The Department of Geosciences at Virginia Tech is in a unique position within the University to address major societal challenges of the 21st Century and provide the intellectual foundations of a global, process-based understanding of Earth. The planned Geoscience Discovery Center, the new home of the Department, will be the focal point of this effort as a state-of-the-art STEM (Science, Technology, Engineering, and Mathematics) education, research, and outreach facility. It will provide an extraordinary opportunity to showcase geosciences, scientific discovery, and the Earth.

In May, 2008, the faculty in the Department started working diligently on developing a 2010-2014 strategic plan. The plan was finalized and submitted to the Dean of the College of Science in late fall, 2009. In preparing the strategic plan, the faculty recognized that the Department of Geosciences has a long history of excellence in research, graduate and undergraduate education, and service to public and scientific communities. The Department was ranked 28th according to U.S. News and World Reports (2006) and 15th among public universities. In the 2008-2009 academic year, grants-in-force (65 grants) totaled $7.4M (second in the College of Science per faculty member), while faculty published an average of 4.2 peer-reviewed manuscripts per year. We argued in the strategic plan that with sustained support and investment, the Department of Geosciences will continue to add significantly to the University’s scholarly reputation. In fact, we are playing a defining role in realizing the goals of the University strategic plan in the area of Energy, Materials and the Environment.

Our vision is to be counted among, and to be fully competitive with, the top public-university geoscience departments in the United States. The most recent external program reviews in 1999-2000 and 2007-2008 indicated that the Department is poised to achieve the goal of being among the top ten or even top-five public-university geoscience departments in the United States within the next decade. The external visibility and intellectual contributions of the faculty (and alumni) in the Department of Geosciences demonstrate that further investment will have a large payoff in terms of scholarly output, including continued success in obtaining external funding.

The Department is confident that even in this time of tight budgets and resulting reductions in state support to Virginia Tech, we will be able to realize the goals outlined in our strategic plan. One way of realizing our goals in these difficult economic times is through donations from alumni. Previous contributions have assisted the Department in numerous ways including support for undergraduate tuition scholarships, graduate student fellowships, student research, field trips, and museum outreach activities. If giving to The Campaign for Virginia Tech, alumni are encouraged to direct their contributions to the Department. Thank you!
Department Celebrates 15th Annual Alumni Dinner, November 7, 2009

For well over a decade, alumni and current faculty, staff, and students have gathered once a year to celebrate our Department, and our contributions to science, the Commonwealth, the nation, and the world. The event has served to keep the rich history of the Department alive, to recognize the careers of our faculty, and most importantly to give alumni a reason to come back to campus to celebrate the past and look to the future.

The fall 2009 event featured alumni from four different decades: 1950s (Bill Presley), 1960s (Jeff Jeffries), 1970s (Mike Hochella), and 1980s (Kay Jacobsen Johnson). During their presentations, all using numerous projected photographs, maps, and assorted data (tuition costs, faculty at the time, student enrollment, and so on), they wove a story that, together, covered a good deal of the second half of the department's century-plus history. Indeed, Professor Emeritus Wally Lowry, who joined the faculty in 1948, was present, having just celebrated his 90th birthday. (For those who are wondering, Wally is as lucid as ever, and is doing well.)

The cumulative message that was clear at the end of the evening was that the Department’s storied history, which now boasts over 1,500 alumni, many of whom are internationally recognized geoscientists, is based on a foundation well rooted in academic excellence and innovation, along with equally important collegiality which seems to last a lifetime.

One of the speakers for the evening (Mike Hochella, ’75) is currently a Virginia Tech University Distinguished Professor. Brief bios of the other speakers are presented on page 4, along with other pictures on page 3.
Bill Presley, ’57. Bill was born and grew up in Bluefield, Virginia, graduated from Graham High School in 1953 and attended Bluefield College for one year before transferring to Virginia Tech in 1954. He graduated from VT in 1957 with a BS in geology. Bill worked for nearly 38 years as an exploration geophysicist for the Exxon Corporation (now ExxonMobil) or one of it’s affiliates based in Wyoming; Montana; Colorado; Utah; London, England; Sydney, Australia; Singapore; Louisiana; and Texas. Currently, he lives in Bristol, Tennessee, with his wife of 49 years, Francia.

Jeff Jeffries, ’65. Jeff was born near Baltimore, Maryland, and attended Boy’s Latin School there. He came to Virginia Tech in 1961 and graduated with a degree in geophysics in 1965. During his 34 years with what is now ExxonMobil, he worked in petroleum exploration and held a number of important technical and management positions, both domestic and foreign (including many years in Singapore and Indonesia, as well as China). He currently lives in Maryland with his wife of 44 years, Dee.

Kay Jacobsen Johnson, ’86. Kay earned a B.S. in geology from Virginia Tech in 1986. She married fellow alumnus Neil Johnson that same year. In 1994, Kay earned a Master’s Degree in Library Science from the University of Pittsburgh. She worked as a librarian at the University of Tennessee in Knoxville from 1995 to 2006. In May 2006, Kay became Coordinator of Technical Services at McConnell Library, Radford University. She is very happy to be living with Neil again after 13 years of commuter marriage. Neil is happy to be living with the cat again. Kay is currently Vice President and President Elect of the Geoscience Information Society.

Geosciences Graduation 2009

Thirty-one outstanding students graduated (18 B.S., 8 M.S., and 5 Ph.D. degrees) on May 16, 2009. This marked the 103rd year since the first graduate, Joel Hill Watkins, finished his geoscience degree not far from Hancock Hall where the latest ceremony took place. The featured speaker was Dr. John T. Wells, Dean and Director of the Virginia Institute of Marine Science of the College of William and Mary. Dr. Wells, a coastal marine geologist, completed his B.S. degree at Virginia Tech before obtaining his Ph.D. at Louisiana State University.

The pictures below and on the next two pages record for posterity this most important of annual departmental events. Congratulations to our graduates!
All Earth scientists are trained to recognize the dangers of natural hazards, but relatively few actually do that for a living. Jason Hinkle, B.S. ’96, is one of them. As a geotechnical scientist working for the Oregon Department of Forestry, one of his duties is to evaluate landslide hazard and risk for timber harvesting and logging roads. His experience in this field, as well as quick thinking, aggressive action, and (literally) bravery resulted in his actions that almost certainly saved lives in December 2007, near Woodson, Oregon, about 75 miles northwest of Portland. Heavy rains had resulted in a series of smaller mass wasting events that caused water, mud, and forest debris to back up behind a large, old railroad embankment in a canyon above the town of Woodson and a section of U.S. Highway 30. Early in the morning on December 11, he determined that a dangerous debris flow was imminent and immediately notified local law enforcement and the Oregon Department of Transportation to close the highway and evacuate a portion of the town. It was only 90 minutes after Jason’s call to immediate and decisive action that what had essentially become an earthen debris dam behind the highway failed, sending a large debris flow down the canyon, over the highway and toward the town at 30 to 40 miles per hour. In a matter of minutes, not only had a section of the highway been taken out, but four homes and a restaurant were buried in mud. However, instead of a tragic ending, thanks to Jason, there was no loss of life, and not even a single injury. For his keen professional insight, the specific actions he took, and heroism, in September of last year Jason was awarded a special Presidential Citation from the Association of Environmental and Engineering Geologists at their national meeting in New Orleans. Congratulations Jason!

Dr. Mickey Gunter is a self-proclaimed “lab geek” who prefers to work hunched over a microscope, rather than scrambling down mountainsides for field samples. A mineralogist, Mickey has spent much of his career researching the health effects of mineral dusts. As an expert witness for the defense in the trial U.S. v. W.R. Grace and Co., he brings to the courtroom what he’s learned about minerals and their potential health risks.

Mickey published his first paper on the subject in 1994, entitled “Asbestos as a metaphor for teaching risk perception,” and has studied mineral dusts in Libby, Montana, since first visiting Zonolite Mountain, the site of the former W.R. Grace vermiculite mine, in 1999. He has worked with the Environmental Protection Agency and the U.S. Geological Survey to categorize the Libby minerals.

Mickey’s work, however, extends far beyond Libby. He was a member of the EPA review committee on the World Trade Center dust screening method in 2005; a member of the executive board of the Mineralogical Society of America from 2007 to 2009; and part of the Agency for Toxic Substances and Disease Registry’s expert panel on asbestos biomarkers in 2006.

He has also taken his work and expertise overseas. Mickey was a visiting professor at the Department of Earth Sciences at the University of Italy, Rome, in 2007 and at the Graduate School of Human and Environmental Studies at Kyoto University, Japan, in 2002, and a visiting scientist at the University of Bern, Switzerland, in 1996.

“First and foremost,” he said, “I am a college professor and like working with students at all levels.”

Mickey is now a professor and chair of the Geological Sciences Department of the University of Idaho. He teaches classes on basic mineralogy, X-ray diffraction, and optical mineralogy. He was also voted “Most Popular Faculty Member” in 2002 by University of Idaho students.

Mickey received his Bachelor’s degree from the University of Southern Illinois, and his Master’s degree and Doctorate from Virginia Tech in 1982 and 1987, respectively.

When he does break away from the lab, Mickey likes to ski Idaho’s backcountry, which he says he enjoys as much as teaching.

— Will Grant

Credit: Will Grant, graduate student in print journalism, University of Montana.
Christian Shark (B.S. '59) passed away on September 12, 2009. 
"Christian was an outstanding geologist and educator who made significant contributions to the field of geology. He will be greatly missed."

David Speirs (M.S. '83) writes, "I received my M.S. from the department in 1983 and headed straight to New Orleans where I worked for Chevron USA for eight years. I moved back to Virginia (Buckingham County) in 1991 and started working as a geologist for the Virginia Department of Mines, Minerals and Energy (the state geological survey). I am married with children ranging in age from 29 to 16. In August I was honored to be named State Geologist of Virginia." Congratulations, David!

Ann Waybright Whitehead (B.S. '71) passed away June 19, 2009. Ann and her husband, Neil H. Whitehead III, worked together as consulting geologists to the oil and gas industry for the last 14 years.

Dwight Holland, M.D., Ph.D. (M.S. '86) was inducted into the International Academy of Aviation and Space Medicine as an Academician in Boston, Massachusetts in May 2008. Membership in this academy is limited to 250 worldwide. Dwight also was delighted to speak at the 2008 Geosciences dinner to honor his advisor during graduate school, Dr. Ed Robinson.

Eric Shertzer (B.S. '90) is now a Branch Manager for ATC Associates, Inc. in Virginia Beach, Virginia. You can reach Eric at eric.shertzer@cassociates.com.

Sven Morgan (M.S. '92; Ph.D. '98) has been promoted to full professor and elected Chair in the Department of Geology at Central Michigan University in Mt. Pleasant, Michigan. Congratulations, Sven.

Jason Reed (Ph.D. '03) has moved to New York and is working at Greg Bank's (M.S. '01) new company, Seneca Resources. He is leading their Marcellus shale effort as well as their Upper Devonian tight gas sandstones. Jason and his family are now residing in Amherst, New York.

Elizabeth Vanacore (B.S. '03) is a Postdoctoral Researcher at the Research School of Earth Sciences in Canberra, Australia. You can reach Elizabeth at 811/86 Northbourne Avenue, Braddon, ACT 2612, Australia. You can write to Elizabeth at liz@rsees.anu.edu.au.

DeBonnie Wishart Shumate (B.S. '05) writes, "I have gotten married, survived my first army deployment and am currently working on our first home." You can reach Sabrina at 1897 Clifton Bridge Drive, Virginia Beach, Virginia 23456.

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Faculty News

Ross Angel has been selected to receive the 2011 Dana Medal from the Mineralogical Society of America (MSA). The Dana Medal is a major award given to only one person each year to recognize sustained outstanding scientific contributions through original research in the mineralogical sciences.

Barbara Bekken won a University Exemplary Department/Program Award in 2009 for the Earth Sustainability two-year course series. Dr. Bekken also won the 2010 Alumni Award for Teaching Excellence and the Diggs Teaching Scholar Award, both University-wide honors of great distinction.

Robert Bodnar received the Virginia Scientist of the Year Award from Governor Bob McDonnell in a ceremony at the Science Museum of Virginia in Richmond on January 28, 2010. Virginia Tech President Charles Steger also attended the event.

Patricia Dove was elected a 2010 Geochemistry Fellow by the Geochemical Society and the European Association of Geochemistry. This Fellowship is awarded each year to a few outstanding geochemical scientists who have made a major contribution to the field of geochemistry.

Scott King received the prestigious Alexander-von-Humboldt Research Fellowship in December, 2009. This award is granted in recognition of a researcher’s entire academic achievements to date when these fundamental discoveries have had a significant impact on their own discipline.

Madeline Schreiber was elected Fellow of the Geological Society of America. Outstanding GSA members are elected to Fellowship each year in recognition of long-term distinguished contributions to the geosciences.

Shuhai Xiao was awarded the Virginia Tech Alumni Award for Research Excellence for 2010. Each year, only two professors of approximately 1,400 on campus are selected, so the competition for this prize is extremely keen. Dr. Xiao will receive the award from President Steger in August.

Professors Read and Rimstidt Reach Career Milestones, Transition into “Retirement”

Our two longest serving faculty members, Don Rimstidt and Fred Read, will be retiring at the end of spring semester. During their careers, Fred and Don both gained international reputations in their fields of study, and contributed to this Department and Virginia Tech in innumerable ways. Please attend the Department’s reception at the GSA meeting in Denver this fall to wish both Don and Fred all the best. In addition, endowment accounts are being established in their names and will be announced by the end of this summer.

Don Rimstidt joined the department in the summer of 1980. Over his 30 year career at Virginia Tech, he taught many courses including physical geology, environmental geology, mineral deposits, geochemical thermodynamics, and geochemical kinetics. He supervised 15 M.S., 8 Ph.D. students and 2 postdocs. Don was the Assistant Department Chair from 1988 to 1994, and from 2000 to 2004. He was the Department Chair from 2004 to 2005.

Don is best known for his contributions to the field of geochemical kinetics. In addition, he and his students have published highly cited papers on applied geochemistry including acid mine drainage, trace elements in the environment, nuclear waste disposal, mineral dust hazards, and sediment diagenesis.

A retirement dinner at which Don’s colleagues will recognize him is planned for September of this year in Blacksburg. At the fall GSA meeting in Denver, a symposium in his honor is planned. A lively dinner to celebrate his scientific career is planned in association with the meeting. If you would like more information on these events, please contact Dr. Patricia Dove (dove@vt.edu).

Fred Read came to VT Geosciences in 1973. Fred’s group at Virginia Tech spent many years working on North American carbonate – from these studies came a better understanding of how carbonate platforms develop, and led to a widely used classification of carbonate platforms. Much of their recent work involves refining techniques for high-resolution sequence analysis in the subsurface with a focus on Mesozoic carbonates in the Middle East and Croatia.

Fred was awarded the AAPG Distinguished Educator Award and the Pettijohn Medal, and he and his students are the two-time winners of the Best Paper published in the Journal of Sedimentary Research. Fred feels like the highlight of his career has been all the great students that have come through the carbonate lab (11 M.S., 16 Ph.D. students and 3 post docs). In summer 2011, Fred’s many contributions to the Department and the scientific community will be recognized by his colleagues and former students at a two-day symposium, field trip and dinner in Blacksburg. For more information on this, please contact Ken Eriksson (kaeson@vt.edu) or John Grotzinger (grotz@gps.caltech.edu).
Please join us for a Field Trip and Dinner

Celebrating Virginia Tech’s Saltville Field Camp

October 2, 2010

To facilitate planning for this special event, please contact Mary McMurray if you plan or hope to attend.

540-231-6521
mcmurray@vt.edu