

# Report highlights 1983 state energy activities

The third in a series of annual summaries of current information on the onshore energy and mineral resources of Alaska -- the nation's second largest oil-producing state -- has been submitted to Congress by the President.

During 1983, the year which the report documents, Alaska provided about 20 percent of the U.S. production of oil and gas. The state's two petroleum-

producing areas, the North Slope and Cook Inlet, provided 626 million barrels of oil and 1.1 trillion cubic feet of natural gas. These totals represent an increase of about 1 percent for oil and 4 percent for gas over 1982 totals.

The 54-page report was prepared by the U.S. Geological Survey, Department of the Interior, in cooperation with and on behalf of other agencies in In-  
(Continued on Page Six)

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(Continued from Page Two)

terior, the Department of Agriculture and the Department of Energy.

The annual reports are required by the Alaska National Interest Lands Conservation Act of 1980 (ANILCA). The Act requires that the President annually submit to Congress a report that summarizes all pertinent public information on Alaskan minerals that has been gathered by the USGS, the Bureau of Mines and other federal agencies.

The report covers onshore areas of Alaska only. The information in the report is divided into two broad categories: energy resources and nonfuel, critical and strategic minerals.

According to the report, industrial onshore energy exploration and development drilling in Alaska proceeded at a slower pace in 1983 than in the previous year. Exploration activity included geological and geophysical surveys and drilling of 10 exploratory wells -- eight on the North Slope, one in the Copper River basin in south-central

Alaska and one on Native lands in the Cook Inlet basin.

Development activity included drilling about 180 new wells in the Prudhoe Bay and Kuparuk fields and the continuation of enhanced oil-recovery projects in both fields.

During 1983, exploration and development work on nonfuel minerals continued at or near 1982 levels. Nearly 28 percent fewer new mining claims were filed than in 1982, but this decrease was offset by a 38 percent increase in the value of nonfuel mineral production. Alaska ranked 35th in the nation in nonfuel mineral production.

Other highlights from the report summarizing energy and mineral resource activity in Alaska in 1983:

Oil and gas leasing -- Three competitive oil and gas lease sales were held in 1983 -- two by the state of Alaska and one by the federal government. Companies and groups of investors bid a total of \$41 million for about 1 million acres of land at these lease sales. In addition, the federal govern-

ment opened 4.4 million acres in the Seward Peninsula to non-competitive leasing.

National Petroleum Reserve in Alaska -- The Bureau of Land Management held its third competitive lease sale, at which bids were received for about 420,000 acres. High bids totaled \$16 million. More than 30 reports by USGS scientists on the NPRA have been published. The reports encompass the 1974-81 federal petroleum-exploration program in the NPRA and include such topics as seismic stratigraphy, petrography, paleontology, exploration history and direct hydrocarbon detection by aeromagnetic and helium methods.

Coal resources -- The USGS concentrated its coal studies in two quadrangles on the North Slope and in the coal field west of Anchorage. The State of Alaska was formulating reclamation plans for formerly mined areas, compiling data for the Matanuska Valley coal area and exploring for coal in the northwest part of the state. Preliminary results of samples from coal beds drilled in northern Alaska by the BLM and the State of Alaska indicate that reserves of at least 20 million tons might be used locally.

Industry interest continued in the Beluga-Capps Glacier, Nenana, Jarvis Creek, Matanuska Valley and Bering River coal fields. Preparations for shipping as much as 5 million short tons per year of coal from the Nenana fields to Korea -- a joint venture between a local Native concern and Korea -- progressed in 1983. Federal institutions in interior Alaska also plan to use coal from the Nenana fields.

Critical and strategic minerals -- Although 18 of 29 minerals that currently are considered to be strategic are found in Alaska, only tin and platinum are produced, but with large annual variations in amounts. The potential for promising resources of cobalt, chromium, nickel, tin, tungsten and platinum-group elements continues to be dampened by unfavorable land status, inadequate transportation, high cost of development and remoteness from markets. The Bureau of Mines continued localized reconnaissance investigations in 1983 on reported occurrences of cobalt, chromium, and the platinum-group metals. Investigations of tin, niobium and tantalum were started by BOM.

Nonfuel minerals -- The chief of commodities contributing to Alaska's nonfuel minerals production in 1983 were sand and gravel, crushed stone and gold. Prices for sand, gravel and gold increased slightly in 1983. Placer gold mining is the major source of gold in the state, but meeting water-quality requirements statewide emerged as a major issue in 1983.

Federal agencies completed several cooperative projects in 1983: a minerals assessment of the Chugach National Forest lands, an evaluation of areas north of Mount McKinley and a reconnaissance of the Iditarod-George Planning Block in western Alaska. Four million acres on or near the Seward Peninsula were opened for mineral claims.

Mining feasibility studies performed by the Bureau of Mines suggest that precious metals and antimony veins may be currently

economic to mine in the Kantishna Hills area.

The USGS Alaska Minerals Resources Assessment Program continued multidisciplinary studies in nearly 20 quadrangles across the state. The development of silver and base-metals deposits at Greens Creek near Juneau remains on schedule. Bulk sampling began at the Quartz Hill molybdenum deposit near Ketchikan in 1983. Additional lead-zinc reserves were at Red Dog and a route from the deposit to tidewater was arranged.

Much of the information contained in the report was obtained from projects and research conducted in 1982 by the U.S. Geological Survey and the Bureau of Mines, both in the Department of the Interior. Their information is used by other agencies as basic sources for decision-related information about land use, access, environmental impacts and, in some instances, claim evaluation.

Other agencies with major contribution to the report include Interior's National Park Service, Bureau of Land Management, and U.S. Fish and Wildlife Service, all in Interior; the Department of Agriculture's Forest Service; and the Department of Energy.

Single copies of the report, titled "1984 Annual Report on Alaska's Mineral Resources" and published as USGS Circular 940, are available free from the Eastern Distribution Branch, U.S. Geological Survey, 604 South Pickett St., Alexandria, Va. 22304. Requests must specify Circular 940.