

MINES & GEOLOGY BULLETIN



VOL. XXIII

November 1974

NO. 8

P.O. Box 80007

Published Bimonthly

College, Alaska 99701

Published to Accelerate the Development of the Mineral Industry in Alaska

William A. Egan—Governor

Charles F. Herbert—Commissioner

Donald C. Hartman—State Geologist

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Mining Out The Moose

by
T.E. Smith, Chief Mining Geologist

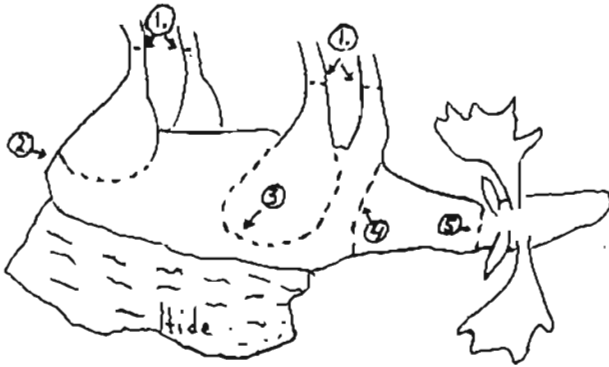
As Alaska's miners and other outdoorsmen once head into the Bush for the fall moose hunt, it occurred to us they might enjoy sharing a method of retrieving moose that I learned from Leroy (Shorty) Kercher, placer miner and trapper in the Valdez Creek mining district. Because of the enormous size of Alaska moose and the consequent difficulty in getting the meat out, hunters are usually advised to work in pairs and to avoid, if possible, dropping a moose more than 1/2 mile from transportation. However, by the method described here, now tested over several years by the author, a single hunter can efficiently dress out a moose in 2 to 3 hours--irrespective of position in which it falls--and reduce it to a dozen pieces which can be packed with relative ease up to 2 or 3 miles. Virtually nothing of the animal that is usable (including bones) is left behind.

Rarely does your moose seem to fall in a place or position that lends itself to butchering by standard techniques. More often, the animal is crumpled in a depression or wedged between trees and brush. The process outlined below consists essentially of removing sections from the top down--hence our phrase 'mining out' the moose. This process differs from those usually described in that the entire animal need never be moved, and if necessary, the innards can be removed as an intermediate step. You will need the following equipment:

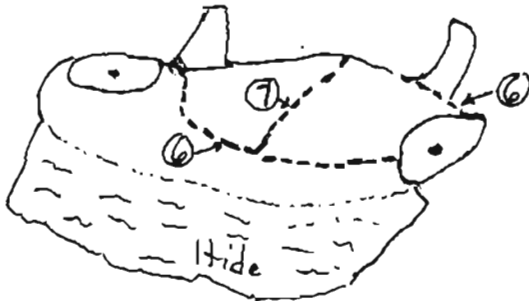
- .Two 10-foot pieces of light nylon rope
- .Small hand axe (2-lb. head)
- .Two hunting knives and file
- .12 gauze game bags (deer-size)
- .Two pieces 'visqueen', 8' x 8'
- .Pack frame, aluminum with waist strap capable of transferring load to hips
- .Old pillow case or similar size cloth bag
- .Vinegar, paint brush (optional).

- (1) If the animal is in a convenient position, slit hide and abdominal wall. Remove stomach and intestines; doing this as soon as possible promotes cooling and avoids much of the gamey flavor. If not in convenient position (the usual case), go to step 2.
- (2) Decide whether hide is to be saved and if so, whether in one piece or several; also decide whether cape is to be removed with head for mounting. If full-size hide is wanted, cut up inside of each leg and along ventral line as closely as position of moose will allow. Raise each upper leg slightly by securing with light nylon line to brush or tree on opposite side of moose; hide can then be slit up inside of leg. When skin is loose on upper side, lay it back (hair down) behind moose. If cape is to be saved, cut off around shoulders and skin it forward (like peeling a sock) to behind ears. If hide is not to be saved, it can be skinned back in segments, cutting around legs, body,

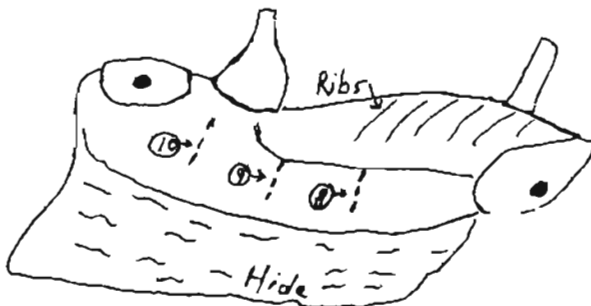
and neck wherever convenient. In this case it is useful to lay a piece of visqueen behind animal. One can roll it back on this at a later stage of dressing.



- (3) Remove lower legs with hand axe at knee joints (cut 1).
- (4) Move rear leg around to locate hip joint and remove ham (cut 2). From this step on, put each section of moose in a game bag as it is removed for ease of handling and to keep free of dirt, leaves, and flies.
- (5) Similarly locate rear edge of shoulder blade and remove front leg (cut 3).
- (6) Remove head and neck (cuts 4 and 5).



- (7) Using hand axe and knife, cut rib cage loose along backbone and brisket (cut 6), and into two pieces by slicing carefully between ribs (cut 7). Lift upper rib cage off. At this point innards can be rolled out of body cavity and heart and liver can be saved.
- (8) Cuts 8, 9, and 10 should now be made through backbone. Remove tenderloins before making



cut 10. Rump and lower rear leg are now decoupled from front end and can be rolled over onto hide or visqueen. After skinning, ham can be removed from rump as in step 4.

- (9) Front is now rolled onto visqueen, remaining leg is removed as in step 5, and rib cage is divided by slicing between ribs as in step 7. Hand axe may be necessary for extending cut through brisket. These pieces of rib cage will be somewhat heavier than those of step 7, since sections of backbone and brisket are attached to each.
- (10) Hide can be trimmed of excess flesh and rolled for packing (about 100 lbs). If head is not to be mounted, tongue can be removed and added to bag with liver and heart. Lower jaw and evidence of sex should be retained for Alaska Dept. of Fish and Game. If head is to be mounted, the neck cape, head, and horns can be packed out for careful skinning and salting.

At this point, the moose is mired out and resides in 12 or more game bags. With practice, little more than 2 or 3 hours will have passed since dropping the animal. Loads of one or more pieces are now lashed to the pack-frame and moved to road or other site of transportation. If ground conditions are fair and distance is a mile or so, one man can easily pack the animal out in 2 days.

If the meat is water soaked at any stage, it may not glaze (dry) over on the surface and will not age properly. To cure this, it is desirable to have a quart or two of vinegar and a clean paint brush available at the destination. Game bags should be removed and the meat painted with full-strength vinegar, after which it will glaze.

The meat can be hung for aging as long as desired before butchering for freezer. However, the rib sections should be cut up and frozen as soon as possible, as they tend to dry out quickly.

About the time aging is complete, your muscles and back with have recovered from packing, and hopefully I'll have gained another convert to the pleasures of one-man moose hunts.

Mining Terms Redefined

(from The Western Mining News, May 3, 1974)

New definitions for such crucial mineral terms as "reserves" and "resources" have been adopted by the U.S. Bureau of Mines and Geological Survey.

The new definitions are said to more accurately describe the estimated production potential of mineral deposits. For example, "mineral resources" are defined as concentrations of naturally occurring solids, liquids or gases discovered or only surmised, that are or might become economic sources of mineral raw materials.

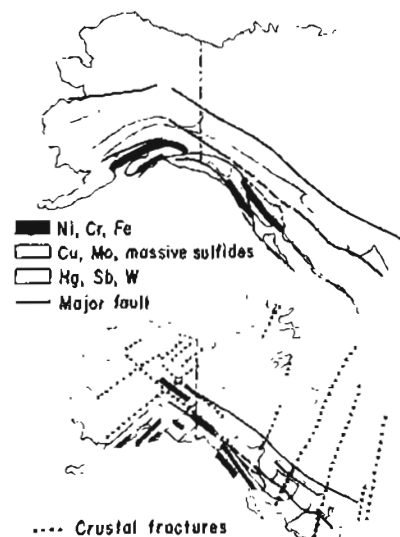
"Mineral reserves" are that portion of mineral resources that have actually been identified and can be legally and economically extracted. The term "ore" is used for the reserves of some minerals.

ERTS Updates Geology
by Ralph N. Baker, General Electric Co.
(from *Geotimes*, Aug. 1974)

At the third ERTS Symposium, held last winter in Washington, D.C., significant results were reported in engineering geology, in discriminating surface alteration and lithology, in mineral exploration, and in monitoring geologic hazards. Investigators from all over the world took part in the meeting, held Dec. 10-14, and more than 20 researchers reported results that demonstrated remarkable contributions of ERTS-1 data to geology. With information derived from ERTS images, they were able to refine or extend lithologic boundaries, relate geologic structures to one another on a regional scale, and detect lineaments previously overlooked by field surveys and conventional aerial photography. In light of the energy crisis (and an impending mineral crisis), interest at the symposium seemed to focus on investigators involved specifically in this area.

Mineral and petroleum exploration. Fault intersections where considerable brecciation takes place have been recognized by exploration geologists as possible sites of mineralization. Investigators showed that ERTS imagery could often locate such intersections and extend these and other kinds of structural trends into other regions.

Two groups of investigators have applied ERTS data to geologic studies in Alaska. Ernest Lathram, George Gryc and others of the U.S. Geological Survey have undertaken structural surveys and ERTS applications to mineral exploration. Larry Gedney and James Van-Wormer of the University of Alaska's Geophysical Institute have used ERTS imagery in conjunction with seismic data to investigate the tectonic evolution of Alaska. In previous studies of Nimbus IV satellite imagery Lathram and co-workers suspected the existence of 2 intersecting sets of regional lineaments in Alaska, trending nearly northeast and northwest. Similarly trending lineament sets are known to be associated with tin, mercury and tungsten deposits in Western Canada. In addition, proved metallogenic provinces in Alaska were found to fall into broad belts, similar in trend to the Canadian and Alaskan lineaments. Lathram was able to verify and extend the Alaskan lineament sets in ERTS imagery, and proposed an alternate theory of mineral emplacement for Alaska. Instead of the classic concept of arcuate mineralized belts paralleling the geosynclinally evolved Western Cordillera (supported by limited ground truth), Lathram suggested that the fault and fracture intersections might also provide likely sites for mineral localization. This suggestion has been partly verified by the recent discovery of porphyry copper deposits in Alaska, associated with the same types of lineament intersections. The implications are far reaching. Prime mineral-exploration sites must be expanded to include not only the arcuate zones par-



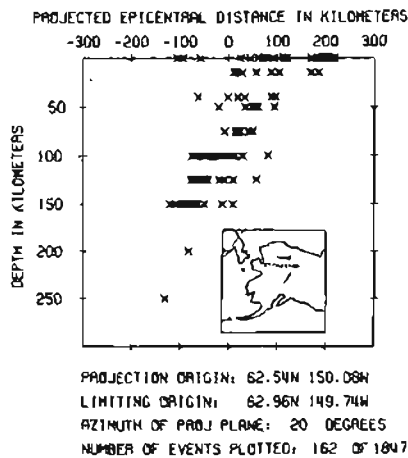
Hypothesized distribution of metal deposits based on data extrapolated from known occurrences. The top figure represents metal distribution based on the conventional hypothesis of arcuate belts paralleling the Western Cordillera; the bottom figure, possible metal deposits associated with major crustal fractures—many of them visible from ERTS. From Lathram & others (1973).

alleling the Cordillera, but the faulted and fractured regions to the north and east as well.

Although these mineralized sites were not discovered from ERTS imagery directly, the consensus is that such an ERTS-generated discovery is imminent. Several investigators have reached the point where their results need only be confirmed by ground truth to demonstrate a positive cost advantage. ERTS imagery cannot alone discover a deposit, but it can direct attention to a likely site. Maps of potential mineralization derived from ERTS data and extrapolated ground truth will enable energy and mineral industries and agencies to direct their exploration programs with maximum efficiency.

ERTS imagery of the Kobuk fault zone, south of the Brooks Range in central Alaska, revealed a series of previously unknown 'cross' faults. These faults were terminated at each end by branches of the Kobuk system which the Lathram group thought to be tensional features indicating left-lateral displacement along a major strike-slip fault. The type of movement in the Kobuk zone was previously unclear; imagery from ERTS contributed not only to the understanding of central Alaskan tectonics, but also identified potential zones of mineralization or seismic hazard.

Farther north, ERTS imagery revealed the complex structural relationships near the DeLong Mountains. This region lies west of the North Slope oil fields, and exhibits 2 distinctly different structural styles. To the southwest, Jurassic and Cretaceous strata are com-



Depth of earthquake foci vs. projected epicentral distance from Mt. McKinley. South of Mt. McKinley the foci are deeper, possibly due to subduction of the North Pacific plate near Cook Inlet. From Gedney & VanWormer (1973).

plexly folded, associated with clearly visible intrusives of mafic and ultramafic composition. To the north, the region consists of broad northwest-trending synclines, developed in younger sediments. The border zone between those regions trends northwest, parallel to the bend in the DeLong Mountains, and to the general regional trends. Other investigators consider this a fundamental structure, related to the underthrusting of the North Pacific plate beneath the North American continent.

Perhaps the most significant result to date reported by Lathram and associates was derived from an ERTS image showing the central part of the Alaskan Arctic Coastal Plain, which includes a region of lakes north of the Umiat oil field. The long axes of the elongate lakes were found to be parallel and trended N90°W, in sharp contrast to the general east-west regional lineation defined by the distribution of the lakes themselves. Investigation revealed that the east-west lineation trend roughly paralleled deflections in the local magnetic- and gravity-field contours, and deflections in fold trends to the south. Seismic-reflection profiles taken in the area showed periodic dip reversals and regional arching. The data suggest that a major structural feature, perhaps favorable for hydrocarbon accumulation, lies beneath the Quaternary Gubik Formation in the Arctic coastal plain. Analyses of adjacent ERTS imagery by Lathram revealed that these linear trends continue to the east, and warrant closer scrutiny. In this investigation and in others, ERTS imagery provided the synoptic 'first look' that enabled investigators to detect unusual structural relationships, previously undetected, and thereby focused attention directly on potentially productive areas.

Gedney and VanWormer of the University of Alaska have used ERTS data to unravel the tectonic evolution of their state. They investigated geologic structures and

fault zones in Central Alaska, some of which had been seismically active in the recent past. A mosaic made up of 6 ERTS images in the Fairbanks/Central Alaska region led to the discovery of several previously undetected faults. A conjugate fracture system (scene of a magnitude 6.5 earthquake in 1968) was found to run very close to a proposed bridge site and the proposed route of the Alyeska pipeline over the Yukon River. Data derived from this mosaic points to need for careful design and siting, and serves as an evaluation aid to local planners. The direction of tectonic compression responsible for the formation of the fracture system was deduced from the alignment of the faults. A recent report by Gedney and VanWormer indicates that the abrupt change in trend of the Alaska Range may enclose a corner of the subducting North Pacific plate. Further, an extension of the Denali fault system discovered (in ERTS imagery) north of the mosaic appears to be similar in its transform character to better-known fault systems to the south, particularly southern California. A series of sub-parallel faults branching from the Denali zone indicates that some oceanic crust is being squeezed around the bend of the Alaska Range, rather than underthrusting directly beneath the North American plate. Imagery from the ERTS-1 satellite has provided the data from which further economic development of Alaska's mineral and petroleum resources will be made possible.

New Federal Mining Regulations Amend 1872 Basic Mining Law (from Fairbanks Daily News-Miner, Sept. 12, 1974)

A new set of regulations concerning mining on National Forest lands became effective Sept. 1, 1974. The regulations amend the basic mining law of 1872.

Published in the Federal Register July 16, 1974, the regulations incorporate many comments and suggestions made by the public at hearings held last year.

Basic to the regulations is a system which allows the U.S. Forest Service to monitor all activities which cause surface disturbance to lands within the National Forest System. They require all persons intending to mine on forest lands to file a notice of intent with the district forest ranger and to prepare a plan of operation if so required by the ranger.

The revised regulations call for posting a bond if the Forest Service determines the operation will cause significant disturbance to the land to require reclamation. The amount of the bond will vary with the type of operation.

Other federal lands not part of the national forest system are not covered by the regulations, but Alaskan lands of D-2 status under the Alaskan Native Land Claims Act which might be designated as forest lands by Congress will be subject to the regulations at the time they come under Forest Service jurisdiction. Operators

who began mining operations prior to such withdrawal as forest lands will have 120 days to comply with the regulations.

D-2 lands, which are managed by the Bureau of Land Management, are now closed to all mining activity.

Persons intending to mine or otherwise explore and develop mineral resources on U.S. Forest lands should contact the U.S. Forest Service, 121 Fireweed Lane, Anchorage, AK 99503.

Down In The Valley

(from TIME Magazine, Sept. 9, 1974)

During some 50 dives this summer as part of Project FAMOUS, the American submersible *Alvin* and its French counterparts *Archimede* and *Cyana* explored one of the earth's last great frontiers: the rugged, seismically active rift valley that cleaves the floor of the Atlantic almost all the way from the Arctic Ocean to Antarctica. Last week, as the scientists who took part in FAMOUS (for French-American Mid-Ocean Undersea Study) returned home from their expedition to the bottom of the sea, they reported that their little craft had discovered important new clues to the secrets of continental drift.

Buried under nearly two miles of water, the huge valley probed by the subs is the place where the Americas began to part from Europe and Africa some 180 million years ago. The continents are still drifting away from one another at a snail's pace of one inch or so a year. But the mechanism that continues to propel these great land masses away from the rift valley remains one of geology's great mysteries. According to Geologist Wilfred Bryan of the Woods Hole (Mass.) Oceanographic Institution, the submarine explorers found indications that contrary to some theories, the continents are not forced apart by powerful lava flows at the site of the rift valley. If massive eruptions of lava were forcing the continents apart, Bryan says, the crews of the subs would have seen giant volcanoes like those in Hawaii. But they spotted only small mountains—a sign of minor

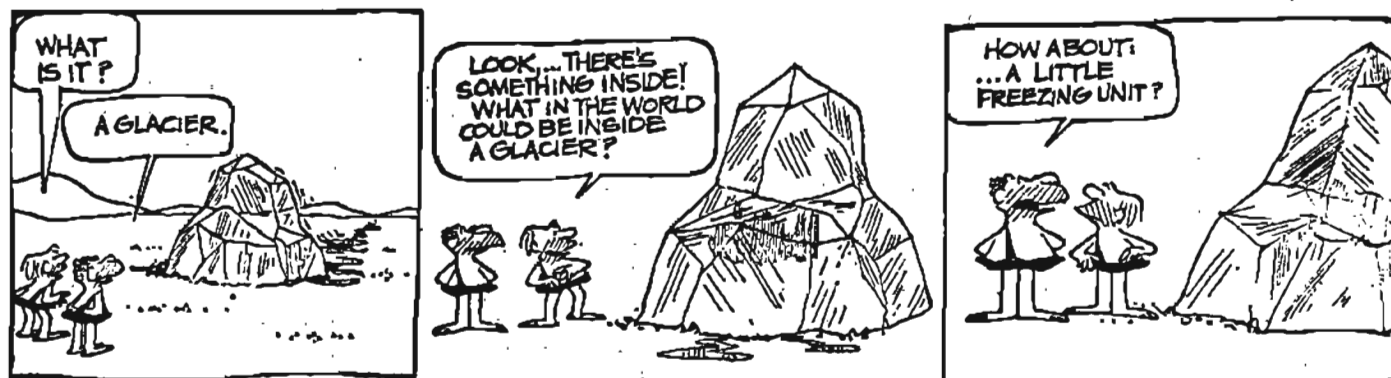
uplifting by forces beneath the earth's crust. The new observations, he explained, suggest that the continents are being pulled apart and hauled along by semimolten rock moving like two giant conveyor belts in opposite directions.

The lava flows that the deep divers found in the rift valley were hardened into all sorts of bizarre configurations; 5-ft.-high stumps with protrusions that extended like arms, curving formations that looked like the neck and head of a swan, and linked tubes that resembled a string of sausages in a butcher's shop. But the size and shape of these flows indicated that the molten rock had not been forced out under tremendous pressure. On the contrary, it seemed to have simply leaked from the interior of the earth through cracks created as the earth's surface was stretched. Explained Bryan: "Like a cobblestone street, the earth's crust can be pulled apart very easily. And it is the rift valley where this fracturing is occurring."

During this process, the scientists found, mineral deposits such as iron, manganese and copper accumulate in the rift valley as lava-heated water circulates through cracks in the sea-floor rocks. But the depths at which these minerals are located would probably make them too costly to mine, at least for the moment.

Although the scientists were somewhat disappointed by their failure to see an actual undersea eruption of lava, the expedition was not without its excitement—or perils. Frequent landslides along the walls of the valley were a constant threat to the three ships; if their shells had been ruptured by tumbling rock, the crushing pressure of the water (two tons a square inch) would have meant quick death for the crews. All three submersibles were also bothered by minor mechanical difficulties; *Alvin's* final two dives had to be scrubbed because of an electrical problem. Even so, the performance of the little subs and their crews more than met the expectations of the Project FAMOUS planners. Besides accumulating vast amounts of data, photographs and actual samples of the sea floor, the mission left no doubt that in the depths of the sea, as in space, men are still better explorers than machines alone.

B.K.



- By permission John Hart and Field Enterprises, Inc. -

NEW AOF RELEASES

Preliminary results of an investigation of the Liven-good Mining District by the DGGs during 1973 are available as AOF 40 - PRELIMINARY INVESTIGATIONS, LIVENGOOD MINING DISTRICT, ALASKA. The analyses of 150 stream sediment samples and 62 channel and grab samples for copper, lead, zinc and gold are given. Sample location maps and a brief summary of the history and general geology of the district are included in the report. By Gilbert R. Eakins - 10 pgs. text, 4 histograms and 2 location maps. \$2.50 if picked up, \$3.00 postage prepaid.

AOF 48 - GEOLOGIC EVALUATION OF THE HERENDEEN BAY AREA, ALASKA PENINSULA. This report outlines the geology, geochemistry, coal and petroleum potential of a limited area around Herenden Bay on the Alaska Peninsula. By W. M. Lyle and P. L. DobeY - 10 pgs. text, geologic map, location map and measured sections. \$5.80 if picked up, \$6.20 postage prepaid.

The Energy Resource Section of the DGGs has reported a large number of inquiries concerning the Cook Inlet petroleum province. Interest in the entire Cook Inlet Province is increasing as the possibility of a south Cook Inlet lease sale in 1975 or 1976 gets stronger. Demand for DGGs publications on this area have resulted in the release of AOF 49 - STRATIGRAPHY OF THE KENAI GROUP, COOK INLET, ALASKA. This was the old Special Report 5 (July, 1972) which has been out of print for over a year. Only a limited number of Special Report 5 was printed and rather than let the taxpayers experience the usual deficit incurred from our printed reports, we are reoffering this data in open file format. By D. C. Hartman, G. H. Pessel and D. L. McGee - 9 pgs. text, 4 cross-sections and 8 isopach maps. \$6.60 if picked up, \$6.85 postage prepaid.

AOF 50 - ENERGY AND MINERAL RESOURCES OF ALASKA AND THE IMPACT OF FEDERAL LAND POLICIES ON THEIR AVAILABILITY - OIL AND GAS. This report supersedes AOF 44. According to the Alaska Scouting Service

"A report recently released by the Alaska Division of Geological and Geophysical Surveys concludes that 96 percent of the onshore oil potential land in Alaska is not leaseable for oil development due to public land withdrawals by the federal government. The study is Alaska Open File Report 50 on oil and gas, and is the first of a series of reports collectively titled 'Energy and Mineral Resources of Alaska and the Impact of Federal Land Policies on Their Availability,' with others expected this year on coal, uranium, geothermal and mineral resources.

"The present impact of the public lands withdrawn under section 17(d) of the Alaska Native Claims Settlement Act, coupled with previous Federal withdrawals virtually eliminate onshore oil development in Alaska,' the report states in its conclusion. It goes on to say that private development of onshore petroleum resources is considered to be severely limited in the future and that about 42 per cent of onshore oil potential land may be closed to oil development due to federal withdrawals and another 35 per cent may not be open for five to 10 years.

The report recommends that a complete scientific inventory be made of all mineral resources on federal lands, that a plan for development of the resources under proper environmental guidelines be started at once and that Alaska should be allowed its right of selection on oil potential lands under terms of the Statehood Act. The study states that continuation of the present trend of federal land administration in Alaska will result in a chaotic resource development pattern.

The report is one of the best summaries of land withdrawals and proposals we've seen. It shows the native selection areas, wildlife refuges proposed and in existence, proposed and existing natural parks and national forests, areas of ecological concern and state land selections approved and pending. All of these are on mylar overlays that are superimposed over the map showing the 231,887 square miles of onshore lands which 'have the potential of containing economic deposits of oil and gas.' The result is a graphic look at what effects the federal, state and native land selections and withdrawals are having and will have in the future on potential oil development and exploration.

The study shows that the State of Alaska will have only about 9 per cent of the oil potential land identified when it receives all lands tentatively approved or applied for under terms of the Statehood Act. The Natives could have about 26 per cent of the oil potential lands if their selections were all taken within oil potential areas according to the report, but native selections filed thus far, along with limiting terms of the native claims act, will probably result in this figure being much smaller. Villages and regions have been selecting lands in 'compact and contiguous' tracts around village locations as called for in the claims act, and many of the village selection areas are outside the oil potential basins."

By R. L. Klein, W. M. Lyle, P. L. DobeY and K. M. O'Connor - 18 pgs. text, 6 maps (4 with colored acetate overlays). \$14.00 per copy.

All four reports may be obtained from Petroleum Publications, 409 West Northern Lights Blvd., Anchorage, Alaska 99503.

U. S. To Sell Gold

(from Western Mining News, Aug. 23, 1974)

Treasury Undersecretary for Monetary Affairs Jack Bennett has said the United States will "feel free" to sell gold from its official monetary reserves when the prohibition is lifted on private U. S. gold ownership.

Bennett said the Treasury "might well choose that time to cash in some of our stockpiles."

At a press briefing, Bennett indicated that when the treasury starts selling gold, these transactions may be handled through public auction sales, run by the General Services Administration.

Bennett's comments came after President Ford signed legislation that would lift U. S. prohibitions on private gold ownership no later than Dec. 31.

Private Ownership & Selling Of Gold Legalized By Pres. Ford (from The Mining Record, Aug. 21, 1974)

WASHINGTON—U. S. citizens will be able legally to buy, sell and hold gold as of Dec. 31 for the first time since 1934.

President Ford signed legislation last week lifting the ban imposed during the worldwide depression of the 1930s, when the United States went off the monetary gold standard.

The action meant victory in a long campaign waged principally by conservative members of Congress, representatives from mining states and citizens who see the metal as a desirable hedge against inflation and the gyrating values of stocks and other investments.

Not all economists agree with this view. Some doubters argue, for example, that gold yields no interest and usually costs money to store and insure.

How and where will Americans be able to buy the precious metal?

Minutes after the signing was announced, Samuel Weiss & Co., a member of the New York Stock Exchange, said it had begun taking orders for gold from the public and other exchange members. Weiss was the first member firm to be authorized by the exchange as a bullion agent and the company said it had made arrangements with a minerals concern to sell gold bars in sizes ranging from 1/2 troy ounce to 50 ounces.

A spokesman at Weiss said the firm's bullion prices would be tied to the rapidly fluctuating gold prices quoted in world markets and would include the firm's own commission of 6 or 7 per cent. The closing price in London on Wednesday was \$157.50 an ounce.

You won't have to go to the stock exchange to buy gold, however. Commercial gold dealers, commodities exchanges and coin dealers began making plans for the legalization of gold even before the legislation passed Congress.

A spokesman for Handy and Harman, a New York gold dealer which until now sold only to jewelry manufacturers and other industrial users, said earlier this year his firm would market gold in sizes from half an ounce up

He said people probably would be able to send for the gold through the mail or purchase it like any other item.

Work At Little Squaw Property Verifies Ore Reserve Estimates (from Western Mining News, Sept. 6, 1974)

Under the direction of Noranda Exploration, Incorporated, ten to twelve men have been working since May on Little Squaw's properties in the Chandalar gold district of northern Alaska. Most of the work has been done at the Mikado Lode, the southernmost of a group of ore shoots in roughly east-west striking shear zones. The work done this summer has verified earlier ore reserve estimates and probable potential of the district. Because it was not possible to mine and mill ores in the district until the arrival of heavy air freighting facilities a few years ago, the Chandalar has until now resembled the bonanza gold camps of the late 1800's in the West, when surface ore shoots were still intact. Its development, now with improved transportation and high gold and silver prices, should be rapid.

During the summer, old workings have been reopened; the Mikado shear zone at the surface has been sampled and crosscuts from the existing drift on the 100-foot level have been driven across the zone and sampled; the airport at the Mikado mill has been graded and improved; and a new bunkhouse and office building set up. In late August the 200-foot crosscut level was being widened and raised from the 200- to the 100-foot level and from the 100-foot level to the surface were to be reopened. The mill, which was finished in 1971, is in excellent condition. Bulk sampling of the ore for mill tests is planned for this fall, with the ore to be shipped to suitable facilities for mill tests.

Our Gangue

by Frank Larson, DGGGS Editor

Welcome to the new Mines & Geology Bulletin . . . We have a new name and a new look . . . The Bulletin now has a double-column, typeset format, and hopefully, will have twice as much mining and geologic news (we have to, since we have a new schedule, too—we're coming out but every other month). . . . It happened like this. . . . Our boss, State Geologist Don Hartman, asked for suggestions for adding emphasis to the geology end of the business. . . . He also asked for suggestions for a new title for the Bulletin . . . Well, we held an informal, departmentwide rename-the-Bulletin contest . . . The response was overwhelming . . . A card and a letter poured in from all over . . . And, from many diverse and colorful entries (samples: Playrock, Better Mines and Gardens, Christian Science Monocline, Grit, Son of Mines Bulletin), the new name was selected . . . The winner: Mines & Geology Bulletin . . . The winning entrant: a gentleman by the name of Don Hartman . . . We hope you've enjoyed the past articles written by our staff . . . With this one of Tom Smith's on moose 'mining,' we conclude the articles solicited from the College group . . . Tom's article is of particular interest to the Alaskan 'miner' . . . It is the nitty gritty of excavating the species *Alces americana*, based on years of personal trial and error (and without a single hernia) . . . With the next issue, we'll begin introducing our Anchorage staff to you . . . Watch closely, readers: our learned colleagues down in the metropolis may want to teach you the intricacies of 'mining out' the genus *Lepus* . . . (jackrabbit) . . . Here's an interesting precedent: Exxon Corporation has received tentative approval from the Pennsylvania Game Commission for a five-year, \$110,000 exploration lease on 20,000 acres of land in Luzerne and Carbon counties. Plans call for a major exploration program to determine if known uranium occurrences are sufficient to support a commercial mining operation. Should the company's program find mineable uranium ore, competitive bids for development would be sought by the state. If the search does lead to actual production, it would be the first major uranium mining operation in the eastern United States. . . . In Chandalar Camp, 100 miles north of the Arctic Circle, a thief brazenly entered the camp kitchen and purloined 11 freshly baked pies in full view of the cooks. . . . No disciplinary action was taken, however. . . . The culprit was a member of the species *Ursus horribilis* . . . (grizzly bear). . . . Have a happy holiday season . . . we'll see you 'next year.' . . . Cheers.

DGGS Releases New IC

Information Circular 20, Aeromagnetic Maps of Alaska Quadrangles, is now available. Four pages long (including index map), IC 20 lists the aeromagnetic maps available and their cost. The circular is free.

	<u>Metals Market</u>		
	<u>Oct. 7, 1974</u>	<u>Two Months Ago</u>	<u>Year Ago</u>
Antimony ore, stu equivalent			
European ore	\$31.3-32.2	\$33.5-34.5	\$15.1-16.5
Barite (drilling mud grade per ton)	\$17.00-21.00	\$17-21	\$14-18
Beryllium ore stu.	\$30.00	\$30.00	\$53-56
Chrome ore per long ton	\$47.00	\$47.00	\$33-34
Copper per lb. (MW-prod.)	\$79.98	86.60¢	60¢
Gold per oz.	\$159.30	\$156.30	\$98.75
Lead per lb.	24.5¢	24.5¢	16.5¢
Mercury per 76-lb. flask	\$270-277	\$285.00	\$282.00
Molybdenum conc. per lb.	\$2.30	\$2.05	\$1.72
Nickel per lb.	\$1.85	\$1.85	\$1.53
Platinum per oz.	\$190.00	\$180-185	\$163.00
Silver, New York, per oz.	487¢	410.0¢	289¢
Tin per lb.	387.75¢	432.0¢	251¢
Titanium ore per ton (Ilmenite)	\$55.00	\$55.00	\$32.00
Tungsten per unit	\$99.41	\$98.77	\$41.00
Zinc per lb.	\$39.37	37.82¢	20.3¢

State of Alaska
 Department of Natural Resources
 Division of Geological & Geophysical Surveys
 P.O. Box 80007
 College, Alaska 99701

FIRST CLASS

MINING REGULATIONS REVISED

F. J. Keenan, Director, Alaska Division of Lands, has announced that effective September 4, 1974, the regulations governing mining rights on State lands have been completely revised. Mining Rights Regulations in effect prior to that date have been repealed and are superseded by the new regulations. Holders of existing claims are not substantially affected by the deletion of the old regulations, except as noted below.

Most of the changes involve only consolidation and revisions to comply with the numbering, punctuation, and statutory reference requirements of the State Legislative Drafting Manual. The language and the arrangement of information may be different, but the general concept of the regulations remain unchanged.

The main difference is that mining claimants on State lands are now required to file with the Alaska Division of Lands a copy of all documents which are required to be filed in the District Recorder's Office. Holders of existing claims will be required to file a copy of any document due after September 4, 1974, such as affidavits of labor and a sale or transfer of the claim, but he will not need to file a copy of the original location notice. In addition, the regulations have been updated to define acceptable geological, geochemical, geophysical, airborne survey work, and persons qualified to do such work.

Booklets containing the new regulations and pertinent Alaska statutes are available at the Alaska Division of Lands Offices in Anchorage, Juneau and Fairbanks. Written requests should be sent to the Division office at 323 East Fourth Avenue, Anchorage, Alaska 99501. Persons appearing on the mining mailing list will automatically receive a copy of the booklet.

The State now has title to approximately 19 million acres and has selected almost 50 million additional acres. Existing and potential mining claimants in Alaska are urged to stop in at any of the Division offices or write to the Anchorage office to determine if their areas of interest involve State lands.

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