“THE DEVELOPMENT OF GEOTHERMAL RESOURCES HAS ARRIVED AT THE UNFORTUNATE TIME IN HISTORY WHEN EVERYONE KNOWS EVERYTHING ABOUT EVERYTHING.”

-anonymous

SOCIETY OF PETROLEUM ENGINEERS OF AIME

The annual California Regional Meeting will be held in the Bakersfield Civic Auditorium, November 9 and 10, 1972. A session on Geothermal Energy will be given on Thursday morning, November 9.

Session Program
Geothermal Energy
November 9, 9:00 - 11:30 a.m.

Chairmen:
W. M. House
Signal Oil & Gas Company
Long Beach, California

W. R. Brigham
Stanford University
Stanford, California

Introduction to Geothermal Energy
Ben E. Bayliss, Lloyd Corp.,
Beverly Hills, California

Development and Utilization of Geothermal Energy
James B. Koenig, California Division of Mines and Geology, Sacramento, California

Geothermal Development in California
David N. Anderson, Geothermal Operations, California Division of Oil and Gas, Sacramento, California

Drilling for Geothermal Steam
Donald G. Davis, Big Chief Drilling Company, Oklahoma City, Oklahoma; and
John Cronling, Big Chief Drilling Company, Santa Rosa, California

Producing Geothermal Steam at The Geysers Field
C. F. Budd, Jr., Union Oil Company of California, Santa Rosa, California

AMERICAN PHYSICS SOCIETY
FLUID DYNAMICS DIVISION

As part of their annual meeting, this Division will conduct a special session on Geothermal Phenomena. This session will be held Tuesday afternoon, November 21, in the University Memorial Center at the University of Colorado, Boulder, Colorado. The fluid mechanics of geothermal basins will be emphasized. For information contact:

Professor D. R. Kassoy
Mechanical Engineering Department
University of Colorado
Boulder, Colorado

ADVERTISING IN GEOTHERMICS

Promotion Consultants, Inc. is the advertising representative for Geothermics - International Journal of Geothermal Research. For information contact:

Ms. Anita Buyers
Promotion Consultants, Inc.
395 Saw Mill River Road
Elmsford, New York 10523
The annual international meeting of the Society will be held at the Anaheim Convention Center in Anaheim, California, from November 26 to November 30, 1972. Two geothermal symposia will be held, each on the morning of Thursday, November 30. The featured speaker at the Geothermal Symposium on Thursday will be Joseph Barnes, director of the United Nations Division of Natural Resources and Transport, for information contact Norman Jokert, Standard Oil Company of California, P. O. Box 3862 San Francisco, California 94119.

Thursday, November 30
Garden Grove Room, 8:15 p.m.
Session Chairmen: Mr. Robert Greider, Standard Oil Company of California, Western Operations, and Dr. Tosi Miday, United Nations Resources and Transport Division
Review of Geotechnical Techniques in Geothermal Exploration J. D. Fournier* and D. E. White*, U. S. Geological Survey
Assessment of Electrical Resistivity in Geothermal Exploration T. Miday and J. Bonnell, United Nations, Resources & Transport Division
Dipole Mapping Surveys G. Keller, Colorado School of Mines
Geophysical Methods in Geothermal Exploration N. Harthill, Group Seven, Golden, Colorado
Thursday, November 30
Garden Grove Room, 2:00 p.m.
Session Chairmen: Mr. John Bonnell, United Nations, Resources and Transportation Division Prof. George Keller, Colorado School of Mines
Spectral Variability in Seismic Noise Measurements and Implications for Geothermal Exploration R. S. Cronson*, University of Washington I. R. Mager, Geological Survey of Canada

SOCIETY OF EXPLORATION GEOPHYSICISTS

The National Foundation has granted $145,000 for "Geological-Geophysical-Geoelectrical Investigations of a Recognized Geothermal Area in the Imperial Valley of Southern California." Faculty members Wilford Elders (co-director), James Coniba, and Tyler Coplen will apply this grant to the study of the Dunes anomalous. Extensive geological and geophysical information will be extracted from the cores of the 2,007-foot deep well, a part of the Department of Water Resources (DWR) project (DWR well number V-2, No. 4). This grant, which is under the RANN program, will run from October 1, 1972 until March 31, 1974.

UNIVERSITY OF CALIFORNIA, RIVERSIDE
GEOSCIENCE DEPARTMENT

The Society of Exploration Geophysicists, a branch of the French Bureau of Mines and Geology (BRGM), under the direction of M. J. Lavergne, has become an integral part of the world. Temperature surveys and other geophysical methods are being used for geothermal exploration in the Apar and Casa Territoriales (formerly French Somaliland), Vait (New Hebrides), and the Reunion Islands. The French Government is negotiating with several Australian and French mining companies to develop geothermal resources for the processing of the New Hebrides metal ores. The important nickel mining operation in New Caledonia operated by Kaiser Aluminum is expected to benefit from this geothermal development.

FRENCH GOVERNMENT

The Service Geothermitique, a branch of the French Bureau of Mines and Geology (BRGM), under the direction of M. J. Lavergne, has become an integral part of the world. Temperature surveys and other geophysical methods are being used for geothermal exploration in the Apar and Casa Territoriales (formerly French Somaliland), Vait (New Hebrides), and the Reunion Islands. The French Government is negotiating with several Australian and French mining companies to develop geothermal resources for the processing of the New Hebrides metal ores. The important nickel mining operation in New Caledonia operated by Kaiser Aluminum is expected to benefit from this geothermal development.

MODOC COUNTY, CALIFORNIA

Magma Energy, Inc., has filed a notice to drill a geothermal well, approximately 2 miles north of Lake City in Surprise Valley. The well, "Piper's," will be spudded in the NE 1/4 of the NE 1/4 of Sec. 23, T. 44 N., R. 15 E., M.D.B.&M. in early November, 1972 at a spot approximately 300 feet north of "Gibbs" in September, 1962 a total depth of 1,267 feet. The bottom-hole temperature in this well was above 200°F. This new location is less than a mile westerly from the famous Lake City mud pools and hot springs.

SOCIETY OF ECONOMIC GEOPHYSICISTS

George Keller of the Geophysics Department, Colorado School of Mines, has been named Distinguished Lecturer for the society. Dr. Keller's talk "Geothermal Exploration" will be presented to groups primarily in the West Coast and Gulf Coast areas. The lectures are scheduled from October 5 until November, 1972.

RESEARCH INSTITUTE IN THE NEDS GEOTHERMAL INFORMATION

The National Research Institute of India has initiated a program to develop geothermal resources. They would like to receive reprints of the papers published by geothermal scientists and technologists.

Please send reprints to:
National Geophysical Research Institute
Haryana - 7 (A.P.)
India

LAKE COUNTY, CALIFORNIA

The Lake County Planning Commission has scheduled a hearing for the Pacific Energy Corporation's application to develop the Dunes Oil Company's "Kettles" at Sec. 28, T. 13 N., R. 8 W., M.D.B.&M. at 2:30 p.m. on November 15, 1972 in the Lake County Court House. The well was originally drilled by Eureka Magna Explorers in September, 1971 and was subsequently transferred in March, 1972 to Getty who deepened it to 7,822 feet. Pacific Energy Corporation plans to deepen the well to 10,000 feet.

TULSA, OKLAHOMA

The Calvert Exploration Company announced on October 13, 1972 that in addition to its current oil and gas activities it will engage in the exploration for and development of geothermal energy for generation of electric power. The company also announced that it had purchased approximately 100,000 acres (157 square miles) of leases and exploration rights covering the Carson del Sano Grande, which is contiguous to the Valles Caldera in the Jemez area of New Mexico. The U.S.G.S. has designated the Caldera as a "Known Geothermal Resource Area". Approximately 2,000 acres of Calvert's leases lie within the K.G.R.A.

DEL MAR, CALIFORNIA

The International Thermal Instrument Company has recently announced the availability of a newly highly accurate instrument that directly measures the earth's heat flow. The device is sold in two forms, either a flat plate to be used on the surface or a cylindrical model that can be lowered down a hole. For additional information contact: Mr. N. D. Green, Manager International Thermal Instrument Company Del Mar, California 92014 (714) 753-4436

IMPERIAL VALLEY, CALIFORNIA

Chevron Oil Company
Drilling on Chevron's well No. "Nolinow Partnership", Sec. 3, T. 16S., R. 14E., S.D.B.&M. in the Heber area is almost completed. This is the third geothermal well drilled near Heber this year. The first two wells were drilled by Magna Energy Company in the spring and summer of 1972.

Magma Power Company
The Magma Power Company has reached total depth (4,000 feet) on their "Magnamas" 3 which is located in the Salton Sea Geothermal field in the Niland area. The company is preparing to run pipe to evaluate potential geothermal zones from 2,500 to 6,000 feet. This is the third well of a six-well complex to be drilled by Magna for San Diego Gas and Electric, who plans to build a prototype 10 mw binary power plant based on the contract for the plant. The reserves of helium and construction has been let to C. F. Brin Engineering of Anaheim, California. Construction is scheduled to start in January, and the completion is scheduled in six months.

Department of Water Resources and University of California, Riverside
The 2,007-foot D.W.R.-U.C.R. research well on the Dunes anomaly in the East Mesa area, Imperial Valley, Sec. 33, T. 15S., R. 19E., S.D.B.&M., has been gun perforated in three zones. The bottom zone, 1,878 feet to 1,918 feet, flowed water at approximately 1 gallon per minute. The combined upper two zones, 850 feet to 908 feet and 346 feet to 380 feet, maintained the water level about 30 feet above the surface. The
maximum temperature recorded in this well was 270° F. The extensive collection of cores recovered from this well is now being studied at U.C.R.

The first report, "A Preliminary Investigation of a Geothermal Test Well at the Dunes Thermal Anomaly, Imperial Valley, California", will be available November 15. This report will contain information on water chemistry, permeability, porosity, thermal conductivity, X-ray clay mineralogy, petrography, and oxygen isotope data for calcite and water. For a copy of the report or for further information, contact:

Dr. Tyler Coplen
Institute of Geophysics
University of California
Riverside, California 92502

U. C. Riverside has received an N.S.F. grant to do further research in this area (see U. C. Riverside article in this issue).

Bureau of Reclamation
The U. S. Bureau of Reclamation's 8,030-foot test well in the East Mesa area, Imperial Valley, Sec. 6, T. 16S., R. 17E., S.B.B.&M., has a recorded bottom hole temperature of 392° F. and is producing 100 gals./min. at 245°F. A pilot desalination unit should be installed before the year ends (see Bureau of Reclamation article in V. 2, No. 5, September, 1972 issue of "Hot Line").

Phillis Petroleum Company-Southern California Edison Company-Southern Pacific Land Company

On October 25, 1972, Phillis Petroleum Company and Southern California Edison Company signed an agreement with Southern Pacific Land Company concerning geothermal development on 30,000 acres of the Buttes anomaly in the Niland area of the Imperial Valley. This area was actively drilled in the early 1960's and shows great potential. The Magma Power Company, in conjunction with the San Diego Gas and Electric Company, is presently involved in a geothermal development program near the south edge of the area and plans to have a binary 8,000 kw power plant in operation by mid-1973.

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