STATE OF ALASKA
Department of Natural Resources
Division of Geological Survey

MINES BULLETIN

VOL. XIX DECEMBER 1971 No. 12

P. O. Box 80007 College, Alaska 99701

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

IN THIS ISSUE

LOST RIVER MINERAL DEVELOPMENT

At the fall meeting of the Alaska Rural Development Council held at Nome, a principal focus was related to resource development activities in Western Alaska. Mr. Ron Sheardown, Vice President of the Lost River Mineral Development Corporation, discussed his firm's plans in building a mining operation at Lost River approximately 80 miles northwest of Nome on the Seward Peninsula.

Development work by his firm to date indicates a high potential for establishing a mineral production program concerned with mining fluoride and several lesser important by-products. Fluoride is used in the steel and aluminum smelting and refining processes as well as more commonly known products such as toothpaste.

Development work to date suggests a 20 year reserve in the neighborhood of 38 million tons. The firm is actively involved in study and assaying programs to determine the economic feasibility of the project. If this program in Western Alaska proceeds, it has a potential for developing a 300 man working force in the mining operation. Combined with potential supporting services this looms as a major developmental effort for Seward Peninsula and Western Alaska. There appear to be many related developments such as improving freight rates which should effect the economy of the entire region positively.

Still in the exploration stage are the development of a dock both for freighting purposes for the mining program and to serve the broader region and a development of a well-planned town site. Mr. Sheardown indicated that mining companies in general do not want to invest their dollars in community type facilities but rather in the mineral development activities directly. Consequently, they attempt to work very closely with state and regional governmental interest in order to provide not only aesthetic and good living conditions but a planned community that will fit in with the living patterns of the region in which the mineral development occurs. This type of private industry and public governmental cooperation has broad implications for building resource development programs and governmental services particularly in Western Alaska.

He also presented some contrasting figures on mineral production for this part of the northern hemisphere indicating that the province of Ontario last year produced one and one-half billion dollars of mineral production. The Yukon Territories, British Columbia and North West territories averaged approximately 150 million dollars mineral production for each province. While Alaska produced slightly over 11 million dollars in mineral production in 1970. Mr. Sheardown attributed this wide difference not to a difference in presence of the minerals but rather in a difference in incentives that support mineral development as contrasted between Canada and the United States. He suggested that the staking laws in the U.S. are outdated and that taxing of claims would activate transfer and move claims into hands that are interested in developing rather than holding them for speculative purposes. Further he added there is more money to be gained for a state by taxing a producing mine than in lease sales.

A final point he indicated if money isn't being spent to develop a property seriously, it shouldn't be held in private hands indefinitely.

As a mine developer with interests across the world, Mr. Sheardown suggested that there are few areas in the world that have as many physical advantages for mineral development as Western Alaska. Their firm in exploring shipping potentials has determined that it would be feasible to ship approximately 10 months a year with some special designs for ice breaking purposes during a part of that year. Ready access of the peninsula to ocean freighting certainly dependent on development of good dock facilities appears to make Western Alaska a very desirable marketing location for shipping minerals to almost any part of the world, he added.

If the developmental work proves positive, and the mine production proceeds, substantial amounts of electricity will be needed in the operation which will require a facility perhaps that can serve much of the Seward Peninsula unless serious roadblocks develop. Progress to date indicates that mineral production could begin as early as 1974. Prior to that time 40 to 50 million dollars investment will be required to set up for production purposes he concluded.

URANIUM-THORIUM ORE

At the state's only underground mining operation -- at Kendrick Bay, on Prince of Wales Island -- uranium-thorium ore is being transported from mining faces in a 20-ton diesel truck to barges for shipment to Seattle. The ore then goes by freight car to Springdale, Wash., and from there by truck to Dawn Mining Co.'s 500-tpd uranium processing plant at Ford, Wash. At Ford, the ore is blended with uranium ore from the Midnite open-pit mine on the adjacent Spokane Indian Reservation.

The mill and mine are owned by Dawn Mining, which is 51%-owned by Newmont Mining Corp. and 49% by Midnite Mines Inc., of Spokane, Wash. Last November, Newmont Exploration, Ltd., subleased the Kendrick Bay property to Dawn.

Dawn contracted with C. M. Inc. to mine the Kendrick Bay ore and load it onto barges built in Seattle, and production was started this summer.

The operation is highly mechanized. The ore is blasted into draw points and loaded there by a rubber tired, front-end loader into the 20-ton truck and hauled, through a 14 x 16-ft tunnel, a distance of 1,300 ft to the dock loading area about one-half mile from the tunnel portal. The truck makes round-trips every 30 minutes.

Front-end loaders load the ore on barges of 4,500-ton capacity. Three barges are in operation to insure a continuous flow of ore to the Ford, Wash., plant, making a round-trip to Seattle every eight days.

Kendrick Bay ore reserves are estimated by Dawn and Midnite officials to total about 50,000 tons, mostly highgrade, with a market value of approximately $7 million. About 22,500 tons had been shipped by mid-August, the companies say. (EM/J Oct. 1971)

SENATE PASSES ALASKA NATIVE CLAIMS BILL

On Nov. 1 the Senate, by vote of 76 to 5, passed S. 35, the Alaska Native Settlement Claims Act of 1971, a bill to provide for the final settlement of all land claims of Alaska natives. On Oct. 20 the House passed a similar bill; the differences in the two measures will be resolved in conference.

Both the House and the Senate bills contain a provision that would withdraw all unreserved public lands in Alaska from all forms of appropriation under public land laws, including the mining and mineral leasing laws. The Secretary of the Interior may terminate a withdrawal at any time with respect to a particular tract of land when he determines that it should be open to disposition and use under the public land law. He also may open a particular tract of land for entry upon application by an applicant if he so wishes.

The Senate amended this portion of the bill to provide "that notwithstanding the provisions of this Act, so long as any lands are withdrawn or classified under the authority conferred on the Secretary under this Act as not available for patent under the general mining laws, an applicant under (c) (2) may locate and evidence his claim to metalliferous deposits but such claim shall not be valid and shall create no rights as against the Federal Government until the Secretary classifies land as suitable for mineral location." This amendment would provide that miners can establish rights as against any other person, other than the federal government, prior to the time that the lands are classified as being available for mining.

Under the present Alaska land freeze, which has been in effect for five years, location of mining claims for metalliferous minerals has been possible. Even with the amendment adopted by the Senate, the measure would stifle the mineral development and other economic development in the state of Alaska. In a statement made earlier in October the American Mining Congress expressed opposition to this provision. Such blanket withdrawal of authority gives the Secretary unrestricted power to continue the withdrawal in perpetuity. (American Mining Congress 11-9-71)

MINERS WORRIED OVER KYL AMENDMENT

Lest there by any doubt that miners are really, seriously, worried over passage of the Kyl amendment on a native claims bill, suffice to say that one independent exploration outfit has decided to spend its year's company profits on fighting the amendment and, in general, for a 'more reasonable' settlement than present bills offer. The Kyl amendment would establish an Alaskan land freeze on unreserved lands under the discretion of the Secretary of the Interior, lasting until he classifies the land for its ultimate use. (Alaska From The Inside 11-2-71)

NINILCHIK COAL FIRE EXTINGUISHED

The Ninilchik underground coal fire has finally been extinguished. This fire has burned for several years in two coal seams located 20 and 40 feet above the beach in a 150 foot high bluff overlooking Cook Inlet where Deep Creek flows into the Inlet about one mile southwest of Ninilchik. The coal seams actively burning extended about 150 feet along the bluff with a cover of 50 to 75 feet of sandstone, claystone and soil. The beach is a popular spot with the local people as well as tourists to the area. A man-made trail extended up the bluff to the lower seam of fire.

Danger was present in an overhanging bluff above the trail to the lower fire, which was fractured or cracked and showed signs of being likely to sluff off at any time as a block about 15 feet long, 10 feet high, and two feet thick which would kill anyone in its path.

Here and there were vents in the underground caverns made by the collapse of rocks into the burned out areas. The vents furnished oxygen for the fire. Smoke escaped from these vents and presented a potential danger to anyone who might be curious enough to sniff too long at a vent. The dangers of a forest fire from the burning coal were also high as abundant vegetation grows in all areas around the fire locations except for the Cook Inlet bluff side.

The fire was on private land, but the coal resource beneath is owned by the State. When plans for action in extinguishing the fire were initiated, the owner of the land gave his consent for the project to be undertaken.

At one time the Bureau of Land Management tried to extinguish the fire by pumping water into the upper caverns; this produced no long term effect on the fire. After this failed, the Bureau of Land Management contacted the U.S. Bureau of Mines in July 1970. The Bureau of Mines arranged an inspection of the fire with a Division of Environment representative from Washington, D.C., the Bureau of Mines Environmental Coordinator from Denver, and a Bureau of Mines representative from the Alaska Field Operation Center at Juneau. Representatives from the Division of Lands, the local Alaska Field Operations Center, the Bureau of Land Management, and the Civil Defense of the Kenai Peninsula Borough were invited to join the inspection tour.

The investigation resulted in the Bureau of Mines' proposal to cooperate with the State of Alaska in a project to extinguish the fire. The project was set up under Public Law 738-83 which provides for costs to be shared equally by the federal government and the State. This was the first project to be set up in Alaska under the law although it had been used to control more than 200 fires, mostly in the Western States. The State contributed $4,000 to the project which would be handled by the U. S. Bureau of Mines.

Bids were put out in July 1971, but there were no bids on the project. The Bureau of Mines obtained two negotiated bid offers for the work and awarded the contract to Cook Inlet Construction Company of Soldotna, who started work on September 7, 1971. The original contract called for 100 hours of cat work, but an extension of 32.5 hours was required to complete the project properly.

First, an attempt was made to make nibbles down one end of the area at a time to remove the overburden to reach the burning area. This was found to be hazardous because of the fractured stone block above the coal in the slump area, so a platform excavation method was tried which proved unsatisfactory because of falling rocks. Finally, the operator decided to crawl the cat to the top of the slump area and work down from the fracture line out. After the slump area was cleared out to the burning face of the coal vein, the ashes were cleaned out and the burning coal extinguished by ripping it out with the cat blade. When this was completed, back filling was done to shut off the oxygen supply and restore the excavated material to a drainable grade. Large boulders were placed near the toe of the grade to offset the effect of the Cook Inlet tidal waters.

The area was a hazardous one in which to work, as the fractured sandstone in the slump area was a constant threat to the operator. On one occasion a chunk of rock about the size of a pickup cab fell a distance of about 15 feet vertically before striking the drawbar of the cat. Then a half hour later, a slab of rock about 20 x 20 x 3 feet broke loose and fell in a spot where the operator had been just a few minutes before. Twice the extreme high tides accompanied by gale force winds trapped the contractor and the Bureau of Mines representative at the site. Rocks crumbling to dust, escaping smoke and steam from the fractured area, and constant wind blowing dirt and ashes hampered visibility of the operator and made an uncomfortable work situation.

Surveillance of the fire site will be carried out from time to time to observe possible erosion damage to the restored material and to provide early detection of any indication of a new fire eruption.

SILVER PRICE SLUMPS

The silver price continues to slump. In the Mines Bulletin of December 1970, we reviewed the history of the price of silver. In November 1970 the United States government officially discontinued the release of silver for industrial use. At that time these two questions were posed, (1) What is the price that will bring silver out of the hoarded stocks? (2) What is the price that will bring new silver on to the market? A year ago the price of silver was fluctuating around $1.70 per ounce. The price has continued to decline until today; the price is in the vicinity of $1.32 per ounce. This seems to answer the first question. A declining price has continued to bring silver out of the hoarded stocks.

In view of the steadily weakening of the market, the U.S. Treasury Department has decided it had better get prepared to start buying silver. A clause in the Coinage Act of 1965 - which many people thought would never be invoked - provides that the Treasury will buy all the domestically mined silver offered to it at $1.25 per ounce. The Treasury has now printed up the necessary order forms and distributed them to its mints and assay offices in New York, San Francisco, Philadelphia, and Denver. Traders in the metal market continue to point out that no one should interpret this $1.25 level as a positive floor price. U.S. mine production is only in the nature of 45 million ounces. Domestic industrial consumption continues to be at least three times the amount of production. The speculative supply is much larger than the available demand. If speculators remain bearish, the market could very easily go below the $1.25.

Where the market stands now, old silver containing dimes, quarters, and halves have a face value equal to their intrinsic value. Should the market fall even lower, it is just possible that these coins will start to circulate again, an undreamed of prospect as recently as a few months ago.

In his monthly silver letter, Samuel Montagu, the London bullion broker, stated terms for the immediate outlook are rather bleak. Montagu said that there are signs that certain producers are stockpiling some of their output while many customers are living off of inventory - especially in the United States. As for the speculative activity, Montagu observed that there has been very little speculative buying at the lower levels, and with the realization that silver has finally signaled a failure to provide a useful hedge against currency uncertain, there is little encouragement to resume any resumption of silver buying. On balance, Montagu expects silver to hold in the narrow range, but cautions the possibility of future falls due to speculative liquidation can by no means be ruled out and indeed this is taking place. It seems to be a prevailing view that speculators in the silver future markets have been forced to liquidate, and it is their liquidation that has driven the price of silver down and continues to hold the price of silver at a lower level. The continuing decline in the price of silver has not induced any mining companies to increase their search for silver, and although it is not directly related to silver, it is quite interesting to note that in a general declining metal market some of the major mining companies are reducing their exploration staffs.

GEOLOGISTS GATHER IN WASHINGTON, D.C.

Nearly 4,000 of the Nation's professional geologists met in Washington, D.C., November 1-3, 1971, to discuss a wide variety of such earth science topics as the geology of the Moon and Mars, the search for clues to mineral resources, earthquake research efforts, environmental degradation, studies of the Continental Shelves and the sea floor, and the ancient drifting and collision of continental masses.

The 84th Annual Meeting of The Geological Society of America and associated societies has emphasized the role of the earth scientist in helping solve today's complex environmental problems.

"The geologic profession is now engaged in work that is having a far-reaching effect on the American people," said Dr. Vincent E. McKelvey, Chief Geologist of the U.S. Geological Survey, and a member of the GSA Council. "At the present time we face a dilemma; a conflict

GEOLOGISTS GATHER IN WASHINGTON, D.C. (continued)

between the need to develop the natural resources upon which our way of life is based to maintain our level of living and improve it for impoverished peoples, and the equally compelling need to avoid serious degradation of the environment," he said.

"New and pertinent information about the earth and its crust must be gathered and then applied to help solve the problem," McKelvey said, noting that "the broad scope of the technical program of this Annual Meeting of The Geological Society of America and its associated societies reflects the wide interests of the Nation's geologists in the nature of the earth and its place in the Universe, and their deep concern for the quality of the environment." (Dept. of the Interior 10-27-71)

McKELVEY NOMINATED DIRECTOR OF USGS

President Nixon has announced his intention to nominate Vincent E. McKelvey to be director of the U.S. Geological Survey. He will succeed William T. Pecora, who was appointed Under Secretary of the Interior last May.

McKelvey joined USGS in 1941 and in 1951 became chief of the Trace Elements Office. From 1961-1963 he was Assistant Chief Geologist for Interagency Programs and Support Activities. From 1965-1969 he worked in the area of research and national program policy formulation and from 1969-1971 he was a research geologist with the Survey's Mineral Resource Program. Since June 1, 1971, McKelvey has been Chief Geologist. In addition to his work as a specialist in mineral/fuels deposits, he has served as U.S. representative to the United Nations on Sea Beds Resources. (American Mining Congress 11-9-71)

AMC MINING SHOW IS RECORD-SETTER

Government and industry mining leaders, with manufacturers and other interested groups, made the 1971 AMC convention and exposition a record-breaker in three categories.

J. Allen Overton Jr., AMC executive vice president said that the crowd of over 13,500 was the largest ever to attend an AMC Mining Show, that more mining corporate leaders were present than ever before and that the 300-plus exhibits marked a new high.

A highlight of the four-day convention was the by-invitation-only luncheon on opening day for AMC members. U. A. Marting, president of AMC and president of The Hanna Mining Co.; Ian MacGregor, chairman, American Metal Climax Inc., and Overton discussed the industry's problems and the need for chief executives to involve themselves more immediately with local and congressional issues. This was part of the opening-day program, which was devoted to the public image of the mining industry and its need to communicate its story to the general public.

Secretary of the Interior Rogers C. B. Morton, Senators Alan Bible and Paul J. Fannin, Rep. Wayne N. Aspinal and other members of Congress and Administration officials participated in various sessions.

Commodity outlook papers drew heavy attendance. Reviews and forecasts were presented for uranium, iron ore, copper, lead and zinc, fertilizer minerals, coal, aluminum, cement, fluorspar, industrial minerals, gold and silver. Also presented were papers on remote sensing techniques, computerized geochemical exploration methods, design of 200-ton and 400-ton trolley-powered ore carriers for open pits, electron-beam rock breaking and new concepts for undersea mining. (Western Mining News 10-71)

RUSSIANS TELL METAL GAINS

Russian scientists have improved the effectiveness of silicone greases by the addition of powdered silver or powdered gold, the Silver Institute, Inc., has reported. Electrical rectifiers have been improved by adding silver to the selenium in the rectifiers. They also are reported to have developed new compositions of silver and copper oxide which give increased reliability and longer life to electrical contacts.

RUSSIANS TELL METAL GAINS (continued)

The Ukrainian Academy of Sciences in Kiev was said to have developed a new composite material containing 90 per cent silver and 10 per cent mica which gives superior electrical conductivity, strength, wear resistance and antifriction properties in sliding contacts, brushes and slip rings. The Russians also were said to have contributed an improved method of rolling silver sheet and a fuller understanding of the hot working of silver. (Western Mining News 11-5-71)

MINERS WITH PNEUMOCONIOSIS

The Secretary of the Interior, under the Federal Coal Mine Health and Safety Act of 1969, promulgated in the Federal Register Oct. 27 procedures to be followed by miners, mine operators and the Bureau of Mines concerning the option of a miner with evidence of pneumoconiosis to transfer to a less dusty area of the mine. The transfer regulations were originally proposed by the Secretary in the Federal Register Mar. 2, 1971, and a public hearing was held July 26 in response to the comments received.

After consideration of the hearing testimony and other comments, several revisions were made in the final regulations. For example, it was decided that if a miner with evidence of black lung is already working in an area that meets the law's definition of "less dusty," he need not be transferred. The rules also do not require a miner to notify the operator of his decision to transfer. Finally, it was decided that wherever the regulations conflict with current labor agreements, the regulations supersede the agreements. (American Mining Congress 11-9-71)

STAFF APPOINTMENT

Commissioner Herbert has appointed Mr. James Williams to the staff of the Land Use Planning Unit within the Department of Natural Resources. This appointment requires Mr. Williams' transfer to Anchorage to work with other State and Federal personnel assigned to this project.

Anyone wishing to contact Mr. Williams can reach him at the following address: Mr. James A. Williams, % Mr. Larry Ouellette, Chief, Planning-Coordination Staff, Northern Alaska Planning Team, Bureau of Land Management, U.S. Dept. of Interior, 555 Cordova Street, Anchorage, Alaska 99501.

METAL MARKET

Metals	Nov. 22, 1971	Month Ago	Year Ago
Antimony ore, stu equivalent European ore	$8.64-10.00	$8.64-10.00	$14.29-16.96
Barite (drilling mud grade per ton)	$18-22	$18-22	$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.	52.8¢	52.8¢	56.0¢
Gold per oz.	$43.25	$42.89	$37.90
Lead per lb.	14.0¢	14.2¢	14.5¢
Mercury per 76# flask	$258-263	$273-280	$360-375
Molybdenum conc. per lb.	$1.72	$1.72	$1.72
Nickel per lb.	$1.33	$1.33	$1.33
Platinum per oz.	$120-125	$120-125	$120-122
Silver, New York, per oz.	132.9¢	132.3¢	167.5¢
Tin per lb.	176.1¢	168.0¢	169.7¢
Titanium ore per ton (Ilmenite)	$30-35	$30-35	$30-35
Tungsten per unit	$55.00	$55.00	$55.00
Zinc per lb.	17.0¢	17.0¢	15.5¢

ALASKA MINING CLAIMS

Number of Claims	Creek or Area	Quadrangle	Date Notice Posted
22	Shungnak River	Ambler River	August 1971
12	Ambler River	Ambler River	September 1971
98	Kogoluktuk River	Ambler River	August 1971
1	Barry Arm	Anchorage	August 1971
152	Windy, Alder, Telephone & Mosquito Creeks	Bendeleben	October 1971
1	Deadwood Creek	Circle	September 1971
1	Ketchum Creek	Circle	August 1971
2	Miller Pup	Circle	October 1971
6	Lawson Creek	Circle	October 1971
7	Seventymile River	Eagle	August 1971
6	Ready Bullion Creek	Fairbanks	September 1971
4	O'Connor Creek	Fairbanks	October 1971
8	Ester Dome	Fairbanks	Aug., Oct. 1971
4	Ace Creek	Fairbanks	October 1971
2	Goldstream Creek	Fairbanks	October 1971
1	Happy Creek	Fairbanks	October 1971
1	Silver Creek	Fairbanks	October 1971
15	Winchester Mountain	Goodnews	September 1971
2	Gagnon Creek	Healy	August 1971
90	Pilot Knob Lake	Iliamna	September 1971
3	Glacier Lake	Ketchikan	August 1971
2	Canyon Creek	McCarthy	September 1971
2	Chitina River	McCarthy	September 1971
22	Strand Peak & Hidden Creek	Medfra	August 1971
1	Utopia Creek	Melozitna	September 1971
2	Monte Cristo Creek	Nabesna	July 1971
6	Nome River	Nome	October 1971
1	Ganes Creek	Ophir	October 1971
1	Innoko River	Ophir	October 1971
2	Falls Creek	Seward	October 1971
6	Bear Slope	Talkeetna	July, Aug. 1971
15	Grouse, Buck, Sutter & Iron Creeks	Teller	August 1971
1	Lowe River	Valdez	October 1971
3	Emma Creek	Wiseman	September 1971

DIVISION GREETINGS

This is a year long to be remembered by the miners of Alaska. We hope the Mines Bulletin has been of assistance to the miners and prospectors by keeping them informed of the latest developments pertaining to mining in the State of Alaska. This is our final issue of the Mines Bulletin for the year 1971. Because we go to press early in December, the Division of Geological Survey with employees at College, Juneau, Anchorage and Ketchikan take this time to wish each and everyone of you:

A MERRY CHRISTMAS
AND
A HAPPY AND PROSPEROUS NEW YEAR