



Newsletter

of the
Petroleum Engineering Department
Colorado School of Mines



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Greetings From Craig Van Kirk

What a pleasure it is for me to bring you up to date on the news of CSM's Petroleum Engineering Department. The program is healthy and growing with real quality, as a result of continuous reflection, critiquing, and evolution of the entire staff.

Having been department head since 1980 has been a real honor for me and has been most satisfying to see the program evolve, staff members grow, students graduate, and alumni pursue interesting and exciting careers. In fact, I have become so overwhelmed with these "opportunities for satisfaction" that I have taken a sabbatical leave for this school year (July 1, 1996 to June 30, 1997).

This is my first off-campus sabbatical leave since I joined CSM in 1978, and I feel good about it in every way. The department is in good hands with a very experienced staff and a couple new folks full of enthusiasm. Also, I will be on campus at CSM approximately 20 percent of the time to take advantage of the "fun part", e.g., the SPE Conference in October.

For my sabbatical I am spending a school year in Banning, California, approximately 80 miles east of Los Angeles. This is the small town (now 25,000 people) where my wife Denice and I grew up, and I am teaching, mentoring, and advising at the town's high school and adjacent Morongo Indian Reservation. During the past couple years I have done some of this on a spot basis, a day here, a half-day there, and I have enjoyed it very much. Classes started in Banning on September 4 and so far my part has been very satisfying. When my sabbatical is over next June, I plan to return to my regular full-time status at CSM to do whatever I can to help the PE Department, hopefully well into the next century!

My wife Denice is actively helping me during my sabbatical leave with communications between Golden and Banning, and she is involved with local Banning activities with me at the schools, reservation, and town. Our children are healthy and happy, and so are we. Sam is 27, married to Amy for 5 years, and is in his fourth year of medical school at USC. Amy is completing her Ph.D. in education at USC, also. They produced Gus on March

12th of this year, our first grandchild. What a joy. Connie is almost 24 and earned her bachelors degree in education at the University of San Diego a year ago. In August she started her teaching career in a brand new school in the 4th grade class in Elbert County, not far from our home in Parker.

During this past year the PE program enjoyed many continuing successes. Our senior class size was approximately 40, while our graduate student enrollment was approximately 50. Both these numbers are good levels for our capacity to handle students, teach well, and conduct our research; and industry's capacity to hire our graduates. Our seniors and graduate students enjoyed 100 percent job placement at graduation time in May.

Our exchange program with the Mining University, Leoben, Austria remains strong and healthy. Each year 3 or 4 MUL students spend a semester with us, and we send one CSM student there. During the Spring semester of 1996 we sent our first undergraduate and young woman student to MUL, and she did great.

For those of you who might be unaware, old Alderson Hall was completely renovated in 1994 after a brand new lab wing was added out back in the old parking lot in 1993. If you haven't seen the "new" building, you should ASAP, it is beautiful (not extravagant) and very functional. All wet labs are out back in the new lab wing, and old AH 204 is our modern computer lab.

In the Fall of 1994 we were visited and reviewed for ABET accreditation along with other CSM engineering programs. Last school year we received the final report from ABET notifying us that we passed again. All appears well regarding accreditation.

On April 11 and 12 we hosted our Industry Visiting Committee on campus to review our program and CSM overall. We updated the committee on our current programs and shared visions of future plans and needs. The committee met with President George Ansell, Vice president of Academic Affairs John Trefny, other administrators, other department heads, our students, and all of our staff during the two days of meetings. The Committee's valuable time and efforts are important to us and are most

appreciated. It is clear that our program and plans are in good concert with the Committee's views. A quote from the Committee's report (dated July 2) to CSM's Board of Trustees (BOT) summarizes the results of the meetings: "... the Committee's view of the program is one of quality, health, and growth ... exemplified by a superlative stream of graduates into the work force." The current committee membership is:

Roger Abel: Chairman, Conoco E&P Europe, London
Roger Alinger: Gen. Mgr., UPRC, Ft. Worth
Khalid Aziz: Professor, Stanford Univ., Stanford
H.L. "Skip" Bilharz: President, ARCO E&P, Plano
Stephen Chesebro': Chmn., Tenneco Energy, Houston
Lloyd Elkins, Jr.: V.P. Asset Mgr., Chevron, San Fran.
Mark Ellis: V.P./Chief Eng., Meridian Oil Inc., Houston
Tom Hamilton: President, Pennzoil Co., Houston
Dennis Heagney: Pres., Sonat Offshore Drilg., Houston
David Jenkins: Chief Exec., BP Exp., London
Allen May: Dir. Exploration, Amoco House, London
John Mihm: V.P. Research/Dev., Phillips, Bartlesville
Dave Montague: Chief Inf. Off., CalRes., Bakersfield
Neal Schmale: Chief Fin. Off., Unocal, El Segundo, CA
Eve Sprunt: Senior Eng. Advisor, Mobil, Dallas
John Turley: Manager Eng., Marathon Oil Co., Houston
Mike Vinson: Vice President, Schlumberger, Houston

During 1996 we hired two new professors. Both were chosen from an outstanding pool of applicants from the U.S. and throughout the world. We are very happy that the two accepted our offers, and our Advisory Committee was pleased with our choices and good fortune.

Mark Pearson joined us in the Spring semester starting in January after a long and exciting career with Arco, most recently in Anchorage. Some of you may know him through the SPE because he has been a very active participant and supporter. You can read more about Mark, his interests, and his family in this newsletter.

Also, Bill Eustes was hired this summer to join us full time starting this Fall semester 1996. Bill spent several previous years with us and finished his Ph.D. in our program earlier this year. His prior industrial experience includes a long and successful career, also with Arco. This newsletter presents Bill in more detail, so you can learn more about his areas of expertise and his family.

After 30 years of excellent service to CSM and the PE Department, professor Bill Mitchell officially retired at the start of the Spring semester 1996. We are grateful for Bill's past efforts and successes, and we are pleased that he continues to work with us on a part-time basis, such as advising graduate students on research and offering his opinions to us at every opportunity (as always).

This summer of 1996 we took our PE 315 sophomore students through the Northern Rockies and far up into Canada. Professor Richard Christiansen explains in more detail later. Our PE 316 junior students went to our "modern camp" at Massadona, as usual, and enjoyed some unusual new experiences. Professor Ramona Graves (Acting PE Department Head during my sabbatical leave) gives more details of summer field camp later in the newsletter.



Craig Van Kirk hard at work

Professor Saad Saleh continues to expand sponsorship for his successful research in foam through consortia of industrial and governmental partners. Professor Robert Thompson, project manager for our big DOE contract, is putting the finishing touches on the final report of the 3-year effort. More details later.

In June the CSM BOT annual summer conference focused on student retention, an ongoing major project designed to understand and improve the graduation rate of CSM undergraduate students. The recent retention rates of approximately 65 percent at CSM are average or better, compared with peer universities; however, CSM desires to minimize the number of students who drop out and never graduate. Some of us PE profs have been involved with campus committees studying the retention issues from several perspectives.

Many of the student retention issues are closely related to CSM's curriculum, which is another major campus-wide effort currently underway. The CSM curriculum review is in its third and final year, with virtually every professor involved in at least one committee addressing numerous issues. Preliminary "betting" tends toward a new CSM curriculum which will not be so much different from the current, but will be more streamlined, more efficient, more user friendly for the frosh, more integrated, and more multidisciplinary. The question of whether or not 148 hours should be retained or reduced

has not yet been resolved, but probably each department will be able to choose their total hours within a range up to 148. This curriculum review is a significant undertaking which we take seriously, and we will continue to be thoroughly involved in the process. Please feel free to share your feelings with us, we value your experience and input.

Even though my sabbatical leave officially started on July 1, I spent the first two weeks of CSM's new school year on campus to meet new students and help out just a little bit with normal early semester chaos. On Friday August 23 CSM sponsored the third annual carnival in the Commons Area, especially intended to welcome new students. The PE department hosted a booth and presented a wide range of information and entertainment. However, our side show featuring "a six foot man-eating chicken" was a flop; I think we put the hyphen in the wrong place.

During the past year we have worked to develop the "M. King Hubbert Center for Petroleum Supply Studies". We were approached by one of King Hubbert's contemporaries, Mr. L.F. (Buzz) Ivanhoe, to see if we would be interested. Well, we were, and here we are. The Center has been "established for the purpose of assembling and studying data concerning global petroleum supplies and the preparation of pertinent informational materials for the general public and media". The dedication ceremony will be held during the SPE conference in October. Specific time and place are:

Tuesday, October 8, 1996 3:30 P.M.

Alderson Hall, Room 263, CSM

If you can attend this event please phone (303) 273-3188.

SPE Conference Events at CSM

Also, during the SPE Conference in Denver the annual CSM Alumni reception will be held Tuesday October 8 at 5:30 P.M. in Ballrooms A, B & C in the new Student Center. The new center is beautiful and the evening will be a lot of fun, as usual. The food services provided should suffice for dinner for most of you attendees. If you have not preregistered for the reception on your conference registration form, please call the PE Office at (303) 273-3740. Transportation to and from CSM will be provided.

On Sunday October 6 during the SPE Conference we will be hosting student chapter events all day at CSM, capped off by a big reception in the new Student Center 4:30 P.M. Also, several SPE standing committees will use CSM facilities for their meetings on Sunday.

On Wednesday afternoon on October 9 we will host several hundred high school students from Colorado and

Wyoming. This is a great opportunity to showcase CSM and help these students widen their views of their future careers.

Well, that about covers the major recent and upcoming events. If you have any comments to share, please feel free to phone, fax, or write us at CSM. I sincerely hope you enjoy this newsletter and future ones. The program is healthy and the future looks bright, thanks to you and our current excellent students.

Hope to see you soon. Keep in touch.

Best Regards, Craig

C. Mark Pearson

So this is Colorado School of Mines! After nine months on the faculty I'm beginning to feel at home - even if alumni friends of my own alma mater (Camborne School of Mines in England) claim I joined the wrong CSM! Living in Evergreen, my wife Joanie and children Chris, Julie and Jack are enjoying the Colorado climate and topography. We're thankful that it's not too dissimilar from the beauty and great outdoors of Alaska that we experienced for the past seven years.



Mark Pearson

My first semester teaching PE 414 (Well Testing) went well and the Class of '96 did an admirable job of breaking me in without too many complaints. In the summer, PE 316 was a lot of fun - and I got to experience the Massadona "Hilton". This fall I'm teaching my specialty - Well Completions and Stimulation (PE 426) together with a graduate level class on the same topic.

Having worked 15 years in the petroleum industry before joining Mines I've managed to run into more than a few of you alums. At my last employer (ARCO Alaska) there are significantly more Miners than even Aggies! I can honestly tell you that your strong skills, pride in CSM, and general upbeat attitude to life were as important to me taking the position as the faculty team I came to join. Maybe I should mention that it was Ken Neupert, Class of '88, who pushed me to send in my resumé in the first place!

This fall I'm involved in launching a new joint-industry research consortium called PERFORM - Production Enhancement Research FORuM. It's an umbrella for

a variety of Completion, Stimulation, and Production Engineering projects. If you're interested in what we're doing please give me a call at (303) 273-3042 or e-mail at mpearson@mines.edu. It will be different from other university consortia. Why? - because over the last 10 years I've been involved with university consortia from the industry side of the fence. I know that sending a PhD thesis out to your completion engineer on the rig isn't going to change the way you do business even if there is some beneficial technology hidden inside!

Finally, for all you racketball players who have suffered at the hand of Bill Mitchell over the years. Yes, I can tell you that despite being told how all new faculty had to go through the ritual of being beaten up on by Bill there is truth to the rumor that I was able to sneak a victory over him before he left for his retirement!

Robert Thompson

The most fun during the summer was the week long RAGBRAI bicycle ride across Iowa with my family and some friends. My daughter summarized the week best when I heard her say: "I plan on riding each year for the rest of my life." I agree.

Work also continued during the summer on the DOE Multidisciplinary Research Project. The project goal is to demonstrate integration of data from the disciplines of geology, geophysics, and petroleum engineering to improve reserves estimates and reservoir description especially reservoir compartmentalization. We are in the final phase of the project. The final report is due later in the semester.

The SPE/SEG Joint Forum this summer on integration provided the opportunity to share CSM's experiences in educating for multidisciplinary teamwork. My week long involvement at the forum reinforces my conviction that we are doing the right thing in our multidisciplinary education efforts here at CSM. At the undergraduate level we have a senior level design course where students from the disciplines of geology, geophysics, and petroleum engineering work on teams to solve real data problems.

In my spare time, I am pursuing a Ph.D. in the Curriculum, Learning, and Technology program in Education at the University of Colorado at Denver. My efforts are related to my interest in multidisciplinary education. I am focusing on cooperative learning, assessment of cooperative learning groups, and technology applied to enhance cooperative learning.

The semester is already a busy one. The SPE Annual Technical conference in Denver will be the culminating event for several activities. Co-author on two papers: "Fracture Stimulation Treatment Design Optimization: What Can the NPV vs. X_r Plot Tell Us?" and "The Incremental Benefits of a Team Approach to Reservoir Management." Co-Chair for the panel on Reserves Definitions that will be held on Tuesday afternoon, October 8. We have assembled a diverse panel of speakers that will address the implications of the current reserves definitions and the proposed revisions. Finally, I will be making a presentation at the Tuesday morning GEMS session on the uncertainty and diversity of reserves estimates made by different evaluators. The presentation is based on John Hefner's thesis work and the paper "A Comparison of Probabilistic and Deterministic Reserves Estimates: A Case Study" published in the February 1996 SPE Reservoir Engineering Journal.

Richard Christiansen

Summer Field Session

On May 6, a TA, 25 sophomores, and I hit the road, eager to complete the three-week-long PE 315 field session. During the session, the group visited oil and gas



Field session students visiting rig near Lysite, Wyoming

sites in the Denver Metro area, then drove north through Wyoming, Montana, and into Alberta. The group met with alumni in Calgary, in addition to visiting producing locations in the surrounding area. The group visited the massive mining operations in Ft. McMurray, where oil is extracted from the Alberta Oil Sands. There, the students walked through an oil reservoir! On the return trip to Denver, several companies in Wyoming's Bighorn Basin hosted visits to their operations. A geological field trip to the Sheep Mountain Anticline in the Basin was particularly memorable. The field trip ended with a visit near Lysite, Wyoming, to a rig drilling to 25,000 feet in the Madden Field. Much appreciation is owed to the alumni and the gracious operators who made the trip a success.

Multi-Phase Flow Through Whatever

Multi-phase flow in wells, fractures, and reservoirs is a common feature of research which I am managing. Support for these projects comes from DOE and from industry consortia.

A flow loop was built this summer for research on technology for liquid lifting from gas reservoirs. The flow loop capabilities complement those of a loop built last summer by a student working with Prof. Saleh. The new flow loop hangs 40 feet from the top of the high-bay lab in the new laboratory wing, and can be tilted from vertical. A flow meter, donated by Micro Motion, provides accurate measure of the gas flow rate. The flow loop includes a gas-liquid separator for recirculation of liquids. Experiments for lifting of water and light oil have started.

Since Fall of last year, two grad students have studied the placement of proppant in hydraulic fractures using small experimental models. One student correlated "proppant placement efficiency" with two dimensionless groups. The flow patterns in the small models closely resemble the flow patterns in much larger experimental models. The second student built a flow model for probing the relationship of viscoelasticity of fracture fluids to proppant placement. His experimental model represents a hydraulic fracture intersecting a natural fracture. The student sees that formation of localized proppant-packs around the leakoff site depends on rheology of the fluids, proppant concentration, and leakoff rate.

Time-lapse seismic data may provide a glimpse of flowing oil, gas, and brine in reservoirs. Data interpretation requires a correlation for seismic wave velocities through fluid-saturated rock. Students from the PE department and I are working with a group in the geophysics department to develop the needed correlations. The PE group supports the total effort with measurements of fluid phase behavior, compressibilities, densities, and relative permeabilities.

Are We Communicating?

For more than five years, the Petroleum Engineering Department has required graduate students to take "Professional Oral Communication" taught by Prof. John Hogan from the department of Liberal Arts and International Studies. We observe that the course dramatically improves the oral communication skills of the students. Last Fall, I worked with Prof. Hogan to push 35 undergraduate PE students through the intensive course. The benefits were clear in the student presentations for last Spring's PE 439, Multidisciplinary Petroleum Design. As a result, we have "permanently" replaced the seminar format of PE 481 with Prof. Hogan's course.

Saad Saleh

I wish to avail this opportunity to salute all CSM graduates. Some of you know that I am a CSM graduate at least two times (MS in PE, 1983, and Ph.D. in PE, 1987). In 1988, I went to Alaska, Fairbanks and started teaching petroleum engineering at UAF. Two years later, I worked with BP (Alaska) as a drilling engineer (Prudhoe Bay field). My next career journey took me south to Golden to work at CSM (PE Department) as an assistant research professor (April, 1993). Since then, I have



PVT Lab students working with Professor Saleh

worked on teaching and research. My teaching is focused on the development of undergraduate laboratory courses as well as new graduate courses (foam, horizontal wells, and formation damage). I am very pleased with the progress made to develop new laboratory experiments on gas well testing, gas well loading and two phase flow. One of my graduate students (Gordon Olson) just finished his MS thesis work on the development of a 40-foot flow loop designed for teaching and research. I have several graduate students working with me on polymer enhanced foams, horizontal wells formation damage, liquid lifting

with foam, and enhanced oil recovery from fractured reservoirs.

Research and teaching aside, recently, my family took the biggest share of my attention. In August, my wife Luma, had a "scary" 12-hour brain surgery to remove a tumor (thank God it is benign). Certainly, it was a tough time for us. Luma is now recovering fine from her surgery. My wife's struggle with her illness is a classic case of some of the darkest as well as the finest pages of America's HMO health system.

Going through all this, and against all odds, I initiated the research team FACT. My dream is to see FACT as one of the prominent industry research arms. FACT is a research team dedicated to solve the industry's most expensive field problems. Here at the Colorado School of Mines, in the Petroleum Engineering Department, FACT is armed with a full-time staff of researchers, unique laboratory facilities, and expert guidance from around the globe. Current FACT membership includes six majors, a major service company, and the GRI. FACT's budget for 1995 and 1996 is \$240,000. FACT has built an advanced laboratory for foam and conformance control research which contains state-of-the-art equipment in excess of \$500,000. The laboratory has been operational for more than a year and FACT now has well trained researchers in foam work.

Our FACT research agenda is industry-driven. We are always interested in hearing the industry concerns and interacting with the professionals about their field problems. The FACT agenda for 1997 will address several areas such as: stimulation fluid diversion with foam, gas and water shut off, and foam lift technology for unloading liquids in low pressure gas wells.

FACT tested successfully several prototypes of the radial wellbore model which will be used in future research on formation damage, horizontal well clean up, and gas and water shut off in layered reservoirs. FACT has established a new laboratory dedicated to these studies.

To become a member of FACT, contact us (full membership fee is \$20,000 per year). Please help us deliver the FACT message to interested industry professionals. If you require additional information, call professor Saleh at 303-273-3787 or send an e-mail to ssaleh@mines.edu, or ssiddiqu@mines.edu. You may also visit our Internet home page at <http://www.mines.edu/research/fact/>. We look forward to seeing you at the Colorado School of Mines during the SPE convention for a tour of the FACT Laboratories.

Alfred William (Bill) Eustes III

I am the newly appointed professor of drilling teaching the drilling classes, both undergraduate and graduate. My research specialty involves drilling mechanics.

Before my faculty appointment at the beginning of this fall semester, I had been a graduate student at CSM since August of 1990. In many respects, I am an old hand here; but with my new appointment to the faculty, it's a whole 'nother ball game. By the way, I am a graduate of the "right" CSM.



Bill Eustes

It has been interesting to see both the students' views of CSM and the faculties' views as well. Students tend to take a semester by semester (often assignment to assignment) view of life at CSM. The professors have a considerably longer outlook, always trying to improve the quality of education here. I had no idea of the efforts that the faculty accomplish improving the educational quality. Now I do.

As for me personally, I am married to a wonderful woman named Susan and have two children, Alicia, 5, and William, 1, and a neurotic cat. It should be noted that both children were born during my Ph.D. studies here at Mines. There can be life while you are a student.

Drilling Engineering Research Group

DERG is the umbrella organization for drilling research in this department performing advanced studies in drilling simulations. It was started in 1992 in response to a research initiative from the Yucca Mountain Project.

The project that started DERG was the Vibratory Core Rod Simulator (VCRS). This is a drilling simulation of the vibrations encountered while air drilling volcanic rocks using PDC bits. The program was very successful. One unique aspect of the project was the use of bit vibration data gathered from full scale bit and rock tests. We went on to build the Deviation Control Simulator (DCS) used to determine how far to drill ahead of a reamer without getting outside the reamer's track and the Air Circulation Coring Simulator (ACCS) used to determine the air circulation parameters for air coring operations.

Another drilling research project was accomplished for the sonic drillers at Hanford, Washington. The ResonantSonic Drill is a rig that drills by vibrating a pipe at resonance. Coring samples can be taken without bringing potentially contaminated cuttings to the surface. Our program, the ResonantSonic Drilling Simulator (RSDS) was written to predict the frequency for resonant conditions.

Other research projects include the theoretical and experimental three-dimensional, curved bore hole, drillstring, buckling research project. Another project is the drillstring jarring simulator using a frequency domain approach to wave propagation analysis. Finally, a new experimental wave propagation laboratory is being planned using seed funds provided by CSM.

Ramona Graves

This marks my 15th year as a PE faculty member and I still love rocks! However, I no longer call my undergraduate classes “rocks” and my graduate class “yet more rocks”. The classes I teach now have names like Reservoir Rock and Fluid Properties, Advanced Reservoir Characterization, Multidisciplinary Design, and Fluid Flow in Porous Media. My Reservoir Characterization (rocks) research lab is outstanding. I have a CMS-300, a Pressure Decay Profile Permeameter, a Point Acoustic Velocity Profile Apparatus, High Pressure Mercury Capillary Pressure Equipment, a Field Mini-Permeameter and, of course, all the routine core analysis equipment.

My service to SPE is still a source of great pleasure. I am on the Education and Accreditation Committee and will be the Convener of the 4th Colloquium on Petroleum Engineering Education, which will be held in the summer of 1997 in Breckenridge, Colorado. These, along with my additional duties as Acting Department Head, will keep me very, very busy this year.

However, my classes, research, committee service and new departmental responsibilities are minor compared to being the mother of two teenagers. Jacob, a sophomore, is 15 (of course he won't be driving until he is 21!!). Lacey, a freshman, is 14 (of course she won't be dating until she is 21!!). My life is good and fulfilling - both at work and at home.

PE 316 Massadona Field Camp

Yes, for three weeks in May the juniors still have the time honored tradition of going to Massadona. Time, however, did not freeze when you Alumni graduated!

Physically many of you would not recognize the place. Improvements include running potable water to your doorstep and individual breaker boxes on the cabins so the space heaters, stereos, computers, and microwaves don't cause a camp-wide black out. AMOCO donated a huge seismic trailer we use as a headquarters which is heated so the faculty (Ramona) and the Geology TA's are happy campers. Because it is an important tradition to be able to complain about living conditions, the cabins are still cold and breezy and the students still have uninvited roommates such as mice, snakes, rabbits, etc. The bathrooms (outhouses) and showers (barrels) are still the same.

The learning objectives have also changed. No longer are the primary goals to “make men out of boys” and to beat the locals at baseball and beer drinking. We now focus on multidisciplinary reservoir characterization. The importance of geologic description, Skull Creek anticline mapping to core description, is related to reservoir management and simulation. CHEVRON is still our primary host (their facilities have also improved!). CONOCO now has an office in Ranglely and will also be hosting us next year. Additional support comes from Production Logging Services, Inc. who gives us a one-day short course on production logging, Halliburton who gets us on a frac job, and Coastal and Pennzoil have let us tour their big drilling rigs in the Altamont-Bluebell area. Support from independents, such as Linmar Petroleum and Inland Petroleum, allow us to compare and contrast the operations of majors vs. independents.

This year new professor Mark Pearson got to experience the joys of Massadona. Since he is teaching the completions and stimulation classes, he wanted to see what the seniors had experienced (in the way of those topics) before they take his class. He had some great input



What's on the menu? Coyote or dog?

for me and with his help, the Massadona Experience should continue to improve. I plan on still doing 316 for many years, at least as long as Van Kirk believes the white water rafting trip down the Green River is a valuable geologic experience.

Scott Goldberg

President, SPE Student Chapter

The 1996-97 school year will be a year for firsts with the SPE chapter here at CSM. The officers and I have been working hard since the spring to make this a great year for the Petroleum Engineering Department. Our chief focus for the fall semester is the Annual Technical Conference and Exhibition held here in Denver. For the first time in SPE history, CSM SPE will be hosting all the student activities on Sunday October 6 here in Golden in the new Ben Parker Student Center.

The chapter itself has been growing healthily over the past two years. During the 1995-96 school year we enrolled 49 new members into SPE. Thinking that it would be difficult to match that number, we set the goal for this year at 35 new members. As of the fourth week of school we have signed up 51 new members, well surpassing our goal for the year as well as last year's total.

Department of Petroleum Engineering
Colorado School of Mines
1500 Illinois Street
Golden, CO 80401



The main organizational goal the chapter has for this year is "activity"! One goal is to have an industry speaker at each meeting, twice a month. In addition, we will be hosting the SPE Student Paper Contest for the Rocky Mountain/Mid-Continent Region. We not only are planning to be the hosts but also the 1st place winners! We will also submit articles and pictures for publication in the JPT as often as possible. So look for us! This spring we have two activities planned for alumni/Denver SPE Section. Number one, we will have Joint Session with the Denver Section. It is tentatively set for the month of March. In addition, we are planning to host the 1st Annual Colorado School of Mines Golf Tournament. We would like to play a four-person team best ball tournament with an even mix of students and alumni. So watch for a mailing and get out your clubs!

All in all it should be a great year for the Society of Petroleum Engineers at CSM.

As many of you are aware we lost our dear friend Dr. Fred H. Poettmann in June of 1995. His family has established a fellowship fund in his name to financially assist petroleum engineering graduate students who are completing their research and thesis requirements. Special warm thanks are sent to those of you who so generously contributed to this very worthy fellowship for our students.