Dear Alumni and Friends,

Greetings from the Geosciences Department as WMU begins its Centennial year. There will be many special events going on throughout the year, as we celebrate this important milestone. One of my tasks associated with the Centennial was to write a departmental history. The result, which is included in this newsletter, was put together with the invaluable help of emeriti Lloyd Schmalz, Dick Passero, Tom Straw, and John Grace, and some of the "old-timers" in the faculty (I don't include myself—I've only been here 16 years, although it seems more like two or three years.). If any of you have any thoughts, memories, or anecdotes about your experiences in the department, please send them along and we can include them in future newsletters.

As most of them are, it's been an eventful year for the department and for me personally. We have a new faculty member to introduce to you, Mike Grammer, who comes to us from Chevron Texaco, after a distinguished career in the oil industry. Mike, who will serve as Bill Harrison's replacement, when Bill steps down next year, will introduce himself to you later in this newsletter. Mike will play a major role in the petroleum geology area, as well as with the core lab. A major push is being made to build a core lab facility west of campus. This is something that the department is very excited about because it will replace the woefully inadequate space in West Hall that the lab has been saddled with for many years. The lab will be built by donations from foundations and individuals and we are hoping that the State of Michigan will provide substantial support as well. As you can imagine, a project of this magnitude will require a significant funding drive, and we now have the support of the administration and the WMU Foundation in this effort. Bill will tell you more about core lab activities in his section.

Our recognition of the stellar achievements of our alumni continues this year with the selection of Ronald A. Parker for the College of Arts & Sciences alumni achievement award. Ron's bio is included in the newsletter. In addition, we have inducted three new members into our Outstanding Alumni Academy, which was started last year. These exceptional individuals include Jerry Aiken, Tom Kamin, and Paul Daniels. The awards were presented in a very nice ceremony in the lobby of Rood Hall on the Friday of homecoming weekend in the presence of the Departmental Advisory Council, of which all three are longtime members.

In terms of my own activities, my research commitments have now probably exceeded my ability to do the work. As they say, be careful what you wish for. I have major involvement in three projects. One is the ongoing mapping of the glacial geology of southwestern Michigan, now in its eighth consecutive year. Last year, we finished Van Buren County (four graduate students were involved in this mapping), and in the current year we are starting Allegan County. I believe the Van Buren work has led to some significant new interpretations and I am looking forward to writing a paper on them. This program is a subcontract from USGS via the MDEQ. I am also working on bluff recession on Lake Michigan with Ron Chace and we are just beginning a major new phase of work with the US Army Corps of Engineers. I'm sure Ron will describe this in more detail in his contribution. Thirdly, I recently received word that our proposal to the US State Department for an Educational and Cultural Exchange with Suez Canal University and South Valley University in Egypt was funded. This project will fund a trip to Egypt to begin research on problems of groundwater supply and contamination by a group of approximately nine departmental faculty members and students in April. I am keeping my fingers crossed that we are not in the midst of another Gulf war at the time that the trip is supposed to take place. Next summer, a group of ten Egyptian faculty and students will visit WMU for 6 weeks to participate in the hydrogeology summer field camp and other activities.

Because of all this activity, I am hoping to take a sabbatical from the chair position next academic year, both to work on these projects and to try to develop some rudimentary skills in GIS. We will also be hosting the Midwest Groundwater Conference next fall and that will also occupy some of my time. As I write this, the sabbatical is not definite, but I am really hoping it will take place.

Last summer after the glacial course in the spring, I took a trip to the Canadian Rockies with four graduate and undergraduate students to look at some of the spectacular glaciers and glacial features there. For those of you who remember a similar trip about 10 years ago, we had no grizzly bears in our camp this time. Except for me falling into a river I was trying to cross, it was a great trip in all respects. The attached photo is from that trip.

I am now the proud parent of a brand new freshman (daughter Liz) in Western's burgeoning student population. I have tried for years to convince her to major in geology but that hasn't worked. What's the matter with kids these days, anyway? My older daughter Michelle moved back to the area from Maine, where she had lived for several years and where we have several rental properties. Her twin sister Melissa still lives there. Kay continues to run the household, monitor our rentals in Maine and take an occasional course at KVCC. Her forays into the stock market are now pretty much over since the market has beaten us up so badly that I will probably never be able to retire. But that's not so bad; I kind of like it here.

Best wishes to all of you. Your steadily increasing contributions to the department over the past few years allow us to subsidize student field trips, equip computer labs, and fund other useful projects. For this, as well as visits to the department and news items you send us, we are eternally grateful.

Kyle Roslund, Brian Bird, Amy Nowakowski, Steve Beukema, and Alan Kehew in the Canadian Rockies.
Hello to WMU Geosciences Alumni and friends,

I hope all is well with our faithful friends and alumni. The last year has been a good one with continued activity in the areas of Michigan basin subsurface Geology, computer applications, and a new area of activity, ground water quality assessment and monitoring at the University Business Technology and Research Park.

I have been fortunate this last year to continue involvement in DOE funded research (with Bill Harrison and his colleague Jim Wood at Michigan Tech as co-PI's) with carbonate hydrocarbon reservoirs in the Dundee Limestone formation in Michigan. I have been involved with reservoir characterization studies in several oil fields in Michigan. Our work has suggested that Dundee reservoirs have a wide range of production characteristics resulting from the existence of at least three distinct "reservoir facies" in the basin.

Along with Harrison and Robb Gillespie, I was involved in a detailed reservoir characterization study of the Dundee Limestone in the South Buckeye oil field in Gladwin Co. The project was in support of ongoing water flood activities at South Buckeye, and we were able to show the fundamental control of primary sedimentary facies on the distribution of reservoir quality and probable bypassed production in the field. I was the presenter of a paper entitled: Dundee Limestone (m. Devonian) Reservoir Characterization and Enhanced Oil Recovery, South Buckeye Oil Field, Gladwin Co., MI by Harrison, Gillespie and myself at the Eastern Section Meeting of the AAPG in Champaign, IL recently.

Significant advances in our understanding of dolomite-dominated Dundee reservoirs in the central Michigan basin have also resulted from the DOE funded research. Using extensive, subsurface digital data bases for formation tops, Jim Wood has shown the regional significance of fault structures on many dolomitized Dundee reservoirs. This is a follow up to detailed work in the Vernon field in Isabella Co. suggesting the importance of faults and fractures in the origin of the dolomite-dominated reservoir in this field. We now believe that faults and fractures in the Michigan basin, produced by reactivation of basement faults, are very important to the origin of dolomitized Dundee reservoirs analogous to the geology of reservoir rock in the Albian-Scipio trend. These relationships are important from the standpoint of a "new" exploration model as well as a model useful for field scale enhanced recovery activity. I hope to continue with research to characterize dolomite and dolostone in the Dundee in Michigan in the coming years.

I was able to conduct a "Spatial Data Analysis" graduate class in the department last winter and, as usual, I was kept very busy staying ahead of the class. It was a successful (albeit small) class in which we realized great value in the application of computer technologies, including GIS, to the analysis of a wide range of geological information. I would be very interested in your perspectives on the importance of computer technologies and data analysis in the professional geology world and the importance of this specialization in our curriculum.

Finally this last year, our department (Cassidy, Hampton, Kehew, Sauck, and myself) received nearly $50,000 in funding to participate in environmental assessment and monitoring at the new University Engineering and Business, Technology, and Research (BTR) Park. Paul Pare, William Paul, and Regan Goodrich (graduate and undergraduate students in the department) have been involved in this project in 2001-2002. Some of you may be interested to know that one of the objectives of this study is the compilation of information generated by student theses and field course work in the Asylum Lake area over the last decade or so. We were fortunate to have 12 water wells drilled on the Universities property and are using these wells as basis for our ongoing monitoring program.

Initial studies indicate "a clean bill of health" for ground water in the BTR Park area. The main product of this work will be the generation of information on ground water quality in the form of maps. These maps will be made available to the University community as well as the general public to document and insure future environmental quality in conjunction with the development project.

Best wishes and I am always pleased to hear from our alumni!

Hello all!!

This year has been a busy and interesting one for me. First of all, I got married last November. This has been about the biggest change in my life to date (but a good one). In addition, I keep adjusting to and settling into the life here at WMU. I finally feel like my lab is completely up and running, and I've hit my stride (so to speak).

As far as teaching goes, I tried my hand again at Geology 100. I think I'm...
getting better every year. As regards research, I continued working with Duane Hampton and Dave Beck, and Steve Kohler (from Environmental Studies & Biological Sciences) on our project with the Michigan Department of Environmental Quality. This is the project where we proposed to study the use of geotextile blankets to keep PCBs in the Kalamazoo River out of the food chain. We put in some test patches in a stream near Gull Lake, and the results look quite promising. It’s nice to be involved in a project with Duane Hampton, who comes up with good ideas like this one.

This coming year will be an interesting one. I hope to see you all at the various departmental functions.

Ron Chase

Hello once again to all former students and colleagues. I would like very much to hear from you (ronald.chase@wmich.edu). I am proud of the successful people that keep coming from our department. I have been around long enough to have taught a very large number of you and would like to keep in touch.

As life goes on, I have completely lost track of time. My job is still as much fun as it was when I arrived in 1973. I will retire when the fun ceases - hopefully a long time from now. My newsletter comments will be somewhat different this year. I don’t have too much to say about my current teaching because I am on research leave. As you probably know, Al Kehew and I are deeply involved in a long-term study of erosion problems in Great Lakes coastal environments. We have studied carefully the causes and mechanisms of erosion, have proven that ground water is the principal culprit where perched water systems exist, and have proposed mitigation methods that involve pumping water from the soil layers where the water collects. The U.S. Army Corps of Engineers is funding a six-year experiment where wells will be installed at three study sites with intake locations based on my structural models and Al’s ground water expertise. We will pump the water during peak storage times and turn off the pumps during drier times while electronically monitoring all bluff movements on an hourly basis. We are now in the electronic instrument installation phase and the USACE has bought out my teaching time to supervise the contractors who are doing the work. Al and I keep getting our annual grants, but the project is getting a bit frustrating because the Corps has difficulty following their own schedule. If all goes well, the pumps will be installed soon also. If any of you are interested in the work Al and I have done that led to this project, please contact me and I will send reprints of several publications.

The home front is also somewhat different this year. I continue to feel great, jog regularly, play tennis with the old farts on Monday evenings, and race about in my Miata. Chris has cut back somewhat on her teaching load. Instead, she is devoting more time to her interests in gardening, home improvement, and taking care of the only child left in the house (me). We now have our first household pet, a stray cat that darted into our home last winter and never left. We love her! Karl is still with the Michigan Avenue Westin Hotel in Chicago, but he has been promoted to Corporate Sales Manager for all territory east of the Mississippi River. For those of you who got to know Karl as the Geos. 438 TA, you can appreciate, personality-wise, that he has really found his life’s work. Andy is still in Seattle where he is a free-lance webmaster, avid hiker and mountain climber, and animal lover. Unfortunately, Seattle is increasingly full of webmasters and his life is getting tougher. A career change is likely on the horizon. Scott is in his third year of surgical residency (foot and ankle reconstruction) at Botsford Hospital in Farmington Hills, MI, and is “casting about” for his first shingle hanging, hopefully some place in Michigan. Our biggest home front news concerns Jamie. He is now a married man as of August, newly employed by the law firm of Baker and Butts in Washington, D.C. (the firm that paved George W.’s way into the White House - I hate to admit), and the husband of a Harvard Law graduate who is also newly employed at a rival firm in D.C. The marital combination of two highly-paid attorneys is a scary thought.

Mike Grammer

Greetings friends and alumni of WMU’s Geoscience Department. It is my great pleasure to have recently joined the department faculty and I look forward to interacting with many of you in the future (especially on field trips to the Bahamas, Belize, West Texas and the Four Corners region — but more on that later).

Along with my role as a carbonate sedimentologist and stratigrapher, I am a proud member of the Grammer clan which consists of my wife Susan (the boss), 8-year old twins Kirsten and Ryan (the “real” bosses), and two golden retrievers, one 4 years old and the other about 12 weeks old as I write this. The entire clan was thrilled to leave the major metropolitan areas of Houston and Miami (our most recent stops) behind and we are quickly settling in to the calmer and friendlier atmosphere of Kalamazoo and surrounding communities. Southwestern Michigan held quite a bit of appeal for us as a family - a chance to find a
little bit of property where the kids and dogs can run around and a chance to enjoy seasons again. The opportunity appealed to both Sue and I professionally, as well. Sue is a former biomedical research type turned freelance science and medical writer, and, through her writing, hopes to become involved in the health and education communities in the area. I look forward to the opportunity to introduce more undergraduate and graduate students to the geosciences than my former positions allowed. We even look forward to the snow — although I suspect my Caribbean research activities will have to take place in December and January every year!

Getting back to my geosciences background, I received my Ph.D. at the University of Miami in 1991 where I studied under one of the truly “great minds” and gurus in carbonate sedimentology, Robert N. Ginsburg, who did his best to teach me something. To his credit, Bob taught me more about sedimentology in my first semester on board than I had learned in several years prior to that. My Ph.D. research was on the evolution of the slope deposits around Great Bahama Bank and required months in the Bahamas frolicking (umm, “strenuously working?”) in the shallow tropical waters, living aboard ships, and making deep dives (~1300 ft.) in mini-submarines. Sampling in these deep environments is done just as along an outcrop or roadcut at the surface — except of course for that little complication of transporting and placing the explosives needed to break off rocks down at 500-600 feet (but that’s a series of stories for another time).

Following my dissertation, I did a post-doc with Gregor Eberli in the Four Corners area of the U.S. southwest, looking at carbonate depositional sequences and putting together a sequence stratigraphic framework in the area surrounding the famous Goosenecks of the San Juan River. Field work was arduous, requiring repeated scenic raft trips down river to visit the exceptionally exposed sequences in the region. Our financial sponsors — a French petroleum consortium — made our tasks somewhat easier, however, by accompanying us on many of the trips and imposing their stringent mandate (they said national mandate) of one bottle of wine per person, per day. Our field excursions are still famous (or infamous) to many of the locals in that part of the world, as food was often thrown off the rafts to make room for more essential items like cases of Bordeaux and Burgundy to help us through a long stay in the field.

After my postdoctoral fellowship work in the Paradox Basin area, I joined the faculty at the University of Miami. During the next 4 years I continued my research in the Bahamas as well as in ancient environments both in the Paradox Basin and in Wyoming. Projects varied from paleoclimatic studies funded by the National Science Foundation to reservoir characterization projects funded by oil company consortia. During this time I also ran several field trips to the Bahamas, Belize, and the Paradox Basin for academic and industrial groups — a “task” that I will hopefully continue to do.

In 1997 I joined Texaco Inc. (for the second time actually — I spent 5 years with them in Denver between my M.S. and Ph.D. degrees) as a senior carbonate advisor, acting essentially as an “in house” consultant. The projects I consulted on took me to a number of very interesting places — Russia, Kazakhstan, England, Wales, Italy, France, Germany, Canada, Hungary and others. The fact that I often had to quickly get on to the next project as a Company “road warrior” had the added advantage of allowing me to leave these places before any of the really difficult work actually began. During the 5 years I was with Texaco (more recently ChevronTexaco) I also taught a number of the company’s internal carbonate classes as well as co-teaching the AAPG field course each year in the Bahamas.

For a number of years I had been looking for the right opportunity in academia, and when the WMU ad hit the streets I felt Western might be the place for me. Since my interests lie in both modern and ancient carbonate depositional systems, and my work varies from the basic to the applied, Western presented a near perfect opportunity. I still maintain ties to the petroleum industry and look forward to working with folks from the Core Laboratory here on campus on various Michigan Basin petroleum-related questions, while also hoping to work with several others of the faculty on other scientific questions in both modern and ancient carbonate settings.

This semester and much of my first year will be spent getting my classes in good shape (I am currently teaching the Physical Geology class for majors, and will teach the Historical Geology class next semester) as well as designing a couple of new classes in carbonate systems and ramping my research back up. Couple this with working to finish up my first book as editor (an AAPG Special Publication onModern and Ancient Depositional Systems) and spending a total of 4 weeks on the road as an AAPG Distinguished Lecturer, and this first year will certainly be full and exciting. On the research end, I have what I think are some pretty neat projects to look into in geographic regions varying from the Western United States to the Caribbean, so if you know any good students interested in carbonates, don’t hesitate to put them in touch.

To augment the carbonate end of the program here at WMU I would also like to try to establish an annual field trip for students and interested friends and alumni (i.e. YOU). I have 4 areas that I have been running trips to for the last several years — the Bahamas, Belize, the Paradox Basin/Four Corners area and SW Texas (the Guadalupe Mountains and Carlsbad Caverns). I hope we can entice some friends and alumni of the department along for these trips as “paying” customers (for very reasonable costs I assure you). While you meet and interact with our students and take advantage of this memorable personal and professional experience, your fees can help to reduce the costs for students. My goal is to get both undergraduate and graduate students involved so any help from you would be appreciated — it will be a great opportunity for you to interact with current WMU faculty and students while also learning more geology, natural history, and in some cases archaeology. We intend to make the trips both geological and enjoyable (not always the same thing as you might remember from your student days and the ubiquitous “death marches” of some field trips) and we will partake in some fabulous sightseeing along the way. So if you and
significant other are interested in getting a rock hammer back in your hand, while also visiting some world-class geological outcrops, swimming over fantastic modern reefs, and walking along secluded, pristine beaches, please contact me—I guarantee a good time and you will be helping our students to visit some of the classic localities in carbonate sedimentology.

Best Wishes to you all, and again, I look forward to meeting some of you in the future.

Duane Hampton

Hello again, alumni and friends. My wife and I are now empty-nesters. I am a grandfather to the 2nd power—I have a 3-yr old granddaughter and a grandson born in April. I'm loving our new family situation.

Last year we have made significant progress in a research effort to develop new methods of remediating PCB-contaminated river and lake sediments. Dr. Dan Cassidy and I are working with some grad students as well as Dr. Steve Kohler in Biology to test two ideas for remediating contaminated sediments. Dr. Cassidy is working on enhancing the biodegradation of PCBs and other organic chemicals using chemical oxidants. I am using geotextile blankets to cover contaminated sediments to cut off animals and plants from getting in those sediments and carrying the contaminants up the food chain. I call this a geotextile biointrusion barrier. So far, both ideas have worked well separately in the lab. The geotextile barrier also worked well in a local stream. Now we have to get funding to test the ideas together and/or at a larger scale.

I hope your lives and jobs are providing you with satisfaction. Drop me a note or an email at duane.hampton@wmich.edu.

William Harrison

This past year has been very exciting for me both professionally and personally. I taught the normal load of Evolution, Historical Geology during the Fall semester, but was not on appointment during the winter semester. My health has been very good since I recovered from that virus in 2001. Linda and I had a wonderful trip to Bavaria in Southern Germany in May. We did some hiking in the Bavarian Alps and found some great out of the way spots and nice small towns. The food and beer are fantastic there.

My research projects on improved recovery of oil from old Michigan fields are continuing with lots of new results. We have been looking at several Dundee oil fields with the purpose of finding additional oil. The projects involve surface geochemical mapping which has provided some very exciting results. Dave Barnes, Robb Gillespie and I just completed a large core study in another Dundee field with hopes of redesigning the existing water flood to recover more oil.

I have also been making plans for my retirement. It is hard to believe that I have been at WMU for 29 years. Since I have gone on a half time appointment, teaching only during the fall semesters, it seems that I am busier than ever. I will retire completely in December of 2003. I will continue to be involved in the Core Lab and still do research on Michigan petroleum geology.

This year we began planning for a new core lab facility. We have nearly outgrown the present one and we have convinced the University that a new facility should be a priority. We have begun a capital campaign to raise money for the new lab in the very near future. We are looking for support in any and every area. The Michigan Oil and Gas Association is getting behind the project and will be helping us raise funds locally. We also hope to get some support from some major foundations. The State geological survey is also supportive and may be able to help in several ways.

Michelle Kominz

Greetings, friends and alumni of the Western Michigan University's Geology Department. It's been five years, so the chances of any of you knowing me personally have improved considerably. Life continues to be very full.

This academic year I have the double responsibility of being both graduate advisor and the departmental seminar coordinator. These burdens fell on me at a time in which recommendations for increasing student participation in presentations were made by various groups including the alumni advisory committee. Beginning this semester all graduate students will be making a 12-minute presentation each year (after their entering year). Additionally, attendance has become mandatory. So far this process seems to be going very well.

I continue to teach Ocean Systems. The most obvious result being that I am recognized all over Kalamazoo. I have determined that many WMU undergraduates are employed at Block Buster Video and at local groceries and restaurants. The other
result is that I am generally on top of the latest news about El Nino. Prepare, it's on its way this year, though not as intensely at 1997-1998.

Teaching introductory Geophysical Exploration has now become my pleasure and pain. The pain comes in the field. Since there are a lot of field activities and geophysical equipment is not particularly amenable to nasty weather, we have to be flexible in order to succeed. Fortunately, after 3-4 years at WMU in geosciences our undergraduates are consistently game and our new graduate students are equally willing to work within the constraints of the weather. This year I tried something different and put out an offer to run surveys for fellow faculty. We ended up at the Gibbs House, an 1800's farmhouse, across from Asylum Lake, performing surveys for the Anthropology Department. We found some interesting anomalies. Later in the semester will apply other tools to try to refine our estimates of what is buried there.

Meanwhile I continue reading and evaluating proposals for the new IODP, "Integrated Ocean Drilling Program." Travel of Yokosuka, Japan, allowed me a chance to visit my academic brother, who was on sabbatical with his family in Tokyo. By the time I attended my second meeting in Santa Cruz I was confident in leading many discussions and had found myself having to leave some discussions as I am now involved with at least 2 proposed drilling expeditions.

The question of Late Cretaceous to Recent sea-level change remains my main research area. The data from New Jersey are not consistent with work that I did some 20 years ago for my own Ph.D. Writing papers that say "Kominz (1984) was incorrect" is somewhat unnerving in an exhilarating way. It is more than a little rewarding to be the one who gets to prove myself wrong! Of course, I am not alone in this activity. This has resulted in my beginning a project with Chris Scotese, from the University of Texas at Arlington. We will re-evaluate the sea-level variations due to ocean ridge volume changes. To date, Chris has been gathering age and depth data while I have been evaluating gravity data with the help of Jake Marson, a geophysics major. Jake and I are re-evaluating the age-depth relationship for seafloor, taking isostasy into account.

I clearly did too good a job as webmistress for Western's chapter of Phi Beta Kappa. I am now also the treasurer, a three-year term. I remain on the steering committee for the College of Arts and Sciences Women's Caucus.

My downhill racing times keep going down (a good thing) and I ended the season consistently over the cup of achieving gold in Nastar-timed races. I still share aerobics classes with students in the recreational sports center. Soon all that will end as I spend all my free time raking leaves and fixing leaky faucets. Yes, I'm finally going to buy a house. By the time this reaches press I will be ensconced.

Carla Koretsky

Hello friends and alumni: I hope this letter finds everyone well! It's been a fun year for myself and my research group, graduate students Abe Northup and Noah Ndenga and undergraduates Doug Miller and Amy Nowakowski. Another undergrad, Caren Ilhe, departed our group last spring with a diploma, having quickly landed a "real" job upon graduation (and she got engaged, too). Congrats Caren! The rest of us have been very busy this year doing field and lab work here at home in the Kalamazoo Watershed and at Sapelo Island, GA. We've sampled sediments and pore waters from Asylum Lake and Kleinstuck Marsh (a nearby peat bog) during Nov/Dec, Feb/Mar, May/June, and Aug/Sep. Noah has been working hard analyzing seasonal changes in trace metal speciation in the sediments of these sites. Abe, meanwhile, has been working in close collaboration with Dr. Johnson Haas (a geochemist in the WMU Chem. Dept.). Abe and Johnson are trying to figure out how uranium speciation in the environment changes the rate at which microbes (like Shewanella putrefaciens, their favorite smelly bug) are able to reduce uranium (and thereby immobilize it). Doug and Amy are looking at changes in trace metal speciation and redox stratification related to changes in vegetation in saltmarsh (Sapelo Island) and freshwater marsh (Kleinstuck) sediments. Doug, Nancy Miller, Jessica Schoonhoven, Johnson Haas and I have already completed two sampling trips to Sapelo Island related to this project, and we plan to return for more bugs and gators this winter.

In addition to field work, I have, as usual, been busy attending lots of conferences this year. After a quick trip to the GSA in Boston this past November, I headed to the AGU Ocean Sciences meeting in February. Lucky for me that meeting was held in Honolulu, Hawaii this year. Not a bad place to visit for a few days in February! In May, Noah, Abe and I attended the Environmental Synchrotron Meeting at the Argonne National Lab. We were greatly impressed with the facilities and the range of environmental science happening over there...could be some interesting grad student projects, if someone out there is interested. In August I attended the yearly meeting of the Geochemical Society, the Goldschmidt Conference, which was held this year in beautiful Davos, Switzerland. Abe, and Noah and I are all looking forward to presenting research results at the upcoming GSA in Denver.

In between conferences and field trips, I've had a lot of fun teaching mineralogy, geochemistry, and environmental systems and cycles, and I'm enjoying teaching my first grad level class, "The Mineral Water Interface", this semester. Just in case I get bored with research and teaching, I purchased a 3 year old thoroughbred racehorse this summer. No, not planning an alternative career as a jockey! "Rightfully So" aka "Jasper" was a bit too slow (even though his grand sire, "Foolish Pleasure" won the Kentucky Derby!), so he's learning a new career with
me. In fact, he's already been to his first dressage show, and eventually I hope to do some evening with him. Come by my office any time and I'll be happy to show you his picture!

R.V. Krishnamurthy

With apologies to T.S. Eliot

2002 or is it 2001-02?
Does it matter much when of the four seasons
The zero days and subzero nights
Overtake the bulk of the breathing hours?
And you wonder if
Most of the time you are asleep
Or awake?
But the "house of knowledge" you once built
With vigor and passion and many a helping hand
Did beckon through the rhythms of a "change over valve"
And the music from a well oiled pump faded
Into the dense fumes expelled by "nitrogen liquefied".
So, within the confines of this land did I seek recluse
As did my torchbearers who have arrived
From distant shores to "work with me" and "make me work".
Together we have advanced in steps, small but sure
Towards some hope that answers shall be
For questions that give birth to still more questions!
This remained for us the prodding force
Until provoked to consummate a graduate thesis
Or partake in the harmless bickerings of Thursday afternoons.
Was this life all about, my child?
Through your version, I feel greater moments of pride and joy!
You shall choose places of your liking, and
With your "best friend" by your side
Achieve the many glories that remained my dream.
And you, too, my the other gift of God
Traverse merrily along as you alone could
So that if I am known to the world around
Not as I, but through the works of "all my children"
I will have lived a happy life........

Not used in the above:
Krishnamurthy, R.V, Schmitt, D,
Atekwana, E and Baskaran, M

William Sauck

Teaching during the Fall and Winter terms involved the usual small graduate geophysics course, and a large section of GL100 taught in one of the Wood Hall auditoriums during each term. The really fun course was Field Geophysics, GL564, which was taught full-time during the last 3 1/2 weeks of the Spring term with 6 enthusiastic students. After warm-ups at the Asylum Lake geophysical test site, we did an environmental project at the Lakeside Refinery, then a glacio-fluvial investigation in the Kalamazoo River Valley. In cooperation with geologists from Calvin and Hope Colleges, we did a third (all GPR) project on a blow-out dune a couple miles south of Holland. The fourth project was to help the WMU Archaeology Field Course (led by Dr. M. Nassaney) by doing detailed pre-excavation geophysical mapping over the site thought to be Ft. St. Joseph, on the bank of the St. Joseph R., just south of Niles, MI. Excavations were begun right after, so in a couple of days we were able to go back and see the results. Four of the five locations recommended for excavation on the basis of geophysical anomalies yielded significant remains, such as stone floors and burn pits. Further excavations by the WMU archaeologists confirmed that they had indeed located the undisturbed remains of the long-lost Fort. In the summer term, I taught the usual Geophysics module of the Hydrogeology Field course to a sizable class - enrollments are up.

Adrian Ezeagu completed his MS with a thesis about tomography between pairs of Vertical Resistivity Probes (at the former Lakeside Refinery), and is now gainfully employed at an environmental firm in Lansing. Kennedy Mwanda also finished his MS with a geophysical thesis characterizing the Crystal Refinery site in Carson City, MI. At the end of the summer our right-hand man in geophysics, Dale Werkema, concluded his doctoral dissertation (under Estella's supervision) on the geophysical aspects of the City Park plume, just south of the Crystal Refinery. He immediately accepted a 3-yr post-doctoral position at the EPA Laboratory in Las Vegas. Now he and his young family are learning about living in the desert!

On the travel front, we were again well represented at the annual SAGEEP meeting in Las Vegas, and we also presented at the N. Central Section of the GSA this Spring in Kentucky. I was able to slip away after Field Hydro to meet Elen in Brazil for 3 weeks.
Chris Schmidt

Dr. Schmidt is currently on medical leave. His profile was submitted by his wife, Carolyn.

Chris Schmidt returned to Argentina on sabbatical Winter Semester 2001. He lost about 20 pounds hiking six miles in and six miles out of the field every day, camping, and eating pasta. The geologists used horses to get from campsite to campsite. One campsite was among a herd of goats! Chris’s field work there with Argentine colleagues Ricardo Astini, Federico Davila, Carlos Costa, and Carlos Gardini laid the groundwork for his research activities in 2001-2002. Fede visited the United States in November. He and Chris presented a paper on some of the Argentine research at the GSA meeting in Boston and Ricardo, Fede, and Chris have since finished an article which will be published soon in Geology ("Unraveling 470 m.y. of Protracted Shortening in the Central Andes"). In summer 2002 Chris started a small field research project in southwestern Montana with several geology majors; this project is partially supported by the Department.

Chris continues his full-time hobby of antique gun restoration and repair. He goes to gun shows all over the eastern United States. The basement at home is full of his large inventory of projects. If the Revolutionary War were to break out, Chris could arm us all!

Caroline still works for the City of Kalamazoo Engineering Division, managing environmental projects. Morgan is an artist in San Francisco, Charlie is a math education major at Eastern Michigan University, and Gene is a first-year student at Kalamazoo Central High School. Last December Chris and Carolyn took complete leave of their senses and got an eight-week-old beagle puppy, Ish. Ish does everything a beagle does extremely well, including barking, howling, and baying. His job this fall is keeping the back yard free of squirrels and moles!

Chris is on medical leave Fall Semester 2002 as he continues his struggle with depression and anxiety. He can be reached at geneand3cs@juno.com; kind words and notes of encouragement are always appreciated.

Adjunct Professor

Robb Gillespie

It's been a fun-filled, action-packed year.

The Core-Lab has been prospering with donations of geological materials from R. David Mathews and Jack Mortensen, and a major donation of Michigan cores from Marathon Oil. Linda Harrison has been doing a fantastic job managing 11 work-study students and getting all these new collections organized and databases online. We are beginning a $2.5 million capital campaign to build a new Core Lab facility, and the University has designated a parcel of land for its construction. Preliminary plans look great, and the whole Core Lab staff is excited and ready to get the project moving.

Using the resources of the Core Lab, Bill Harrison, Dave Barnes and I did a consulting project on the Buckeye Oil Field examining Dundee Limestone cores in an effort to re-vamp the ongoing waterflood program and re-develop the field. One nice side benefit of the project was a research paper that Dave presented for us at the Eastern Section-AAPG meeting in Champaign, Illinois this past October. Dave did a very nice job and the paper was well received. It was a good meeting with the added surprise of getting to see half-a-dozen or so old geo-friends I had not seen since early oilfield days. We were all a bit grayed, but still our good old friend geology and a great time.

I finished a big project for Geosience Data Management out of Dallas, Texas in August. This group has been computerizing old oil fields in south Texas for Exxon/Mobil. It has been an ongoing project for the last 4 years, but always on again/off again. It looks like I will not have any more to do for them until early next year, so teaching this fall semester fit right in.

I actually ended up teaching 3 classes of Introductory Geoscience 100 for my first teaching opportunity here at WMU, so nothing like jumping in with both feet. There are about 400 students in total between the three classes, and they are really keeping me on my toes. However, it sure is fun!

G. Michael Grammer joined the faculty this year coming to us from Texaco. It has been a great semester having him here and having one more geologist from the petroleum trenches to talk to and plot things. Enthusiasm is running rampant, good geology is being committed all around the department, there's a great batch of new graduate students, and heck - it just doesn't get much better than this. But, we're going to keep trying anyway!

Finally, after 2 years of planning and building, at the end of June, Linda and I moved into our new home in Battle Creek. However, it still doesn't feel as though it has actually happened. But, we are both thrilled that our visions of our "dream home" were matched by the realities of construction. I now have at least 6 years of projects to do as decks need to be built, the walk-out basement needs to be finished out, landscaping demands attention and Linda is already planning the site for the hot tub. Hummm - maybe the hot tub first. Be careful what you wish for, you may just get it!
Groundwater Education of Michigan (GEM) Center

The GEM center is in a phase of slowly closing down. We are in the process of selling our last educational materials, finishing up our last grant, and preparing to say goodbye. Dr. David Dickason, Chair of Geography has been a crucial person, providing advising support and in searching for new funding for the center. Sadly, we have not been successful in obtaining any new grants. Betsy Luczaj works as the Groundwater Specialist in the center 4 days a week, and Sue Nap continues to work 2 days a week in GEM, and 3 days a week in the Dean's office.

The state granted a continuation on the Source Water Assessment Program (SWAP), so we will be working on "Year 6" of the 5 year contract so we will still be in existence until the end of May 2003 on a limited basis. We just finished the fifth of the five year project facilitating, in Southwest Michigan, the statewide SWAP program for the MDEQ Drinking Water and Radiological Protection Division. This project involves coordinating work efforts with the Environmental Health Departments for nine counties, using G.P.S. to locate Type 2 water supply wells, assessing source water vulnerability for Type 2 wells, and supporting the upgrade of the State's Type 2 database. This final "year" will be spent finishing up any remaining work items as well as processing and filing with MDEQ years worth of Global Positioning System data collected on the Type II wells.

If you have any questions about the project we are working on, please come see us. If you only want to check out the size of our offices for when we close, stay away! We're here through May.

SCHOLARSHIP

West Michigan chapter of the Air and Waste Management Association

The WMAWMA annually awards five scholarships to juniors, seniors or graduate students who are attending Michigan colleges and universities and who are pursuing studies in air pollution control, hazardous waste management or other environmental fields. William Paul, a senior majoring in hydrogeology and mathematics, from Birmingham, MI was awarded one of the scholarships.

AWARD

Congratulations to Geosciences Office Coordinator, Kathryn Wright. She was one of four WMU staff members to receive the 2002 Staff Service Excellence Annual Award. In addition to a $1,000 cash prize, she received a framed certificate and has her photo displayed in the Siebert Administration Building. Good job, Kathy!

Geosciences Department Staff

Kathy Wright  Administrative Secretary
Beth Steele   Newsletter Editor
Sue Nap      Dept. Secretary
Brian Bird   GEM/IWS Secretary

Technician
Michigan
Core Research Lab

Exciting things are happening in the Core Lab this year. Linda Harrison is still managing the lab with great success. She supervises 11 work study students who have spent hundreds of hours cataloguing, inventorying and generally organizing all the vast collections in the Lab. They are also building searchable databases listing all the data that we have in the lab. The indices they are creating are being posted on the Core Lab and PTTC web sites. (http://www.wmich.edu/geology/corelab/corelab.htm) (http://wst023.west.wmich.edu/pttc1.htm). Robb Gillespie continues to help out as the assistant director in the lab. We are also thrilled about the appointment of Mike Grammer as a new faculty member in the Geosciences Department. Mike’s experience in carbonate rocks and the petroleum industry will be a great asset to the Lab.

In late summer we received the first shipment of Marathon Oil Company’s core collection from Michigan. It included all their wells from the Trenton/Black River formation in Albion-Scipio and Stony Point fields. Cores from other formations and fields were also among the 26 pallets that are now in the Core Lab. MichCon recently shipped the Niagara reef core from their Washington 10 gas storage field to the lab along with some supporting data. We also received a nice collection of geology and hydrogeology reference books from Mark Buddy. These will be added to the large library that we already have in the Lab. Miller Energy in Kalamazoo recently donated a number of useful reference publications, as well as, a nice wide format plotter and some digitizing and drafting equipment.

The Lab continues to be the Michigan Basin Center for the PTTC (Petroleum Technology Transfer Council) and has extensive interaction with the members of the petroleum industry about Michigan oil and gas. We had a very successful workshop in the spring dealing with the U.S. D.O.E.'s program of Technology for Independents. We are also conducting a hands-on workshop on November 22 to learn how to apply “Reservoir Analysis from Drill Cuttings and Cores”. Cliff Jordan, an industry leader in teaching these ideas, will present the workshop.

This summer an architectural firm was hired by the University to develop plans for the siting and construction of a new Core Lab building. The new facility is proposed to be located on University property west of main campus on 9th street. It will be on a nearly 3 acre site and be a slab concrete sided building. Inside will be over 10,000 square feet of storage area for core, cuttings and data. There will also be over 6000 square feet of office, lab and research space. An important feature of the facility will be an Energy Education Center, which will have permanent displays about Michigan Geology, oil and gas and how we develop our conventional energy resources. The education center will also be the site of lectures, seminars and workshops. The new building has a construction budget of $2.5 million. We have begun our capital campaign to raise the necessary funds. Support is coming from industry and the Michigan Geological Survey is behind the project as well. With the help of the Michigan Oil and Gas Association, we will be soliciting support from the oil and gas industry and several large foundations. We are hoping that the project will be well underway in the next year.
Geosciences Departmental History

As a subject, Geology has been taught at Western since the opening of the Normal School in 1904. The instructor of that course, which was called “Geographic Geology and Evolution of the North American Continent, was Leslie H. Wood, in whose honor Wood Hall is named. During the first few years, Wood was the only instructor in the Department of Geography and remained at the fledgling school for many years. In 1907, a course called “Minerals and Rocks” was added to the geography curriculum. Although this course was not retained for long, it is significant because a course by the same name is still taught in the Geosciences Department.

By 1925, the Geography Department had grown to four faculty members, and its name had changed to the Department of Geography and Geology. There were three geology courses at that time: 207A—Geographic Geology, 207B—Economic Geology, and 207C—Historical Geology, another course that is still taught. Although the other faculty members occasionally taught a geology course from time to time, the vast majority of geology courses were taught by Professor Wood.

In the 1931-1932 academic year, a major transition in geology instruction began as Dr. William J. Berry arrived at the school and Leslie Wood retired at the end of the year. Dr. Berry remained in the department for 28 years, retiring after the 1958-59 academic year. During his tenure, in which he served as chair of the department for many of those years, Berry was the only faculty member who taught geology courses on a regular basis. In the 1939-1940 academic year, Geography and Geology 335, Mineralogy, was introduced as a new course. Sixty-two years later the course is still being taught under the same number. In the 1946-47 academic year, the following geology courses were taught: 230A—Dynamic Geology, 230B—Historical Geology, 230C—General Geology, 332—Physiography of the United States, 335—Mineralogy, and 350—Field Geology-Summer Trip. The last course was described as a field trip from Kalamazoo to the Black Hills region of South Dakota, with a course fee of $50. Although local field trips were common in many of these courses, this appears to be the first extended field trip taken out of the region. One of the faculty members in the department at the time, a geographer, was Dr. H. Thompson Straw, whose name is coincidentally very similar to a longtime member of the Geology Department, W. Thomas Straw, who arrived several decades later.

The modern era of the Geology Department began in 1959 with the hiring of Dr. Lloyd J. Schmaltz. At that time, the combined department was housed in the old Natural Science Building (West Hall) on East Campus. Dr. Schmaltz became the advisor for a new major in geology, which included Physical Geology, Historical Geology, Invertebrate Paleontology, Mineralogy, Petrology, and Structural Geology. Other courses offered included Introduction to Geology, Economic Geology, and Geomorphology. In 1962, the department moved into the newly constructed Wood Hall. A major and minor in Earth Science were added in 1963, and on July 1, 1965, the Department of Geography and Geology formally split into separate departments of Geography and Geology. Dean George Mallinson was instrumental in this transition and helped Dr. Schmaltz establish two very successful NSF funded summer institutes for high school earth science teachers. At the time of the department’s inception, the faculty consisted of Drs. David Kuenzi, Richard McGhee, and Richard (Skip) Davis, along with Dr. Schmaltz.

Rod Hall, the new home of the Geology Department, was constructed in 1970. Faculty growth thereafter was extremely rapid. By 1971, the faculty totaled seven, with three relatively new members, Drs. John Grace, Richard Passero, and W. Thomas Straw, all of whom subsequently played major roles in the Department for years to come, along with several others of shorter tenure.

Graduate programs began in the late 1960s with a master’s degree in Earth Science Education, which built upon the highly successful undergraduate Earth Science Teaching program that was headed by Dr. Passero. Soon after, a master’s in Geology (1970-1971) was initiated and the department’s research activities, which had always been strong, were brought to the forefront. Graduates found excellent employment opportunities in the petroleum and mining industries.

The 1970s was a decade of continued expansion in faculty and programs. One of the first research concentrations in the Department was Rocky Mountain tectonics, which involved Professors David Kuenzi, Ron Chase and new faculty member Chris Schmidt. This research program has been the recipient of many NSF grants over the years. In addition to Rocky Mountain research, sedimentological studies by Dave Kuenzi in Guatemala and the Lake Michigan coastal erosion studies of Skip Davis with the US Army Corps of Engineers were very successful for several years. Similar Lake Michigan bluff erosion studies were undertaken in the 1990s by Ron Chase and Alan Kelew and are in progress during the centennial year.

Another new faculty member in the early 70s was Dr. William Harrison. Dr. Harrison arrived as a paleontologist, but quickly developed an interest in the Petroleum Geology of the Michigan Basin. He established the Michigan Basin Core Research Laboratory, which gradually grew over the years to become a major resource to the Petroleum industry in Michigan. At the time of the Centennial, the Core Lab has over 35,000 feet of core from 300 wells and is anticipating several new major acquisitions. The lab has outgrown its facilities in the basement of West Hall and the department is actively pursuing funding to construct a building with core storage and laboratory space for core research.

During the 1970s, two factors combined to drive a reevaluation of departmental programs and a major new focus of the department. These factors were a downturn in hiring in the always cyclical petroleum industry and a national de-emphasis on science education. In response, the department created a document entitled “A Master Plan for Development” in 1973 that outlined a far-reaching move into environmental geology, a subject that was becoming increasingly publicized at that time. Environmental crises such as the contamination at Love Canal were being discovered on a regular basis and the contamination by waste disposal practices of groundwater, previously thought to be a pristine, naturally filtered resource, was beginning to be recognized as a major national issue. Although resources were not provided for implementation of many of the specific recommendations of the master plan, the overall emphasis on environmental geology would serve the department well for the next three decades. New research programs and degree concentrations developed under the environmental master plan spearheaded by Drs. Passero, Straw, and Schmaltz proved to be a ground-breaking approach that was eventually emulated by most geology departments in the country.
departmental history

One of the goals of the environmental focus of the department was to provide geologic and hydrogeologic information for the local and regional areas. This goal led to the publication of “Kalamazoo County: Geology and the Environment” in 1978. In 1979, the department was awarded approximately $600,000 from the US Environmental Protection Agency to investigate the aquifers of Michigan in relation to underground injection of hazardous wastes. This project culminated in the publication of the “Hydrogeologic Atlas of Michigan”, which still serves as the most significant statewide reference on aquifers in Michigan. The atlas is still in high demand by consulting companies and agencies involved with the state’s groundwater resources.

With the arrival of Dr. William Sauck 1979, applied geophysics became one of the strengths of the department. The application of geophysics to environmental problems was a new research area in which Dr. Sauck and later Dr. Estella Atekawana developed strong reputations. Dr. Sauck left the department to teach in Brazil but later returned, first as researcher in the Institute for Water Sciences and more recently back into the department.

The department’s growing expertise in environmental geology and hydrogeology led to the awarding of a GEM (Groundwater Education in Michigan) Regional Center by the Kellogg Foundation, the development of the Institute for Water Sciences, and a multi-year Research Excellence and Economic Development grant from the State of Michigan in 1985. In addition to funding a number of research projects, two new hydrogeology faculty members, Drs. Duane Hampton and Alan Kehew, were brought into the department. At about the same time, Dr. David Barnes arrived to bolster the department’s expertise in sedimentology.

Dr. Lloyd Schmaltz retired in 1988 and was replaced as chair by Dr. Thomas Straw. The department’s excellent museum in Rood Hall, under the supervision of curator Robert Havira, was renamed the Lloyd J. Schmaltz museum in honor of his long service and significant contributions spanning the entire existence of the department to that time. After retirement, Dr. Schmaltz continued to lead his highly popular raft trips down the Colorado River through the Grand Canyon for students, alumni, and friends of the department.

Over the past 15 years, the department has continued to evolve and change in many ways. A PhD program in hydrogeology was introduced in 1990. Although small, the program has been very successful in placing graduates in academia and industry. A hydrogeology summer field camp is known nationally for its applied training. New faculty replacing those who arrived in the 1960s and 1970s broadened the scope of the department and its teaching and research activities. These faculty include Dr. R.V. Krishnamurthy (Isotope Geochemistry), Dr. Daniel Cassidy (Bioremediation), Dr. Michelle Komiz (Geophysics), Dr. Carla Koretsky (Geochemistry), and in 2002, Dr. Michael Grammer (Sedimentology). A new name, the Department of Geosciences, was chosen in 1997 to reflect the broader, interdisciplinary, approach to the earth sciences represented by these additions. Dr. Alan Kehew became chair after the retirement of Dr. Straw in 1996 and remains in this position at the time of the centennial. The department continues to receive the assistance and support of a very active advisory council that meets on campus twice a year. The members of the council include alumni of the department, as well as prominent geologists and supporters from Michigan and elsewhere. Over the years, many capable staff members have provided services to the department. Current staff members Kathy Wright, Beth Steele, and Brian Bird epitomize these essential members of the department.

As the University Centennial year dawns, the Geosciences Department is strong and vigorous. It continues to produce graduates that achieve success in a wide range of fields. Research activities have been expanded and stimulated by the addition of new faculty members and new facilities in Haenicke Hall. A fund raising drive for a new core lab facility is just beginning. Although the next century will bring changes that we cannot foresee, the need for earth scientists will become even more critical as our society confronts global problems involving climate change, natural resources and the environment. It is very likely that faculty, students, and alumni of the WMU Geosciences Department will be making contributions to the solutions of these problems at the time of the WMU Bicentennial.

Dedication for WMU's 75th year.

The building of Rood Hall

1118 Rood Hall

The Rock Garden
Delwar Ahmed, Ph.D. Candidate

My research interest is to look into the natural attenuation of ketones (such as Acetone, Methyl Iso-butyl Ketone - MIK, Methyl Ethyl Ketone - MEK), alcohol (Tert-butyl Alcohol - TBA) and ether (Tetrahydrofuran - THF) in the leachate from West KL Avenue Landfill site in Kalamazoo, Michigan. The plume extends eastwards about 7200 feet from the west edge of the landfill site over the last 22 years since the closure of the site in 1979. Until now I have analyzed well logs from 38 wells and their geochemical data to calculate the rate constants for the above mentioned three groups of volatile organic compounds (VOC). The wells have records ranging from 8-20 years of time. I am using three methods to calculate the rate constants and those are Buscheck and Alcantar (1995), Weidemier et. al. (1996) and Mann-Kendall Statistic test.

The results show that all the VOC’s are decreasing significantly excepting ether (tetrahydrofuran -THF) and alcohol (tert-butyl alcohol - TBA). The non-decreasing trend of these compounds could be attributed to a decrease in source concentrations and/or production of these compounds as breakdown/degradation products of other compounds already in the groundwater. Thirdly there could be a tertiary source of these compounds, which can’t be confirmed at this time, other than the landfill site.

My future goal is to incorporate as many well data as possible from the impacted area that is being monitored on regular basis. If we could calculate the attenuation rate constants then it would be possible to predict the extent of the plume over distance and it will also give us an idea about the interaction of the compounds with the subsurface material. It is planned to construct 3D geologic and geochemical model of the area based on available well logs and geochemical data from the groundwater samples that were analyzed over the years since the closure of the landfill in 1979.

David Beck, M.S. Candidate

My first year at WMU was fairly busy one. Over the past year and currently I am working with Dr. Hampton on his project studying geotextiles as a remediation alternative to dredging for contaminated sediments. More specifically, I am carrying out a laboratory part of the study using permeameter and sediment cores to examine the bioinfiltration and sediment filtering properties of the geotextiles. Most of my time is spent playing in Gull Creek while collecting the cores for the permeameters and checking on the test patches that were placed there last October. In addition to my research and classes, I work part-time as a Laboratory Specialist at Wonder Makers Environmental, an indoor air quality firm in Kalamazoo.

Steve Beukema, M.S. Candidate

If any of you has seen any Charlie Brown cartoons you would be instantly amazed at the striking resemblance between the character "pig pen" and me as I'm leaving the soils lab. It truly is uncanny. After a busy summer of glacial geology, the hydrogeology fieldcamp, a wonderful two-week glacial fieldtrip to the Canadian Rockies, and a quick jaunt to New York City, I am back to work in the soils lab, where I am looking at several rotasonic cores for my thesis.

And, as some of you may know, last December I purchased an 85-year old grand piano that I've been completely restoring in my "spare time". I'm happy to say that the restoration is finally complete and I'm becoming an active pianist once again.

Brian Bird, Ph.D. Candidate

Hello again. I'm working to finish up the Master's thesis this semester (hopefully will be very close to being done). Then it will be on to the Ph.D. dissertation. I was rather busy this year coordinating the hydrogeology field course. It was a success with 25 students total with many from across the country (as far away as California and Florida). I would like to thank Dr. Dan Cassidy, Dr. Tim Clarey, Dr. Duane Hampton, Dr. Richie Laton, Dr. Bill Sauck, and Dave Stegink for all their hard work and effort to make the course run smoothly. I'm going to GSA soon and will be going to NWGA later this semester to promote the field course and make some more contacts. Be sure to check out the webpage at http://www.geology.wmich.edu/hydro/index.htm. If you have any questions, comments or concerns with the course or webpage let me know. The tours of the museum are starting up again and I'm getting many repeat customers. I am planning on creating a webpage for the museum, and it should be completed by early next semester. This will allow many specimens that are in storage to be displayed. There is currently a digital seismograph in the museum. The earthquakes that are detected can be found at http://www.geology.wmich.edu/seismograph/wmu_seismic_station.html

Kurt Carlson, M.S. Candidate

The job is going well. Initial stress of a new job is wearing off and I'm getting more comfortable in the office in Jackson. AKT Peerless' Jackson office is a busy office and last year it was the most profitable office. My supervisor is now starting to case me into managing my own projects as I become more familiar with how things work. They have had me working on Phase II reports, baseline environmental assessments (BEAs) and underground storage tank closures - also a bunch of soil and groundwater sampling in association with those reports. Since the job started, school has been, well, on a very low simmer on the far back burner. Now that initial adjustments to a new job and moving to a somewhat new city are mostly over, I hope to get that thesis wrapped up soon.

Soumya Das, Ph.D. Candidate

Hi everyone,

It is my pleasure to say hi to all of you. I am a new PhD student of this department. So I think I need to introduce myself to you. My name is Soumya Das and I got my B.S.
as well as my M.S. degree in Geology from the University of Calcutta, India. After completion of my Masters I started to continue my research work at the Department of Mining and Geology, West Bengal, India, for one and half years. The project provided me with my first real opportunity of engaging in an activity at all stages of planning and execution. Even though the project was completed successfully, I realized that there was a compelling need for a more focused approach to learning about the fields of Geosciences.

Hence I joined for the second Masters program in Geology at the University of Akron, Ohio. At the University, I found ample opportunity to further my knowledge in the field of geology and learn about the latest methods and technologies in research. Interestingly, interacting with people belonging to different nationalities and cultures helped me in broadening my outlook and approach to life.

The motivation to join in the PhD program here at Western Michigan University is that I would like to continue my studies in the field of Geosciences. This realm of thought is a passion that I plan to evolve into a career. The ability to work with a broad and diverse range of topics is key in order to be able to adapt to new problems and techniques to ensure that advancement continues and ultimately to reach the goal of my life.

Adrian Ezegu, M.S. Candidate
I have graduated and have taken the position of Staff Hydrogeologist at Malcolm Pirnie, Inc. Practical experience acquired to date........Site oversight during environmental drilling operations; soil and groundwater sampling, research and review of previous reports and subcontracts (I even got to awards my first ever contract); HASP, and report writing, and a lot of travel.
I’d like to say thanks to all the Professors in the department and to Beth and Cathy and all the non-academic staff. The department is held in very high regard and I am honoured to be associated with every one of you. I don’t know what else to say but to keep it up. For me, I’m trying to gather practical experience and have fun at the same time.

Tsagabu Gebrehiwet, Ph.D. Candidate
Hello everyone, I am a new graduate student. That means you will hear more from me in the years to come. Have you ever heard of someone who found his profession of interest after years of searching? I presume you did, if so I am one of them - if not, I am the one! Here I am just starting my study in hydrogeology (specific research topic not decided yet). My two years experience in the U.S. has never been as challenging as the last six months both in the academic front and personal life. Academically, I had to finish up processing and writing my thesis, which kept me so busy. As to personal life it is a long story to tell so lets leave it there. So far I am enjoying life and schooling here at WMU. I guess that is what I have to tell you for the time being as a new student and ready to learn from you. Enjoy your time wherever you are and have a wonderful year!

Andrew Kozlowski, Ph.D. Candidate
As of September 1st I started a tenure track position as an assistant professor at Susquehanna University in PA. The semester is well underway and I am really enjoying my teaching experiences and also appreciating some of the benefits I had when I was a graduate student at Western. My research on the Origin of the Kalamazoo River Valley is pushing onward and I hope to defend and finish by April. My wife, Denise, and I are thrilled with the scenery the Valley and Ridge has to offer in central PA. However, we both miss our friends in Michigan and the Lake. We hope to be in the area around the holidays and may see some of you then.

Hailachin Rega, Ph.D. Candidate
Hi, it's been a couple of months since I started breathing the Michigan air and fortunately, I survived the Michigan winter. During my stay here at Western, not only have I learned how to survive harsh winters but I've also experienced the American way of life, the spirit of self reliance and of course, (hydro)geology. The summer field camp excitement is still alive within me, which didn't pass without benefiting everybody in the real business of being a hydrogeologist.

Fall semester with its colorful sights and beautiful weather began a couple of weeks ago. Fall for me is a season of rest and business. Besides classes I started reading literature which I think could spark research ideas, thinking, discussing and running here and there to fix my future projects. Anyway, these days I am excited about classes and that the stress of being new to the environment is over. Finally most of the professors and colleagues started pronouncing my name correctly after months of calling me by the name of a famous beer name, Heineken.

By the way, I am very grateful to everybody in the department for the advice and encouragement when I was in a real need.

Laura Sherrod, Ph.D. Candidate
Over the past year I have participated in geophysical surveys at the archaeological dig site of Fort Saint Joseph in Niles, MI. Results from these surveys were encouraging as four of the five excavations units guided by the geophysical surveys returned numerous artifacts. Further excavation is likely to occur next summer. During the Spring term I tested the latest GSSI software by processing half a dozen 3-D GPR data sets. I have stepped into the position of data collector for the geophysical lab at Haenick Hall. The current project in this laboratory is comprised of eight large columns of soil from the Carson City Refinery, with water, some with diesel fuel and some with microbes in anoxic conditions. Biological, chemical, and geophysical responses over time are being recorded to better understand the degradation of hydrocarbons. These responses have reached a plateau after 10 months. The next step for this experiment is to systematically add oxygen to half the columns and monitor the response.
2002
Geosciences Department
Awards

Graduate Research and Creative Scholar Awards
Andrew Hudak
Gerald Unterreiner

Graduate Student Teaching Effectiveness Award
Delwar Ahmed
Bill Bush

Presidential Scholar
Peter Voice

Senior Honor Awards

Earth Science Education
Diane Dubois
Jane Westphal

Geology
Bill Paul

Advisory Council Field Camp Scholarship
Steve Beukema
Hailachin Rega

Laton Field Camp Scholarship
Bill Paul

W. David Kuenzi Memorial Scholarship

Lloyd Schmaltz Award
Zachary Jarvic
Scott Jones
Amy Nowakowski

Distinguished Student Service Award
Heather Nicholas

The Kalamazoo Geological and Mineral Society Scholarship
Steve Beukema
Hailachin Rega

Recent Graduates

Bachelor's Degree Recipients

Earth Science Majors
Brenda L. Baker
Cyndi Colston
Scott M. Doornhaag
Lindy Grashuis
Mindy Gray
Lisa N. Guzman
Caren S. Ihle
Ahren M. Kaylor
Joel Laney
Heather Lehman
S. Ryan Mackenzie
SarahBeth Monger
Steven S. Pillon
Bradley Smith
Jonathan Smith
Kendra Tait
James Timmons

Geology Majors
Robert Bartlett
David Collins
Derek E. Janda
Meranda Lambert
Laura A. Sherrod
Peter J. Voice

Hydrogeology Majors
William LeFevre

Master's Degree Recipients

Earth Science
Eric B. Shafer
Geology
Bonny Armstrong
James Brode, Jr.
Adrian Ezeagu
Alice Mwanda
Krista Syrup
Shannon Wong

Ph.D. Degree Recipients
Gerald Unterreiner

Canadian Rockies Trip

Hiking in perilous places

Camping in the snow

Taking a break and enjoying the view
alumni news

Steve Savoie, 1981


Savoie began his oilfield career in 1985 with Terra Energy LTD, working for the independent until the acquisition of Terra by CMS in 1996. He remained with CMS Oil & Gas until 2000, including a year in Denver working CMS' coalbed methane interests after being transferred from the Traverse City, Mich. office.

He continued to work the coalbed methane play in Wyoming after joining First Source Energy in 2000 until his recent move back to Michigan to join several former Terra co-workers at Jordan offices on Garfield Rd. in Traverse City.

Savoie graduated from Western Michigan University in 1981 with a bachelor's degree in geology and while working the coalbed methane play gained certification as a registered professional geologist (RPG) in the state of Wyoming.

Nate Fuller, 1978

Hello to all,

This was a year of surprises, gains and losses even more so than most. The ever-present things were ever-present like the theatre (we did very well in competition), the Unitarian Fellowship, my fall trip to Alabama, home ownership, and work. My health is good but I could do with adding some height - losing weight hasn't worked so maybe if I can grow taller. I hope that you year has been OK or even better.

In January I had a trip to Charleston SC for a work conference - nice place in January probably not so good in late July. February saw two items of interest at work, first they turned me into a driller, so I'm now installing ground water monitoring wells with all that goes along with that like mixing bags of cement and carrying heavy stuff. The other was our local boss quit for a different job, which left us without an onsite supervisor for about six months before they hired Connie to take Scudder's place (some losses and many gains in that switch).

June included a work trip to Green Bay WI, which was a good trip with lots to learn and a scenic return back through the Upper Peninsula. Summer was busy with work (mostly drilling and a Cleveland conference), family (brother Richard visited, Dad's 89th birthday and a trip with Cousin Nema), and friends.

September brought what September brought to all of us. I was drilling in the woods in eastern Ohio the week of the 11th, talk about surrealistic, the contrast of the quiet woods with deer, fox and no sign of man with the news at night was even more strange than if we had had news all day. I was scheduled to tour Central Europe starting Sept. 20, I backed out of the tour, for credit on money paid toward a trip in 2002. I still don't regret the decision to back out.

My father, James Osborn Fuller died on October 26 at the age of 89. This was both bad and good - the quality of life was not real good at the end but he died holding his daughters hand, went peacefully (if that really happens) and lived a long, great, full, and productive life. This was the occasion for the reunion with his side of the family. It was great to see them all and catching up lightened the mood of the event. He will be missed.

November was Alabama where all seems well or at least OK. December was December, another month not to remember. It seemed like I lost friends, parents of friends, and spouses of friends, so I'm happy to see the New Year. Hope this one is not as tough as the last. I wish all of you the best in the New Year and as Red Green would say, "keep your stick on the ice".

advisory council news

The Geosciences Advisory Council sends Holiday Greetings to faculty, staff, students and alumni.

The Advisory Council met on April 19, and again on October 11, 2002. Both meetings provided opportunities for Council members to exchange ideas with both students and faculty. The Council continues to maintain a strong interest in the activities of the Geosciences Department, and supports the University administration on all current projects. The Council is working with the WMU Foundation to establish an endowed scholarship in addition to the existing annual financial awards given to students for Field studies and the spring Field Camp. The establishment of a new Core Lab facility has drawn strong interest from the University administration, and is strongly endorsed by the Council.

The meetings this year provided the Council with insights to the Geoscience Department's activities. Especially appreciated is the time spent by Dr. Dan Cassidy, for his presentation of an overview of his studies and his work within the department. The Council was honored by a visit of the new Provost, Dr. Daniel Litynski, who accepted an invitation to meet with the Council in October. He made a short presentation of his vision for the University spent time to ask questions, and receiving questions from the Council concerning the future of the Geosciences Department.

The April meeting included several discussions concerning scholarships, department funding and faculty activities.

The Michigan Geological Survey has indicated a strong interest in maintaining the drill cores from throughout the State at a WMU core facility. The Council was provided a review of the University activities in support of the new Core Laboratory facility. The university has approved the new building plans. The Council is considering ways that both the Council and individual members can support the funding effort for the new Core Facility.

The Council is pleased to announce that Mr. Ron Parker of Kirkland, Washington and Ms. Lisa K.J. Phillips of Kalamazoo, Michigan have accepted an invitation to join the Council, and looks forward to their support in the future.

John A. Yellich
Chairman
Thomas C. Kamin
Secretary

Jonah Fogel, BS 1998
Jonah is currently a MS student of Landscape Architecture at Virginia Tech. He is researching how to integrate site design into large scale land planning goals. He is looking at homeowner attitudes toward design, ecology and sustainability.
Outstanding Alumni Academy

The Department of Geosciences held an Induction Ceremony and Reception on October 11, 2002 to induct four new members into our outstanding alumni and to showcase their distinguished careers in the field of Geology. Each inductee received a certificate and an award presented by Daniel Litynski, Provost; Elise Jorgens, Dean, College of Arts & Sciences; and Dr. Alan Kelew, Chair, Department of Geosciences.

Ronald Parker

Ronald A. Parker received a B.S. in Geology from Western Michigan University in 1977. After graduation, he joined Cascade Testing Laboratory in Bellevue, Washington. In 1982, Mr. Parker was promoted to Vice President, and placed in charge of a newly formed division, Cascade Geotechnical. Mr. Parker joined Associated Earth Sciences, Inc. (AESI), located in Kirkand, Washington, in 1987. Since that time, the firm has grown to employ a staff of 55 professional geologists, engineers and support staff. The firm's five divisions are: geotechnical, hydrogeology, biology, environmental, and geology. Currently, Mr. Parker is one of two major stockholders and Principal Geologist of the company. For the past three years, AESI has been named one of the fastest growing privately held companies in Washington.

Jerry Aiken

Mr. Aiken graduated from Western in December of 1966 with a Bachelor of Science degree. He completed majors in both Earth Science and Education and a minor in Geography. He also received his secondary education certificate. He continued into a Master's program in Economic Geology at the University of Idaho in January of 1967. After three semesters of course work Mr. Aiken left the University of Idaho and entered the United States Army where he was assigned to the 9th Infantry Division Artillery in Vietnam.

In 1970, Mr. Aiken joined ASARCO in Spokane, Washington as an Exploration Geologist evaluating base and precious metals prospects in the northwestern U.S. In 1976 he joined U.S. Borax (a subsidiary of Rio Tinto) in Tucson, Arizona as a Senior Geologist in the Exploration Department. He continues to reside in Tucson, where his exploration projects have taken him to many parts of the world including South America, Europe and Asia in search of metals and industrial minerals. In the 1980's he worked with the Borate Group at U.S. Borax, and participated in the development of new exploration techniques for borates. In 1992 he was promoted to the position of Manager of the Tucson Office, and became Vice President of the newly formed Mexican subsidiary Minera Santa Margarita. The new company conducted exploration for Borates and other Industrial Minerals in Mexico. In 2001 Mr. Aiken became a Project Geologist in the Rio Tinto global exploration group, and was made responsible for developing and generating new projects in South America.

Mr. Aiken is an active member of the Society of Economic Geologists and the Geological Society of America. He is a Registered Professional Geologist in the State of Washington.

Paul Daniels

Paul A. Daniels, Jr. is a native of southwestern Michigan. After graduating from high school in Plainwell, Michigan, Mr. Daniels attended Western Michigan University (WMU), receiving a B.Sc. in Geology. Graduate education included: a M.A. in Geology from Bowling Green State University (BGSU); a M.Sc. in Hydrogeology from WMU; and two years academic work toward the Ph.D. in Environmental Science at The University of Virginia (UVA).

The professional work experience of Mr. Daniels is widely varied (six continents; multiple cultures) and has included: minerals exploration (COMINCO, and EXXON); petroleum (EXXON, and various Hunt Family companies [researched petroleum potential of global rift systems; and played key roles in: oil field acquisitions; foreign lease concessions;...
play evaluations; supervised the drilling of rank wildcat wells; horizontal drilling technologies; and conducted in-house technical training]; research (UVA [NASA, ONR], The Virginia Institute of Mineral Resources [published the first study in Virginia integrating surface, subsurface, and derivative/environmental mapping], Michigan Geological Survey [refined the Upper Precambrian rift-fill sequence for the western portion of the Lake Superior Geosyncline]); litigation support/expert witness; and teaching (BGSU, WMU, and industry). Mr. Daniels is a Principal and Co-founder of Earth Resources International, LC.

Mr. Daniels has authored/coauthored/edited/co-edited numerous professional publications on: the Michigan Basin; rift systems; petroleum geology; stratigraphy and environmental geology. Included are papers in such publications as: Geological Society of America (GSA) Memoir 156; GSA Special Paper 256; American Association of Petroleum Geologists (AAPG) Methods in Exploration Series 10; and AAPG Memoir 51.

Thomas Kamin

Thomas C. Kamin is from west-suburban Chicago, and graduated from high school in Cicero, Illinois in 1960. Following high school, he began his college studies at Morton Junior College where he completed a two-year program. In 1962 he transferred to Western Michigan University and began a degree program in the newly created Department of Geology. Mr. Kamin completed work on a Bachelor of Arts degree in 1965. Following a short stint as a mining geologist in eastern Canada, he began graduate studies at Washington State University, Pullman, where he specialized in stratigraphy and mining technology. He received a M.S. degree in Geology in 1968.

Mr. Kamin joined Sunray DX Oil Company (later known as Sun Oil Company, Sun Exploration and Production Company, and Oryx Energy Company) in 1969, and began a career as a development geologist in petroleum that spanned the next 23 years. After drilling oil and gas wells in West Texas, he joined Sun’s Reservoir Simulation Group in Richardson, Texas and participated in the development of early hydrocarbon reservoir modeling techniques. He became Manager of the Reservoir Simulation Geology Group in 1978. Later, he became Manager of Geology for Sun’s Northern District, and relocated to Midland Michigan to develop the company’s deep Michigan basin gas reservoirs and other major development projects in the eastern United States.

Mr. Kamin left Oryx Energy Company in late 1991, and returned to Western Michigan University to pursue a second M.S. in Hydrogeology, which he received in 1993. He is a co-founder and principal of Earth Resources International, L.C., a geology-based consulting company headquartered in Kalamazoo.

Mr. Kamin was one of the early members of the Geosciences Department Advisory Council, and has actively served the Council and the Department for the last 18 years.
donations for 2002

Your generous contributions to the department support a wide array of activities and we appreciate your help. We try to thank each donor, but as with all bureaucracies we do miss someone occasionally. If we missed you, please know that we rely on your support and will continue to make every effort to acknowledge your gifts. Please accept our sincere thanks.

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Return to: Dr. Alan Kehew, Department of Geosciences, 1187 Rood Hall  
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