DOCTOR OF PHILOSOPHY (CHEMICAL AND PETROLEUM-REFINING ENGINEERING)
Dharmawardhana, Paanthyiag Bennet
El-Arabi, Miloud Abdu-Salam
Gupta, Mukesh Kumar
Hasanain, Muhammad Ahmad Ali
Mohammadi, Shamseddin Seyed
Pedram, Enayat
Sharma, Raj

DOCTOR OF PHILOSOPHY (GEOPHYSICAL ENGINEERING)
Durrani, Javaid Alamgir
Marinotti, Herminio Passalacqua
Wiley, Robert William

DOCTOR OF PHILOSOPHY (GEOPHYSICS)
Ikuwakor, Killian Chinwuba
Yost, Lawrence W.

DOCTOR OF PHILOSOPHY (APPLIED CHEMISTRY)
Worstell, Jonathan H.

DOCTOR OF PHILOSOPHY (MINERAL ECONOMICS)
Allen, Patrick D.
Baker, David Wesley
Bryan, Rex Clair
Hussein, Ahmed Ibrahim
Yuan-Kuo, Ku
Roghani Isfahani, Seyed F.
Trent, Robert H.

DOCTOR OF PHILOSOPHY (GEOPHYSICS-PHYSICS)
Lin, Hung-Liang

Executive Session. The Board then adjourned the regular meeting at 11:20 a.m. and went into Executive Session.

[Signature]
Secretary

December 12, 1980
MASTER OF ENGINEERING (GEOPHYSICAL ENGINEER)
Barry, Charles T.
Lee, Jess David

MASTER OF SCIENCE (GEOPHYSICAL ENGINEERING)
Parrott, Kenneth R.

MASTER OF SCIENCE (GEOPHYSICS)
Bode, Robert M.
Sagiroglu, Mustafa H.
Tongtaow, Chalermkiat
Valla, Pierre
Watanabe, Izuru

MASTER OF SCIENCE (CHEMISTRY)
Retima, Abdelhamid

MASTER OF SCIENCE (GEOCHEMISTRY)
Billings, Patty Rush
Breit, George N.
Carpenter, Donald James
Lippitt, Clifford R.
Melchoir, Daniel Carl, III
Tucker, James D.
Unruh, Daniel Michael

MASTER OF SCIENCE (MATHEMATICS)
Leonard, Rebecca Ann

MASTER OF SCIENCE (PHYSICS)
Ryan, Michael Sterling

MASTER OF SCIENCE (MINERAL ECONOMICS)
Brown, William Watson
Crum, Lester L.
Dorr, Paul E.
Goldman, Wayne A.
Haukaas, Stein
Plodpradista, Wichian
Todd, William Woodward

DOCTOR OF PHILOSOPHY (METALLURGY)
Frost, Robert Hildreth

DOCTOR OF PHILOSOPHY (GEOLOGY)
Klein, Terry L.
Pierce, Walter H.

December 12, 1980
BACHELOR OF SCIENCE (MINERAL ENGINEERING)

Berling, Douglas Robert
Brasher, Richard Jaymond, Jr.
Giesler, William Lee
Hughers, Brian Eugene

Lynch, Michael Sean
Nelson, Ron Dean
Piske, David Frederick, Jr.

MASTER OF SCIENCE (MINING ENGINEERING)

Davis, Robert Larry, Jr.
King, Robert P.

Moreno-Martinez, Oscar Homero
Itunda, Yenge Li

MASTER OF SCIENCE (METALLURGICAL ENGINEERING)

Hammon, Duncan Lyle
Ivey, Ronald T.
Kaiser, Debra Lee
May, William Andrew

Paredes Delgado, Harold T.
Parga Torres, Jose Refugio
Reinhart, Theodore Lee

MASTER OF SCIENCE (METALLURGY)

Anderson, Ted Lynn
Bruno, John Douglas

MASTER OF ENGINEERING (GEOLOGICAL ENGINEER)

Janzon, Hans A.

MASTER OF SCIENCE (GEOLOGY)

Bean, Susan Marie
Hunt, Walter Henry Gage
Lasky, Loren Rachel

Quintus-Bosz, Robert L.
Rojas, Isabel Serrano de
Youngkin, Mark T.

MASTER OF ENGINEERING (PETROLEUM ENGINEER)

Ockiya, Elizur Olufunmilayo
Suleiman Abu Hamiera, Muftah A.

MASTER OF SCIENCE (PETROLEUM ENGINEERING)

Elder, Robert Borland
Mohammad Asif, Mian

MASTER OF SCIENCE (CHEMICAL AND PETROLEUM-REFINING ENGINEERING)

Christiansen Perez, Alfredo Enrique
Edrich, John Alex
Guedez H., Luisa Mercedes

Jackson, Dana Andrew
Mohr, Gary David
Rojas V., Francisco J.

December 12, 1980
BACHELOR OF SCIENCE (PETROLEUM ENGINEERING)
Baldauf, Jeff S.  McKenty, Michael Kevin
Barnes, John Alan  McMican, Michael Leroy
Camozzi, Craig Michael  Neitzke, Bruce LeRoy
Cordova, Jose Emilio  Sherran, Brian Stephen
Corwith, Jeffrey Richard  Simmons, Brooke Lee
Ekoto, Joseph V.  Sommer, Jerry Kevin
Galvin, Lance Jay  Starkey, Richard Douglas
Gould, John Homer  Thompson, David Allen
Graham, Hendrik James  Touami, Mahieddine
Macke, Brian Jay  Wakefield, James Paidar
McCarthy, John Thomas

BACHELOR OF SCIENCE (CHEMICAL AND PETROLEUM-REFINING ENGINEERING)
Barker, Karen Christine  Mohr, Margaret Bosacki
Bouvier, David Allen  Netzel, Thomas Leonard
Bushman, Charles Douglas  Peters, Richard Duane
Carman, Orin Oliver  Ratliff, Jacqueline Sue
Carter, Roger Costie  Rudolph, Kent Alan
Cerise, Kirk Samuel  Smith, LeCleric Ann
Detamore, John Andrew  Steichen, Theodore Dale
Dickman, Alice Anne  Tresp, Greg Paul
Durrani, Nancy Marilyn  West, Joan Sprengeler
Igelsrud, Trinia Jo  Wier, Mary Jo
Jones, Walter Herman, Jr.

BACHELOR OF SCIENCE (GEOPHYSICAL ENGINEERING)
Bennett, Martha Ann  Gable, Douglas Matthew
Boyle, Patricia J.  Grant, Beth Elaine
Center, Christopher John  Pease, Stephen Morgan
Claussen, John Preston  Roux, Wilfred Roy
Dunne, Alan Michael  Sullivan Michael Francis

BACHELOR OF SCIENCE (MINERAL ENGINEERING CHEMISTRY)
Halvorson, Steven Fay

BACHELOR OF SCIENCE (MINERAL ENGINEERING MATHEMATICS)
Peters, Richard Duane
Swedberg, James Henry

BACHELOR OF SCIENCE (MINERAL ENGINEERING PHYSICS)
DeBiase, Mark Charles  Pompea, Daniel John
Dombrowski, Duane Charles  Sauer, Peter Michael
Johns, David Michael  Taff, David Alan
Naiman, David

December 12, 1980
Designation of Quasi-Endowment Funds for Scholarships. President McBride told the Board that this is a matter of transferring funds from continuing education to quasi-endowment for the purpose of underwriting a physics award program. Mr. Scott said that this takes Board action. The amount is $4,000, and there might be future donations. President McBride recommended approval.

It was moved, seconded, and passed to accept the recommendation of the administration.

Candidates for Degrees. Distribution was made of lists of candidates for degrees as recommended by the graduate and regular faculties.

Upon motion made, seconded, and unanimously passed, the following were approved to receive the indicated degrees on December 19, 1980, subject to the completion of all academic requirements and continued compliance with school requirements and regulations.

**BACHELOR OF SCIENCE (MINING ENGINEERING)**

- Anderson, Todd Frederic
- Barnhard, Albert Jonathan
- Beverlin, David Lee
- Borer, Peter J.
- Bruington, Thomas Seldon, II
- Cook, Henry Carl, Jr.
- DeMarco, Matthew James
- Erven, John Curtis
- Gertsch, Richard Edward
- Glade, Rosalie Lyn
- Glenn, Marilyn Patricia
- Grady, Lehard Alden
- Hansen, Bruce Douglas
- Hatrick, Joseph Francis
- Heffernan, Joseph Bernard

- Kathol, Douglas Hansen
- L'Heureux, Charles Jerome
- Mead, Terry Lee
- Pace, Rodney Orton
- Reynolds, Dean Paul
- Rybak, Richard
- Sahinen, Rose Marie
- Sanford, Eric Scott
- Shonts, Ernest Theodore, Jr.
- Simonson, Richard Alan
- Strever, Mark Thomas
- Stringer, William Curtis, Jr.
- Werner, Edmund Justin, Jr.
- Willuhn, Bret Michael

**BACHELOR OF SCIENCE (METALLURGICAL ENGINEERING)**

- Berry, Valerie Joan
- Cox, Mary Elizabeth
- Delfino, Andres Rafael
- DeMoraes, Antonio Ermirio Filho
- Estrada, Rafael M. Diaz
- Hayduk, Douglas
- Jensen, Michelle Ann
- Krusmark, Timothy F.

- Lebsack, Kennon Michael
- Milstein, Gary Jay
- Olivas, Aaron Alex
- Ricks, Paul Cardon
- Riddle, Kathleen A.
- Rodriguez, Nicolas
- Schmees, Robert Michael
- Stoute, Luis Carlos
- Vaughn, Bryan Paul

**BACHELOR OF SCIENCE (GEOLOGICAL ENGINEERING)**

- Avril, Nanette Ann
- Bollacker, Debra Jean
- Breitnauer, Mark Joseph
- Canjar, George Francis
- Canon, Robert Travis, III
- Craig, John R.
- Crow, Brett Daniel
- Cummings, Patricia Louise Beckley
- Eustace, Roger G.

- Francis, Darlene S.
- Hissem, Rebecca Sue
- Miller, Rebecca Anne
- Naylor, Edward John
- Ranneh, Yasmin
- Stevanak, Thomas Frederick
- Thompson, Kurt Forrest
- Williams, Bruce Alan

December 12, 1980
Energy Executive Program. He explained the program to the Board and said that he hopes this program can be merged with the Senior Management Institute. He said that five companies have expressed an interest in the program.

Mr. Wilson said that although he is convinced that this is the type of program that the Foundation should warm to, there is no guarantee that the funding will be forthcoming.

Presentation by Dr. Richard S. Culver on the Future Graduate Profile. Dr. Culver explained that the program under development proposes to assist the student in developing problem-solving ability, to help the student deal with stress, and to help define what the student needs to accomplish after graduation in terms of maturing more rapidly, the acceptance of risk-taking, dealing with complex issues and dealing with people. He discussed the engineering practices sequence which is hoped to be a pilot project next fall. He said that 60 freshmen would begin this sequence.

Mr. Wilson asked how the process will be monitored. Dr. Culver said that there is a baseline against which they can test, but that there is a need for evaluation techniques.

Mr. Wilson thanked Dr. Culver for his presentation.

Preliminary Review of Suggested New Graduate Degree, M.S., Mine Industrial Hygiene. Dean Golden reviewed the proposal with the Board.

Professor Robert Reeder of the Institute of Mine Health and Safety, and Dr. Thys B. Johnson, Professor of Mining Engineering and Head of Department, were present to answer questions.

President McBride explained that the administration has not fully decided what it thinks about the proposed program and that there is in his opinion some danger that it may be more of a vocational approach than a professional approach. He asked for comments.

Professor Johnson explained that it is not a technician program, especially since it is on the master's degree level. Professor Reeder said that he believes that there is a demand for this degree in mine health and safety.

Tom Lampert, Student Body President, said that he thinks a program like this would be helpful in terms of assisting the recipient of this type of degree in dealing with the regulations.

Discussion followed, during which it was suggested that the word "Hygiene" be eliminated and substituted by "Health and Safety."

It was agreed that a proposal would be brought before the Board in January, or as soon thereafter as possible.

Proposed Name for Geophysics Exploration Laboratory. Dean Golden said that the Geophysics Department has asked that the laboratory be named the Keck Laboratory. Dr. Fogarty indicated that he thinks that it is premature to approach Mr. Keck with this proposal except very informally.

The Board granted approval to approach Keck informally with the proposal.

December 12, 1980
Mr. Wilson asked, with regard to the access problem, whether we can develop data that are more demographic in nature. Dean Nyikos responded that his office is compiling data and is monitoring the situation. He said that his office will continue to report on the demographics of the student body.

President McBride said that the caveats with regard to current enrollment are that next fall will be a much better test of the tuition increase and our success in attracting head count students (we are now being required by CCHE to count part-time students and the numbers have been adjusted to reflect this.) He said that we have 69 part-time undergraduate students on the campus and that this fact will be reported to the JBC at the hearing in January 1981.

Final Review of Plans for JBC Presentation, December 15, 1980, CSM Campus. Mr. Robbins discussed the JBC visit to the campus on Monday, December 15. He said that this is not in lieu of a budget hearing, but that it is a good opportunity for us to explain the CSM Plan to the JBC. The session will be held in Brown Hall, there will be arranged seating, and a luncheon will follow for the participants. He reviewed with the Board the information that will be presented at this session.

Mr. Coors said that he had attended a fraternity dinner on the campus, and the students present had expressed a great deal of interest in the tuition increase. He said that they perceived the difference between out-of-state and in-state tuition as being grossly unfair. He explained to them that this is a policy of the State of Colorado and that their dispute is with the Colorado General Assembly.

Mr. Robbins stated that he felt that the issues which would be brought up at the JBC session would be the role of the Trustees, or management control over the institution, and the continuing need for state support for resident students. It was pointed out that it is more costly to educate a mineral engineering student than a liberal arts student. Miss Leaver also emphasized the additional cost of equipment for this type of education.

Mr. Pascoe said that he thinks we need to emphasize that we are attempting to give to Colorado residents the very finest education possible and that we have the students to match that need. He believes our students deserve the very best that we have to offer.

The issue of faculty salaries was discussed. It was pointed out that we are competing with other institutions for faculty and that we are eleventh out of 16 among peer institutions in terms of faculty salaries. President McBride said that this fact was emphasized at the CCHE presentation.

Update on Mineral Management Programs. Mr. Welles reviewed with the Board the Mineral and Energy Executive Program and the proposal submitted to the Union Pacific Foundation to design a Senior Management Institute. He said that the Senior Management Institute will be divided into two phases, the first of which will include employment of a director, planning of the institute and preparation of recruiting materials. The second phase will include preparation of course materials, recruiting of faculty and students and offering the first two courses.

Dr. Gene Woolsey, Professor of Mineral Economics and Head of the Department, was present to answer questions concerning the Mineral and
November 30, 1980; and Current Funds Comparison with Budget for the
Five Months Ending November 30, 1980. He told the Board that the School
is operating within the budget plan. The only problem is the amount
which has been appropriated for utilities, which was discussed previously,
and the School will have to apply for supplemental funds. The savings
accounts discussed in November 1980 have been reduced by combining the
proceeds of maturing certificates of deposit with some CSM funds on
deposit with the State Treasurer and reinvesting the funds in two
certificates of deposit at the rates of 16% and 16.55%. The certificates
will mature in May 1981.

Mr. Grynberg entered the meeting at this time.

Admissions. Dean Nyikos presented Mr. William Young, Director
of Admissions, to answer questions regarding the Admissions Report.
Mr. Young predicted that by the end of the Admissions reporting period
(August 1981), the School will have about a five to ten percent increase
in freshmen applications. Mr. Schwartzberg inquired about increasing
opportunities for minority enrollment at the Colorado School of Mines.
Dean Nyikos said that Mr. Young is working with the Denver Public School
System and a committee of the Colorado engineering schools.

ASAP. Mr. Russell White, Director of The Resource Fund,
CSM Foundation, introduced Mr. Jay Lange, Associate Director of the
CSM Foundation, who reported on the progress of the program. Mr. Lange
stressed the importance of recruiting a Chairman as quickly as possible.
He stated that $37,500 had been received in response to Mr. Coors' letter
to alumni dated October 27, 1980, and that October and December 1980
issues of the Mines Magazine have been sent to all alumni with known
addresses. Mr. Coors asked him how optimistic he is about achieving
the five-year goal of $5 million, and Mr. Lange said that it is possible,
but that the 1980-81 goal of $500,000 will be difficult due to the fact
that there is less than six months in this fiscal year to raise more
than $400,000. Colonel W. E. Leckie, Executive Director of the Alumni
Association, has scheduled visits to a number of cities in furtherance
of the fund raising effort.

Mr. Wilson thanked Mr. Lange for his report.

Mr. Russell White of the CSM Foundation reported that Frank Lee,
President of the CSM Foundation, has been ill but hopes to return to the
Foundation after the first of the year.

Trustee/CCHE Contact. Mr. Schwartzberg reported that the
matter of access was the most serious concern expressed by the Commissioners
who were contacted by him. Mr. Elmer Chenault of the CCHE had also
questioned Mr. Schwartzberg about minority enrollment and was told that
enrollment for women and minority students was approximately the same
compared to the previous year. There was no apparent objection to the
program that we now have.

Mr. Schwartzberg stated that he attended the CCHE meeting at
which President McBride made the CSM presentation that described our
plan and that he sensed no negative reactions.

Mr. Coors reported that he contacted Lena Elliott, a Commissioner
from Grand Junction. He said that she expressed a great deal of interest
in the course that the Colorado School of Mines is taking and had no
major concerns.

December 12, 1980
Golden, Colorado
December 12, 1980

The Board of Trustees met in regular session at 9:00 a.m., December 12, 1980, in the Board Room.

Trustees present: Messrs. Coors and Fogarty, Miss Leaver, Messrs. Pascoe, Schwartzberg and Wilson. Mr. Grynberg entered the meeting later as noted.

Absent: Mr. Stockmar.

Mr. Wilson presided.

Also attending the meeting were President McBride, Vice Presidents Mueller, Scott, and Welles, Dean Golden, Dean Nyikos, and other staff members, visitors, and a representative of the press.

Previous Minutes. The minutes of the meeting held on November 14, 1980 were approved as distributed.

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

Wolfgang Baum
Part-time Instructor in the Department of Geology

John R. Shuttleworth
Part-time Instructor, Department of Basic Engineering

Change in Period of Appointment:

Alan L. Liby
Adjunct Associate Professor of Metallurgical Engineering

A salary of $2,500 for the fall semester had been requested; the course will be presented in the spring semester rather than in the fall as originally scheduled.

Determination of Salary and Rank:

Karen B. Wiley
Instructor in the Department of Humanities and Social Sciences

Salary and rank for the appointment of Ms. Wiley were contingent upon receipt by her of the Ph.D. by the beginning of the fall semester of the 1980-81 academic year. Ms. Wiley completed all requirements but the degree was not conferred by the specified time. Under the terms of the offer made to Ms. Wiley, her rank and salary will change to Assistant Professor at $17,000 after conferral of the Ph.D.

Financial Reports. Mr. Scott made available the monthly reports as follows: Time Deposits and Investment Reports as of November 30, 1980; Current Funds - Summary by Fund - For the five months ending December 12, 1980
Executive Session. The Board then adjourned the regular meeting at 12:00 noon and went into Executive Session.
as Managerial Group as described in the Industrial Security Manual for Safeguarding Classified Information.

Guy T. McBride, Jr.  President
William M. Mueller  Vice President for Academic Affairs
W. Gordon Scott  Vice President for Business Affairs
John O. Golden  Dean of Graduate Studies and Research

That the President and the other members of the Managerial Group currently hold, have been processed, or will be processed for a personal security clearance for access to classified information to the level of the facility clearance granted to this institution as provided for in the aforementioned Industrial Security Manual.

That the said Managerial Group is hereby delegated all of the Board's duties and responsibilities pertaining to the protection of classified information under classified contracts of the Department of Defense of User Agencies of its Industrial Security Program awarded to the Colorado School of Mines.

That the following named officers and members of the Board of Trustees and Colorado School of Mines administrative officers shall not require, shall not have, and can be effectively excluded from, access to all positions that would enable them to affect adversely the policies and practices of the University in the performance of classified contracts for the Department of Defense or User Agencies of its Industrial Security Program, awarded to the Colorado School of Mines, and need not be processed for personnel security clearance.

Officers - CSM Trustees

W. K. Coors  President
Fred R. Schwartzberg  Vice President
James C. Wilson  Secretary

CSM Trustees

Charles F. Fogarty - Texasgulf Inc., High Ridge Park, Stamford, CT 06904
Jack J. Grynberg - Jack Grynberg & Associates, 1950 Prudential Plaza, 1050 17th Street, Denver, CO 80265
Monte Pascoe - Department of Natural Resources, 1313 Sherman Street, Denver, CO 80203
Ted Stockmar - Suite 1800, 1700 Broadway, Denver, CO 80290
*June Leaver - 1420 Washington Avenue, Golden, CO 80401

CSM Administrative Officers

John G. Welles - Vice President for Institutional Planning and Development

Michael S. Nyikos - Dean of Students

*Student Trustee

November 14, 1980
It was agreed that the administration will proceed in the usual way.

Faculty Handbook Revision, Retrenchment Guidelines. President McBride presented and recommended approval of a proposed revision to the current Faculty Handbook, replacing paragraph (3) page 2-9. This proposed revision had been circulated to the Trustees.

During the discussion which followed, the following major points were made:

1. The definition of retrenchment to be a reduction to 95% of the full-time faculty is arbitrary but seems reasonable; under current conditions a retrenchment to 95% would require the nonrenewal of approximately eight faculty persons.

2. The policy establishes a preferred position for de facto tenured faculty.

3. The "extraordinary circumstances" referred to in paragraph (3) C are to be determined by the administration.

4. It was clearly stated that the Board would look to the administration to identify major budget problems and to recommend a preferred solution, perhaps, but not certainly, including faculty retrenchment.

Following a motion to approve the policy with an explanation of the "extraordinary circumstances" clause, Dr. Ruth Maurer, Assistant Professor of Mineral Economics, spoke to the point that the retrenchment policy as moved to be adopted would work a hardship on women faculty since they are by and large junior to many male faculty members. It was agreed both that the policy could legally be written to protect women faculty members during retrenchment and that if the same were done, the near-term effect would be to protect almost all current women faculty members against dismissal and thus shift the impact to male faculty members and perhaps to de facto tenured faculty.

A general discussion ensued centering on the possible impact of protecting women and minority faculty members and on the foreseeable effects of so doing.

In the end, the motion to adopt as noted above was passed with the following change in language: "except in extraordinary circumstances, as determined by the administration, where a serious dislocation of the academic program would otherwise result."

Dr. Maurer thanked the Board for the opportunity to speak.

Security Clearance Resolution. Upon motion made, seconded, and passed, the following Resolution was adopted:

Be it resolved by the Board of Trustees of the Colorado School of Mines that those persons occupying the following positions at the Colorado School of Mines shall be known

November 14, 1980
Financial Aid Overview. Dean Nyikos reviewed both Colorado and Federal Financial Aid Programs, Mr. Warren Mason, Financial Aid Officer, being present to answer any questions that the Board might have. Dean Nyikos suggested that all of the elements shown in the overview be combined and that funds be earmarked as early as possible in order to enhance the recruiting process. He distributed to members of the Board copies of national magazine entitled Ford's Insider, containing a lead article on student finances. Dean Nyikos said that the CSM Foundation had approved the request for funds and asked for endorsement from the Board.

President McBride stated that the motion should be that the Board of Trustees authorize the administration to request the allocation of the second half of the financial aid, which was approved at the last CSMF Board meeting.

Upon motion made, seconded, and passed, the Board approved the request for allocation of the funds.

It was noted that the CCHE is raising the issue of "excessive" student debt upon graduation and that heavy use of loans is not a positive issue in dealing with the Commission.

Mr. Mason said that, with regard to the various loan programs, the default rate at the Colorado School of Mines has been from four to seven percent in contrast to a national rate of 20 percent.

Student Financial Aid Fund Drive, Alumni Association. Mr. Welles reviewed the CSM Alumni Association's fund raising effort, stating that the Alumni Association has established a five-year fund raising goal of $5,000,000. He called the Board's attention to a letter dated October 27, 1980 to CSM alumni from Mr. Coors asking for support and enclosing the article which appeared in The Denver Post describing the so-called Mines Plan and the reason for the fund drive, the Alumni Student Assistance Program (ASAP). There will be a series of followup articles in Mines Magazine, and appeals will be made in a series of visits to alumni around the country by the Chairman of the Alumni drive or the Executive Director of the Association plus a representative of the Foundation, Jay Lange. The Board of Directors of the Alumni Association has agreed to finance costs on the part of the Alumni Association up to $60,000, as needed, particularly for travel, during the coming year for the ASAP program.

It was noted that, in response to Mr. Coors' letter, $20,000 had already been received and that it is recognized to be important to respond individually to the contributions.

Research Support Request to CSMF. Dean Golden said that the Graduate School has traditionally asked the Foundation for funds for support of research, and that $90,000 is needed for the coming academic year (1981-1982). He asked the Board for approval of this request.

Upon motion made, seconded, and passed, the request was approved.

Proposal to Create Administrative Subcommittee on Trustee Medal Awards for 1981. President McBride explained the screening process being used for nominations and said in response to a question that he is quite certain that people are being overlooked even though strenuous efforts are made to the contrary. He stated that the membership of the Committee is changed from time to time and asked that the Trustees submit names to the Committee. Nominations for the Mines Medal are needed, and a more effective way of getting nominations needs to be devised.

November 14, 1980
Recommendation for Emeritus Status for Professor Joseph E. Davies. President McBride reviewed a memorandum from Dr. Mueller dated November 5, 1980, recommending that Professor Davies be considered for emeritus status and stated that Professor Davies fulfills the conditions for emeritus appointment.

On the recommendation of the administration and in view of his fulfilling the requirements of ten years of valuable service of which at least five were served as full Professor, or thirty years of service irrespective of rank, Professor Davies was designated Emeritus Professor of Physical Education and Athletics upon his retirement effective May 10, 1980.

Budget Presentation, Trustee Participation. Mr. Robbins reviewed the Revised Draft Outline of Presentation to JBC for 1981-82 (November 14, 1980) and stressed the importance of Trustee representation at the budget presentation. The outline is about 75% complete, and the graphics (charts) should be completed within two weeks. A date has not yet been set for the presentation to the JBC. He stated that the JBC members would like to visit the campus prior to the hearing to discuss the Mines Plan. Mr. Coors asked if it would be helpful to have the Trustees present when the JBC members are on campus. Mr. Robbins said that he thinks it would be well to have some of the Trustees present.

A CCHE/Trustee Contact list was discussed, Mr. Robbins stating that a certain amount of Trustee contact with the Commissioners is required. The importance of personal contact prior to the December 5, 1980 CCHE presentation was noted, this date being in advance of the December 12, 1980 Board meeting. Mr. Robbins said that he would like to work with each Trustee who is designated as a liaison and discuss strategy.

Mr. Stockmar discussed the issue of lobbying by officers of the Foundation, saying that there are limitations, or restrictions, on lobbying for the purpose of effecting change in legislation. Mr. Frank Lee, President of the CSM Foundation, stated that he has researched the legalities of this issue and will submit a document to the Board of the Foundation and to the CSM Board of Trustees concerning his findings.
President McBride highlighted the presently budgeted cash reserve figure of $247,000 and recommended to the Board that it be carried at least until the second semester. Mr. Scott said that in order to utilize the reserve in a succeeding year we will have to secure a "roll forward." It was suggested that we talk to the Joint Budget Committee about this matter, and Mr. Robbins was assigned to do so. It is expected that the "roll forward" be made a part of our policy.

It was noted from the Investment Report that we have some modest amounts that are not earning as much as currently available and that the savings account is a little high at this time. Discussion ensued as to the obvious desirability of securing the highest available safe yield and on the difficulties in doing so inherent in the current arrangement whereby the Investment committee of the Foundation is charged by the Mines Board with the immediate supervision of the investments of the latter. It was agreed that the Investment Committee would review its procedures, particularly in view of Mr. Lee's joining CSMF.

Reports on Academic Leaves. Dr. Austin R. Brown, Jr., who was granted academic leave September through December 1979 for the purpose of studying and developing computer graphics applications for use in the calculus sequence, made a presentation to the Board regarding his development of several packages of computer programs for use in the classroom. He said that the purpose of his sabbatical was to develop criteria for good software. In answer to the question whether there was a saving of learning time using this method, Dr. Brown said that there is not; rather the gain is that the students more readily grasp concepts and methods the first time around. It was noted that as a remedial tool it might be helpful.

Dr. Stanley M. Guralnick, who was granted academic leave for the 1979-80 academic year, reported to the Board that 85% of his effort during the period was devoted to work on his major book project, "Edward Hitchcock and the Development of the American Scientific Culture," and that 15% of his effort was devoted to other professional projects. He read to the Board two paragraphs from his forthcoming book.

Mr. Stockmar thanked Dr. Brown and Dr. Guralnick for their presentations.
Upon motion made, seconded, and passed, the Board approved rescheduling the April 1981 Board meeting from April 10 to April 9.

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

W. Scott Moser
Adjunct Associate Professor of Metallurgical Engineering
$3,000 for the spring semester of the 1980-81 academic year

Steven A. Russell
Part-time instructor in the Department of Mathematics
2,000 for the fall semester of the 1980-81 academic year

Faith Williams
Part-time instructor in the Department of Humanities and Social Sciences
8,000 for the 1980-81 academic year

Continuing Appointments:

Martin B. Goldhaber
Advisory Scientist for the Department of Chemistry and Geochemistry
No salary for the period September 1, 1980 through August 31, 1981

Additional Assignment:

Harry W. Emrick
Acting Head of Basic Engineering Department
No additional salary

Leave of Absence:

Donald W. Gentry
Professor of Mining Engineering
Dr. Gentry has been granted a leave of absence for the spring semester of the 1980-81 academic year at three-quarters salary for the purpose of completing a text in mine investment analysis.

Dr. Mueller distributed to the Board members copy of a letter dated October 28, 1980, received by him from Dr. Ronald Wiedenhoeft, Associate Professor of Humanities and Social Science, expressing his appreciation for the confidence shown in his work by the School's administration, and summarizing his professional activities.

Financial Reports. Mr. Scott made available the monthly reports as follows: Time Deposits and Investment Report as of October 31, 1980; the Monthly Budget Report as of October 31, 1980; Current Funds Comparison with Budget, four months ending October 1980; and 1980-81 Budget Analysis, Education and General. He explained changes in the format of the Budget and discussed the 1980-81 Budget Analysis. He pointed out that we have $521,551 appropriated for utilities, but that the actual cost could be as high as $800,000. He said that we are intentionally underfunded for utilities by the state and that there are funds available for supplemental requests, but we don't yet know how much we will receive.

November 14, 1980
The Board of Trustees met in regular session at 9:00 a.m., November 14, 1980, in the Board Room.

Trustees present: Messrs. Coors and Fogarty, Miss Leaver, Messrs. Grynberg, Pascoe, Schwartzberg and Stockmar.

Absent: Mr. Wilson.

Mr. Stockmar presided.

Also attending the meeting were President McBride, Vice Presidents Mueller, Scott, and Yelles, Dean Golden, Dean Nyikos, and other staff members, visitors, and a representative of the press.

Previous Minutes. The minutes of the meeting held on October 10, 1980 were approved as corrected.

Proposed Emendation to September 12, 1980 Board Minutes. Mr. Stockmar stated that the position he had taken with regard to the policy on auxiliary research organizations was not fully reflected in the September 12, 1980 Board minutes. President McBride proposed with regard thereto that the following sentence be inserted on page 5, after second full sentence of paragraph 5, which presents Mr. Stockmar's views: "Finally, he noted that there might be some situations in which equipment and use charges determined on a strict accounting basis might still leave in the hands of the auxiliary research organization an inordinate profit, which might not necessarily eventually be devoted to proper School of Mines' purposes."

Upon motion made, seconded, and passed, the Board approved the proposed emendation to the September 12, 1980 Board minutes.

Major Events Calendar. President McBride discussed the major events calendar for the Spring Semester 1981. He called attention to April 9, 1981, the date of the Brown Hall dedication. He outlined the proposed program and said that Vice President-elect George Bush has been invited to speak and is known to be favorably inclined to do so, but is constrained from making a firm decision until after the inauguration. The importance of the occasion was stressed, and Board members were asked to plan to attend.

It was noted that inasmuch as Dr. and Mrs. Cecil Green are important friends of the School, the Trustees should be present also for the dedication of the organ in the Green Center on April 26, 1981, even though the organ dedication ceremony is not to be on the same scale as the Brown Hall dedication ceremony. Dr. Carl Weinrich of Princeton University (Emeritus) will play the organ for the dedication.

President McBride suggested having the April 1981 Board of Trustees meeting on April 9 instead of April 10 inasmuch as the Board members will be on campus for the Brown Hall dedication ceremony.
Meeting of CSM Building Corporation. Mr. Scott distributed Financial Statements for the year ended June 30, 1980 and 1979 for the Colorado School of Mines Building Corporation. Mr. Scott reviewed the statements, saying that it is considered an audit with opinion and that we have to have an audit by October 31 each year of the operation.

Discussion followed, during which it was moved, seconded, and passed to ratify the audit.

Suggested Second New Dormitory. Mr. Grynberg distributed response to Mr. Scott's memorandum on proposed dormitories. He said that his figures are totally contradictory to those of Mr. Scott. He suggested that we use the same design, eliminating solar and using land that we already own. Mr. Coors inquired as to the source of funds for this. Mr. Grynberg said that he would have a program for the November meeting regarding funding. He suggested putting a surcharge on the existing dormitories to finance another dormitory. He said that we are undercharging in comparison to other institutions.

It was agreed that this should be an agenda item for the November meeting.

The meeting was adjourned at 11:50 a.m.

[Signature]
Assistant Secretary

October 10, 1980
Discussion followed, during which it was suggested that President McBride assign Mr. Robbins the task of providing the Board with the names of persons who should be contacted and that the Trustees would then be asked to do specific jobs.

President McBride asked the Board if it would be convenient to move the March 1981 meeting from March 13 to March 6 due to the fact that he and Dr. Fogarty have a conflict. It was agreed that this be arranged.

The meeting was adjourned at 11:30 a.m.

Assistant Secretary
Dr. Wegner explained to the Board the component of the program involving the cooperative effort of the Military Science Department and the classes on stress management. Colonel Ilgenfritz and Captain Foster both expressed their enthusiasm for results from the classes thus far, particularly the interest generated among students. Colonel Ilgenfritz emphasized his feeling that the Military Science Department is the appropriate place for this component since his faculty is particularly accustomed to dealing with stressful situations. Dr. Wegner pointed out that student involvement has contributed to the success of the program, and she mentioned also the student leadership workshop held each fall. Dr. Wegner reported that she is conducting a complete review of new student orientation as well as the establishment of a student handbook.

Dean Nyikos concluded the review by mentioning the important support received from alumnus Thomas Manhart, which made it possible for Dr. Wegner to attend a seminar on personality evaluation, and he expressed special recognition for Colonel Ilgenfritz and his staff and their work as well.

Mr. Grynberg asked Dr. Wegner what is being done about screening freshmen student advisers. He said that he feels some screening, maybe even testing, should be mandatory. Dr. Wegner stated that very little screening is being done right now, but that she hopes to be doing more of that in the near future. Mr. Grynberg inquired regarding outside counseling. Dean Nyikos said that we work with Jefferson County and that the rest is up to the individual and the family.

Dean Nyikos said that he and his staff will provide further reviews of Keystone in the future.

Mr. Schwartzberg complimented Dean Nyikos and his staff for their outstanding presentation.

Mr. Coors said that the Keystone report was silent on two issues: the inconsistency of homework assignments on the part of the faculty and on the issue of "spiking." He stated that in the past examinations were accessible to a certain portion of students but not all students. He asked whether the faculty has addressed itself to these areas. Dr. Mueller said that it has not except to make the department heads aware of these concerns. He said that each faculty member teaches according to his own dictates and as far as a uniform format, there has been very little consideration given to this. Dean Nyikos said that on the issue of "spiking," he utilizes direct counseling approach rather than direct faculty approach. He said that he has not confronted test availability in this way. Mr. Coors stated that he believes strongly that these areas deserve attention. He said that he believes it should be a continuing agenda item until it is resolved.

Discussion followed, during which it was agreed that a follow-up discussion of these issues should occur before the academic year is completed.

Improving Communications with Appointed and Elected State Officials;
Mr. Schwartzberg indicated that he believes we are not doing an adequate job in this area. Mr. Robbins said that one of the problems now is that there is a great deal of turbulence around election time; that there is a large turnover. He stated that we won't know what the leadership will be until after the election.

October 10, 1980
addition, Dr. Wegner is responsible for planning with the Graduate School office for both graduate and undergraduate international student orientation.

The major part of the review highlighted progress with the Student Development Center and campus counseling. Dean Nyikos expressed the goals established for the Center:

1. Establish physical facility to house the Center on campus;
2. Establish specific programs for this year, including networking with faculty and staff;
3. Develop personal counseling and stress relief programming and peer group counseling;
4. Establish a resource materials library.

Along with these goals he provided the working definitions for counseling that Miss Goodrich uses:

1. To provide personal contact for academic adjustment;
2. To provide personal contact for campus adjustment;
3. To provide contact for referral for professional psychological or psychiatric help;
4. To provide campus supports through appropriate programming via residence halls and the Student Activities Office.

Miss Goodrich and Dr. Wegner explained in more detail specific information about the Center relative to funding and the working goals. Miss Goodrich reviewed each area of activity:

1. Networking—Distribution of information to students for utilization of all campus resources.
2. Training programs for residence hall student advisers.
3. Establishment of volunteers for the student peer counseling program with emphasis on crisis intervention, stress management and a general volunteer outreach to help students.
4. Alcohol awareness and education programming in cooperation with other college and university programs as well as private industry, especially cooperation with Adolph Coors Company.
5. Collection of materials for resources library.
6. Individual personal counseling.

October 10, 1980
Keystone Follow-up. A review of the Keystone program was presented by Dean Nyikos and staff members Dr. Patsy Wegner and Miss Jan Goodrich. Dean Nyikos introduced the discussion by overviewing topics highlighted in student discussions at Keystone, especially as related to faculty advising, student evaluation of faculty, international students and the Student Development Center-counseling operation. He indicated in each of those areas the following methods of approach:

Faculty advising—A joint effort with Dr. Mueller's office and support from Dr. Wegner through the new student orientation program;

Student evaluation of faculty—A joint effort with Dr. Mueller's office, with direct involvement from Tom Lampert, Student Body President, and the Student Council, student leaders from Tau Beta Pi, academic department chairmen and the Administrative Advisory Council;

Student Development Center—Lead responsibility from Jan Goodrich and support from Dr. Wegner;

The responsibility for international students is shared by Dr. Wegner and Mrs. Elvera Dinkmeyer.

As to student evaluation of faculty, Dr. Mueller expressed concerns from Tau Beta Pi with regard to the format of the instrument used and proposed changes in method of collecting and evaluating data. With help from Dr. McGrath and the Administrative Advisory Council, the student leaders from Tau Beta Pi have enlisted aid from academic department chairmen. Mr. Stockmar asked about accessibility of results, and President McBride responded that all results from the student evaluation are public. The results are made available to faculty members, to department heads, to Dr. Mueller, to President McBride, and one copy is available in the Library.

Dr. Mueller moved on to discuss faculty advising. Dr. Mueller, Dean Nyikos and Dr. Wegner are in process of establishing a cadre of faculty as a core group of advisers. Dr. Mueller indicated that a major problem to solve is that some departments have wide differences in the number of students enrolled. Consequently, assigning students to their indicated major department is no longer entirely possible. Experience during the last two fall term new student orientation programs indicates that a group of faculty members are emerging who are interested and skilled advisers. Dr. Mueller, Dean Nyikos and Dr. Wegner are establishing a model which will incorporate both aspects of assigning students to major departments and a general group of freshmen-sophomore advisers for students who are undecided as to major fields of study. Miss Leaver said that students are attempting to get a group together for peer group advising.

Dean Nyikos continued by reporting about international students and the re-establishment of a student organization in this area as well as clarification of responsibilities and alignment of the office of international student adviser involving efforts from Mrs. Dinkmeyer, Leslie Olson, Dr. Wegner and Dr. Romberger from the Graduate School office.

October 10, 1980
transfer students compared to that received by underclassmen at Mines. Dean Nyikos responded that he could not answer the question in general; some institutions, properly articulated to Mines programs, provide fully comparable preparation, but others, perhaps particularly some of the developing institutions, do not do nearly so well. It was pointed out that the apparent thrust of the state's educational bureaucracy, and perhaps of the Legislature, is to mandate acceptance of credits for nominally equivalent programs; there will be a state-wide meeting in February on this issue. It was understood that Mines will resist to the fullest granting transfer credit for nominally equivalent courses under blanket authorization and edict by the state. Mines reserves to its faculty the authority and responsibility of determining the equivalence and acceptability of transfer credits, for to do otherwise is a fraud on the entering student.

Sabbatical Leave, Professor Donald W. Gentry. Dr. Mueller explained to the Board the expenditures already committed in connection with professors now on leave. He said that Dr. Gentry has requested leave to enable him to complete a text that he is writing on mine investment analysis. Dr. Mueller stated that he and Dr. Johnson, Dr. Gentry's department head, feel that this is a worthwhile activity. Dr. Mueller recommended that Dr. Gentry's request for academic leave be granted for the spring semester of the academic year 1980-81.

Discussion followed, during which Mr. Stockmar asked what the school's policy is concerning right of ownership of books written at state expense. President McBride said that the school has asserted no ownership rights to any publication. Mr. Stockmar stated that the question we need to ask is whether we can justify expenditure of state funds. He said that, obviously, it will improve the quality of the person involved, his ability to teach, his stature and his reputation, but is that enough justification? President McBride stated that he feels it clearly is justification enough. Mr. Stockmar said that he would move for approval of the recommendation by Dr. Mueller, but he would like the record to show that this point was discussed and that an independent basis was found for granting the request without respect to whatever income the book might yield.

Upon motion made, seconded, and passed, the Board approved Dr. Gentry's request for additional sabbatical leave.

CCHE Program Review Proposals, Preliminary Response. President McBride discussed the proposed preliminary response which has been prepared for presentation to CCHE. He asked the Board members for their opinions with regard to the draft response. Mr. Schwartzberg stated that it reflects his personal feelings and that he is very pleased with it. He said that it is his recollection that the Commissioners will be asked to act on the draft in the near future. He proposed that the draft response be accepted for submission to CCHE.

President McBride stated that he had given a copy of the draft to Dr. Kerschner and had received his comments, which will be considered when the final draft of the letter is prepared. It is expected that the final letter will differ only slightly from the present copy.

Discussion followed, during which President McBride called the Board's particular attention to item 5 of the draft.

Upon motion made, seconded, and passed, the Board approved the response.

October 10, 1980
Additional Assignment:

Joseph C. Weber
Assistant Dean for Research Development
$29,000

Change in Appointment:

Richard L. Bain
Visiting Assistant Professor of CPR appointment withdrawn

Dr. Bain's appointment remains for 100% effort as Research Associate Professor (ORS).

Financial Reports. Mr. Scott made available the monthly reports as follows: Investment Summary as of October 10, 1980; Current Funds Comparison with Budget, twelve months ending September 30, 1980; CERI budget as of September 30, 1980; and CSM Budget as of September 30, 1980. Mr. Scott proposed changing the format of the Budget by eliminating some of the detail. The Board agreed that this should be tried.

Status of Litigation. Mr. Scott reported on litigation now pending. The ATO property condemnation is now on appeal both as to the amount of the award and the trial court's refusal to grant a rehearing. The court has been asked to reduce the amount of the award or to grant a new hearing. No dates have been set for oral argument. It is indicated that there will be a decision on December 9 with regard to CSM's request to reduce the amount of legal costs awarded ATO.

Mr. Scott also reported on the Green Center roof litigation. Interrogatories have been submitted but have not been returned. As soon as the interrogatories are returned to the court, a trial date will be set.

Acceptance of gifts. Mr. Scott distributed for Trustee review and comments a draft memorandum dated October 2, 1980 regarding unauthorized acceptance of gifts which might cause embarrassment to the school. It was indicated that we shall be prepared to distribute the memorandum in about a week or ten days. Any major questions will be brought back to the Board for review and approval. Mr. Schwartzberg said that the department heads should pay particular attention to paragraph 2 of the memorandum.

Exploration Research Laboratory. Mr. Scott distributed and discussed the Exploration Research Laboratory Proforma Operation Budget for FY 1981. President McBride said that since it is a deficit budget, it will be monitored very carefully. He recommended approval of the budget.

Upon motion made, seconded, and passed, the budget was approved.

Resources Communication Center Monthly Report. Dean Golden discussed the News Release dated October 1, 1980. He said that the Center now has one employee, Mrs. Susan Waldorf, who is completing the Forest Service project. However, the Center needs part-time technical assistance to insure the continued operation of the studio. He stated that they will do the best they can with what they have available to them. He said that he is optimistic that the Center will receive funding from outside donors.

Fall Enrollment Report was discussed. Dean Nyikos stated that this is the edition which has been reported to the state as required. Mr. Coors asked about the quality of the preparation in various subjects of the

October 10, 1980
The Board of Trustees met in regular session at 9:00 a.m.,
October 10, 1980, in the Board Room.

Trustees present: Messrs. Coors and Fogarty, Miss Leaver,

Mr. Schwartzberg presided.

Also attending the meeting were President McBride, Vice
Presidents Mueller, Scott, and Welles, Dean Golden, Dean Nyikos, and
other staff members, visitors, and a representative of the press.

President McBride introduced Dr. Catherine Joseph of the
Colorado Commission on Higher Education.

Previous Minutes. The minutes of the meeting held
September 12, 1980 were approved as distributed.

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

Roger P. Hansen Adjunct Associate Professor
of Environmental Sciences

Gregory R. McArthur Visiting Assistant Professor
of Environmental Sciences

Frank Van Dok Part-time instructor in the
Department of Mathematics

Continuing Appointments:

Jerald E. Jones Assistant Research Professor
of Metallurgical Engineering

Norma Law
Adjunct Assistant Professor
of Mathematics

William E. Marlatt
Adjunct Professor of
Environmental Sciences

Richard C. Walker
Adjunct Assistant Professor
of Mathematics

$2,500 for each three semester hour course given

9,000

6,000 for the fall semester of the 1980-81 academic year

17,760

5,300

3,600

2,000 for the fall semester for the 1980-81 academic year

October 10, 1980
Chimney Gulch Trail Easement. President McBride provided the Board with a description of this proposed Easement and stated that the Board had approved the Easement in principle in July 1978 and that we now need the signature of the President of the Board or his designee.

It was moved, seconded, and carried to authorize the signing of the Easement.

Capital Construction, Steam Line. Mr. Scott reviewed the proposed steam line between Coors Industries and the Colorado School of Mines. He provided a brief description of the manner in which this will be accomplished and went into detail regarding the financing of the project.

Discussion followed, during which it was agreed that it would be appropriate to ask the state for the capital construction money.

Program Review. Mr. Schwartzberg reported on the program review function that the Colorado Commission on Higher Education has undertaken. He told the Board that he feels the first document submitted by the Commission is dictatorial. President McBride stated that a careful response will be prepared and that future Board action may be required. It was indicated that the Board would be guided by Mr. Schwartzberg on that point.

Chairman's Remarks. Mr. Pascoe called the Board's attention to a letter addressed to it from a student who was the recipient of the BOT Scholarship. The student expressed his appreciation to the Board.

Executive Session. The Board then adjourned the regular meeting at 11:20 a.m. and went into Executive Session.

Secretary

September 12, 1980
his personal services, would be $10,000 to $20,000. A group of interested alumni has tentatively offered to secure the necessary funds. He told the Board that Mr. Wade had been informed of the policy of the Board of Trustees not to erect statues or memorials of any kind outdoors on the campus. Acceptance of the Wade sculpture would require the Board to relax its policy. President McBride stated that he has no recommendation.

Discussion followed, during which Mr. Pascoe recommended that the present policy be reaffirmed, with thanks to Mr. Wade. The present policy was reaffirmed by consensus.

It was suggested that it might be in order to propose an alternative, such as a smaller sculpture to be used in an appropriate indoor location. Mr. Welles provided the Board with background information regarding the desirability of developing a policy to govern the acceptance of art work of any kind. Mr. Pascoe said that this would relate to a work of art of any size, whether indoors or outdoors, and recommended that such a policy be developed.

Policy on Auxiliary Research Organizations. President McBride stated that the policy guidelines for external research organizations connected informally to the school have received considerable study and that alternative versions of such guidelines were presented to the July 12, 1980 Board meeting.

Mr. Stockmar expressed his concern regarding the effectiveness of the school in exercising control over the commitment of time, interest, and effort on the part of the faculty people involved. He expressed further concern regarding the possible creation of for-profit business groups that would have no charitable intent toward the school or field of education. President McBride stated that we do have a policy of leasing school facilities for purposes consistent with institutional goals and that we do not make a distinction whether the lessor is profit or non-profit oriented.

It was noted that the proposed policy is now operative on an interim basis. Mr. Stockmar requested that this item be tabled. It was agreed that the policy be tabled and resubmitted at the October meeting.

Response to CCHE Request on Athletics. President McBride stated that, on the basis of the student presentation at Keystone, the Board instructed the school to change its response to include stronger statements with regard to intercollegiate athletics. Dean Nyikos called the Board's attention to page 2 of the Statement on Conduct of Intercollegiate Athletics in Response to The CCHE Report, A Review of Athletics in Colorado Public Higher Education. Tom Lampert, Student Council President, stated that intercollegiate athletics was one of the main things that brought him to this school.

Upon motion made, seconded, and passed, the Board approved the response as amended.

Mr. Scott called the Board's attention to his companion report, Financing Intercollegiate Athletics at the Colorado School of Mines.

September 12, 1980
which are proposed and the financing. He called the Board's attention to page 3 of the memorandum and said that the cost of any design in any location exceeds the school's borrowing capacity even on the assumption that an equity contribution of $1.5 million is first received for the present new dormitory. Loan or bond guarantees, discussed briefly at the July 1980 meeting, were seen only to improve the desirability of the borrowing in a competitive marketing situation. Mr. Scott stressed the urgency of the matter, stating that if the building were to be in place by September 1982, we would have to proceed at once.

It was the consensus that, while strenuous efforts are warranted to secure equity contributions to both the present and hoped-for new dormitories, nothing further could be done at this time.

Admissions and Enrollment. Dean Nyikos reviewed a current Admissions Office memorandum providing information on committed students not coming for fall 1980. It was reported that followup of students indicated that the increase in tuition for Colorado residents was not a significant factor, but that the non-resident tuition rate was a factor. Mr. Waterous, Admissions Office, called the Board's attention to paragraph 4 of the memorandum, which states that the number of students who chose not to attend because of lack of housing was significant for both residents and non-residents. He said that the non-resident students were more strongly influenced by problems with costs, housing and scholarships.

Dean Nyikos reviewed the enrollment report provided by the Registrar. He stated that the entering class has traditionally been about 500 freshmen and 120 transfers, and we actually have 478 of the former. Dean Nyikos reported that these 22 freshmen students are still being contacted regarding their reasons for not returning.

Dr. Cheuvront, Registrar, stated that after final registration is completed, the total should be 2900, or above. Mr. Coors noted the significant increase in enrollment of Hispanic students, and asked Dean Nyikos if he had any information regarding the Society for Hispanic Engineers. Mr. Coors stated that this organization is seeking scholarships and is placing well-qualified young Hispanics in engineering schools. Dean Nyikos indicated that the school has had no contact with that organization.

Mining Hall of Fame. Mr. Doug Watrous, President of the National Mining Hall of Fame and Museum, Inc., introduced Mr. Gordon A. Weller, who will be the new full-time person for the Mining Hall of Fame.

Mr. Weller distributed the first progress report on the development of the National Mining Hall of Fame and Museum, Inc. He reviewed the report with the Board, reporting that they are still short $25,000 of the $150,000 to be raised by December 5, 1980. It was stated that no action is required of the Board at this time, and that the first decision point will be the December meeting.

Proposed Campus Sculpture. President McBride reported to the Board that the cost of erecting Mr. James Wade's (P.E. 1948) proposed sculpture, for which he has graciously offered to donate

September 12, 1980
John D. Haun  
Transitional Appointment, Professor of Geology  $ 8,935

Changed from 50% effort at 50% salary to 25% effort at 25% salary.

Charles H. Stoyer  
Assistant Professor of Geophysics  22,750

Dr. Stoyer has served as Research Assistant Professor in the Geophysics Department since the spring semester 1979.

Robert H. Trent  
Instructor in Mining Engineering  23,620

Mr. Trent has requested a revision of his $29,520 1980-81 contract to provide for 80% full-time effort at corresponding salary. The adjusted salary will be $23,620 for the academic year.

Terence K. Young  
Assistant Professor of Geophysics  22,200

Dr. Young served the academic year 1979-80 as Visiting Assistant Professor.

Resignation and Reappointment:

David L. Butler, Geophysics Department. Dr. Butler resigned his position as Associate Professor of Geophysics effective the end of the 1979-80 academic year. He has been appointed Adjunct Associate Professor of Geophysics for the 1980-81 academic year at no salary for the purpose of completion of directing thesis work of several graduate students.

Leave of Absence:

Richard H. DeVoto  
Professor of Geology

Dr. DeVoto has been granted leave of absence without pay for the spring semester of the 1980-81 academic year.

Dr. Mueller also announced that Dr. Harry Emrick has been appointed Acting Department Head for Basic Engineering. He replaces Dr. Dominguez, who asked to be relieved as Department Head.

Financial Reports. Mr. Scott made available the monthly reports as follows: Investment Summary as of September 12, 1980; Current Funds Comparison with Budget, two months ending August 31, 1980; CERI budget as of August 30, 1980; CSM Budget as of August 30, 1980; Fall Enrollment Data; and CSM Local Funds as of September 10, 1980.

Suggested Second New Dormitory. Further to the July 1980 Board meeting discussion of dormitory needs and financing, Mr. Scott distributed copies of a September 3, 1980 memorandum on the Proposed Residence Hall. President McBride reviewed the memorandum with the Board, discussing the two sites and two designs.

September 12, 1980
Eric P. Nelson  
Assistant Professor of Geology  
(Effective 2nd semester 1980-81) $ 9,000

Kathleen H. Ochs  
Assistant Professor of Humanities and Social Sciences 18,000

Martin R. Rice  
Adjunct Associate Professor, Director of Chorus, Humanities and Social Sciences Department 3,500

Duane R. Sanders  
Assistant Professor of Basic Engineering 22,500

Garon C. Smith  
Part-time instructor in Chemistry and Geochemistry 8,000

Carolyn Steele  
Administrative Assistant, President's Office 21,000

Mary Beth Vanderpoorten  
Librarian 21,000

Additional Assignment:

Frank A. Hadsell  
Associate Head, Geophysics Department 1,000 additional salary

Continuing Appointments:

Richard L. Bain  
Visiting Assistant Professor of Chemical and Petroleum-Refining Engineering 5,000

Robert D. Knecht  
Adjunct Assistant Professor of Chemical and Petroleum-Refining Engineering 4,000

John D. Wright  
Adjunct Assistant Professor of Petroleum Engineering 6,500

Change in Appointment:

John C. Emerick  
Assistant Professor of Environmental Science 18,500

Dr. Emerick's status has been changed from Adjunct Senior Lecturer to Assistant Professor.

September 12, 1980
### 1981-82 Budget Options

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### Expense

#### Resident Instruction

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#### Experimental Plant

<table>
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<th>1.2 FTE</th>
<th>1.2 FTE</th>
<th>1.2 FTE</th>
<th>1.2 FTE</th>
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#### Museum

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<th>21,721</th>
<th>21,721</th>
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<td>30,751</td>
<td>30,801</td>
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The Board of Trustees met in regular session at 9:00 a.m., September 12, 1980, in the Board Room.

Trustees present: Messrs. Coors and Fogarty, Miss Leaver, Messrs. Pascoe, Schwartzberg, Stockmar and Wilson.

Absent: Mr. Grynberg.

Mr. Pascoe presided.

Also attending the meeting were President McBride, Vice Presidents Mueller, Scott, and Welles, Dean Golden, Dean Nyikos, and other staff members, visitors, and a representative of the press.

Dr. McBride introduced various members of the staff and visitors.

Previous Minutes. The minutes of the meeting held July 12, 1980 were approved as distributed.

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

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jin S. Chung</td>
<td>Professor of Basic Engineering</td>
<td>$30,000</td>
</tr>
<tr>
<td>John Dunkhase</td>
<td>Postdoctoral Fellow, Chemistry and Geochemistry Department</td>
<td>No compensation</td>
</tr>
<tr>
<td>J. Patrick Dyer</td>
<td>Assistant Professor of Physical Education and Athletics</td>
<td>20,000</td>
</tr>
<tr>
<td>John W. Geissman</td>
<td>Assistant Professor of Geology</td>
<td>18,000</td>
</tr>
<tr>
<td>Gail P. Klock</td>
<td>Assistant Professor of Physical Education and Athletics</td>
<td>17,500</td>
</tr>
<tr>
<td>Hsue-Peng Loh</td>
<td>Adjunct Associate Professor of Chemical and Petroleum-Refining Engineering</td>
<td>5,000</td>
</tr>
<tr>
<td>Derck Massa</td>
<td>Instructor in Physics</td>
<td>16,000</td>
</tr>
<tr>
<td>Ronald L. Miller</td>
<td>Part-time instructor in Chemical and Petroleum-Refining Engineering</td>
<td>3,800</td>
</tr>
</tbody>
</table>
1981-82 ASSUMPTIONS-OPTION 1

1. Based on the Registrar's projections, total (undergraduate and graduate) student FTE is 3,014 including 2,120 resident FTE. Fall headcount is 2,892. These enrollment projections apply to all budget options.

2. The Academic Year tuition rates for Resident and Nonresident students are $1,560 and $5,144, respectively.

3. For all options, state General Fund support per resident student ($3,659) is calculated at seven percent above the adjusted 1980-81 level.

4. Eight faculty FTE are added bringing the student/faculty ratio down to 15.6 to 1.

5. The faculty compensation increase is ten percent over the adjusted 1980-81 level. The cost of each additional one percent increase is $66,412.

6. Resident Instruction classified staff will be increased by three FTE over the 1980-81 year-end level.

7. One classified FTE will be added to Data Processing.

8. Operating expense and travel is ten percent greater than the 1980-81 base level.

9. The Books and Periodicals budget reflects a 9.5 percent increase.

10. The utilities estimate is based on normal usage of gas, oil, electricity, and water at projected 1981-82 rates.

11. No funds are available for purchase of additional data processing equipment.

12. Funds available for Capital Outlay are insufficient at 54 percent of the 1980-81 level.

1981-82 ASSUMPTIONS-OPTION 2

Option 2 includes the assumptions contained in Option 1 with the following modifications.

1. Resident/Nonresident tuition is $1,700 and $5,266, respectively.

2. Travel expense is increase twenty percent.

3. The Books and Periodicals budget is increased 15 percent.

4. The capital outlay budget is $250,000.

5. A contingency in the amount of $200,000 is included in the operating expense budgets. In practice, these funds will be allocated in the fall after planned enrollments are met.

1981-82 ASSUMPTIONS-OPTION 3

1. Tuition for Resident and Nonresident students is $2,000 and $5,526, respectively.

2. 11.2 Faculty FTE are added. This generates a student/faculty ratio of 15.3 to 1. Application of the APCUP formula would result in a ratio of 14.9 to 1.

3. The faculty compensation increase is 15 percent.

4. Resident Instruction classified staff is increased by 4 FTE over the adjusted 1980-81 year-end level.

5. Other staff increases are as follows:
   A. Administration. .5 FTE Exempt (Research Development).
   B. Student Services. .2 FTE Exempt (Co-op); and 1.0 FTE Clerical (Registrar).
   C. Data Processing. 1.0 FTE Programmer (Computing Center); and 2.0 FTE Data Entry Specialists (ADP and Fiscal Services).
   D. Library. 1.0 FTE Library Assistant.
   E. Plant Operations. 3.5 FTE Skilled Tradesmen.

6. Operating expense/travel is based on Budget Committee recommendations.
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Library</strong></td>
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<tr>
<td>Exempt</td>
<td>188,805</td>
<td>231,660</td>
<td>210,573</td>
<td>210,573</td>
<td>220,148</td>
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<td>182,562</td>
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<td>15.0 FTE</td>
<td>10.7 FTE</td>
<td>10.7 FTE</td>
<td>11.7 FTE</td>
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<td>3,880</td>
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<td>8,184</td>
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<tr>
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<td>28,480</td>
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<td>488,326</td>
<td>407,849</td>
<td>408,099</td>
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<td>Sub-Total</td>
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<td>23.5 FTE</td>
<td>19.8 FTE</td>
<td>19.8 FTE</td>
<td>20.8 FTE</td>
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<td>Books and Periodicals</td>
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<td>200,000</td>
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<td><strong>Plant Operations</strong></td>
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<td>83.7 FTE</td>
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<td>1,000,000</td>
<td>105,081</td>
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<td>16,900,331</td>
<td>15,500,000</td>
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<td><strong>Unallocated Spending Authority, Estimate CSM Share Overhead</strong></td>
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<td><strong>GRAND TOTAL</strong></td>
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<td>16,900,331</td>
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<td>- Non Resident</td>
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<td><strong>INSTRUCTIONAL SUPPORT</strong></td>
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<td><strong>Student Services</strong></td>
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<td>15.0 FTE</td>
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<td>.5 FTE</td>
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<td>.5 FTE</td>
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<tr>
<td>Operating Expense/Travel</td>
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<td>22.0 FTE</td>
<td>23.0 FTE</td>
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</tr>
<tr>
<td><strong>Data Processing</strong></td>
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<tr>
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<td>3.0 FTE</td>
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<td>387,171</td>
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<td>14.7 FTE</td>
<td>16.7 FTE</td>
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</tr>
<tr>
<td>Hourly</td>
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<td>10,436</td>
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<td>9,813</td>
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<td>1.2 FTE</td>
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<td>1.2 FTE</td>
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<td>1.2 FTE</td>
<td>1.2 FTE</td>
</tr>
<tr>
<td>Operating Expense/Travel</td>
<td>216,800</td>
<td>251,870</td>
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<td>246,380</td>
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<td>Sub-Total</td>
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<td>18.9 FTE</td>
<td>18.9 FTE</td>
<td>20.9 FTE</td>
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</tr>
</tbody>
</table>
funds recovered beyond the cost of operation are hereby designated as quasi-endowment funds, and this Board expresses its intention to invest and reinvest such funds, the earnings being similarly accumulated until such time as further action is taken.

Chairman Grynberg adjourned the meeting at 5:20 p.m.

[Signature]
Secretary

July 12, 1980
reported to the Board the request of Sigma Kappa to purchase Lot 5 on West Campus Road, subject to the usual conditions connected with such sale. Discussion followed, after which it was moved and seconded that Sigma Kappa sorority be allowed to purchase Lot 5, West Campus Road, at a cost to it of $6,500, such sale not to be consummated until it demonstrates an ability to finance and intention to build in accordance with the Board of Trustees existing guidelines for fraternity/sorority structures, the Board thus acting in principle to make available to Sigma Kappa a lot on the same basis and with the same restrictions as extended to other social units. Reasonable restrictive covenants bearing on the resale of such lot will be included in the sale documents. Discussion followed. Motion carried.

Budget Parameters, 1981-82. Mr. Scott presented three sets of budget assumptions and an illustrative budget related to each set for the consideration of the Board. Dr. Mueller discussed briefly the qualitative difference in the budgets. President McBride indicated his recommendation of Option 2 (see attached material), based in large part on his belief that legislative approval of any greater tuition increase to resident students is unlikely. Discussion followed, during which it was the consensus of the Board that it wished to approve an educational plan based on tuition levels of approximately $1700 for the resident student, but that should the Joint Budget Committee fail to appropriate adequate support for the resident students, the Board might be forced to raise tuitions to a higher level in order to adequately fund a sound educational program.

Executive Session. The Board then adjourned the regular meeting and went into Executive Session for discussion of personnel and legal matters. At the conclusion of the Executive Session, the meeting was reopened.

Designation of Quasi-Endowment Funds. The following legal and fiduciarial resolution was moved and seconded. Discussion followed. The question was called; motion carried.

WHEREAS the revenues produced by the Department of Geophysics exploration lab are expected to exceed the actual costs of operating the equipment and analyzing the data; and

WHEREAS prudent management requires provision for accumulation or depreciation and, to the extent possible, additional reserves for the maintenance, replacement and additions to the equipment; and

WHEREAS this Board understands it to be the intent of the donor that such funds be accumulated, invested and reinvested for application toward the purposes stated above:

NOW THEREFORE, be it resolved that those amounts recovered as depreciation allowances and any additional

July 12, 1980
engineering program were discussed. The desirability and practicability of including more policy-related material in the degree were examined. In response to a question, Dr. Culver stated as his opinion that it would be possible, within the latitude allowed for the selection of courses for the present degree, to acquire a sufficient number of policy-related courses to accomplish the intended purposes. However, Dr. Mueller called the Board's attention to the limited number of students selecting the professional degree and the general belief among the departments that additional work beyond the bachelor's degree requirements was more profitably spent in acquiring a master's degree. Thus, he cautioned that utilization of the professional degree for the purposes under discussion might well be very limited.

The discussion, while informative, did not result in consensus or action.

Mineral Economics Department, Search for New Top Personnel. Chairman Grynberg stated that he had requested the inclusion of this agenda item due to his concern for the adequacy and scope of the personnel recruitment process for a new department head and the named Chairs in mineral economics. It was moved, seconded, and carried that this item be deferred until Executive Session.

Resource Fund, Second New Dormitory. Chairman Grynberg stated his concern that the supply of housing around the campus was increasingly inadequate to meet the demand and that failure to supply additional school-owned housing could have an adverse impact on the School's ability to enroll new students. Discussion followed. It was moved and seconded that the Board advise the Colorado School of Mines Foundation that it considers raising funds in the amount of 1.5 million dollars for a portion of the cost of the recently completed residence hall a matter of high priority and that it requests, in addition, that the Foundation move toward raising approximately 4 million dollars for a second new residence hall to house approximately 250 students.

Discussion followed, during which it was agreed the sense of the motion was that every attempt must be made to arrange payment for the existing structure prior to undertaking the construction of the additional building. The question was called; motion carried.

Report to OCHE on Athletics. The Board was supplied with a draft copy of a suggested reply. It was moved and seconded that the reply be adopted as that of the Board. Discussion followed, centering on the advisability of providing additional wording emphasizing more strongly the role of intercollegiate athletics and its recreational value to the students at CSM. At the end of the discussion, the draft was referred to President McBride for further consideration and resubmittal, thereby effectively tabling the motion to approve.

Sigma Kappa Request to Purchase Lot. President McBride
Hartley K. Phinney, Jr.
Director of the Library

Jon W. Raese
Director of Publications

Ann R. Reynolds
Assistant Director of Housing and Head
Resident of Twin Towers Hall

Martin D. Robbins
Director, Colorado Energy Research Institute

W. Gordon Scott
Vice President for Business Affairs

Margaret Smart
Librarian

Warren A. Spaulding
Director of Cooperative Education and Placement

Fred G. Stair
Librarian

Richard Sudermann
Director of Plant Facilities

Patsy M. Wegner
Director of Student Activities

John G. Welles
Vice President for Institutional Planning and Development

A. William Young
Director of Admissions

$38,430

23,300

7,700

51,000

50,000

22,770

20,600

14,880

33,900

19,500

53,000

25,300

Future Graduate Profile, Possible Extension Through Professional Degree Program. President McBride indicated that this agenda item had been included at the request of Mr. Grynberg and that Professor Culver, as chairman of the faculty committee dealing with the implementation of the changes required by the Future Graduate Profile and as chairman of the Academic Standards Committee of the faculty, was present and available to make a brief report as a basis for discussion. Mr. Grynberg indicated he felt strongly that there was a need for more informed persons to set United States energy policy, that CSM was in a position to provide such leadership, and that he wished to explore the possibility of providing education prerequisite thereto through the professional engineering degree program.

Professor Culver gave a brief report on the status of the Future Graduate Profile work, indicating through examples some modifications which might be made in the curriculum to facilitate the implementation of those changes, special emphasis being given to the process of engineering as opposed to the subject matter of engineering. Discussion followed.

The history and present role of the professional

July 12, 1980
Elsie Christine Ericson  
Librarian  
$17,990

Brodie D. Farquhar  
Public Information Officer  
19,400

Carl A. Fawcett  
Director of Housing, Student Center, and Green Center  
27,900

Daniel R. Frelund  
Accounting Officer  
27,800

John O. Golden  
Dean of Graduate Studies and Research and Professor of Chemical & Petroleum Engineering  
47,500

Janet Goodrich  
Student Counselor (9-month period)  
10,000

Robert J. Hensley  
Admissions Counselor  
18,000

William A. Ingels  
Budget Officer  
28,900

Mary Larsgaard  
Librarian  
20,010

Andrew M. Lopez  
Affirmative Action/Contract Review Officer  
21,100

Barbara MacDonald  
Librarian  
17,200

Warren J. Mason  
Director of Financial Aid  
25,000

Guy T. McBride, Jr.  
President  
65,000

Charles S. Morris  
Director of Public Relations  
27,300

Asaad A. Mubarak  
School Physician and Head of Medical Department  
23,300

William M. Mueller  
Vice President for Academic Affairs and Dean of the Faculty and Professor of Metallurgical Engineering  
57,000

Michael S. Nyikos  
Dean of Students and Assistant Professor of Humanities and Social Sciences  
34,000

Judith O'Brien  
Personnel Officer  
23,300

July 12, 1980
RECORD OF PROCEEDINGS

Joseph D. Sneed
Atlantic Richfield Foundation Professor in the Humanities
$38,000

Baki Yarar
Associate Professor of Metallurgical Engineering
25,000

Monthly Financial Reports. Mr. Scott made available copies of the reports as follows: Investment Summary as of July 11, 1980; Current Funds Comparison with Budget, 12 months ending June 30, 1980; CERI budget as of June 30, 1980; CSM Budget as of June 30, 1980.

Mr. Scott informed the Board that an additional distribution, in the amount of $19,144, has been received for the Kipfer Trust. In response to a question, he stated that the fiscal 1980 accounts would not be closed for another several weeks but that every effort had been made to finish the year within the financial plan and with the least possible reversion of appropriated operating funds.

Resources Communication Center. Dean Golden reported on the status of the Resources Communication Center and requested approval of the Board to seek the assistance of the CSM Foundation staff in raising funds for the Center. Discussion followed, centering on the relative priority of Resources Communication Center, potential sources for funding, and the extent to which such staff assistance could be provided in the usual course of business without unduly disrupting other Foundation activities. At the conclusion of the discussion, it was moved and seconded that the Board of Trustees authorize the request for fund-raising assistance from the Foundation's staff, principally Mr. Leeds and Mr. White. On the question, the motion carried; one member opposed.

Admissions Report. The Admissions report as prepared by Mr. William Young was accepted. In response to a question, Mr. Young indicated the proportion of resident students was expected to increase slightly during the coming year, consistent with the budget forecast.

Administrative Salary Schedule. President McBride presented the recommended salary schedule for administrative faculty, stating that in the aggregate the schedule reflected an eleven percent increase over aggregate salary approved for last year, and mentioning that three of the salaries had not been increased during 1979-80 due to the Board's understanding of Footnote 85(c) of the Long Bill and that the effect of that freeze had been considered in establishing the salaries for the current year. Approval of the salaries was moved and seconded. Motion carried.

Diane Brown
Boettcher Librarian
$15,810

Harold R. Cheuvront
Registrar
25,000

July 12, 1980
The Board of Trustees met in regular session on July 12, 1980, in Keystone Lodge, Keystone, Colorado.

The meeting was called to order at 1:15 p.m. by Chairman Grynberg.

Trustees present: Messrs. Coors, Fogarty, Grynberg, Pascoe, Stockmar and Wilson, and Ms Leaver--Student Trustee-elect.

Absent: Mr. Schwartzberg.

Also attending the meeting were President McBride, Vice Presidents Mueller, Scott, and Welles, Dean Golden, and other staff members and visitors.

The elected Student Trustee, June Leaver, took the oath of office and was welcomed to the Board.

Previous Minutes. The minutes of the meeting held June 13, 1980 were approved as distributed.

Faculty Appointments. Dr. Mueller reviewed the new appointments as follows:

Douglas A. Coe
Visiting Assistant Professor, Chemistry & Geochemistry Department $18,000

Anshumali Gangwar
Associate Professor of Mineral Economics 30,000

Lynde O. Gilliam
Instructor in Mineral Economics 17,500
Assistant Professor of Mineral Economics 18,500
(Appointment dependent upon his completion of the Ph.D. program)

Gunther U. Holzer
Assistant Professor of Chemistry & Geochemistry 19,000

Frank A. James
Visiting Professor of Chemistry & Geochemistry 25,000

Carl N. Kallansrud
Director of Research Administration--12-month contract retroactive to May 1, 1980. 25,000
Upon motion made, seconded, and passed, the Board approved the following specific items of the April 8, 1977 report:

(1) Academic minor programs in alternate energy source technologies should be instituted.

(2) Degree requirements should be changed to allow substitution of an alternate energy minor for the presently required mineral minor for students in basic engineering, chemistry, mathematics, and physics, with the other departments utilizing the minors where possible.

The Board also approved an administration recommendation that these changes be implemented subject to normal administrative procedures and constraints of faculty, facilities, and funding.

CCHE Report on Athletics. President McBride stated that Mr. Coors had received the CCHE report on athletics in Colorado public colleges and universities, which calls for specific responses from the governing boards.

President McBride volunteered to prepare a memorandum on issues and responses for approval by the Board at the July meeting.

The meeting adjourned at 11:15 a.m.

Secretary

June 13, 1980
by actions of the Colorado General Assembly necessitates substantial increases in student financial aid. The estimated additional need for 1980-81 of $373,000 is therefore added as an item of highest priority to the School's Table of Needs for use in connection with The Resource Fund.

2. Responding to numerous requests by alumni for simplification of fund-raising efforts in behalf of the School, we believe that annual giving requests including the Annual Alumni Development Fund (AADF) should be merged with The Resource Fund for efficiency of administration, for reduction of confusion, and for improvement of donor relations among alumni.

3. We thank the Colorado School of Mines Alumni Association Board of Directors for agreeing to explore the desirability of devoting fund-raising efforts directed toward the alumni body to meeting student financial aid requirements.

4. Recognizing the far-reaching obligations the new financial plan places on us for maintaining and improving the quality of a Mines education, we urge the strongest possible efforts toward this end by the boards and staffs of the Colorado School of Mines Alumni Association and the Colorado School of Mines Foundation and especially by the faculty and administration of the School. Only by meeting the highest standards of quality can we satisfy the expectations of our students, their parents, legislators, employers of our graduates, and the general public. Support of all these groups is necessary for the continued acceptance of the new financial plan as the best means for assuring quality education of mineral engineers at the Colorado School of Mines in the coming years.

Alternate Energy Minors. Dr. Mueller stated that Dr. Kennedy was present, along with several other members of the 1976-1977 faculty committee which had studied this matter.

Dr. Kennedy stated that there are presently several departments involved in "alternate energy" programs, i.e. solar, nuclear, geothermal, synthetic fuels, wind, and others. He said, however, there is no formal coordination among the departments. Dr. Kennedy stated, in his opinion, we can begin offering minors immediately with no increase in costs, only a coordination of effort. Speaking for the administration, Dr. Mueller indicated general agreement with the thrust of the report and specific agreement with the recommendations for alternate energy minors. However, Dr. Mueller indicated, with Dr. Kennedy apparently agreeing, that further consideration was required before the administration could recommend the entire report to the Board for approval.

June 13, 1980
Ronald Wiedenhoeft
Associate Professor of Humanities and Social Sciences $25,540

Thomas R. Wildeman
Professor of Chemistry 27,430

Beatrice Willard
Professor of Environmental Sciences 28,990

John T. Williams
Professor of Chemistry 35,640

Don L. Williamson
Associate Professor of Physics 21,700

Robert D. Witters
Professor of Chemistry 26,900

Robert E. D. Woolsey
Professor of Mineral Economics and Head of Department 37,910

Ching H. Wu
Associate Professor of Petroleum Engineering 24,480

Frank R. Yeatts
Associate Professor of Physics 25,410

Victor Yesavage
Associate Professor of Chemical and Petroleum-Refining Engineering 26,670

Auxiliary Enterprises, 1980-81 Operating Budgets.
Mr. Scott made available copies of the operating budgets for the regular auxiliary enterprises and stated that all are self-sustaining except the new dormitory unit, which must be partially subsidized by the existing housing.

Upon motion made, seconded, and passed, approval was given for the operating budgets as presented.

Student Financial Aid. Mr. Welles addressed this item, saying that in accordance with our 1980-81 budget and our new financial plan, financial assistance to students has become of paramount importance and has received priority with the School and The Resource Fund. Mr. Welles presented a resolution setting forth the need and the intention of the alumni to meet this need. President McBride pointed out that this action would make student financial aid the purpose of the alumni fund raising to the exclusion of other annual alumni gift objectives for The Resource Fund.

Upon motion made, seconded, and passed, the following resolution was adopted:

1. The Colorado School of Mines financial plan proposed by us and substantially initiated this year

June 13, 1980
<table>
<thead>
<tr>
<th>Name</th>
<th>Position and Department</th>
<th>Salary</th>
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<tbody>
<tr>
<td>Harold D. Taylor</td>
<td>Assistant Professor of Mathematics</td>
<td>$18,540</td>
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<td>Robert J. Taylor</td>
<td>Assistant Professor of Basic Engineering</td>
<td>25,230</td>
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<td>Mark S. Trasko</td>
<td>Visiting Assistant Professor of Basic Engineering</td>
<td>21,270</td>
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<td>Paul T. Treece</td>
<td>Assistant Director for Systems and Operations</td>
<td>30,000</td>
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<td>John U. Trefny</td>
<td>Associate Professor of Physics</td>
<td>21,300</td>
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<td>Robert H. Trent</td>
<td>Instructor in Mining Engineering</td>
<td>29,520</td>
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<tr>
<td>A. Keith Turner</td>
<td>Associate Professor of Geology</td>
<td>25,710</td>
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<td>Robert Underwood</td>
<td>Assistant Professor of Mathematics</td>
<td>20,280</td>
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<td>Craig W. Van Kirk</td>
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<td>29,330</td>
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<td>Robert A. Walsh</td>
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<tr>
<td>Fun-Den Wang</td>
<td>Professor of Mining Engineering and Head, Earth Mechanics Institute</td>
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<td>John E. Warme</td>
<td>Professor of Geology</td>
<td>33,320</td>
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<td>Joseph C. Weber</td>
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<td>Robert J. Weimer</td>
<td>Getty Professor (Professor of Geology)</td>
<td>41,750</td>
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<tr>
<td>James E. White</td>
<td>Professor of Geophysics</td>
<td>40,180</td>
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June 13, 1980
<table>
<thead>
<tr>
<th>Name</th>
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<tr>
<td>James M. Riddle</td>
<td>$23,910</td>
</tr>
<tr>
<td>Assistant Professor of Mining Engineering (on leave without pay for the fall semester)</td>
<td></td>
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<tr>
<td>Thomas D. Riley</td>
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<tr>
<td>Visiting Assistant Professor of Humanities and Social Sciences</td>
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<td>Samuel B. Romberger</td>
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<td>Associate Professor of Geology</td>
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<td>Philip R. Romig</td>
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<tr>
<td>Associate Professor of Geophysics (on leave for the academic year at one-half pay)</td>
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<td>Oded Rudawsky</td>
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<tr>
<td>Professor of Mineral Economics</td>
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<td>Arthur Y. Sakakura</td>
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<td>Dave Ray Schmitz</td>
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<td>Assistant Professor of Mathematics</td>
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<td>William A. Schneider</td>
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<tr>
<td>Professor of Geophysics</td>
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<tr>
<td>Franklin D. Schowengerdt</td>
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<tr>
<td>Associate Professor of Physics and Head of Department</td>
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<tr>
<td>John M. Shannon</td>
<td>21,520</td>
</tr>
<tr>
<td>Assistant Professor of Geology and Director of the Geology Museum</td>
<td></td>
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<tr>
<td>E. Craig Simmons</td>
<td>18,500</td>
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<tr>
<td>Assistant Professor of Chemistry and Geochemistry</td>
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<tr>
<td>Catherine A. Skokan</td>
<td>9,160</td>
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<tr>
<td>Adjunct Assistant Professor of Geophysics</td>
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<tr>
<td>Maynard Slaughter</td>
<td>29,360</td>
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<tr>
<td>Professor of Chemistry</td>
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<td>E. Dendy Sloan, Jr.</td>
<td>22,460</td>
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<tr>
<td>Associate Professor of Chemical and Petroleum-Refining Engineering</td>
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</tr>
<tr>
<td>David J. Spottiswood</td>
<td>28,880</td>
</tr>
<tr>
<td>Associate Professor of Metallurgical Engineering</td>
<td></td>
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<tr>
<td>Richard E. Stapp, Jr.</td>
<td>23,860</td>
</tr>
<tr>
<td>Associate Professor of Physical Education and Athletics</td>
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<tr>
<td>Franklin J. Stermole</td>
<td>33,150</td>
</tr>
<tr>
<td>Professor of Chemical and Petroleum-Refining Engineering</td>
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</tbody>
</table>

June 13, 1980
Michael B. McGrath
Chief Consultant, Computing Center and
Associate Professor of Basic Engineering
(12-month contract) $35,000

C. Samuel Miller
Associate Professor of Basic Engineering
(on leave for the academic year without pay) 24,290

B. J. Mitchell
Grace Foundation Professor of Petroleum Engineering 31,860

Fred E. Moore
Professor of Geology 31,190

W. Richard Moore
Assistant Professor of Geology 20,680

Raymond K. Mueller
Associate Professor of Mathematics 25,170

Karl R. Nelson
Assistant Professor of Basic Engineering 23,020

Gabriel M. Neunzert
Associate Professor of Basic Engineering 23,320

Karl R. Newman
Professor of Geology 27,820

David L. Olson
Professor of Metallurgical Engineering 30,210

Michael J. Pavelich
Associate Professor of Chemistry 21,110

Robert W. Pearson
Assistant Professor of Physical Education and Athletics 20,000

Anton G. Pegis
Professor of Humanities and Social Sciences 32,680

Harry C. Peterson
Professor of Basic Engineering 30,050

Alfred Petrick, Jr.
Coulter Professor of Mineral Economics 35,860

Thomas Philipose
Associate Professor of Humanities and Social Sciences 21,190

George R. Pickett
Professor of Geophysics 34,600

Robert T. Reeder
Associate Professor of Mining Engineering 29,820

June 13, 1980
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<tr>
<th>Name</th>
<th>Title</th>
<th>Compensation</th>
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<td>Charles E. Lienert</td>
<td>Visiting Assistant Professor of Mineral Economics</td>
<td>$22,000</td>
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<td>Mark W. Ljungvall</td>
<td>Instructor in Basic Engineering</td>
<td>14,810</td>
</tr>
<tr>
<td>James M. Lockhart</td>
<td>Assistant Professor of Physics</td>
<td>18,880</td>
</tr>
<tr>
<td>J. D. Lubahn</td>
<td>Professor of Basic Engineering</td>
<td>26,970</td>
</tr>
<tr>
<td>George B. Lucas</td>
<td>Professor of Chemistry</td>
<td>35,040</td>
</tr>
<tr>
<td>Patrick MacCarthy</td>
<td>Associate Professor of Chemistry</td>
<td>20,460</td>
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<tr>
<td>Earl K. Madsen</td>
<td>Adjunct Associate Professor of Mineral Economics</td>
<td>3,675</td>
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<td>Maurice Major</td>
<td>Professor of Geophysics</td>
<td>38,050</td>
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<tr>
<td>Donald C. B. Marsh</td>
<td>Professor of Mathematics</td>
<td>25,880</td>
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<td>Scott J. Marshall</td>
<td>Associate Professor of Basic Engineering</td>
<td>28,000</td>
</tr>
<tr>
<td>James W. Martin</td>
<td>Professor of Basic Engineering</td>
<td>31,250</td>
</tr>
<tr>
<td>Gerard P. Martins</td>
<td>Associate Professor of Metallurgical Engineering</td>
<td>29,320</td>
</tr>
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<td>Frank S. Mathews</td>
<td>Professor of Physics</td>
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<td>Professor of Metallurgical Engineering</td>
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<td>William A. Mattingly</td>
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<tr>
<td>Ruth A. Maurer</td>
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<td>Robert W. McAllister</td>
<td>Associate Professor of Physics</td>
<td>27,530</td>
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<tr>
<td>Robert S. McCandless</td>
<td>Associate Professor of Physical Education and Athletics (10-month contract)</td>
<td>24,260</td>
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<tr>
<td>Virginia A. McGinnis</td>
<td>Assistant Museum Curator (12-month contract)</td>
<td>14,120</td>
</tr>
</tbody>
</table>

June 13, 1980
Michael C. Jones  
Associate Professor of Chemical and Petroleum-Refining Engineering  
$23,770

Leonard A. Kalal  
Associate Professor of Philosophy  
25,340

Alexander A. Kaufman  
Professor of Geophysics  
29,110

Marvin L. Kay  
Associate Professor of Physical Education and Athletics and Head Football Coach (11-month contract)  
29,750

George V. Keller  
Professor of Geophysics and Head of Department  
42,770

Thomas E. Kelley  
Assistant Professor of Mathematics  
17,890

George H. Kennedy  
Professor of Chemistry and Head of Department of Chemistry and Geochemistry  
30,340

Harry C. Kent  
Professor of Geology  
36,930

Arthur J. Kidnay  
Professor of Chemical and Petroleum-Refining Engineering  
31,490

John V. Kline  
Professor of Physics  
28,220

Ronald W. Klusman  
Professor of Chemistry  
30,180

Charles Kohlhaas  
Professor of Petroleum Engineering  
29,960

George Krauss  
AMAX Foundation Professor of Physical Metallurgy  
36,380

Donald Langmuir  
Professor of Geochemistry  
36,490

William B. Law  
Associate Professor of Physics  
24,800

P. James LeAnderson  
Assistant Professor of Geology  
18,540

Keenan Lee  
Associate Professor of Geology  
27,030

Fred R. Leffler  
Associate Professor of Electrical Engineering  
25,060

June 13, 1980
James J. Halavin
Assistant Professor of Mathematics
$18,320

Robert D. Hamilton
Visiting Assistant Professor of Geology
18,000

John W. Hancock
Associate Professor of Physical Education and Athletics
24,490

Peter E. Hartley
Assistant Professor of Humanities and Social Sciences
21,310

John D. Haun
50 percent of ---- 35,740
Professor of Geology - fall semester
(Transitional appointment)

Douglas W. Hilchie
Associate Professor of Petroleum Engineering
30,640

Carl L. Hiltrop
Associate Professor of Chemistry
19,090

Anthony L. Hines
Associate Professor of Chemical and Petroleum-Refining Engineering
26,240

John A. Hogan
Associate Professor of English
24,520

Gregory S. Holden
Assistant Professor of Geology
17,730

Ralph C. Holmer
Professor of Geophysics
32,870

Matthew J. Hrebar
Assistant Professor of Mining Engineering
25,130

Joan R. Hundhausen
Assistant Professor of Mathematics
19,500

William A. Hustrulid
Professor of Mining Engineering
33,270

Robert M. Hutchinson
Professor of Geology
27,210

J. Tracy James
Assistant Professor of Physical Education and Athletic Trainer
19,560

Thys B. Johnson
Professor of Mining Engineering and Head of Department
36,270

James G. Johnstone
Professor of Basic Engineering
34,490

June 13, 1980
<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joseph J. Finney</td>
<td>Professor of Geology and Head of the Department</td>
<td>$36,710</td>
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<tr>
<td>Robert S. Fisk</td>
<td>Assistant Professor of Mathematics</td>
<td>$21,850</td>
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<tr>
<td>S. Dale Foreman</td>
<td>Professor of Basic Engineering</td>
<td>$27,900</td>
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<tr>
<td>Robert H. Frost</td>
<td>Instructor in Metallurgical Engineering</td>
<td>$17,520</td>
</tr>
<tr>
<td>Charles O. Frush</td>
<td>Associate Professor of Mining Engineering</td>
<td>$21,440</td>
</tr>
<tr>
<td>James H. Gary</td>
<td>Professor of Chemical and Petroleum-Refining Engineering</td>
<td>$46,000</td>
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<tr>
<td>Richard D. Gauthier</td>
<td>Associate Professor of Basic Engineering</td>
<td>$28,120</td>
</tr>
<tr>
<td>Donald W. Gentry</td>
<td>Professor of Mining Engineering</td>
<td>$31,490</td>
</tr>
<tr>
<td>Jay E. Gillette</td>
<td>Instructor in Humanities and Social Sciences</td>
<td>$16,960</td>
</tr>
<tr>
<td>James L. Giulianelli</td>
<td>Assistant Professor of Chemistry</td>
<td>$18,940</td>
</tr>
<tr>
<td>Michael S. Graboski</td>
<td>Assistant Professor of Chemical and Petroleum-Refining Engineering</td>
<td>$20,460</td>
</tr>
<tr>
<td>L. Trowbridge Grose</td>
<td>Professor of Geology</td>
<td>$34,000</td>
</tr>
<tr>
<td>C. Richard Groves</td>
<td>Associate Professor of Basic Engineering</td>
<td>$24,600</td>
</tr>
<tr>
<td>Stanley M. Guralnick</td>
<td>Associate Professor of Humanities and Social Sciences</td>
<td>$20,660</td>
</tr>
<tr>
<td>Raymond R. Gutzman</td>
<td>Associate Professor of Mathematics</td>
<td>$25,120</td>
</tr>
<tr>
<td>JoAnn T. Hackos</td>
<td>Assistant Professor of Humanities and Social Sciences</td>
<td>$18,650</td>
</tr>
<tr>
<td>Frank A. Hadsell</td>
<td>Professor of Geophysics</td>
<td>$35,790</td>
</tr>
<tr>
<td>John P. Hager</td>
<td>Professor of Metallurgical Engineering</td>
<td>$38,170</td>
</tr>
</tbody>
</table>

June 13, 1980
<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>John A. Cordes</td>
<td>Assistant Professor of Mineral Economics</td>
<td>$22,070</td>
</tr>
<tr>
<td>Scott W. Cowley</td>
<td>Assistant Professor of Chemistry</td>
<td>17,990</td>
</tr>
<tr>
<td>Richard S. Culver</td>
<td>Professor of Basic Engineering</td>
<td>26,390</td>
</tr>
<tr>
<td>Stephen R. Daniel</td>
<td>Associate Professor of Chemistry</td>
<td>25,130</td>
</tr>
<tr>
<td>James Darden</td>
<td>Associate Professor of Physical Education and Athletics</td>
<td>26,570</td>
</tr>
<tr>
<td>Joseph E. Davies</td>
<td>Professor of Physical Education and Athletics - fall semester (Transitional appointment)</td>
<td>26,830</td>
</tr>
<tr>
<td>Thomas L. Davis</td>
<td>Assistant Professor of Geophysics</td>
<td>22,300</td>
</tr>
<tr>
<td>Richard H. DeVoto</td>
<td>Professor of Geology</td>
<td>28,280</td>
</tr>
<tr>
<td>Dean W. Dickerhoof</td>
<td>Professor of Chemistry</td>
<td>27,530</td>
</tr>
<tr>
<td>Donald I. Dickinson</td>
<td>Associate Professor of English</td>
<td>25,530</td>
</tr>
<tr>
<td>Philip F. Dickson</td>
<td>Professor of Chemical and Petroleum-Refining Engineering and Head of Department</td>
<td>38,740</td>
</tr>
<tr>
<td>Richard F. Dominguez</td>
<td>Professor of Basic Engineering and Head of Department</td>
<td>36,000</td>
</tr>
<tr>
<td>Glen R. Edwards</td>
<td>Professor of Metallurgical Engineering</td>
<td>28,920</td>
</tr>
<tr>
<td>Kenneth W. Edwards</td>
<td>Associate Professor of Chemistry</td>
<td>21,580</td>
</tr>
<tr>
<td>Harry W. Emrick</td>
<td>Associate Professor of Basic Engineering and Director of Continuing Education (12-month contract)</td>
<td>35,090</td>
</tr>
<tr>
<td>Rudy C. Epis</td>
<td>Professor of Geology</td>
<td>35,660</td>
</tr>
<tr>
<td>Robert R. Faddick</td>
<td>Professor of Basic Engineering</td>
<td>26,000</td>
</tr>
</tbody>
</table>

June 13, 1980
<table>
<thead>
<tr>
<th>Name</th>
<th>Title and Details</th>
<th>Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charles W. Berry</td>
<td>Adjunct Professor of Mineral Economics</td>
<td>$3,500</td>
</tr>
<tr>
<td>Ramon E. Bisque</td>
<td>Adjunct Professor of Chemistry and Geochemistry on a 40% basis</td>
<td>14,110</td>
</tr>
<tr>
<td>Ardel J. Boes</td>
<td>Associate Professor of Mathematics and Head of the Department</td>
<td>29,940</td>
</tr>
<tr>
<td>Emmy Booy</td>
<td>Assistant Professor of Geology</td>
<td>22,970</td>
</tr>
<tr>
<td>Joan N. Brooks</td>
<td>Assistant Professor of Basic Engineering</td>
<td>21,000</td>
</tr>
<tr>
<td>Austin R. Brown</td>
<td>Director of Computing Center and Professor of Mathematics (12-month contract)</td>
<td>39,320</td>
</tr>
<tr>
<td>James T. Brown</td>
<td>Professor of Physics</td>
<td>27,220</td>
</tr>
<tr>
<td>W. Rex Bull</td>
<td>Professor of Metallurgical Engineering</td>
<td>30,970</td>
</tr>
<tr>
<td>Jerrold J. Burnett</td>
<td>Professor of Physics</td>
<td>27,780</td>
</tr>
<tr>
<td>David L. Butler</td>
<td>Associate Professor of Geophysics</td>
<td>22,950</td>
</tr>
<tr>
<td>Nicholas P. Callas</td>
<td>Associate Professor of Mathematics</td>
<td>23,670</td>
</tr>
<tr>
<td>Betty Jo Cannon</td>
<td>Instructor in Humanities and Social Sciences</td>
<td>17,830</td>
</tr>
<tr>
<td>Debra Carnell</td>
<td>Assistant Professor of Basic Engineering</td>
<td>17,690</td>
</tr>
<tr>
<td>Edward F. Cecil</td>
<td>Assistant Professor of Physics</td>
<td>20,200</td>
</tr>
<tr>
<td>W. John Cieslewicz</td>
<td>Associate Professor of Humanities and Social Sciences and Associate Professor of Mineral Economics (on leave for academic year at one-half pay)</td>
<td>21,510</td>
</tr>
<tr>
<td>L. Graham Closs</td>
<td>Assistant Professor of Geology</td>
<td>20,980</td>
</tr>
<tr>
<td>William D. Copeland</td>
<td>Professor of Metallurgical Engineering and Head of Department</td>
<td>38,180</td>
</tr>
</tbody>
</table>

June 13, 1980
Faculty Salary Schedules. President McBride stated that following approval at the May 9 meeting of the general guidelines for a faculty and staff salary supplement, schedules have been prepared showing names and amounts. Copies of the schedules were made available to the Board. Total amount of the bonuses to be distributed is $126,810, with individual bonus amounts ranging from $375 to $770.

Upon motion made, seconded, and passed, the Board approved the schedules.

President McBride stated that in accordance with past practices, contracts for teaching faculty had been prepared and mailed and that the salary schedules forming the basis of these contracts are being presented to the Board for information. He stated further that for the first time in several years, we were able to give more than token merit increases. Individual increases ranged from 5.1 to 13.1 percent, and the aggregate average increase was 11.1 percent.

The Board took cognizance of the faculty salary schedules as presented.

John F. Abel  
Professor of Mining Engineering  
$30,950

Charles S. Aldrich  
Instructor in Petroleum Engineering  
16,760

R. Bruce Allison  
Professor of Physical Education and Head of Department of Physical Education (A.D.) (10-month contract)  
35,770

William R. Astle  
Associate Professor of Mathematics  
26,390

William A. Averill  
Assistant Professor of Metallurgical Engineering  
23,000

Henry A. Babcock  
Professor of Basic Engineering  
36,430

Charles R. Baer  
Assistant Professor of Mathematics  
20,880

Robert M. Baldwin  
Associate Professor of Chemical and Petroleum-Refining Engineering  
21,620

Frederick B. Bart  
Assistant Professor of Humanities and Social Sciences  
17,890

Daniel M. Bass  
Kerr-McGee Corporation Professor of Petroleum Engineering  
39,260

June 13, 1980
The Board of Trustees met in regular session at 9:00 a.m., June 13, 1980, in the Board Room.


Absent: Mr. Aab.

Dr. Fogarty presided.

Also attending the meeting were President McBride, Vice Presidents Mueller, Scott, and Welles, various staff members, and a representative of the press.

Dr. McBride read a letter from Dr. Vanderwilt expressing gratitude to the Board for the award given to him at Commencement.

Previous Minutes. Upon motion made, seconded, and passed, the minutes of the meeting held on May 9, 1980 were approved as distributed.

Faculty Appointments. Dr. Mueller reviewed the new appointments as follows:

T. Graham Hereford
Professor of Humanities and Social Sciences and Head of the Department

Frank V. Kowalski
Assistant Professor of Physics

Monthly Financial Reports. Mr. Scott made available copies of the reports as follows: Investment Summary as of June 13, 1980; Current Funds Comparison with Budget, 11 months ending May 31, 1980; CERT Budget as of May 31, 1980; and CSM Budget as of May 31, 1980.

Resources Communication Center. Dr. Golden reported that we are in the process of gaining approval from the legislative oversight committee to release the three completed tapes and that we are hoping to broadcast them locally on Channel 6 (PBS). He stated further that we are now focusing attention on obtaining outside funding for other tapes and are optimistic about the prospects of being able to continue operations. As of now we have sufficient funds to continue operations through August.

Admissions. Dean Nyikos reviewed the latest admissions report, stating we have 694 committed students and expect to have a freshman class of 610 to 620.

June 13, 1980
Effective August 1, 1980 -

<table>
<thead>
<tr>
<th>Mines Park (monthly rate)</th>
<th>Present</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buffet apartment</td>
<td>$120 incl.util.</td>
<td>$160</td>
</tr>
<tr>
<td>1-bedroom apartment</td>
<td>165 &quot;</td>
<td>220</td>
</tr>
<tr>
<td>2-bedroom apartment</td>
<td>200 &quot;</td>
<td>265</td>
</tr>
<tr>
<td>2-bedroom house (37,38,39)</td>
<td>215 &quot; exc.water</td>
<td>285</td>
</tr>
<tr>
<td>2-bedroom house (25,26,27,28)</td>
<td>255 &quot; &quot;</td>
<td>340</td>
</tr>
<tr>
<td>2-bedroom house (30,31,34,35)</td>
<td>205 + utilities</td>
<td>250</td>
</tr>
<tr>
<td>3-bedroom house (29,32,33,36)</td>
<td>220 + &quot;</td>
<td>275</td>
</tr>
</tbody>
</table>

Residents are not responsible for irrigation of yards.

**Silver Diplomas.** Dr. Fogarty stated that a donor, ASARCO, has expressed interest in furnishing the silver for diplomas. The Board expressed pleasure in accepting this gift.

**Request to CSMF.** President McBride distributed copies of memorandum dated May 8, 1980 listing needs of the School for which no state funds are available. He spoke particularly of student needs in light of increased tuition charges and called attention to the items, listed in priority, which dealt with this need.

It was moved, seconded, and passed that request to the CSMF Foundation be made.

With reference to student needs, Mr. Stockmar stated his contacts with Denver banking institutions led him to believe it will be relatively easy for our students to obtain loans, to be repaid upon graduation. He stated the banks will be more willing if the CSMF guarantees these loans. He said our students are good credit risks, once it is certain that graduation is assured.

**Indian Education.** President McBride reported the Council of Energy Resource Tribes has solicited proposals from educational institutions as a part of an effort to initiate a Comprehensive Education Program to increase representation of American Indians in engineering and business. A second component is a consortium of colleges and universities from the Rocky Mountain region to advise on the program.

In view of the apparently successful programs in progress at Fort Lewis College and the University of New Mexico, the Board took no action at this time.

**CCHE Appointment.** President McBride reported that CCHE had asked that a representative of the Board be appointed to a Committee for the Review of New and Existing Academic Programs. Mr. Coors has appointed Mr. Schwartzberg as the Mines representative.

**1981 Keystone Dates.** President McBride reported that Keystone facilities for the 1981 summer Board conference have been reserved for July 16-19.

The meeting adjourned at 4:00 p.m. for executive session.

Assistant Secretary

May 9, 1980
Room, Board, Rentals. Upon motion made, seconded, and passed, the following new rates were approved:

<table>
<thead>
<tr>
<th>Effective July 1, 1980 -</th>
<th>Present rate per student</th>
<th>New rate per student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room and board charges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Residence Halls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Bradford, Randall, Morgan, and Thomas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Double room</td>
<td>$650</td>
<td>$780</td>
</tr>
<tr>
<td>Single room</td>
<td>750</td>
<td>880</td>
</tr>
<tr>
<td>*Twin Towers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Double room</td>
<td>850</td>
<td>980</td>
</tr>
<tr>
<td>Single room</td>
<td>900</td>
<td>1,030</td>
</tr>
<tr>
<td>Meal Plans, academic year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-meal plan</td>
<td>820</td>
<td>985</td>
</tr>
<tr>
<td>15-meal plan</td>
<td>770</td>
<td>895</td>
</tr>
<tr>
<td>10-meal plan</td>
<td>670</td>
<td>845</td>
</tr>
<tr>
<td>Residence Hall Activity Fee</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Field Session</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Randall Hall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room only</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Double</td>
<td>125</td>
<td>150</td>
</tr>
<tr>
<td>Single</td>
<td>140</td>
<td>175</td>
</tr>
<tr>
<td>Summer Session</td>
<td></td>
<td></td>
</tr>
<tr>
<td>*Randall Hall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Double</td>
<td>165</td>
<td>200</td>
</tr>
<tr>
<td>Single</td>
<td>190</td>
<td>230</td>
</tr>
<tr>
<td>*Twin Towers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Double</td>
<td>215</td>
<td>250</td>
</tr>
<tr>
<td>Single</td>
<td>230</td>
<td>270</td>
</tr>
<tr>
<td>Meal Plans, summer session</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-meal plan</td>
<td>205</td>
<td>250</td>
</tr>
<tr>
<td>15-meal plan</td>
<td>195</td>
<td>225</td>
</tr>
<tr>
<td>10-meal plan</td>
<td>170</td>
<td>215</td>
</tr>
<tr>
<td>Prospector Village (monthly rate) Present (married student apartments)</td>
<td>New</td>
<td></td>
</tr>
<tr>
<td>1-bedroom</td>
<td>$140</td>
<td>$160</td>
</tr>
<tr>
<td>2-bedroom</td>
<td>155</td>
<td>180</td>
</tr>
<tr>
<td>3-bedroom</td>
<td>170</td>
<td>200</td>
</tr>
<tr>
<td>2-bedroom, furnished</td>
<td>185</td>
<td>210</td>
</tr>
</tbody>
</table>

* Residence Hall students must choose either the 5-day 15-meal plan or the 6-day 18-meal plan.

May 9, 1980
Summer Session Field Courses

<table>
<thead>
<tr>
<th></th>
<th>Resident</th>
<th>Nonresident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition, 6 weeks</td>
<td>$258</td>
<td>$912</td>
</tr>
<tr>
<td>**Mil &amp; Acc.Fee, on campus</td>
<td>$ 5.00</td>
<td></td>
</tr>
<tr>
<td>Stu Center, on campus</td>
<td>11.50</td>
<td></td>
</tr>
</tbody>
</table>

Summer Session Academic Courses

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition, same as regular academic sem.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>**Health &amp; Accident Fee</td>
<td>8.00</td>
<td></td>
</tr>
<tr>
<td>Student Center Fee</td>
<td>15.00</td>
<td></td>
</tr>
</tbody>
</table>

Mandatory Accident Insurance

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining 318, semester</td>
<td>$ 5.00</td>
<td></td>
</tr>
</tbody>
</table>

Intensive English Course

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition, 11 weeks</td>
<td>EN 01 $1,216</td>
<td>EN 02 608</td>
</tr>
<tr>
<td>**Health &amp; Accident Fee</td>
<td>$12.00</td>
<td></td>
</tr>
<tr>
<td>Student Center Fee</td>
<td>15.00</td>
<td></td>
</tr>
<tr>
<td>Summer Activity Fee</td>
<td>60.00</td>
<td></td>
</tr>
</tbody>
</table>

Graduate Sessions

Fees are the same as for undergraduate students, with the following exceptions:

Thesis Research - Summer

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition, Min. 3 sem/hr.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Tuition is same for 14 weeks as 8 weeks)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>**Health &amp; Accident Fee</td>
<td>$12.00</td>
<td></td>
</tr>
<tr>
<td>14 weeks</td>
<td>8.00</td>
<td></td>
</tr>
<tr>
<td>8 weeks</td>
<td>8.00</td>
<td></td>
</tr>
<tr>
<td>Stu Center Fee, if on campus</td>
<td>15.00</td>
<td></td>
</tr>
</tbody>
</table>

Thesis Fees

The charges for the binding of theses have been incorporated into the graduation fee, and a separate charge will no longer be made.

***Graduation Fees

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelors</td>
<td>$25.00</td>
<td></td>
</tr>
<tr>
<td>Professional Engineers</td>
<td>25.00 plus silver diploma fee</td>
<td></td>
</tr>
<tr>
<td>Masters</td>
<td>76.00 plus silver diploma fee</td>
<td></td>
</tr>
<tr>
<td>Doctors</td>
<td>96.00 plus silver diploma fee</td>
<td></td>
</tr>
</tbody>
</table>

* The insurance portion of this fee ($43) may be waived under certain conditions. See subsection entitled "Student Health Program" in the general catalog.

** Infirmary services only. Insurance available only on an entire summer basis, cost $30.

*** Silver diploma costs to be determined in accordance with cost of silver at time the diploma is issued.

May 9, 1980
1980-81 Budget. President McBride and Mr. Scott, in discussing the proposed 1980-81 budget in the amount of $13,233,960, stated it is predicated on tuition increased to $1,282 for residents, $4,564 for nonresidents, 72-1/2 percent resident enrollment, and 62.5 percent retention of excess indirect cost recovery.

Mr. Schwartzberg stated he thought it important that in view of the increase in tuition much effort should be made to make evident the increased support and improvement in resident instruction. President McBride stated this is being planned in increased support staff, increased funds for faculty travel, and increased operating expense money. The budget provides for a 12 percent faculty compensation increase.

Upon motion made, seconded, and passed the Board approved in principle the 1980-81 budget in the amount of $13,233,960, with the authority for the administration to allocate funds as best fits the needs of the School for that fiscal year.

Mr. Grynberg left the meeting at this time.

Over 18 Hours. President McBride stated that, with Board approval, there will not be any charge for hours taken in excess of 18. The Board approved.

Tuition and Fees. Consistent with the approved 1980-81 budget, the following tuition and fee rates were approved effective May 15, 1980:

<table>
<thead>
<tr>
<th>Student Load</th>
<th>Resident</th>
<th>Nonresident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester Hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.5 - 18.0</td>
<td>$641</td>
<td>$2,282</td>
</tr>
<tr>
<td>8.5 - 9.0</td>
<td>387</td>
<td>1,368</td>
</tr>
<tr>
<td>7.5 - 8.0</td>
<td>344</td>
<td>1,216</td>
</tr>
<tr>
<td>6.5 - 7.0</td>
<td>301</td>
<td>1,064</td>
</tr>
<tr>
<td>5.5 - 6.0</td>
<td>258</td>
<td>912</td>
</tr>
<tr>
<td>4.5 - 5.0</td>
<td>215</td>
<td>760</td>
</tr>
<tr>
<td>3.5 - 4.0</td>
<td>172</td>
<td>608</td>
</tr>
<tr>
<td>2.5 - 3.0</td>
<td>129</td>
<td>456</td>
</tr>
<tr>
<td>1.5 - 2.0</td>
<td>86</td>
<td>304</td>
</tr>
<tr>
<td>.5 - 1.0</td>
<td>43</td>
<td>152</td>
</tr>
</tbody>
</table>

Fees

- *Health and Accident* $57.00
- Associated Students 13.25
- Athletic 15.00
- Student Center 30.00

Total $115.25/Sem.

Orientation, New Stu 3.50

May 9, 1980
DOCTOR OF PHILOSOPHY (CHEMICAL AND PETROLEUM-REFINING ENGINEERING)
Tim Seng-trung Chou
Dennis Donald Gertenbach
Charles Frederick Griswold
Shie-Way Wang
Carlos Omar Zerpa

DOCTOR OF PHILOSOPHY (GEOPHYSICS)
Willem Jacobus Botha

DOCTOR OF PHILOSOPHY (GEOPHYSICAL ENGINEERING)
Jose Manuel Souto Gonzalez

DOCTOR OF PHILOSOPHY (GEOCHEMISTRY)
John A. Dunkhase
David B. Smith

DOCTOR OF PHILOSOPHY (MINERAL ECONOMICS)
John P. Byrden
Danny Lee Taylor
Muhammad Ali Saleh Zainy

Legislative Report. Mr. Robbins reported that after a real team effort on the part of Board members, administrators, and legislators, the Governor has signed a Long Bill for 1980-81 which puts Mines in a good position to begin the first year of its long-range plan. Mr. Robbins suggested that we begin immediately to meet with key legislators to assure that this year's gains be maintained and built upon, perhaps even mandated by statute if consultation indicates it to be possible and desirable. Mr. Robbins and President McBride said they will draft a bill and have it ready for review. Mr. Robbins agreed to furnish Board members with a list of legislators who supported Mines in the 1980 Legislature. Mr. Robbins stated that our success this year is due to the credibility of the Board members.

The sponsors of SJR-1, which would have given the Legislature control over federal funds coming to state institutions, have announced plans to get the measure on the November ballot. Such legislation probably will include higher education and might possibly control total spending on higher education.

1979-80 Budget. Mr. Scott reported that the supplement for utilities was received, and President McBride asked the Board to approve the consequent final 1979-80 budget in the amount of $11,503,000. He also asked specifically for approval of a faculty salary supplement in the total amount of $125,000 in accordance with a memorandum from Dr. Mueller dated May 8, 1980, schedule of individual supplemental amounts to be presented at the June meeting of the Board.

Upon motion made, seconded, and passed the 1979-80 budget was approved, with the salary supplement as outlined.

May 9, 1980
MASTER OF SCIENCE (GEOLOGY)
Kenneth R. Altschuld
James Gerald Brophy
Martin Fleckenstein
Paul W. Heiple

John J. Samsela, Jr.
Michael Burr Sawyer
Crisalida Josefina Tarache
Terrell M. York

MASTER OF ENGINEERING (PETROLEUM ENGINEER)
Hugh E. Harvey, Jr.
Victor German Rivera

MASTER OF SCIENCE (CHEMICAL AND PETROLEUM-REFINING ENGINEERING)
Cesar R. Malave S.
Oswaldo Enrique Molina Campos
Jorge Javier Vierma Rio

MASTER OF SCIENCE (GEOPHYSICS)
Eugenio Asencio Montalvo
Helga Tulinius
Pamela Baur Uitti

MASTER OF SCIENCE (GEOPHYSICAL ENGINEERING)
Manouchehr Bahavar
David Roy Hanson
Jose Regueiro Sleiro

MASTER OF SCIENCE (GEOCHEMISTRY)
James Dale Webster

MASTER OF SCIENCE (MATHEMATICS)
Robert Christopher Mengis

MASTER OF SCIENCE (PHYSICS)
Robert Eric Larson

MASTER OF SCIENCE (MINERAL ECONOMICS)
Julio C. Benedetti S.
Donald L. Bott
Mark Stephen Fitzgerald
Rowena RoseAnn Johnson
Stephen C. Mountjoy
James L. Nelson-Moore

Gary Robert Peterson
Donald B. Ratcliff
Andrew Warren Slagle
C. Linda Slater
Theodore Francis Tyler
Kirsten Valerie Williams

DOCTOR OF PHILOSOPHY (GEOLOGY)
Richard M. Chamberlin
Wilson H. Herrod
Richard H. Mead

DOCTOR OF PHILOSOPHY (PETROLEUM ENGINEERING)
Gbolahan Oladele Lasaki

May 9, 1980
June 21, 1980

BACHELOR OF SCIENCE (GEOLOGICAL ENGINEERING)
Dennis Berle Green

BACHELOR OF SCIENCE (CHEMICAL AND PETROLEUM-REFINING ENGINEERING)
Donny Ann Craig
Son Thanh Do
Margaret Laurel Myers
Ronald K. Oberto

BACHELOR OF SCIENCE (GEOPHYSICAL ENGINEERING)
Corliss Scott Burns
Mark Endacott Gregg
Thomas Eugene Jorden
Randy Lynn Nickerson

BACHELOR OF SCIENCE (MINERAL ENGINEERING PHYSICS)
Alain Serge Karma

August 16, 1980

BACHELOR OF SCIENCE (MINING ENGINEERING)
Michael John Bogenreif
Connie Mae Nelson

BACHELOR OF SCIENCE (METALLURGICAL ENGINEERING)
Edward Anthony Hampson
Charles Edward Caston Rense

BACHELOR OF SCIENCE (GEOLOGICAL ENGINEERING)
Edward John Naylor

BACHELOR OF SCIENCE (PETROLEUM ENGINEERING)
Jose E. Cordova Brito
Douglas Robert MacAfee
Rossann Mosher

BACHELOR OF SCIENCE (CHEMICAL AND PETROLEUM-REFINING ENGINEERING)
Clifford Nathan Coury
Douglas Dean Jacques
Karen Colette Oberg
Walter Herman Jones, Jr.
Nancy Marilyn Ramirez

BACHELOR OF SCIENCE (MINERAL ENGINEERING MATHEMATICS)
Edward Anthony Hampson

May 10, 1980

MASTER OF ENGINEERING (GEOLOGICAL ENGINEER)
Joseph P. Rousseau

May 9, 1980
# RECORD OF PROCEEDINGS

<table>
<thead>
<tr>
<th>Bachelor of Science (Geophysical Engineering)</th>
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<tr>
<td>Jay Eugene Johnson</td>
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<td>Russell Wayne Kemp</td>
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<td>Francis Gordon Kuenn, Jr.</td>
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<td>Dean A. Baldi</td>
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<td>Donald H. Champion</td>
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<th>Bachelor of Science (Mineral Engineering Chemistry)</th>
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<td>Telahun Zawdie Yohannes</td>
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<th>Bachelor of Science (Mineral Engineering Mathematics)</th>
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<td>John Charles Barbour</td>
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<td>Diane Kim Chantala</td>
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<th>Bachelor of Science (Mineral Engineering)</th>
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<td>Brian Kirk Damkroger</td>
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<td>Robert William Hessk</td>
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<td>Mark Steven Leintz</td>
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<td>Kim Marie Marquardt</td>
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May 9, 1980
Sharon Lynn Carey
Robin Coubrough
John R. Craig
Russell Charles Fontaine
John Francis Gegg
John Edward Gudgel
Stanley Charles Haskins
Roger A. Hooten
Kent Douglas Jenkins
Jeffrey Bud Jennings
Dennis Patrick Keely
James Joseph Kenney
Timothy William Lyons
Gregory Lee Magruder
Michael Gerard Maslowski

Diana Lee Perfect
Scott Ellison Pfalzgraff
Robert Marshall Pickard
Matthew Norman Plis
Joseph William Schieffelin
Ric hard Albert Schumann
Andrew Keith Silva
Barbara Frances Smith
Julie Forrest Straten
Harry B. Tipton, III
Carolyn Louise Totten
Robert Emil Trousil, Jr.
Ronald James Uhle, Jr.
David C. Wickland
Catherine Virginia Woldow

BACHELOR OF SCIENCE (PETROLEUM ENGINEERING)

Stephen Charles Actis
Belhasan Milad Ahmed
Timothy Byron Arnold
Paul Allen Bartel
Ziane Bendiff
Robert Allen Biernbaum
Michael David Biggs
Douglas Darwin Colby
Mark D. Cutright
Larry Wayne Dillon
Owen Shawn Dull
Erick John Eckelberg
Abdelkader Farlou
Scott William Foxwell
David R. Gilbronson
John Homer Gould
Philip Ord Johnson
James Louis Lane, II
William Stewart Lehmann
Ranald Hugh Macdonald
David R. MacKenzie

Timothy Matthew Marquez
Thomas Vernie Marshall
Stephen Arthur Martinez
David Frederick Mayer
Robert Alan Mees
Thomas Gregory Merrion
William Roger Micale
Bruce LeRoy Neitzke
Jeffrey Pankow
Michael Harmon Partin, Jr.
Paul Gordon Pilcher
Arthur Michael Purpich
James Andrew Ricotta
Neale Russell Roberts
Brian William Rothkopf
Rudolfo Kenneth Sandoval
Mark Hubert Scott-Paine
Richard Price Smiley
Jeffrey Paul Stanat
Danny Michael Stone
Steve Neil Swanson

BACHELOR OF SCIENCE (CHEMICAL AND PETROLEUM-REFINING ENGINEERING)

Douglas Ray Aab
Rebecca White Aab
Simon VanDer VeenQuant Arends
Stephen Keith Arnold
Michael Joseph Banschbach
Leonard Edgar Brammeier
Ronald Lee Breninger
Julie Ann Bryant
Jeffrey Kenton Circle
Debra Gay DeTurk
Susan Aileen Dover
Lawrence Alan Drajem
Danny Alan Ehrtridge
James Charles Ferguson
Michael Robert Fink
Jonathan G. Harper
David Holligan
Gloria MacMillan Jackson

Joseph Michael Littjohann
Victoria Loep
James Vincent Mahoney
Rex Alan Marshall
J. Warren Montgomery
Robert Michael Morgan
Gain Lynn Meyer
Javan Dale Ottoson
Thomas Heebner Perry, Jr.
Ronald Maynard Pratt
Lisa Marie Press
Steven August Ruehle
Deborah Marie Schwabach
Len Ivan Seymour
Steven Duane Smith
Patrick Glenn Smyth
Kenneth William Snodgrass
Terry Lynn Staebell

May 9, 1980
Admissions. Mr. Young spoke briefly of the last admissions report saying that our planned enrollment goals will be met.

Candidates for Degrees. Distribution was made of lists of candidates for degrees as recommended by the regular and graduate faculties at the meetings held on April 16, 1980 and March 26, 1980, respectively.

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

May 10, 1980

BACHELOR OF SCIENCE (MINING ENGINEERING)

Jonathan Ramsen Baker
Albert Jonathan Barnhard
David Robert Berberick
Harley Richard Brummett
Ronald Wayne Clayton
Alexandra Anatoliga Karpov-Cobb
Ralph Joseph Costa
Theodore Robert DePooter
Glenn Michael Douglass
David Allen Drapel
David Elliot Drips
Donald Scott Einarson
Collin Richardson Fay
Edward John Ginouves
Callie Anne Johnston
Linda Kay Lanham
William Randy Litwiller
David Richard Mattox
Kenneth Paul Neumann
Marcelo Fernandez O’Keeffe
Scott Kevin Palm
David L. Rendini
Alexander Frederick Ritter
Joel Duane Sack
Michael Philip Patrick Sheridan
Kent Alan Simon
Fred Stahlbush
John Phillip Strohminger
Harry B. Tipton, III
Robert Reed Vogel

BACHELOR OF SCIENCE (METALLURGICAL ENGINEERING)

Paula Diane Anderson
David Paul Barbour
Michael John Cusick
Amy Elizabeth Dall
Craig Brian Dallam
Dana Alan Echter
Deniece Rochelle Espeland
Athanualpa Alonso Franco
Gary Lynn Gasser
James Joseph Gonzales
Doran Robert Greening
Gerald Paul Kelton
Alan Blaine Ketcham
Robert Joseph Kohn
Thomas Wade Lockhart
Jorge Mahfuz
Douglas Stewart Mckittrick
James Joseph Oldani
Aaron Alex Olivas
Frank J. Papish, Jr.
Kathleen A. Riddle
Beatriz Rivas
Barbara Lucille Rivera
Steven Henry Schatz
Philip Louis Sibrell
Conrad Henry Smith
Ramona J. Stuehm
Donna Marie VanDyke
David Brian Wrenshall
Dennis Frank Wright

BACHELOR OF SCIENCE (GEOLOGICAL ENGINEERING)

Michael Steven Allen
James Orlin Biggs
Kevin Hans Bjornen
Brian Robert Bond
Craig Stephen Buth
James Thomas McDonnell
Timonthy Emery Mower
Joseph Thomas Nochera
Chris Alan Oglesby
Karen Elizabeth Parsons

May 9, 1980
Golden, Colorado
May 9, 1980

The Board of Trustees met in regular session at
2:00 p.m., May 9, 1980, at the Denver Club, Denver.

Present: Messrs. Aab, Coors, Fogarty, Grynberg,
Pascoe, Schwartzberg, and Stockmar.

Absent: Mr. Wilson.

Also attending were President McBride, Vice Presi-
dents Mueller, Scott, and Welles, various staff members, and
a representative of the press.

Mr. Coors presided.

Mr. Coors introduced a guest, Mr. Lee Gibson, Class
of '40, who addressed the Board, saying that, in his opinion, the
time has come when the School can no longer confine its
work to educating students on campus but must help the nation
solve the energy crisis. He said the Colorado School of Mines
has great prestige and a spokesman from here would have credi-
bility in telling the nation that we are the "Persian Gulf"
of low-class energy, i.e. shale oil and low-grade coal. Mr.
Gibson said further that he viewed it as a crisis situation
and we are in a unique position to speak out.

Mr. Coors thanked Mr. Gibson and spoke briefly of
our present efforts along these lines.

Previous Minutes. The minutes of the meeting held
on April 11, 1980 were approved as distributed.

Faculty Appointment. Dr. Mueller reviewed the
following new appointment to the faculty.

Reuben J. Ross
Adjunct Professor of Geology

$12,000

Dr. Mueller reported to the Board that a new Depart-
ment Head for Humanities and Social Sciences has been appointed,
Dr. Graham Hereford.

Financial Reports. Mr. Scott made available the
monthly reports as follows: Investment Summary, as of
May 7, 1980; CSM Budget, as of April 10, 1980; Current Funds
Comparison with Budget for 10 months ending April 30, 1980;
and CERI Budget as of April 30, 1980.

Resources Communication Center. Dr. Golden reported
that Tape 3 was completed and awaiting the review process.
He stated that the film program was not funded by the 1980
Legislature and that other funding is being urgently sought.
That the said Managerial Group is hereby delegated all of the Board's duties and responsibilities pertaining to the protection of classified information under classified contracts of the Department of Defense or User Agencies of its Industrial Security Program awarded to the Colorado School of Mines.

That the following named officers and members of the Board of Trustees and Colorado School of Mines administrative officers shall not require, shall not have, and can be effectively excluded from, access to all positions that would enable them to affect adversely the policies and practices of the University in the performance of classified contracts for the Department of Defense or User Agencies of its Industrial Security Program, awarded to the Colorado School of Mines, and need not be processed for personnel security clearance.

Officers - CSM Trustees

W. K. Coors, President Adolph Coors Company, Golden, CO
Fred R. Schwartzberg, 6470 East Bates, Denver, CO
Vice President
James C. Wilson, Secretary Rocky Mountain Energy Company Lakeside National Bank Building 4704 Harlan, Denver, CO

CSM Trustees
Charles F. Fogarty Texasgulf Inc., High Ridge Park, Stamford, CT
Jack J. Grynberg 1950 Prudential Plaza, 1050 17th Street, Denver, CO
Monte Pascoe Department of Natural Resources 1313 Sherman, Denver, CO
Ted P. Stockmar Suite 1800, 1700 Broadway, Denver, CO
Douglas R. Aab 2401 East, #301, Golden, CO

CSM Administrative Officers
John G. Welles Vice President for Institutional Planning & Development

The meeting adjourned at 11:15 a.m. for an executive session.
HEW Settlement Agreement. President McBride made available copies of an agreement between the Office of Civil Rights, HEW, and the School in settlement of a class action complaint (1979) in connection with scholarships for women students. President McBride stated he had signed the agreement.

Alternate Energy Minor Program. Dr. Mueller reviewed for the Board the status of this program, saying that as requested by the Board a study had been made in 1977 on the place of alternate forms of energy in the School's curricula. At that time it was decided that "...the Board will address itself further to the mission of the School and the role alternate sources of energy should play in the development of our resources." In the meantime the faculty have fulfilled their curricular role in this and have made certain suggestions for alternate energy minor requirements in various options. It is the recommendation of the faculty that certain "Alternate Energy Minors" be established which could be selected to satisfy minor requirements in Basic Engineering, Chemistry, Mathematics, and Physics.

It was the consensus that this matter warranted more discussion than was possible this meeting, and it was agreed that before the meeting on June 13, beginning at 8:00 a.m., presentations will be made by faculty and staff and that during the regular meeting the matter will be an agenda item.

Security Clearance. Dr. Golden presented a resolution necessitated by the need for security clearance on certain research contracts and changes in personnel.

Upon motion made, seconded, and passed, the following resolution was adopted.

Be it resolved by the Board of Trustees of the Colorado School of Mines that those persons occupying the following positions at the Colorado School of Mines shall be known as Managerial Group as described in the Industrial Security Manual for Safeguarding Classified Information.

Guy T. McBride, Jr.  President
William M. Mueller  Vice President for Academic Affairs
W. Gordon Scott  Vice President for Business Affairs
John O. Golden  Dean of Graduate Studies & Research
Ronald W. Klusman  Assistant Dean for Research Development

That the President and the other members of the Managerial Group currently hold, have been processed, or will be processed for a personnel security clearance for access to classified information to the level of the facility clearance granted to this institution as provided for in the aforementioned Industrial Security Manual.

April 11, 1980
Admissions. Mr. Bill Young reviewed pertinent figures in the latest admissions report. He stated that although the number of applications from women was down slightly from last year, the most marked decrease was in the number of applications from minorities. Mr. Young indicated that further study is needed to determine whether the decrease in minority applications is only a normal annual variation or whether it represents an undesirable trend.

Legislative Report. President McBride reported that the situation with regard to our budget as determined by the 1980 Long Bill is the same as reported in memorandum dated March 21; i.e. the budget presented by JBC staff of $12,396,000, augmented by $140,000 projected nonresident tuition increase to a total of $12,536,000. Mr. Robbins stated that the JBC had recommended the budget, with footnotes, and asked that the School accept the budget with an agreement not to "lobby" for a higher amount. He reported that under a "take it or leave it" atmosphere the School had agreed and had abided by the agreement. The only responses made by School personnel to legislative representatives have been in response to requests for information.

President McBride reported that he has been requested to attend a meeting later that day between a member of the JBC who is of the opinion the School has "lobbied" and the House Majority Leader. It was suggested that after this meeting has been held, a meeting of the full Board and the full JBC be held to air and hopefully to remedy any misunderstandings which may exist.

A bar chart showing our budget in dollars and "constant dollars" for the last ten years was distributed. The chart demonstrates a severe loss in "real" or "constant" dollars per capita FTE student.

During the brief discussion of the budget, it was pointed out that the School cannot operate with the distribution of budget funds required in the current Long Bill. President McBride indicated very clearly that it would be absolutely necessary to transfer funds from one line item to another.

Medals. President McBride reported that, as instructed by the Board, a subcommittee had met and had prepared recommendations on the recipients of the Mines Medal and the Brown Medal. These recommendations had been approved by the Board at executive session in March, prospective recipients had been contacted, and all had accepted.

Upon motion made, seconded, and passed the following recipients were approved.

George R. Brown Medal
A. W. Schlechten

Mines Medal
Robert A. Baxter
William V. Burger
John W Vanderwilt

April 11, 1980
To Professor -
Alexander A. Kaufman
Charles A. Kohlhaas
David K. Matlock
Karl R. Newman
Oded Rudawsky
Thomas R. Wildeman

Geophysics
Petroleum Engineering
Metallurgical Engineering
Geology
Mineral Economics
Chemistry

To Associate Professor -
Robert M. Baldwin
William A. Mattingly
Michael J. Pavelich
Joseph C. Weber

Chemical and Petroleum-Refining Engineering
Humanities and Social Sciences
Chemistry and Geochemistry
Mineral Economics

To Assistant Professor -
Frederick A. Bart

Humanities and Social Sciences

Leaves. Dr. Mueller reviewed the three requests for academic leaves which he and President McBride recommended for approval by the Board.

Upon motion made, seconded, and passed the Board approved academic leaves as follows:

W. John Cieslewicz, Associate Professor of Mineral Economics, academic leave for 1980-81 academic year at one-half salary.

Samuel E. Vandiver, Professor of Humanities and Social Sciences, academic leave for 1980-81 academic year at one-half salary.

Phillip R. Romig, Associate Professor of Geophysics, academic leave for 1980-81 at one-half salary.

Monthly Financial Reports. Mr. Scott made available the monthly reports as follows: CSM Investment Summary as of April 9, 1980; CERI Budget as of March 31, 1980; CSM Budget as of March 31, 1980; and the CSM current funds comparison with the budget as of March 31, 1980.

Mr. Scott reported that the supplement for utilities in the amount of $154,748 has been passed and is awaiting the signature of the Governor.

Resources Communication Center. Dr. Golden reported that Tape 2 has been completed and reviewed by some members of the Oversight Committee. Work has commenced on Tape 3, which will deal with coal. Mr. Pascoe reported that Mr. Lyle Kyle, Director of the Legislative Council, who has been our contact with the legislative members authorizing these tapes, has expressed the felt need to review the question of to what audience the tapes are to be directed. Mr. Kyle, speaking for himself as well as for members of the committee, has expressed satisfaction with the tapes but, equally, has sought for more direction on the specific purposes of the tapes.

April 11, 1980
The Board of Trustees met in regular session on April 11, 1980 at 9:00 a.m. following a presentation by the Head of the Department of Basic Engineering, Dr. Richard F. Dominguez.


Absent: Mr. Grynberg.

Mr. Aab presided.

Also attending the meeting were President McBride, Vice Presidents Mueller, Scott, and Welles, various staff members and a representative of the press.

Previous Minutes. The minutes of the meeting held on March 14, 1980 were approved as distributed.

Faculty Appointments and Changes. Dr. Mueller reviewed the faculty changes as follows:

R. Theodore Hurr
Adjunct Associate Professor of Geology
no compensation
(spring semester)

Joseph E. Davies
Professor of Physical Education & Athletics
Approved for transitional appointment for fall semester 1980-81

John D. Haun
Professor of Geology
Approved for transitional appointment for fall semester 1980-81.

Resignation:

Larry J. Buchanan, Geology, effective at the end of 1979-80 contract.

Faculty Promotions. President McBride presented to the Board as listed faculty promotions recommended by the Vice President for Academic Affairs and Dean of Faculty and approved by him. He indicated that he hoped that these promotions could be received by the Board and reported in the minutes without discussion in order to reserve for the faculty meeting on Wednesday, April 16 next, the premiere announcement, as has been customary. He indicated further that he was prepared to discuss any or all of the promotions in executive session if desired. The Board received the promotions without comment.
Distinguished Achievement Medal

L. B. Curtis
P.E. 1949

Albert C. Harding
E.M. 1937

D. G. Little II
Geol.E. 1950

Ghaith F. Pharaon
Class of 1963

Robert E. Thurmond
E.M. 1943

Upon motion made, seconded, and passed the Board voted unanimously to award the medals as listed above, subject to further decision should any of the awardees decline or be unable to attend.

The meeting adjourned for an executive session after which it reconvened and the following actions were taken.

Green Center Roof Litigation. Mr. Scott reported that Mr. Ed Felter, Assistant Attorney General, had been assigned to represent CSM in the litigation related to the reconstruction of the Green Center roof. Mr. Felter believes it will be necessary to spend additional sums for preparation of the case and has prepared and presented an estimate of $35,000 for expert witnesses, travel, and dispositions. This need may be reduced if a settlement is reached prior to trial.

Mr. Scott requested the approval of the Board to spend an amount not to exceed $35,000 in support of the litigation. Discussion followed.

It was moved that authorization be granted to expend a sum not to exceed $35,000 from local gift funds, in support of litigation related to the reconstruction of the roof of the Cecil and Ida Green Graduate and Professional Center with the condition that every provision be made for the repayment to the School of any funds so spent, along with funds previously advanced from the proceeds of any settlement or judgment awarded. The motion carried.

The Board took notice of its action of March 10, 1978 designating the School's unrestricted money on hand or to be received to meet cash flow requirements and found the use of the funds covered by the motion above to be appropriate.

Commencement Speaker. President McBride stated that Dr. Walter Orr Roberts, Director of the Program on Food, Climate, and the World's Future, Aspen Institute for Humanistic Studies, has accepted the Board's invitation to be the Commencement speaker this year.

Upon motion made, seconded, and passed, it was agreed that Dr. Roberts should be awarded the honorary degree, Doctor of Engineering, subject to his willingness to accept.
Admissions. The admissions report was distributed and it was noted that there is no substantial change in trends.

Resources Communication Center. Instead of a progress report, Dr. Golden showed the first video tape made by the Center. It was favorably received.

CSMRI Long-Range Plans. Dr. Herman Ponder, Director of the CSM Research Institute, entered the meeting and reviewed the growth and future space needs of the Institute. He said at present the Institute occupies 80,000 net sq. ft. of building space located on state land and part of the extended campus of the School. The decision now is whether in view of the School's increasing demands for space it is realistic for the Institute to plan on continuing to use this space and if so, for how long.

Dr. Ponder indicated that unless financing not presently foreseen can be secured, at the Institute's present rate of growth, it will have a continuing need for the state's space for a minimum of 10 years.

CSMRI Space Needs. To facilitate the Board's consideration of CSMRI long-range plans, Dean Golden had prepared for distribution a preliminary survey of CSM space needs for the next 10 years. These projections showed that the School will, at the end of the decade, require approximately 148,000 additional sq. ft. Recognizing that many variables influence this number, including rate of growth of Mines activities, availability of Stratton and Chauvenet, progress in the development of the Resource Fund, etc., it seemed clearly indicated that, again assuming Minesgrowth as projected by Dr. Golden, the School could well use some or all of the CSMRI space prior to the end of the 10-year period.

The reports from Drs. Ponder and Golden were taken as information items with no decision presently required.

Financing Board of Trustees Scholarships. Dean Nyikos reported on the status of funding for Board of Trustees Scholarships, saying that with the increased tuition contemplated for 1980-81 and assuming the current number of scholarship holders, there will be a shortfall of $90,000 for the coming academic year 1980-81, increasing to a shortfall of $330,000 for 1983-84.

Dean Nyikos stated that these scholarships are obviously extraordinarily valuable recruiting aids in that they attract the top high school students in the state. He asked and received continued support of the Board in maintaining the program at its present number of full tuition scholarships.

Medals. President McBride reported that, as directed by the Board, alumni who had been tentatively selected by the Board to receive medals had been contacted and invited to attend Commencement and receive medals as follows:

van Diest Gold Medal
Charles E. Chapin
Geol.E. 1954
D.Sc. 1965

March 14, 1980
significantly larger budget figure. President McBride and Mr. Scott pointed out that the figure for utilities expense in the JBC budget was inadequate and we would in the event of accepting such budget require the opportunity to come back for any justified utility supplement.

Although the Trustees expressed themselves as being hopeful that the general fund amount and the limitation on faculty salary increases could be raised, it was generally agreed that the JBC had moved a long way in the desired direction and that care must be taken in negotiating not to lose the gains that had been offered.

Mr. Pascoe's authorization to negotiate directly with the JBC was reaffirmed.

Faculty Appointments and Changes. Dr. Mueller reviewed recent changes in the faculty as follows:

Michel Dagbert
Adjunct Assistant Professor of Mining Engineering (spring semester)
$1,600

David E. Fletcher
Adjunct Professor of Mineral Economics (spring Semester)
1,500

Carolyn Lowery
Assistant to the Geology Department Head (February 1 through June 30, 1980)
1,200 per mo.

Thomas R. LaFehr
Adjunct Senior Lecturer in Geophysics (spring semester)
3,000

Guy H. Towle
Visiting Associate Professor of Geophysics (March 3, 1980 to May 10, 1980)
Salary to be based on $25,000 per nine-month year

A. W. Schlechten
Director, W. J. Kroll Institute for Extractive Metallurgy (September 1, 1980 through August 31, 1981)
$25,000

Resignation:

Thomas R. Bultman, Geology Department
Effective at end of this academic year.

Monthly Financial Reports. Mr. Scott made available monthly reports as follows: CSM Investment Summary, as of March 12, 1980; CSM Budget as of February 29, 1980; CERI Budget as of February 29, 1980; and a new report "Current Funds Comparison with Budget, 8-mos. ending February 29, 1980."

Mr. Scott said we are operating within the approved financial plan.

March 14, 1980
Golden, Colorado
March 14, 1980

The Board of Trustees met in regular session at 9:00 a.m. in the Board Room on March 14, 1980.


Absent: Mr. Aab.

Mr. Wilson presided.

Also attending the meeting were President McBride, Vice Presidents Scott, Mueller, and Welles, various staff members and a representative of the press.

Previous Minutes. The minutes of the meeting held on February 15, 1980 were approved as distributed.

Legislative Report. President McBride reported that because of the time element in dealing with the legislature in between Board meeting dates, Mr. Coors had asked Mr. Pascoe to assume responsibility for contacting members of the JBC on behalf of the School.

Mr. Pascoe reported his understanding that this past week the JBC had tentatively adopted certain policies relating to the Mines budget for the coming fiscal year: (1) CSM will receive the same general fund amount as for 1979-80, thus no increase; (2) total authorized expenditures will equal 1.15 times the corresponding 1979-80 figure; (3) we are to be restricted to 12 percent increase in faculty compensation; (4) the appropriation will show only two line items - resident instruction and instructional support; (5) a supplementary appropriation request will not be in order. Taking this information into account we are to come back to the JBC with the corresponding resident tuition figure; the nonresident tuition figure was not requested.

Mr. Scott presented for Trustee information and review a budget tabulation showing on a first sheet the Mines 1979-80 budget compared to the JBC staff recommendations for 1980-81, the latter differing in important respects from the proposals reported by Mr. Pascoe. (It was understood that Mr. Pascoe's information superseded the tabulated staff figures.) On a second sheet, the 1979-80 base budget was compared first with the 1980-81 budget reflecting the policies reported by Mr. Pascoe and second with a significantly larger budget substantially the same as that earlier reported to the Board for the first year of a hoped-for three-year phase-in financing program.

A general discussion ensued as to whether the Board should "accept" the 1980-81 JBC proposal with the modifications reported by Mr. Pascoe or should press for its own

March 14, 1980
I FURTHER CERTIFY that the following are the genuine signatures of the persons indicated:

<table>
<thead>
<tr>
<th>AUTHORIZED SIGNATURE</th>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guy T. McBride, Jr.</td>
<td>President, CSM</td>
</tr>
<tr>
<td>W. R. Coors</td>
<td>President, Board</td>
</tr>
<tr>
<td>Fred R. Schwartzberg</td>
<td>Vice President, Board</td>
</tr>
<tr>
<td>James C. Wilson</td>
<td>Secretary, Board</td>
</tr>
<tr>
<td>W. G. Scott</td>
<td>Treasurer, Board</td>
</tr>
</tbody>
</table>

IN WITNESS WHEREOF, I have set my hand as Secretary of Board of Trustees of the Colorado School of Mines this 15th day of February, 1980.

(SEAL)

James C. Wilson
Secretary

Depositor's I.D. Number: 6000551
Depositor's Account Number:

COLORADO SCHOOL OF MINES
Full Name of Organization:
Golden, Colorado 80401
Address:

CONTACT:
W. G. Scott
Name
279-0300 Ext. 2240
Phone Number
CERTIFICATE OF RESOLUTION

I HEREBY CERTIFY TO THE GOLDEN SAVINGS AND LOAN ASSOCIATION (Association) that at a meeting of the Board of Trustees of the Colorado School of Mines (Depositor) duly called (a quorum being present) and held prior to the date of this certification, the following resolutions were duly adopted and are now in full force and effect:

(1) RESOLVED, that the above Association be designated as a depository of Depositor and that the funds deposited in said Association be subject to withdrawal upon withdrawal certificates or other orders for the payment of money when signed by any two of the following persons:

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guy T. McBride, Jr.</td>
<td>President, CSM</td>
</tr>
<tr>
<td>W. K. Coors</td>
<td>President, Board of Trustees</td>
</tr>
<tr>
<td>Fred R. Schwartzberg</td>
<td>Vice President, &quot;</td>
</tr>
<tr>
<td>James C. Wilson</td>
<td>Secretary, &quot;</td>
</tr>
<tr>
<td>W. C. Scott</td>
<td>Treasurer, &quot;</td>
</tr>
</tbody>
</table>

That the above Association is hereby authorized to pay any such orders and also to receive checks, drafts, or funds in any other form for credit to the account upon endorsement in the same manner as described above.

(2) FURTHER RESOLVED, that the Association is authorized to accept a pledge of all or any part of any account of the Depositor as security for any loan made by the Association to the Depositor and executed by the Depositor above the signature of the parties indicated in (1) above. The Association is authorized to supply any endorsement for the Depositor on any check or other instrument tendered for any account of the Depositor and the Association is relieved of any liability in connection with the collection of such items which are handled by the Association without negligence and the Association shall not be liable for the acts of its agents, sub-agents or others, or for any casualty. Withdrawals may not be made on the Depositor's accounts of such items until collected, and any amount not collected may be charged back to the Depositor's accounts, including expenses incurred, and any other outside expense incurred on account of the depositors accounts may be charged to those accounts.

(3) FURTHER RESOLVED, that the Secretary of the Depositor be and hereby is authorized to certify to the Association, the foregoing resolutions and that the provisions thereof are in conformity with the powers of the Depositor and that the foregoing powers and authority will continue until proper written notice of revocation has been delivered to the Association.
President McBride called special attention to the portion of the letter which dealt with student access. It was noted that state aid for students comes to students, not to the institution, and is linked directly to need. Need is defined as the difference between costs and ability to pay. Mr. Stockmar reported he saw no problem with a loan program to help meet this need providing there is a guarantor and indicated that he is of the opinion that securing a guarantor(s) will not be a problem.

President McBride called attention to the date of February 19, at which time the letter will be mailed and he asked for Board members' suggestions before that date.

**Keystone Agenda.** President McBride distributed a preliminary agenda for the summer Keystone meeting. It met with general approval.

**Emeritus Status.** President McBride reported that two faculty members are retiring at the end of this academic year, Professor Jean P. Mather and Professor A. W. Schlechten. He stated both qualified for emeritus status and both he and Dr. Mueller recommended that the status be granted.

Upon motion made, seconded, and passed, Professors Mather and Schlechten were granted emeritus status upon their retirement, May 1980.

**Energy Field Institute.** President McBride asked for Board approval of a request made by the planners of the summer Energy Field Institute to be made to the CSM Foundation for a guarantee up to $50,000 until fund-raising efforts have been concluded.

Upon motion made, seconded, and passed approval was given for this request.

**Bank Resolution.** Mr. Scott presented a resolution for approval and signature by individual Board officers and President McBride. The resolution, copy attached, authorizes accounts with the Golden Savings and Loan Association.

Upon motion made, seconded, and passed, the resolution was approved and signatures affixed.

The Board adjourned for executive session after which the meeting reconvened and the following action was taken.

**ATO.** Mr. Scott reported that on January 11 a judge of the First District Court heard arguments by ATO and the Attorney General, both of whom asked for a new hearing to determine the amount of compensation to be received by ATO for the house CSM had taken by condemnation. The judge denied requests for new hearing. The option is to make a settlement of $207,648 or appeal the decision.

Upon motion made, seconded, and passed the Board voted unanimously in favor of an appeal.

The meeting adjourned at 12:15 p.m.

February 15, 1980

Secretary
Resignations:
Paul Bergardt, Physics, effective at the end of 1979-80 contract.
Willa Meylink, Physical Education and Athletics, effective at the end of 1979-80 contract

Monthly Financial Reports. Mr. Scott made available the monthly reports as follows: CSM Investment Summary as of February 13, 1980; Consolidated Board Report for period ending January 31, 1980; Budget Report as of January 31, 1980; and CERI Budget as of January 31, 1980. He also presented a Schedule of Estimated Cash Requirements as of February 8, 1980.

Mr. Scott distributed copies of the 1978-79 audit report. The audit opinion is qualified only with regard to plant asset value, which, Mr. Scott stated, is being developed as time permits. There will not be a Legislative Audit Committee hearing on this audit.

Resources Communication Center. Dr. Golden reviewed the progress of the two tapes being made under state contract. The first is completed and ready for the Review Committee and the team is in the field working on the second.

Admissions. Mr. Spaulding of the Admissions Office reviewed the status of admissions, saying that an addition has been made to the regular report—that of total women and ethnic minorities applied and accepted. The ethnic minority total has decreased in spite of a concerted effort to interest that group in CSM. Other than minorities, applications are substantially higher than at the same time in previous years.

Enrollment. Dr. Cheuvront reviewed the enrollment figures for the spring semester. He noted the increase in women students over previous years and also the increase in non-degree students. Attention was called to the fact that the FTE-to-headcount ratio has dropped. Dr. Cheuvront stated this is due both to increase in non-degree students and to the fact that there has been a decline in hours carried by many individual students. He said that for the first time the average of hours carried is below 15. He stated this decline in credit load appears to be statewide, and perhaps nationwide.

Sabbatical Leave, Professor David Olson. Professor Olson gave a report on the sabbatical leave which he had taken during the fall semester. Professor Olson visited the Norwegian Institute of Technology for work in welding research.

Legislative Relations - Status Report and CCHE Letter. President McBride had caused to be prepared a letter to the director of CCHE in response to questions posed by him regarding our financing proposal. Copies of the letter to Dr. Kerschner, in draft form, were distributed to the Board for suggestions and approval. Mr. Scott emphasized that the proposed base for resident FTE support is the entire 1979-80 general fund appropriation to CSM, including capital outlay and central pots but excluding financial aid, capital construction and controlled maintenance.

February 15, 1980
Golden, Colorado
February 15, 1980

In substitution of the regular meeting, the Board of Trustees met on February 15, 1980 at 9:00 a.m., following a presentation by Dr. Phillip Romig, Acting Head of the Geophysics Department.


Mr. Stockmar presided.

Also attending the meeting were President McBride, Vice President Scott, various staff members and a representative of the press.

Previous Minutes. The minutes of the meeting held on January 11, 1980 were approved as distributed.

Faculty Appointments and Changes. In the absence of Dr. Mueller, Dr. Golden reviewed changes in faculty status as follows:

Bradford Boisen  
Adjunct Associate Professor of Mining Engineering (spring semester)  
$1,600

Eric D. Freeman  
Advisory Scientist, Geophysics Department  
(no compensation)  
(January 10, 1980 to May 9, 1980)

Richard C. Walker  
Adjunct Assistant Professor of Mathematics  
(spring semester)  
2,000

Larry E. Wells  
Adjunct Assistant Professor of Petroleum Engineering (spring semester)  
2,000

Alan L. Liby  
Adjunct Assistant Professor of Metallurgical Engineering (spring semester)  
2,100

John D. Wright  
Adjunct Assistant Professor of Petroleum Engineering (spring semester)  
6,000

James M. Riddle  
Leave without pay for period January 10, 1980 through January 9, 1981

C. Samuel Miller  
Leave without pay for the 1980-81 academic year

February 15, 1980
The failure to supply any specimen signature shall not invalidate any transaction if the transaction is in accordance with authority actually granted.

FIFTH: That in the event of any change in the office or powers of persons hereby empowered, the Secretary shall certify such changes to the Brokers in writing in the manner hereinafter provided, which notification, when received, shall be adequate both to terminate the powers of the persons theretofore authorized.

SIXTH: That the foregoing resolutions and the certificates actually furnished to the Brokers by the Secretary of the Corporation pursuant thereto, be and they hereby are made irrevocable until written notice of the revocation thereof shall have been received by the Brokers.
CERTIFIED COPY OF CERTAIN RESOLUTIONS ADOPTED BY THE BOARD OF DIRECTORS WHEREBY THE ESTABLISHMENT AND MAINTENANCE OF SECURITY CASH ACCOUNTS HAVE BEEN AUTHORIZED

RESOLVED —

FIRST: That the President or any Vice-President of this Corporation, or Secretary or Treasurer be and they hereby are, and each of them hereby is, authorized and empowered, for and on behalf of this Corporation (herein called the "Corporation"), to establish and maintain one or more accounts, with William Blair & Company (herein called the "Brokers") for the purpose of purchasing, investing in, or otherwise acquiring, selling, possessing, transferring, exchanging, or otherwise disposing of, or turning to account of, or realizing upon, and generally dealing in and with any and all forms of securities including, but not by way of limitation, shares, stocks, bonds, debentures, notes, scrip, participation certificates, rights to subscribe, option warrants, certificates of deposit, mortgages, choses in action, evidences of indebtedness, commercial paper, certificates of indebtedness and certificates of interest of any and every kind and nature whatsoever, secured or unsecured, whether represented by trust, participating and/or other certificates or otherwise; but such authorization shall not include the opening of marginal accounts or the making of short sales.

The fullest authority at all times with respect to any such commitment or with respect to any transaction deemed by any of the said officers and/or agents to be proper in connection therewith is hereby conferred, including authority (without limiting the generality of the foregoing) to give written or oral instructions to the Brokers with respect to said transactions; to bind and obligate the Corporation to and for the carrying out of any contract, arrangement, or transaction, which shall be entered into by any such officer and/or agent for and on behalf of the Corporation with or through the Brokers; to pay in cash or by checks and/or drafts drawn upon the funds of the Corporation such sums as may be necessary in connection with any of the said accounts; to deliver securities to, and deposit funds with, the Brokers; to order the transfer or delivery of securities to any other person whatsoever, and/or to order the transfer of record of any securities to any name selected by any of the said officers or agents; to affix the corporate seal to any documents or agreements, or otherwise; to endorse any securities in order to pass title thereto; to direct the sale or exercise of any rights with respect to any securities; to sign for the Corporation all releases, powers of attorney and/or other documents in connection with any such account, and to agree to any terms or conditions to control any such account; to direct the Brokers to surrender any securities to the proper agent or party for the purpose of effecting any exchange or conversion, or for the purpose of deposit with any protective or similar committee, or otherwise; to accept delivery of any securities; to appoint any other person or persons to do any and all things which any of the said officers and/or agents is hereby empowered to do, and generally to do and take all action necessary in connection with the account, or considered desirable by such officer and/or agent with respect thereto.

SECOND: That the Brokers may deal with any and all of the persons directly or indirectly by the foregoing resolution empowered, as though they were dealing with the Corporation directly.

THIRD: That the Secretary of the Corporation be and he hereby is authorized, empowered and directed to certify, under the seal of the Corporation, or otherwise, to the Brokers:

(a) a true copy of these resolutions;

(b) specimen signatures of each and every person by these resolutions empowered;

(c) a certificate (which, if required by the Brokers, shall be supported by an opinion of the general counsel of the Corporation, or other counsel satisfactory to the Brokers) that the Corporation is duly organized and existing, that its charter empowers it to transact the business by these resolutions defined, and that no limitation has been imposed upon such powers by the By-Laws or otherwise.

FOURTH: That the Brokers may rely upon any certification given in accordance with these resolutions, as continuing fully effective unless and until the Brokers shall receive due written notice of a change in or the rescission of the authority so evidenced, and the dispatch or receipt of any other form of notice shall not constitute a waiver of this provision, nor shall the fact that any person hereby empowered ceases to be an officer of the Corporation or becomes an officer under some other title, in any way affects the powers hereby conferred.
CERTIFIED COPY OF ORGANIZATION RESOLUTION
AUTHORIZING Master Account Numbers and Telephone Transfer of Funds

COLOrado SCHOOL OF MINES
Name of Organization

Golden, CO 80401
Address

Hereby applies for a savings account in Columbias Savings and Loan Association and for the issuance of evidence thereof. Specimens of the signatures of those authorized to make withdrawals from said account and to act in connection therewith are indicated below, and you are authorized to act upon the request of said organization bearing any _one_ of such signatures, including, but without limiting the generality of the foregoing, the pledging of this account in whole or in part as security for any loan made by you to said organization and secured by said account, until you receive written notice of the authorization of others to sign for it together with specimen signatures of such persons or persons. You are authorized to supply any endorsement for the organization on any check or other instrument tendered for this account and you are hereby relieved of any liability in connection with collection of such items which are handled by you without negligence, and you shall not be liable for the acts of your agents, sub-agents or others for any casualty. Withdrawals may not be made on account of such items until collected, and any amount not collected may be charged back to this account, including expense incurred, and any other outside expense incurred on account of this account may be charged to it.

RESOLVED, That the funds of the undersigned be and the same are hereby authorized to be added to or paid into a savings account in

COLUMBIA SAVINGS AND LOAN ASSOCIATION

and that said institution be and it is hereby authorized to pay withdrawals until further written notice is signed in the name of this organization as indicated below by any _one_ of persons or persons, whose signatures appear below. Said institution further is authorized to accept a pledge of all or any part of said account as security for any loan made by it to said organization and executed in its name by the signatory parties indicated in the preceding sentence. Said institution is authorized to supply any endorsement for the undersigned on any check or other instrument tendered for this account and it is hereby relieved of any liability in connection with collection of such items which are handled by it without negligence and it shall not be liable for the acts of its agents, sub-agents or others for any casualty. Withdrawals may not be made on account of such items until collected, and any amount not collected may be charged back to the account, including expense incurred, and any other outside expense incurred on account of this account may be charged to it.

Undersigned authorizes and directs Columbia Savings and Loan Association, as agent, to initiate Transmatic checks or transfers payable to Columbia Savings for amounts, from time to time agreed upon between Columbia Savings and Undersigned, to be charged against Undersigned's bank demand account. Rights of Bank shall be the same as if these transfers were checks personally executed by Undersigned. On request of Undersigned, Columbia Savings is authorized to transfer funds from savings institution to Undersigned's bank demand account. This agency authorization remains in effect until revoked in writing by Undersigned or Columbia Savings.

Responsibility for further transfer from Undersigned's bank demand account of funds originally transferred to it from Undersigned's savings institution shall not be that of Columbia Savings.

Undersigned's current bank demand account is identified by attached deposit slip or blank check marked "VOID". Columbia ID #: 84-0175025

COLOrado SCHOOL OF MINES
Name of Organization

By

W. K. Coors
President
By

Fred R. Schwartzberg
Vice President

Authorized Signature

James C. Wilson
Secretary

Authorized Signature

W. G. Scott
Treasurer

Authorized Signature

I certify that I am duly elected and acting secretary of the above-named organization, and that the foregoing is a true and correct copy of a resolution adopted by said organization at a regular or special meeting at which a quorum was present, and that said organization is authorized to take such action, and that the signatures above are the true signatures of the persons authorized to sign as indicated in connection with said account.

This the 11th day of January 1980

Signature

James C. Wilson
Secretary

(Corporate Seal)
The meeting recessed for executive session after which it reconvened and the following action was taken.

Proposal for Financing CSM. Upon motion made, seconded, and passed the Board approved a document prepared by the administration proposing new ways to finance the Colorado School of Mines.

The meeting adjourned at 11:45 a.m.

[Signature]
Secretary
Mr. Scott asked the Board to accept the assignment from the CSM Building Corporation of all rights, title, and interest in the matters incident to the building.

Upon motion made, seconded, and passed, the assignment was approved.

It was further moved, seconded, and passed that the Board authorize and direct the administration to make payment of any expenses incurred and coming due from this building project and to reimburse the Colorado School of Mines Building Corporation for its incurred expenses to date from this building project upon receipt of documentation evidencing payment.

Faculty Evaluation Procedures. Dr. Mueller reviewed the procedure which has been in effect, which conforms to the Faculty Handbook specifications. Each year each faculty member completes a data sheet showing his activities for previous year which affect his performance as a faculty member. These sheets are reviewed first by department heads and then by the Academic Vice President, and finally by the President. Factors as outlined in the Faculty Handbook are considered for salary adjustments and promotions.

Mr. Schwartzberg suggested, and other members agreed, that perhaps the entire evaluation procedure should be formalized, using a specific format to appraise each employee. It was suggested that the administration review the present procedure with a view towards making the evaluation more structured and formal, perhaps consulting with persons outside the School who are involved with the more formal type of personnel review. It was further suggested that the matter then be returned to the Board for further discussion.

Bank Resolutions. Mr. Scott presented two resolutions for Board approval. One resolution authorizes the School to use the services of William Blair & Company as securities brokers and the other a master authorization for accounts with Columbia Savings and Loan. Copies of the resolutions are attached to these minutes.

Upon motion made, seconded, and passed, the resolutions were approved.

Silver Diplomas. Mr. Scott reported that due to earlier than anticipated retirements in the Instrument Shop it will be necessary to change our usual practice with regard to silver diplomas. Previously all candidates for professional and graduate degrees had silver diplomas made up for presentation on the scheduled dates. These dates were often changed due to uncompleted work. The diplomas then had to be scrapped. With the reduced staff in the Instrument Shop and the volatile price of silver, it is now being proposed that the 50-year diplomas be prepared as usual before the ceremonies, and that parchment diplomas be prepared for presentation to those receiving graduate and professional degrees. Following Commencement, silver diplomas will be prepared and mailed to all those eligible. Graduation fees will remain unchanged this year.

The Board approved this procedure.

January 11, 1980
and in progress, i.e. monitoring the supply of gasoline at the pump, impact of energy development on the State, and several other projects of unique value to the State. He stated that CERI works closely with CSM, the University of Colorado, and the University of Northern Colorado to fund research planning money and the writing of proposals for research grants. He said this program has been very successful.

Mr. Robbins further reported that under the scholarship program 100 undergraduate awards are made each year to top engineering and science students for which competition is keen, 500 applications for 100 awards.

The separate fellowship program is set up to provide financial assistance for persons who have worked at least three years and who wish to pursue graduate degrees in energy-related fields.

Another program which has been attractive to many is the incentive program to bring fresh ideas into the energy picture. CERI offers honoraria to persons bringing original and promising ideas into the energy-related fields.

The Board thanked Mr. Robbins and his staff for the presentation.

Previous Minutes. With a quorum now present, the minutes of the meeting for December 14, 1979 were approved.

Cooperative Education. Chairman Schwartzberg returned to the agenda item on cooperative education.

It was moved, seconded, and passed that the recommendation made by the administration to grant credit for cooperative education as discussed earlier in meeting be approved.

Enrollment. Mr. Schwartzberg called upon Dr. Mueller for a report on the enrollment for second semester. Dr. Mueller reported that for second semester there are 2305 registered and the expectation is that there will be 2600. Budgeted figure is 2594.

Change in February Meeting Date. Dr. Fogarty had asked that the date of the February meeting be changed to February 15.

Upon motion made, seconded, and passed the change in date was approved.

Acceptance of Contracts and Financial Obligations Related to BMT Building Project. Mr. Scott reviewed the background of the plans for building a "dirty" research structure, stating that the original concept had been to have the CSM Building Corporation undertake this as it had done with the USGS building. The U.S. government rules had then changed and that concept no longer was feasible and had been abandoned. Now the School wishes to move back into the situation and build a structure, paying for it out of research development funds.

January 11, 1980
School had offered to terminate the project and return the funds. The legislative leaders present at the meeting wanted the project continued.

Dr. Golden introduced Mr. Rubin, who gave a report on the progress of the first two tapes, which will be ready at the end of February. The first one to be completed will deal with Colorado's carrying capacity for energy resources development, and the second one will be specifically on oil shale. Mr. Rubin said the first one is documentary and the off-screen voice will be his unless there are suggestions to have another voice used. Mr. Rubin said the second tape is not far enough along to have that decision made. He said he is working closely with members of the faculty, especially Dr. Woolsey and Dr. Gary and that he is pleased with the progress.

Admissions. Mr. Young had made available the latest admissions report and stated that applications, over last year, have increased 33 percent and are about evenly divided between resident and nonresident. In reply to a question, he stated that in this and prior years all qualified resident students have been admitted, some perhaps for second semester if the application was late. He said this may change, however, at the rate applications and acceptances are being processed.

Cooperative Education. Dean Nyikos addressed this subject and introduced Mr. Gregory Staff, who is in charge of the cooperative program. Dean Nyikos gave a brief history of the program and distributed copies of an evaluation of the program by the Dean of the University of the Pacific, who has served as a consultant.

As of December, there were 75 students in the program, 55 in classes and 20 expected to begin work experience portion during the second semester. The goal is 150 students participating in the program. Mr. Staff said there has been good cooperation and acceptance from our faculty and all qualified students have been placed in work experience positions.

Dean Nyikos stated that he wished to direct attention to the financial aspects on the horizon in that we are into the third year of a five-year grant from HDW and financial responsibility will soon be shifted to the School. The members of the Board recognized this pending change in the financial responsibility.

With regard to the program in general, Dr. Mueller and Dean Nyikos concurred that the effort has been successful. As a normal development, the administration recommends at this time that the Board approve the granting of credit up to three semester hours for each six months of full-time option-related employment or the equivalent, with certain conditions as outlined in Dr. Mueller's memo of January 4, 1980.

Action was deferred pending the presence of a quorum.

CERI. Mr. Robbins reported on the activities of the agency, stating he was satisfied that the purposes and goals are being achieved. He reviewed some of the projects completed

January 11, 1980
Golden, Colorado
January 11, 1980

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

Present: Messrs. Aab, Pascoe, Schwartzberg, and Wilson. Mr. Grynberg joined the meeting during the discussion on CERI.

Absent: Messrs. Coors, Fogarty, and Stockmar.

Mr. Schwartzberg presided.

Also attending the meeting were Vice Presidents Mueller, Scott, and Welles, various staff members and a representative of the press. President McBride was unable to be present because of jury duty.

New Faculty Appointments and Changes. Dr. Mueller reviewed the faculty appointments and changes as follows:

Thomas D. Riley
Visiting Assistant Professor of Humanities & Social Sciences
(spring semester) $7,750

Karen B. Wiley
Instructor in Humanities & Social Sciences (spring semester) 7,500

A. Keith Turner
Appointment changed to joint appointment as Associate Professor of Geology and in Computing Center no change

David L. Butler
Leave without pay for spring semester

Monthly Financial Reports. Mr. Scott made available copies of the monthly reports as follows: Investment Summary, January 8, 1980; CSM Budget Report as of December 31, 1979; CERI Budget Report as of December 31, 1979; and Consolidated Board Report for six months ended December 31, 1979. Mr. Scott stated we are operating within the accepted financial plan for the 1979 fiscal year.

Mr. Scott reported that a supplemental appropriation request for utilities in the amount of $230,000 has been made.

Resources Communication Center. Dr. Golden reported that Dr. Burke resigned as Director on December 14, 1979 and that Mr. Bob Rubin, who had been serving as Assistant Director, has taken his place. After Dr. Burke's resignation, a meeting was held with leaders of the legislature, at which time the