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

P. O. Box 1391
Juneau, Alaska

MINES AND PETROLEUM BULLETIN

December, 1961

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No. 12

OIL NEWS

During the first 24 days of October the Petroleum Branch of the DM&M approved two applications for permit to drill, both wells being located in the Gulf of Alaska region. Locations and operators for the two wells are: (1) Bering River Unit 2, Richfield Oil Corp., Opr., SW/4, Sec. 22, T19S,R7E, Copper River B&M; (2) Chaix Hills Unit 1-A, Standard Oil Co. of Cal., Opr., SE/4, Sec 32, T21S,R25E, Copper River B&M.

The Standard Oil Co. of Cal. notified the Petroleum Branch of a revised location for its Anchor River 1: 750'S and 1800'W of the NE cor. of Sec 29, T4S,R11W, Seward B&M.

Drilling permits issued during 1961 now total 52, compared to 26 for the same period in 1960.

Drilling Activity as of November 24, 1961

Operator	Well Name & No.	Status
Pan American	West Foreland 1	Drilling
Pan American	Stedatna Creek-State 1	Drilling
Richfield	Bering River Unit 2	Drilling @ 860'
SOCAL	Chaix Hills Unit 1-A	Drilling @ 2316'
SOCAL	SRU 41-28	Drilling @ 10709'
SOCAL	SRU 21-22	Drilling @ 6591'
SOCAL	SRU 34-8	Drilling @ 7236'
SOCAL	SCU 21-3	Drilling @ 7682'

The following wells were completed by November 24, 1961:

Operator	Well Name & No.	Status
Richfield	White River Unit 1	TD 7982', P&A
Richfield	Bering River Unit 1	TD 6175', P&A
Colorado	Core Hole 4	TD 5326', P&A
Belco	Antonio Zappa 1	Testing suspended
SOCAL	Chaix Hills Unit 1	TD 10017', P&A
SOCAL	SCU 34-9	TD 11038', POW
SOCAL	SCU 21-4	TD 10896', POW
SOCAL	SRU 43-15RD	TD 11380', POW

Production, Swanson River Field

	Producing Wells	Oil (barrels)	Water (barrels)	Gas (MCF)
October, 1961	42	715,466	19,095	134,838
Cumulative to November 1, 1961		5,524,196	166,479	1,116,624

Production, Kenai Gas Field

	Producing Wells	Oil (barrels)	Water (barrels)	Gas (MCF)
October, 1961	1	0	0	25,211
Cumulative to November 1, 1961		0	0	71,052

Pan American Petroleum Corp. Requests Hearing - An emergency order was issued on November 2, 1961, at the request of the Pan American Petroleum Corp. for an exception to Section 2061.1 within the purview of Section 2061.4 of the Alaska Oil and Gas Conservation Regulations. The operator requested permission to locate its exploratory well, Stedatna Creek-State 1, within 500 feet of a governmental quarter section boundary in Sec 30, T12N, R12W, Seward Meridian. After legal public notice, a hearing was held at the Division of Mines and Minerals Building, 329 2nd Ave., Anchorage, commencing at 10:00 a.m. November 13, 1961. At that time, evidence supporting the operator's request was presented. An order, dated November 15, 1961, was issued wherein the Pan American Petroleum Corp. was permitted to locate said exploratory well 815 feet north and 2,365 feet west of the southwest corner of Sec 30, T12N,R12W, Seward Meridian.

Release of Records - Pursuant to Section 2008.1 of the Alaska Oil and Gas Conservation Regulations, well records of the following wells will be released publicly: Iniskin Unit - A. Zappa No. 1, Belco Petroleum Co., Opr., December 19, 1961; Great Basins Unit 2, Mobil Oil Co., Opr., December 11, 1961; Kenai Unit 34-31, Union Oil Co. of Cal., Opr., December 24, 1961; Swanson River Unit 12-27, Standard Oil Co. of Cal., Opr., December 30, 1961.

Anchorage Mailing Address Change - Effective immediately the new mailing address of the Anchorage office of the Division of Mines and Minerals is Box 148, Anchorage. All oil and gas correspondents please note. However, any mail addressed to 329 2nd Ave. will be delivered as addressed.

DM&M NEWS

Mr. William H. Race has been appointed to the position of Mining Engineer at the Juneau office of the Division of Mines and Minerals. This position has been vacant since last March. Bill is a member of a pioneer Ketchikan family, and is a graduate of the University of Alaska School of Mines. During the War, he was employed in coal mining in the Matanuska Field as part of his military service. Since that time, he has been manager of the New York-Alaska dredging operations at Nyac.

As noted above under OIL NEWS, the mail address of our Anchorage office has been changed to Box 148, Anchorage. The street address and phone numbers remain the same.

ADDITIONAL NIKE RANGE

The following letter has been received at our Juneau office from the U. S. Army:

State Division of Mines & Minerals
Box 1391
Juneau, Alaska

Gentlemen:

The United States Army, Alaska will conduct its annual Nike service practice east of Eielson Air Force Base from 1 January to 15 March 1962 over land recently withdrawn by Public Law. This year, it is planned to fire over an additional area, which is outlined on the inclosed drawing. Although the danger

is negligible, this Command prefers that no one be in the area during actual test firings.

Request that your office furnish this headquarters a status report as soon as possible of mining claims in the area delineated on the inclosed map in order that claimants may be contacted and arrangements made for their evacuation during the aforementioned period.

Sincerely yours

/s/ James F. Choate

James F. Choate
Capt. AGC
Asst Adjutant General

1 Incl
Map

The area as outlined by the Army is reproduced on the following page of this Bulletin. It contains the headwaters of the following streams: Salcha River, South Fork Birch Creek, Woodchopper Creek, Coal Creek, and Beverly Creek, which is tributary to Charley River. The size of the area is roughly 622,000 acres. The westernmost boundary of the new area coincides with the easternmost boundary of the existing Nike range except that the boundary of the new area extends several miles further south.

NEW SW ALASKA SECTION AIME OFFICERS

A meeting of the Southwest Alaska Section of AIME was held November 20, 1961, and the following officers were elected: Chairman, C. E. Smith, Alaska Manager of Operations for the Union Oil Co. of Cal.; Vice Chairman, Cole E. McFarland, Evan Jones Coal Co.; Secretary-Treasurer, A. L. Renshaw, Jr., City of Anchorage; Board of Directors, G. E. Moerlein, Bear Creek Mining Co.; C. F. Herbert, Consultant Mining Engineer; D. D. Bruce, Chief, Petroleum Branch, Alaska Division of Mines and Minerals.

USGS THOUGHTS ON MINING RESEARCH

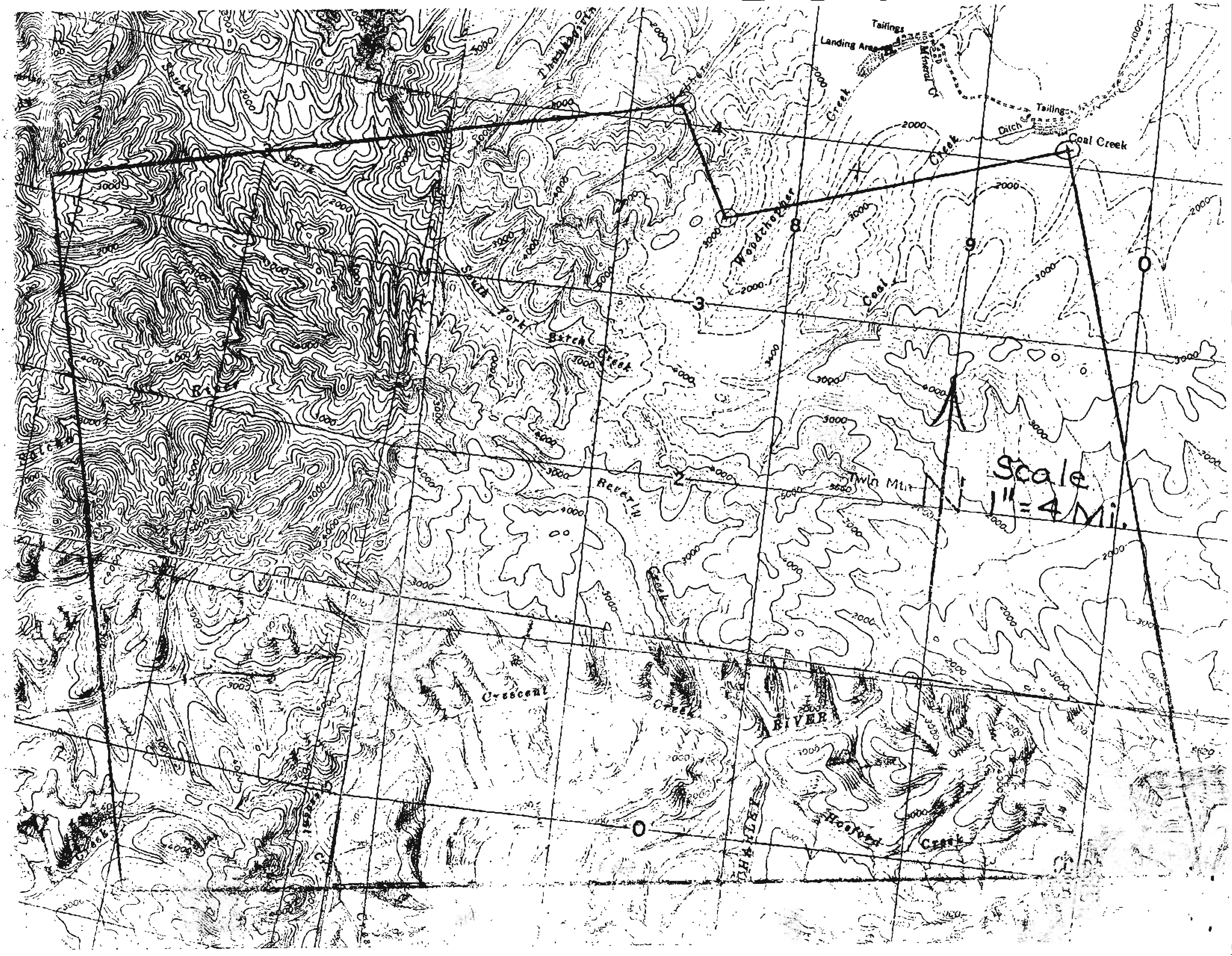
Some good points were made on the need for more mining research by Thomas B. Nolan, Director of the U. S. Geological Survey, at the American Mining Congress in Seattle last September. The title of his paper was "Importance of Research in Creating Mineral Resources." Selected paragraphs from his presentation are quoted here:

. . .

"Now, what kind of research must be done to develop supplies of raw materials for the future? It seems that three general categories are desirable: 1) research that will develop either new uses for raw materials currently in use, or that will call for the utilization of materials that are presently little used for any purpose; 2) research that will make it possible to extract valuable materials from deposits that can not be mined or processed economically now; and 3) research that will allow us to predict the location and nature of deposits that do not outcrop, or are concealed by superficial deposits."

. . .

"Certainly research on mining and metallurgical technology ought to receive far more support from both industry and government than is the case now. Whereas an average of about four percent of the sales value of the products of other industries is spent on research, the comparable figure for the mining industry is much less, being on the order of less than one percent.


Tailings
Landing Area
Mineral Cr
Tailings
Ditch
Coal Creek
Coal Creek
Woodchopper
South Fork
Birch Creek
Beverly Creek
Twin Mtn
Scale
1" = 4 Mi.
Crescent
Creek
RIVER
Creek

"Those plagued by surplus production of one or another mineral may not feel as strongly about the need for accelerated research in this field as the writer, who contends that its results would yield quick benefits to domestic producers who are suffering from competition with foreign sources. True, the new techniques would eventually be applied abroad as well as at home, but the level of our technology and the level of training of our labor force permit us to take advantage of such advances more quickly than most others are able to do.

"The status of the third category of research, research in the science of ore-finding, is somewhat similar to research in mining and processing technology: the progress is measurable but insufficient to solve many of the problems that are facing us. Of these problems, three are most pressing in terms of future demands: the first and most difficult is, how can we discover the ore deposits that surely exist beneath the earth's surface but are wholly concealed? The second is, what are the origin, habits, and probable extent of the deposits of the "new" elements - tellurium, selenium and others that have had little value heretofore and hence have received so little notice that we hardly know how to go about prospecting for them? And the third is a related but perhaps easier question, what are the habits, the nature, and the characteristic environments of the low-grade deposits, knowledge of which will help us to explore for ores that may be profitable to mine?"

. . .

"Excellent strides, of course, have been made in developing methods and principles applicable to the search for concealed deposits of oil and gas, and the development of instruments such as the airborne magnetometer and airborne radiation detector has made it possible to search more effectively for wholly concealed deposits of a few other minerals. Moreover, study of the genesis and habits of ores in specific districts has led to much success in searching for blind ore bodies in adjacent areas (the recent discovery of ore bodies beneath a concealed thrust fault in the East Tintic district is a bright example of scientifically guided ore-finding within a known district). But for many minerals we do not yet have the knowledge that permits us to search effectively for concealed deposits beyond the limits of known areas of mineralization or beneath extensive cover."

. . .

"Inasmuch as there is no simple or inexpensive way to search for concealed ore deposits, the question might be raised as to whether it would not be simpler to concentrate on research of the low-grade ores, on which we will have to depend ultimately, and not spend any more time and money on the difficult problem of searching for concealed deposits. Actually, similar work is needed to guide the development of low-grade sources, and it is doubtful that we can avoid doing it; but if the problems were completely different, the question would turn on the number and value of the concealed deposits that remain to be found.

"In regard to the first, a common assumption, which geologically seems to be valid, has been that on the basis of the ratio between exposed and concealed areas, that there are at least two or three times as many deposits yet to be found as have been discovered thus far. This is probably a conservative estimate, for each year new discoveries on the outcrop remind us that all of the ore deposits that lie beneath exposed areas have not yet been discovered.

"So far as the value, as well as the number, of undiscovered concealed ore deposits are concerned, a review which the writer made some years ago showed what seemed to be a statistically sound relationship between the number and size of productive mining districts and the surface extent of geologically similar large areas. This approach also leads to the conclusion that many districts remain to be discovered, perhaps as many as ten times those now known; in addition it suggests that among these undiscovered districts, there will be the same relative number of major districts, or "elephants" as has been found up to now.

. . .

"Most mining people would acknowledge that exploration for petroleum is a good deal more advanced than that for most other minerals, and that we have probably found and mined a good deal less of the mineral deposits that actually exist within the United States of a quality

comparable to those being mined now. Hence, it seems reasonable to assume that the value of undiscovered mineral deposits other than the fossil fuels is at least ten times that of the production to date, giving us a target of roughly a trillion dollars in concealed deposits. This is the value of the resource that might be created by improving methods of ore finding, and few would question that it is a target worth shooting at."

. . .

ETCETERA

Under this heading last month we mentioned that the last State Legislature had repealed the law which had limited the staking of precious metal placer claims to two per month per recording district. Although this was a State law, it affected staking on Federal public domain. This law had nothing to do with staking on State-owned land, and was not part of our newly adopted State law concerned solely with mining activities on lands acquired by the State.

The November issue of the Division of Lands' Land Lines did not include a list of lands delinquent under the Land Registration Law.

A good concluding statement in an editorial on the Wilderness Bill in the Spokane Chronicle of November 1, 1961, was as follows: "Surely there is wisdom that can bring about reasonable and constant protection of the grandeur of the wilds, and still not close the door to intelligent multiple-use of enormous areas."

The latest score on State land selections stands at 10,205,088.75 acres applied for, 1,464,413.80 acres tentatively approved, and 290,137.29 acres patented.

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E. AND M. J. METAL MARKET PRICES

	Nov. 23, 1961	Month Ago	Year Ago
Copper, per lb.	31¢	31¢	30.0¢
Lead, per lb.	10¢	11¢	12¢
Zinc, per lb.	11.5¢	11.5¢	13¢
Tin, per lb.	122.8¢	120.9¢	102.9¢
Nickel, per lb.	81.3¢	81.3¢	74¢
Platinum, per oz.	$80-85	$80-85	$81-85
Mercury, per flask	$189-192	$189-192	$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	$20-22	$22-24	$22-24
Silver, foreign, per oz.	91.4¢	91.4¢	91.4¢
Silver, domestic, per oz.	90.5¢	90.5¢	90.5¢