

Montana Tech: New building proposal

Montana Tech of The University of Montana proposes to build a campus research center that would initially house the Montana Bureau of Mines and Geology and Tech's Petroleum Engineering Department, which have been campus priorities for improved facilities since the 1970s. Plans for a multi-building complex allow for future expansions to provide space for other campus researchers. The initial cost is estimated at \$14 million. Funding is being sought from State, Federal, and other sources.

NEED: MONTANA BUREAU OF MINES AND GEOLOGY

The Montana Bureau of Mines and Geology (MBMG), a department of Montana Tech and the State's geological survey, is headquartered on Tech's campus in Butte, and maintains a smaller office on the MSU-Billings campus. MBMG employs about 60 professional, technical, and clerical and support staff, and about 25 part-time student employees. By mandate, MBMG provides service and applied research on the nature, occurrence, and responsible development of geologic and ground-water resources of the State. All of our work is focused on local, regional, or state-wide issues that directly affect Montana's economy.

Ground water in particular is universal to all interests, whether individuals, cities and towns, the agricultural sector, or the manufacturing and energy industries. MBMG is the major source of ground-water information for the State, and in a typical month there are over 25,000 downloads from our on-line Ground-Water Information Center. MBMG also provides geologic mapping, seismic monitoring, assessments of geologic and environmental hazards, and develops and maintains extensive information on energy and mineral resources of the State. These activities are supported by our publications staff and GIS and analytical labs.

Each year we respond to thousands of information requests that will aid decisions such as drilling a private well, resource development, or locating a manufacturing plant. Information is disseminated through publications, databases and reports accessible via the internet, and thousands of personal contacts of various types.

MBMG leverages its State funding extensively through contracts and grants. Expenditures for fiscal year 2004 were \$4,538,923, with only half (50.3 %) of that coming from State funds. During the last biennium we worked on formally recognized projects with over 100 local, State, and Federal organizations.

Current facilities: The Butte staff are mostly housed in Main Hall, the oldest building (built in 1896) on the Montana Tech campus. The space is too small and with no other available space on campus, curtailment of services and growth or rental of space off-campus loom. Neither is desirable, and the latter is unaffordable.

Main Hall was planned and used for classrooms and faculty offices (the first floor is still used for this purpose). Over the years, MBMG's space has been converted piecemeal as funds permitted. The result is inefficient use of space and commonly inadequate facilities for specific work needs. Much of the internal electrical wiring is aged and does not meet modern safety codes. Heating is quite variable and inefficient. Separate men's and women's restrooms are available only in the basement, and neither has hot water. Part of the analytical laboratories were moved to another building across campus several years ago because lab space in Main Hall could not meet safety standards, and the remaining lab space is marginal. Loading and unloading field equipment and samples requires driving on pedestrian walks that are commonly crowded with students. There is no nearby parking for the several thousand visitors each year, nor any handicapped access to the building.

Campus space utilization: Recent construction at Tech has focused on physical needs of students and faculty, resulting in some lab and storage spaces previously used by MBMG being remodeled for academic use. Not only is additional space needed, but, the State architects have advised that instead of continuing to reshape and retrofit Main Hall it would be cheaper and more practical to build a new building.

MBMG's collaborative relationship with all sectors of the Montana Tech community makes a move away from the Tech campus undesirable. Adequate space on the northwest corner of the campus exists for the proposed research center. This location would ensure easy access, adequate parking, continuing close relations with Montana Tech, and proximity to other Tech resources commonly used by our visitors.

NEED: PETROLEUM ENGINEERING DEPARTMENT

Montana's abundant crude oil, natural gas, and coal bed methane gas resources are being produced from 33 Montana counties. Statewide oil and gas production has increased by 165% and 180%, respectively, since 1999. Increases in production rates result from technical advances and increases in exploratory and production investment. Drilling rig count has increased over 5-fold since 2000 along with the number of seismic crews, pulling units, pipeline spreads, and hydraulic fracturing crews. Local businesses grow and many good paying jobs are created.

Tax revenues from oil and gas production were \$93 million in 2004. The 2004 Montana Legislative Fiscal Report projects that production taxes will increase to \$135 million in 2005. Tax revenue will increase even further beyond 2005. Ninety percent of the production taxes are allocated to counties and school districts. A significant portion of the projected 2005-06 budget surplus will be coming from oil and gas production tax revenue.

Rising oil and gas production and prices, favorable tax codes, and increased investment are the main drivers for increasing tax revenue and creating new jobs. Remaining oil and gas resources will be difficult to find and to extract. Expertise is required. The Petroleum Engineering Department

- Provides the high quality engineers needed for increasing production rates and recovering the significant oil and gas resources remaining in Montana,
- Provides the necessary ideas, research, and practical innovation for improving recovery and economics of new and existing oil and gas reserves, and
- Is a partner, as mandated by the Board of Regents, in the economic development of Montana.

Tech's Petroleum Engineering Department is recognized around the globe for its quality graduates. It is the 3rd largest supplier of petroleum engineers in the USA. One of every-eight Tech students is enrolled in petroleum engineering. We are fully accredited and one of only 15 petroleum engineering programs remaining in the USA. Many of our graduates are based in Montana, or they are employed by companies that will explore and operate production facilities in Montana as opportunities arise.

The Petroleum Department is poised for substantial growth over the next 5 years to supply engineers for Montana's industry. We expect the undergraduate enrollment to grow from 150 students currently enrolled to 200 students and the graduate program to grow to 25 students. Two additional professors will be needed. The Department is currently conducting research in the areas that will add to Montana's resource inventory and will increase the recovery efficiency and productivity of existing oil and gas deposits.

The Petroleum Engineering Department can help Montana oil and gas industry continue to prosper. A modern building, with efficient classrooms and modern laboratory facilities, is critical in attracting high-quality students, experienced teachers and researchers, and capital and grants for research required for achieving our goals.

The current Petroleum Building is structurally sound, but it is not suitable for enhancing our student's education and for future growth. Utility systems are inadequate for modern-day instructional delivery, laboratory experience, and research. It is also out-of-compliance with Life Safety Codes, National Fire Protection Association codes, and the Americans with Disabilities Act. Cost estimates provided by Architecture and Engineering show that classroom and laboratory space in a new building will be less expensive and more efficient than refurbishing the existing building.

Amount Requested: \$14 million

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January 26, 2005

Long-Range Planning Appropriations Subcommittee
2005 Montana Legislator
Attention: Representative Wells, Chairman

Subject: New Montana Bureau of Mines and Geology/Petroleum Engineering Building

Dear Committee Members:

I would like to express my sincere and strong support for funding for a new building on the Montana Tech Campus to house the Montana Bureau of Mines and Geology (MBMG) and the Petroleum Engineering Department. Both the MBMG and the Petroleum Engineering Department are in real need of new, modern facilities to carry out their programs.

While I have not worked directly with the Petroleum Engineering Department, as a geologist, I know that graduates from the Department have an excellent reputation internationally. The Department also serves an important role in Montana's economy, helping to promote energy development. Services to students, and the petroleum industry would be better served with the new building.

As a former employee of the MBMG I am very aware of the struggles the MBMG has had with Main Hall. I worked in the basement of Main Hall for three years. It is the only place I have ever worked where I questioned my own safety. There were problems with asbestos in my office, and there was no hot water in the bathrooms. On many days there was no running water in the bathrooms. I observed numerous problems with ventilation, electrical, and plumbing systems.

I am currently employed as a hydrogeologist for the Gallatin Local Water Quality District. In this capacity I often refer to geologic and hydrogeologic research conducted by MBMG. With coalbed methane issues raised in the Bozeman area, I have relied heavily on the expertise and information provided by the MBMG. For ground-water research I access information compiled by the Ground Water Information Center (GWIC) on a regular basis. The database maintained by the GWIC is probably the best of its kind in the nation. I also rely on the ground-water monitoring data being collected by MBMG for the Statewide Ground Water Monitoring Program. The Bureau also provides many other services such as earthquake monitoring that are vital to Montana.

The MBMG has struggled for decades to continue to provide these important services and operate out of Main Hall. Often times MBMG and Montana Tech have spend money inefficiently to try and temporarily fix problems. I believe that the MBMG is significantly hindered by the limitations of the facility they must operate out of. For the benefit of the MBMG, the Petroleum Engineering Department, and the people of Montana, I strongly encourage you to consider funding this new building. If you have any questions or need additional information, please call me at 582-3148.

Sincerely,

A handwritten signature in cursive script that reads "Alan English".

Alan English
Manager

Blue Range Engineering Co., Inc.

56 E. Mercury St.

Butte, MT 59701

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406-782-9051 FAX

blueranger@theglobal.net

January 27, 2005

State of Montana
House of Representatives
Long-range Planning Appropriations Subcommittee
Helena, MT 59620

Attention: Representative Wells, Chairman

Dear Chairman Wells and members of the subcommittee:

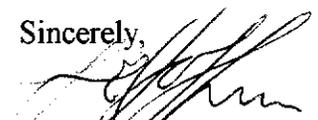
I am writing to urge your support for the proposed new building for the Montana Bureau of Mines and Geology (MBMG), and the Montana Tech Petroleum Department (PD).

I utilize the Bureau often, and know many of the limitations of the present location. Main Hall is a grand old building, but it was never designed for an operation as modern and diversified as the MBMG. Several years ago I was injured in an industrial accident. Not being able to work, I wanted to research some mining and water issues, but it was absolutely impossible because of a three block walk from parking, then four long flights of stairs (and a short one at the entrance), with no elevator, and widely separated offices. A new visitor needs a road map, physician's approval, and a sack lunch to visit more than one office. The real daily cost of operations, as well as productivity, is seriously affected by the time involved to move people and material. There is no room for expansion. On the positive side, however, employees and visitors get a wonderful daily stair workout, whether they want it or not.

As you agonize over how best to spend the State's limited income among a crush of worthwhile projects, you are painfully aware of how much revenue the declining industrial base has cost us. Natural resource development, with the associated jobs, taxes, and purchases has been constantly attacked and severely limited in the name of environmental protection, real or perceived. Many of the arguments against the extractive businesses are emotionally based, with little factual support. We need the facts.

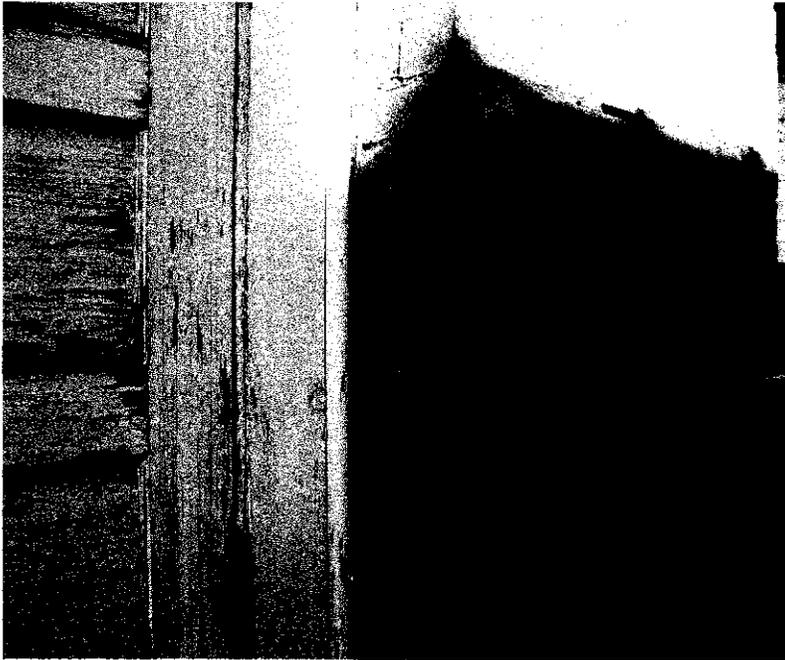
The MBMG is one of the few truly neutral sources of facts the legislature and the regulatory agencies have to rely on when making decisions regarding mineral and water development. The Bureau is neither a regulatory nor an oversight agency, but one of investigation and research. As such, the role of the organization will become increasingly important, and the demands on its services multiplied, as the search for balance becomes more acute. I believe this investment in the future of the MBMG will be repaid many times over.

Sincerely,



Larry C. Hoffman, P.E.
President

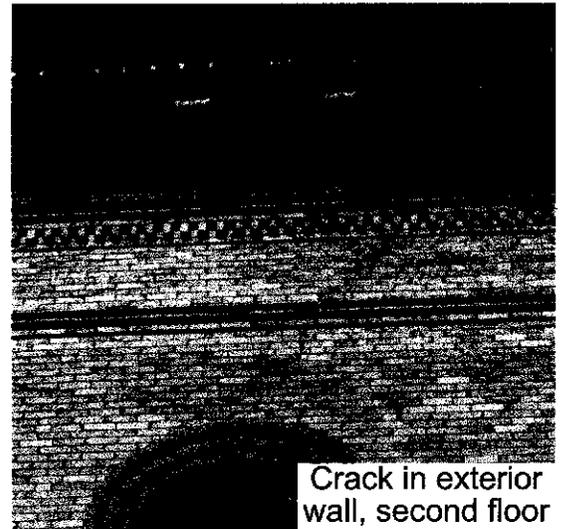
Main Hall - Montana Bureau of Mines and Geology



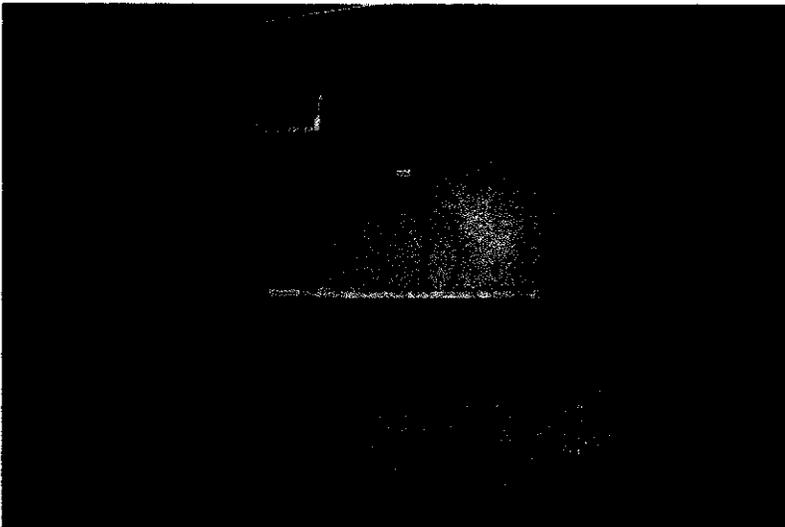
Exterior wall outside fire exit on third floor



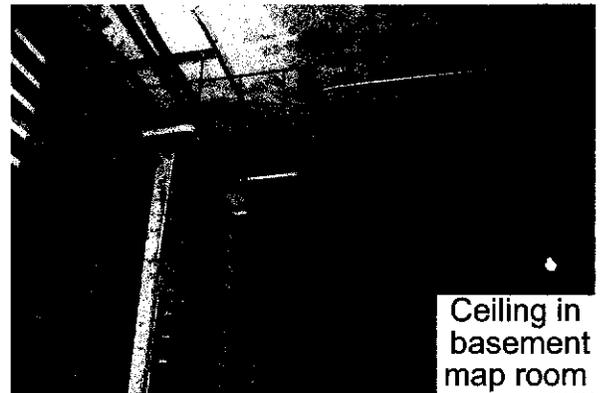
Office ceiling on third floor



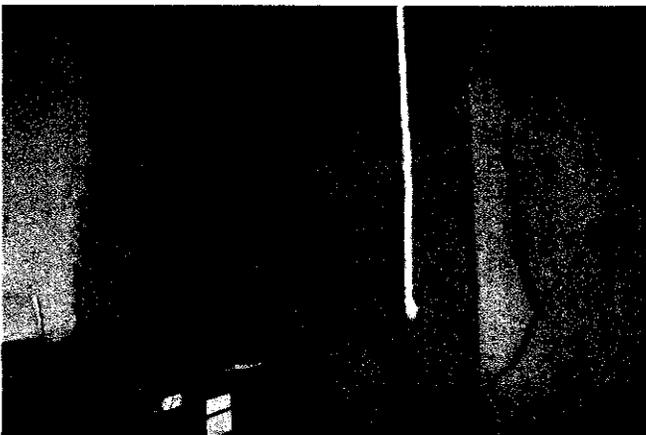
Crack in exterior wall, second floor



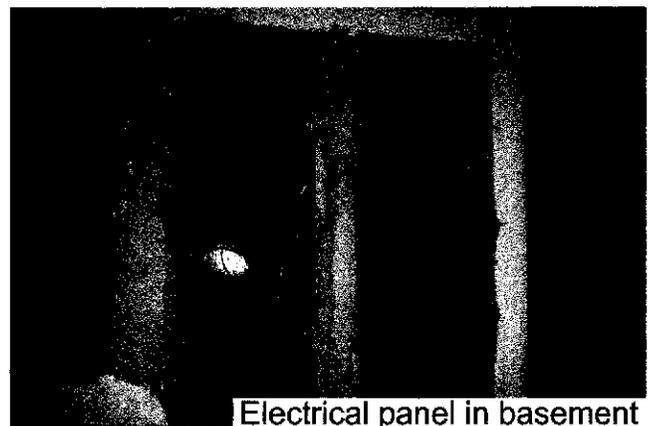
Lab in basement



Ceiling in basement map room



Crack in interior basement wall



Electrical panel in basement