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State of Alaska  
Department of Natural Resources  
DIVISION OF MINES AND MINERALS

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MINES AND PETROLEUM BULLETIN

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MINING ACTIVITIES

Southeast District - Governor William A. Egan reports a possibility that the production allocation for the uranium property at Bokan Mountain on Prince of Wales Island may be increased by the AEC. Bay West, Inc. had announced its hopes to resume mining early this spring, but had also advised the Governor that without a larger allocation, it might not be able to do so. The Governor requested a larger allocation from the AEC. This request was rejected, but was renewed by the Governor and word has now been received that the AEC is reviewing a 1958 reserves report, and that an increase in the allocation may follow.

John C. Williams of Williams Hydraulics, Inc., Oakland, California, announced plans to prospect and dredge the bottom of Stephens Passage south of Grand Island for placer gold. The area covers eight square miles of submerged lands, and depths vary from 520 to 810 feet. If systematic prospecting reveals gold in paying quantities, Mr. Williams' State prospecting permit must be converted to a mining lease under State regulations before dredging may commence. Dredging would be performed with a special hydraulically-operated clam-type deep-water dredge invented by Williams prior to the war for this particular project. Preliminary sampling in 1933 indicated values and started Williams on this venture which was interrupted by the war and in which he reports to have invested \$1 million to date.

OIL NEWS

During the first month of 1962 the Petroleum Branch of the Division of Mines and Minerals approved two applications for permits to drill, both for gas wells, in the Swanson River Oil Field. The wells and their respective locations are as follows: Soldotna Creek Unit 243-8, Sec 8 T7N, R9W, approx: 2120'N & 1070'W of SE cor of Sec 8, El. 157' gr; Swanson River Unit 221-33, Sec 33, T8N, R9W, approx: 1980'E & 660'S of NW cor of Sec 33, El. 160' ± gr.

Approvals for the same period in 1961 totalled four, thus showing a 50% decrease in drilling thus far in 1962. This decrease is caused by the fact that the Swanson River Field is practically drilled out, causing a halt in applications for development drilling. When another discovery is made, development drilling will again swell the total drilling activity. The Petroleum Branch estimates that a possible 25 exploratory (wildcat) wells will be drilled or drilling in Alaska by the close of 1962.

Drilling Activity - January 30, 1962

<u>Operator</u>	<u>Well Name &amp; No.</u>	<u>Status</u>
SOCAL	SCU 34-16	T.D. 6,295', repairing location
SOCAL	Chaix Hills Unit 1-A	Drilling @ 8,570'
Pan American	Stedatna Creek - State 1	Drilling
Pan American	West Foreland 1	Drilling
Superior	Chuit - State 1	Drilling
SOCAL	SCU 32-5	Drilling @ 7,400'

Completion - January 30, 1962

<u>Operator</u>	<u>Well Name &amp; No.</u>	<u>Status</u>
Richfield	Bering River Unit 2	TD 6019', P&A
SOCAL	SRU 21-22	TD 11,012', POW
SOCAL	SCU 34-8	TD 11,175', POW
SOCAL	SCU 21-3	TD 11,100', POW

Production, Swanson River Field

	<u>Producing Wells</u>	<u>Oil (barrels)</u>	<u>Water (barrels)</u>	<u>Gas (MCF)</u>
December, 1961	45	797,422	18,179	148,927
Cumulative to January 1, 1962		7,116,844	203,628	1,391,920

Production, Kenai Gas Field

December, 1961	3	0	0	91,060
Cumulative to January 1, 1962		0	0	231,294

Standard Announces Construction of Refinery - Standard Oil Company of California has announced that a contract for the construction of the 20,000 barrel per day refinery on the Kenai Peninsula has been awarded to the Ralph M. Parsons Company of Los Angeles, California. The refinery will be constructed on a 481-acre tract adjacent to the marine terminus of the Kenai pipeline. Work is expected to commence soon after spring break-up with completion scheduled early in 1963. Initial refined production will be heating oil, diesel fuel, jet fuel and light fuel oil. Production will be expanded to gasoline at a later date.

Release of Records - Pursuant to Section 2008.1 of the Alaska Oil and Gas Conservation Regulations, well records of the following well will be released publicly February 3, 1962: Swanson River Unit 32-22, Standard Oil Company of California, operator.

Interior Department Petitioned to Open South Half of Kenai Moose Range to Oil and Gas Leasing - Seven lease applicants, who had a total of 28 applications in the closed, southern portion of the Kenai Moose Range on the Kenai Peninsula rejected last year, filed suits in Federal District Court on January 26, 1962 in which they asked the Court to require that the Secretary of the Interior approve their applications originally filed in 1954 and 1955. The applications were rejected last year on the ground that oil and gas exploration would be detrimental to the moose in the two million acre range. The applicants contend in their identical suits that the Interior Department has no legal authority to make such closures, that rejection of the applications after the long delay was unfair and inequitable, that oil and gas exploration actually would benefit the area and Alaska by development of natural resources with attendant revenue from fees and royalties, and that Congress intended that such lands should have multiple use provided fish and wildlife are protected.

Duktoth River Unit Agreement Extended - The USGS has extended the drilling commitments of the Duktoth River Unit Agreement, Richfield Oil Corporation, operator, to February 8, 1963.

Swan Lake Unit Agreement Extended - The USGS has extended the drilling commitments of the Swan Lake Unit Agreement, Standard Oil Company of California, operator, to March 25, 1963.

## RAMPART MINERAL EXPLORATION PROPOSAL

We are informed that preliminary studies made for the Corps of Engineers by the Development and Resources Corporation indicate that a market will exist for the 5 million kilowatts of low-cost power which can be produced at Rampart Dam on the Yukon River. The preliminary report indicates that most of the cheap power could be sold to electroprocess industries, particularly those using electrometallurgical processes for the treatment of both domestic and imported ores. In a letter of transmittal, the New York firm (of which David E. Lilienthal and Gordon R. Clapp are the principal officers) states "A decision made soon to move ahead with the Rampart project will, in the decades to come, prove to have been nationally prudent and wise."

Because a market for the power would largely be dependent on the establishment of electrometallurgical industries, the project would have a tremendous impact on the mineral industry of Alaska. Therefore, a decision to move ahead should include firm plans for the systematic exploration, evaluation, and development of the mineral production potential of the large region in and adjacent to the proposed reservoir. Federal and/or State agencies should conduct a systematic program of mineral investigations by modern methods such as aerial geologic and geophysical survey followed by appropriate surface and subsurface exploration of favorable areas as determined by the preliminary work.

It is our understanding that the Corps of Engineers has authorized reconnaissance of the reservoir area and immediately adjacent territory for the purpose of determining the nature and scope of such additional investigation as may be justified. This work should be extended, as plans for the dam progress, in sufficient time to ascertain whether any commercial mineral deposits might exist that could be salvaged before flooding, and whether deposits might exist adjacent to the future 10,800-square-mile lake that would be of value because of the resulting improved transportation or because of the developed low-cost power.

### ANNUAL REPORTS

The Annual Report of the Division of Lands is now available free of charge at 344 6th Avenue, Anchorage. Because of a different printing arrangement, the DM&M Annual Report for the Year 1961 cannot be made available for another month. It will be sent free of charge from our office at Box 1391, Juneau, as soon as it is received from the printer.

### MINING RECORDER CHANGE

The Alaska Supreme Court has given notice that the place of recording for the Chitina and McCarthy Recording Districts has been changed from Copper Center to Glennallen.

### PROPOSED ROAD STUDY

S.J. Resolution 137 calling for a study by the U.S. Secretary of Commerce relative to a highway construction program for Alaska was introduced by Senator Gruening last fall. It would require a report to Congress which would include: (1) an analysis of the adequacy of the present Federal-aid highway program in Alaska, (2) specific recommendations as to construction of roads through undeveloped areas and connections with Canadian roads, and (3) a program for implementing the recommendations. If passed, \$800,000 would be required for making the study and report.

### WYOMING BY-PRODUCT PLANT

The Wall Street Journal reports that Pacific Power and Light Company is planning a \$300,000 pilot chemical-process plant in Wyoming to explore new ways to produce coal by-products from subbituminous coal. This is in conjunction with the company's construction of a \$25 million 150,000 KW steam power plant which will burn the same coal - the third

power unit at that location near Glenrock. The pilot plant will use a new method of extracting liquid and solid coal by-products, and possible resulting products will include coke (used in electro smelting) and active carbon (used for clearing municipal water supplies for domestic consumption). Wyoming has tremendous amounts of subbituminous coal, and has been making all-out efforts for several years to have this coal put into greater production.

#### GOLD

Gold production in the State fell about 33% from 1960 to 1961, and now ranks fourth on the mineral production list instead of holding the esteemed number one position it held for so many years. The Bureau of Mines has estimated that national gold production dropped 9% to a value of \$53 million, the lowest level since 1884. During the year, the U.S. gold loss was estimated at a little less than \$900 million, and the nation's stockpile was valued at \$16.890 billion.

#### AIME

The Sixth AIME Mining, Minerals, and Petroleum Conference will be April 26 and 27 in Anchorage. Chairman - Mr. C.E. Smith, Union Oil Company of California; Program Chairman - Mr. William C. Bishop, Richfield Oil Corporation; Petroleum Program Chairman - Mr. C.V. Chatterton, Standard Oil Company of California; Mining Program Chairman - Mr. Cole E. McFarland, Evan Jones Coal Company; Geology Program Chairman - Dr. Ruth A.M. Schmidt, U.S. Geological Survey, Arrangements Chairman - Mr. R.S. Richards, Reliable Services, Inc.; Publicity Chairman - Mr. R.V. Murphy, Alaska Division of Mines and Minerals.

#### LEGISLATURE

The Second Session of the Second State Legislature has convened. Inasmuch as the Division of Mines and Minerals is required to collect and disseminate all official information relative to the mineral resources, mines and mining projects of the State, we will endeavor to present a resume of bills introduced that directly affect the mineral industry and miners. If our readers desire more information on this type of legislation, please feel free to write.

#### ETCETERA

Recent USGS publications are: Bulletin 1108-A, Geology of the Mount McKinley Quadrangle, Alaska, by Reed, Jr. 1961 and Bulletin 1090, Iron and Copper Deposits of Kasaan Peninsula, Prince of Wales Island, Southeastern Alaska, by L. A. Warren, 1961. These are available at the Government Printing Office, Washington, D.C., and are also on file at the Division of Mines and Minerals' offices.

The following comes from the December issue of Western Miner and Oil Review, The Discovery Post: "A random observation . . . Is our mining exploration too much 'up in the air?' There is growing evidence that most of the mineral discoveries being made in the rugged, mountainous terrain of the Pacific Northwest are those by prospectors working on foot. In a number of instances, these prospectors report they have made their discoveries in areas that had previously been surveyed by exploration crews. Is it possible that the ease and speed of moving about in a helicopter is having an adverse effect on some of our mineral explorers? Evidence shows that during the past year, five discoveries of some importance were made by individuals who had plenty of time to carefully search the areas in which they were working. The helicopter is of tremendous value in servicing parties in the field, but it would appear that its application and usefulness must be carefully considered. It is interesting to note that one of the most important 'finds,' that is, the silver-lead discovery at the headwaters of the Liard River, was made by veteran prospector Nels Hals, who worked with three pack dogs carrying 35 pounds apiece and one Indian packer. Among other discoveries during the past year are the following: another outcropping of scheelite, tung-

sten ore, on the holdings of Canada Tungsten Corporation by prospector Colin Wilson; asbestos at the headwaters of the Taku River by Steve Papp; copper on the eastern contact of the Coast Range batholith by Bob Zelinski; and copper in the Dease Lake area by Larry Callison and partner." We need men in the field; some of these "finds" are at our back door.

"News and Views" section of the November issue of Mining Congress Journal tells that General Electric Company, working in cooperation with Montana School of Mines under a research grant from the Anaconda Company, reveals that a nonexplosive process for breaking rock with radio-frequency electric power has been achieved. The energy of the radio-frequency creates sufficient heat or stress to split the rock. The process is dustless, fast, and more economical than explosives.

The November issue of Mining World, "What's Going on in Mining" reports a new placer drill which uses pile driver action and double casing. An air pump forces water down through the outer casing, lifting the core up through the center pipe and out a hose into the washing plant. The machine averaged 1-1/2 feet per minute on ground of Vermillion Gold, Inc., Sanders County, Montana.

The January 18 issue of E&M Metal and Mineral Markets reports that the International Tin Council, in London, last week raised the price levels of its currently empty Buffer Pool after obvious pressure from Bolivia. Our Administration wants to sell the 50,000 tons of stockpile tin in order to keep the price of tin from going too high. The Bolivians and some members of Congress don't want to see such a large quantity of tin released because of the depressing affect on world tin prices. (If these people are able to convince Congress that it would be harmful to release the tin, it is assumed that the price will rise to \$1.25 or \$1.30 per pound).

Reprints of two Mining Engineering magazine articles are available at the DM&M Juneau office. These are "Geology and Ore Deposits of Alaska" by Gordon Herreid, DM&M Mining Geologist, and "Alaska's New Mining Law for State Lands" by James A. Williams, DM&M Director. These are free on request from the Division of Mines and Minerals, Box 1391, Juneau.

#### E. AND M. J. METAL MARKET PRICES

	<u>Feb. 1,</u> <u>1962</u>	<u>Month</u> <u>Ago</u>	<u>Year</u> <u>Ago</u>
Copper, per lb.	31¢	31¢	30¢
Lead, per lb.	10¢	10.25¢	11¢
Zinc, per lb.	12¢	12¢	12¢
Tin, per lb.	120.9¢	120.0¢	100.6¢
Nickel, per lb.	81.3¢	81.3¢	74¢
Platinum, per oz.	\$80-85	\$80-85	\$81-85
Mercury, per flask	\$190-193	\$190-193	\$209-212
Antimony ore, per unit	\$4.30-4.50	\$4.30-4.50	\$3.45-3.50
Beryllium ore, per unit	\$46-48	\$46-48	\$46-48
Chrome ore, per long ton	\$36-38	\$36-38	\$36-38
Molybdenum conc., per lb.	\$1.40	\$1.40	\$1.25
Titanium ore, per ton	\$23-26	\$23-26	\$23-26
Tungsten ore, per unit	\$20-22	\$20-22	\$22-24
Silver, foreign, per oz.	103.8¢	104.8¢	91.4¢
Silver, domestic, per oz.	90.5¢	90.5¢	90.5¢

# MINERAL PRODUCTION IN ALASKA

	1960		1961	
	Quantity	Value (Thousands)	Quantity	Value (Thousands)
Clay-----short tons	1,150	10	(3)	-
Coal, bituminous-----thousand short tons	712	6,318	750	6,653
Copper (2)-----short tons	41	27	(3)	-
Gold (2)-----thousand troy ounces	168	5,887	114	3,973
Mercury-----76-pound flasks	4,459	940	4,350	859
Natural Gas-----million cubic feet	246	30	568	151
Petroleum, crude-----thousand barrels	559	1,230	6,326	17,666
Sand and Gravel-----thousand short tons	6,013	5,483	5,750	5,200
Silver (2)-----thousand troy ounces	26	24	16	14
Stone-----thousand short tons	275	852	300	900
Undistributed (3)-----	-	<u>1,061</u>	-	<u>1,150</u>
Total-----	-	21,862	-	36,566

(1) All figures for 1961 are preliminary (except petroleum) and subject to revision.

(2) Recoverable content of ores, etc.

(3) Undistributed includes gem stones, platinum group metals, uranium ore, clay and copper.

Note: Above statistics prepared under a cooperative agreement for the collection of mineral data between the Bureau of Mines, United States Department of the Interior, and the Division of Mines and Minerals, Department of Natural Resources, State of Alaska. Figures for coal, petroleum, natural gas, and undistributed commodities are presented on authority of the Division of Mines and Minerals only.