

MINING ACTIVITIES

FIRST DIVISION - Cyprus Mines Corporation has taken an active interest in Alaskan mining possibilities for the first time. Blair Stewart of their Los Angeles office and . K. Garrett, who is connected with one of their operations in the Coeur d'Alene district, are investigating available properties and prospects throughout the Territory. In addition to spending considerable time in the TDM offices studying many mining engineering reports, they are also making field examinations.

The Pacific Northern Minerals Company of Spokane has received a \$96,000 DMEA loan for the purpose of exploration for further tungsten, lead, and zinc reserves at the Riverside Mine near Hyder. Men are now on the property rehabilitating buildings and equipment and preparing for the exploration program. Donald Duncan is superintendent.

SECOND DIVISION - The Big Hurrah gold lode mine is about ready to start production. They have applied for their certification for Territorial tax exemption allowed to new producers for the first 3-1/2 years of production.

THIRD DIVISION - The option taken by W. A. Richardson on the Lyons and Bradley gold lode property in the Talkeetna district, reported in last month's Bulletin, is now reported to have been dropped by Richardson.

FOURTH DIVISION - With the present record high price for quicksilver, the DeCoursey Mountain Mining Company's Red Devil Mine near Sleitmut on the Lower Kuskokwim is in full production, bringing the flasks of mercury out regularly in their privately-owned plane. The company has also started exploration work on the DeCoursey Mountain property, which is in the same area. Prospectors and miners are turning attention to several other quicksilver prospects, including the one near Aleknagik in the Bristol Bay district.

As added information on mercury, it was announced July 6 that the General Services Administration was starting a purchase program for quicksilver that guarantees a price of \$225 per flask until December 31, 1957, or until 125,000 flasks have been purchased. The government does not at present intend to pay more than the guaranteed floor price, though the market price is currently considerably higher.

OIL NEWS

Russell Havenstrite has announced that the Havenstrite drill rig will start boring in the Chinitna Bay area on August 1. Their rig is reported to be the largest of its type in North America, was built especially for Havenstrite, and is capable of drilling to 25,000 feet if necessary. The road is finished over the nine-mile distance from the coast to the drill site, and a pipeline is now being laid to transport diesel oil to the rig from the coast. The pipeline alone will probably cost \$20,000. Telephone lines are also being strung.

As rumored earlier, Standard Oil is the company that has been doing the seismic exploration work on the Kenai Peninsula in the vicinity of Homer. They have signed a 10-year exploratory contract with the Department of the Interior involving 750,000 acres. This news apparently set off a leasing rush which centers about the Caribou Hills (also called the Reindeer Hills), approximately 26 airline miles northeast of Homer. Standard Oil is now using a helicopter to speed up its geological investigations.

The Alaska Oil and Gas Development Company's drilling operation near Eureka on the Glenn Highway was still encountering favorable indications at 1,650 feet.

S-2381 is a bill introduced by Senator Barret of Wyoming, which if enacted will increase the acreage limitation of land which may be held under an oil and gas lease in Alaska from 15,360 acres to 100,000 acres, and will also increase the amount that may be held under option for exploration to 200,000 acres. These provisions would make it more attractive for large companies to come to Alaska and spend the huge amounts necessary in exploration in the hopes of finding oil in profitable quantities.

Reports indicate that the Department of the Interior is seriously considering the releasing of the Petroleum 4 Reserve, which includes 21 million acres on the Arctic Slope formerly withdrawn by the Navy as an oil reserve. This move might open the way for the construction of a natural gas line from the Gubik field, where gas is known, to Fairbanks.

#### MAGNETITE REPORT

A recent USGS press release announced the publication of a report on a geological examination of the magnetite at Tuxedni Bay, Cook Inlet. One deposit is 20 to 35 feet thick, exposed for about 55 feet, and is estimated to contain about 75 percent magnetite. The second deposit is low grade and consists of two zones of mineralization, one 30 feet thick and one undetermined. Magnetite content of these two zones was estimated in the order of 10 to 20 percent. Both deposits dip 40° to 45°. The report, complete with geological maps and sections, will be available shortly at USGS and TDM offices for study.

#### SLUICE BOX ROBBERY

For the first time since the "old days", a sluice box has been robbed. It happened at Fairbanks Creek in the Fairbanks district at the Martin Sather placer operation. On a night just before a cleanup was due, someone stole the concentrate from the riffles, then replaced the riffles and turned the water back into the boxes. The loss was anywhere from \$1,500 to \$10,000. This crime was once considered as serious as horse-stealing in the old West, and the penalty to the offender was the same.

#### NEW PROSPECTING EQUIPMENT

DIAMOND DRILL - Prospectors who are looking for light diamond drilling equipment will be interested in learning of a new drill that can be carried in a packsack. Its Canadian manufacturer calls it the "Packsack Drill", and their name and address can be obtained from the TDM on request. It is a hand-held unit weighing 55 pounds and has a 3-1/2 HP gas engine for power. A pressure feed bar can be rigged to give

more drilling pressure if the operator wishes. The water pump weighs 65 pounds, and the maker claims it will pump sufficient water through a 1/2-inch garden hose from distances of 200 to 300 feet. For a price of \$850 f.o.b. Ontario, the outfit consists of the following: drill, 14 feet of core tube, 1 bit and 1 reamer, 40 feet of drill rod, water pump and motor, 50 feet of hose and valves, core fisher, and miscellaneous tools. The TDM received a letter from the manufacturer which contains the following paragraph:

"Recently we drilled a hole here at North Bay in granite gneiss to 106 feet vertical. The core recovery was excellent and the bit cost was 36¢ per foot. Average advance was 5-1/2 feet per hour. The gas consumption is very low, a gallon of gas drilling 15 feet in average rock. The core is 57/64" in diameter; that is, 1/64 over 7/8". Extra bits cost \$18 to \$20 each depending on the weight of diamonds in each one and the reamers average \$30 each. There is the usual credit on each diamond set part which is about 60% of the original diamond cost. This will be given in cash if requested. The delivery on these drills is about 7 days from receipt of order. We are very happy to say that so far the maintenance on these drills is very low as we have machines drilling in Blind River all winter with practically no repair. To date, we have sent out 30 of these outfits and have many good reports."

GEOCHEMICAL KIT - Another advance in prospecting equipment is a small chemical kit for testing streams for base metal content. Geochemical prospecting can be applied to streams as well as soils, since water coming from a mineralized area carries minute quantities of the metals there. Copper, lead, zinc, and nickel are detectable with this kit, and the detection is accomplished by color changes when the chemical reagents are mixed with the water sample. As with radioactivity, any area will have a "background count" and it is quantities above this base level that indicate possibilities of commercially important mineral deposits. The manufacturer of this kit is a Canadian geophysical company, and instructions are supplied with each kit.

MAGNETOMETER - A California research firm has developed a new type of magnetometer weighing only 25 pounds that can be used in aerial magnetic surveys. It will measure the total magnetic field and can record successfully over the same range as other magnetometers now being used in aerial geophysical exploration for magnetic minerals and structures which might be oil-bearing. It will require only one operator. The importance of this development is that when it becomes available, a prospector may be able to take it up in any small plane and fly his own airborne magnetometer survey. For those interested in how it works, the following paragraph is quoted from the July E.&M.J.:

"The instrument contains batteries which create a magnetic field around a container of water. The magnetic field aligns the axis of spin of the hydrogen nuclei in the water to a position that is approximately at right angles to the direction of the earth's field. When the power is shut off, the axes of the nuclei tend to recover from the biased position and in so doing develop a wobble (precess). The rate of wobble or frequency of the precess is a function of the earth's (ambient) magnetic field. Through proper electronic equipment, this can be translated into a detectable alternating field in the audio-frequency range, which in turn becomes an accurate measure of the magnetic field."

### HINTS FOR PROSPECTORS

The search for, or interest in obtaining, large deposits of iron and copper in Alaska by several large companies continues. The TDM would again like to urge all prospectors to keep these and other minerals in mind as well as gold and radio-actives. Large pyrite deposits near salt water transportation are also still in demand for the sulphur and iron content. Of the pyrite deposits, the size would need to be in tens of feet in width and over a hundred feet long and of an average grade of about 70 percent of sulphur and iron combined. The TDM will be more than happy to put prospective sellers and purchasers in contact with each other if the deposits appear to be of commercial interest, or advise the prospector on how best to deal with his property if he desires such advice.

### LAND WITHDRAWAL

The U. S. Air Force wants to withdraw a parcel of land northeast of Trading Bay, Cook Inlet, whose boundaries are roughly as follows in a clockwise direction: 61°55' N latitude on the north, 152°00' W longitude on the east, 60°51' N latitude to the headwaters of the Tlikakila River and thence down the river staying two miles north of it, and 153°40' W longitude on the west. Chakachamma Lake is in the lower right center of this area. The purpose of the withdrawal is for a rocket range. Any prospector or miner having an objection to this withdrawal from a mineral standpoint should contact Mr. T. E. Smith, Corps of Engineers, U. S. Army, Office of the District Engineer, Anchorage, or the TDM.

### CURRENT METAL PRICES

The following metal prices taken from the E.&M.J. Metal Markets report of July 29, 1954, should be of interest to the prospector and miner;

Copper	Domestic average - 29.7¢ refinery (per lb.)
Lead	14¢ N. Y. (per lb.)
Zinc	11¢ East St. Louis (per lb.)
Tin	96-1/8¢, prompt, N. Y. (per lb.)
Quicksilver	\$290 - \$293, N. Y. (per flask of 76 lbs.)
Silver	85-1/4¢ (per oz.)
Platinum	\$84 - \$87 (per oz.)
Nickel	60¢ (per lb.)
Fluorspar	\$34 - \$35, 70% grade, Rosiclare (per ton)
Molybdenum	\$3.00, 99%, (per lb.)
Tungsten	Western high grade scheelite concentrate \$63 per unit, f.o.b. mine