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PUMICE PRODUCTION RECORD FOR 1949

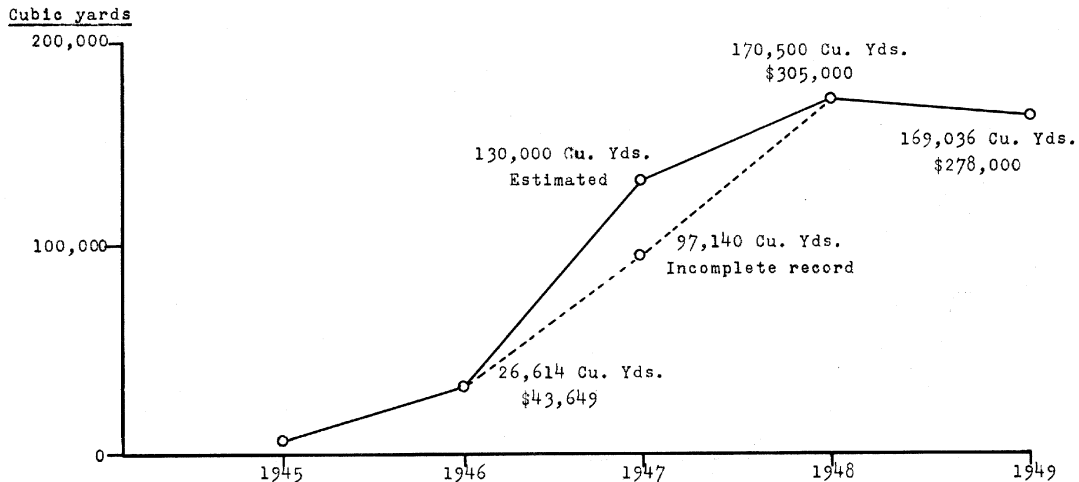
Pumice production in Oregon during the year 1949 amounted to 169,036 cubic yards of assorted aggregate and 76½ tons of abrasive grade lump material. Included under the aggregate classification is block and ready-mix aggregate, plaster sand, and a small amount of unprocessed pit-run pumice. The value of the aggregate production is estimated to be approximately \$278,000.

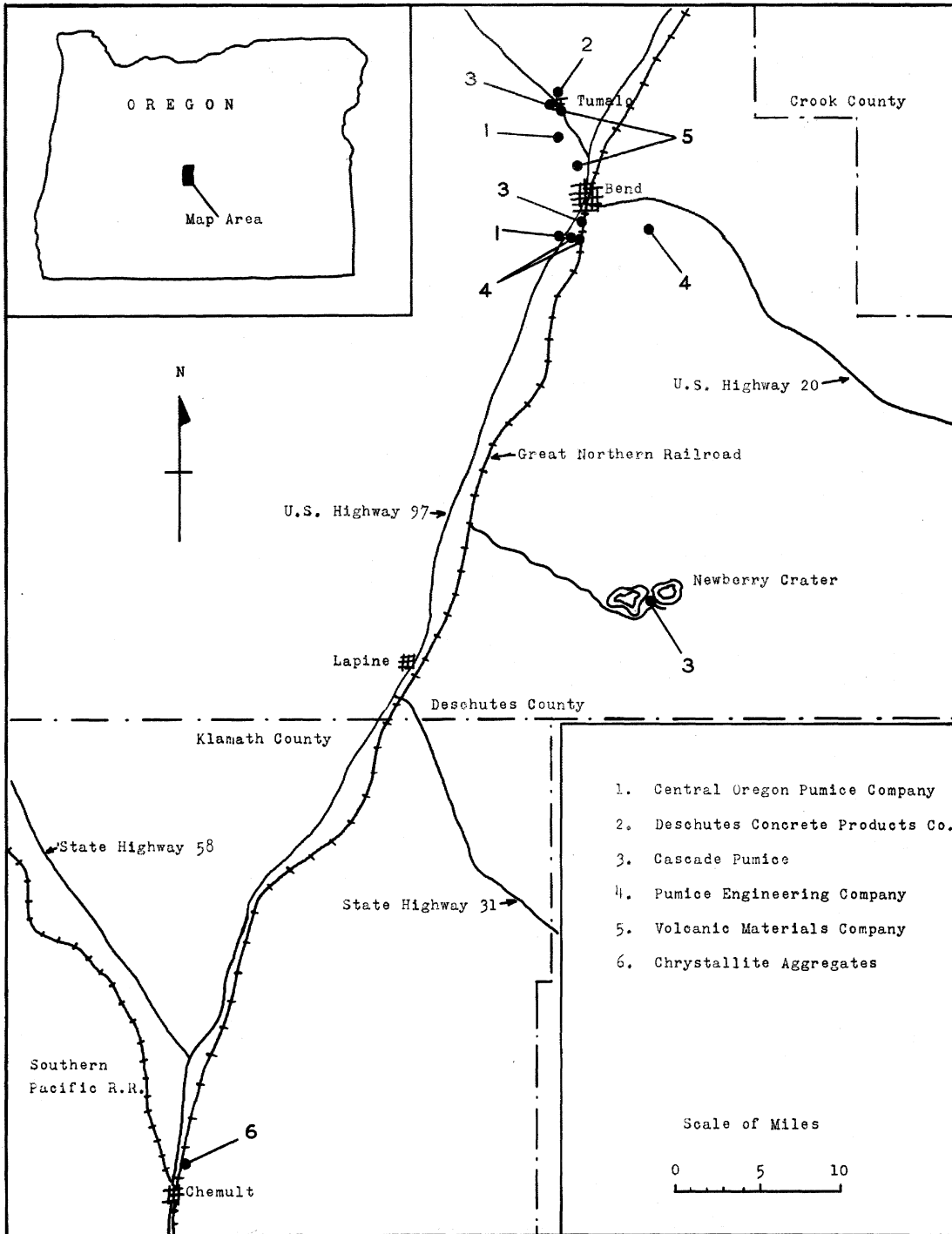
These figures were compiled from production statistics supplied by all but one of the established producers listed in the progress report on "Oregon's Pumice Industry" contained in the December 1949 Ore.-Bin.

The 1949 production for the one operation for which no production was available is estimated at slightly less than the reported 1948 production, and this estimate was used in compiling the 1949 production total already given. This total is believed to be fairly accurate.

A comparison of the 1949 production with that of previous years is shown in the accompanying graph.

N.S.W.





Index map showing location of pumice producers in Bend-Chemult area of Central Oregon.

## PUMICE RESEARCH

Washington State Institute of Technology, Division of Industrial Research, Pullman, is currently engaged in a research program on pumice concrete. This program was initiated because of a request from concrete products manufacturers and is being carried on in co-operation with them. The Institute is attacking the most important problems in connection with the pumice block industry first, but nearly every phase of the problem has been tentatively outlined for future investigation.

The causes and control of shrinkage in walls constructed with pumice concrete blocks is receiving the Institute's attention at the present time. Although no final results are yet available, preliminary work indicates that excessive shrinkage of the blocks after being laid up in a wall can be minimized by using a properly cured block containing (a) a minimum of moisture, and (b) the inclusion of steel reinforcing in the wall.

An investigation of the weathering abilities of various paints for use on exteriors of pumice concrete masonry is also being carried out. Paints are applied to walls of about 10 square feet area, and tested at an accelerated rate in a specially constructed weathering cabinet. All types of suitable coatings are being checked, transparent types particularly.

The problem of correct mix ratios for pumice concretes is also being investigated by the Institute and a large number of test cylinders are being prepared and strength tested. Tests on Oregon pumice are included in the present program since the bulk of pumice used by Washington block manufacturers originates in Oregon where large, easily accessible deposits of excellent material are available.

R.S.M.

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## LARGE PETRIFIED TREE DISCOVERED

Mr. John Osborn, Prineville, Oregon, has uncovered a fossilized tree of unusual size. Although only a small portion of the trunk has been exposed, the diameter at the butt measures  $12\frac{1}{2}$  feet. A 33-foot length of this petrified giant of some prehistoric forest has been uncovered by Osborn, and pieces of fossil wood found on the surface indicate that a considerable portion of the tree probably lies hidden beneath the surface of the hillside. The tree is located on Osborn's farm which is about  $4\frac{1}{2}$  miles north of Prineville. It was discovered accidentally when Osborn was bulldozing out a road to his home. A sample of the wood has reportedly been identified as sequoia by Dr. George F. Beck, Eastern Washington College of Education, Ellensburg, Washington. Dr. Beck is a noted authority on fossil leaves and woods of the Pacific Northwest. The wood should prove of interest to rock collectors and lapidarists since it polishes well and displays an interesting growth pattern.

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## NEW GEOGRAPHY TEXTBOOK

Oregon Geography is the title of a new book by Samuel N. Dicken, Professor of Geography at the University of Oregon. The contents as announced by Dr. Dicken give a comprehensive list of chapter subjects as follows: Introduction, Historical Geography, The Face of Oregon, Sea and Coast, The Coast Range, The Klamath Mountains, The Basin-Range, The High Lava Plains, The Owyhee Upland, The Blue Mountains, The Deschutes-Umatilla Plateau, The Cascade Range, The Willamette Valley, Land Forms, Climates, Vegetation and Soils, Population, Production, and Communication.

The book will be available about September 1, 1950, at the University of Oregon Cooperative Bookstore, Eugene, and at Gills, Fifth and Stark Streets, Portland.

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## TEN YEAR ORE.-BIN INDEX

Demand for the 10-year index of the Ore.-Bin issued in 1949 has reduced the Department's stock to a relatively few copies. Those that are left are available at 15 cents a copy.

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## DIATOMITE NEAR TELOCASET, OREGON

Diatomite is to be seen at several places in the lake beds in the vicinity of Telocaset southern Union County, Oregon, and also in a smaller lake bed area situated a few miles to the southeast of the Telocaset diatomite. With the exception of one small pit from which it is reported that diatomite was dug and shipped to Walla Walla for insulation purposes, the presence of diatomite in the area is indicated by fragments in the earth extracted from gopher holes and dug wells of early homesteader times.

In most places the geologic setting in the vicinity of these occurrences indicates local deposits of small size. In one place, however, there is a belt in which the gopher hole and dug well evidence points to extension along the flanks of low rolling hills for an unbroken distance of about three quarters of a mile. These low hills are comprised of lake bed strata, the soil covering of which has been, in part, intensively worked by cultivation. They constitute the foothills of a much larger and higher basalt-capped hill. A whitish cast to the soil shows at the base and on the lower flanks of these hills. This is conspicuous in some places, and in others is less noticeable, but it indicates that the hidden diatomite strata may be here in appreciable thickness compared to showings elsewhere in the area. The only other information bearing on this occurrence was obtained from a resident farmer, Mr. G. V. Wilkenson, whom the writer interviewed in an attempt to obtain well-log data which might throw light on the subject.

About 1935 Mr. Wilkenson sunk a 60-foot well (half dug and half drilled) on the lower flank of the foothill ridge somewhat above one of the stronger white soil areas. This well was dry. It is now almost completely filled in. There are no diatomite fragments to be seen in the soil surrounding the collar. Mr. Wilkenson, reports, however, that the well penetrated diatomite at a depth of about ten feet from the surface and remained in diatomite to the bottom. The overburden was lake bed material and soil. This proved to be the only recent well located so that it would penetrate this belt of diatomite. Mr. Wilkenson had no difficulty in identifying diatomite and his report should be given due weight. Moreover, one of the early homesteader's wells, around which chunks of diatomite were found, was situated within a few hundred feet of the Wilkenson well, and at a lower elevation on the hillside where a thinner overburden could be expected.

This belt of probable diatomite is situated within a quarter of a mile of the Union Pacific mainline. It is chiefly because of this location with reference to transportation that this occurrence is described.

The major lake bed (a small one compared to the lake bed areas farther to the south in the Baker quadrangle) covers some  $5\frac{1}{2}$  sections in the Antelope Valley area adjacent to, and directly south of Telocaset. This embraces all, or portions of secs. 27, 28, 29, 31, 32, and 33, T. 5 S., R. 40 E., and secs. 3, 4, and 5, T. 6 S., R. 40 E. The three-quarter-mile belt of diatomite showings is situated in the NW $\frac{1}{4}$  sec. 4 and in the E $\frac{1}{2}$  sec. 5, T. 6 S., R. 40 E.

The belt of diatomite indications trends in a general northeast direction roughly parallel to the rail line. Judged from a mining standpoint the terrain rises gently from the level of the rail line so that a dry quarry site can be planned, provided of course that prospecting should disclose a minable thickness of good quality diatomite.

The Telocaset lake beds appear to be identical to those in the lower Powder River valley and contain large and excellent grade deposits of diatomite especially well developed in the vicinity of Keating.

N.S.W.

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## OREGON GOLD MINE TO SHIP

The Hundinger gold mine on Williams Creek in Josephine County, Oregon, is under lease to W. S. Robertson and three associates. At present they are cutting a quartz lens on two levels. The quartz varies in width from 3 to 5 feet with most of the values in the sulphides. High-grade ore is being mined for shipment to Tacoma.

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## ALL IS NOT GOLD

Sobering to the overly optimistic, and depressing to those already pessimistic, were the remarks of Dr. J. E. Hobson, executive director of the Stanford Research Institute, before a manufacturers' conference held in Berkeley, California, last week. Drawing upon data supplied by Dr. Weldon B. Gibson, chairman of the Dept. of Business and Industrial Economics at the Research Institute, Dr. Hobson reported that the outlook for new western industrial expansion in the immediate future is not good although the long term prospects are better; private investment will continue to decline from the 1948 high of almost a billion dollars a year to a low of perhaps half that amount by 1953; but after 1954 the rate of investment should begin to rise and perhaps by 1960 will exceed the 1948 level. A decline in the total income in the West is expected for two or three years to be followed by new highs in 1956 or 1957. Summarizing his analysis of the economy of the six western states (Nevada omitted) the doctor reported:

"There exists in the Far West a tendency for population increases to level off; our income position is not being maintained; our food, lumber, and petroleum industries are our most important lines of activity; our industrial growth, while significant, has not kept pace with population increases, but has exceeded for the moment our ability to consume industrial products; our economy is tied to the development of natural resources; our situation is somewhat unbalanced as a result of the high ratio of small unit operations and service-type business to the total; many of our raw materials are sub-marginal on the basis of existing technology; we are lacking in some basic natural resources; we have a temporary water and power shortage; Western migration of industry has declined markedly; and industry in general is over-expanded in the West."

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From Iron Age, New York and San Francisco, May 25, 1950.

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## MERCURY IN THE FIRST QUARTER OF 1950

Imports of mercury continued at high levels in the first quarter of 1950, although substantially below the quarterly average for 1949, according to the Bureau of Mines, United States Department of the Interior. January-March 1950 receipts were

Salient statistics on mercury in 1948 and in 1949, by quarters,  
and in January-March 1950, in flasks of 76 pounds

Period	Production <sup>1/</sup>	General imports	Exports	Consumption
1948: January-March . . . .	5,300	7,844	79	10,000
April-June . . . . .	3,600	19,410	156	15,700
July-September . . . . .	3,150	5,342	96	9,400
October-December . . . . .	2,050	9,136	195	10,300
Total . . . . .	<sup>2/</sup> 14,388	41,732	526	<sup>2/</sup> 46,253
1949: January-March . . . . .	1,440	7,133	55	10,400
April-June . . . . .	1,460	28,757	220	7,600
July-September . . . . .	6,980	56,763	65	8,000
October-December . . . . .	3,980	4,265	237	<sup>3/</sup> 13,900
Total . . . . .	<sup>2/</sup> 9,930	96,918	577	<sup>2/</sup> 39,857
1950: January-March . . . . .	1,700	13,210	66	11,200

<sup>1/</sup>In addition at least 300 flasks were produced from the treatment of scrap such as old batteries in the first quarter of 1948, 170 in the second, 600 in the third and 1,100 in the fourth; 375 were produced in the first quarter of 1949, 380 in the second, 325 in the third, 305 in the fourth, and 410 in the first quarter of 1950.

<sup>2/</sup>Final annual figures; quarterly data not adjusted.

<sup>3/</sup>Revised figures.

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From Mineral Industry Surveys Mercury Report No. 94.

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## ASSESSMENT WORK

S.3639 (amended) by Senator Guy Cordon has passed both the House and Senate and is waiting for the President's signature (June 26). The bill extends to October 1, 1950, the time for doing assessment work for the assessment year ending July 1, 1950. The amended bill reads as follows:

## AN ACT

"An Act providing for an extension of the time during which annual assessment work on mining claims held by location in the United States, including Alaska, may be made, and for other purposes.

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the time during which labor may be performed or improvements made, under the provisions of section 2324 of the Revised Statutes of the United States, on any unpatented mining claim in the United States, including Alaska, for the period commencing July 1, 1949, is hereby extended until the hour of 12 o'clock meridian on the 1st day of October 1950: Provided, That assessment work or improvements required for the year ending at 12 o'clock meridian July 1, 1951, may be commenced immediately following 12 o'clock meridian July 1, 1950."

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The Engle bill HR 6406 became law (Public Law 544) on June 16, 1950. The object of the law is to clarify the procedure under which a claim owner may receive credit on his work requirement for the 1949-1950 assessment year because of work done during the 1948-1949 assessment year. (See Ore.-Bin, April 1950, page 25). The law provides "That every claimant of a mining claim in the United States who wishes to obtain the benefits conferred . . . may file, or cause to be filed, in the office where the location notice or certificate is recorded, on or before 12 o'clock meridian on the first day of July 1950, a statement of the labor performed or improvements made on any such mining claim during the year ending July 1, 1949, or such statement may be included as part of the annual notice of the performance of assessment work for the year ending at 12 o'clock meridian on the first day of July 1950."

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## BERYLLIUM HAZARDS IN HOME AND INDUSTRY

A small percentage of a beryllium compound is contained in the powder used to line the inside of fluorescent tubes used widely to light modern homes and offices. The coating of powder gives off visible light when struck by the ultraviolet rays created by the electric current passing through the gas in the tube.

Although beryllium metal is not poisonous, its compounds, particularly its salts, are very harmful. These tubes become a serious hazard when broken since the beryllium compound can cause inflammation of the respiratory organs and changes in the skin. Insoluble beryllium silicates have caused malignant tumors in rabbits, and soluble beryllium salts are highly toxic and cause acute necrosis of the liver. Extreme care should be exercised in handling broken or cracked fluorescent tubes. They should never be handled by children.

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## ANNOUNCEMENTS

On May 31, 1950, Alcoa Mining Company announced the resignation of Ernest A. Messer, Resident Engineer in charge of Oregon activities since 1945, to enter private consulting work. The announcement included the appointment of Jack H. McWilliams as Mr. Messer's successor, together with the statement that geological investigations would continue in Oregon and other western areas with office and laboratory remaining at Hillsboro, Oregon.

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Messer, Toye, and Associates, Incorporated, announce opening of offices in the Spalding Building, Portland 4, Oregon, to engage in engineering and contracting. Associated with Ernest A. Messer and Don C. Toye are W. D. Moreland, Charles W. Mumford, and Grant Chandler.

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