

## MEETINGS

REPORTS ON RECENT MEETINGS

Atlantic and Maine University Geological Conference, Acadia University, Wolfville, N.S., November 5-6, 1971.

Professional Day - Friday, November 5, 1971

Photographic Techniques for Use in the Field - J. Wilson (Wilson's Studio).  
 Stratigraphy of the Nova Scotia Offshore - N.L. McIver, Shell Canada Ltd.  
 The Work of the Geological Survey of Canada - Wm. Poole, Head, Appalachian Tectonics, Geological Survey of Canada.  
 Involvement of the G.S.C. in Offshore Exploration in the Atlantic Region - B.V. Sanford, Head of Eastern Division, Geological Survey of Canada.  
 Geology of Brunswick 12 - D. Rutledge, Brunswick Mining and Smelting Co. Ltd. (Noranda).  
 Discussion on a film - S.N. Charteris, Falconbridge Nickel Mines Ltd.  
 Movement Parameters in Lavas - G.R. Stevens, Head, Geology Department, Acadia University.

Student Speakers - Saturday, November 5, 1971

Gravitational Slump Structure in New Brunswick - C. McLeod, Gletcher Geology Club, Acadia University.  
 Geochemical Exploration in Permafrost - B. Lucas, Gesner Geology Club, Mount Allison University.  
 National Geoscience Index - M. Kennedy, Faribault Geology Club, Saint Francis Xavier University.  
 Lock Lomond Celestite Deposit - H. Wood, Dawson Geology Club, Dalhousie University.  
 Health Hazards Related to Trace Element Concentrations in Bedrock - P. Dean - Alexander Murray Geology Club, Memorial University of Newfoundland.  
 The Geology of the Carbon, Ferrous Volcanic Rocks in the Harvey Area, UNB - P. Tremblay, Bailey Geological Society, University of New Brunswick.

Canadian Seminar on Icebergs, Maritime Command Headquarters, Halifax, N.S., December 6-7, 1971.

Monday, December 6, 1971

The Iceberg Problem - T.A. Harwood, Defence Research Establishment, Ottawa, Ontario.  
 Morphology and Geology of the Labrador Shelf - A.C. Grant, Atlantic Geosciences Centre, Department of Energy, Mines and Resources, Bedford Institute, Dartmouth, N.S.  
 Circulation of the Waters Along the Labrador Coast - J. Lazier, Physical Oceanography Group, Department of the Environment, Bedford Institute, Dartmouth, N.S.  
 Description of Offshore Oil Exploration and Oil Production Equipment - J.D. Clinton, Resource Management and Conservation Branch, Department of Energy, Mines and Resources, Bedford Institute, Dartmouth, N.S.  
 A Review of U.S. Coast Guard Published Data on Icebergs in the North Atlantic - W.B. Bailey, Staff Officer Oceanography, Maritime Command, Halifax, N.S.  
 Side Scan Sonar Surveys and Ice Scouring in the Beaufort Sea - B.R. Pelletier, Atlantic Geosciences Centre, Department of Energy, Mines and Resources, Bedford Institute, Dartmouth, N.S.  
 An Overview of Methods of Iceberg Tracking - T. Harwood, Defence Research Establishment, Ottawa, Ontario.  
 The Flow of Icebergs down Canada's East Coast - C. Anderson, Atlantic Weather Central, Department of the Environment, Halifax, N.S.  
 Iceberg Tracking off the Labrador Coast 1970-1971 - D.A. Grant, Operational Research Branch, Maritime Command, Halifax, N.S.  
 Iceberg Tracking from an Oil Exploration Platform in Labrador Waters - J. Duval, Eastcan Exploration Ltd., Calgary, Alberta.  
 The Eastcoast Petroleum Operators Association, Review of Iceberg Towing and Iceberg Drift Problems - B.F. Abernathy, Chairman E.P.O.A., AMOCO Oil Ltd., Calgary, Alberta.

Tuesday, December 7, 1971

Introduction to the Memorial University Program on Icebergs - A.A. Bruneau, Dean of the Faculty of Engineering and Applied Science, Memorial University, St. John's, Newfoundland.  
 An Analysis of the Effects of Bottom Scouring Icebergs - J. Allen, Memorial University, St. John's, Newfoundland.  
 Biological and Geological Features in the Iceberg Environment - R. Hooper and R. Slatt, Memorial University, St. John's, Newfoundland.  
 Underwater Acoustics and Measurement Techniques in the Vicinity of Icebergs - R. Peters, Memorial University, St. John's, Newfoundland.

- Iceberg Features, Motions and Towing Problems - A. Bruneau and R. Dempster, Memorial University, St. John's, Newfoundland.
- Iceberg Studies in the Glaciology Subdivision, Department of the Environment - O.H. Løken, Glaciology Subdivision, Inland Waters Branch, Department of the Environment, Ottawa, Ontario.
- Simulation Techniques in the Prediction of Ice Movement - O. Cochkanoff, J.W. Graham and J.L. Warner, Nova Scotia Technical College, Halifax, N.S.
- Wind Forces on Icebergs - E. Banke and S.D. Smith, Air-Sea Interaction Group, Department of the Environment, Bedford Institute, Dartmouth, N.S.
- An Experiment on Radar Detection of Icebergs - N. Fothergill, Defence Research Analysis Establishment, Ottawa, Ontario.

Conference/Workshop on Ocean Manganese Deposits, Harriman, New York, January 20-21, 1972.

Thursday, January 20, 1972

- The Manganese Nodule Industry: A First Approximation - H.D. Drechsler, Henry Krumb School of Mines, Columbia University, New York, N.Y.
- Distribution of Ferromanganese Deposits in the World Ocean - D.R. Horn, M. Ewing, B.M. Horn, M.N. Delach, Lamont-Doherty Geological Observatory of Columbia University, Palisades, N.Y.
- Regional Geochemistry of Ferromanganese Nodules in the World Ocean - D.S. Cronan, Department of Geology, University of Ottawa, Ottawa, Ontario.
- Physical and Chemical Features of Pacific Deep Sea Manganese Nodules and their Implications to the Genesis of Nodules - W. Raab, Kennecott Exploration, Inc., Salt Lake City, Utah.
- Nucleation and Mineralogical Controls on the Composition of Manganese Nodules - R.G. Burns, and B.A. Brown, Department of Earth and Planetary Sciences, Massachusetts Institute of Technology, Cambridge, Mass.
- The Role of Microbes in Manganese Nodule Genesis and Degradation - H.L. Ehrlich, Department of Biology, Rensselaer Polytechnic Institute, Troy, N.Y.
- Particulate Manganese in the Black Sea - P.G. Brewer, Woods Hole Oceanographic Institution, Woods Hole, Mass.
- Mechanisms of Removal of Manganese and other Trace Metals from the Oceans - M. Bender, Lamont Doherty Geological Observatory, Palisades, N.Y.
- Pleistocene Manganese Pavement Production: Its Relationship to Origin of Manganese in the Indian Ocean and the Tasman Sea - J.R. Conolly and R.R. Payne, Department of Geology, University of South Carolina, Columbia, S.C.
- The Geochemistry of Manganese Nodules from the Northwest Indian Ocean - G.P. Glasby, New Zealand Oceanographic Institute, Wellington, New Zealand.
- Composition and Origin of Manganese-iron Nodules and Pavements on the Blake Plateau - F.T. Manheim, U.S. Geological Survey, c/o Woods Hole Oceanographic Institution, Woods Hole, Mass.
- Chemical Forms of Iron in Seawater - D.R. Kester, Graduate School of Oceanography, University of Rhode Island, Kingston, R.I.
- Beryllium-10 Dating of Manganese Nodules - S. Krishnaswamy, B. Somayajulu, Tata Institute of Fundamental Research, Bombay, India and W.S. Moore, U.S. Naval Oceanographic Office, Ocean Floor Analysis Division, Chesapeake Beach, Maryland.
- Rare-earth Elements in Manganese Nodules: The Relationship of their Distribution Pattern to the Mineralogy of Manganese - D. Piper, Department of Oceanography, University of Washington, Seattle, Wash.
- Manganese Accretion at the Sediment Water Interface in 400 to 2400 m Depths, Hawaiian Archipelago - M. Morgenstein, Department of Geology and Geophysics, Hawaii Institute of Geophysics, University of Hawaii, Honolulu.
- Preliminary Report on the Processing of Manganese Pavement from the San Pablo Seamount - M.A.K. Grice and H.A. Hancock, Department of Mining & Metallurgical Engineering, Nova Scotia Technical College, Halifax, N.S.
- Deep Ocean Minerals and Mining - B.G. Stechler, Oceans Unlimited International Corporation, New York, N.Y. and J.T. Nicholas, University of Bridgeport, Department of Geology, Bridgeport, Conn.
- Iron-Manganese-Barium Deposits from the Afar Rift (Ethiopia) - E. Bonatti, D.E. Fisher, O. Joensuu, and H.S. Rydell, School of Marine and Atmospheric Science, University of Miami, Miami, Fla.

Friday, January 21, 1972

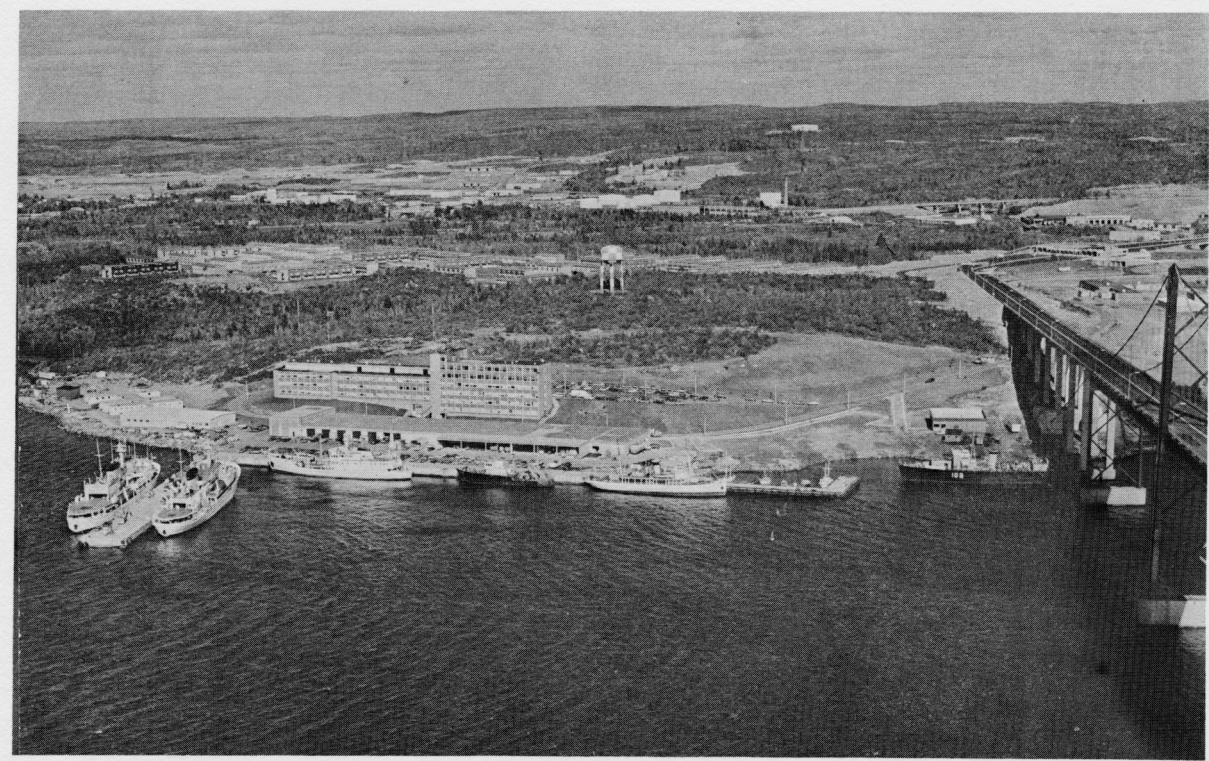
- Internal Structure of Manganese Nodules and Implications in Beneficiations - R.K. Sorem, Department of Geology, Washington State University, Pullman, Wash.
- International Legal Aspects Concerning Exploitation of Manganese Nodules - M.H. Nordquist, Office of the Assistant Legal Adviser for Ocean Affairs, Department of State, Washington, D.C.
- Potential Economic Value of Ocean-floor Manganese Nodule Deposits - J.L. Mero, Ocean Resources, Inc., La Jolla, Calif.
- Environmental and Technological Considerations in the Exploration and Exploitation of Manganese Nodules - M.J. Cruickshank, National Oceanic and Atmospheric Administration, Marine Minerals Technology Center, Tiburon, Calif.

- Chemical Mapping of the Ocean Floor: A Rapid Analytical System Integrated with an Operational Computerized Data Bank - J. Greenslate, R.W. Fitzgerald, J.Z. Frazer and G. Arrhenius, Scripps Institution of Oceanography, University of California, La Jolla, Calif.
- Fine-scale Survey Technology - F.N. Spiess, University of California, San Diego, Marine Physical Laboratory of the Scripps Institution of Oceanography, San Diego, Calif.
- Near Bottom Observations on the Detailed Topography of an Area of Abyssal Hills in a Manganese Nodule Province - J.D. Mudie and J.A. Grow, Scripps Institution of Oceanography, La Jolla, Calif.
- Deep Ocean Nodule Mining Systems Analysis and Technological and Economic Forecast - C. Ralph, International Research & Technology Corporation, Washington, D.C.
- Patterns of Manganese Pavement Distribution on the Blake Plateau - W.L. Brundage, Naval Research Laboratory, Washington, D.C.
- Inspection of Manganese Deposits in Deep Water - R.B. Patterson, Naval Research Laboratory, Washington, D.C.
- Variability of Pacific Ocean Manganese Nodule Deposits - R. Kaufman and W.D. Siapno, Deepsea Ventures, Inc., Gloucester Point, Va.
- Effects of Surface-discharged Deep-sea Mining Effluent - A.F. Amos, C. Garside, K.C. Haines and O.A. Roels, Lamont-Doherty Geological Observatory, Columbia University, Palisades, N.Y.
- The Seabed Assessment Program in the International Decade of Ocean Exploration, National Science Foundation - E.M. Davin, National Science Foundation, Office for the International Decade of Ocean Exploration, Washington, D.C.

The late afternoon and evening of January 21 and the morning of January 22 were devoted to workshops. This meeting was held under the auspices of the Lamont-Doherty Geological Observatory of Columbia University, Palisades, New York. Visitors were greeted by Dr. Maurice Ewing and the proceedings were under the chairmanship of Dr. David Horn.

24th International Geological Congress, Montreal, Quebec, Canada, August - September, 1972.

Another circular has been prepared indicating the sessional days. Exhibitions and field trips are being finalized and visitors to the Atlantic Provinces have an opportunity to tour the facilities of the Bedford Institute shown below.



The Bedford Institute is a federally operated oceanographic laboratory situated on the north shore of the Bedford Basin, Dartmouth, Nova Scotia. Its main elements consist of the Marine Ecology Laboratory, the Atlantic Oceanographic Laboratory, the Atlantic Geoscience Centre, and the Resource Management and Conservation Branch (building nearest the bridge) housing the Eastern Petroleum Geology Section (Geological Survey of Canada) and the offshore drill cores obtained by industry. Main depot building and part of the fleet is seen in foreground. (AOL Negative No. 1776-4).