STATE OF OREGON DEPARTMENT OF GEOLOGY 4 MINERAL INDUSTRIES

PORTLAND, OREGON

THE ORE.-BIN

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Portland, Oregon

February 1946

STATE DEPARTMENT OF GEOLOGY & MINERAL INDUSTRIES
Head Office: 702 Woodlark Bldg., Portland 5, Oregon

State Governing Board

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LMWII

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Portland

Baker

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F. W. Libbey, Director

Field Offices

2033 First Street, Baker

Norman S. Wagner, Field Geologist

714 East "H" Street, Grants Pass

Elton A. Youngberg, Field Engineer

PARTIAL LIST OF USERS OF INDUSTRIAL MINERALS IN THE LOWER COLUMBIA RIVER AREA*

Because of the many inquiries received concerning a market for some industrial minerals, the Department has prepared a list of users and possible buyers of these minerals in the lower Columbia River area. The list is not complete and additions will be made from time to time.

Asbestos

Asbestos Supply Co. of Ore. 221 S. W. Front Avenue

E. J. Bartells Co.
611 N. Tillamook Street

J. E. Berkheimer Mfg. Co. 9111 N. Denver Avenue

Duncan Paint Co.
4246 S. E. Belmont Street

Fisher Thorsen & Co., Inc. 2100 N. W. 22nd Avenue

Flexoid Paint Co. 4850 N. E. 97th Avenue

W. P. Fuller Co.
2181 N. W. Nicolai Street

General Paint Corp. 838 S. W. 2nd Avenue

Gilsonite Roof Products
5224 N. E. 42nd Avenue

Miller Paint & Wallpaper Co. 317 S. E. Grand Avenue

Pacific Roofing Co.
6350 N. W. Front Avenue

Pennsylvania Salt Mfg. Co. of Washington 6400 N. W. Front Avenue

Portland Paint & Lacquer Products 7835 S. W. 37th Avenue

Rodda Paint Co.

1103 S. E. Grand Avenue

Westco Waterpaints Inc. 1225 N. W. Everett Street

Unless otherwise stated addresses are in Portland.

Barite

Duncan Paint Co.
4246 S. E. Belmont Street

Pisher Thorsen & Co., Inc. 2100 N. W. 22nd Avenue

W. P. Fuller Co.
2181 N. W. Nicolai Street

General Paint Corp. 838 S. W. 2nd Avenue

Miller Paint & Wallpaper Co. 317 S. E. Grand Avenue Miller & Zehrung Chemical Co. 2201 N. W. 20th Avenue

Pacific Laboratories, Inc. 10330 N. E. Marx Street

Portland Paint & Lacquer Products 7835 S. W. 37th Avenue

Rodda Paint Co.
1103 S. E. Grand Avenue

S. & S. Paint Mfg. Co.
121 S. E. Morrison Street

Van Waters & Rogers, Inc. 433 N. W. York Street

Bentonite

California Spray Chemical Corp. 2109 N. Albina Avenue

LaGrand Industrial Supply Co. 2603 S. W. Pront Avenue

Miller Products Co.
1932 S. W. Water Avenue

Pacific Stoneware Co.
9217 N. Peninsular Avenue

Portland Gas & Coke Co.
Public Service Building

Snow Insecticide Co.
6043 S. W. Capitol Highway

Swift & Company N. Portland

Van Waters & Rogers, Inc. 433 N. W. York Street

Western Industrial Supply Co. 208 S. E. Hawthorne Blvd.

Clay

E. J. Bartells Co.
611 N. Tillamook Street

Crown-Zellerbach Corp.
Public Service Building
(kaolin - filler)

Dant & Russell (kaolin)
Firtex Plant
St. Helens, Oregon

Durkee Famous Foods, Inc.
2736 N. W. Front Avenue
(Activated acid-treated bleaching clay)

General Paint Corp. 838 S. W. 2nd Avenue

LaGrand Industrial Supply Co. 2603 S. W. Front Avenue

McCracken Ripley Co. 2221 N. Albina Avenue

Miller Products Co.
1932 S. W. Water Avenue

Pacific Stoneware Co.
9217 N. Peninsular Avenue

Pennsylvania Salt Mfg. Co. of Washington 6400 N. W. Front Avenue

Van Waters & Rogers, Inc. 433 N. W. York Street

Wester Waterpaints, Inc.
1225 N. W. Everett Street

Western Industrial Supply Co. 208 S. E. Hawthorne Blvd.

Diatomite

E. J. Bartells Co.
611 N. Tillamook Street

J. E. Berkheimer Mfg. Co. 9111 N. Denver Avenue

Blitz-Weinhard Co.
1133 W. Burnside Street

California Spray Chemical Corp. 2109 N. Albina Avenue

Cleaver Mfg. Co. 2764 N. W. Thurman Street

Duncan Paint Co.
4246 S. E. Belmont Street

Durkee Famous Foods, Inc. 2736 N. W. Front Avenue

Fisher Thorsen & Co., Inc. 2100 N. W. 22nd Avenue

W. P. Fuller Co.
2181 N. W. Nicolai Street

General Paint Corp. 838 S. W. 2nd Avenue

Gilsonite Roof Products
5224 N. E. 42nd Avenue

Griffin Bros. Inc. 1806 S. E. Holgate

LaGrand Industrial Supply Co. 2603 S. W. Front Avenue

McCracken Ripley Co.
2221 N. Albina Avenue

A. McMillan & Co. 220 S. E. Ankeny

Miller Paint & Wallpaper Co. 317 S. E. Grand Avenue

Miller Products Co.
1932 S. W. Water Avenue

Miller & Zehrung Chemical Co. 2201 N. W. 20th Avenue

Pacific Building Materials Co. 400 N. Thompson Street

Pennsylvania Salt Mfg. Co. of Washington 6400 N. W. Front Avenue

Portland Paint & Lacquer Products 7835 S. W. 37th Avenue

Ross Island Sand & Gravel Co. 4129 S. E. McLoughlin Blvd.

Swift & Company N. Portland

James A. Tait Co.
316 S. E. Madison Street

Van Waters & Rogers, Inc. 433 N. W. York Street

Western Industrial Supply Co. 208 S. E. Hawthorne Blvd.

Dolomite

Crown-Zellerbach Corp.
Public Service Building

Marine By-Products Co.
1039 N. W. 13th Avenue

Swift & Company
N. Portland

Thomas Ernest Cast Stone Co. 2705 N. E. Pacific Street

Feldspar

Miller & Zehrung Chemical Co. 2201 N. W. 20th Avenue

Packer-Scott
28 S. W. 1st Avenue

Pacific Stoneware Co.
9217 N. Peninsular Avenue

Western Industrial Supply Co. 208 S. E. Hawthorne Blvd.

Granite (crushed)

Solastic Products Co.
129 S. E. Alder Street

Triangle Milling Co.
665 N. Tillamook Street

Limestone and Lime

Columbia River Paper Mills
Oregonian Building

Crown-Zellerbach Corp.
Public Service Building

Duncan Paint Co.
4246 S. E. Belmont Street

Electro Metallurgical Co. St. Johns, Oregon

W. P. Fuller Co.
2181 N. W. Nicolai Street

General Paint Corp.
838 S. W. 2nd Avenue

Hawley Pulp & Paper Co. Oregon City, Oregon Miller Paint & Wallpaper Co. 317 S. E. Grand Avenue

Pacific Carbide & Alloys

N. Columbia Blvd. & Hurst Avenue

Pacific Roofing Co.
6350 N. W. Front Avenue

Rodda Paint Co.
1103 S. E. Grand Avenue

S. & S. Paint Mfg. Co.
121 S. E. Morrison Street

Spaulding Pulp & Paper Co. Newberg, Oregon

St. Helens Pulp & Paper Co. St. Helens, Oregon

Westco Waterpaints, Inc. 1225 N. W. Everett Street

Magnesite

Western Industrial Supply Co. 208 S. E. Hawthorne Blvd.

Mica

A. McMillan & Co.
220 S. E. Ankeny Street

Asbestos Supply Co. of Oregon 221 S. W. Front Avenue

Dant & Russell
St. Helens, Oregon

Duncan Paint Co.
4246 S. E. Belmont Street

Fisher Thorsen & Co., Inc. 2100 N. W. 22nd Avenue

W. P. Fuller Co.
2181 N. W. Nicolai Street

General Paint Corp.
838 S. W. 2nd Avenue

Lloyd A. Fry Roofing Co. 3750 N. W. Yeon Avenue

Miller & Zehrung Chemical Co. 2201 N. W. 20th Avenue

Pacific Roofing Co.
6350 N. W. Front Avenue

Westco Waterpaints, Inc. 1225 N. W. Everett Street

Western Industrial Supply Co. 208 S. E. Hawthorne Blvd.

Pumice

Builders Concrete Products
3451 S. E. Madison Street

Empire Building Materials Co. 1205 S. E. Grand Avenue

Hart Manufacturing & Sales Co. 6639 N. E. Glisan Street

Mt. Hood Soap Co.
328 N. W. Glisan Street

Perma-Insul Co. Sutter Road

Thomas Ernest Cast Stone Co. 2705 N. E. Pacific Street

Tigard Concrete Products, Inc. Box 729, Tigard, Oregon

Van Waters & Rogers, Inc. 433 N. W. York Street

Western Industrial Supply Co. 208 S. E. Hawthorne Blvd.

Quartz

LaGrand Industrial Supply Co. 2603 S. W. Front Avenue

Oregon Electronic Mfg. Co.
Kraemer Building

Radio Specialty Mfg. Co. 403 N. W. 9th Avenue

Thomas Ernest Cast Stone Co. 2705 N. E. Pacific Street

Western Industrial Supply Co. 208 S. E. Hawthorne Blvd.

Silica Sand

W. P. Fuller Co. 2181 N. W. Nicolai Street

General Paint Corp.
838 S. W. 2nd Avenue

LaGrand Industrial Supply Co. 2603 S. W. Front Avenue

Miller Paint & Wallpaper Co. 317 S. E. Grand Avenue

Pacific Laboratories, Inc. 10330 N. E. Marx Street

Pacific Roofing Co.
1350 N. W. Front Avenue

Paulsen & Roles
1622 N. E. Union Avenue

Portland Paint & Lacquer Products 7835 S. W. 37th Avenue

Rodda Paint Co.
1103 S. E. Grand Avenue

S. & S. Paint Mfg. Co.
121 S. E. Morrison Street

Thomas Ernest Cast Stone Co. 2705 N. E. Pacific Street

Van Waters & Rogers, Inc. 433 N. W. York Street

Western Industrial Supply Co 208 S. E. Hawthorne Blvd.

Talc

California Spray Chemical Corp. 2109 N. Albina Avenue

Chipman Chemical Co., Inc. 6200 N. W. St. Helens Road

Columbia River Paper Mills Oregonian Building

Crown-Zellerbach Corp.
Public Service Bldg.

Duncan Paint Co. 4246 S. E. Belmont Street

W. P. Fuller Co.
2181 N. W. Nicolai Street

Fisher Thorsen & Co., Inc. 2100 N. W. 22nd Avenue

General Paint Co. 838 S. W. 2nd Avenue

George E. Wightman Co. 3233 N. Williams Avenue

Griffin Bros., Inc. 1806 S. E. Holgate Blvd.

Miller Paint & Wallpaper Co. 317 S. E. Grand Avenue Miller Products Co.
1932 S. W. Water Avenue

Miller & Zehrung Chemical Co. 2201 N. W. 20th Avenue

Pacific Laboratories, Inc. 10330 N. E. Marx Street

Pacific Solvents Co.
6948 S. W. Macadam Avenue

Portland Paint & Lacquer Products 7835 S. W. 37th Avenue

S. & S. Paint Mfg. Co.
121 S. E. Morrison Street

Stauffer Chemical Co. P. O. Box 68

Swift & Company
N. Portland

Van Waters & Rogers, Inc. 433 N. W. York Street

Westco Waterpaints, Inc. 1225 N. W. Everett Street

Western Industrial Supply Co. 208 S. E. Hawthorne Blvd.

OREGON ACADEMY OF SCIENCE MEETS IN PORTLAND

The fourth annual meeting of the Oregon Academy of Science was held on February 16, 1945, at the Portland Public Library, and was attended by about 160 scientists from Eugene, Corvallis, Portland, and other towns in western Oregon. Members of the section of Geology and Geography presented a program of 15 papers on petrography, economic geology, paleontology, and geography. The program began at 11:00 a.m. and lasted until late in the afternoon.

The morning session began with three papers presented by members of the Oregon Department of Geology and Mineral Industries. "Geology of a perlite deposit on Deschutes River," by Dr. John Eliot Allen, described an occurrence of glassy lava with a high water content which is being mined and furnaced to produce a light-weight insulating material. "Progress report on ferruginous bauxite in Oregon," by Mr. F. W. Libbey, Director of the Department, listed the advances made in the explorations of this aluminum ore by the Department and by Alcoa Mining Company during the last year. "Progress report on coal production in Oregon," by Mr. R. S. Mason, described the new, completely mechanized coal mining operation of the Goast Fuel Corporation at Goos Bay, now approaching a daily production of 150 to 200 tons. It is the largest operation since 1920, and the first mechanized coal mine in Oregon.

Mr. C. W. Read, of the U.S. Army Engineers, presented a paper on "Some aspects of geophysical prospecting," which outlined the present methods used, with particular reference to the seismic techniques used by the engineers to determine depth to bedrock at dam sites. Mr. John W. Robinson, of the U.S. Geological Survey Ground-Water Division, in a paper on "Pebble orientation in glacial till at Tacoma, Washington," described a new method of measuring the long axes of pebbles in an outcrop, in order to determine the direction of flow of the ice sheets which deposited them.

The Goology and Geography section then recessed to the Winter Garden Restaurant for lunch, where Dr. Ira S. Allison, of Oregon State College, spoke of his experiences with the veteran's college program at American University, Shrivenham, England, during the past six months, and described some of the geological features he had time to observe in Great Britain.

The afternoon session began with a paper by Dr. L. W. Staples, of the University of Oregon, on "Genetic significance of analcime spherical aggregates from Oregon," a discussion of the crystal occurrence of zeolites from several localities. Dr. Staples' study of this subject has led to several conclusions as to their order of deposition in layas. Mr. W. J. Colegrove, . of the University of Oregon, presented a paper on "A graphite-bearing rhyolite dike in Curry County, Oregon," a very unusual occurrence of carbon in an acidic rock. The origin of the graphite may, upon further investigation, prove to be magmatic, one of the first such occurrences ever to be noted. Four papers were presented during the afternoon in the subsection on paleontology. The first, "The Soio flora of western Oregon," by Dr. Ethel I. Sanborn, of Oregon State College, described 15 species of plants, 7 of which are new. These were collected at Franklin Butte. An upper Oligocene or lower Miocene age of the flora has been suggested by Wayne Felts who mapped the area from which the flora was collected. Mr. Lloyd L. Ruff, of the U.S. Army Engineers, described "An isolated marine fossil locality in Lane County," where poorly preserved shells, probably of marine origin, occur. This occurrence is in a terrestrial sequence of volcanic tuffs and breccias at least 18 miles away from any other reported marine rocks. Dr. E. L. Packard, of Oregon State College, reported on "A fossil sea lion from Cape Blanco," describing the arm bone of a sea lion of probable upper Pliocene age. Mr. R. E. Stewart, of the Oregon Department of Geology and Mineral Industries, gave a report on the "Status of the micropaleontology program of the Department," telling of the numerous localities from which the minute fossils, "foraminifera," have been collected during the past year, and the progress in their identification.

The subsection on Geography met at the same time in another room, and four papers were presented. Mr. John E. Smith of Oregon State College gave a paper on "Geography, a science." Dr. Warren D. Smith, of the University of Oregon, gave an outline of his forthcoming report on the "Geography of Eugene, Oregon," which is to be a complete survey of the various geographic features which have assisted in the growth and development of that city. Mr. W. G. Morris, of the Pacific Northwest Forest Experiment Station, spoke on "Summertime variation in

atmospheric drying conditions according to geographic location in western Oregon and Washington." Mr. W. B. Merriam, of Washington State College, gave an interesting report or "Garry County; the geography of an isolated coast."

THE PROSPECTOR'S COURSE AT THE COLLEGE OF MINES University of Washington

To foster the art of prospecting by giving young men training especially designed for the purpose, the 1945 Session of the Legislature of Washington authorized the College of Mines of the University of Washington to offer a Prospector's Course. With the aid of a special fund of \$18,000 the College is offering the course several times during the biennium 1945-47.

Prospecting in the Northwest

Washington and its neighboring states, together with Western Canada and Alaska, contain numerous rich mines and mining districts, but within this northwest quarter of the continent are large regions known to be mineralized that have not yet been closely examined. Their opening has been hindered by the difficulties of travel through them. The recent construction of highways and airfields, which was hastened by the war, has greatly improved the conditions for prospecting in parts of the area.

The prospector in the Old West travelled widely in his search for gold-quartz ore and gold-bearing gravel. At a later period he was on the lookout for ores of the common metals, especially copper, lead, and zinc. All these substances are still desired, but in addition a demand has arisen for many others that are less well known. Familiarity with a variety of these ores and minerals gives the prospector of today a greater chance of success than if his search were more limited.

Schedule and registration

The Prospector's Course, which was initiated at the University November 1, 1945, is repeated in each term except those in summer. The course will thus be scheduled as follows: March 4 to June 14 and again September 30 to December 20, 1946; January 6 to March 21 and again March 31 to June 13, 1947. The course is open without examination or credentials to men past high-school age. A certificate is awarded to those that satisfactorily complete the course.

Registration is performed and fees are paid in person in the week before the opening of each term. The special tuition fee for this course is \$10. The breakage ticket for chemistry costs \$3, part of which is returnable. Items of equipment cost \$4 and books \$20, but purchase of all the books is not a requirement. Field trips are made at small expense. Men that have completed the one-term course may enroll for an advanced course.

MERCURY IN 1945

According to the U.S. Bureau of Mines monthly mercury report released February 18, 1946, mercury production in 1945 declined 19 percent from 1944, mercury consumption gained 49 percent over 1944, and exceeded the previous peak in 1943 by 17 percent, general imports were 261 percent higher than in 1944, and 49 percent above the previous record rate in 1943, and prices dipped from a monthly average of more than \$161 in January to below \$96 in September and recovered to \$108 in December. The foregoing diverse movements are explained largely by the enormous war demand for mercury created by the new dry cell battery program, by the urgent need to obtain large supplies of metal quickly, and by the end of hostilities in Germany and the unexpectedly sudden collapse of Japanese resistance. Prices were high when the year began, but declined in anticipation of the arrival of ample supplies to cover unprecedented requirements for batteries. Following the end of the German phase of the war the price decline

accelerated, the downtrend being sharpened by imports which in the month of July (19,504 flasks) exceeded in quantity average annual receipts before the war; price sank below \$100 n flask in September. Stocks held at industrial plants, much of which was for use in filling battery contracts, reached a peak total of over 40,000 flasks at the end of October. The market strengthened when it became known that surplus mercury from contract cancellations would become part of the Government stock pile, and prices continued upward to the close of the year. Domestic production declined from 3,600 flasks in July, when the price was above \$140, to 1,200 in October, following the drop in price to below \$100.

Mine production

Domestic production of mercury dropped to about 30,600 flasks in 1945 or to 19 percent less than the reduced wartime rate of 1944; in the final quarter of the year the rate was below even that which prevailed in the prewar years 1938 and 1939. California continued to dominate the country's output by a substantial margin in 1945, but the proportion produced there dropped to 69 percent compared with 74 percent in 1944. The foregoing decrease is explained almost entirely by a rise of 75 percent in production in Nevada, owing to a sharp gain in the rate of operations at the Cordero mine, Humboldt County. Alaskan production reached a new peak in 1945, rising against the trend for most areas but all productive operations were closed in the late months of the year. The ten leading producers in the United States in 1945 were as follows: Alaska; Red Devil (New Idria-Alaska) mine. California: Abbott mine, Lake County; New Idria mine, San Benito County; Buena Vista (Mahoney) mine, San Luis Obispo County; New Almaden and Guadalupe mines, Santa Clara County; Mt. Jackson mine, Sonoma County, and Reed mine, Yolo County. Nevada: Cordero mine, Humboldt County. Oregon: Bonanza mine, Douglas County. The New Idria mine continued to lead by a substantial margin, with an output below that in 1944 and 1943, however, and several other leaders had smaller outputs in 1945 than in 1944. The Cordero mine, which rose from sixth to second place, on the other hand, expanded production sharply in 1945, the Buena Vista mine also showed a noteworthy gain, and the Red Devil mine produced more mercury in 1945 than ever before. In addition to the properties already listed each of the following produced more than 150 flasks in 1945: Alaska: Decoursey Mountain mine. California: Mt. Diablo mine, Contra Costa County; Sulphur Bank mine, Lake County; Knoxville mine, Napa County; and Red Rock mine, Santa Barbara County. Idaho: Hermes mine, Valley County. Nevada: Red Bird mine, Pershing County. Texas: Chisos-Waldron mine, Brewster County. Of the properties mentioned in the foregoing discussion the following reported production in December: Mt. Diable, Abbott, Knoxville, New Idria, Red Rock, Guadalupe, Mt. Jackson, Reed, Hermes, Gordero, Bonanza, and Chisos-Waldron. These properties accounted for approximately 98 percent of the December total.

Salient statistics on mercury in the United States, in 1945, in flasks of 76 pounds.

Period	Production	General imports	Exports	Consumption	Stocks at end of morth 1/			Price per
					Reserve 2/	Consumers & dealers 3/	Producers	flask at - New York
JanMarch (avg.)	2,733	1,981	21	5,467	5/ 63,086	5/12,200	5/ 1,584	\$ 161.47
April	3,000	10,963	30	7,500	63,086	15,800	2,148	156.84
May	3,300	7,2 ¹ +2	70	8,900	63,089	15,600	2,760	153.69
June	3,000	3,677	22	8,500	63,640	16,100	1,377	147.73
July	3,600	19,504	23	6,600	63,640	33,600	3,179	140.72
August	3,300	4,417	19	5,300	63,640	32,300	3,266	123.20
September	2,050	582	62	3,100	63,638	31,900	4,167	95.84
October	1,200	148	626	3,100	63,638	6/37,800	2,468	101.39
November	1,350	18,261	54	2,500	63,638	6/23,000	2,761	106.87
December	1,600	770	69	2,000	63,638	6/17,000	3,243	108.00
<u>Total</u>	30,600	71,508	1,037	63,900				- Jahren

Meased chiefly on location rather than ownership. 2/ In addition substantial stocks, information regarding which is still confidential, are held by other Government agencies. 3/ Largely excludes redistilled metal. Measurement in the following companies. 5/ At end of period. 6/ Includes some metal, destined for the Government inventory, neither at consumers' plants nor in dealers' hands.

The ORE.-BIN State of Oregon

DEPARTMENT OF GEOLOGY & MINERAL INDUSTRIES

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