

~~PRELIMINARY~~  
~~NOT APPROVED~~  
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RECORD OF PROCEEDINGS

Golden, Colorado  
January 14, 1977

The Board of Trustees met in regular session at 9:00 a.m., January 14, 1977, in the Board Room.

Present: Messrs. Bradley, Coors, Fogarty, Grynberg, Maytag, Stockmar, and Tucker.

Absent: Mr. Eisenach.

Also present: President McBride, Vice Presidents Gary, Scott, and Welles, various students and staff members, and a representative of the press.

Mr. Stockmar presided.

Previous Minutes. The minutes of the meeting held on December 10, 1976 were approved as corrected.

Faculty Appointments. Dr. Gary reported on new appointments as follows:

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| Alan L. Liby<br>Adjunct Assistant Professor of<br>Metallurgical Engineering (spring<br>semester) | \$1,800   |
| Moshe Vered<br>Adjunct Assistant Professor of<br>Geophysics (spring semester)                    | No salary |

Dr. Gary reported on three renewal appointments, continuing first semester appointments, as follows:

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| R. Edward Knight<br>Assistant Professor of Basic<br>Engineering (spring semester)   | \$8,000 |
| Ruth A. Maurer<br>Part-time Instructor in Mineral<br>Economics (spring semester)    | 3,000   |
| Dexter Strawther<br>Adjunct Assistant Professor of<br>Mathematics (spring semester) | 6,000   |

Monthly Financial Statements. Mr. Scott made available the monthly financial statements, saying that we are operating within the adopted plan for the year. He said the budget plan we are operating under assumes the approval of our supplemental budget requests in the total amount of \$179,080.

Admissions Report. Dr. Gary reported that our completed applications are five percent below the 1976 figure for the same time but that he does not see any need to change our standards or recruiting procedures at this time.

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Computer Status Report. Dr. Gary presented and discussed the principal points in the "Computing Center Planning Report, (December 22, 1976)" by Dr. A. R. Brown, which had been made available to Board members in advance of the meeting. Dr. Gary noted that the report did not offer a specific recommendation for action but rather assessed the situation with regard to CSM computer capability; viz. by making improvements in our software we can get along with our present equipment this academic year. After that we have three alternatives. (1) Spend \$900,000 and purchase for our own use a computer three times the capability of our present one; (2) Spend 1.3 million for a somewhat more capable facility which other colleges in the area could share; or (3) Spend 1.8 million for a facility large enough to sell services to outside organizations.

The philosophy of selling services was discussed: whether or not the School should compete with private industry. President McBride explained that should we ever pursue such a course, a separate corporation might be formed and all expenses involved would be figured in the bids to outsiders and taxes paid on any profit made. It was agreed that in such a venture we would not undertake work in other than our area of expertise and should not be in competition for commercial businesses such as bookkeeping, etc. ✓

There was a discussion of whether we should confine our study to the first two alternatives and perhaps seek gift money for the necessary expenditures. President McBride asked for authorization to include the third alternative in the investigation with the idea of seeking enough outside work partially to defray the cost of the major computer.

The Board granted authorization to investigate all three alternatives and complimented Dr. Brown on the report.

July Board Meeting. Mr. Welles said that, upon checking, the Keystone facilities were booked for the time of the July meeting. He said that Timberline Lodge, Snowmass, seemed the most suitable for our needs. Mr. Welles asked and received approval for making advance 1978 reservations at Keystone as well as confirming Snowmass for 1977.

A brief discussion of possible 1977 meeting topics followed, and it was agreed that the topics mentioned, together with others to be communicated to the President's Office, will be organized into a ballot to be mailed soonest to Board members to determine order of preference. A preliminary meeting agenda will then be developed and presented at the February Board meeting.

Legislative Hearings. Mr. Welles announced legislative hearings as follows:

January 14, 1977, 1:30 p.m. - 5:00 p.m., Joint Budget Committee  
January 18, 1977, 1:30 p.m., Senate Education Committee  
February 7, 1977, 2:00 p.m., House Education Committee

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Additional Reports. Mr. Welles reported on a joint CSM-ROMCOE luncheon meeting to be held on campus in the Green Center on February 22 next. Mr. E. F. Schumacher, author of Small is Beautiful, will be the speaker.

Mr. Welles also mentioned again the forum to be held on Engineers' Day, March 31 next, "What Happens When the Oil Runs Out?" with a distinguished list of speakers.

Development Program. Mr. Welles asked Mr. Morris to distribute copies of a press release on the gift of The Brown Foundation in the amount of 4.4 million dollars to finance the construction of a building to house the Mining Department and the Basic Engineering Department.

Upon motion made, seconded, and unanimously passed, the following resolution of acceptance of The Brown Foundation gift was adopted:

WHEREAS, the Board of Trustees of the Colorado School of Mines has been apprised of the letter of gift under date of December 14, 1976, from The Brown Foundation, Inc. of Houston, Texas, to the Colorado School of Mines Foundation, Inc. pledging to the latter Foundation the sum of \$4,400,000 to fund the cost of construction of a mining and basic engineering building at the Colorado School of Mines; and

WHEREAS, the Trustees, both individually and as a Board, are both deeply moved by and extraordinarily grateful for this philanthropic act on the part of The Brown Foundation, Inc. and its Board of Trustees; and

WHEREAS, the Board of Trustees is fully aware of the significance of this gift, not only in providing long-needed facilities for the major School departments of Mining and Basic Engineering but in the life of the School as it seeks to move toward excellence in all mineral engineering disciplines; therefore

BE IT RESOLVED:

That the Board of Trustees of the Colorado School of Mines fully endorses and supports the action of the Colorado School of Mines Foundation, Inc. in executing the Acceptance Letter of December 14, 1976; and

That the Board of Trustees of the Colorado School of Mines binds itself and its successors to take and to cause to be taken every action required of the School to achieve the purposes of

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the gift and, insofar as it is able, apart from the Colorado School of Mines Foundation, to comply with the conditions of the Acceptance Letter of December 14, 1976; and

That the Board of Trustees of the Colorado School of Mines herewith and by these presents designates the building to be constructed with these funds the George R. Brown Hall in honor of George R. Brown, Engineer of Mines, 1922, D.Eng., 1962, an alumnus of worldwide fame and acclaim whose outstanding achievements in engineering and construction, in business, and in the furtherance of engineering education fully merit this permanent memorial; and

That the Board of Trustees of the Colorado School of Mines conveys to The Brown Foundation Inc. and to its Board of Trustees individually and as a group, and especially to George R. and Alice Pratt Brown, with respect, its warmest thanks and most sincere gratitude for this gift, which not only immeasurably extends the record of generosity to the School but expresses in permanent form a profound understanding of the fundamental values of professional mineral engineering teaching and research.

President McBride said the administration was beginning immediately to gain proper authorization through the state to start construction. Inasmuch as consultations with the campus planning consultant are imminent, President McBride asked the members of the Board if there had been any change in their thinking about the location of the new building. As discussed at the December meeting, the location between 16th and 17th and Illinois and Maple had been favored. No further suggestion was made. L

Mr. Stockmar reported that there are indications of a major contribution from a large corporation. The prospect of this particular contribution had provoked a paper by Dr. Alter on the objectives and attractiveness of a presidential professorship at Mines. Copies of Dr. Alter's paper were distributed. A discussion of the proper person to fill the professorship developed the idea of obtaining a person with a broad background who can create intellectual excitement in the students, the faculty, and the staff; a person who can add to rather than redirect the goals of the School; a person who is not necessarily identified with one special discipline. The general concept received enthusiastic approval. ✓

Mr. Stockmar reported on a \$50,000 unitrust which had to remain anonymous and which brought the endowment from this same individual to \$100,000.

Mr. Russell White reported on recent developments within the fund-raising organization. He reported on a very

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good start in New York with the help of Dr. Fogarty. A luncheon had been held on December 14 where 65 key business leaders had been informed of our program. After that there was a meeting of alumni volunteers consisting of ten of our prominent alumni. He reported on the development luncheons scheduled for January 25 in Houston, January 28 in San Francisco, February 8 in Cleveland, and February 25 in Dallas.

He said work is being done to establish firm dates for other area luncheons.

Gift Review Sub-Committee. Mr. Stockmar appointed a sub-committee of the Board to review proffered gifts for conformity with School and Resource Fund objectives. The sub-committee appointed is Messrs. Maytag, Bradley, and Stockmar, for the period of time these persons are on the Board and are also on the CSM Foundation Board. Upon discussion, it was agreed that if there is not unanimous opinion on the sub-committee as to the desirability of accepting a particular gift, the matter will be brought to the entire Board.

Capital Construction Budget. Mr. Scott reported that work is under way to renovate the field house, provide facilities for women students in the gymnasium, and provide the 18 new rooms in Randall and Bradford Halls, and that work on the U.S.G.S. building is on schedule with occupancy expected August 1, 1977. Mr. Scott reported further that preliminary consultation and design work on the student housing project is advancing on schedule.

Finally, Mr. Scott presented the schematic design drawings for the library addition and requested that Board members satisfy themselves as to the general layout and appearance prior to the architect's undertaking detailed design. No specific adverse comments were noted.

Green Center Roof. Mr. Scott reported that all engineering and legal work necessary to be completed prior to developing repair bids had been accomplished and that bid documents were being prepared. He indicated that the repair cost might be as much as \$360,000, in which amount a supplemental appropriation request has been submitted, and that work was expected to begin in April or May.

Medal Sub-Committee. President McBride said as instructed at the December meeting he has appointed a sub-committee of Messrs. Welles, Johnstone, Schlechten, Mitchell and Weimer to review nominations and make recommendations to the Board.

JBC Meeting. Mr. Welles distributed copies of a memorandum which will serve as the basis of the presentation to be made during the afternoon before the Joint Budget Committee. The presentation emphasizes the need for more

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faculty, additional faculty support personnel, and the improvement of faculty salaries. Continuation of the present uniform tuition for graduate and undergraduate students will be recommended.

The meeting adjourned at 11:45 a.m.

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Assistant Secretary

January 14, 1977

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~~PRELIMINARY~~

~~RECORD OF PROCEEDINGS~~

Golden, Colorado  
February 11, 1977

The Board of Trustees met in regular session at 9:00 a.m. on February 11, 1977 in the Board Room.

Present: Messrs. Bradley, Coors, Eisenach, Fogarty, Grynberg, Maytag, Stockmar, and Tucker.

President McBride presided.

Also present were Vice Presidents Gary, Scott, and Welles, members of the staff and a representative of the press.

Previous Minutes. The minutes of the meeting held on January 14, 1977 were approved.

Faculty Appointments. Dr. Gary reviewed new appointments to the faculty as follows:

Michael S. Graboski \$15,640  
Assistant Professor of Chemical and Petroleum-  
Refining Engineering 1977-78 academic year  
(Appointment subject to completion of Ph.D.  
requirements)

Norma F. Law 6,000  
Adjunct Assistant Professor of Mathematics  
(second semester, 1976-77 academic year)

Financial Statements. Mr. Scott distributed copies of the monthly financial statements and stated that the School is operating within budget. He reminded the Board, however, that the budget assumes approval of certain major supplemental appropriation requests in the total amount of \$179,080, approval of which is not assured.

Admissions Report. Dr. Gary reviewed the admissions report as of February 1, 1977 and indicated we are, as of last month, still five percent below last year's figures. Dr. Gary further indicated that we continue to expect to meet enrollment goals even though we are somewhat below last year's acceptances due to the late receipt of the SAT and ACT test scores.

Mr. Maytag asked about three points brought out at the recent JBC hearing: (1) charging full cost to foreign students; (2) enrollment quotas for nonresidents and residents to preserve tuition income; and (3) differential in graduate and undergraduate tuition.

With regard to these points, President McBride said that at the request of Senator Strickland we are studying the foreign student tuition problem with the intent of preparing suggested guidelines for possible legislative use. We are to

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convene a group of representatives from other state colleges and universities on February 23 to discuss such guidelines, and we are contacting other organizations such as the U.S. State Department in an attempt to elicit points of view for use in considering this matter. ✓

As to possible goals to preserve a proper resident/nonresident ratio and budgeted tuition income, President McBride said it has been the policy here to enroll qualified students on a first come basis. This present academic year some residents were turned away because of late application. In these cases, the students were helped into other schools, advised on their curricula, and told to apply for the second semester. In practically every case of second semester applications, these students were accepted because at that time there was room for them. ✓

On the subject of graduate students being charged more than undergraduate students, consideration of this subject has been dropped by state officials for the time being anyway.

July Meeting. The ranked results of the balloting on subjects for the July meeting were distributed. Upon brief discussion, it appeared that the order of the topics was generally acceptable, consequently President McBride and Mr. Welles will now use these results to develop a proposed agenda for the meeting and will keep Board members informed.

Development Program. Mr. Welles reported on the news conference to be held at 11:45 this morning to announce the development program and The Resource Fund. He outlined the plans for the conference. The principals are to be Mr. Maytag in his capacity of President of the Foundation, Mr. Stockmar as President of the Board, Dr. McBride as President of the School, and Mr. Coors in his just-announced capacity as Chairman of the Executive Committee of the Fund.

Mr. White reported on events since the January meeting. He said there was a development luncheon held in Houston on January 25, one in San Francisco on January 28, and one in Cleveland on February 8. He reported progress being made on several others with no firm dates at this time after the one in Dallas on February 25.

Mr. Welles distributed a revised Table of Needs.

President McBride reported that the construction of a new building to house the Mining Department and the Department of Basic Engineering has now been approved by CCHE for state maintenance. He said Mr. Brown has not yet agreed to have the building named for him and that at Mr. Brown's request the matter has been turned over to the Brown Foundation for decision.

On the location of the new building, President McBride said the campus planning consultant, Mr. Sasaki, will be here all day February 28 and invited members of the Board to take part in the meetings. Looking ahead to construction, President McBride said Mr. Brown had suggested the desirability of using



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the construction management concept, thus reinforcing our intention to inquire carefully into the value of this procedure. It was noted that the use of this procedure substitutes state-guided selection of a construction manager for the similar procedure for an architect.

On the AMAX gift, President McBride reported steps being taken to develop the professorship concept discussed at the last meeting. Dr. Alter has been asked to convene a meeting of top people in the humanities, science, and engineering (perhaps eight in number) to meet at the Chicago airport for about 24 hours to develop a proposal. Two questions will be considered: (1) What should be the thrust of the program at CSM at this time? and (2) May we have a list of persons thought to be qualified for the professorship itself? It is understood that the conferees will not act as a selection committee. ✓

ROTC Building. The possibility and desirability of applying for federal funds to build a new ROTC building were discussed. The subject of the desirability of the ROTC program itself was discussed at some length. Mr. Stockmar reviewed the history of the unit at Mines, saying the curriculum was rewritten some time ago to make it fit well into our engineering program; the ROTC program serves as a continuation of a significant contribution this institution has made over a period of years to national defense; and it also provides financial assistance to some students in their obtaining a degree. ✓

It was moved that the administration be authorized to spend up to \$20,000 from nonstate funds to employ an architect of its choice to prepare schematic drawings, to be approved by the Board, to serve as the basis of an application to EDA for funds to construct a new military science building. The motion was seconded and passed with Mr. Maytag casting a negative vote.

The meeting adjourned at 11:15 a.m.

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Secretary

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PROCEEDINGS

APPROVED

RECORD OF PROCEEDINGS

Golden, Colorado  
March 11, 1977

The Board of Trustees met in regular session at 9:00 a.m. on March 11, 1977 in the Board Room.

Present: Messrs. Bradley, Coors, Fogarty, Grynberg, Stockmar, and Tucker.

Absent: Messrs. Eisenach and Maytag.

Mr. Tucker presided.

Also present were President McBride, Vice Presidents Gary, Scott, and Welles, various other members of the staff, and a representative of the press.

Previous Minutes. The minutes of the meeting held on February 11, 1977 were approved.

Faculty Appointments. Dr. Gary reviewed appointments and changes in the faculty as follows:

Roy A. Swanson \$ 3,150  
Part-time Instructor in Physics  
(second semester, 1976-77 academic year)

David G. Wirth 1,800  
Adjunct Associate Professor of Metallurgical Engineering  
(second semester, 1976-77 academic year)

David T. Snow of the Geology Department has been granted academic leave without pay for the 1977-1978 school year.

The position of Museum Curator became vacant January 4 with the resignation of Mrs. Nancy Knepper. John M. Shannon has been appointed Director of the Museum in addition to holding his present title of Assistant Professor of Geology. Mr. Shannon is very much interested in the museum and has worked with Mrs. Knepper during the past semester.

Financial Statements. Mr. Scott reviewed the monthly financial reports and called attention to the new statement, "Consolidated Board Report", which has been formulated in an attempt to condense the budget information for the Board. Mr. Scott asked the Board for reaction to the report after time had been given to its consideration.

With regard to the investments reported in the Investment Summary, Mr. Stockmar said that the CSM Foundation

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was investigating the possible employment of outside professional services to manage its investments and asked if the CSM Board might be interested in sharing or otherwise utilizing such resources. It was the consensus of the Board that the availability and qualifications of investment managers were of interest.

Admissions Report. Dr. Gary reviewed the admissions report furnished to the Board. He said even though the total applications as compared to the same time a year ago fluctuates from week to week, there is no question that our total enrollment goal will be realized.

Dr. Gary said a report on minority student enrollment will be mailed.

1977 Recipients of Medals. Dr. Fogarty, on behalf of the Board sub-committee for the review of nominees for medals, reported that the sub-committee had met and reviewed the work of the faculty and alumni sub-committee. The Board sub-committee recommended the following for the Distinguished Achievement Medals:

John J. Christmann, Jr., G.E., 1936  
William F. Distler, E.M., 1939  
Robert H. Freeman, E.M., 1948  
Herbert D. Thornton, P.E., 1940  
Norman R. Zehr, E.M., 1952; M.Sc., 1956

The sub-committee recommended that Dr. Jan D. Miller, M.Sc., 1966; Ph.D., 1969, be awarded the van Diest Gold Medal at 1977 Commencement.

Upon motion made, seconded, and passed, the recommendations of the sub-committee as reported by Dr. Fogarty were approved.

Retirements. President McBride reported on the retirements as follows: Dr. Ralph Bowersox, who has been Professor and Head of the Department of Physics since 1964, is retiring for age at the end of this academic year. Mrs. Virginia Wilcox Herald, who has been Head Librarian since 1955, is retiring for age at the end of the summer. Since both are well within the qualifications established by the Board for emeritus status, President McBride recommended that both be awarded emeritus rank.

Upon motion made, seconded, and approved, the two were awarded emeritus status.

Development Program. Mr. Welles reported that there had been three meetings with the Arthur Andersen Company to work out a new accounting procedure for the CSM Foundation to link with the School and the fund-raising activities. He said a system will be purchased providing it meets with the approval of the CSM Foundation staff and Mr. Maytag.

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Mr. Welles reviewed some changes made in the roster of E-Day speakers.

Mr. Welles also reported to the Board on Senate Bill 104, introduced by Senator McManus, which will make it necessary to receive advance legislative approval of any research project proposed for federal subvention. Mr. Welles said he was of the opinion this was both an obstructive intrusion into the field of research and an unwarranted thrust of legislative power into an administrative area and that he hoped it could be avoided.

7-21-77  
Bill  
not passed  
indefinitely

Mr. Russell White reported on the leadership cultivation program and said six luncheon meetings have been held. He said there are four more on the planning stage, but firm dates have not been established. The first meeting of the full Executive Committee is planned for mid-April.

Mr. Coors reported on the enthusiastic reception which the CSM group had received in Dallas on February 25. He said that Mr. Green was a gracious host to the group and the over-all reaction he thought was most favorable. Mr. Coors indicated we are greatly indebted to Mr. Green for his time, effort, and unique ability which was put to such effective use.

Summer Executive Program. President McBride asked for reactions from the members to the report, with conclusions and recommendations from Professor Jean Paul Mather, on a proposed campus program for executive training and development in the mineral resources fields, "Executive Management Programs", January, 1977. Professor Mather's conclusions, after extensive investigation, were that we lack the necessary expertise to staff such a program and that there would be involved a very large expenditure of risk funds to launch any type of successful program. It was Professor Mather's recommendation, President McBride concurring, that our efforts could better be utilized in other directions.

Upon motion made, seconded, and passed, the Board voted to accept the above recommendation and directed President McBride to express to Professor Mather the appreciation of the Board for the report.

July Meeting Agenda. Mr. Welles reviewed for the Board a tentative agenda for the July meeting. The agenda prepared by Mr. Welles and dated March 11, 1977 was generally approved and suggestions were made for guests to be invited.

Architectural Plans. Messrs. Ron Mason and Alan Gass of the John Anderson & Associates firm entered the meeting with suggested sites for the new student housing. After considerable discussion, the following motion was made, seconded, and passed.

Moved that the administration of the School is

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hereby authorized to initiate negotiations for the purchase of the real estate within Block 101 and the east one-half of Block 88 on the south side of Clear Creek in the City of Golden, not currently owned by the School and the State of Colorado. Any expenses for appraisals or other matters related to such negotiations may be advanced from quasi endowment funds held by the School. Such sums as are advanced are to be repaid, without interest, as soon as practicable following the sale of revenue bonds for this project, or from the proceeds of any other methods of financing the project. ✓

Upon motion made, seconded, and passed, the firm of Anderson and Associates was authorized to proceed with conceptual plans for the above site, with the view of building the first structure sufficiently far north to develop properly a major campus entrance at 19th and Elm.

Upon motion made, seconded, and passed, the following was approved: That the administration of the School is hereby authorized to pay such sums as are required, but not to exceed \$125,000, to architects, engineers, and others in connection with the planning and preparations for construction of the new dormitory and the Ben H. Parker Student Center addition. Such payments may be made from quasi endowment funds held by the School. Such sums as are advanced are to be repaid, without interest, to quasi endowment funds following the sale of revenue bonds for this project, or from the proceeds of any other method of financing this project. ✓

Mining & Basic Engineering Building. President McBride reported that after a day of consultations with the campus planner, Mr. Hideo Sasaki, it is his recommendation and that of the administration that the new building to house the Mining Department and the Basic Engineering Department be located on the block between 16th and 17th and Maple and Illinois, east of the Welch Ditch.

Upon motion made, seconded, and passed, this site was approved for the new building.

Upon motion made, seconded, and passed, the following was approved: That the administration of the School is hereby authorized to initiate negotiations for the purchase of the real estate within Block 78 on the south side of Clear Creek in the City of Golden, not currently owned by the School and the State of Colorado. Any expenses for appraisals or other matters related to such negotiations may be advanced from quasi endowment funds held by the School. It is understood that such sums as are advanced will be repaid, without interest, as soon as practicable by the Colorado School of Mines Foundation, Inc. ✓

Library Addition. Mr. James Johnson and Mr. Bart Smith of the firm of Johnson-Hopson & Partners entered the

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meeting at this time to present a model and conceptual drawings of the planned addition to the library.

After discussion the plans were approved with the additions of the following:

Upgrading links, special room, reference, documents, binding, gift books, vault, lockers, kitchen, fire alarm - \$76,500 to 109,000

Circulation area and administration - 90,000 to 112,000

Air conditioning addition and minimal air conditioning in existing structure - 140,000

Landscaping - 20,000

The Board went on record as having the intention of making this library addition of the highest quality, obtaining the additional funding necessary to do this.

Solar Heating - Coal Heating. President McBride was instructed to investigate the possibility of converting the entire campus to solar heating, rather than attempting to convert one building at a time. He was also asked to investigate the possibility of converting to coal from natural gas for the interim period before solar energy equipment can be installed and utilized.

The meeting adjourned at 12:45 p.m.

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Assistant Secretary

*Office copy*  
~~PRELIMINARY~~  
~~NOT APPROVED~~

**RECORD OF PROCEEDINGS**

Golden, Colorado  
April 8, 1977

The Board of Trustees met in regular session at 9:00 a.m. on April 8, 1977 in the Board Room.

Present: Messrs. Bradley, Coors, Fogarty, Grynberg, Maytag, Stockmar, and Tucker.

Absent: Mr. Eisenach.

Mr. Bradley presided.

Also attending the meeting were President McBride, Vice Presidents Gary, Scott, and Welles, members of the staff, Dr. George Keller, Dr. George Kennedy, and a representative of the press.

Previous Minutes. The minutes of the meeting held on March 11, 1977 were approved.

Faculty Appointments. Dr. Gary reviewed new appointments made to the faculty as follows:

|  |          |
|--|----------|
| Barbara B. MacDonald   | \$12,500 |
| Librarian (appointment effective March 21, 1977)                                   |          |
| P. A. O'Neill  | 3,960    |
| Research Associate in Metallurgical Engineering (Sept. 1, 1977 to August 31, 1978) |          |

Financial Reports. Mr. Scott reviewed the monthly financial reports and also presented as a non-routine item an analysis of the National Direct Student Loan program for the years 1975-1977.

Admissions Report. Dr. Gary reviewed the monthly admissions report, saying that although applications are down more than four percent from last year we are still confident of reaching the desired enrollment goal of 615 new students, freshmen and transfers.

The matter of recruiting was discussed, and Mr. George Mitchell, Director of the CSM Alumni Association, who was present at this time, said the alumni program for each alumnus to recruit a new student and for alumni committees to recruit in local high schools were very active and the local chapters were enthusiastic about them.

President McBride pointed out that given the present constant rate of matriculation of new students the School will plateau at 2,700 students rather than the desired 3,000 and that decisions by the Board will be required at some future dates on various "debottlenecking" procedures and costs; e.g. additional freshman chemistry laboratory space.

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Awarding of Posthumous Degrees, Policy. President McBride said that the recent death of three seniors in an automobile accident had provoked the development of a policy on awarding posthumous degrees. A committee of faculty members has studied the matter and has recommended certain criteria under which degrees are to be awarded posthumously. The matter has been studied carefully because of the chance of endangering the validity of the degrees earned by others.

After some discussion the following policy was approved, pending faculty approval on April 13 next.

## Introduction

Regrettably from time to time tragedy befalls a student when most but not all of the requirements for a degree from the Colorado School of Mines have been completed. The purpose of this policy is to define the circumstances under which a degree may be granted to such an individual to recognize his substantial effort, with no degradation of the significance of the degree.

Two sets of circumstances are recognized: those so specific that no extraordinary action by the faculty, administration, or the Board of Trustees is required; and those where a review of the circumstances must be made to present an adequate case to the faculty and Board of Trustees.

## Unequivocal Circumstances

A student shall be awarded the degree for which he was a candidate if both:

- a. The tragedy resulted in death or in permanent incapacitation to the extent that in all probability he would be unable to complete the unfinished requirements, and;
- b. The individual's name had been placed on the graduation list and he had completed satisfactorily at least eight weeks of the last semester's course work including all courses required for graduation.

## Circumstances Warranting Review

Should a student suffer a tragedy which results in death or permanent incapacitation as described above before his name has been placed on the graduation list, but within 19 hours of completion of degree requirements, and if the student has clearly demonstrated an intent to complete the degree requirements:

- a. The Vice President for Academic Affairs shall conduct a review of the circumstances to consider the possibility of awarding the degree.

April 8, 1977



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- b. The Vice President for Academic Affairs may at discretion convene a review committee consisting of himself as chairman, the Secretary of the Faculty, the Secretary of the Administrative Advisory Council and, as a nonvoting member, the President of the Associated Students to develop a recommendation.

The recommendation of this committee shall be submitted to the faculty for a vote.

Because of complexities involved in determining qualifications for graduate degrees, all such cases involving graduate students shall be handled by the review process.

Candidates for Degrees. Distribution was made of lists of candidates for degrees as recommended by the graduate and regular faculties at the meetings held on March 30, 1977 and April 16, 1977 respectively. The lists include in addition some names of undergraduates which have not yet received faculty consideration and which will be brought to the faculty on April 13, 1977 for approval.

Upon motion made, seconded, and unanimously passed, the following were approved for degrees on dates specified, subject to faculty approval of added names, the completion of all academic requirements, and continued compliance with School requirements and regulations.

It was noted that the undergraduate degree list included the names of Richard L. Livermore III and Thomas S. Mead III, the two of the three deceased seniors in good standing at the date of death.

May 6, 1977

## BACHELOR OF SCIENCE (MINING ENGINEERING)

|                         |                             |
|-------------------------|-----------------------------|
| Antonio, Mario Teano    | Koffer, James Preston       |
| Balcar, Mark Andrew     | Moore, David Thomas         |
| Bonezzi, Cesar Alberto  | Norden, Mark John           |
| Brassell, David Arthur  | Patton, John Carmal         |
| Chazin, David           | Pearce, Steven Scott        |
| Conger, Harry Milton IV | Porter, Kenneth Earl        |
| Cooper, Wade Emanuel    | Randolph, Marcus Philip     |
| Curran, Michael Anson   | Roness, Sharon Grace        |
| Forbes, David Scott     | Rose, William Lawrence      |
| Fuller, Jerry Lee       | Sarriugarte, Victor Louis   |
| Hesler, Galen John III  | Staman, Oral Dee            |
| Hughes, Ronald Olin     | Strickland, William Hartley |
| Karnasuta, Premchai     | Tice, Brian Edward          |
| King, Andrew C.         | Witkowski, Leonard          |
| Koch, Robert Lee        |                             |

## ENGINEER OF MINES

Dobbs, David William

April 8, 1977

# RECORD OF PROCEEDINGS

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## BACHELOR OF SCIENCE (METALLURGICAL ENGINEERING)

|                                |                          |
|--------------------------------|--------------------------|
| Acosta, Arturo Jose Rivero     | Gimbel, Steven           |
| Alexander, Gregory Wayne       | Huppi, Glenn Stuart      |
| Barnes, Randal Stuart          | Ivey, Ronald T.          |
| Bassett, Govert Loockerman III | Korzekwa, David Allen    |
| Bates, Donald A.               | Kulp, Lawrence Douglas   |
| Bennett, Diane Rupli           | Martin, Randall Kenneth  |
| Brothers, Monte Lorne          | Moroney, Michael Ray     |
| Bruno, John Douglas            | Norris, William John     |
| Burwell, Blair                 | Oppenheim, Daniel Jerome |
| Califano, Carmen Carl          | Palmer, Jay Alan         |
| Christner, Brent Kendall       | Pitman, Stanley George   |
| Clement, Thomas Patrick II     | Renfroe, William O., Jr. |
| Dombrowski, David Edward       | Taylor, Jon Raymond      |
| Egbert, Darryl John            | Trautman, Andrea Jean    |
| Fisbeck, Damon Eugene          | Winkel, John Richard     |
| Forni, Jay Sumner, Jr.         | Winslow, David Gordon    |

## BACHELOR OF SCIENCE (GEOLOGICAL ENGINEERING)

|                                |                           |
|--------------------------------|---------------------------|
| Barthel, Charles John, Jr.     | Hagar, Frank Joseph, Jr.  |
| Benavides, Alfaro Jorge Daniel | Hillenbrand, Mark Francis |
| Bickford, David Alan           | Livo, Keith Eric          |
| Cincilla, William A.           | Moorman, Janet Elizabeth  |
| Colleary, William Michael      | Morti, Eric Eugene        |
| Cornellisson, James Lynn       | Nichols, Robert Raymond   |
| Decker, Michael Kim            | Rivera, Paul Michael      |
| Evans, Terry Parker            | Roberts, Randy Dale       |
| Germer, David Edgar            | Sullivan, James Michael   |

## BACHELOR OF SCIENCE (PETROLEUM ENGINEERING)

|                             |                                  |
|-----------------------------|----------------------------------|
| Bolmer, Robert Scott        | Livermore, Richard Larremore III |
| Brandt, Paul Richard        | Magill, John Craig               |
| Clark, William F.           | Mead, Thomas Stith III           |
| Crawford, David Bovaird, II | Poss, Gordon Thomas              |
| Gordon, Kenneth R.          | Sargent, William Arthur          |
| Hamburg, Stephen Michael    | Stepinski, James Edward          |
| Heusser, Julie Marie        | Truby, Russell Warren            |
| Houghton, Gary Edward       | Williams, Robert Lynch           |

## PETROLEUM ENGINEER

Clark, William F.

## BACHELOR OF SCIENCE (CHEMICAL AND PETROLEUM-REFINING ENGINEERING)

|                         |                            |
|-------------------------|----------------------------|
| Coors, John Kistler     | Lillo, James Anthony       |
| Day, Randall Arthur     | McDaniel, Jesse Lynn       |
| Edwards, Sheldon Thomas | Mitchell, Robert Andrew    |
| England, Jeffrey A.     | Olander, Kendall Dean      |
| Fasold, Steven Charles  | Patterson, Kevin Wayne     |
| Fuchs, Howard Adam      | Pike, Douglas John         |
| Ginley, Douglas Max     | Ryan, Lynn Marie           |
| Gott, John Gregory      | Saborsky, Steven Kent      |
| Griffis, Robert Lamar   | Schiefelbein, Paul D.      |
| Harrow, Gerald Wayne    | Stinson, Joseph Walter     |
| Helgoth, Daniel John    | Stone, Sidney J. III       |
|                         | Wiltsey, Kathleen Margaret |

# RECORD OF PROCEEDINGS

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## BACHELOR OF SCIENCE (GEOPHYSICAL ENGINEERING)

|                            |                              |
|----------------------------|------------------------------|
| Beasley, Reginald Lamont   | May, Allen Earl              |
| Berg, Patricia Irene       | McManness, David Michael     |
| Breninger, James Irwin     | O'Kelley, Jeffry Thomas      |
| Flanagan, Guy              | Opfer, Russell Robert        |
| Forson, David Allison, Jr. | Ross, Gordon Casey           |
| Gillis, Steven Robert      | Sampson, Stewart Laurence    |
| Gilpatrick, Rory Delia     | Scott, Joel Edward II        |
| Gustafson, John Scott      | Shearer, Daniel Jack         |
| Holmes, Gunnar Erik        | Traeger, Christopher Clayton |
| Jones, Gary Lewis          | Windle, Thomas Wayne         |
| Kunkle, Daniel Leo         | Zeornes, Wayne George        |
| Lamb, Debra Susan          |                              |

## GEOPHYSICAL ENGINEER

Mitchell, Stephen Paul  
Opfer, Russell Robert  
Traeger, Christopher Clayton

## BACHELOR OF SCIENCE (MINERAL ENGINEERING CHEMISTRY)

|                       |                           |
|-----------------------|---------------------------|
| Bryson, Richard Lloyd | Markoe, Francis Lampert   |
| Culvey, Brian Glen    | Rastle, Charles Melvin    |
| Dahlin, Kenneth Earl  | Storey, Joseph Mark       |
|                       | Taravella, Michael Joseph |

## BACHELOR OF SCIENCE (MINERAL ENGINEERING MATHEMATICS)

|                        |                       |
|------------------------|-----------------------|
| Clay, Steven Eugene    | Johnson, Douglas Alan |
| Colgate, Bruce William | Robertson, David W.   |
|                        | Vorce, Thomas U.      |

## BACHELOR OF SCIENCE (MINERAL ENGINEERING PHYSICS)

|                        |                          |
|------------------------|--------------------------|
| Atkinson, Brian Edward | Burzlaff, Alan Arthur    |
| Bortz, John Chapman    | Kloepper, Fred Robert    |
|                        | Schnackenberg, Paul Tait |

## BACHELOR OF SCIENCE (MINERAL ENGINEERING)

|                      |                         |
|----------------------|-------------------------|
| Brown, Mark Jeffrey  | Lawton, Wayne Morse     |
| Decker, Jaye Elmer   | Lawyer, Guy Marlon      |
| Dutton, Douglas Carl | Tagge, Frank Wayne      |
|                      | Taylor, Donald Lee, Jr. |

June 18, 1977

## BACHELOR OF SCIENCE (PETROLEUM ENGINEERING)

Seitz, Mark Clyde

## BACHELOR OF SCIENCE (CHEMICAL AND PETROLEUM-REFINING ENGINEERING)

Murphy, Timothy Joseph  
Russell, Jeffrey Allen  
Stevens, Phillip David

April 8, 1977

# RECORD OF PROCEEDINGS

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August 13, 1977

## BACHELOR OF SCIENCE (MINING ENGINEERING)

Glade, Michael Joseph  
Roberts, Francis A.  
Smith, Robert Zane

## BACHELOR OF SCIENCE (METALLURGICAL ENGINEERING)

Clements, Bruce Kevin  
DeWeese, Steven

Kelly, David John  
Larson, Rae Anne

## BACHELOR OF SCIENCE (GEOLOGICAL ENGINEERING)

Gidman, Barry Linwood

Vardiman, David Miles

## BACHELOR OF SCIENCE (PETROLEUM ENGINEERING)

Cox, Patrick Arthur

Drenick, Andrew Florian

## BACHELOR OF SCIENCE (CHEMICAL AND PETROLEUM-REFINING ENGINEERING)

Madore, Gerald Albert

## BACHELOR OF SCIENCE (MINERAL ENGINEERING MATHEMATICS)

Woodruff, Garron Morgan

## BACHELOR OF SCIENCE (MINERAL ENGINEERING PHYSICS)

Norman, Kevin Daniel

## MINERAL ENGINEER

Edwards, Sheldon Thomas

May 6, 1977

## MASTER OF SCIENCE (MINING ENGINEERING)

Choi, Chang Keun

Johnson, Jahmale Carney

## MASTER OF SCIENCE (METALLURGICAL ENGINEERING)

Kirk, John Leston, Jr.

Roper, John Randolph

## MASTER OF ENGINEERING (GEOLOGICAL ENGINEER)

Snyder, Linden Earl

Wilson, Ellery Holbrook

## MASTER OF SCIENCE (GEOLOGY)

Anderson, James Patrick  
Billingsley, Lee Travis  
Cardwell, Aubrey Lynn  
Cuffney, Robert G.  
Dinkmeyer, Paul Reynold  
El-Hindi, Mohamed A.

Erickson, Richard Arthur  
Johnson, Stephen Michael  
Lewis, Linda L.  
Lowman, Bambi M.  
Manzolillo, Claudio Dario  
Pinel, Mark Jonathan  
Willis, Roy Dean

April 8, 1977

# RECORD OF PROCEEDINGS

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## MASTER OF SCIENCE (GEOLOGICAL ENGINEERING)

Montazer, Parviz Molaghati  
West, Michael Wedell

## MASTER OF ENGINEERING (PETROLEUM ENGINEER)

Shagroni, Mahmoud Ahmed  
Townsend, James Alan

## MASTER OF SCIENCE (PETROLEUM ENGINEERING)

Blauer, Roland E.  
Cox, Dave Olvir  
Wright, John Dumont

## MASTER OF ENGINEERING (CHEMICAL AND PETROLEUM-REFINING ENGINEER)

Torres, Jose Eduardo

## MASTER OF SCIENCE (CHEMICAL AND PETROLEUM-REFINING ENGINEERING)

|                             |                           |
|-----------------------------|---------------------------|
| El-Arabi, Miloud Abdu-Salam | Gupta, Mukesh Kumar       |
| Fritzler, Eugene A.         | Murphy, Charles Landon    |
| Gertenbach, Dennis Donald   | Goite, Abraham J. Suniaga |

## MASTER OF ENGINEERING (GEOPHYSICAL ENGINEER)

Miles, Deborah Rue

## MASTER OF SCIENCE (GEOPHYSICS)

|                       |                           |
|-----------------------|---------------------------|
| Arestad, John Fredric | Miller, John J., Jr.      |
| Botha, Willem Jacobus | Presgrave, Bruce W.       |
|                       | Williams, John Thomas III |

## MASTER OF SCIENCE (GEOPHYSICAL ENGINEERING)

Olson, William R.  
Stoughton, Dean David Hans  
Young, Terence Kent

## MASTER OF SCIENCE (CHEMISTRY)

Love, Alonza Harold  
Nelson, Erik Bentley

## MASTER OF SCIENCE (GEOCHEMISTRY)

|                          |                         |
|--------------------------|-------------------------|
| Holcombe, Larry J.       | Ringrose, Charles Davis |
| Jansen, Walrave Theodoor | Smith, Shea Clark       |

## MASTER OF SCIENCE (MATHEMATICS)

Chou, Georgeson G.  
Strahl, Roger D.  
Wilson, Lyle R.

# RECORD OF PROCEEDINGS

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## MASTER OF SCIENCE (PHYSICS)

Larson, Robert Eric  
Rahil, Ahmed Abdussalam  
Schuyler, John Roy

## MASTER OF SCIENCE (MINERAL ECONOMICS)

Daniels, Jeffrey Scott  
Gensch, David Alan  
Grange, Judith Kay  
Johnson, Rowena RoseAnn  
Tittes, Pamela Raye

## DOCTOR OF PHILOSOPHY (METALLURGICAL ENGINEERING)

Taylor, Patrick Rodger

## DOCTOR OF PHILOSOPHY (GEOLOGY)

Barrero-Lozano, Dario  
Cronoble, James M.  
Irtem, Oguz  
Nwangwu, Uka  
Pierce, Walter Raymond

## DOCTOR OF PHILOSOPHY (GEOLOGICAL ENGINEERING)

Ege, John Rodda

## DOCTOR OF PHILOSOPHY (PETROLEUM ENGINEERING)

Jamjoom, Sami Mohammed Jamil  
Krug, Jack A.

## DOCTOR OF PHILOSOPHY (GEOPHYSICS)

Krygowski, Daniel Anthony  
Lee, Chong Yan

## DOCTOR OF PHILOSOPHY (GEOPHYSICAL ENGINEERING)

Schimschal, Ulrich

## DOCTOR OF PHILOSOPHY (MINERAL ECONOMICS)

DaBai, George Salameh  
Grange, Franklin Ernest II

Degree Designations in Chemistry, Mathematics, and Physics. President McBride said there has been some variation in the use of the hyphen in the three Bachelor of Science degrees granted in the departments of Chemistry, Mathematics, and Physics. A study of the past minutes shows the Board intention of identifying these degrees as being oriented to the mineral engineering field but the purpose of the hyphen is not clear.

President McBride assured the Board there is no

## RECORD OF PROCEEDINGS

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intention of changing the course content of the degree programs. Authority requested pertains to degree designation only.

President McBride asked authorization to show the degrees as follows:

Bachelor of Science (Mineral Engineering Chemistry)  
Bachelor of Science (Mineral Engineering Mathematics)  
Bachelor of Science (Mineral Engineering Physics)

Upon motion made, seconded, and passed, the change in the degree designation was approved as requested.

President McBride was asked to do some research on the use of the parenthesis as applied in the secondary designation of all Mines degrees.

Development Program. Mr. Welles reported that invitations will soon be in the mail to persons invited to the Snowmass planning conference.

He reported that the Engineers' Day Forum was very successful with over 1,300 in attendance.

Upon motion made, seconded, and passed, the following resolution was read into the minutes, copy of which is to be transmitted to the students in charge of E-Day.

WHEREAS the students of the Colorado School of Mines, and especially the E-Day Committee and the committee in charge of the E-Day Forum, "What Happens When the Oil Runs Out?", distinguished themselves by their original thinking and prodigious efforts in making the Forum an outstanding success, be it

RESOLVED that the Board of Trustees, recognizing the success of the Forum and the benefits accruing to the Colorado School of Mines because of the immediate favorable publicity and the extended impact of the dissemination of information thereby achieved, do express to these students its pride in their accomplishments and its appreciation of the time and talent generously expended.

Mr. White reported on firm dates for development luncheons: April 15 at Pittsburgh, May 2 at Oklahoma City, and May 19 at Tulsa. He reported (1) that President McBride is to be present at a small luncheon with Gulf Oil Chairman, Dr. Jerry McAfee, and other Gulf personnel in Pittsburgh, (2) that Mr. Marvin Gantz has agreed to be chairman of the Pittsburgh organization, (3) that the Denver area Executive Committee is planning its first meeting on April 19, and (4) that Mr. Walter Hickel of Alaska has agreed to take an active part in our Resource Fund effort, although his title and role have not been defined yet.

## RECORD OF PROCEEDINGS

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Mr. Coors reported that the Executive Committee meeting to be held on April 19 is for the purpose of discussing campaign priorities, defining responsibilities, and setting the timetable.

Mr. Leeds reported that he had just spent two days in New York where he had met with representatives of corporations and foundations. He said they had discussed the delicate balance required between the necessity of maintaining adequate momentum and the keeping in place of long-term fund drive goals.

The fund raising drive being launched by the University of Denver was mentioned. It was agreed that there must be no animosity or negative competition between the two institutions because of the concurrent campaigns.

Mr. Grynberg spoke of the advantages in naming 30 to 40 honorary trustees to be chosen from around the world who could bring international effort and prestige to our fund raising efforts. He said in view of the numerous fund raising drives going on at any given time, we had to move quickly and decisively to reach those persons and organizations who can help us achieve our goals. President McBride called the attention of the Board to the bylaws as amended October 10, 1975, which authorize the creation of the Colorado School of Mines Council, presumably for this purpose.

"Alternate Forms of Energy" Report. President McBride said that in response to a request from a Board member a committee of faculty members had been appointed to review the status of CSM programs with respect to alternate forms of energy and to make recommendations on these matters. Copies of the report had been mailed to the Board members prior to the meeting and much interest was shown in the report. The broad conclusion reached by the committee was that investigation into alternate sources of energy was well within the purview and, except in a few cases, the expertise of CSM and CSM personnel. President McBride and Dr. Gary said that in the main the curricula already exist and stated that no new degree program was being considered at this time. Dr. Gary spoke of the parallel work being done by Dr. Beatrice Willard, who joined the faculty in January as Professor of Environmental Sciences and who is working with all departments in stressing environmental concerns. President McBride said it was a matter of using what resources we have in the way of time, talent, and funds to the best advantage in relation to our mission. ✓

It was concluded that time did not allow further discussion at this meeting but that at the May meeting, or a succeeding meeting, the Board will address itself further to the mission of the School and the role alternate sources of energy should play in the deployment of our resources. |

The Board was very complimentary about the report prepared by the committee and expressed appreciation to the members present, to be conveyed to the other members of the committee.

April 8, 1977



## RECORD OF PROCEEDINGS

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Board Meeting Dates. The Board agreed that, as has been customary, there will be no meeting during August 1977. It was further agreed that the May 1978 Board meeting will be scheduled for May 11, the afternoon of the day prior to Commencement.

The meeting adjourned at 11:30 a.m.

\_\_\_\_\_  
Assistant Secretary

April 8, 1977

Office copy

## RECORD OF PROCEEDINGS

Golden, Colorado  
May 5, 1977

In substitution of the regular May meeting, the Board of Trustees met on May 5, 1977 at 1:30 p.m. at the Denver Club in downtown Denver.

Present were Messrs. Coors, Fogarty, Grynberg, Maytag, and Tucker. Also present were Trustees Designate Fred R. Schwartzberg and James C. Wilson.

Absent were Messrs. Bradley, Eisenach, and Stockmar.

Also present were President McBride, Vice Presidents Gary, Scott, and Welles, members of the staff and a representative of the press.

Several alumni attended the early part of the meeting.

Mr. Coors presided.

Mr. Coors began the meeting by welcoming the Trustees Designate and the visiting alumni. He explained to them that, although Mr. Stockmar is President of the Board, the chairmanship has been rotated the past several years.

Development Program. Mr. Coors first addressed himself to the development program to accommodate the visitors who had other commitments for the afternoon. Mr. Coors told of our involvement in a major fund raising effort known as The Resource Fund, structured through the Colorado School of Mines Foundation, Inc. He said this Board may suggest and recommend items and actions to the CSMF Board, but the development program is under the direction of that Board.

Mr. Coors introduced Mr. "Swede" Nelson from San Francisco who spoke of the development luncheon held there on January 28. Mr. Nelson is of the opinion that early follow-up on the contacts made would have had favorable results. Mr. Coors said that unfortunately we have not had staff sufficient to do all that we would like to do but feels we must follow the course of action outlined by the professionals employed by the CSM Foundation to guide us in the drive.

The alumni expressed their appreciation to the Board and excused themselves from the meeting.

Previous Minutes. The minutes of the meeting held on April 8, 1977 were approved.

Faculty Appointments. Dr. Gary reviewed the recent appointments to the faculty as follows:

|   |          |
|---|----------|
| Robert H. Frost                         | \$13,000 |
| Instructor in Metallurgical Engineering |          |

# RECORD OF PROCEEDINGS

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|   |          |
|---|----------|
| William A. Hustrulid<br>Professor of Mining Engineering   | \$24,300 |
| Donald Langmuir<br>L. J. Beckham Visiting Professor of Geochemistry<br>(period August 29 to September 30, 1977) | 2,500    |
| Ruth A. Mauer<br>Instructor in Mineral Economics  | 13,000   |
| Michael J. Pavelich<br>Assistant Professor of Chemistry/Geochemistry  | 16,000   |
| Robert H. Trent<br>Associate Professor of Mining Engineering<br>(second semester, 1977-78 academic year)        | 11,500   |

Monthly Financial Reports. Mr. Scott made the monthly financial statements available to the Board and stated we are progressing according to established budget.

State Auditor. Mr. Coors reported to the other members of the Board receipt of a letter addressed to Mr. Stockmar from the State Auditor asking for an early audience with the Board. Mr. Scott had contacted the State Auditor and informed him that of necessity, due to Commencement activities, the May 5 meeting had to be short.

After some discussion during which Mr. Maytag urged that the Board be generally accessible to the Auditor, it was agreed that Mr. Stockmar, as President of the Board, should contact the State Auditor and determine the nature of his desired discussion and that while this item could be an agenda item for the June meeting, at Mr. Stockmar's discretion, the Auditor should be asked to work first with Mr. Scott through an exit interview, etc. in the customary way.

Admissions Report. Dr. Gary reviewed the most recent report on fall, 1977 enrollment prospects. He again reported that while we are still down six percent from last year, we expect to have no difficulty meeting our desired enrollment goal.

Promotions. Dr. Gary reported to the Board the promotions for the 1977-78 academic year. They are as follows:

To Professor -

|                   |                          |
|-------------------|--------------------------|
| James T. Brown    | Physics                  |
| George H. Kennedy | Chemistry & Geochemistry |
| Ronald W. Klusman | Chemistry & Geochemistry |
| James W. Martin   | Basic Engineering        |

To Associate Professor -

|                    |   |
|--------------------|---|
| David L. Butler    | Geophysics  |
| W. John Cieslevicz | Humanities & Social Sciences<br>and Mineral Economics |

# RECORD OF PROCEEDINGS

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|                      |  |
|----------------------|--|
| Stanley M. Guralnick | Humanities & Social Sciences                 |
| Scott J. Marshall    | Basic Engineering                            |
| Raymond K. Mueller   | Mathematics                                  |
| Victor F. Yesavage   | Chemical & Petroleum-Refining<br>Engineering |

Dr. Gary reviewed the qualifications of Dr. Franklin D. Schowengerdt for Physics Department Head and asked for Board approval of this appointment.

Upon motion made, seconded, and passed, the Board approved the appointment of Dr. Franklin D. Schowengerdt to Head of the Physics Department, effective at the end of the 1976-77 academic year when Dr. Bowersox retires.

Retirement, Emeritus Status. President McBride said that Assistant Professor Charles E. Starks has decided to take an early retirement, effective at the end of the summer. He said that Professor Starks qualifies for emeritus status and recommended that the Board grant this.

Upon motion made, seconded, and passed, Professor Starks was granted the status of Associate Professor of Chemistry Emeritus upon retirement.

Development Program. Mr. Coors reviewed progress on the program. He said regular leadership/cultivation meetings are being held on schedule and that we are being invited to present our plans to different groups. He said this program must be viewed as a long-term project, that we must plan on spending lots of time on it because our goals are of some magnitude. He pointed out the need for thorough homework because asking for money is a sophisticated business not to be carried out in a hasty fashion. He said the program has been structured through the CSM Foundation with a committee to guide it, and that the effort is as responsible as any with which he had been associated. Mr. Coors said he had agreed to chair that Executive Committee and he feels very strongly that we must follow the guidance of the persons employed to direct the campaign. He asked that everyone respect the direction and when a particular strategy has been developed, that strategy be respected. He also asked that care be exercised in selecting the correct forum for any criticism.

AMAX Luncheon. President McBride reported the selection by the American Society for Metals of the AMAX company for a Historical Landmarks Award to recognize the significance of molybdenum and industrial development at the Climax site. He said this award will be presented on September 9 and suggested that the Board entertain the AMAX officials here for the occasion at lunch on that day. The members of the Board agreed.

Conversion to Coal. President McBride reported on an agreement to be made with Stearns-Roger whereby they will make a study of alternate methods of utilizing fossil fuel and/or solar energy to meet the utility requirements of the School. He said the School will not be obligated in any way, that Stearns-Roger anticipates many such requests and hopes to benefit by the study made here. The study will take two to three months.

# RECORD OF PROCEEDINGS

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Upon motion made, seconded, and passed, the Board approved the contemplated study.

Dormitory Planning. Representatives of Anderson & Associates, the architects for the new dormitory facilities, entered the meeting to present drawings and preliminary cost figures for the new buildings.

After presenting slides of architectural drawings, the architects presented cost figures, including among others \$40 per square foot for dormitory construction, far exceeding budget limitations as originally conceived. The total estimated cost presently is \$3.7 million, requiring debt service payments much higher than can be supported through competitive rentals and other fees. Mr. Scott said that because time is an important factor, he wished to request an equity commitment of up to one million dollars in order to proceed on a time schedule required for the sale of bonds and which will allow construction to begin in September of 1977 and occupancy in the fall of 1978. ✓

Upon motion made, seconded, and passed the Board voted to commit up to one million dollars. Mr. Maytag cast a negative vote.

The meeting adjourned at 4:45 p.m.

---

Assistant Secretary

Official copy

## RECORD OF PROCEEDINGS

Golden, Colorado  
June 10, 1977

The Board of Trustees met in regular session at 9:00 a.m. in the Board Room of the Colorado School of Mines on June 10, 1977.

Present: Messrs. Coors, Grynberg, Maytag, Schwartzberg, Stockmar, Tucker, and Wilson.

Absent: Dr. Fogarty.

Also present were President McBride, Vice Presidents Gary and Scott, as well as other members of the staff and a representative of the press.

President McBride presided.

Oath of Office. Mr. Fred R. Schwartzberg and Mr. James C. Wilson, having been confirmed by the Senate on May 20, 1977, took the oath of office.

Election and Appointment of Officers. President McBride, referring to the bylaws, asked for nominations for President of the Board.

Mr. Stockmar's name was placed in nomination and seconded. Nominations were closed. Mr. Stockmar was unanimously elected President for another two years.

For Vice President, Mr. Grynberg and Dr. Fogarty were nominated. On written ballot, Mr. Grynberg was elected Vice President.

For Secretary of the Board, Mr. Wilson was nominated and elected unanimously.

For Treasurer, Mr. Scott was nominated and elected unanimously.

Mr. Coors was elected Assistant Secretary and Mr. Schwartzberg was elected Assistant Treasurer.

The bylaws of the CSM Foundation were noted to specify that the CSMF Board includes three members appointed by and from the Board of Trustees of CSM. Nominations for these three posts were called for. Upon motion made, seconded, and passed Messrs. Maytag, Stockmar, and Wilson were elected to represent the Board on the CSM Foundation Board.

By unanimous vote, Dr. Fogarty was elected to represent the CSM Board on the CSM Research Institute Board.

By unanimous vote, Mr. Schwartzberg was elected to membership on the Advisory Council of the CCHE.

Previous Minutes. It was moved, seconded, and passed that the minutes for the meeting held on May 5, 1977 be approved.

June 10, 1977

# RECORD OF PROCEEDINGS

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Faculty Appointments. Dr. Gary reviewed new appointments to the faculty as follows:

|   |                 |
|---|-----------------|
| Emmy Booy<br>Assistant Professor of Geology   | \$18,000        |
| L. Graham Closs<br>Assistant Professor of Geology   | 16,000          |
| Samuel S. Goldich<br>Adjunct Professor of Geology   | no compensation |
| Virginia Anne McGinnis<br>Assistant Museum Curator<br>one-half time basis, 12-month contract        | 5,500           |
| Hartley K. Phinney, Jr.<br>Head Librarian, 12-month contract  | 30,000          |
| William A. Schneider<br>Brown Professor of Geophysics   | 30,000          |
| Reinhardt Schuhmann, Jr.<br>Kroll Visiting Professor of Metallurgical<br>Engineering, fall semester | 10,000          |
| John U. Trefny<br>Assistant Professor of Physics  | 15,500          |
| David M. Updegraff<br>Professor of Geochemistry   | 23,000          |

Dr. Gary reported seven unfilled positions at this time.

Monthly Financial Reports. Mr. Scott made available the regular monthly financial reports and said the School is operating within the accepted financial plan. He also distributed copies of the preliminary 1977-78 Budget Analysis, the 1976-77 Budget Analysis, and a June 2, 1977 draft of the Financial Management Plan.

Dormitory Bonds. Mr. Dunn Krahl of Boettcher and Company reported on a bond issue problem arising from a recent reinterpretation of the existing statutes having to do with the cross-pledging of revenue for the amortization of bonds. Mr. Krahl said that by the July meeting he would have definite courses of action to recommend, but he wanted the Board to know this problem did exist at this time.

Dr. McBride thanked Mr. Krahl for his presentation.

CSM Audit. President McBride said that, following the receipt of the letter from the State Auditor mentioned at the May meeting, the administration had been in conference with the State Auditor. Arrangements were made for and there ensued a customary exit interview which proved mutually satisfactory. As a result of that interview, there is

# RECORD OF PROCEEDINGS

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being prepared a revised preliminary audit report. President McBride said he had invited the State Auditor to appear before the Board at the convenience of the Auditor. Mr. Robert J. Scott, State Auditor, has requested a deferred appearance.

Admissions. Dr. Gary reported that we are very close to our enrollment goal and that admissions will be closed at 520-525 new freshmen within a week. Admissions for transfer students will be extended due to lateness of grades. At this time the resident/nonresident ratio in the new freshman class is approximately 75/25, higher than desired.

Housemothers in Fraternities. President McBride stated that in view of the history of the Board's stipulation that fraternities employ housemothers, he had felt obligated to place this item on the agenda. He said that representatives of the Interfraternity Council, fraternity alumni, and Dean Culver had been studying the situation and were recommending several alternatives to a housemother in each fraternity. The recommendations in order of preference are (1) a graduate advisor; (2) a faculty advisor; or (3) an alumni advisor, a person who would be aware of the house happenings and be available to counsel and provide leadership.

Upon motion made, seconded, and passed, the recommendations of the above group were accepted on a one-year trial basis. Mr. Stockmar asked Mr. Scott to examine the lease arrangements to make sure appropriate corrections are made as needed.

1977-78 Teaching Faculty Salary Schedule. After review, it was moved, seconded, and passed that these schedules be approved as follows:

|   |          |
|---|----------|
| John F. Abel<br>Professor of Mining Engineering   | \$24,030 |
| Julia Alexander<br>Assistant Professor of Humanities and<br>Social Sciences   | 16,350   |
| R. Bruce Allison<br>Professor of Physical Education & Head<br>of Department of Physical Education &<br>Athletics (A.D.) (10-month contract) | 27,500   |
| William R. Astle<br>Associate Professor of Mathematics  | 20,120   |
| William A. Averill<br>Assistant Professor of Metallurgical<br>Engineering   | 16,780   |
| Henry A. Babcock<br>Professor and Head of Basic Engineering<br>Department   | 30,120   |

June 10, 1977



# RECORD OF PROCEEDINGS

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|  |        |
|--|--------|
| Charles R. Baer<br>Assistant Professor of Mathematics  | 16,000 |
| Robert W. Baldwin<br>Assistant Professor of Chemical and<br>Petroleum-Refining Engineering                                     | 16,110 |
| Daniel M. Bass<br>Professor of Petroleum Engineering &<br>Head of Department   | 30,330 |
| George T. Bator<br>Professor of Mining Engineering   | 26,140 |
| Victor W. Bauman<br>Associate Professor of Mathematics   | 19,050 |
| Harold Bloom<br>Professor of Geology   | 21,800 |
| Ardel J. Boes<br>Associate Professor of Mathematics  | 21,310 |
| Joan N. Brooks<br>Assistant Professor of Civil Engineering<br>(Assigned to Basic Engineering Department)                       | 16,450 |
| James T. Brown<br>Professor of Physics   | 20,200 |
| W. R. Bull<br>Associate Professor of Metallurgical<br>Engineering  | 23,400 |
| Thomas R. Bultman<br>Instructor in Geology   | 14,200 |
| Jerrold J. Burnett<br>Professor of Physics   | 21,770 |
| David L. Butler<br>Associate Professor of Geophysics   | 18,840 |
| Nicholas P. Callas<br>Assistant Professor of Mathematics   | 18,370 |
| Debra A. Carnell<br>Instructor in Basic Engineering  | 13,600 |
| Robert H. Carpenter<br>Professor of Geology  | 25,010 |
| Edward F. Cecil<br>Assistant Professor of Physics  | 14,650 |
| W. John Cieslewicz<br>Associate Professor of Humanities and<br>Social Sciences and Associate Professor<br>of Mineral Economics | 17,000 |

# RECORD OF PROCEEDINGS

5

|   |        |
|---|--------|
| Stephen R. Daniel<br>Associate Professor of Chemistry   | 18,290 |
| James Darden<br>Associate Professor of Physical Education<br>and Athletics                                  | 20,820 |
| Joseph E. Davies<br>Professor of Physical Education and<br>Athletics  | 21,020 |
| Richard H. DeVoto<br>Associate Professor of Geology   | 21,340 |
| Dean W. Dickerhoof<br>Professor of Chemistry  | 21,570 |
| Donald I. Dickinson<br>Associate Professor of English   | 19,710 |
| Philip F. Dickson<br>Professor of Chemical and Petroleum-<br>Refining Engineering and Head of<br>Department | 29,840 |
| Glen R. Edwards<br>Associate Professor of Metallurgical<br>Engineering                                      | 21,650 |
| Kenneth W. Edwards<br>Associate Professor of Chemistry  | 16,430 |
| Harry W. Emrick<br>Associate Professor of Basic Engineering   | 21,010 |
| Rudy C. Epis<br>Professor of Geology  | 27,190 |
| Robert R. Faddick<br>Associate Professor of Basic Engineering   | 19,690 |
| Donald W. Fausett<br>Assistant Professor of Mathematics   | 18,620 |
| Joseph J. Finney<br>Professor of Geology and Head of<br>Department  | 28,170 |
| Dale Foreman<br>Associate Professor of Basic Engineering<br>and Affirmative Action Officer                  | 21,000 |
| Charles O. Frush<br>Associate Professor of Mining Engineering   | 18,230 |
| Richard D. Gauthier<br>Associate Professor of Basic Engineering   | 21,240 |

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# RECORD OF PROCEEDINGS

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|   |        |
|---|--------|
| Donald W. Gentry<br>Associate Professor of Mining Engineering                             | 23,380 |
| L. T. Grose<br>Professor of Geology   | 26,390 |
| Stanley M. Guralnick<br>Associate Professor of Humanities and<br>Social Sciences          | 16,660 |
| Raymond R. Gutzman<br>Associate Professor of Mathematics                                  | 19,440 |
| Frank A. Hadsell<br>Professor of Geophysics   | 26,560 |
| John P. Hager<br>Professor of Metallurgical Engineering                                   | 28,400 |
| David W. Hall<br>Associate Professor of Chemistry   | 16,910 |
| John W. Hancock<br>Associate Professor of Physical Educa-<br>tion and Athletics           | 19,180 |
| Peter E. Hartley<br>Assistant Professor of Humanities and<br>Social Sciences              | 17,000 |
| John D. Haun<br>Professor of Geology  | 27,750 |
| Douglas W. Hilchie<br>Associate Professor of Petroleum<br>Engineering                     | 23,360 |
| Carl L. Hiltrop<br>Associate Professor of Chemistry                                       | 15,670 |
| Anthony L. Hines<br>Assistant Professor of Chemical and<br>Petroleum-Refining Engineering | 19,490 |
| John A. Hogan<br>Associate Professor of English   | 18,530 |
| Ralph C. Holmer<br>Professor of Geophysics  | 27,270 |
| Mathew J. Hrebar III<br>Assistant Professor of Mining Engineering                         | 18,640 |
| Joan R. Hundhausen<br>Assistant Professor of Mathematics                                  | 15,440 |
| Robert M. Hutchinson<br>Professor of Geology  | 21,710 |

# RECORD OF PROCEEDINGS

7

|   |        |
|---|--------|
| Thys B. Johnson<br>Professor and Head of Department of<br>Mining Engineering                                      | 28,770 |
| James G. Johnstone<br>Professor of Basic Engineering  | 26,060 |
| Leonard A. Kalal<br>Associate Professor of Philosophy   | 19,160 |
| Marvin L. Kay<br>Assistant Professor of Physical Education<br>and Athletics and Head Football Coach               | 18,120 |
| George V. Keller<br>Professor and Head of Department of<br>Geophysics   | 33,150 |
| George H. Kennedy<br>Professor and Head of the Chemistry and<br>Geochemistry Department                           | 23,040 |
| Harry C. Kent<br>Professor of Geology   | 28,600 |
| Arthur J. Kidnay<br>Professor of Chemical and Petroleum-<br>Refining Engineering                                  | 23,790 |
| John V. Kline<br>Professor of Physics   | 22,520 |
| Ronald W. Klusman<br>Professor of Chemistry   | 22,820 |
| Charles Kohlhaas<br>Associate Professor of Petroleum<br>Engineering   | 23,010 |
| John O. Kork<br>Assistant Professor of Mathematics  | 17,490 |
| George Krauss<br>AMAX Foundation Professor of Physical<br>Metallurgy  | 27,560 |
| William B. Law<br>Associate Professor of Geology  | 19,790 |
| Keenan Lee<br>Associate Professor of Geology  | 20,620 |
| Fred R. Leffler<br>Associate Professor of Electrical<br>Engineering (Assigned to Basic<br>Engineering Department) | 19,820 |
| Jack D. Lubahn<br>Professor of Basic Engineering  | 22,120 |
| George B. Lucas<br>Professor of Chemistry   | 26,470 |

# RECORD OF PROCEEDINGS

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|   |        |
|---|--------|
| Raymond K. Mueller<br>Associate Professor of Mathematics  | 19,540 |
| William M. Mueller<br>Professor and Head of Metallurgical<br>Engineering Department                                   | 31,090 |
| Karl R. Nelson<br>Assistant Professor of Basic Engineering  | 17,070 |
| Karl R. Newman<br>Associate Professor of Geology  | 22,200 |
| David L. Olson<br>Associate Professor of Metallurgical<br>Engineering   | 22,230 |
| Anton G. Pegis<br>Professor of Humanities and Social<br>Sciences  | 24,740 |
| Harry C. Peterson<br>Professor of Basic Engineering   | 23,550 |
| Alfred Petrick, Jr.<br>Coulter Professor of Mineral Economics   | 23,480 |
| Thomas Philipose<br>Assistant Professor of Humanities and<br>Social Sciences  | 15,430 |
| George R. Pickett<br>Professor of Geophysics  | 25,950 |
| Robert T. Reeder<br>Associate Professor of Mining Engineering   | 21,700 |
| James W. Riddle<br>Assistant Professor of Mining Engineering  | 18,900 |
| Samuel B. Romberger<br>Associate Professor of Geology   | 20,340 |
| Philip R. Romig<br>Associate Professor of Geophysics  | 19,750 |
| Oded Rudawsky<br>Associate Professor of Mineral Economics   | 20,560 |
| Arthur Y. Sakakura<br>Associate Professor of Physics  | 21,320 |
| A. W. Schlechten<br>Professor of Metallurgy and Director of<br>the W. J. Kroll Institute for Extractive<br>Metallurgy | 31,550 |
| Franklin D. Schowengerdt<br>Associate Professor of Physics and Head<br>of Department                                  | 20,680 |

# RECORD OF PROCEEDINGS

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|   |        |
|---|--------|
| John M. Shannon<br>Assistant Professor of Geology and<br>Director of the Geology Museum   | 14,100 |
| Maynard Slaughter<br>Professor of Chemistry   | 23,670 |
| E. Dendy Sloan<br>Assistant Professor of Chemical and<br>Petroleum-Refining Engineering   | 16,660 |
| Richard E. Stapp, Jr.<br>Associate Professor of Physical<br>Education and Athletics   | 17,780 |
| Franklin J. Stermole<br>Professor of Chemical and Petroleum-<br>Refining Engineering (Assigned to the<br>Department of Mineral Economics) | 24,590 |
| Huntington S. Swanson<br>Associate Professor of Mineral Economics   | 21,000 |
| Robert J. Taylor<br>Assistant Professor of Basic Engineering  | 19,050 |
| David W. Trexler<br>Associate Professor of Geology  | 21,070 |
| A. Keith Turner<br>Associate Professor of Geology   | 19,600 |
| Samuel E. Vandiver<br>Professor and Head of the Humanities and<br>Social Sciences Department  | 26,040 |
| Robert A. Walsh<br>Professor of Mathematics   | 23,790 |
| Fun-Den Wang<br>Professor of Mining Engineering<br>(Assigned to Basic Engineering Department)   | 23,990 |
| Douglas W. Waples<br>Assistant Professor of Chemistry and<br>Geochemistry   | 14,700 |
| Joseph Carl Weber<br>Assistant Professor of Mineral Economics   | 15,230 |
| Robert J. Weimer<br>Professor of Geology  | 27,730 |
| James E. White<br>Charles Henry Green Professor of Explora-<br>tion Geophysics  | 30,890 |
| Walter W. Whitman<br>Professor of Mathematics   | 25,760 |

# RECORD OF PROCEEDINGS


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|   |        |
|---|--------|
| Thomas R. Wildeman<br>Associate Professor of Chemistry                                      | 20,370 |
| Beatrice E. Willard<br>Professor of Environmental Science                                   | 21,900 |
| John T. Williams<br>Professor of Chemistry  | 26,920 |
| Don L. Williamson<br>Assistant Professor of Physics   | 15,500 |
| R. D. Witters<br>Associate Professor of Chemistry   | 19,960 |
| Ching H. Wu<br>Associate Professor of Petroleum<br>Engineering                              | 19,000 |
| Robert E. D. Woolsey<br>Professor of Mineral Economics                                      | 27,090 |
| F. Richard Yeatts<br>Associate Professor of Physics   | 19,720 |
| Victor F. Yesavage<br>Associate Professor of Chemical and<br>Petroleum-Refining Engineering | 20,140 |

Paul R. Long v. Colorado Energy Research Institute.  
Mr. Stockmar reviewed the status of CERI, that it exists by Colorado statute, that it is located on the campus of CSM, but that it is not necessarily an integral part of CSM, although the President of CSM is the Chief Administrative Officer. The recipient of one of the CERI scholarships is suing CERI because his scholarship was revoked. Dr. McBride and Mr. John Hutchins, Acting Director of CERI, are named defendants. The question is whether or not the Attorney General will represent them. Because other institutions of higher education are almost equally concerned with CERI, Mr. Stockmar was of the opinion that the CSM Board should not assume for itself responsibility and liability for CERI.

Following this discussion, and at the motion of Mr. Stockmar, the following resolution was seconded and properly adopted:

That in the matter of Long v. CERI, Civil Action No. 77 0482, Div. 3, the Board of Trustees of the Colorado School of Mines neither admits nor denies that it is the "board of control" of CERI; further that if under applicable law the Board of Trustees of the Colorado School of Mines is adjudged to be the board of control of CERI, then the said Board of Trustees elects under Colorado statute to have the Attorney General make the defense in the matter, including specifically



June 10, 1977

# RECORD OF PROCEEDINGS

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(Form of Warrant)

UNITED STATES OF AMERICA  
STATE OF COLORADO

No. \_\_\_\_\_

\$5,000

COLORADO SCHOOL OF MINES  
DORMITORY AND STUDENT CENTER REVENUE ANTICIPATION WARRANT

The Board of Trustees of Colorado School of Mines, having control and supervision of Colorado School of Mines at Golden, Colorado (herein called the "Board"), for value received hereby promises to pay to bearer on the 1st day of September, 1979, but solely from the sources hereinafter specified, the principal sum of

FIVE THOUSAND DOLLARS

and to pay interest thereon from the date hereof at the rate of four and one-quarter per centum (4-1/4%) per annum, payable March 1, 1978 and semiannually thereafter on March 1 and September 1 each year until maturity, as evidenced by interest coupons hereto attached. Both the principal of and the interest on this Warrant shall be payable in lawful money of the United States of America, at the First National Bank of Englewood, in Englewood, Colorado, upon presentation and surrender of said coupons and this Warrant as they severally become due.

This Warrant shall not be callable for redemption prior to its maturity.

This Warrant is one of a series of Warrants of like tenor and effect, totalling Three Million Seven Hundred Eighty-Five Thousand Dollars (\$3,785,000), consisting of 757 Warrants in the denomination of \$5,000 each, numbered 1 to 757, inclusive, issued for the purpose of securing an advance of funds for constructing and equipping a student dormitory to house

July 15, 1977



## RECORD OF PROCEEDINGS

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approximately 245 students and purchasing land therefor, and constructing and equipping additional student center facilities (herein the "Project"), on the campus of Colorado School of Mines, at Golden, Colorado; for the purpose of funding certain interest on this Warrant; and for paying necessary incidental expenses, said Warrant being issued under the Constitution and laws of the State of Colorado, and particularly Title 23, Articles 5 and 41, Colorado Revised Statutes 1973, as amended, and secured by and payable from the net revenues of the Project, from the proceeds of revenue bonds or warrants, from government subsidy grants or loans, from private funding sources, cash or any combination of these sources, to be issued or available prior to September 1, 1979.

This Warrant and the interest hereon constitute a special obligation of the Board, and is payable solely from the above-described sources and does not constitute an indebtedness of the State of Colorado. The holder hereof shall never have the right to demand payment of this Warrant or the interest hereon out of any funds raised or to be raised by taxation, and said warrants shall never evidence or become a charge or claim against the State of Colorado, the warrant holders' sole right and remedy for payment being confined to the sources herein specified.

This Warrant shall be a negotiable instrument in accordance with the laws of the State of Colorado, and shall be transferable by delivery.

It is hereby declared and represented that this Warrant was duly authorized by the Board at a regular meeting held on July 15, 1977, and that in issuing this Warrant, and while such Warrant is outstanding and unpaid, the Board has covenanted and agreed that it will pay this Warrant and the interest hereon from the source or sources specified herein.

It is hereby certified and recited that all acts,

July 15, 1977

# RECORD OF PROCEEDINGS

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conditions and things required to be done precedent to and in the issuance of this Warrant have been properly done, have happened and have been performed in regular and due time, form and manner as required by the Constitution and the laws of the State of Colorado, and that this Warrant does not exceed any constitutional or statutory limitation, and that provision has been made for the payment of principal of and interest on this Warrant by an irrevocable pledge of the funds specified herein.

IN WITNESS WHEREOF, The Board of Trustees of Colorado School of Mines has caused this Warrant to be signed with the facsimile signature of the President of said Board, sealed with a facsimile of the Seal of said Board, attested by the manual signature of the Secretary thereof, and the coupons to be signed with the facsimile signature of the Secretary of the Board, and this Warrant to be dated as of September 1, 1977.

COLORADO SCHOOL OF MINES

By (Facsimile Signature)  
President

(FACSIMILE SEAL)

ATTEST:

(Do Not Sign)  
Secretary

July 15, 1977

## RECORD OF PROCEEDINGS

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Messrs. John S. Hutchins and Guy T. McBride, Jr.; further that the above to the contrary notwithstanding, Messrs. John S. Hutchins and Guy T. McBride, Jr. are not precluded from selecting counsel of their own choice.

Foundation Support for Auxiliary Research Building. President McBride said we badly need a building of several thousand square feet for noisy and dirty research. We estimated that such a building will cost approximately \$220,000 and would probably be of "Butler" construction. He asked Board of Trustees permission to approach the CSM Foundation with a proposal to borrow that sum of money for such purpose; and also make the CSM Board aware of the fact that such indenture will put this Board in the position of being liable. ✓

The Board authorized the administration to approach the CSM Foundation Board on this proposal.

American Indian Recruitment. President McBride made available a two-page summary of work done by the administration on a possible program here for the education of reservation American Indians. He said that due to shortness of time which we have had to consider the proposal, he is not ready to make any recommendation.

After considerable discussion, it was agreed that the Board go on record as being interested in and sensitive to the need of American Indians for mineral engineering education because of their ownership of natural resources. ✓

The administration undertook vigorously to pursue the development of such a program and to report at the July Board meeting and at subsequent meetings as may be found possible.

Agenda for Snowmass Meeting. Due to the lateness of the hour, President McBride asked the members of the Board to take the copy of the slightly revised agenda with them for future study and comment as desired.

Development Program. Mr. White reported that during the past few weeks proposals have gone out totalling \$3½ million; that there are deferred proposals totalling another \$3 million; and that proposals in the future total \$15 million.

He reported that Mr. Hugh Evans has agreed to head the Denver committee and work is going forward.

Mr. Leeds reported that the Arthur Anderson personnel are completing work on the accounting system and are ready to implement that system.

1978 Commencement Speaker. President McBride distributed a list of the past Commencement speakers going back about 20 years. He asked the Board members to be thinking of an appropriate person to give the 1978 address.

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Executive Session. The meeting was recessed at this point to allow executive session discussion of specific staff salaries. It was then reconvened and the following action taken.

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Administrative Staff Salaries. After discussion the schedule was approved as follows, with Mr. Maytag abstaining:

|  |          |
|--|----------|
| Austin R. Brown, Jr.<br>Director of Computing Center and<br>Professor of Mathematics                                     | \$29,800 |
| Harold R. Chevront<br>Registrar  | 16,200   |
| Bernetta Conrey<br>Departmental Assistant  | 16,500   |
| W. D. Copeland<br>Dean of the Graduate School and<br>Professor of Metallurgical Engineering                              | 32,600   |
| Catharine S. Cross<br>Librarian  | 15,300   |
| Richard S. Culver<br>Dean of Students and Associate<br>Professor of Basic Engineering                                    | 26,600   |
| Elsie Christine Ericson<br>Librarian   | 14,000   |
| Carl A. Fawcett<br>Director of Housing, Student Center,<br>and Green Center  | 21,300   |
| James H. Gary<br>Vice President for Academic Affairs and<br>Professor of Chemical and Petroleum-<br>Refining Engineering | 43,300   |
| John O. Golden<br>Professor of Chemical and Petroleum-<br>Refining Engineering and Director of<br>Research Development   | 34,200   |
| William A. Ingels<br>Budget Officer  | 19,000   |
| Leonard L. Johnson<br>Business Services Officer  | 19,000   |

# RECORD OF PROCEEDINGS

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|   |        |
|---|--------|
| William E. Leckie<br>Director of Continuing Education and<br>Assistant to the Vice President for<br>Academic Affairs              | 22,400 |
| Barbara MacDonald<br>Librarian  | 12,500 |
| Warren J. Mason<br>Financial Aid Officer  | 19,000 |
| Michael B. McGrath<br>Chief Consultant, Computing Center and<br>Assistant Professor of Basic Engineering<br>(Nine-month contract) | 21,800 |
| John E. Mohn<br>Accounting Officer  | 21,300 |
| Charles S. Morris<br>Director of Public Relations   | 21,000 |
| Robert W. Pearson<br>Business Manager, Athletic Department  | 20,270 |
| Gerald A. Peters<br>Coordinator for Public Information  | 15,000 |
| John W. Raese<br>Director of Publications   | 18,000 |
| David W. Satterley<br>Data Processing Officer   | 23,600 |
| William Gordon Scott<br>Vice President for Business Affairs   | 34,200 |
| George T. Sisson<br>Laboratory Assistant in Chemistry   | 14,800 |
| Margaret Smart<br>Librarian   | 17,700 |
| Gregory K. Staff<br>Admissions Counselor  | 15,000 |
| Richard Sudermann<br>Director of Plant Facilities   | 25,300 |
| Suzanne Tharp<br>Librarian  | 11,500 |
| Paul T. Treece<br>Manager, Computing Center   | 18,900 |
| Patsy M. Wegner<br>Director of Student Activities   | 14,500 |

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# RECORD OF PROCEEDINGS

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|  |        |
|--|--------|
| John G. Welles<br>Vice President for Institutional<br>Planning and Development | 42,300 |
| A. William Young<br>Director of Admissions                                     | 19,200 |
| Guy T. McBride, Jr.<br>President   | 55,000 |

Salary Policy. It was moved, seconded, and passed that the salary schedules, with the exception of his own salary, be the responsibility of the President of the School and be noticed to the Board. Mr. Stockmar voted no. ✓

The meeting adjourned at 1:20 p.m.

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Secretary

# RECORD OF PROCEEDINGS

8

|  |        |
|--|--------|
| George Lynn<br>Adjunct Professor as Conductor of the<br>Glee Club                  | 3,150  |
| Patrick MacCarthy<br>Assistant Professor of Chemistry                              | 14,910 |
| Robert Mager<br>Assistant Professor of Mathematics                                 | 14,910 |
| Maurice Major<br>Professor of Geophysics   | 29,560 |
| Donald C. B. Marsh<br>Professor of Mathematics                                     | 20,650 |
| Scott J. Marshall<br>Associate Professor of Basic Engineering                      | 22,130 |
| James W. Martin<br>Professor of Basic Engineering                                  | 23,630 |
| Gerard P. Martins<br>Associate Professor of Metallurgical<br>Engineering           | 22,150 |
| Jean P. Mather<br>Professor of Mineral Economics and Head<br>of Department         | 30,520 |
| Frank Mathews<br>Professor of Physics  | 22,520 |
| David K. Matlock<br>Associate Professor of Metallurgical<br>Engineering            | 20,800 |
| William A. Mattingly<br>Assistant Professor of English                             | 13,950 |
| R. W. McAllister<br>Associate Professor of Physics                                 | 21,960 |
| Robert S. McCandless<br>Assistant Professor of Physical Education<br>and Athletics | 16,220 |
| Willa Meylink<br>Instructor in Physical Education                                  | 13,150 |
| C. Samuel Miller<br>Associate Professor of Basic Engineering                       | 19,030 |
| B. J. Mitchell<br>Grace Foundation Professor of Petroleum<br>Engineering           | 23,640 |
| Fred E. Moore<br>Professor of Geology  | 24,220 |

## RECORD OF PROCEEDINGS

8

Mr. Grynberg enlisted a committee to begin the fund raising to launch the program. The committee: Messrs. Grynberg, Maytag, Stockmar, and Wilson, Mr. Ross Forney, and representatives of the faculty.

Earth Mechanics Institute Building. President McBride discussed the arrangements being made for the construction of the building. He explained that a ground lease for the site was being prepared and was expected to be presented for approval at the October Board meeting. It is expected that a brief meeting of the Colorado School of Mines Building Corporation will be needed following that of the October CSM Board of Trustees.

The meeting adjourned at 6:20 p.m.

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Secretary

September 9, 1977



## RECORD OF PROCEEDINGS

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2. Plans could begin to develop the entire program as soon as possible to recruit Indian students for the fall semester of 1978. The funding required for this effort would be \$210,000 over the next twelve months. The advantage of this alternative would be that the program would be under way with the possibility of some results for the fall of 1978. The disadvantages of this alternative would be that the time frame necessary for implementation is critical. Even under the best conditions, it may not be possible to enroll new Indian students through this program for the fall semester of 1978. Because funding under this alternative would occur as a second priority to recruiting and program development during initial phases, commitment from the Board for all or a major part of the \$210,000 to operate the program must be made at this time.

The administration recommended that if the program were to be undertaken the first alternative be chosen.

Mr. Maytag moved adoption of the administration's recommendation as funds are available.

There was a discussion of the pros and cons of the entire program. President McBride said the administration has discussed the matter thoroughly and he is certain both that there is a need for reservation Indians trained in mineral engineering and that if we do undertake the program and are successful, we shall earn a great deal of respect and admiration from the Indians and from the public, comparable to the reputation we have achieved in foreign countries.

He emphasized, however, the following points with regard to undertaking such a program: (1) We shall require prior approval, or at least favorable cognizance, of the legislature and the governor, for the program will involve additional state subsidy to nonresident students, probably a larger individual subsidy in the case of the Indian students than to non-Indians. (2) It appears essential that the Board guarantee in advance that the funds be available at the level required, it being understood that the administration will make every reasonable effort to obtain grant and federal funds. (3) It is necessary to move carefully, for if this program is rushed it will surely fail; e.g. we simply must have time to hire the right program director and to recruit carefully. (4) It must be understood that such a program carries a very high risk of failure and that no matter how much time and money we expend, and it will be very expensive, we may still fail. (5) The attention and effort required by this program will decrease the ability of administrative and faculty personnel to deal with all the other problems we have before us, e.g. the Resource Fund, the restructuring of the humanities program, etc.

The motion made by Mr. Maytag was seconded. The vote: Ayes - Coors, Maytag, Schwartzberg, and Wilson; Noes - Fogarty and Stockmar.

## RECORD OF PROCEEDINGS

6

Q. Where does mineral engineering fit in the hierarchy of preferred occupations?

A. Before energy awareness, the most preferred occupations were medicine, business administration, public administration, economics and law.

Q. In light of housing problems, rigid academic schedule and lack of counselors at Mines, is Mines the place to have the program?

A. "I think it can be done; motivation and a well-designed program are the keys." A summer program, one-on-one tutorial situation and pre-engineering program were also mentioned as being necessary.

Q. Do you think the program can be a success?

A. A cautious affirmative.

Q. Do you think there would be a problem with the American Indians getting along with other students?

A. "It will take some careful orientation on both sides."

Do you believe the young Indian people are as conscious of their rituals, mores, taboos as the elders?

A. "I sense a return to the rituals, rather than a withdrawal from them."

Q. Do you think representatives of different tribes can get along among themselves.

A. "It will have to be dealt with knowledgeably and with great care."

Mrs. Locke and Mr. Dunbar excused themselves from the meeting after the Board expressed appreciation for the report.

President McBride had made available to the Board members an administration analysis of the Final Report. The analysis concluded with two conditional recommendations as follows:

1. Plans could begin to hire a Program Director as soon as possible to develop proposals and funding for the entire program by early 1978. The advantage of this alternative is that a small funding commitment by the Board is necessary to begin the program. Fifty-five thousand dollars to hire a Director and provide staff support as compared to \$210,000 for alternative two. The disadvantage of this alternative would be that recruitment of Indian students would not begin until next year with the first students entering in the fall of 1979. Commitment from the Board for \$55,000 is necessary to develop this alternative at this time.