INDEX TO PUBLISHED GEOLOGIC MAPPING IN OREGON

In recent years, published geologic mapping in Oregon has increased by leaps and bounds, to the point where it can no longer be depicted on one small index map as was done in the past. The present version, reproduced on the following pages, consists of four index maps with facing references.

Published geologic mapping in Oregon had its beginnings in 1898 with J.S.Diller's Roseburg folio, which was issued by the U.S. Geological Survey. This map was soon followed by the Coos Bay (1901) and Port Orford (1903) folios, also by Diller. Another early map, published in 1901, was done by Waldemar Lindgren to accompany his report on the gold belt of the Blue Mountains of Oregon for the Survey's 22nd annual report. These famous old works are still the basis for all geologic studies in those areas.

Although all of the earliest geologic maps were the products of the U.S. Geological Survey, in 1914 maps began to be issued by the Oregon Bureau of Mines, predecessor to the Department; and by 1940 they were being published by colleges, scientific organizations, and various public agencies, including this Department.

In 1940, the Department began its periodic printing of a small index map (8½ x 11 inches) showing the extent of published geologic mapping, accompanied by a list of the titles of the reports in which the maps appeared and the names of the authors. The first of these index maps showed 43 areas; by 1950 there were 73 areas. By 1956, the total number of areas to be included on the index map was 105, necessitating the use of two sheets. The division was based upon whether the map was small scale (reconnaissance) or large scale (detailed).

By the end of 1959, the number of published maps had increased to 126. For the sake of clarity, the information is now arranged on four sheets as follows: 1) large-area, or reconnaissance, maps published up to 1940; 2) those published after 1940; 3) small-area maps, or spot-locality and road-log maps; and 4) quadrangle maps.

As shown by the index maps, only about one-sixth of the total area of Oregon remains uncovered by some type of published geologic mapping. The larger remaining areas are: a section of western Douglas County between Drain and Reedsport and extending south into eastern Coos County; northern Morrow County and a strip extending south into Grant County; a long, narrow strip running east from Brothers in Deschutes County to Juntura in Malheur County; and all of Malheur County south of Juntura. Parts of these areas, however, are already covered by unpublished maps and reports in manuscript form (See April 1960 Ore.-Bin and Miscellaneous Paper No. 7).

One of the common goals of this Department and the U.S. Geological Survey is to complete and publish a state geologic map. To this end, all areas in the state which are as yet unmapped, or have received only broad reconnaissance treatment, have been assigned to geologists for field study. Already a preliminary geologic map of the western part of the state has been compiled and awaits publication by the Survey. Compilation of the state map as a whole is a long-range project, however, that requires filling in many gaps and correlating an unwieldy assemblage of information gleaned over the past 60 years of geologic mapping.


Pardee, J.T., Beach placers of the Oregon coast: U.S. Geol. Survey Circ. 8, 1934.


PUBLISHED GEOLOGIC MAPPING: LARGE-AREA MAPS, 1940 THROUGH 1959
(See Index Map 2)


Lowry, W.D., Tyrrell manganese deposit and other similar properties in the Lake Creek district, Oregon: Oreg. Dept. Geol. & Min. Ind. Short Paper 10, 1943.


Weaver, C.E., Stratigraphy and paleontology of the Tertiary formations at Coos Bay, Oregon: Washington Univ. Pub. in Geol., vol. 6, no. 2, 1945.


PUBLISHED GEOLOGIC MAPPING: QUADRANGLE MAPS THROUGH 1959
(See Index Map 4)


Diller, J.S., U.S. Geol. Survey Atlas series: (1) Roseburg folio (no.49), 1898; (2) Coos Bay folio (no.73), 1901; (3) Port Orford folio (no.89), 1903; (4) (and Kay, G.F.), Riddle folio (no.218), 1924.


Treasher, R.C., Geologic history and map of the Portland area: Oreg. Dept. Geol. & Min. Ind. Short Paper 7, 1942.


LAKE COUNTY SPOUTER BECOMES TRUE GEYSER

The hot-water spouter on the Charles Crump ranch in Warner Valley, Lake County, is again making history. It is now a true geyser, erupting at approximately two-minute intervals to a height of 60 feet.

The original spouter, which burst forth from a well on July 1, 1959, sent up a continuous column of steam and hot water more than 150 feet high (see report by Norman Peterson in the September 1959 Ore.-Bin). That action continued for several months, until vandals threw boulders into the 20-inch casing at the top of the well, greatly reducing the volume of flow and height of eruption.

About the middle of May 1960, Mr. Crump noticed a change in the behavior of the spouter, and a few days later it began its truly geyser action by erupting at intervals. William Bartholomew, geologist with the State Engineer's office, visited the well May 19 and timed the eruptive and quiet phases. He found that it erupts hot water and steam for approximately twenty seconds, until it reaches a maximum height of 60 feet. Then the column of water quickly falls away and the geyser goes into an inactive period of about 2 minutes, 5 seconds, during which time steam, apparently not under pressure, rolls gently out of the well. He estimates that the well is now producing about 100 gallons per minute.

A sample of water collected from the Crump well in April was analyzed by the State Sanitary Authority. Compared with the analysis made in August 1959, the new report shows increases in parts per million of many of the constituents. Of particular note is the arsenic content, which has increased from the August figure of 0.5 ppm to 1.4 ppm. Public Health Service standards set a limit for arsenic content in drinking water at 0.05 ppm. The recent analysis, made available to the Department by the Office of the State Engineer, is as follows:

<table>
<thead>
<tr>
<th>Constituent</th>
<th>0.63</th>
<th>1.4</th>
<th>14.8</th>
<th>252.0</th>
<th>0.05</th>
<th>3.57</th>
<th>0.24</th>
<th>0.072</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia Nitrogen (N)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arsenic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calcium</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chloride (Cl⁻)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iron</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnesium</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manganese</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrates</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrites</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* * * * *

NEW EDITION OF "MINERAL FACTS AND PROBLEMS"

A new edition of "Mineral Facts and Problems" has just been published as Bulletin 585 by the U.S. Bureau of Mines. The thousand-page volume covers the history, technology, and uses of every important mineral produced in the United States, and describes many recent advances in mineral development. Each of the eighty-seven commodity chapters is written by a Bureau of Mines specialist. The popularity of the first edition of this book, published in 1956, prompted its revision this year in commemoration of the Bureau's 50th anniversary. Henceforth, the Bureau plans to publish an up-dated version every five years.

Bulletin 585, "Mineral Facts and Problems," may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D.C. The price is $6.00 per copy. Preprints of individual chapters are also available at nominal cost.

* * * * *
CORCORAN REJOINS DEPARTMENT STAFF

Raymond E. (Andy) Corcoran has rejoined the Department staff after three years in bauxite exploratory work for Harvey Aluminum Company. Corcoran, who holds degrees from the University of California at Los Angeles and the University of Oregon, was for several years a geologist with Union Oil Company. He first joined the Department in 1953, remaining until 1957. During this time he collaborated with F.W. Libbey on Bulletin 46, "Ferruginous bauxite deposits of the Salem Hills, Marion County, Oregon." Now that he is again with the Department, Corcoran will be doing reconnaissance mapping in southeastern Oregon and will be in charge of stratigraphic correlations for the state geologic map.

* * * * *

HEARINGS ON CHROME SUPPORT BILL

Hearings on HR 5023 were held by the House Committee on Interior and Insular Affairs June 20. Authors and department officials were heard but industry representatives were not present. Congressman Al Ullman (Oregon) has notified the Department of Geology and Mineral Industries that arrangements have been made to keep the hearings open until the end of June.

HR 5023, introduced by Ullman, and its companion bill, S.1245, introduced by Senator Morse, are bills designed to promote mining and development research for beryl, chromite, and columbium-tantalum from domestic mines. Regarding chrome, the bill states that incentive payments shall be made at the following rates:

For commercial-grade metallurgical chromite (46 per centum basis), $46 per long dry ton for the first 1,000 long dry tons produced each year by each producer, and $35 per long dry ton for each additional long dry ton produced in such year by such producer, with premiums and penalties as set forth in the regulations issued pursuant to this Act. Incentive payments shall not be made for production in any one year of more than 50,000 long dry tons by all producers or more than 5,000 long dry tons by any one producer.

The Department of Interior notified Senator James E. Murray, chairman of the Committee on Interior and Insular Affairs, May 3, that the Department favored enactment of the bill, subject to the following amendments: that the maximum incentive payment be $35 per long dry ton, and that the 5,000-ton limitation from any one producer be increased to 10,000 tons.

Persons interested in support of this bill should contact Congressman Al Ullman, House of Representatives, Washington, D.C., immediately.

* * * * *

EDEN RIDGE COAL TO BE TESTED

A 60-ton sample of coal for laboratory testing was mined at Eden Ridge in Coos County and shipped to the Colorado School of Mines in June by the Pacific Power and Light Company. PP&L started extensive geological explorations of the Eden Ridge area three years ago, when it also began investigating the possibilities of a hydroelectric development on the South Fork of the Coquille River. The company has been studying the feasibility of using the Eden Ridge coal to fuel a 100,000-kilowatt steam-electric plant which would be operated in combination with the proposed 89,000-kilowatt hydroelectric project. Laboratory tests on the coal will investigate by-products from the combustion of the coal and possible use of the coal as an industrial raw material as well as fuel.

* * * * *
MULTIPLE-USE BILL SENT TO PRESIDENT

H.R. 10572 - National Forest Multiple Use - Grant (Ala.). Passed House June 2 and Senate June 8. Now awaiting President's action.

Would establish as national policy that national forests be administered for "outdoor recreation, range, timber, watershed, and wildlife and fish purposes." Senate approved a House amendment providing that "Nothing herein shall be construed so as to affect the use or administration of the mineral resources of national forest lands or to affect the use or administration of Federal lands not within national forests." (From AMC Bulletin Service, June 10, 1960.)

* * * *

PUBLIC LAND WITHDRAWAL PROPOSED

The Bureau of Land Management has announced the proposed withdrawal (No.60-6) of public lands along the John Day and Columbia Rivers by the U.S. Army, Corps of Engineers, in connection with the John Day project. Land involved lies in parts of T.3 N., R.17 E., and T.2 N., R.18 E. in Sherman and Gilliam counties; and in T.5 N., R.26 E. in Morrow County. The withdrawal would exclude the land from mineral leasing and location of mining claims.

* * * *

INTERIOR ISSUES NEW MINERAL SALES REGULATIONS

The Department of the Interior has adopted new regulations for the sale of common varieties of sand, stone, and gravel from lands administered by the Bureau of Land Management. The new regulations were published in the May 24 issue of the Federal Register.

Under the new regulations, sales of minerals having an appraised value of $1,000 or over must be made competitively and for not less than the appraised value. The performance bond of not less than 20 percent of the total contract price will be required for contracts of sale of $2,000 or more. The regulations also provide a procedure whereby the government can make additional timber available for on-site mining needs in instances where the government has sold timber from valid mining claims. (From AMC Bulletin Service, June 2, 1960.)

* * * *

NEW DRILLING PERMITS ISSUED

Permit No.39 - The Department issued a new drilling permit to Ross R. Mitchell on May 25, 1960. The drilling, which is to be a shallow test, will be made on the Bliven farm about three miles south of the town of Dallas in the SE1/4 sec.10, T.8 S., R.5 W., Polk County. Ross Mitchell's address is given as Box 926, Canby, Oregon.

Permit No.40 - The Department issued a new drilling permit to John T. Miller on June 6, 1960. The proposed shallow test hole will be drilled on the Charles Sullenger farm near Dallas in the NE1/4 sec.18, T.8 S., R.5 W., Polk County. Mr. Miller's address is given as Box 42, Hubbard, Oregon.

* * * *

WELL RECORDS RELEASED FROM CONFIDENTIAL FILES

The Department released records on the R.A.Stamey "Russell No.1" from its confidential files on June 26, 1960. The well was drilled in the SE1/4 sec.14, T.19 S., R.44 E., Malheur County. Total depth was 4336 feet.

* * * *