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Division of Mines & Geology

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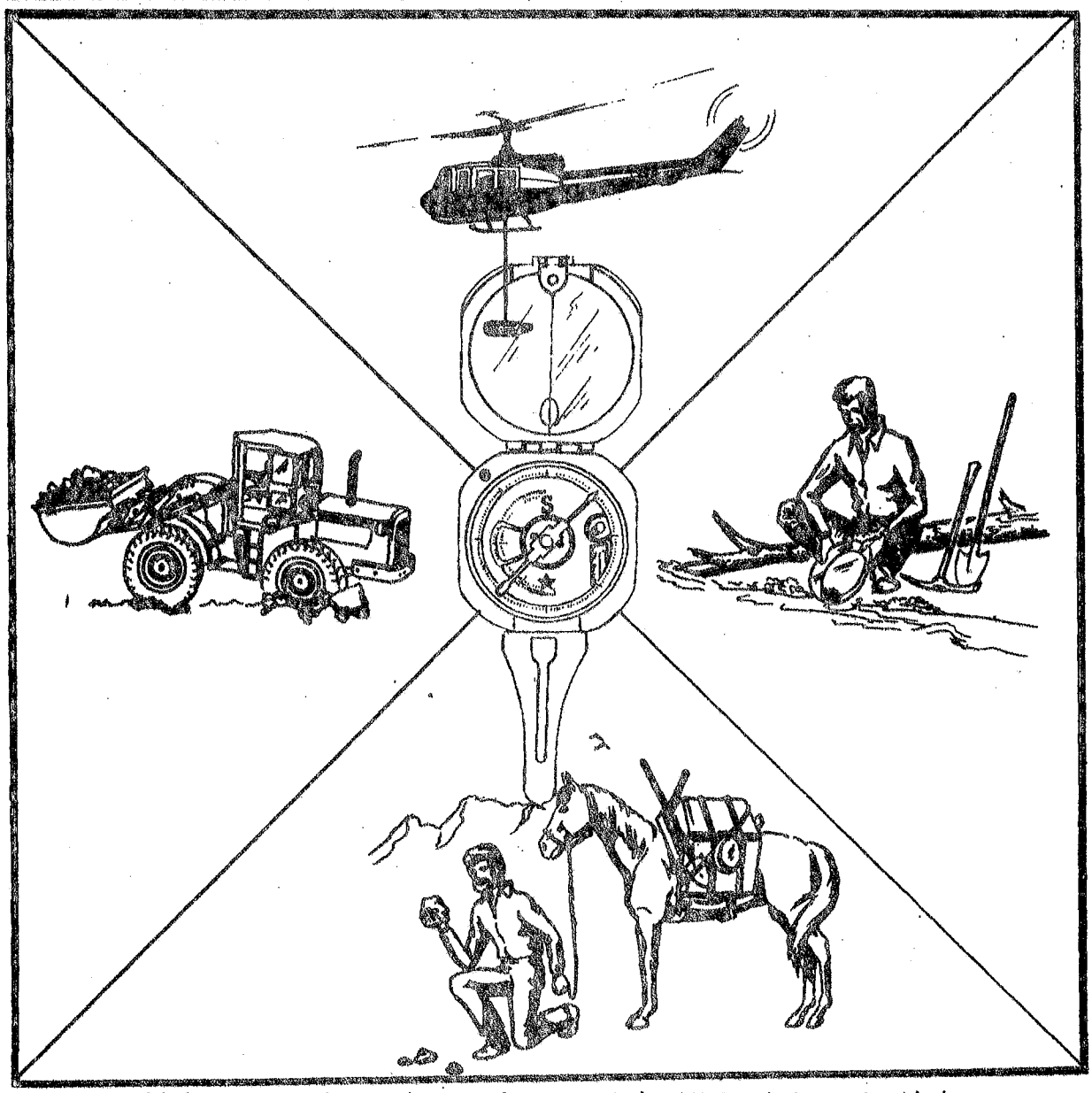

Published to Accelerate the Development of the Mining Industry in Alaska
Keith H. Miller - Governor
Thomas E. Kelly - Commissioner
James A. Williams - Director

ALASKA MINERAL PRODUCTION

The U. S. Bureau of Mines has released preliminary estimates of mineral production in Alaska during 1969. The following comments and table are of interest:

1. Total mineral production value in Alaska increased by $18.1 million, with a total of $244.8 million in 1969 compared with $226.7 million in 1968.

2. Eighty-nine percent of the total production was accounted for by crude oil and natural gas production in the Kenai Peninsula and offshore Cook-Inlet fields. The production value was $219 million.

3. Sand and gravel value decreased by $5.3 million for a 1969 total of $15.1 million.

4. Coal tonnage and value decreased. Unit value, with practically all production from the Nenana field, was nominally higher.

Preliminary estimate, mineral production in Alaska, 1969

Mineral	1968 Quantity	1968 Value (thousands)	1969 (preliminary) Quantity	1969 (preliminary) Value (thousands)	
Antimony ore and concentrate short tons, antimony content	3	W	----	----	
Barite----thousand short tons	W	W	95	W	
Coal (bituminous)----thousand short tons	W	W	W	W	
Gold (recoverable content of ores, etc.)--troy ounces	21,262	$835	16,000	$679	
Lead (recoverable content of ores, etc.)---short tons	W	W	----	----	
Natural gas-million cubic feet	17,343	4,388	49,424	8,364	*
Peat----------short tons	----	----	----	----	
Petroleum (crude)----thousand 42-gallon barrels	66,204	186,695	74,698	210,372	
Sand and gravel------thousand short tons	18,013	20,366	13,542	15,105	
Silver (recoverable content of ores, etc.)---thousand troy ounces	4	8	1	2	
Value of items that cannot be disclosed: Copper, gem stones, mercury, platinum-group metals, stone, tin, and values indicated by symbol W----------	XX	9,425	XX	10,028	
Total----------	XX	221,717	XX	244,550	

W - Withheld to avoid disclosing individual company confidential data.
XX - Not applicable.
* - "Marketed gas only, lower 1969 unit value reflects first Alaska use for petrochemical plant feed and for liquefaction plant feed."

SNETTISHAM IRON MINE

Marcona Corp. of San Francisco, California has applied for state and local tax credits to set up a 50 year operation for mining iron ore on Snettisham Peninsula in southeastern Alaska. The Snettisham deposit is located on the northwest end of the Peninsula approximately 40 miles southeast of Juneau.

Marcona estimates a capital investment of $130 million. This investment is approximately equilvalent to the total value of mineral production (excluding oil and gas) in Alaska since 1966, and is more than four times the amount spent during the last ten years for exploration in Alaska (excluding oil and gas).

Plans call for year round employment of 600 men. On-the-job training will be provided to enable hiring of Alaska residents lacking the skills needed for the plant. The estimated annual payroll will be $7,200,000.

Production of titaniferous magnetite containing 15 to 20 percent total iron is planned for July 1, 1973. Production is expected to last for 50 years and Marcona plans to ship 5,000,000 tons of ore per year. Annual gross income from the mine is anticipated to be $30,000,000.

The titanium content of the ore is one of the favorable features of the deposit. Today titanium is added to iron concentrate in order to produce rust free iron, but modern processes will enable Marcona to produce the titanium enriched pellets directly from the raw ore.

KETCHIKAN DISTRICT EXPLORATION

Paramount Mining, Ltd. told its shareholders that a joint exploration project with United Copper Co. in the Ketchikan district may lead to the development of a large open pit copper mine.

Other news in the district indicates an active exploration season ahead. Word has been received that the first of the "outside" companies arrived in Ketchikan the first part of January with other companies expected by February.

LAND USE REGULATIONS

The State Land Use Regulations became effective January 2, 1970. These regulations pertain only to state lands in Alaska and are not applicable on federal land within the state. Vehicle travel, road construction and surface use of the land are covered by the new regulations. For further information, contact the State Division of Lands, 344 6th Avenue, Anchorage, Alaska 99501.

NORTH SLOPE SEMINAR

A geological seminar on the North Slope of Alaska was held at Palo Alto, California, on February 1-3, 1970. It was sponsored jointly by the U. S. Geological Survey and the American Association of Petroleum Geologists. At least 12 technical papers (supplemented by informal discussions) were presented by members of the U.S.G.S. and private industry who have been working in Arctic Alaska in recent years. Technical meetings concerning various aspects of exploration and mapping in northern Alaska were attended by several hundred

geologists representing oil and mining companies, educational and research institutions, and federal and state agencies. Topics discussed included stratigraphy, sturcture, tectonics, regional geologic history, geophysical data, oil exploration, reservoir rocks, paleontology, and permafrost. The relationship between global tectonics, continental drift, formation of the Brooks Range, and deposition of strata now known to contain oil of economic interest was emphasized.

An Alaska Tectonics Symposium sponsored by the Alaska Geological Society will be held at the Alaska Methodist University in Anchorage on February 23-25, 1970.

NEW PUBLICATIONS

The Bureau of Land Management has published Technical Bulletin 4 entitled Placer Examination, Principles and Practice. This bulletin is designed primarily for B.L.M. use. But is also a good reference book and field manual for the mining profession as a whole. Included is a review of placer theory and geology, placer types, sampling and evaluation, sample washing equipment, panning and assay procedures, and a glossary of placer terms. This book is available from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402. The desk copy is $1.50 while the field edition which has a more durable binding, is $3.00.

The following open file reports have been released by the U. S. Geological Survey and are available for consultation in the Alaska 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 only at the Alaska Geology Branch, U.S.G.S., 345 Middlefield Road, Menlo Park, California 94025.

Metallic mineral resources map of the Hagemeister Island Quadrangle, Alaska, by Edward H. Cobb. 3 p., 1 pl. (scale 1:250,000).

Metallic mineral resources map of the Sleetmute Quadrangle, Alaska, by Edward H. Cobb. 4 p., 1 pl. (scale 1:250,000).

Geochemical data from the Nabesna A-2 Quadrangle, Alaska, by D. H. Richter and N. A. Matson, Jr. 12 p., 1 sheet (scale 1:63,360).

Geochemical data from the Nabesna A-4 Quadrangle, Alaska, by D. H. Richter and N. A. Matson, Jr. 14 p., 1 sheet (scale 1:63,360).

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

USGS Circular 632: Some estimates of the thermal effects of a heated pipeline in permafrost, by A. H. Lachenbruch 23 p.

METAL MARKET PRICES

	January 26	Month Ago	Year Ago
Copper per lb.	55.9¢	52.4¢	41.7¢
Lead, Per lb.	16.5¢	16.3¢	13.0¢
Zinc, per lb.	16.0¢	16.0¢	13.5¢
Tin, per lb.	178.2¢	180.2¢	163.2¢
Nickel, per lb.	$1.28	$1.28	94.0¢
Platinum, per oz.	$130-135	$130-135	$120-125
Mercury, per flask	$482-487	$490-498	$532-537
Antimony ore, Stu equivalent	$30.36-32.14	$17.86-18.75	$6.25-6.34
Beryllium powder, 98%	$54-66	$54-66	$54-66
Chrome ore, long ton	$31-35	$31-35	$31-35
Molybdenum conc, per lb.	$1.72	$1.72	$1.62
Titanium ore, per ton	$30-35	$20-21	$20-21
Tungsten, per unit	$43.00	$43.00	$43.00
Silver, New York, per oz.	189.2¢	174.1¢	193.5¢
Gold per oz.	$35.08	$35.27	$41.90
Barite (drilling mud grade from E/MJ November)	$12-16	$12-16	----

MARKET NOTES

The Division has received numerous inquiries concerning sources of market prices quoted in the Bulletin. Listed below are explanations of the prices quoted. These prices are obtained from Metals Week. Suggestions on ways to improve our listings would be appreciated.

Copper/lb:	Weekly average of domestic refined copper
Lead/lb:	Weekly average of New York price
Zinc/lb:	Weekly average of delivered price
Tin/lb:	Weekly average of New York Straits
Nickel/lb:	U. S. cathode price
Platinum/oz:	F. O. B. refinery
Mercury/flask	New York price
Antimony/stu:	Stu. equivalent, European ore
Beryllium:	Powder, 98% carload lots
Chrome ore/long ton:	Rhodesian nominal prices effective 1-5-67; U.S. importation prohibited since then. Price is 48-5% Cr_2O_3 3 or 3-1/2 - 1 ratio, lump.
Molybdenum, conc/lb:	lb. MO cont. 95% MOS_2 F.O.B., mine or mill, Climax price quote
Titanium ore/ton:	Ilmenite, domestic 60% st., F.O.B. Florida
Tungsten unit:	Ore, 65% min. scheelite
Silver, New York/oz:	Prices are for .999 fineness and reflect worldwide sales reduced to New York equivalent
Gold/oz:	U.S. Englehard buying price
Barite:	Drilling and mud grade from monthly E & MJ. Requests have been received to quote an Alaska price for barite but a dependable monthly quote is lacking at this time.