

MINES AND PETROLEUM BULLETIN

Published to Accelerate the Development of the Mineral Industry in Alaska

January 1969

Vol. XVII
 No. 1

MINING NEWS

1968 production - The U.S. Bureau of Mines has published a preliminary estimate of mineral production in Alaska in 1968. The following figures and comments are of interest:

1. The value of mineral production in Alaska totaled \$212.1 million compared to \$134.1 million in 1967.
2. Crude oil and natural gas were the leading commodities with a value of \$181 million or 86 percent of the total.
3. Sand and gravel production decreased from \$26.2 million in 1967 to \$20.7 million in 1968. Comparative tonnages are 17.6 million in 1968 versus 22.4 million in 1967.
4. Tonnage and value of coal also decreased because of the changeover to natural gas at the military bases in Anchorage.

The following table presents the preliminary data published by the U.S. Bureau of Mines:

1.--Preliminary estimate, mineral production in Alaska, 1968

Mineral	1967		1968 (preliminary)	
	Quantity	Value (thousands)	Quantity	Value (thousands)
Antimony ore and concentrate short tons, antimony content-	10	W	86	W
Barite-----thousand short tons-	W	W	W	W
Coal (bituminous)-----thousand short tons-	925	\$7,296	W	W
Gold (recoverable content of ores, etc.)-----troy ounces-	22,948	803	21,000	\$814
Lead (recoverable content of ores, etc.)-----short tons-	-----	-----	W	W
Natural gas million cubic feet-	14,438	68,610	96,293	2,690
Peat-----short tons-	1,528	12	-----	-----
Petroleum (crude)---thousand 42-gallon barrels-	29,126	90,164	66,864	178,684
Sand and gravel-----thousand short tons-	22,370	26,248	17,585	20,729
Silver (recoverable content of ores, etc.)-----thousand troy ounces-	6	9	3	6

Mineral	1967		1968 (preliminary)	
	Quantity	Value (thousands)	Quantity	Value (thousands)
Value of items that cannot be disclosed: Copper, gem stones, mercury, platinum-group metals, stone, tin, and values indicated by symbol W-----	XX	4,924	XX	9,151
Total-----	XX	134,066	XX	212,074

W Withheld to avoid disclosing individual company confidential data.

XX Not Applicable

1/ Valuation based on estimated sales of 11,725 million cubic feet.

Chandalar - Warner Onstine, Secretary-Treasurer of Admiral Consolidated Mining Company, Spokane, Washington, announced the receipt of a report from the Chandalar Gold Mining and Milling Company of Alaska. Admiral has a 1/6 interest in the Chandalar partnership. Frank Birch submitted the report which included the following information.

The early part of 1968 was spent investigating and purchasing mine and mill equipment throughout the western states. The equipment was shipped from Seattle in March.

A 7 man crew moved into Chandalar in late March and cleared an airstrip on lake ice. During April and May 730,000 pounds of equipment were flown to Chandalar and moved to the mine site at Tobin Creek by tractor and sled. House trailers and steel buildings were erected that will serve as living quarters, shop, assay lab, office and other facilities at the mine site. Other work included road improvement and maintenance, further trenching, airstrip construction, mill site preparation, stripping, construction of a mill tailing ditch, pouring concrete floors for steel buildings and clearing ice from underground workings.

Plans for 1969 include completion of an airstrip that will accommodate C-82 and C-46 aircraft. Millsites were leveled to grade this year and mill construction will continue next year. Ore from the Little Squaw and Mikado mines will be processed. A late spring and early fall hampered operations during 1968 but much progress was made in spite of these handicaps.

PAP - The regulations covering the Prospector Assistance Program provide that the reports submitted by participants shall be confidential for a two year period. The Division of Mines and Geology would like to advise interested parties that the programs completed in 1963 through 1966 are available to the public. The reports on the complete programs are on file in our College office.

To make the contents of the reports known to the maximum number of people the Division is preparing summaries of the various programs. Copies will be placed on file in our Juneau and Anchorage offices where they will be available to those interested.

Granduc - Completion of the 10.3 mile Tidal Lake tunnel at the Granduc Mine in British Columbia was announced in the December 9 issue of the Vancouver, B.C. Sun. The total cost of the tunnel, which will provide access to a 32-million ton copper ore body, will be almost \$100 million. The opening is 15 feet square and it extends under three glaciers and two mountains. High speed electric trains will be used in the tunnel to transport ore. Granduc Operating Company did the tunneling job; the organization is a wholly owned subsidiary of Newmont Mining Corporation. Newmont and American Smelting and Refining leased the Granduc Mine in 1965 as a joint venture.

Canadian access road - The Alaska Scouting Service, December 11 issue, reported that a privately built and maintained road in Northwest Territories of Canada is now open for a distance of 660 miles from Fort Providence to Fort Good Hope. The road is to be extended an additional 300 miles by mid-February into Inuvik near the Mackenzie Delta.

LAND AND MINERAL REGULATIONS

BIA withdrawal - The Federal Register of December 14, 1968 includes a notice of application by the Bureau of Indian Affairs for withdrawal of all unreserved public lands in Alaska, except those under mineral lease, until December 31, 1970. The application includes the following points:

1. The gross acreage is about 350,000,000 acres and the net public acreage approximates 262,000,000 acres.
2. The purpose is to protect the native Aleut, Eskimo and Indian rights and interests in public lands in Alaska.
3. The withdrawal could be terminated sooner than December 31, 1970 by action of the Secretary of the Interior or Act of the Congress.
4. All unreserved public lands would be withdrawn from selection, settlement, location, sale, and entry under the public land laws including the Alaska Statehood Act, except that lands embraced by leases, licenses, permits or contracts issued under authority of the Mineral Leasing Act of 1920 or the Alaska Coal Leasing Act of 1914 as amended would not be subject to this withdrawal so far as Alaska's selection rights are concerned until January 4, 1969.
5. The proposal is justified because of the complex nature of the rights of Alaska natives and native land claims. Preservation of the status quo would allow sufficient time for Congressional Action or other resolution of these problems.

The December 11 issue of Alaska Scouting Service notes the Code of Federal Regulations 43 2311.1-2, "Segregative Effect of Application". Essentially, action on all land applications is suspended until final action for withdrawal or reservation is taken.

The Scouting Service article goes on to remark that if this action remains as an application until the administration change takes place in the Federal government, Alaska's right to select Federal land will have terminated. If the withdrawal is approved by the present Secretary of Interior the new Secretary would have the authority to return the withdrawn area to public domain.

The application for withdrawal has no effect on staking mining claims according to Burton W. Silcock, State Director, Bureau of Land Management. Part of a letter to the Director of the Division of Mines and Geology is quoted below:

"The application by the Bureau of Indian Affairs for withdrawal of vacant public lands in Alaska does not prohibit mineral location, mineral leasing or mineral materials sales. Thus mining claims may continue to be located as before."

Primitive areas - Surveys of primitive areas in other States are being conducted by the U.S. Geological Survey to determine their suitability for inclusion in the wilderness system. The Wilderness Act stipulates that such surveys will be carried out. Thirteen primitive area reports have been published to date, and for the first time it is recommended that an area not be included in the Wilderness system.

The area affected is the Uncompahgre Primitive area in the San Juan mountains of Colorado. The report notes that southwestern two-thirds of the primitive area occupies part of one of the most intensively mineralized regions in the United States and is not suitable for inclusion in the National Wilderness Preservation System.

More withdrawals - The December 27 issue of Jessen's Daily, published in Fairbanks noted a Department of Interior proposal to classify one million acres in Western Alaska for wilderness and wildlife purposes. The land in question would constitute an addition to the Clarence Rhode Wildlife Refuge at the mouth of the Yukon, a duck and geese breeding ground. The proposal was published in the Federal Register. As more information becomes available it will be published in this Bulletin.

According to the Western Oil and Gas Review of December 27, the Secretary of Interior has also moved to set aside a 255,000-acre peninsula in the Bering Sea to be known as the Cape Newenham National Wildlife Refuge.

If the lands in these areas are withdrawn they would no longer be subject to state selection and would be permanently closed to entry under the mining and mineral leasing laws.

NEW PUBLICATIONS

The University of Alaska Mineral Industry Research Laboratory recently published M.I.R.L. Report No. 19, Handbook of Geophysical prospecting methods for the Alaskan Prospector by L.E. Heiner and S.A. Wulf.

The handbook is intended to acquaint the Alaskan prospector with the more recent applications of geophysics for locating economic mineral deposits. The full range of modern geophysical methods is included with a description of theory, application, method of use, and limitations. Older, well documented subjects like the dip needle and other mineral detectors are not included.

The following circular has recently been released by the USGS and may be obtained free at the various USGS and Division of Mines and Geology offices.

U.S. Geological Survey Circular 604 reports results for parts of the southern Wrangell Mountains and the adjacent Chitina Valley of Alaska, about 250 miles east of Anchorage. Within this region of about 300 square miles, geochemical sampling of rocks and stream sediments for gold and related metals disclosed several areas that "appear to be attractive targets for exploration and detailed study by private interests". The report, "Distribution of Gold, Copper, and some Other Metals in the McCarthy B-4 and B-5 Quadrangles, Alaska," by E.M. MacKevett, Jr., and James G. Smith, contains a geologic-sample locality map of the region and two tables of analytical data.

A "guidebook" to describe the geology, mining history, and production of more than 500 gold-producing districts in 21 states has been prepared by the Geological Survey, Department of the Interior. The report, "Principal Gold-Producing Districts of the United States," by A.H. Koschmann and M.H. Bergendahl, is published as Geological Survey Professional Paper 610, and may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 at \$4.75 per copy.

E. AND M.J. METAL MARKET PRICES

	<u>December 30</u>	<u>Month Ago</u>	<u>Year Ago</u>
Copper, per lb.	41.7¢	41.7¢	Suspended
Lead, per lb.	13.0¢	13.0¢	14¢
Zinc, per lb.	13.5¢	13.5¢	13.5¢
Tin, per lb.	163.25¢	166.5¢	148.0¢
Nickel, per lb.	94.0¢	94.0¢	94.0¢
Platinum, per oz.	\$120-125	\$120-125	\$109-125
Mercury, per flask	\$532-537	\$516-520	\$510-520
Antimony ore, per unit	\$5.25-6.34	\$5.80	\$5.00-5.95
Beryllium powder, 98%	\$54-66	\$54-66	\$54-66
Chrome ore, long ton	\$31-35	\$31-35	\$31-35
Molybdenum conc., per lb.	\$1.62	\$1.62	\$1.62
Titanium ore, per ton	\$20-21	\$20-21	\$21-24
Tungsten, per unit	\$43.00	\$43.00	\$43.00
Silver, New York, per oz.	193.5¢	205.0¢	219.0¢
Gold, Engelhard, per oz.	\$41.90	\$40.15	----

LETTER OF THE MONTH

The Division of Mines and Geology receives numerous requests for information each month. We welcome and encourage inquiries into Alaska's mineral resources and each letter received is answered. Some of the inquiries, particularly those from school children, while showing serious intent, are rather humorous; hence we thought we would start a "letter of the month" in each issue to liven the Bulletin up a bit. The following shows a common misconception of Alaska.

Dear Sir,

Dec 11, 1968

I would like to know more about the mining that is done in Alaska to help me in my school work. I know there is a lot of mining done up there, but how do they get through the ice?

Your friend,

Douglas Lee Hansen

OIL AND GAS NEWS

(Prepared by the Division of Oil and Gas, 3001 Porcupine Drive, Anchorage, Alaska 99504)

Seven applications for drilling permits were approved by the Division of Oil and Gas as follows:

Permit No. 68-109. Union Oil Company of California #G-16 Trading Bay Unit, API No. 50-133-20162. Surface location: 1879' FSL and 1,381' FEL, Sec. 29, T9N, R13W, S.M. Bottom hole location: 360' FSL and 2,200' FWL, Sec. 27, T9N, R13W, S.M. This development location is in the McArthur River Field.

Permit No. 68-110. Gulf Oil Corporation #1 Middle Lake Unit, API No. 50-283-20021. 1,600' FNL and 1,100' FWL, Sec. 22, T15N, R5W, S.M. This exploratory location is about 12 miles northwest of Anchorage.

Permit No. 68-111. Sinclair Oil Corporation #1 Sinclair B.P. Ugnu, API No. 50-029-20009. 1,938' FNL and 2,352' FWL, Sec. 22, T12N, R9E, U.M. This exploratory location on the Arctic North Slope is 35 miles northwest of the Prudhoe Bay discovery well.

Permit No. 68-112. Shell Oil Company #C-41-23 Middle Ground Shoal, API No. 50-133-20163. Surface location: 504' FSL and 1,532' FEL, Sec. 23, T8N, R13W, S.M. Bottom hole location: 140' FNL and 1,770' FEL, Sec. 23, T8N, R13W, S.M. This is a development location in the Middle Ground Shoal Field.

Permit No. 68-113. Colorado Oil and Gas Corporation #1 Shavlovik, API No. 50-223-20001. 2,310' FSL and 2,310' FEL, Sec. 8, T2N, R19E, U.M. This exploratory location on the Arctic North Slope is 60 miles southeast of the Prudhoe Bay discovery well.

Permit No. 68-114. BP Exploration U.S.A., Inc. #BP 33-11-13 Put River, API No. 50-029-20010. 1,430' FNL and 2,455' FWL, Sec. 33, T11N, R13E, U.M. This Arctic North Slope exploratory location is eight and one-half miles southwest of the Prudhoe Bay discovery well.

Permit No. 68-115. Union Oil Company of California #D-14 Trading Bay Unit, API No. 50-133-20164. Surface location: 671' FSL and 1,215' FWL, Sec. 6, T8N, R13W, S.M. Bottom hole location: 222' FSL and 401' FEL, Sec. 7, T8N, R13W, S.M. This development location is in the McArthur River Field.

DRILLING ACTIVITY (as of December 27, 1968)

<u>Operator</u>	<u>Well Names & Numbers</u>	<u>Type</u>	<u>Status</u>
Southern			
Atlantic Richfield Company	Trading Bay State S-7	D	Drilling
Farms Oil Company	Red Shirt Lake #1	E	Drilling & Abandoned
Gulf Oil Corporation	Middle Lake Unit #1	E	Location
Pan American Petroleum Corp.	David River #1-A	E	Location
Pan American Petroleum Corp.	Granite Point State 18742 #14	D	Temp. Susp.
Pan American Petroleum Corp.	Granite Point State 18742 #21	D	Location-Abandoned
Pan American Petroleum Corp.	Granite Point State 18742 #22	D	Suspended
Pan American Petroleum Corp.	MGS State #12	D	Completing as wtr. inf.
Phillips Petroleum Company	North Cook Inlet Unit A-1	D	Temp. Susp.
Phillips Petroleum Company	North Cook Inlet Unit A-2	D	Testing
Phillips Petroleum Company	North Cook Inlet Unit A-3	D	Temp. Susp.
Shell Oil Company	MGS C-24-23	D	Comp. Oil Well
Shell Oil Company	MGS C-41-23	D	Drilling
Shell Oil Company	Kustatan River #1	E	Drilling
Sinclair Oil Company	Sinclair BP Ugna #1	E	Location
Standard Oil Co. of Calif.	Moquawkie 44-8	E	Drilling
Texaco Inc.	Trading Bay TS-3	D	Comp. Oil Well
Texaco Inc.	Trading Bay TS-5	D	Pg. to redrill
Texaco Inc.	Trading Bay TS-6	D	Location
Union Oil Co. of Calif.	Trading Bay State A-19	D	Location
Union Oil Co. of Calif.	Trading Bay State A-20	D	Location
Union Oil Co. of Calif.	Trading Bay Unit D-6	D	Drilling
Union Oil Co. of Calif.	Trading Bay Unit D-13	D	Comp. Oil Well
Union Oil Co. of Calif.	Trading Bay Unit D-14	D	Location
Union Oil Co. of Calif.	Trading Bay Unit D-15	D	Drilling
Union Oil Co. of Calif.	Trading Bay Unit G-14	D	Drilling
Union Oil Co. of Calif.	Trading Bay Unit G-15	D	Comp. Oil Well
Union Oil Co. of Calif.	Trading Bay Unit G-16	D	Location
Union Oil Co. of Calif.	Trading Bay Unit G-17	D	Drilling
Union Oil Co. of Calif.	Trading Bay Unit G-18	D	Comp. Oil Well
Union Oil Co. of Calif.	Trading Bay Unit K-3	D	Comp. Oil Well
Union Oil Co. of Calif.	Trading Bay Unit K-12	D	Drilling
Union Oil Co. of Calif.	Trading Bay Unit K-13	D	Drilling
Northern			
Atlantic Richfield Company	Delta State #1	E	Drilling
Atlantic Richfield Company	Toolik Federal #1	E	Location
BP Exploration Co., Inc.	Put River #1	E	Drilling
BP Exploration Co., Inc.	Put River BP 33-11-13	E	Location
BP Exploration Co., Inc.	Sag Delta #1	E	Location
Colorado Oil and Gas Corp.	Shaviovik #1	E	Location
Mobil-Phillips	Kuparuk State #1	E	Drilling
Pan American Petroleum Corp.	Kavik #1	E	Location
Standard Oil Co. of Calif.	Socal 31-25	E	Location

PRODUCTION - November, 1968 (Gas pressure 14.65 psi)

Field	Oil-Bbls	Water-Bbls	Gas-MCF	*No. of Wells Prod.	Cum. Oil	Cum. Gas
Granite Point	771,617	15,946	723,042	32 (3)	19,398,203	14,295,659
McArthur River	2,300,007	29,735	617,496	27 (3)	20,138,531	5,430,415
Middle Ground Shoal	1,090,728	44,077	547,440	50 (6)	23,168,358	10,573,314
Redoubt Shoal				(1)	1,596	456
Swanson River	1,136,319	225,748	2,499,119	41 (8)	87,417,463	55,385,513
Trading Bay	436,763	7,953	301,714	21 (7)	3,628,018	3,072,569
Total	5,735,435	323,459	4,688,811	171 (28)	153,752,169	88,757,926
Beluga River			285,596	3 (1)		1,910,139
Kenai			3,628,637	17 (3)		125,485,693
Kenai Deep			474,298	2 (1)		2,770,011
Moquawkie			16,412	1		298,506
Nicolaj Creek			4,473	1 (2)		7,356
Sterling			14,844	1 (1)		757,452
South Barrow			45,388	3 (1)		3,833,219
Trading Bay	234		14,062	1	2,218	213,797
Inactive Gas Fields				(11)		12,028,262
Total Dry Gas	234		4,483,710	29 (20)	2,218	147,304,435
STATE GRAND TOTAL	5,735,669	323,459	9,172,521	200 (48)	153,754,387	236,062,361

Average per day: Oil, 191,181 bbls; Csg. Head, 156,294 MCF; Dry Gas, 149,457 MCF; Total Gas, 305,751 MCF

*Dual completions are included as two wells; triple, as three. () Number of wells not producing in September.

NOTICE

API Well Number Roster

The Division of Oil and Gas has recently completed the assignment of a unique API well number to each well that has been drilled or permitted to be drilled in the State of Alaska. This assignment has been made in cooperation with the American Petroleum Institute to aid the oil and gas industry in the computer handling of data. The API Well Number Roster includes all wells permitted through November 30, 1968. A copy of the roster can be obtained by a request to the Division of Oil and Gas, 3001 Porcupine Drive, Anchorage, Alaska 99504, or telephone 279-1433.