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

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MINING ACTIVITIES

The Red Devil Mine, on the Kuskokwim River near Sleetmute and one of the three largest mercury mines in the U.S., is now shipping a portion of its product to Japan. The Japanese purchasers are taking the mercury in its partly refined form of soot. Shipments are by way of Northern Consolidated Airlines to Anchorage and by the Kazukawa Steamship Line from Anchorage to Japan. Production at the Red Devil is reported up 15 percent over last year at this time, and a year's output of 5000 flasks will probably be realized.

James D. Crawford, vice president and general manager of the Alaskan operations of the USSR&M Co. has announced that rising costs are causing a shutdown of all dredges in the Fairbanks area by the end of 1963, and a shutdown at Nome possibly as early as 1962. The other USSR&M Co. dredges at Hogatza River and in the Fortymile will be able to continue because of the fact that the cost of stripping and thawing is not present in those camps. The shutdown of the Fairbanks and Nome dredges will mark the end of the era of large-scale placer gold mining in Alaska, comparable to the end of the large-scale lode gold mining when the AJ Mine at Juneau was finally forced to close.

OIL NEWS

During the month of October the Petroleum Branch of this Division approved three applications for permit to drill, all exploratory wells located on the west side of Cook Inlet. Two of the locations are for initial tests on the recently leased Tyonek Bombing Range, while the third is situated on the West Forelands. Locations and operators for the three wells are as follows: (1) West Foreland 1, Pan American Petroleum Corp., Opr. N.E. of the SE Sec. 21, T.8N., R.14W. Seward B.&M.; (2) Stedatna Creek-State 1, Pan American Petroleum Corp., Opr. Center of SE of SW Sec. 30, T.12N., - T.12W., Seward B.&M.; (3) Chuit-State 1, Superior Oil Co., 2500'N, 850'E fr SW cor. Sec. 8, T.12N., R. 11W. Seward B.&M.

Drilling permits for 1961 issued to date now total 50, compared to 24 for the same period in 1960.

Drilling Activity as of October 27, 1961

<u>Operator</u>	<u>Well No.</u>	<u>Status</u>
Richfield	White River Unit 1	T.D. 7,982', Testing
Richfield	Bering River Unit 1	Drlg. @ 5,888'
Colorado	Core Hole 4	Drlg. @ 3,000'
Belco	Antonio Zappa 1	Testing
SOCAL	Chaix Hills Unit 1	Drlg. @ 8,405'
SOCAL	SCU 34-9	Drlg. @ 10,466'
SOCAL	SCU 21-4	T.D. 10,896', prep. to complete
SOCAL	SRU 41-28	Drlg. @ 6,371'
SOCAL	SRU 43-15 (RD)	T.D. 11,380', prep. to complete

The following wells were completed by October 27, 1961:

<u>Operator</u>	<u>Well No.</u>	<u>Status</u>
Union	Fish Creek Unit 12-8	T.D. 6,418', P&A
Pan American	Napatuk Creek 1	T.D. 14,910', P&A
Pure	Canoe Bay Unit 1	T.D. 6,642, P&A
Hackathorn	Rosetta 4	T.D. 1,627', P&A
Hackathorn	Rosetta 4-A	T.D. 2,407, Suspended
SOCAL	SRU 212-27	T.D. 7,800', Gas well, shut-in
SOCAL	SCU 34-5	T.D. 11,220' Producing, Oil

Production, Swanson River Field

	<u>Producing Wells</u>	<u>Oil (barrels)</u>	<u>Water (barrels)</u>	<u>Gas (MCF)</u>
September, 1961	41	654,979	17,316	134,483
Cumulative to October 1, 1961		4,808,730	147,384	981,786

Production, Kenai Gas Field

	<u>Producing Wells</u>	<u>Oil (barrels)</u>	<u>Water (barrels)</u>	<u>Gas (MCF)</u>
September, 1961	0	0	0	0
Cumulative to October 1, 1961		0	0	45,841

Chief of Branch Talks to Pioneers of Alaska - Donald D. Bruce, Chief of the Petroleum Branch, DMRM, reviewed the Alaskan oil and gas industry exploration and development activity for the Pioneers of Alaska on September 30. Facts and figures were presented to show that the Alaskan oil and gas industry activities are currently at their highest level in the State's history.

Bering River Unit Agreement Approved - On October 17 the USGS approved the Bering River Unit Agreement covering 54,122 acres with the Richfield Oil Corp. as operator. The unit area is located in the Katalla district and covers parts of T18S-R8E, T18S-R7E, T19S-R7E, and T20S-R7E, Copper River Meridian.

Canoe Bay Unit Agreement Approved - On October 6 the USGS approved the Canoe Bay Unit Agreement covering 66,316 acres with the Richfield Oil Corp. as operator. The unit area is located on the Alaska Peninsula and covers parts of T53S-R76W, T53S-R77W, T53S-R78W, T54S-R76W, T54S-R77W, T54S-R78W, T54S-R79W, T54S-R80W, T55S-R79W, and T55S-R80W, Seward Meridian.

Chaix Hills Unit Agreement Approved - On October 13 the USGS approved the Chaix Hills Unit Agreement covering 82,326 acres with the Standard Oil Co. of Cal. as operator. The unit area is located in the Icy Bay region of the Gulf of Alaska and covers parts of T20S-R25E, T20S-R26E, T21S-R24E, T21S-R25E, T21S-R26E, T22S-R24E, T22S-R25E, and T22S-R26E, Copper River Meridian.

White River Unit Agreement Approved - On October 13 the USGS approved the White River Unit Agreement covering 101,214 acres with the Richfield Oil Corp. as operator. The unit area is located in the Cape Yakataga area of the Gulf of Alaska and covers parts of T21S-R17E, T21S-R18E, T21S-R19E, T21S-R20E, T21S-R21E, T21S-R22E, T22S-R19E, T22S-R20E, T22S-R21E, T22S-R22E, T22S-R23E, T22S-R24E, T23S-R21E, T23S-R22E, Copper River Meridian.

The Superior Oil Co. Requests Hearing - An emergency order was issued October 6 at the request of the Superior Oil Co. for an exception to 2061.1 of the Alaska Oil and Gas Conservation Regulations. The operator requested permission to locate its exploratory well,

Chuit-State No. 1, within 500 feet of a governmental quarter section line in Section 8, T12N-R11W, Seward Meridian.

After legal public notice, a hearing was held at the Division of Mines & Minerals office, 329 Second Ave., Anchorage, at 10:00 a.m., October 18, 1961. At that time evidence supporting the operator's request was presented. An order, dated October 20, 1961, was issued wherein the Superior Oil Co. was permitted to locate said exploratory well 2500' N and 850' E of the SW corner of Sec. 8, T12N-R11W, Seward Meridian.

Shell Plans Tank Farm Near Anchorage Port - A 50 year lease of 5 acres of land adjacent to the Anchorage Port will be drawn up and signed in the near future to allow the Shell Oil Co. to construct a \$1.4 million, 329,000 barrel tank farm for jet fuel. If construction begins this year, plans call for the completion of the six tanks by September, 1962.

Release of Records - Pursuant to Section 2008.1 of the Alaska Oil & Gas Conservation Regulations, well records for the following wells will be released publicly: Kenai Unit 14-6, Union Oil Co. of Cal., Opr., November 11, 1961; Swanson River Unit 32-15, Standard Oil Co. of Cal., Opr., November 24, 1961; Rosetta No. 4, Hackathorn Drilling Co., Opr., November 30, 1961.

Seventh Competitive Oil & Gas Lease Sale - The Alaska Division of Lands has announced that on December 19, 1961, the State will offer for competitive sale oil and gas leases covering 68 tracts, containing approximately 255,708 acres, spread over the areas of Icy Bay, Yakutat Bay, Kachemak Bay, Cook Inlet, and Kenai Peninsula. These areas are described by the following protraction sheets, and may be referred to, for purchase or reference, by the sheet number(s): (1) Icy Bay area - sheet CR-9-6; (2) Yakutat Bay area - sheets CR-8-2-A, CR-9-8-A, & CR-9-9; (3) Kachemak Bay area - sheets S-16-4, S-16-5, and S-16-6; (4) Cook Inlet area - sheets S-13-2, S-13-3, S-13-5, S-13-6, S-13-7, S-13-11, & S-13-12; (5) Kenai Peninsula area - sheets S-13-3, S-16-4, S-16-5, & S-16-6.

The protraction sheets cost \$2.00 per sheet; further information and necessary forms may also be obtained from the Division of Lands, 344 Sixth Avenue, Anchorage.

#### NEW DM&M ANALYTICAL EQUIPMENT

Irwin W. Mitchell, DM&M Assayer at Anchorage, announces receipt of an x-ray spectrograph which will greatly expedite analytical work on mineralogical examinations. X-ray spectrographic analysis is accomplished by irradiating the sample with an intense beam of x-rays to excite secondary fluorescence. The wave length of the secondary fluorescence is different for each element, thus providing a means for identification. The intensity of the secondary radiation is proportional to the concentration of the element from which it originates. This factor makes quantitative analysis possible.

Elements in range of atomic numbers from 12 (Magnesium) through 98 (Californium) can be analyzed. This range includes all rare earths as well as individual element analyses of platinum group metals. The nondestructive nature of this method makes it possible to use a small amount of material for an analysis and still save the sample.

Once the unit is in full operation, it will be utilized for geochemical work in the analysis of stream sediments and waters, as well as vegetation analyses. It is expected that the machine will be assembled, checked, calibrated and in full operation for the next prospecting season.

Periodic announcements in this Bulletin by Mr. Mitchell will describe more fully the accuracy expected for each element analysis, sample collection, and preparation, as well as the current back-log of work, if any.

## DM&M MAGAZINE ARTICLES

Mining Engineering, an official publication of AIME and one of the most widely read national mining magazines, will devote its December issue to Alaska. Articles included will be on various Alaskan mining operations and on activities in Alaska of the USGS, USBM, DM&M and the University of Alaska College of Earth Science and Mineral Industries. Three articles are being contributed by the DM&M. One is on the geology and ore deposits of Alaska by Gordon Herreid, Mining Geologist, and two are on the new State mining law and on the future of Alaskan base metal mining by James A. Williams, Director. We will purchase reprints of the geology and mining law articles for distribution upon request. Please do not write for them until we announce that they are available.

Another DM&M article is "Developments in Alaska in 1960" by Donald D. Bruce, Petroleum Geologist. Mr. Bruce's article, which appeared in the June issue of the Bulletin of the American Association of Petroleum Geologists, reviews petroleum exploration and drilling activity in Alaska in 1960. Copies of the 'Development' article are available, and may be obtained from the Division of Mines & Minerals, 329 Second Avenue, Anchorage.

## RESOURCE COMPETITION

In case anyone doubts that there is intense competition for the world's iron markets, let him consider the following three items from September Mining Engineering: (1) Two huge deposits in Liberia and Guinea have been committed to developers through concession agreements. A third is still uncommitted, though bidding on the property has been going on for more than a year. (2) A U.S. firm, Minerals and Chemicals Phillipps Corp. has acquired a major interest in a Chilean mining company which owns and operates large iron ore mines at several locations in northern Chile and holds rights to an undeveloped property which may prove to be one of the largest deposits in South America. The transaction also involves acquisition of a worldwide shipping company engaged in transporting iron ore. (3) Cyprus Mines Corp. and Utah Construction & Mining Co. have joined with Consolidated Gold Fields of Australia to explore for iron ore in Australia on a 308,256 acre concession where possibilities are reported good.

The Western Miner of Vancouver, B. C., responded to our report of Mr. Holdsworth's market investigation trip to Japan by saying the following: "Mr. Holdsworth's findings parallel those of the mission from British Columbia that visited Japan a few months ago. If a lesson is to be learned from his observations, it is that Western Canada has some definite advantages in the establishment and development of trade patterns with Japan and the Orient in general, but that the benefits to be gained (and they are substantial) can easily be lost to competitors, either by neglect or default." The same issue reports prospecting, claim staking and mineral production in B.C. as breaking former records this year because of the Japanese market developments and contracts in that Province.

## PROPERTY TAXES PAID

Mr. W. S. "Sam" Pekovich requests we announce that he has made arrangements with the State Department of Revenue to settle the tax matter concerning the Admiralty Alaska Gold Mining claims. We assure readers that our publishing the list of claims on which property taxes were owed was only part of our continuing effort to keep the mining public informed on mining matters. It was not intended to embarrass anyone. We will be happy to make a similar announcement for anyone requesting it.

Some of the affected claim holders are simply giving their claims to the State by means of a quit claim deed to clear the matter. What the State will, or can, do with unpatented mining claims is a good question, legal and practical.

## NEW USGS PUBLICATIONS

A new USGS bulletin which will be useful for reference purposes to many people interested in Alaskan resources is Bulletin 1139, "Index of Metallic and Nonmetallic Mineral Deposits of Alaska Compiled from Published Reports of Federal and State Agencies Through 1959" by Edward H. Cobb and Rueban Kachadoorian. It may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C., and the USGS sales offices in Alaska for an undisclosed price. Copies are on file at the DM&M offices. It is a 363-page compilation of all known references to mineral deposits in Alaska (as indicated by the title) arranged by the USGS quadrangle in which they occur and alphabetically within the quadrangle. The deposits are pinpointed as to location on the quad by coordinates in inches from the left and bottom margins. Lists of all USGS and USRM publications pertaining to Alaska are included.

Other new USGS reports are Professional Paper 303-C, "Geology of Utukok-Corwin Area, Northwestern Alaska," by Robert M. Chapman and Edward G. Salbe, \$3.75, and Professional Paper 305-K, "Core Test and Test Wells, Barrow Area," by Florence Rucker Collins, \$2.25.

## SEATTLE AIME CONFERENCE

The AIME-ASM will hold the Pacific Northwest Regional Minerals and Metals Conference at Seattle on April 26-28; headquarters will be the Benjamin Franklin Hotel. A total of eight sessions is anticipated, the number being kept to a minimum to avoid conflicting papers. A series of presentations is planned in the following fields: (1) Mining, (2) Geology, (3) Mineral Beneficiation, (4) Industrial Minerals, (5) Extractive Metallurgy, (6) Physical Metallurgy. Details on programming will follow at a later date. The meeting dates will coincide with the opening week of Century 21, Seattle's World Fair.

## ETCETERA

The Division of Lands October Land Lines reports the status of the State land acquisition program as follows: 10,187,562.54 acres applied for, 1,401,393.09 acres tentatively approved, and 283,210.79 acres patented.

Duplicates of recorded assessment work affidavits are coming in from various recorders which indicate that many claim holders do not yet realize that the annual assessment work date has been changed to September 1. Annual labor should, by law, be done within the assessment work year for which it is to apply. Therefore, assessment work done prior to September 1, 1961, could hardly be expected to be chargeable to the assessment work year ending in 1962 if it were to be contested by another party.

A number of miners and prospectors are also not yet aware that there is now no limit to the staking of precious metal placer claims, so long as the legal requirements are made. The last State Legislature repealed the law which formerly limited the gold placer claim staking to two per month per recording district.

The Land Lines' third list of properties delinquent under the Land Registration Law contained no mining claims.

Meetings were held recently for informing the public, and hearing the public, on a proposed new Water Code to be presented to the approaching Legislature. The new Code is intended to govern all uses of water throughout the State, and would establish a Division of Waters within the Department of Natural Resources to administer the function under the direction of the Departments of Natural Resources, Fish and Game, and Health and Welfare. Several constructive suggestions for changes were made at the meetings.

The latest tin news as reported by the E&M weekly market report is as follows:

"In Bolivia, U.S. Aid, via the Inter-American Bank, is working to reorganize the badly disorganized tin mines -- from the mine shifts on out to the miners' commissaries. At least \$10-million is going into this project right now. IADB hired mining consultants, C.C. Huston and Associates of Canada to help straighten out Bolivia's mines. Money is going into new equipment, replenishing squandered commissaries and into legal severance pay for release of nonproductive workers. The deal is that Bolivia gets the money only if it takes long-needed reform steps in mining."

#### NEW PLACER PROSPECTING DRILL

In the course of his regular field work, DM&M Mining Engineer, Martin W. Jasper, observed a new type of placer drill at work testing gravels at Slate Creek, Chistochina River District. Mr. Jasper was favorably impressed by the drill and felt that it has good possibilities for recovering larger samples at a faster rate than had before been possible. The drill is an air actuated clam shell. The digging tool, having a weight of approximately 1500 pounds, is suspended on a cable and may be mounted on any power shovel, drag-line, or crane or other similar power unit. A round hole from two to three feet in diameter is dug, according to size of bucket used and type of material excavated. Rock, only slightly smaller than the diameter of the hole, may be removed as the jaws of the clam have a closing pressure of around seven tons.

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

	<u>Oct. 26,</u> <u>1961</u>	<u>Month</u> <u>Ago</u>	<u>Year</u> <u>Ago</u>
Copper, per lb.	31¢	31¢	30.0¢
Lead, per lb.	11¢	11¢	12¢
Zinc, per lb.	11.5¢	11.5¢	13¢
Tin, per lb.	120.9¢	122.3¢	103.1¢
Nickel, per lb.	81.3¢	81.3¢	74¢
Platinum, per oz.	\$80-85	\$80-85	\$81-85
Mercury, per flask	\$189-192	\$188-191	\$209-212
Antimony ore, per unit	\$4.30-4.50	\$4.30-4.50	\$3.30-3.35
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	\$22-24	\$22-24	\$24-25
Silver, foreign, per oz.	91.4¢	91.4¢	91.4¢
Silver, domestic, per oz.	90.5¢	90.5¢	90.5¢