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MINING NEWS

Alaska Mining and Smelting Merger -- The merger of Alaska Mining and Smelting, Inc., with Trans Pacific Resources, Inc., has been approved by the Trans Pacific stockholders. Alaska Mining and Smelting holds active iron mining claims near the head of Tuxedni Bay in Southern Cook Inlet.

Alaska Barite -- In the August Bulletin, we reported that Alaska Barite Company had sold its barite operation to International Minerals and Chemical Corporation. Since that time we have learned that the sale was to Inlet Oil, not I.M.C.

New Standards for Metallic-nonmetallic Mines -- Secretary of the Interior Walter J. Hickel has promulgated the first Federal Health and Safety Standards to be established for all domestic metal and nonmetal mines. The more than 1000 new standards are being published in the Federal Register and include both mandatory and advisory provisions. All mandatory standards will be enforceable one year from date of publication.

The standards are published in three parts: open pit mines, sand, gravel and crushed stone operations, and underground mines. Further standards in all three groupings will be promulgated after pertinent comment and recommendations have been submitted by interested parties.

PROPOSED LAND USE REGULATIONS

The Division of Lands is tentatively planning to hold hearings on the Proposed Land Use Regulations in early October. These are the regulations which will affect prospecting, exploration, and all other activities which may disturb the surface of State-owned lands. They have been subject to comments and meetings since last winter, and have gone through three revisions. Formal public hearings on them will be held in Fairbanks, Anchorage, and Juneau. The dates are not yet firm, but early October is a good bet. The industry will be circularized as early as possible. Copies of the final draft for study prior to the hearings and other information may be obtained from Pedro Denton, Minerals Officer, Division of Lands, 306 West Fifth, Anchorage, Alaska 99501.

EXPLORATION

Conclusion: Small Mining Company Exploration -- The following is the third and concluding article taken from J. D. Batenian's article "Exploration Programs for Small Mining Companies," which appeared in the December 1963 issue of Mining Congress Journal. The first two installments appeared in the April and July Bulletins respectively.

The small mining company must be selective in the methods and instruments used in various geological environments. As an example, two small companies were working in the same district, one discovered sulfides in every conductor that was drilled, whereas the other company failed to discover significant sulfide mineralization in any drill hole. This startling difference in results can be attributed to instrumentation. There are various types of magnetic and electromagnetic devices, some of which can be applied much more effectively depending on the terrain, the geology, and the objective, and there are some that will only work in the laboratory. In this case, the small company with some knowledge of the area was selective in instrumentation and succeeded, while the other small company was not selective and lost the gamble.

Knowledge of one's area plus a background in the major mining areas of the world will always aid the small company. For example, following the discovery of extensive uranium deposits in the Blind River area north of Lake Huron, geologists were immediately impressed with the geological analogy to the gold-bearing areas of the Rand deposits. At the same time a similar deposit was found in Brazil. Correlation of the three deposits reduced needless expenditures in exploration and mining.

Implied in the above and in the previous two articles is the fact that the small company can be technically proficient in the approach to exploration as the industrial giants of mining industry. The large and wealthy company has no monopoly on talent or ideas, but in order to compete the small company must spend its exploration funds prudently and wisely.

"Lines are made not found" goes an old saying, and the history of many a mineral deposit in the world verifies this. Many a mineral deposit has been the site of various exploration programs for 50 years or more before commercial production begins. Often it is geologic re-appraisal of all known facts on the area that produces the commercial mine and not continuous new exploration of the area.

One field of mining exploration in which the small company can effectively compete with the large company is the examination and evaluation of undeveloped mineral discoveries, the mineral rights to which are held by individuals, syndicates, or corporations. It is not a simple or inexpensive matter to discover an ore body by any basic exploration method

or combination of methods, but it is within the capacity of the small exploration company to evaluate mineral discoveries with the objective of undertaking development if warranted. Therefore, as a general principle, the small company should allocate a high proportion of its exploration dollar for property examination. A smaller amount of the exploration dollar may be reserved for the more fundamental methods of mine finding, often involving geophysics; but only where such funds are syndicated with those of other companies, large or small.

Massive expenditure on exploration will inevitably result in the discovery of ore bodies, but the small mining company, if it is to be successful, must improve considerably on the statistical probabilities of ore discovery that have been cited. This is only possible by using the best available exploration talent and experience in the design and execution of the exploration program.

MINING EXTENSION COURSES

The University of Alaska, Division of Statewide Services, has announced the following 1969-70 schedule for mining extension courses:

Willow M. Burand - Instructor

<u>Location</u>	<u>Dates</u>	<u>Course</u>
Sitka	Sept. 22 - Oct. 24	Prospecting
Ketchikan	Nov. 3 - Dec. 5	Prospecting
Ketchikan	Dec. 8 - Dec. 23	Rock Identification
Shaktoolik	Jan. 5 - Jan. 30	Basic Prospecting
Wrangell	Feb. 2 - Feb. 27	Basic Prospecting
Hydaberg	March 2 - March 27	Basic Prospecting
College	March 30 - Apr. 24	Basic Prospecting
Kenai	Apr. 27 - May 22	Basic Prospecting

Leo Mark Anthony - Instructor

<u>Location</u>	<u>Dates</u>	<u>Course</u>
Anchorage	Sept. 22 - Oct. 24	Prospecting
Anchorage	Nov. 3 - Nov. 21	Rock Identification
Elmendorf	Nov. 24 - Dec. 23	Prospecting
Elmendorf	Jan. 5 - Jan. 23	Rock Identification
Homer	Jan. 26 - Feb. 6	Geochemical Prospecting
Sitka	Feb. 9 - Feb. 20	Geochemical Prospecting
Sitka	Feb. 23 - March 6	Geochemical Prospecting
Anchorage	March 9 - Apr. 10	Prospecting
Anchorage	Apr. 20 - May 1	Geochemical Prospecting
College	May 4 - May 15	Geochemical Prospecting

MINING LEASING PROPOSED

Public pressure for a mining leasing system to replace the present mining claim staking law of 1872 is mounting. In their recent report Mining and Public Policy in Alaska, Tussing and Erickson say, "The merits of competitive leasing, as a general principle for the development of minerals on Alaska public lands, are overwhelming...." Proposals and arguments for mining leasing are being made to Congress and the Public Land Law Review

Commission by nearly all segments of the population interested in public lands -- which includes nearly everyone in this day of competing for the use or preservation of the diminishing public domain. All prospectors and miners should be aware of the rapidly growing demand for mining leasing to replace claim staking and should make themselves heard if they do not approve.

Senator Gaylord Nelson (D-Mis.) on August 13 introduced S. 2848, a bill that would replace the Mining Law of 1872 with a mineral leasing system. The measure is identical to a proposal submitted to the Public Land Law Review Commission by former Secretary of the Interior Udall January 15. The bill was introduced in the House February 20 as H.R. 7354 by John P. Saylor (R-Pa.) and John D. Dingell (D-Mich.).

Some of Senator Nelson's remarks as he introduced the bill are as follows:

"No private landowner would tolerate unregulated intrusion to search for and remove mineral resources. The public can no longer allow this blatant giveaway of national resources which should be regulated under laws that take into account modern resource management techniques.

"This in no way implies that mineral development is unimportant. But it is not preeminent -- it is one of a variety of valid uses for public land.

"Congressmen Saylor and Dingell have introduced this same measure in the House. Only through such a bipartisan effort can we repeal this law which results in irreparable damages to our Nation with no justifying social or economic benefits."

S. 2848 would repeal the existing Mining Law of 1872 and amend the Mineral Leasing Act of 1920 so as to include hard rock minerals under its provisions. Pertinent parts of the bill include the following:

"SEC. 3. (a) Except as otherwise provided in this section, the mining law is hereby repealed and all lands and interests in lands belonging to the United States are hereby closed to entry and location under the mining law as of the effective date of this Act. No new rights under the mining law may be acquired after the effective date of this Act.

"(b) Any claim under the mining law existing on the effective date of this Act shall remain subject to the provisions of the mining law if it is recorded with the Department not more than one year after the issuance by the Secretary of regulations prescribing the manner in which mining claims will be recorded. Any mining claim not so recorded shall be null and void.

"(c) Any mining claim on which application for patent has not been filed within three years after recordation shall be null and void.

"(d) The Secretary may upon application made within one year after recordation, under general regulations, authorize the issuance of a production lease or leases under section 43 of the Mineral Leasing Act in exchange for (1) any mining claim or claims, validly existing on January 1, 1969, or (2) any mining claim or claims valid, except for lack of discovery, on January 1, 1969, if a showing is made that a workable deposit of hard rock minerals, as required by section 43 of the Mineral Leasing Act was found within the limits of each said claim prior to and was in existence on January 1, 1969.

"SEC. 5. The following new section 43 is added to the Mineral Leasing Act:

'SEC. 43. (a) The Secretary of the Interior is authorized to issue, in accordance with general regulations which he shall prescribe therefor, an exploration lease for hard rock mineral deposits to the highest responsible qualified bidder under competitive bidding, except as provided in subsection (e) of this section, when in his judgment the public interest will best be served thereby. . . . Terms on which bidders shall compete and the method of bidding, either by oral auction, sealed bids, or both, shall be specified in the notice of sale. An exploration lease shall give the exclusive right to prospect for hard rock minerals for a period of not exceeding three years in an area reasonably compact in form. . . of not more than ten thousand two hundred and forty acres. . . . Each exploration lease shall require that the lessee shall exercise due diligence in the prosecution of the prospecting work in accordance with a prospecting plan to be approved by an authorized representative of the Secretary before prospecting operations commence. The prospecting plan shall also include provisions for protection and restoration of the lands covered by the lease and for the protection of environmental and recreational values. The Secretary shall reserve the right to and may cancel any exploration lease issued for failure to comply with the prospecting plan. The lessee shall pay an annual rental of not less than 50 cents per acre, and shall submit to the Secretary at the expiration of the lease all exploration data obtained during the term of the lease.

'(b) An exploration lease issued under this section may be extended by the Secretary for an additional period, not in excess of two years, as he deems advisable, if he finds that the lessee has been unable, with reasonable diligence, to determine the existence and workability of deposits of hard rock minerals and the lessee desires to prosecute further prospecting.

'(c) Upon application by the lessee made not later than three months after the expiration of the term of his exploration lease and upon a showing that he has found a workable deposit of hard rock minerals, the lessee shall be entitled to a production lease covering that portion of the area subject to his exploration lease reasonably encompassing such deposit as determined by the Secretary. The lessee shall be entitled to a production lease for each such deposit found by him within the limits and during the term of the exploration lease but the total acreage embraced in all such production leases shall not exceed five thousand one hundred and twenty acres.

'(d) Each production lease shall be in compact form described by legal subdivisions of the public land surveys or if the land be not surveyed, by survey executed at the cost of the lessee in accordance with regulations prescribed by the Secretary. Each lease shall be conditioned upon payment to the United States of (1) a royalty of not less than 5 per centum of the gross value of the output of hard rock minerals thereunder; and (2) a minimum annual rental, payable at the date of the lease and on each anniversary date thereafter, of not less than \$5 per acre. The initial annual rental prescribed shall obtain for the first two years of the term of the lease. Commencing with the rental payable for the third year of the lease, and for each of the seven succeeding years, the rental shall be increased each year by 10 per centum over the rental payable for the preceding year. Provided, That for any year in which there is production in paying quantities, the amount by which the rental paid for that year shall have exceeded the initial annual rental shall be credited at the option of the lessee against either royalties or the rental next coming due or refunded to him as he may elect. . . .'

'Each production lease shall be for a term of ten years and so long thereafter as hard rock minerals are produced in paying quantities. Unless otherwise provided by law at the time of expiration of such period, the terms and conditions of such leases shall be subject to readjustment by the Secretary ten years from the date of issuance and every ten years thereafter. . . .'

'(e) Lands known to contain workable deposits of hard rock minerals and not covered by either exploration or production leases shall be subject to production lease by the Secretary to the highest responsible qualified bidder under competitive bidding. Leases under this sub-section shall not exceed five thousand one hundred and twenty acres and shall be in compact form described by legal subdivisions of the public land surveys. Terms on which bidders shall compete and the method of bidding, either by oral auction, sealed bids, or both, shall be specified in the notice of sale. Leases made pursuant to this subsection shall be subject to the terms and conditions specified in subsection (d) of this section."

NEW PUBLICATIONS

The Alaska Division of Mines and Geology has released the lab reports listed below. These papers are intended for internal use by the Division but may be useful to people outside the Division doing similar work. Xeroxed copies are available upon request from the Division office in College.

Laboratory Report No. 1 -- A Rapid Radiometric Analysis for Equivalent Uranium, by Paul L. Anderson and Michael Mitchell, Jr.

Laboratory Report No. 3 -- Geochemical Analytical Procedure for Copper, Lead, and Zinc by Atomic Absorption Spectroscopy, by Paul L. Anderson.

Laboratory Report No. 2 was announced in the July Bulletin and is also available in xeroxed copies.

E. AND H.J. METAL MARKET PRICES

	<u>Aug. 25</u>	<u>Month Ago</u>	<u>Year Ago</u>
Copper, per lb.	48.14¢	45.9¢	42¢
Lead, per lb.	15.5¢	15.5¢	13¢
Zinc, per lb.	15.0¢	14.5¢	14¢
Tin, per lb.	165.25¢	161.45¢	143.1¢
Nickel, per lb.	\$1.03	\$1.03	94¢
Platinum, per oz.	\$120-125	\$120-125	\$109-114
Mercury, per flask	\$487-495	\$510-515	\$538-550
Antimony ore, per unit	\$9.29-9.46	\$8.75-8.93	\$5.00-5.95
Beryllium powder, 98%	\$54-66	\$54-66	\$54-66
Chrome ore, long ton	\$31-35	\$31-35	\$31-35
Molybdenum conc, per lb.	\$1.72	\$1.72	\$1.62
Titanium ore, per ton	\$20-21	\$20-21	\$21-24
Tungsten, per unit	\$43.00	\$43.00	\$43.00
Silver, New York, per oz.	166.7¢	164.9¢	240.8¢
Gold, per oz.	\$41.29	\$42.35	---
Barite (drilling mud grade, from E/HJ July)	\$12-16	\$12-16	---