

STATE OF ALASKA
Department of Natural Resources
DIVISION OF MINES AND GEOLOGY

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MINES AND PETROLEUM BULLETIN

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NEW DISCOVERIES

Seward Peninsula - In a recent radio press release the U.S. Geological Survey revealed the location of two large mineralized zones near the Peace River in the Candle Quadrangle on the Seward Peninsula. One of the zones is mineralized with lead and silver, the other with molybdenum. The Division's Geologic Report No. 12, Geology of the Bear Creek Area, Seward Peninsula, Candle Quadrangle, Alaska, by Gordon Herreid was published in 1965. This report deals with field work near the discoveries noted above; it points out the structural favorability of the area and best means of prospecting for deposits there. A company geologist who visited our offices expressed our thoughts very well when he remarked: "If anyone had followed Mr. Herreid's instructions for prospecting in the area the deposits could have been discovered several years ago." This points out the value of seriously studying the Division geologic and geochemical reports in the quest for favorable prospecting areas.

Eagle Quadrangle - The February 24 issue of Jessen's Daily printed an article describing claim staking on an asbestos occurrence in the Eagle Quadrangle. On February 18 the USGS released to news media the location of an asbestos occurrence discovered last summer (see p 3). Don Roberts, a Fairbanks prospector, flew by bush plane to the area immediately, found the outcrops, and began staking claims. Between 8 and 10 o'clock on the 19th two helicopters landed with crews for the same purpose and a small plane flew out to drop claim posts. Roberts concluded a 50-50 agreement with a Canadian firm, Silver Standard, while still on the outcrop.

MINING NEWS

Mining activity, Ketchikan District - Bill Huff, Secretary of the Ketchikan Branch, Alaska Miners Association, reported in the February 14 issue of the Ketchikan Daily News that mining activity in the Ketchikan district showed a great increase in 1968 and the outlook for 1969 is even better.

(con't on page 2)

NOTICE RE FUTURE BULLETINS

Please note: Pink and green slips are enclosed with this Bulletin. Within the next few months the new Division of Oil and Gas will start publishing a monthly Oil and Gas Bulletin, which will contain oil and gas news. When that happens, the Division of Mines and Geology will rename its bulletin the Mines Bulletin, and it will not contain oil and gas news. To stay on the permanent mailing list for the Mines Bulletin, please return the "pink slip" to us at Box 5-300, College, Alaska 99701. To be put on the mailing list for the Oil and Gas Bulletin when it starts, please send the "green slip" to the Division of Oil and Gas at 3001 Porcupine Drive, Anchorage, Alaska 99504. Present subscribers who do not return pink slips to the Division of Mines and Geology will be kept on its present mailing list until the Oil and Gas Bulletin is started, and then will be dropped. Please note the instructions on the slips.

This very encouraging report contains some interesting points as follows: 1) Nine major exploration projects by large companies are in progress. 2) There were 1,052 new claims staked and recorded in 1968. 3) Exploration activity added \$1,000,000 to the economy of Ketchikan during the year and projects continuing through the winter are adding another \$30,000 per month. 4) A large number of local residents, who would otherwise be unemployed, are taking an active part in the development on the payrolls of the mining companies. 5) Several local prospectors have sold, leased or optioned their properties to major companies and others are negotiating.

Mr. Huff points out that the interest in Alaska and particularly Southeastern Alaska is related to several factors including an increased demand for metals by industry; a lack of attractive exploration targets in the lower 48 states as compared to the vast amount of undeveloped resources in Alaska; the unstable political situation in some foreign countries which makes exploration in Alaska attractive; and ore deposits in Southeastern Alaska are near tide water and year around ports, whereas other parts of Alaska are less accessible.

LAND AND MINERAL REGULATIONS

Proposed Mining Regulations for State Lands - The Alaska Division of Lands has published proposed regulations governing exploration activities on state lands. It would appreciate receiving reviews and ideas and will be glad to meet with groups or individuals to explain or discuss the proposal. Mining people should study these proposals carefully and express their ideas to the Commissioner of Natural Resources or the Division of Lands as the regulations would regulate and restrict prospecting activities. Requests for copies of the regulations should be addressed to: F.J. Keenan, Director, Division of Lands, 344 Sixth Avenue, Anchorage, Alaska 99501.

The Department may adopt the proposed regulations by administrative action after an advertised formal public hearing. Mr. Thomas E. Kelly, Commissioner of Natural Resources, states that he will meet for informal discussions on the proposals with mining groups requesting such informal meetings, probably in April, prior to the formal hearing. He asks that these groups study the proposals and have suggestions ready by that time.

The proposed regulations would impose restrictions on the use of tracked vehicles, maximum trail widths, stream contamination, damage to vegetation, and surface damage. Other items to be regulated include explosives, campsites, garbage disposal, protection of survey markers, fire control, reclamation, and location of test holes.

The regulations would require that prospecting permits be obtained for areas where clearing of the surface, making trails, or excavation or sluicing of surface material are required; test drilling is undertaken, tracked vehicles are used off established roads or trails, explosives are detonated, or materials including soil, are discharged into waters. The application for the permit would require a detailed map showing location of proposed activities and a detailed description of the proposed operation in general including depth of test holes and excavations, type of equipment to be used, and other items. The proposal also provides for filing fees, duration of permits, bonding requirements, inspection rights, and penalties.

Withdrawal of unreserved lands in Alaska - To clear up any confusion as to whether or not mining claims can be staked while Public Land Order 4582, or as it is more commonly known, the "Land Freeze", is in effect the following is quoted directly from the order.

"1) Subject to valid existing rights, and subject to conditions hereinafter set forth, all public lands in Alaska which are unreserved or which would otherwise become unreserved prior to the expiration of this order, are hereby withdrawn from all forms of appropriation and disposition under the public land laws (except location for metalliferous minerals) including selections by the State of Alaska...."

Thus claims for metallic minerals are specifically excepted and they may be staked in the usual manner.

NEW USGS PUBLICATIONS

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

Circular 609, "Mercury in Soil Gas and Air - a Potential Tool in Mineral Exploration", by J.H. McCarthy, Jr., W.W. Vaughn, R.E. Learned, and J.D. Meuschke. The report points out that most metallic ore deposits contain mercury in tiny amounts and it can be detected in soil gas at the surface or in the atmosphere as much as 200 feet above the deposit. The report shows that it is possible to detect mercury vapors in the atmosphere and the next step is to develop portable sensing equipment for airborne surveys.

Circular 611, "Asbestos Occurrences in the Eagle C-4 Quadrangle, Alaska", by Helen L. Foster. The report describes an asbestos occurrence discovered in connection with heavy metals program of the U.S. Geological Survey. The exposed part of the deposits consists of large joint blocks of serpentine which are cut by closely spaced subparallel veins. The veins are about 1/4 inch thick and contain cross-fiber chrysotile asbestos. The asbestos appears to be of commercial quality, but the quantity is not known. The report points out the importance of this discovery, because other ultramafic masses in the Yukon-Tanana upland can now be considered potential host rocks for asbestos.

The following open file reports have been released by the USGS and are available for consultation in the Alaskan USGS and State Division of Mines and Geology offices. Material from which copies of these open file reports can be made at private expense is available in the Alaskan Geology Branch, USGS, 345 Middlefield Road, Menlo Park, California, 94025.

1. "Preliminary Geologic Map of the Mt. Michelson Quadrangle Alaska" by H.N. Raeser and I.L. Tailleux, 1 sheet, scale 1:200,000.
2. "Bathymetry and Isopach map of Stratified Holocene Sediments of Nuka Bay, Alaska" by Erk Reimnitz and Roland von Huene; 2 maps, explanation (3 sheets).

E. AND M.J. METAL MARKET PRICES

	<u>February 24</u>	<u>Month Ago</u>	<u>Year Ago</u>
Copper, per lb.	44.2¢	44.2¢	Suspended
Lead, per lb.	14.0¢	13.5¢	14¢
Zinc, per lb.	14.0¢	14.0¢	13.5¢
Tin, per lb.	167.5¢	163.25¢	145.75¢
Nickel, per lb.	\$1.03	\$1.03	94.0¢
Platinum, per oz.	\$120-125	\$120-125	\$109-114
Mercury, per flask	\$537-545	\$532-540	\$584-586
Antimony ore, per unit	\$6.70-6.79	\$6.47-6.56	\$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.	181.5¢	198.1¢	208.0¢
Gold, per oz.	\$43.00	\$42.73	----

MORE ON THE "LAND FREEZE"

While waiting for the Oil and Gas News to arrive from Anchorage, we mimeographed the first three pages. (See item at bottom of page 2.) Since that time, individuals involved in a small staking rush for an asbestos discovery reported by the USGS have been in to see us. In discussing the restriction of the land freeze to "metalliferous" minerals, they stated they had thought this meant "locatable" minerals. The U.S. BLM says not. We have now inquired of the Department of the Interior in Washington on the matter. Unless information to the contrary is published, claim stakers in the area affected by the land freeze should remember that claims staked for nonmetallic minerals, even though locatable, will not be valid. The freeze is supposed to end at midnight, December 31, 1970 if other action is not taken sooner by the Department of the Interior or Congress.

OIL AND GAS NEWS

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

Please note the item at the bottom of page 1 and the pink and green slips enclosed with this Bulletin re the future Oil and Gas Bulletin.

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

Permit No. 69-11. Atlantic Richfield Co. #S-3 North Trading Bay State.

API No. 50-133-20175. Surface location: 2,613' FSL and 2,495' FEL, Sec. 26, T10N, R13W, S.M. Bottom hole location: 1,940' FSL and 1,050' FWL, Sec. 26, T10N, R13W, S.M. This development location is in the Trading Bay Field.

Permit No. 69-12. Union Oil Company of California #4 Kenai Deep Unit.

API No. 50-133-20176. Surface location: 305' FNL and 4,231' FWL, Sec. 7, T4N, R11W, S.M. Bottom hole location: 1,670' FSL and 200' FWL, Sec. 7, T4N, R11W, S.M. This development location is in the Kenai Gas Field.

Permit No. 69-13. Atlantic Richfield Co. #1 Nova Federal, API No. 50-223-20003. 660' FSL and 1,980' FWL, Sec. 5, T2N, R14E, U.M. This exploratory location is about 55 miles south of the Prudhoe Bay discovery well on the Arctic North Slope.

Permit No. 69-14. BP Oil Corporation #31-11-16 Sag Delta, API No. 50-029-20011. 1,102' FNL and 1,743' FEL, Sec. 31, T11N, R16E, U.M. This exploratory location is about 10 miles southeast of the Prudhoe Bay discovery well on the Arctic North Slope.

Permit No. 69-15. Halbouty Alaska Oil Co. #1 Theodore River, API No. 50-283-20022. 1,590' FNL and 2,140' FEL, Sec. 33, T14N, R9W, S.M. This exploratory location is 5 miles northeast of the Beluga River Gas Field.

Permit No. 69-16. Pan American Petroleum Corporation #1 Bachatna Creek State 36448. 660' FSL and 660' FWL, Sec. 21, T8N, R15W, S.M. This exploratory location is about 7 miles west of the West Foreland Gas Field.

DRILLING ACTIVITY (as of February 26, 1969)

<u>Operator</u>	<u>Well Names & Numbers</u>	<u>Type</u>	<u>Status</u>
<u>Southern</u>			
Atlantic Richfield Company	N. Trading Bay State S-1	D	Comp. Oil Well
Atlantic Richfield Company	N. Trading Bay State S-2	D	Location
Atlantic Richfield Company	N. Trading Bay State S-3	D	Drilling
Gulf Oil Corporation	Middle Lake Unit #1	E	Drilling
Halbouty Alaska Oil Company	Theodore River #1	E	Location
Mobil Oil Corporation	Granite Point #32-23	D	Drilling
Mobil Oil Corporation	MUC #1-1	E	Drilling
Pan American Petroleum Corp.	Bachatna Creek State #1	E	Location
Pan American Petroleum Corp.	David River #1-A	E	Drilling
Pan American Petroleum Corp.	MGS State #12	D	Testing
Phillips Petroleum Company	North Cook Inlet Unit A-1	D	Temp. Susp.
Phillips Petroleum Company	North Cook Inlet Unit A-3	D	Drilling
Shell Oil Company	Johnson Slough #1	E	Abandoned
Shell Oil Company	MGS "C" Line #1	D	Drilling
Shell Oil Company	MGS C-41-23	D	Comp. Oil Well
Standard Oil Co. of Calif.	Moquawkie 44-8	E	Abandoned
Texaco Inc.	Trading Bay TS-5	D	Temp. Susp.
Texaco Inc.	Trading Bay TS-6	D	Location
Union Oil Co. of Calif.	Kenai Deep Unit #4	D	Drilling
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-14	D	Spud-Temp. Susp.
Union Oil Co. of Calif.	Trading Bay Unit D-16	D	Location
Union Oil Co. of Calif.	Trading Bay Unit D-17	D	Drilling
Union Oil Co. of Calif.	Trading Bay Unit D-18	D	Comp. Gas Well
Union Oil Co. of Calif.	Trading Bay Unit G-16	D	Drilling
Union Oil Co. of Calif.	Trading Bay Unit G-17	D	Drilling
Union Oil Co. of Calif.	Trading Bay Unit K-10	D	Drilling
Union Oil Co. of Calif.	Trading Bay Unit K-13	D	Comp. Oil Well
Union Oil Co. of Calif.	Trading Bay Unit K-15	D	Drilling
<u>Northern</u>			
Atlantic Richfield Company	Delta State #1	E	Drilling
Atlantic Richfield Company	Nora Federal #1	E	Location
Atlantic Richfield Company	Toolik Federal #1	E	Drilling
BP Oil Corporation	Put River #1	E	Drilling
BP Oil Corporation	Put River BP 33-11-13	E	Drilling
BP Oil Corporation	Sag Delta #1	E	Location
BP Oil Corporation	Sag Delta #31-11-16	E	Location (R.U.)
Colorado Oil and Gas Corporation	Shavirovik #1	E	Location
Mobil-Phillips	Kuparuk State #1	E	Drilling
Pan American Petroleum Corp.	Kavik #1	E	Drilling
Sinclair Oil Corp.	Sinclair BP Ugnu #1	E	Location
Standard Oil Co. of Calif.	Socal 31-25	E	Drilling
Texaco Inc.	West Kavik	E	Location

PRODUCTION - January, 1969 (Pressure base 14.65 psi)

Field	Oil-Bbls	Water-Bbls	Gas-MCF	*No. of Wells Prod.	Cum. Oil	Cum. Gas
Granite Point	763,135	12,237	686,555	32 (4)	20,947,862	15,612,536
McArthur River	1,945,989	27,791	618,794	28 (8)	24,479,145	6,962,623
Redoubt Shoal				(1)	1,596	456
Middle Ground Shoal	1,046,663	50,292	648,018	52 (6)	25,268,339	11,729,868
Swanson River	1,173,559	218,265	2,885,449	35 (14)	89,744,437	60,695,408
Trading Bay	549,379	6,608	375,002	24 (7)	4,752,761	3,826,594
Total	5,478,725	315,193	5,213,818	171 (40)	165,194,140	98,827,485
Beluga River			322,005	2 (2)		2,487,826
Kenai			4,758,283	21 (1)		135,524,108
Kenai Deep			834,146	2		4,357,771
McArthur River			42,143	1		73,660
Moquawkie			63,363	1		447,513
Nicolai Creek			55,385	1 (2)		81,574
Sterling			31,778	1 (1)		816,637
South Barrow			58,944	3 (1)		3,944,252
Trading Bay	241	5	19,500	1	2,718	251,471
Inactive Gas Fields						12,028,261
Total Dry Gas	241	5	6,185,547	33 (7)	2,718	160,013,073
STATE GRAND TOTAL	5,478,966	315,198	11,399,365	203 (47)	165,196,858	258,840,558

Average per day: Oil, 176,741 bbls; Csg. Head, 168,188 MCF; Dry Gas, 199,534 MCF; Total Gas, 367,722 MCF.

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