and Alyeska Pipeline.

After more tours on Friday, we had to return to Anchorage. We drove up to Healy the next day and took a tour of Denali National Park on Sunday. We did get a great view of Mt. McKinley/ Denali and saw a lot of wildlife, although the animals looked like tan dots in the distance.

The next day was spent reviewing the geology of the Healy region and Alaska in general with Doug Dickey and Chris Livesey. Philippa Eltringham of BP hosted and coordinated the tour. A lot of students told me that day created an "ah hah" phenomena with their geology classes. Sud-

At the Usibelli Coal Mine in Alaska

denly, what the professors said really did make sense.

Soldotna was the next destination. Lew Dennis of Unocal coordinated what was yet another memorable visit in the oil patch. Over the next two days, Unocal flew us out to either Trading Bay across the Cook Inlet or to either the Monopod, Steelhead, Dolly Varden, or King Salmon platforms in the Cook Inlet. All of the foremen and crews of all the facilities were gracious and patient hosts for all the students. According to the students, the most exciting part of the visit was donning the float suits and flying in a helicopter. None-the-less, the facilities were fascinating and the food was great.

Then the worst thing that could have happened to us occurred. The students had to leave Alaska. Superlatives fail me. The companies that hosted us all were great to the Petroleum Engineering Department of the Colorado School of Mines.

After the students left, my wife joined me in Alaska (the grandparents kept the kids) and we spent ten more wonderful days in Alaska. We even had the opportunity to visit Fairbanks and visit my old stomping grounds. The city looks the same, it just has a lot of expressways around it now. Johne and Judy Binkley hosted us on the Discovery III sternwheeler and at the Eldorado Gold Mine where Susan and I panned $106 worth of gold (including two nuggets)! Both places are well worth a visit. In addition, Johne, Susan, and I also visited Fort Knox, a gold mine north of Fairbanks. Our comrades in the mining business

At the Anchorage CSM Alumni Picnic

have quite an operation running up there. They mine over 1,000 ounces of gold a day.

All in all, we had a great time. The key was the people, however. Thank you one and all for a wonderful visit. I hope to see you sooner than another 24 years.

Drilling Activities

On other fronts in the drillin' bizness, many things are happening.

The AADE keeps growing. We had a Mobil sponsored trip over a March weekend to see one of their drilling rigs in the Parks field near Midland, Texas, along with Smith International and Sperry-Sun. Thanks goes out to Laura Kline and Joe Okerman of Mobil. This trip rated a front page article in the Mobil Drilling News.

The Monopod in Cook Inlet as we flew onboard.

This year, I have presented three papers. One was at the Energy Sources Technology Conference and Exhibition in Houston. By the way, I am the Drilling Symposium chair for the 1999 ETCE in Houston, Feb. 1 - 3, 1999. Y'all come, ya hear? I presented a drill bit paper at the 1998 Society of Mining Engineers Conference at Orlando in March. Then I presented another paper at the Space 98 conference in Albuquerque in April on extraterrestrial drilling. **Armageddon** has it all wrong!!!! As soon as I get time, I'm going to write Michael Eisner and offer my services as a technical advisor on their next drilling movie. (For a nice sum, of course)

Drilling research activities are increasing. Perhaps the most exciting research project that I have is from the Jet Propulsion Laboratory. Along with the Michigan Technological University, the Colorado School of Mines has been tasked with helping develop the Martian Subsurface Explorer (Mars SSX).

From the same people that built the Sojourner Truth Mars Rover, they are now starting the design of the Mars SSX. They have an ambitious plan to drill to 10 km below the Martian plains to look for life. The idea is to drill below the "cryosphere", the frozen part of Mars to find liquid water. The geologists of Mars are not certain where liquid water begins. They can only say it is from 1 to 10 km below the surface.

In any event, there are many issues to resolve. For example, energy supply is limited. This means that we can't overwhelm the hole with energy like we do on Earth. We need to know the actual energy it takes to drill a hole, both for penetration and for cuttings removal. Friction is another factor along with cuttings compaction and directional control. As you can see, it is not a trivial task. Any ideas or knowledge on these issues you would like to share would be appreciated.

Along these same lines, CSM is going to sponsor the **Exploration and Utilization of Space Resource** workshop. It is a day and a half workshop to be held on campus February 24 and 25, 1999. The purpose of the workshop is to bring together space, energy, and mining expertise to define future needs, scenarios, and technological milestones for the economic development of space resources. If you are interested in attending or even presenting, please contact me. I have heard it said that the petroleum engineering profession is headed downhill. Well I don't believe that! One, we have much oil and gas to recover yet. And two, we can use our expertise out there on the Moon, Mars, asteroids, and comets. We need to think outside the box called Earth!

Secretary Dee Brown and her husband, Joe, with their team of students on the King Salmon Platform in the Cook Inlet

John Fanchi


John Fanchi

I joined the faculty of the Petroleum Engineering Department this Fall and I would like to take this opportunity to introduce myself. I have B.S., M.S. and Ph.D. degrees in physics from the Universities of Denver, Mississippi and Houston respectively. I have worked in the technology centers of Getty Oil Company, Cities Service Company and Marathon Oil Company. My industrial responsibilities have revolved around reservoir modeling, both in the areas of simulator development and applications. In addition to being the principal author of the U.S. DoE simulators BOAST and BOAST II, I have performed development work on black oil, gas, compositional, electromagnetic heating, chemical flood, and geothermal simulators. My reservoir management experience includes project leadership or significant participation in studies of oil, gas, and condensate fields in the North Sea; offshore Sakhalin Island, Russia; the Gulf of Mexico; and in many parts of the U.S.

I have designed and taught courses in engineering and physics for universities and industry. My publications include several articles and three books, including Principles of Applied Reservoir Simulation and Math Refresher for Scientists and Engineers. My most recent article was published in the 6 July 1998 issue of the Oil & Gas Journal. It is entitled "Flow models predict 4D suitability". The article is a continuation of my efforts to improve our ability to predict the performance of reservoirs. I am married and have two sons at Golden High School. I look forward to working with the CSM community.

Ramona Graves


Ramona Graves

Those of you that have been following my "saying" for the year will remember when I was acting department head during Craig's sabbatical it was: "It's **Good** to be the Queen!"! Then when he returned it was: "It's **Good** to **not** be the Queen"! This year it is: "It's **Great** to be on sabbatical"!

This is the start of my 17th year at Mines and I am ready for a change of pace. I'll be spending the year working on my laser drilling project (more about that later). Since Jacob is a Senior in high school and Lacey a Junior, it didn't seem fair to uproot them and spend the year somewhere else. Besides, at this point in their lives they don't think I make very good decisions (especially about how they spend their time) and if I moved them, they wouldn't talk to me until I am a grandmother. Family is all doing fantastic, except for the iguana who went to Iguana Heaven this year.

"Determining the Benefits of StarWars Laser to Drill and Complete Natural Gas Wells". Impressive title and as I am finding out, it is also very exciting research. My co-investigator, Darien O'Brien CSM '83, and I submitted this proposal to the Gas Research Institute and it was funded for a two-year basic study. We've been working with the US Air Force and the US Army "zapping" rocks with high power lasers. As one of the newspaper headlines stated, "Lasers Cut Through Rocks Like Butter". They do!! It is difficult to express the excitement of seeing a laser blaze through everything from sandstone to shales to salt. Our preliminary results look promising and we hope to have the project funding extended. If it is not evident, the picture below is a 6-inch diameter hole being bored in a sandstone with a 1.2 megawatt laser. This is the highest powered laser in the Western hemisphere. Penetration rates of 170 ft/hr were achieved. A 2-inch hole had rates over 450 ft/hr. If you are in New Orleans at the SPE meeting and would like to see

Rocks don't last long under 1.2 megawatts of laser power.

the lased rocks, stop by the GRI booth. We're also giving a paper on Wednesday afternoon at 2:00 P.M. Drillers – you might want to start brushing up on your physics!

Mark Miller


Mark Miller

Have you thought about continuing your education? Thought you would never grace the CSM campus again? Well guess what, we are coming to you. Colorado School of Mines is developing a distance learning program. Currently graduate level courses are being developed in several departments. Roger Slatt, the head of the Geological Engineering Department is developing a reservoir characterization class. In conjunction, I am working on a characterization class from a petroleum engineering point of view. These classes will be offered beginning next spring. Our goal is to add one course per semester, depending on the success of the program. These efforts may eventually evolve into a masters degree program. You may visit our virtual campus at: *http://www.minesonline.edu*

I also maintain a state-of-the-art computer lab for the students. This lab is open 24/7 for student use and, as you can imagine, more than one student has put the "24" part to the test. The students have access to the latest petroleum software available and a place to work with other students.

Thanks to our friends in industry, over a million dollars of software is donated each year for student use. We are able to train our students on the latest reservoir, drilling, and production software. Having the latest software is fantastic. It ensures that our students will have experience with programs they may use during their careers. Having the latest also has some side effects. Several times the software has pushed us to upgrade the hardware in the lab. It seems that Bill Gates is not the only one who is driving technology.

One might think that funding for the lab hardware and maintenance comes from student fees. Every semester each student pays a $35 technology fee. Depending on perceived needs around the campus, the department may or may not receive a portion of this fee. With over 75 computers in our department, the department's share of the student technology fee, while helpful, needs some big supplements. Funded research pays for some of the costs, but the majority of the costs associated with computing resources are funded from donations to the department.

One can tell of the interest of students in petroleum engineering careers by class size. For PE 315, summer field session, there were 47 students willing to accompany Bill Eustes and me to Alaska. This is 70% more than attended last year's trip to Southern California. Is this a cyclic industry or what? Although the students underwent a period of shock, by the end of the trip they had learned a great deal. I enjoyed seeing friends at the Alumni BBQ. It was exciting to see Prudhoe Bay and the massive equipment there. Bill put together a great experience for the students and more information can be found in his section.

My wife, Loralee, was able to join me in Alaska after the students had left. On a clear day, we went "flightseeing" around Mt. McKinley. The mountain was spectacular. We even landed on a glacier. I recommend the experience. We also went halibut fishing out of Homer. As with most of our fishing experiences, she caught the most and biggest fish. I pulled in skates, small halibut, and empty hooks (the fish that got away must have been really big). Alaska is a truly great place.

Erdal Ozkan


Erdal Ozkan

I am one of the new additions to the faculty at the Petroleum Engineering Department at CSM. I joined the department in August 1998 and am looking forward to meeting you at the upcoming SPE Annual Meeting in New Orleans. Until then, let me briefly introduce myself.

My BS and MS degrees are from Istanbul Technical University in petroleum engineering. In 1983, I was awarded a scholarship from the Turkish Government to pursue a Ph.D. degree in petroleum engineering. In 1988, I earned my Ph.D. from the University of Tulsa with a dissertation titled *Performance of Horizontal Wells*. By that time, the horizontal well technology was still emerging and I was one of the pioneers devoting a Ph.D. dissertation to horizontal wells. Since then, my work has continued on the production and reservoir aspects of horizontal wells. This, however, is only a part of my technical interest in reservoir engineering. In a broader sense, I work on the solution of fluid flow problems in porous media. If required to choose a specific area as my expertise, I would choose well testing.

Back to my journey leading to CSM; upon completing my Ph.D. at the University of Tulsa, I returned to Turkey to teach at Istanbul Technical

University. For eight years, I taught courses on well testing, reservoir engineering, horizontal wells, and applied mathematics and advised students at undergraduate and graduate levels. I also had the opportunity to be involved in various professional, academic, and administrative activities.

These eight years were extremely rewarding and provided me with invaluable academic experience. In February 1997, I decided to take a sabbatical leave to continue my research on horizontal wells and reservoir characterization at the University of Tulsa. While in Tulsa, I discovered the opportunity to become a member of the CSM PE faculty and I pursued it. Today, I am very happy to address to you as a member of this great institution. To complete the record, I am married; I and my wife, Aysin, have a nine-year-old son, Sarp.

This year, I can only tell you about myself. Nice things are already coming. Next year, I will have the news of the exciting events and accomplishments of the past year.

Robert Thompson

Everything is fine in the Thompson household. My daughter, Katy, was accepted into the business program at the University of Colorado at Boulder and started classes this Fall semester. Several mother-daughter combo's including my wife and daughter made a trek to Ireland this summer. My daughter tells me that Murphy's Stout is a close competitor to Guinness! My wife made the annual bicycle trek across Iowa leaving my daughter and me home to work on the positive side of the NCF equation.

Robert Thompson

Work continues on the Ph.D. in the Curriculum, Learning, and Technology program in Education at the University of Colorado at Denver with a target graduation date of 2000. My efforts are still focused on multidisciplinary education. I will be presenting a paper on multidisciplinary education at the Frontiers in Education Conference in Tempe, Arizona this November. Finally, I will be presenting the paper "Coupling Financial Profit Indicators to a Net Cash Flow Model for Production Sharing Contracts" at the annual technical conference in New Orleans. I look forward to seeing everyone at the alumni reception Tuesday evening. Cheers.

John Brinks
1998-99 SPE President

During the second week of school, the student chapter of SPE kicked off with it's first meeting to discuss the to-do's (and not-to-do's) during the annual Technical Conference and Exhibition, this year held in New Orleans. With organizational and financial help from both the PE Department and the National SPE, the Mines student chapter will again be well represented with a healthy number of attendees. An estimated 65 members will be packing their bags later this month to make the trip—we're hoping as many make it back! Attendance at the first meeting was so large that future meetings will be moved to a bigger, more accommodating room in the Green Center.

A total of fourteen officers were elected last Spring to handle the needs of this growing and increasingly active organization and to help cover the added responsibilities of maintaining a webpage and expanding publicity. Efforts toward the annual Denver section joint session, the E-days Oilfield Olympics, and fund-raising are already underway—again, indications that student interest and involvement this year will remain high. Other priorities include the hosting of top-notch speakers, presenting on a wide variety of topics, and of course, having fun.

As Mines Petroleum alumni, I encourage you to visit us, take part in our activities and join us on-campus for the Joint-Session next spring.

1998 Masadona Field Session

Dan Reidel, Andrea Wescott (2nd Place, B.S. division), Abdullah Ebrahim, David Pantoja, and Bill Eustes at Upper Yellowstone Falls after the Rocky Mountain/Mid-Continent SPE Student Paper Contest.

1997-98 Pi Epsilon Tau Inductees: Top Row: C.J. Affeld, Codey James (President), Jordon Hixson, Oscar Lozada, John Brinks, Ramona Graves (Faculty Advisor). Bottom Row: Bob Schultz, David Pantoja, Paul Renouf, Nina Collonges, and Rich Williams

Steven Kendrick 1998-99 AADE Chairman

The first ever AADE, (American Association of Drilling Engineers), student chapter in the country was established at the Colorado School of Mines Petroleum Department in 1997. There are professional chapters in Dallas/Fort Worth, Houston, Lafayette, New Orleans, the West Coast and Denver. Last year the AADE student chapter had a membership of approximately 30 students, and will continue to grow. Members have included students that are electrical engineers, physics majors and, of course, petroleum engineers. Our mission continues to be to provide the forum for the dissemination of practical drilling technology to those interested or working in the drilling industry.

Our chapter is focusing on bringing in professionals from oil and gas well drilling industry to give presentations on what they do and new technology in the oilfield. Another goal this year is to make a field trip to see a drilling rig at work, so as to bring a better understanding to those in AADE, of what equipment and procedures are used in drilling a well.

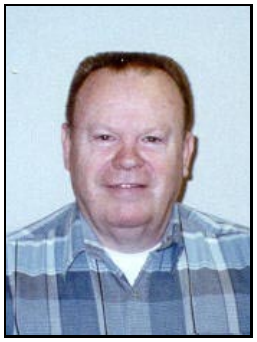
Thanks to a generous donation from Mobil, Joe Witt, last year's chairman, led, us on a field trip to Midland, Texas to see one of Mobil's drilling rigs. We also went to the Oilfield Museum and a couple oilfield service companies shops, located in Midland. If funds become available again this year, we would like to take our new members to a similar location, as last years trip helped all of the student members to better understand the drilling industry. The AADE student chapter is looking forward to learning and seeing present drilling technology throughout the year here at CSM.

Administrative Staff

The administrative staff of the Petroleum Engineering Department. Dee and Chris run the front office (and more!) and if it needs to be fixed or built, call on Bill.

Dee Brown

Christine Cardwell



Bill Robbins

In Seward, Alaska on the first day of Field Session, Sophomore class

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AADE Students at Noble Rig 316 at Mobil's Parks field.