



Division of Geological Survey
MINES BULLETIN



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Published to Accelerate the Development of the Mining Industry in Alaska
William A. Egan - Governor Charles F. Herbert - Commissioner
William C. Fackler - Assistant Commissioner for Minerals

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ALASKA URANIUM OPERATIONS

George Wynecoop, President and Tibor Klobusicky, Vice President of Midnite Mines, Inc., have just returned from an inspection trip of Midnite's Kendrick Bay uranium operations, located on Prince of Wales Island in southeastern Alaska. They were accompanied by Alfred L. Service, liaison officer for Alaska of the U.S. Bureau of Mines.

Production of uranium-thorium ores is progressing on schedule at the Kendrick operation, Klobusicky reported. Ore is being mined under contract by the C.M. Company. Grade control and radiation monitoring is being carried out by a representative of Newmont Mining Co., who has a 51 per cent interest in the venture, with Midnite retaining 49 per cent interest.

The operation is highly mechanized. The ore is being blasted into draw points and loaded there by a rubber tired front end loader into a 20 ton diesel truck. The ore is then hauled through a 14 by 16-foot adit tunnel, 1,300 feet in length, to the dock-loading area, about half a mile from the tunnel portal. The truck makes round trips from the loading points underground to the dock area every 30 minutes. The ore stockpile is loaded on barges holding 4,500 tons by front end loaders.

The barges make a round trip to Seattle every 8 days. Three barges are in operation to insure a continuous flow of the mined ore to the Ford, Wash., processing plant.

At the time Wynecoop and Klobusicky visited the operation, the 5th barge was loaded. Thus to date, approximately 22,500 tons of ore were shipped from Kendrick Bay to Ford. The Kendrick Bay ore reserves have an estimated gross market value of approximately \$7,000,000. The ore is being blended at Ford with ore mined at Midnite's open pit uranium mine on the Spokane Indian Reservation. This was reported to stockholders of Midnite Mines at their annual meeting this week in Spokane.

ALASKA URANIUM OPERATIONS (Continued)

Klobusicky told stockholders the \$730,016 net income Midnite earned in the year ended April 30, compared to a loss of \$119,333 in the preceding year, reflected "the better-than-average" price Dawn Mining Co. is receiving for its uranium oxide production. This will continue at least through 1975. President Wynecoop expressed confidence in the future of nuclear power plants, silver, and the company. (Western Mining News, August 20, 1971)

MINING EXTENSION COURSES

The University of Alaska, Division of Statewide Services has released the following 1971-72 schedule of mining extension courses. If interested in any of the free courses listed, send your name, address, what course you plan on taking, and at what location to the Directors Office, Division of Statewide Services, University of Alaska, College, Alaska, 99701.

Willow M. Burand - Instructor

<u>Location</u>	<u>Dates</u>	<u>Course</u>
College	Sept. 20-Oct. 22	Prospecting
College	Oct. 4-Oct. 8	Staff
Bethel	Oct. 25-Nov. 19	Prospecting
Haines	Nov. 22-Dec. 23	Prospecting
Skagway	Jan. 3-Jan. 28	Prospecting
Sitka	Jan. 31-Feb. 11	Geochemical Prospecting
Juneau	Feb. 14-March 10	Prospecting
Petersburg	March 13-March 24	Geochemical Prospecting
College	March 27-April 21	Prospecting
Clear	April 24-May 19	Prospecting

Leo Mark Anthony - Instructor

Anchorage	Sept. 20-Oct. 1	Geophysical Prospecting
College	Oct. 4-Oct. 8	Staff
Anchorage	Oct. 18-Nov. 19	Prospecting
Seward	Nov. 22-Dec. 3	Geophysical Prospecting
Palmer	Dec. 6-Dec. 23	Rock Identification
Ft. Richardson	Jan. 3-Jan. 28	Basic Prospecting
Dillingham	Jan. 31-Feb. 25	Basic Prospecting
Elmendorf	Feb. 28-March 24	Basic Prospecting
Anchorage	March 27-April 14	Rock Identification
Anchorage	April 24-May 5	Geochemical Prospecting
College	May 8-May 19	Geophysical Prospecting

DIVISION PUBLICATIONS

The following list includes geochemical, and special publications of the Division of Geological Survey (DGS) to date. Out-of-print publications can be seen in certain public and University libraries. A complete file of these publications is maintained in the office of the Division of Geological Survey, University of Alaska Maintenance Building, University Avenue and College Road, College, Alaska. These publications are also maintained in DGS Mining Information Offices located at 509 Goldstein Building, Juneau; 323 East Fourth Avenue, Anchorage; and 306 Main Street (Room 312), Ketchikan. Mail for all offices should be addressed as follows:

State of Alaska
Division of Geological Survey

Pouch M
Juneau, Alaska 99801

P. O. Box 80007
College, Alaska 99701

Geochemical Reports

Note: Please do not order publications listed as Out of print.

- No. 1. Geochemical Investigations of Selected Areas in Southeastern Alaska, 1964, by C. F. Herbert and W. H. Race, November 1964. (27 p., numerous tables and maps). Out of print. Has been mostly included with the 1965 work in Geochemical Report No. 6 and partly in Geologic Report No. 17.
- No. 2. Geochemical Investigation of the Slana District, Southcentral Alaska, 1963 and 1964, by D. H. Richter, March 1965. (14 p. and map). Out of print.
- No. 3. A Geochemical Investigation in the Richardson Area, Big Delta Quadrangle, Alaska, by R. H. Saunders, April 1965. (11 p. and maps). Out of print.
- No. 4. Geochemical Investigation of Selected Areas in Southcentral Alaska, 1964, by M. W. Jasper, May 1965. (31 p., map, and tables). Out of print.
- No. 5. A Geochemical Investigation between Chatanika and Circle Hot Springs, Alaska, by W. M. Burand, May 1965. (11 p. and 2 plates). Price \$1.00.
- No. 6. Geochemical Investigations of Selected Areas in Southeastern Alaska, 1964 and 1965, by C. F. Herbert and W. H. Race, December 1965. (66 p., maps, and tables). Price \$1.00.
- No. 7. Geochemical Investigations Along Highway and Secondary Roads in Southcentral Alaska, 1965, by M. W. Jasper, July 1966. (8 p., various tables, and illustrations). Price \$1.00.
- No. 8. Geochemical and Geological Investigations of Admiralty Island Alaska, by W. H. Race and A. W. Rose, March 1967. (43 p., maps, and tables). Price \$1.00.
- No. 9. A Geochemical Investigation Along the Taylor Highway, East-Central Alaska, by R. H. Saunders, February 1966. (17 p., table, and Appendix). Price \$1.00.
- No. 10. A Geochemical Investigation of the Nenana Highway Area, Central Alaska, by W. M. Burand, April 1966. (13 p., maps, and figures). Price \$1.00.
- No. 11. A Geochemical Investigation of Stream Sediments in the Elliott Highway Area, Alaska, by W. M. Burand, July 1966. (16 p. and numerous figures). Price \$1.00.
- No. 12. A Geochemical Investigation of Minook Creek, Rampart District, Alaska, by W. M. Burand and R. H. Saunders, April 1966. (15 p. and figures). Price \$1.00.
- No. 13. Geochemical Investigations of Selected Areas in the Yukon-Tanana Region of Alaska, 1965 and 1966, by W. M. Burand, May 1968. (51 p. and tables). Price \$1.00.
- No. 14. Geochemical Investigations Willow Creek Southerly to Kenai Lake Regions, Southcentral Alaska, by M. W. Jasper, June 1967. (47 p. and tables). Price \$1.00.
- No. 15. Geochemical Investigations Along the Valdez to Chitina Highway in Southcentral Alaska, 1966, by M. W. Jasper, April 1967. (19 p. and numerous figures). Price \$1.00.
- No. 16. A Geochemical Investigation of a Portion of the Fortymile District, Alaska, by W. H. Smith, June 1968. (17 p., map, and tables). Price \$1.00.

Geochemical Reports (Continued)

- No. 17. A Geochemical Investigation of the Wood River-Tikchik Lakes Area, Southwestern Alaska, by G. R. Eakins, May 1968. (31 p., map, and tables). Price \$1.00.
- Sup. 17. A Geochemical Investigation of the Wood River-Tikchik Lakes Area, Southwestern Alaska, by G. R. Eakins, March 1969. (3 p., table and figures). No charge.
- No. 18. Geology and Geochemistry of Part of the Iron Creek Area, Solomon D-6 Quadrangle, Seward Peninsula, Alaska, by R. R. Asher, April 1969. (18 p. and Appendix). Price \$1.00.
- No. 19. Preliminary Geochemistry and Geology, Little Falls Creek Area, Talkeetna Mountains Quadrangle, Alaska, by Robert E. Anderson, March 1969. (16 p., map, and tables). Price \$1.00.
- No. 20. Geology and Geochemistry at Kontrashibuna Lake, Lake Clark Region Southwestern Alaska, by Gilbert R. Eakins, August 1970. (34 p., maps and illustrations). Price \$1.00.
- No. 21. Geochemical Survey and Geological Reconnaissance of the White River Area, South-Central Alaska, by Jeff Knaebel, October 1970. (60 p., maps and illustrations). Price \$1.00.
- No. 22. Geology and Geochemistry of the Belt Creek-Libby River Area Seward Peninsula Alaska, by R. R. Asher, July 1970. (42 p., maps and tables). Price \$1.00.
- No. 23. Geochemistry and Geology Boundary Area, Fortymile District Eagle A-1 Quadrangle, Alaska, by R. R. Asher, September 1970. (32 p., maps and tables). Price \$1.00.

Special Reports

- No. 1. History of Mines and Prospects, Ketchikan District, Prior to 1952, by John Bufvers, February 1967. (32 p.). Price \$1.00.
- No. 2. Mineral Occurrences in the Yukon-Tanana Region, Alaska, by R. H. Saunders, April 1967. (58 p., map, and figures). Price \$1.00.
- No. 3. A Petrified Forest on Unga Island, Alaska, by Gilbert R. Eakins, July 1970. (19 p. and map). Price \$1.00.
- No. 4. Mineralization Near Stepovak Bay, Alaska Peninsula, Alaska, by Gilbert R. Eakins, July 1970. (12 p., map, and tables). Price \$1.00.

METAL MARKET

<u>Metals</u>	<u>August 1971</u>	<u>Month Ago</u>	<u>Year Ago</u>
Antimony ore, stu equivalent			
European ore	\$8.64-10.00	\$8.64-10.00	\$22.32-24.11
Barite (drilling mud grade per ton)	\$18-22	\$17-20	\$12-16
Beryllium powder, 98%, per lb	\$54-66	\$54-66	\$54-66
Chrome ore per long ton	\$25-27	\$25-27	\$31-35
Copper per lb.	52.9¢	Note (1)	59.6¢
Gold, per oz.	\$43.60	\$40.68	\$35.90
Lead per lb.	14.1¢	14.0¢	15.0¢
Mercury per 76# flask	\$280-285	\$303-312	\$338-355
Molybdenum conc. per lb.	\$1.72	\$1.72	\$1.72
Nickel per lb.	\$1.33	\$1.33	\$1.28

METAL MARKET (Continued)

Platinum per oz.	\$120-125	\$120-125	\$130-135
Silver, New York, per oz.	160.2c	157.7c	184.8c
Tin per lb.	165.4c	167.0c	177.7c
Titanium ore per ton (Ilmenite)	\$30-35	\$30-35	\$30-35
Tungsten per unit	\$55.00	\$55.00	\$50-55
Zinc per lb.	17.0c	16.0c	15.5c

NOTES: (1) Quotation Suspended because of Copper strike.
 (2) Latest figures from August 16, 1971 issue of Metals Week, except Barite, from ^{which is taken} ~~from~~ July 1971 issue of E/MJ.

MINERAL SHORTAGE SEEN

Assistant Secretary of Interior Hollis M. Dole told the Senate House Committee on Defense Production that the United States, the world's largest consumer of minerals, faces an acute shortage of them in coming decades. Since 1940, he said, the U.S. has consumed \$260 billion worth of minerals, more than the entire world had consumed before then. (Western Mining News, 8-13-71)

ALASKA MINING CLAIMS

<u>Number of Claims</u>	<u>Creek or area</u>	<u>Quadrangle</u>	<u>Date Notice Posted</u>
15	Coal Creek	Charley River	June 1971
1	Two Bit Creek	Circle	July 1971
1	Half Dollar Creek	Circle	July 1971
4	Birch & Gold Dust Cr.	Circle	June 1971
1	Homestake Creek	Circle	June 1971
1	Squaw Creek	Circle	July 1971
65	Coronation Island	Craig	May 1971
3	Mineral Creek	Craig	July 1971
15	My Creek	Eagle	June 1971
1	Homestake Creek	Fairbanks	July 1971
5	Moose Creek	Fairbanks	June 1971
6	Tammany Creek	Healy	May 1971
19	Wickersham Creek	Healy	May 1971
6	Sunday Creek	Healy	July 1971
8	Ohio Creek	Healy	July 1971
9	Discovery Creek	Hughes	June 1971
5	Nelson Cove	Ketchikan	May 1971
1	Elliott Highway	Livengood	July 1971
1	Dome Creek	Livengood	June 1971
1	McCall Ridge	McCarthy	July 1971
69	Granite Mountain	McCarthy	June 1971
28	Sheep Creek	McGrath	June 1971
1	Eagle Creek	Mt. Hayes	July 1971
47	Maclaren River	Mt. Hayes	June 1971
70	Powell Gulch	Mt. Hayes	July 1971
30	Bear Creek	Mt. Hayes	July 1971
4	Broxson Gulch	Mt. Hayes	June 1971
1	Nome River	Nome	July 1971
18	Cold, Hobson & Grouse Creeks	Nome	June 1971
1	Resurrection Creek	Seward	June 1971

ALASKA MINING CLAIMS (Continued)

6	Glacier Creek	Shagway	June 1971
4	Sec. 22, T22N, R5W	Talkeetna Mountains	July 1971
	Slack Creek	Tanana	June 1971
85	Lost River	Teller	July 1971
11	Benito Creek	Valdez	July 1971
1	Chitina Mountain	Valdez	July 1971
1	O'Brien Creek	Valdez	July 1971
1	Twelvemile Creek	Wiseman	June 1971
1	Vermont Creek	Wiseman	June 1971

NEW OPEN FILE RELEASE

The U.S. Geological Survey has released on open file the following reports:

1. Preliminary geologic map, Mt. Michelson quadrangle, Alaska, by H. N. Reiser, W. P. Brosge, J. T. Dutro, Jr., and R. L. Detterman. Map, explanation (2 sheets), scale 1:200,000.
2. Geology and coal resources of T. 6 S., R. 51 W., unsurveyed, Umiat principal meridian, in the Cape Beaufort coal field, northwestern Alaska, by J. E. Callahan. 18 p., 5 sheets (map at scale of 1:24,000 with coal sections, index map, 3 tables).
3. Preliminary engineering geologic maps of the proposed trans-Alaska pipeline route, Wiseman and Chandalar quadrangles, by Reuben Kachadoorian. 2 sheets (2 maps, explanation, scale 1:125,000).
4. Preliminary engineering geologic maps of the proposed trans-Alaska pipeline route, Bettles and Beaver quadrangles, by Reuben Kachadoorian. 2 sheets (2 maps, explanation, scale 1:125,000).
5. Preliminary engineering geologic maps of the proposed trans-Alaska pipeline route, Fairbanks and Big Delta quadrangles, by Florence R. Weber. 2 sheets (2 maps, explanation, scale 1:125,000).
6. Preliminary engineering geologic maps of the proposed trans-Alaska pipeline route, Livengood and Tanana quadrangles, by Reuben Kachadoorian. 2 sheets (2 maps, explanation, scale 1:125,000).
7. Preliminary engineering geologic maps of the proposed trans-Alaska pipeline route, Beechey Point and Sagavanirktok quadrangles, by O. J. Ferriars, Jr. 2 sheets (2 maps, explanation, scale 1:125,000).
8. Preliminary engineering geologic maps of the proposed trans-Alaska pipeline route, Philip Smith Mountains quadrangle, by O. J. Ferriars, Jr. 2 sheets (2 maps, explanation, scale 1:125,000).
9. Preliminary engineering geologic maps of the proposed trans-Alaska pipeline route, Mt. Hayes quadrangle, by Florence R. Weber. 2 sheets (2 maps, explanation, scale 1:125,000).
10. Preliminary engineering geologic maps of the proposed trans-Alaska pipeline route, Gulkana quadrangle, by O. J. Ferriars, Jr. 2 sheets (2 maps, explanation, scale 1:125,000).
11. Preliminary engineering geologic maps of the proposed trans-Alaska pipeline route, Valdez quadrangle, by O. J. Ferriars, Jr. 2 sheets (2 maps, explanation, scale 1:125,000).

These reports can be seen in the following listed Alaskan offices of the USGS and ADGS and certain USGS offices in the other states.

NEW OPEN FILE RELEASE (Continued)

U. S. Geological Survey:

402 Brooks Building, College
108 Skyline Building, Anchorage
441 Federal Building, Juneau

Division of Geological Survey:

College Road and University Ave., College
323 East 4th Ave., Anchorage
509 Goldstein Building, Juneau
306 Main Street, Ketchikan

Material from which copy can be made at private expense is available at the Alaskan Mineral Resources Branch, USGS, 345 Middlefield Rd., Menlo Park, Calif., 94025.

MINERAL RESEARCH INSTITUTE BILL

The Senate Interior Committee has approved a bill by Sen. Gordon Allott (R-CO) to establish mineral research institutes in each state to stimulate new mining technology. The measure provides matching funds of up to \$100,000 the first year for each state, rising to \$250,000 by the fourth year, to support the institutes. Additional funds are provided for high-priority mineral resource research projects to be conducted at the various state institutes, which would be established at schools of mines, or colleges or universities having mining departments, or at other state-supported colleges.

Allott pointed out that the United States is now producing about \$25 billion worth of primary minerals each year, but it is using up \$32 billion worth, and this consumption may increase to \$66 billion annually by the year 2000. "The trend is clear," Allott said. "We are becoming more and more dependent upon foreign sources of minerals important to our industry and security." He added that new technology also is needed to meet environmental protection requirements. (American Mining Congress)

WHITEHORSE COPPER MINE CLOSED

The falling copper prices has resulted in the closing of the New Imperial Mines Ltd. copper mine and mill near Whitehorse. Employing some 130 men, the open pit mine yielded a low grade ore not worth continuing at present prices. The company is now into an underground program which it hopes to complete within two years. Mill re-opening is scheduled for late 1972 or early 1973. (Alaska Construction & Oil Report 7-27-71)

GOLD

Pressure on the U.S. Dollar was renewed in European markets this week following a French Central Bank order for banks to accept dollars for commercial transactions only. Demand for gold and silver bullion in Europe reportedly increased and prices of the precious metals rose. In London, gold reached a new two-year high of \$42.75. (Western Mining News, 8-13-71)

NEW MINE OPERATES IN SOUTHEASTERN

Kina Enterprises are getting fair results from their recently-constructed 20 ton per day flotation mill at a low grade ore site 12 miles east of Ketchikan. Reports say the first hundred tons yielded six tons of concentrate with as high as 153 oz. of silver, 66 per cent lead and 2 per cent bismuth per ton. (Alaska Construction & Oil Report 7-27-71)

MORE DIVISION PUBLICATIONS

(Continued from page 4)

Annual and Biennial Reports

Reports for the year 1912 through 1963 and 1966 and 1968 are out of print, but are available for consultation only at the College office of the Division of Geological Survey. There is no charge for the following annual reports: Report of the Division of Mines and Minerals for the years 1961, 1964, 1965, and 1967, Report of the Division of Mines and Geology for the year 1969, and Report of the Division of Geological Survey for the year 1970.

Miscellaneous Publications

There is no charge for the following miscellaneous publications except those noted.

Race, William H., The Mineral Industry of the Kenai-Cook Inlet-Susitna Region, 1962.

Roehm, J. C., Some High Calcium Limestone Deposits in Southeastern Alaska, Pamphlet No. 6, March 1946. Mimeographed copies are available without maps.

Alaska's New Mining Law for State Lands, by James A. Williams, Director, State Division of Mines and Minerals, December 1961. Reprinted from Mining Engineering magazine.

Tectonics and Ore Deposits in Alaska, by Gordon Herreid, Mining geologist, State Division of Mines and Minerals. Presented at the 1964 Alaska AIME Conference, College, Alaska, March 19, 1964.

Geology and Ore Deposits of Alaska, by Gordon Herreid, December 1961. Reprinted from Mining Engineering magazine.

A Possible Guide to Metal Deposits of Alaska, by Charles F. Herbert, Deputy Commissioner, State Department of Natural Resources. Presented at the 1964 AIME Conference, College, Alaska, March 20, 1964.

Mine Safety Regulations, 1963, from the Alaska Administrative Code.

The Great Alaska Earthquake, March 27, 1964: May 19, 1964.

Geological Literature on the Cook Inlet Basin & Vicinity, Alaska, by J. C. Maher and W. M. Trollman, published by Department of Natural Resources in cooperation with the U. S. Geological Survey. (82 p. and figures). Price \$1.50.

Geological Literature on the Gulf and Southeastern Coastal Regions of Alaska, by J. C. Maher and W. M. Trollman, published by Department of Natural Resources in cooperation with the U. S. Geological Survey. (136 p.). Price \$1.50.

NOTE: Add to your list of Geologic Reports published in the August issue of the Mines Bulletin the following:

No. 40. Geology of the Spirit Mountain Nickel-Copper Prospect and Surrounding Area, by Gordon Herreid, Aug 1970 (19 p., maps, and tables). Price \$1.00.

AEROMAGNETIC SURVEY PROGRESS

Our aeromagnetic survey flying has been slowed by bad weather in the Seward Peninsula and Goodnews survey areas. A total of nine days of survey flying remained on August 26. Preliminary prints of the East Alaska Range maps are expected to be completed by the contractor for our inspection within two weeks. After that the printing of the final copies will begin. We are compiling a mailing list of persons and firms to whom we will send notices of sale dates and details.