

GOLD MINES FEATURE DIVIDEND LIST

Accident May Revolutionize State Lignite Coal Industry

Steam Is Used As Hardener

A more or less accidental discovery by scientists seeking new sources for automobile gas may add many million dollars to the value of Montana's natural resources.

Using a superheated steam treatment for woody lignite, they found that a 24-hour bath accomplished the same results as 1,000,000 years of aging by Mother Nature in converting this fuel into a harder coal.

Montana's 381 billion tons of lignite represent about one-third of the nation's known supply. Lignite fields cover a huge area on the state's eastern border and are scattered through the western slope of the Rockies.

The experiment still is in the laboratory stage, said James E. Loutitt, consulting engineer in charge of the processing plant northeast of Spokane, but some method may be discovered to produce as good a grade of coal from northwestern mines as that shipped from distant points.

A quarter of a ton of lignite is subjected to a 24-hour steam bath at a temperature of 800 degrees Fahrenheit. Reversing the usual trend of superheated steam experiments, only five pounds of pressure is used.

Lignite is hard coal in the process of aging. It is found in various stages from a combustible coal to a peatlike substance in which the wood texture is plainly visible. Geologically speaking, these are new forms and contain much volatile matter and, therefore, are inferior as fuels.

"Lignite, before its treatment with superheated steam," Loutitt explained, "has about 8,500 British units. After this steam processing, there is a building up to approximately 12,000 B. T. U. In addition, there are the units had in the coal tar and industrial gas."

The steam bath, he asserted, apparently causes a molecular change and some physical structure alterations. Much of the volatile matter, which makes up a large part of lignite, is expelled.

STEAM NOW

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ed before the Institute. F. W. Bradley of San Francisco, president of the Bunker Hill & Sullivan, Alaska-Juneau, Treadwell Yukon and other great mining enterprises, received the W. L. Saunders medal for distinguished services in mining, at the closing banquet. Among other recipients of this medal are President Herbert Hoover, D. C. Jackson, John Hays Hammond, F. W. McClinnas and D. W. Brunton.

Among those in attendance from the Northwest were F. M. Smith of Spokane and A. F. Bensley of Kellogg, director and superintendent respectively of the Bunker Hill smelter.

St. Joseph Lead To Mine Gold In Idaho

Equipment From Hughesville Lead Mine Is Installed In Sawtooths, Near Mountain Home

Typical of the changes in operating plans by many mining companies which are switching from base metals to gold is the move of the St. Joseph Lead Company which has abandoned its lead mine at Hughesville, 45 miles south of Great Falls and which is now using this same equipment for gold mining in Idaho.

This account of the move is contained in the current issue of the "Mining Journal" of Phoenix, Arizona:

"In the old camp of Atlanta, in southern Idaho, the St. Joseph Lead Company has embarked on a gold mining venture and will be ready for production by the time the snow recedes from the slopes of the Sawtooth Mountains.

"The nearest railroad point is Mountain Home, 60 miles from Atlanta, and heavy snow isolates the camp during the winter.

"Before the heavy snowfall last November, many thousand tons of machinery and equipment for the construction of a surface plant and 200-ton mill were taken to the mine. This included a large compressor, a Diesel engine, made in Germany especially for the company, crushers, ball mill, forge, drill sharpener and other equipment, now being installed by a crew of around 100 men.

"Crude oil will furnish the motive power and 50,000 gallons have been placed in storage at the mine. Frank H. Skeels is manager of the Atlanta operations. He was at one time manager of the Hughesville, Montana, mines for the company, and left there for mines in Argentina. It is estimated that there is enough ore blocked out to insure steady operations for six years."

CLAY SEEN

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plete set of Butte copper ores, and also mamillary and pencil are hematite from Michigan and Minnesota; polished specimens of malachite from the Copper Queen mine, Bisbee, Ariz., crystals of golden calcite and galena from Joplin, Mo., and native copper from Calumet, Mich.

ARGENTA MINE TO GET DEVELOPMENT

Continental Divide Mining company, William J. Cushing, president and manager, has acquired the Dexter mine, a silver-lead producer, above Argenta. Gold values are reported disclosed in recent development from the bottom of a 100-foot shaft, and a ten-stamp mill with Wiley tables is nearing completion. This mill may be used as a custom plant for adjacent properties, Mr. Cushing reports.

HIGH SPEED

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mercial mills are not yet warranted, but the present indications are that a readjustment of ball loads and pulp dilutions may come about with higher speeds and marked increase in circulating loads, all resulting in greater capacity and efficiency of grinding."

When asked about more recent findings, Professor Fahrenwald replied that the new high-speed principle of ball milling has been tried successfully on a commercial scale in two instances. Both tests were made after publication of experimental results to which Professor Locke refers.

In one instance a semi-commercial size mill was used. The other test was made in a large mill requiring more than 200 horse power for operation.

Both mills were equipped with special type discharge heads and were operated at speeds as high as 150 per cent of the theoretical critical. "Results obtained," Professor Fahrenwald said, "fully verified the previous results with the small laboratory mills which are a matter of record."—"MINING JOURNAL."

Total For Month Hits \$5,725,990

(DENVER MINING RECORD)

Gold mining shares featured the dividend list for the month of January, 1932.

Low prices for lead, silver, copper and zinc caused a decline in dividend payments of companies producing these metals. There are numerous close corporations, leasing syndicates and individual leases that are not included in the list. If these could be included the total would be much greater.

Dividend payments by American mining companies that make public their disbursements to shareholders totaled \$5,725,990 in January 1932, compared with \$15,825,760 in January, 1931.

Companies that were on the dividend list a year ago that were missing last month included Eagle Picher Lead, Newmont Mining, Phelps-Dodge, Silver King Coalition, United Verde Extension, Dome Mines, Greene Cananea and Nipissing.

Gold producers again featured the January, 1932, list with Colorado gold mines prominent. Cresson and Granite-two Cripple Creek producers, mailed out dividend checks last month. The Granite mine was not on the list a year ago.

Neither were Tom Reed of Oatman, Ariz., nor Pioneer Gold of Canada. Lucky Tiger-Combination Gold paid a dividend last month. It was not on the list a year ago. New gold mining companies are expected to be added to the list as the months roll round.

SEND A CONTRIBUTION TO THE SUNBURST BADGER

Mercury Fumes From Makeshift "Smelter" May Cost Lives Of 3

An amateur's quest for gold made a death trap of a Denver home and A. E. McClinnas of 2272 South Bannock Street, his wife and three-year-old daughter are fighting for their lives three days after the three were stricken.

"This is gold," McClinnas told his daughter, Shirley, as he displayed a handful of sand.

"No," protested the child, "gold is yellow."

"Then I'll make this yellow," said the father.

Improvising a smelting process, McClinnas mixed mercury with the sand and placed it in the warming oven of the stove. Mrs. Mary McClinnas, his wife, removed the mixture later and placed it over a gas burner. Like a lethal breath, fumes from the bubbling dish permeated the house. When McClinnas returned from work his wife and daughter were writhing in pain. A physician was summoned. Mother and child became more dangerously ill and McClinnas was stricken with a similar attack.

Physicians, alarmed and fearing a new malady, turned detectives. Influenza prescriptions were hastily cast aside and treatment for mercury poisoning administered. The three are responding to this treatment.

Gold Dust Again Used As Medium Of Exchange

Stores In Vicinity Of Confederate Gulch Get Placer Product In Exchange For Merchandise

HELENA, Feb. 27.—Many years have passed since the time when gold dust was exchanged at the grocery store by miners for supplies. But this happened a few days ago at Canton, near Townsend, in Broadwater county, where Bill Gaab, merchant was asked to take a small vial of gold dust in payment of a bill for groceries owed by a prospector.

The gold, to the eye of a native, was readily distinguished as Diamond dust. It had a soft peculiar color with a greenish tinge, peculiar to the district.

At present Confederate creek is lined with prospectors, young and old, who are taking out enough gold to keep them thru the winter.

This was the case when one of the gold seekers came into the Canton store and offered part of his cleanup for grub. The gold weighed 44 and would not have filled a teaspoon.

The statement that it was "the real Diamond dust" refers to old Diamond City, located in Confederate Gulch and at one time popular.

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Announcement—

The Montana Oil Journal Has Taken Over The Publication Of

A Romance In Rocks

A complete treatise on elementary geology.

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