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Department of Natural Resources

DIVISION OF MINES AND MINERALS

**DIVISION OF
GEOLOGICAL SURVEY**

Pouch, M

Juneau, Alaska 99801

MINES AND PETROLEUM BULLETIN

September 1967

MINING AND EXPLORATION

Northwest - Kennecott Copper Corp. has plugged the bottom of its flooded shaft at Bornite with cement. The shaft flooded last fall in spite of careful drilling ahead and grouting when the last round was blasted at "target depth" of about 1070 feet. Four thousand sacks of cement (eight carloads) were flown to the property and used in the pour. No aggregate was used. The cement was poured under water, and it filled the shaft to a depth of about 23 feet above the bottom. After a 30-day cure, pumping will be commenced, and resumption of underground excavation and exploration will follow.

OIL AND GAS NEWS

Ten applications for drilling permits were approved by the Division's Petroleum Branch as follows:

Pennzoil Company #1 Starichkof Unit, API #50-231-20001, 760' FNL and 1880' FEL, Sec. 22, T3S, R15W, S.M. This exploratory location is offshore and about 20 miles northwest of Homer.

Shell Oil Company #1 Kustatan Ridge, API #50-133-20030, 1012' FSL and 942' FEL, Sec. 19, T9N, R14W, S.M. The exploratory location is onshore and about twelve miles west of the Middle Ground Shoal Field.

Union Oil Company of California #1 West Trading Bay State, API #50-133-20031, 1200' FNL & 800' FWL, Sec. 4, T9N, R13W, S.M. This development well is in the Trading Bay Field Area.

Shell Oil Company #A-42-14 Middle Ground Shoal, API #50-133-20029. Surface location: -1682' FSL and 367' FEL, Sec. 11, T8N, R13W, S.M. Bottom hole location: -2500' FNL and 820' FEL, Sec. 14, T8N, R13W, S.M. This development location is in the Middle Ground Shoal Field.

Pan American Petroleum Corporation #10 Granite Point State 18742, API #50-133-20032. Surface location: 1948' FSL and 1979' FWL, Sec. 31, T11N, R11W, S.M. Bottom hole location: 660' FNL and 660' FWL, Sec. 6, T10N, R11W, S.M. This development location is in the Granite Point Field.

Tenneco Oil Company #1 State 36465, API 50-133-20033 1' FSL and 2500' FWL, Sec. 34, T7N, R14W, S.M. This offshore exploratory location is 15 miles northwest of Kenai.

Atlantic Richfield Company #1 Middle River State Unit, API #50-133-20034. 660' FNL and 660' FEL, Sec. 20, T10N, R13W, S.M. This offshore exploratory location is three miles northwest of the Trading Bay Field.

Union Oil Company of California #A-7 Trading Bay State, API #50-133-20036. 1615' FSL and 561' FEL, Sec. 4, T9N, R13W. This development location is in the Trading Bay field.

Union Oil Company of California #G-1 State, API #50-133-20037. Surface location: 1886' FSL and 1306' FEL, Sec. 29, T9N, R13W, S.M. Bottom hole location: 1450' FNL and 1386' FEL, Sec. 29, T9N, R13W S.M. This is the first development location from the Grayling Platform in the Trading Bay Unit, 2 1/2 miles south of the Trading Bay Field.

Union Oil Company of California #G-2 State, API #50-133-20038. Surface location: 1829' FSL & 1480' FEL, Sec. 29, T9N, R13W, S.M. Bottom hole location: - 570' FSL and 2020' FEL, Sec. 29, T9N, R13W, S.M. This is the second development location from the Grayling Platform, and is an offset to the discovery well of the McArthur River Field.

Drilling Activity

<u>Operator</u>	<u>Well Names and Numbers</u>	<u>Type*</u>	<u>Status (8-24-67)</u>
Atlantic Richfield Co.	Middle River State Unit #1	E	Drilling
Atlantic Richfield Co.	Prudhoe Bay #1	E	Temp. Susp.
Atlantic Richfield Co.	Trading Bay State #2	E	Drilling
Humble Oil & Refining Co.	Tyonek Reserve "B" #1	E	Drilling
Marathon Oil Company	Beaver Creek #2	E	Drilling
Mobil Oil Corp.	Granite Point State #13-13	D	Drilling
Mobil Oil Corp.	Granite Point State #13-13	D	Temp. Susp.
Mobil Oil Corp.	Granite Point State #31-14	D	Drilling
Mobil Oil Corp.	Tower #2	E	Drilling
Pan American Petroleum Corp.	Albert Kaloa #1	E	Drilling
Pan American Petroleum Corp.	Foreland State Unit #1	E	Abandoned
Pan American Petroleum Corp.	Granite Point State 17587 #4	D	Abandoned
Pan American Petroleum Corp.	Granite Point State 18742 #3	D	Drilling
Pan American Petroleum Corp.	Granite Point State 18742 #6	D	Comp oil well
Pan American Petroleum Corp.	Granite Point State 18742 #7	D	Drilling
Pan American Petroleum Corp.	Granite Point State 18742 #8	D	Drilling
Pan American Petroleum Corp.	Granite Point State 18742 #9	D	Temp. Susp.
Pan American Petroleum Corp.	Granite Point State 18742 #10	D	Drilling
Pan American Petroleum Corp.	MGS State 17595 #10	D	Testing
Pan American Petroleum Corp.	MGS State 17595 #11	D	Testing
Pan American Petroleum Corp.	North MGS State 18745 #2	E	Suspended
Pan American Petroleum Corp.	Redoubt Shoal State #1	E	Suspended
Pan American Petroleum Corp.	South MGS Unit #2	D	Drilling
Pan American Petroleum Corp.	South MGS Unit #3	D	Drilling
Pennzoil Co.	Starichkof Unit #1	E	Drilling
Placid Oil Company	State 17580 #1	E	Abandoned
Shell Oil Co.	Kustatan Ridge #1	E	Location
Shell Oil Co.	MGS #A-33-1	D	Comp oil well
Shell Oil Co.	MGS #A-42-14	D	Drilling
Shell Oil Company	MGS #A-44-11	D	Testing

Standard Oil Co. of Calif.	Beluga River Unit #14-3	D	Testing
Superior Oil Company	Three Mile Creek State #1	E	Drilling
Tenneco Oil Company	State 36465 #1	E	Drilling
Union Oil Co. of Calif.	Kenai	D	Location
Union Oil Co. of Calif.	Trading Bay State #A-3	D	Suspended
Union Oil Co. of Calif.	Trading Bay State #A-7	D	Location
Union Oil Co. of Calif.	State G-1 (32-28)	D	Location
Union Oil Co. of Calif.	State G-2 (34-29)	D	Location
Union Oil Co. of Calif.	West Trading Bay State #1	E	Drilled & Abandoned

* "E" indicates an exploratory well, and "D" a development well.

Production - July 1967 (Gas now all at pressure base of 14.65 psi)

Field	Zone	Prod. Wells	Oil, Bbls.	Gas, MCF
Swanson River Field	Hemlock	34	1,090,528 69,339,332*	1,096,773 25,283,496*
	Injection Hemlock	8 (inj)		3,611,951 66,298,841*
Middle Ground Shoal	Hemlock	19 (incl 5 duals as 10 wells)	560,225 6,084,283*	226,502 2,707,713*
Kenai	Kenai	13 (incl 3 duals as 6 wells)	3,243,472 70,031,914*	3,243,472 70,031,914*
Sterling	Kenai	1		10,886 512,159*
Trading Bay	Hemlock	5 (1 dual)	90,352 220,666*	52,456 134,468*
Granite Point	Kenai	4	536,017 1,344,905*	393,713 940,534*
	State Total		2,277,122	8,663,357
	Average Per Day		73,456	279,463

*Cumulative to August 1, 1967

DIVISION ACTIVITIES

The Fairbanks flood has not changed our plans for the move, but it will now be delayed, of course. We are guessing at the moment that about the end of October should see us consolidated in the new quarters at College.

NEW PUBLICATIONS

The U. S. Geological Survey has published a dictionary of Alaska place names. It contains 1084 pages and nearly 44,000 entries. Each entry identifies and locates the feature named, lists different spellings of the name if such exist, and other names previously applied to the feature. History and origin of each name are given when possible. The title is "Dictionary of Alaska Place Names" by Donald J. Orth, and it is published as USGS Professional Paper 567. It may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402, for \$8.50, or over the counter (not by mail) from the Geological Survey Public Inquiries Office, Skyline Building, Anchorage. Please do not order this publication from the Division of Mines and Minerals.

The Proceedings of the Third Gold and Money Session, which was held in conjunction with the Pacific Northwest Metals and Minerals Conference at Portland last April is now available. Three papers have been added to those presented at the conference, and a verbatim transcript of the panel session is included. It is available for the price of \$2.00 from the Oregon Department of Geology and Mineral Industries, 1069 State Office Building, Portland, Oregon, 97201. Please do not order this publication from the Division of Mines and Minerals.

DM&M CENTRAL RECORDING AND MINERAL INVENTORY

Mining people are quite often unaware of the existence or value of our Kardex file of all known Alaskan mineral deposits, mining claims, and mining claim holders. Persons interested in developing Alaska's mineral resources are urged to avail themselves of its information by mail for the more simple inquiries, and to visit our office for the larger projects. We are sometimes unable to answer requests for information covering large areas, but we welcome persons with exploration interests to research the files in our office. We have always maintained a place in our offices where such investigative work can be done. Exploration parties have spent as many as seven days in our office using our Kardex file, reports, and geological library to lay out a field program for a whole season.

The Kardex file was based on a USGS card file of references to all mineral deposits mentioned in USGS and USBM publications. We entered all this information in our Kardex cards and added to it information on other prospects from our files of unpublished reports of geological work and prospect examinations done by personnel of this agency and private individuals. As new reports and bulletins are published by the USGS, USBM, and DM&M, information on prospects or mineral deposits not before mentioned are added to the file. Mining claim information pertaining to the prospects is added to the appropriate cards, or on separate cards where no information has been published regarding the mineral deposit staked.

Each card shows:

- (1) if claims have been staked on a particular prospect,
- (2) if they have, by whom, names of the claims, and other information,
- (3) if there is published information on the prospect,
- (4) where any published information can be found, and
- (5) mineralogical information on the prospect, if available.

One card usually exists for each prospect or group of claims. On the rare

occasions where more than one card exists, they are cross-referenced to each other so that no information is missed. The file presently contains approximately 6000 cards.

The cards are filed according to the USGS quadrangle (scale 1" = 4 miles) within which the occurrences lie. There are 153 quads covering the State. The location is pinpointed as accurately as descriptions on the claim location certificate or published description allows. The pinpointing is done by means of coordinates in inches and tenths from the left and bottom edges of the quadrangle map. A separate coordinate card file of all occurrences is maintained. As new information is received, the coordinate file is checked before a new card is made out to see whether a card already exists for the particular occurrence staked or reported. This insures that all information pertaining to one location or occurrence is included on one card or cross-referenced. When staking conflicts are evident, we usually notify both parties on a confidential basis in case they are not aware of the conflict. This helps avoid court cases and other problems.

The mining claim information is taken from duplicate copies of recorded location certificates and assessment work affidavits which have been coming to us from all the recorders of the State and former Territory since 1953. This information is added to the Kardex cards as already described, but is also filed four other ways for convenience in finding desired claim information. From the location certificate, the following information is typed on a triplicate form:

- (1) name of owner
- (2) name of claim,
- (3) mineral for which claim was probably staked, and
- (4) USGS quadrangle within which the claim lies.

Assessment work information is added to these forms each year from the affidavits coming in. The certificate or affidavit document is filed alphabetically by owner's name within the USGS quadrangle where the claim is located. The three copies of the triplicate form are filed three ways:

- (1) alphabetically by owner's name without regard to quadrangle,
- (2) alphabetically by claim name without regard to quadrangle, and
- (3) alphabetically by mineral staked and by owner's name within each mineral category.

As already mentioned, another file is made up of the coordinates of the claim locations and filed by quad and numerical order of the coordinates. Thus, reference to a claim can be found in our files from several different directions, depending on what information is available. Information on patented claims is also included.

The top lines of the Kardex card have spaces for the following information to be entered (either spelled out or in code) so that the main points of the occurrence can be ascertained by a glance as one riffles through the file:

- (1) Recording precinct, mining district, coordinates, quad number,
- (2) serial number (of prospect), metallic minerals, nonmetallic minerals,
- (3) land status (open, staked, or patented), development, production,
- (4) filed information, published information, date last visited,
- (5) merit, and active or idle.

The two sides of the card expand on this information, add other information, and give all known references where further information can be obtained. Thus in a matter of minutes we can find whether a particular prospect has been staked, exactly where certain claims may lie, what claims may lie within a certain area, who may be holding claims, what published information may exist on certain prospects, what deposits of

a particular mineral may lie in certain areas, etc.

Examples of questions that we can easily answer by mail are the following:

Are there any claims on Fish Creek in the Fortymile?

Where does Joe Doakes hold claims?

Is the Neversweat prospect on Admiralty Island open for staking?

What information is available on the Eagle antimony prospect?

What molybdenum prospects are located in the area of Iliamna Lake?

If the recorder is doing his job properly, he places the address of the claim owner on the location certificate if it is not there already. We can then furnish this address when someone wants to get in touch with the holder of certain claims.

All that is needed to make the system complete in one office is for a draftsman to plot the claims on quadrangle maps at a scale of 1" equals 1 mile for distribution. This will enable interested persons to see the locations easily, tie the claims in with the Kardex information, and use the maps for field work. The claim maps can easily be plotted with the information already on hand and the current information coming in. The maps should be revised at appropriate times to keep them current, depending on the activity in the area. With our approaching consolidation at Fairbanks (College) a draftsman for this purpose and for drafting maps for our geological and other reports is anticipated. In the relatively few areas where State land is involved, the claim maps can be sent to the Division of Lands for combining with other land status information, if desired. A few maps of the more congested areas near Fairbanks showing claims and land status have been published by the Division of Lands.

E. AND M.J. METAL MARKET PRICES.

	<u>August 28 1967</u>	<u>Month Ago</u>	<u>Year Ago</u>
Copper, per lb.	39.1c	38.3c	36c
Lead, per lb.	14c	14c	16c
Zinc, per lb.	14c	14c	14.5c
Tin, per lb.	151.9c	154.5c	187 3/4c
Nickel, per lb.	85.25c	85.25c	79c
Platinum, per oz.	\$109-112	\$109-112	\$97-100
Mercury, per flask	\$490-495	\$472-482	\$675-700
Antimony ore, per unit	\$5.20-6.20	\$5.20-6.20	\$7.30-7.60
Beryllium powder, 98c per lb.	\$54-66	\$54-66	\$54-66
Chrome ore, per long ton	\$31-35	\$31-35	\$31-35
Molybdenum Conc., per lb.	\$1.62	\$1.62	\$1.55
Titanium ore, per ton	\$21-24	\$21-24	\$23-26
Tungsten, per unit	\$43.00	\$43.00	\$27.50-28.50
Silver, New York, per oz.	169.50c	184.10c	129.3c