

## GEOLOGICAL SURVEY CIRCULAR 227



REPORTS AND MAPS OF  
THE GEOLOGICAL SURVEY  
RELEASED ONLY IN THE  
OPEN FILES, 1951

By Donald R. Wiesnet, Lois E. Randall, and Benjamin E. Jones





UNITED STATES DEPARTMENT OF THE INTERIOR  
Douglas McKay, Secretary

GEOLOGICAL SURVEY  
W. E. Wrather, Director

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Washington, D. C., 1953

Free on application to the Geological Survey, Washington 25, D. C.



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### INTRODUCTION

This circular contains a list of the maps and reports released by the Geological Survey in 1951 that are available only in open files. They may be consulted in Washington, D. C., and may also be read at various field offices, the addresses of which are given immediately after the date of the report. Reports marked with an asterisk (\*) are not available at the Washington, D. C., offices of the Survey. They concern work done in behalf of the U. S. Atomic Energy Commission and are available for examination at the following depositories:

#### Atomic Energy Commission Offices

Atomic Energy Commission Library  
1901 Constitution Ave., N. W.  
Washington 25, D. C.

Division of Raw Materials  
70 Columbus Ave.  
New York, N. Y.

Division of Raw Materials  
Denver Exploration Branch  
Room 127-129, Building 2B  
Denver Federal Center  
Denver, Colo.

Division of Raw Materials  
Grand Junction Exploration Branch  
Grand Junction, Colo.

Division of Raw Materials  
Spokane Exploration Branch  
South 157 Howard St.  
Spokane, Wash.

#### AEC Depository Libraries

##### California

Berkeley, University of California General Library  
Los Angeles, University of California Library

##### Colorado

Denver, Denver Public Library

##### Connecticut

New Haven, Yale University Library

##### District of Columbia

Washington, Library of Congress

##### Georgia

Atlanta, Georgia Institute of Technology Library

##### Illinois

Chicago, John Crerar Library  
Chicago, University of Chicago Library  
Urbana, University of Illinois Library

##### Indiana

Lafayette, Purdue University Library

##### Iowa

Ames, Iowa State College Library

##### Kentucky

Lexington, University of Kentucky Library

##### Louisiana

Baton Rouge, Louisiana State University Library

##### Massachusetts

Cambridge, Harvard University Library  
Cambridge, Massachusetts Institute of Technology Library

##### Michigan

Ann Arbor, University of Michigan Library  
Detroit Public Library

##### Minnesota

Minneapolis, University of Minnesota Library

##### Missouri

Kansas City, Linda Hall Library  
St. Louis, Washington University Library

New Jersey

Princeton, Princeton University Library

New Mexico

Albuquerque, University of New Mexico Library

New York

Ithaca, Cornell University Library  
New York, Columbia University Library  
New York, New York Public Library  
Troy, Rensselaer Polytechnic Institute

North Carolina

Durham, Duke University Library  
Raleigh, North Carolina State College Library

Ohio

Cleveland, Cleveland Public Library  
Columbus, Ohio State University Library

Oklahoma

Stillwater, Oklahoma Agricultural and Mechanical College Library

Oregon

Corvallis, Oregon State College Library

Pennsylvania

Philadelphia, University of Pennsylvania Library  
Pittsburgh, Carnegie Library of Pittsburgh

Tennessee

Knoxville, University of Tennessee Library  
Nashville, Joint University Libraries

Texas

Austin, University of Texas Library

Utah

Salt Lake City, University of Utah Library

Washington

Seattle, University of Washington Library

Wisconsin

Madison, University of Wisconsin Library

Most of the maps were duplicated by rapid and inexpensive processes, such as photostat, vandyke, or ozalid, but some were printed by photolithography. Most of the texts for the reports are typed copies (ribbon or carbon copy), but some have been mimeographed. A few of these reports and maps were made available in limited quantities for distribution, as indicated in the list, and these may be obtained as long as the supply lasts.

The reports and maps of the Conservation Division concern the production history, the geology, or the topography of federally owned or controlled lands with regard to water power, oil, and gas; these cover areas studied and mapped by geologists and engineers in 5 States, Alaska, and Chile, and include a revised estimate of the water-power resources of the world.

The reports and maps of the Geologic Division contain results of work accomplished by Survey geologists in 22 States, Alaska, and Panama. These maps and reports are released in preliminary form in order

to make information immediately available to property owners and mine operators concerned with exploration for and production of minerals, fuels, and construction materials.

The reports of the Water Resources Division contain information on streamflow, ground water, quality of water, and related geology and hydrology, in the United States, Alaska, the Virgin Islands, Puerto Rico, and Chile.

A general index follows, in which the reader is referred to a report by the name of the author or the first-named of a group of authors; a key number, as guide to the specific report of an author; and a key letter, as guide to the division heading under which the report is listed.

## GEOLOGIC DIVISION MAPS AND REPORTS

- \*Anonymous (1), Progress report—Colorado Front Range area: 2 pp. Oct. 22, 1951. Colorado Geological Survey, State Museum Bldg., Denver, Colo.
- \*Anonymous (2), Progress report—Wamsutter (Red Desert) area, Wyo.: 2 pp. Oct. 22, 1951. Wyoming Geological Survey, University of Wyoming, Laramie, Wyo.
- Balsley, J. R., Aeromagnetic survey of the Katahdin area, Maine. Aerial photographs. Sept. 1, 1951. Executive Director, Maine Development Commission, State House, Augusta, Maine.
- Bejnar, Waldemere, Geology of the Ruin Basin area, Gila County, Ariz.: 134 pp., 36 pls., 1 fig. May 7, 1951. Geology Department Library, University of Arizona, Tucson, Ariz.
- Benson, William Edward Barnes, Geologic maps of Medicine Butte, Broncho, Golden Valley, Beulah, Stanton, and Hazen quadrangles, N. Dak.: 6 maps. May 1, 1951. U. S. Geological Survey, 468 New Customhouse, Denver, Colo.; State Geologist, Grand Forks, N. Dak.
- Britt, S. H., translator of five papers, open filed Oct. 5, 1951, on engineering geology, as follows:
  - No. 21. "Application of electro-osmosis to the execution of certain works on water-bearing soils," by G. Remenieras, 33 pp. Published in La Houille Blanche, special no. A/1949, pp. 393-404.
  - No. 22. "Soil silicification," by Albert Debecq, 5 pp. Published in Chimie et industrie, vol. 61, no. 2, pp. 144-145, 1949.
  - No. 23. "Determination of the angle of internal friction and of the cohesion of soils in situ by means of dynamic drilling," by A. Couard, 10 pp. Published in Génie civil, Tome 125, no. 24, pp. 472-474, 1948.
  - No. 24. "Electrical treatment of plastic clay," by Y. Poisson, 12 pp. Published in Travaux, no. 164, pp. 386-387, 1948.
  - No. 25. "Device for the rapid test in situ of the resistance of foundation grounds," by René Deguil-laume, 7 pp. Published in Génie civil, Tome 125, no. 2, pp. 30-32, 1948.

- U. S. Geological Survey, 468 New Customhouse, Denver, Colo. A limited number of copies of the translations have been mimeographed, and as long as the supply lasts, copies can be had by writing the U. S. Geological Survey, Washington 25, D. C.
- Britt, S. H., translator of three papers, open-filed Dec. 12, 1951, on engineering geology, as follows:  
No. 26. "Subsoil archives of the city of Zurich," by Dr. A. Von Moos, 6 pp. Published in Schweiz. Bauzt., vol. 122, no. 3, pp. 29-30, July 1943.  
No. 27. "Determination of the thickness of frozen ground," by André Cailleux and Emile Thellier, 3 pp. Published in Comptes rendus Acad. Sci., Tome 224, no. 16, pp. 1174-1175, 1947.  
No. 31. "New densimeter for the rapid measurement of the density of solid bodies," 3 pp., 2 figs. Published in Génie civil, Tome 124, no. 23, Dec. 1, 1947. U. S. Geological Survey, 468 New Customhouse, Denver, Colo. A limited number of the translations have been mimeographed, and as long as the supply lasts, copies can be had by writing the U. S. Geological Survey, Washington 25, D. C.
- Brokaw, A. L., Green Monster mine, Clark County, Nevada: 9 pp., 7 pls. Oct. 4, 1951. U. S. Geological Survey, 504 Federal Bldg., Salt Lake City, Utah, and 100 Old Mint Bldg., San Francisco, Calif.; 201 MacKay School of Mines Bldg., University of Nevada, Reno, Nev.
- Byers, F. M., Tungsten deposits in the Fairbanks district, Alaska: 68 pp., 9 figs. Sept. 20, 1951. U. S. Geological Survey, 100 Old Mint Bldg., San Francisco, Calif., and Juneau and Fairbanks, Alaska; U. S. Bureau of Mines, Federal Bldg., Anchorage, Alaska. A limited number of copies have been mimeographed, and as long as the supply lasts, copies can be had by writing the U. S. Geological Survey, Washington 25, D. C.
- Chidester, A. H., Diamond-drill exploration of the Rousseau talc prospect, Cambridge, Vt., and the Barnes Hill prospect, Waterbury, Vt.: 31 pp., 2 maps. June 28, 1951. U. S. Geological Survey, 64 Main St., Montpelier, Vt.; Vermont Geological Survey, University of Vermont, Burlington, Vt.
- Cobb, E. H., Coal investigations on the northwest margin of the Homer district, Kenai coal field, Alaska: 13 pp., 3 pls., 2 tpls. June 29, 1951. U. S. Geological Survey, 100 Old Mint Bldg., San Francisco, Calif., and Juneau and Fairbanks, Alaska. A limited number of copies have been mimeographed, and as long as the supply lasts, copies can be had by writing the U. S. Geological Survey, Washington 25, D. C.
- Colton, R. B., and Lohman, Clarence, Jr., Geology of the Oswego quadrangle, Roosevelt County, Mont.: 45 pp., 1 map, 12 figs. Aug. 20, 1951. U. S. Geological Survey, 468 New Customhouse, Denver, Colo.; State Bureau of Mines and Geology, Butte, Mont.
- \*Cuttitta, Frank, A photometric method for the estimation of the oil yield of oil shale: 30 pp. Oct. 22, 1951.
- Dempsey, W. J., (1), Preliminary total-intensity aeromagnetic maps of three Arkansas quadrangles—Bald Knob, Pleasant Plains, and Cave City: Maps. July 18, 1951. U. S. Geological Survey, 301 Porbeck Bldg., 515 East 2d St., Little Rock, Ark., 6 Post Office Bldg., Fort Smith, Ark., and 468 New Customhouse, Denver, Colo.; University of Arkansas Library, Fayetteville, Ark.; Arkansas Division of Geology, 446 Capital Bldg., Little Rock, Ark.
- Dempsey, W. J., (2), Preliminary aeromagnetic map of the Iron Springs district, Utah: Map. Oct. 1, 1951. U. S. Geological Survey, 504 Federal Bldg., Salt Lake City, Utah, and 468 New Customhouse, Denver, Colo.
- Dempsey, W. J., (3), Preliminary total-intensity aeromagnetic maps of three Arkansas quadrangles—Newport, Augusta, and Strawberry: Nov. 30, 1951. U. S. Geological Survey, 6 Post Office Bldg., Fort Smith, Ark., and 468 New Customhouse, Denver, Colo.; Arkansas Division of Geology, 446 Capital Bldg., Little Rock, Ark.; University of Arkansas Library, Fayetteville, Ark.
- Eckhart, R. A., Gypsiferous deposits on Sheep Mountain, Alaska: 33 pp., 9 figs., including 2 geol. maps. July 17, 1951. U. S. Geological Survey, 100 Old Mint Bldg., San Francisco, Calif., and Juneau and Fairbanks, Alaska; U. S. Bureau of Mines, Federal Bldg., Anchorage, Alaska. A limited number of copies have been mimeographed, and as long as the supply lasts, copies can be had by writing the U. S. Geological Survey, Washington 25, D. C.
- \*Everhart, D. L., Geology of uranium deposits—a condensed summary: 28 pp., 1 tbl. Oct. 22, 1951.
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- \*Fletcher, M. H., May, Irving, and Anderson, J. W., The design of the model V transmission fluorimeter: 5 pp., 7 figs. Oct. 22, 1951.
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- Henderson, J. R., (1), Preliminary aeromagnetic maps of Dearborn, Franklin, Jennings, Ohio, Randolph, Switzerland, Union, and Wayne Counties, Ind.: Maps. May 7, 1951. U. S. Geological Survey Library, General Services Building, Washington, D. C.; State Geologist, Owen Hall, University of Indiana, Bloomington, Ind.; Office of Oil and Gas Supervisor, 415 State Bldg., Indianapolis, Ind.
- Henderson, J. R., (2), Two preliminary aeromagnetic maps of the New Jersey Highland area, covering Franklin Furnace, Stanhope, Dover, Chester, and Mendham quadrangles and parts of Hamburg and Newton East quadrangles, N. J. Maps. Oct. 1, 1951. State Geologist, 520 East State St., Trenton, N. J.; Department of Geology, Rutgers University, New Brunswick, N. J.; Geology Department

- Library, Princeton University, Princeton, N. J.; Public Library, 31 East Clinton St., Dover, N. J.
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- \*Jaffe, E. B., and Sherwood, A. M., Physical and chemical comparison of modern and fossil tooth and bone material: 19 pp. Oct. 22, 1951.
- Jensen, F. S., Preliminary geologic map of Frazer quadrangle, Mont.: 29 pp., 1 map. Oct. 4, 1951. U. S. Geological Survey, 468 New Customhouse, Denver, Colo.; State Bureau of Mines and Geology, Butte, Mont.
- Killeen, P. L., and Mertie, J. B., Jr., Antimony ore in the Fairbanks district, Alaska: 43 pp., 3 figs. July 27, 1951. U. S. Geological Survey, 100 Old Mint Bldg., San Francisco, Calif., and Juneau and Fairbanks, Alaska.
- King, P. B., Geologic map of Cowee and Mount Guyot quadrangles, N. C.-Tenn.: 2 maps. May 7, 1951. U. S. Geological Survey, 13 Post Office Bldg., Knoxville, Tenn.; North Carolina Department of Conservation and Development, Division of Mineral Resources, Raleigh, N. C.; Tennessee Department of Conservation, Division of Geology, G-5 State Office Bldg., Nashville, Tenn.
- Kinkel, A. R., Jr., Preliminary report on the Apex and Paymaster mines, Washington County, Utah: 9 pp., 13 figs. June 20, 1951. U. S. Geological Survey, 504 Federal Bldg., Salt Lake City, Utah.
- \*Klepper, M. R., (1), Forty-niner, King Solomon Ridge, and West End claims near Clancy, Jefferson County, Mont.: 3 pp., 1 fig. Oct. 22, 1951. State Bureau of Mines and Geology, Butte, Mont.
- Klepper, M. R., (2), Geology of the southern Elkhorn Mountains, Jefferson and Broadwater Counties, Mont.: 114 pp., appendix 39 pp., 19 pls., 3 figs., 3 tbls. Dec. 27, 1951. U. S. Geological Survey, South 157 Howard St., Spokane, Wash.; State Bureau of Mines and Geology, Butte, Mont.; Yale University Library, New Haven, Conn.
- Lemke, R. W., Preliminary geologic maps of 11 quadrangles in north-central North Dakota (Westhope, Dokken, Mohall, Eckman, Deep River, Denbigh, Saline, Karlsruhe, Balfour, Dongsberg, and Benedict): 3 pp., 11 maps. July 27, 1951. U. S. Geological Survey, 468 New Customhouse, Denver, Colo.; State Geologist, Grand Forks, N. Dak.
- Leonard, B. F., Magnetite deposits of the St. Lawrence County district, N. Y.: 22 pp., 2 maps, 2 figs. June 12, 1951. Geology Department Library, Princeton University, Princeton, N. J.; State Geologist, State Education Bldg., Albany, N. Y.; Gouverneur Reading Room Association, Gouverneur, N. Y.
- Lindvall, R. M., Preliminary geologic map of Eagleton quadrangle, Mont.: 1 map, 1 p. tabular text. Nov. 30, 1951. U. S. Geological Survey, 468 New Customhouse, Denver, Colo.; State Bureau of Mines and Geology, Butte, Mont.
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- McAllister, J. F., Rocks and structure of the Quartz Spring area, northern Panamint Range, Calif.: 143 pp., 7 pls., 2 figs. May 7, 1951. U. S. Geological Survey, 100 Old Mint Bldg., San Francisco, Calif.; California Division of Mines, Ferry Bldg., San Francisco, Calif.; Branner Library, School of Mineral Sciences, Stanford University, Calif.
- McKelvey, V. E., Swanson, R. W., and others, Stratigraphic sections of the Phosphoria formation in Idaho, Montana, Utah, and Wyoming: 4 sets of drill logs with accompanying chemical analyses. Aug. 15, 1951. U. S. Geological Survey, South 157 Howard St., Spokane, Wash., 504 Federal Bldg., Salt Lake City, Utah, and Montpelier, Idaho; Idaho Bureau of Mines and Geology, Moscow, Idaho; State Bureau of Mines and Geology, Butte, Mont.; Wyoming Geological Survey, Laramie, Wyo.; University of Utah, Salt Lake City, Utah.
- Miller, D. J., Geology and oil possibilities in the Katalla district, Alaska: 66 pp., 5 figs., 3 maps. Oct. 1, 1951. U. S. Geological Survey, 100 Old Mint Bldg., San Francisco, Calif., and Juneau and Fairbanks, Alaska; U. S. Bureau of Mines, Federal Bldg., Anchorage, Alaska.
- Miller, R. D., Geology of Valley County, Nebr.: 22 pp., 2 illus. Aug. 3, 1951. U. S. Geological Survey, 468 New Customhouse, Denver, Colo.; State Geologist, University of Nebraska, Lincoln, Nebr.
- Moxham, R. M., West, W. S., and Nelson, A. E., Cement raw materials available to the Windy Creek area, Alaska: 44 pp., 12 figs. May 21, 1951. U. S. Geological Survey, 100 Old Mint Bldg., San Francisco, Calif., and Juneau and Fairbanks, Alaska; U. S. Bureau of Mines, Anchorage, Alaska.
- Newhouse, W. H., and Hagner, A. F., A report on the titaniferous iron deposits of the Laramie Range, Wyo.: 17 pp., 16 pls., 2 maps, 17 drill logs. July 9, 1951. U. S. Geological Survey, 468 New Customhouse, Denver, Colo., and South 157 Howard Street, Spokane, Wash.; State Division of Mines and Geology, 404 Transportation Bldg., Olympia, Wash.



- Nolan, T. B., Dorr, J. V. N., 2d, Shelton, J. S., and Osterstock, R. W. (aeromagnetic survey by Dempsey, W. J., Reese, J. R., and Moore, Fred), Geologic and total-intensity aeromagnetic map in the vicinity of Eureka, Nev.: Aug. 15, 1951. U. S. Geological Survey, 468 New Customhouse, Denver, Colo.; 201 MacKay School of Mines Bldg., University of Nevada, Reno, Nev.
- \*Page, L. R., Interim report of geologic investigation of Lost Creek schroëckingerite deposits, Sweetwater County, Wyo.: 3 pp. Oct. 22, 1951. Wyoming Geological Survey, Laramie, Wyo.
- Pettijohn, F. J., Geology and magnetic anomalies of T. 42 N., R. 30 W., Dickinson County, Mich.: 30 pp., 3 pls. Oct. 4, 1951. U. S. Geological Survey, First National Bank Bldg., Iron River, Mich., and 213 Science Hall, University of Wisconsin, Madison, Wis.; Geological Survey Division, Michigan Department of Conservation, Lansing, Mich.
- \*Rabbitt, J. C., (1), Summary of the research work of the Trace Elements Section, Geochemistry and Petrology Branch, for the period April 1–December 31, 1950: 97 pp. Oct. 22, 1951.
- \*Rabbitt, J. C., (2), Summary of the research work of the Trace Elements Section, Geochemistry and Petrology Branch, for the period January 1–March 31, 1951: 44 pp. Oct. 22, 1951.
- Ray, R. G., Preliminary report on the geology and ore deposits of the Willow Creek mining district, southern Alaska: 32 pp., 2 figs. Aug. 31, 1951. U. S. Geological Survey, 100 Old Mint Bldg., San Francisco, Calif., and Juneau and Fairbanks, Alaska; U. S. Bureau of Mines, Federal Bldg., Anchorage, Alaska. A limited number of copies have been mimeographed, and as long as the supply lasts, copies can be had by writing the U. S. Geological Survey, Washington 25, D. C.
- \*Reinhardt, E. V., Reconnaissance of Henry Mountains area, Wayne and Garfield Counties, Utah: 7 pp., 1 geologic map. April 5, 1951. Utah Geological and Mineralogical Survey, College of Mines and Mineral Industries, University of Utah, Salt Lake City, Utah.
- \*Reynard, M. L., (1), Preliminary report on some uranium deposits along the west side of the San Rafael Swell [Utah]: 31 pp., 1 pl., 12 figs. Oct. 22, 1951.
- \*Reynard, M. L., (2), Reconnaissance of Basin-Boulder-Clancy area, Mont.: 12 pp., 1 pl. Oct. 22, 1951. State Bureau of Mines and Geology, Butte, Mont.
- Sharp, W. N., and Olson, J. C., Geologic map of the barite carbonate body near Mountain Pass, San Bernardino County, Calif.: Map. June 26, 1951. U. S. Geological Survey, Denver Federal Center, Denver, Colo., and 100 Old Mint Bldg., San Francisco, Calif.; California Division of Mines, Ferry Bldg., San Francisco, Calif.; Library, Department of Geology, California Institute of Technology, Pasadena, Calif.
- Simons, F. S., Some manganese deposits in the Republic of Panama: 61 pp., 12 figs. (maps). Oct. 4, 1951.
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- Steven, T. A., Geologic maps of the Northgate fluorspar district, Colo.: 3 maps. July 18, 1951. U. S. Geological Survey, 468 New Customhouse, Denver, Colo.
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- \*Thurlow, E. E., and Reynard, M. L., Free Enterprise uranium prospect, Jefferson County, Mont.: 12 pp., 2 pls., 2 figs. Oct. 22, 1951. State Bureau of Mines and Geology, Butte, Mont.
- Thurston, W. R., (1), Exploration of the Big Boulder prospect, Larimer County, Colo.: 2 pp., 4 figs. March 8, 1951. U. S. Geological Survey Library, Denver Federal Center, Denver, Colo.; State Commissioner of Mines, State Museum Bldg., Denver, Colo.
- Thurston, W. R., (2), Exploration of the Hyatt pegmatite, Larimer County, Colo.: 3 pp., 6 figs. March 8, 1951. U. S. Geological Survey Library, Denver Federal Center, Denver, Colo.; State Commissioner of Mines, State Museum Bldg., Denver, Colo.
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- Van Horn, Richard, Preliminary geologic map and report of Franklin County, Nebr.: 1 map, 1 p. tabular text. Dec. 27, 1951. U. S. Geological Survey, 468 New Customhouse, Denver, Colo.; State Geologist, University of Nebraska, Lincoln, Nebr.
- Varnes, D. J., and Van Horn, Richard, Geologic map of the Oak City area, Utah: 1 map, tabular text. Oct. 10, 1951. U. S. Geological Survey, 468 New Customhouse, Denver, Colo., and 504 Federal Bldg., Salt Lake City, Utah; Utah Geological and Mineralogical Survey, College of Mines and Mineral Industries, University of Utah, Salt Lake City, Utah.

Waldron, H. H., and Gard, L. M., Jr., Geology of lower Snake River, Wash.: 67 pp., 14 pls., 1 fig. July 9, 1951. U. S. Geological Survey, 468 New Customhouse, Denver, Colo., and South 157 Howard St., Spokane, Wash.; State Division of Mines and Geology, 404 Transportation Bldg., Olympia, Wash.

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Wier, K. L., and Kennedy, B. E., Geologic and magnetic data of the Sholdeis-Doane and Red Rock explorations, Iron County, Mich.: 17 pp., 5 pls. Aug. 22, 1951. U. S. Geological Survey, 213 Science Hall, University of Wisconsin, Madison, Wis., and 6 First National Bank Bldg., Iron River, Mich.; Geological Survey Division, Michigan Department of Conservation, Lansing, Mich.

\*Wright, R. J., (1), Annie Laurie prospect, Santa Cruz County, Ariz.: 7 pp., 1 pl. Oct. 22, 1951. Arizona Bureau of Mines, University of Arizona, Tucson, Ariz.

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Wyant, D. G., and Lemmon, D. M., Tungsten deposits in the Tem Piute district, Lincoln County, Nev.: 12 pp., 10 figs. Oct. 4, 1951. U. S. Geological Survey, 504 Federal Bldg., Salt Lake City, Utah; 201 MacKay School of Mines Bldg., University of Nevada, Reno, Nev.

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- Akin, P. D., (2), Progress report on the geology and ground-water resources of the Devils Lake area, N. Dak.: 8 pp., 1 fig. Feb. 28, 1951. c/o North Dakota Geological Survey, University Station, Grand Forks, N. Dak.
- Akin, P. D., (3), Ground water in the Mohall area, Bottineau and Renville Counties, N. Dak.: 76 pp., 6 figs. Nov. 30, 1951. c/o North Dakota Geological Survey, University Station, Grand Forks, N. Dak.; North Dakota State Water Conservation Commission, Capital Bldg., Bismarck, N. Dak.
- Allen, W. B., Map of Rhode Island showing location of ground-water areas, selected wells and test borings, and stream gaging stations: Dec. 7, 1951. 101 Custom House Bldg., Providence, R. I.
- Baker, J. A., and Houser, R. E., (1), Structure map with contours on the Van Lear coal, Paintsville quadrangle, Ky.: June 27, 1951. 531 Federal Bldg., Louisville, Ky.; Kentucky Geological Survey, University of Kentucky, Dept. of Geology, Lexington, Ky.
- Baker, J. A., and Houser, R. E., (2), Areal geologic map of the Paintsville quadrangle, Ky.: Oct. 18, 1951. 531 Federal Bldg., Louisville, Ky.; Kentucky Geological Survey, University of Kentucky, Dept. of Geology, Lexington, Ky.
- Baker, R. C., and others, Ground water for industrial use in the vicinity of Little Rock, Ark.: 1 p. Nov. 5, 1951. 301 Porbeck Bldg., 515 East Second St., Little Rock, Ark.
- Barksdale, H. C., How dependable are the ground-water resources of the greater Philadelphia-South Jersey area?: 3 pp. July 27, 1951. 430-432 Federal Bldg., Trenton, N. J.
- Bean, R. T., Geology of the Roswell artesian basin, N. Mex., and its relation to the Hondo Reservoir (supplemented by Effect on artesian aquifer of storage of flood water in Hondo Reservoir, by C. V. Theis): 116 pp., 5 pls. July 30, 1951. Room 218, Bass Bldg., 918 W. Park Ave., Albuquerque, N. Mex.; Office of the State Engineer, Santa Fe, N. Mex.
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Ground water, industrial utilization:  
 Turcan GW

## Maine:

Aeromagnetic survey, Katahdin area:  
 Balsley G

## Maryland:

Ground water, Baltimore County: Bennett GW.  
 Cambridge area: Rasmussen GW  
 Sparrows Point: Bennett, Meyer GW

## Michigan:

Geophysical investigations, Dickinson  
 County: Pettijohn G  
 Ore exploration, Iron County: Wier G

## Maps, aeromagnetic:

Arkansas: Dempsey 1, 2G  
 Indiana: Henderson 1G  
 Nevada, Eureka vicinity: Nolan G  
 New Jersey, Highland area: Henderson 2G  
 Utah, Iron Springs district: Dempsey 3G

## Mineral deposits:

Antimony, Alaska, Fairbanks district:  
 Killeen G  
 Coal, Alaska, Kenai field: Cobb G  
 Cobalt-nickel, Nevada, Elco County:  
 Lovering G  
 Copper, Utah, Washington County:  
 Kunkel G  
 Copper-uranium, United States, west of  
 Colorado River: Everhart G  
 Gold, Alaska, Willow Creek: Ray G  
 Gypsum, Alaska, Sheep Mountain:  
 Eckhardt G  
 Iron, Wyoming, Laramie Range:  
 Newhouse G

Lead-zinc, Nevada, Green Monster mine,  
 Clark County: Brokaw G  
 Wisconsin-Illinois-Iowa district, index  
 maps: Heyl G  
 Magnetite, New York, St. Lawrence County:  
 Leonard G  
 Manganese, Panama: Simons G  
 Pegmatites, Colorado, Larimer County:  
 Thurston 2G  
 Talc, Vermont, Cambridge and Waterbury:  
 Chidester G  
 Tungsten, Alaska, Fairbanks district:  
 Byers G  
 Nevada, Lincoln County: Wyant,  
 Lemmon C  
 Uranium, Arizona, Annie Laurie, Santa Cruz  
 County: Wright 1G  
 Reconnaissance: Wright 2G  
 Colorado, Big Boulder, Larimer County:  
 Thurston G  
 Montana, Basin-Boulder-Chaney area:  
 Reynard 2G  
 Forty-niner, King Solomon Ridge, West  
 End claims, Jefferson County:  
 Klepper 1G  
 Free Enterprise, Jefferson County:  
 Thurlow G  
 Utah, Indian Creek, Beaver County:  
 Wyant, Stugard G  
 San Rafael Swell: Reynard 1G  
 Silver Reef, Washington County:  
 Stugard G  
 Wyoming Sweetwater County: Page G

## Mineral deposits, origin:

Morrison formation: Weeks G

## Minnesota:

Ground water, Cloquet, Carlton County:  
 Akin 1GW

## Missouri River basin.

Ground water: Taylor GW

## Montana:

Geologic maps, Eagleton quadrangle:  
 Lindvall G  
 Frazer quadrangle: Jensen G  
 Geology, Eldridge, Virginia City quadrangles:  
 Swanson G  
 Elkhorn Mountains, southern: Klepper 2G  
 Oswego quadrangle: Colton G  
 Phosphoria formation, sections of:  
 McKelvey G  
 Surface water, Bighorn River basin: U.S.G.S.,  
 Quality of Water Branch 5GW  
 Little Missouri River basin: U.S.G.S.,  
 Quality of Water Branch 6GW  
 Powder River basin, sediments:  
 Hembree GW  
 Tongue River basin: U.S.G.S., Quality of  
 Water Branch 1GW  
 Yellowstone Valley: U.S.G.S., Quality of  
 Water Branch 2GW

## Morrison formation:

Mineral deposits in, origin: Weeks G

## Nebraska:

Geologic map, Franklin County: Van Horn G  
 Geology, Valley County: Miller, R. D. G  
 Surface water, Niobrara River basin: U.S.G.S.,  
 Quality of Water Branch 3GW  
 Republican River basin: U.S. G. S. , Quality  
 of Water Branch 7GW  
 Sediments, Middle Loupe Rivers: Vice GW

## Nevada:

Cobalt-nickel, Rip Van Winkle mine, Elka  
 County: Lovering G  
 Geologic, aeromagnetic maps, Eureka  
 vicinity: Nolan G  
 Ground water, Schurz, hospital area:  
 Robinson 1GW  
 Lead-zinc, Green Monster mine, Clark  
 County: Brokaw G  
 Tungsten, Lincoln County: Wyant,  
 Lemmon G

## New Jersey:

Ground water, Greater Philadelphia-South  
 Jersey area: Barksdale GW  
 Maps, aero-magnetic, Highland area:  
 Henderson 2G

## New Mexico:

Ground water, Black River village, Eddy  
 County: Herrick GW  
 Navajo, Hopi Indian reservations:  
 Halpenny GW  
 Roswell artesian basin: Bean GW  
 Power possibilities, Red River:  
 Doolittle GW

## New York:

Ground water, levels, Brooklyn area:  
 Luszczynski 4GW  
 Suffolk County: Luszczynski, Hoff-  
 man (2); Roberts (2) GW  
 Pumping tests, Nassau County:  
 Luszczynski 1, 2GW  
 Quality, Raritan formation: Roberts 1GW  
 Salt-water infiltration, Suffolk County:  
 Luszczynski, Hoffman 1GW  
 Ground water-streamflow  
 Huntington Harbor, Long Island,  
 Luszczynski 3GW  
 Magnetite, St. Lawrence County:  
 Leonard G  
 Surface water, Suffolk County: Brice GW

## North Carolina:

Geologic map, Cowee, Mount Guyot quad-  
 rangles: King G  
 Ground water, Elizabeth City area:  
 LeGrand GW

## North Dakota:

Geologic maps, six quadrangles: Benson G  
 Elevel quadrangles: Lemke G  
 Ground water, Devils Lake area: Akin 2GW  
 Fort Berthold Indian reservation:  
 Gordon GW  
 Mohall area, Bothneau, Renville Counties:  
 Akin 3GW

Surface water, Little Missouri River basin:  
 U.S.G.S., Quality of Water Branch 6GW  
 Red River of the North basin: U.S. G. S.  
 Quality of Water Branch 4GW

## Oklahoma:

Ground water, pumping tests, Miami:  
 Jacobsen, Reed GW  
 Quality, Miami, in Mississippian rock:  
 Jacobsen GW

## Oregon:

Dam site, Rogue River: Miller, J. C. C  
 Ground water, hydrology, Lake County:  
 Troxell GW  
 Resources, Walla Walla basin:  
 Newcomb GW

## Panama:

Manganese: Simons C

## Pegmatites:

Colorado, Larimer County: Thurston 2G

## Pennsylvania:

Ground water, resources, Greater Philadel-  
 phia-South Jersey area: Barksdale GW  
 Ground water-streamflow, Pittsburg:  
 Van Tuyl GW

## Petroleum:

Oil shale, Technique: Cuttitta G

## Phosphoria formation:

Idaho, sections of: McKelvey, Hoppin G  
 United States, sections of: McKelvey,  
 Swanson G

## Puerto Rico:

Hydrology: McGuinness 2GW

## Radioactive minerals:

Study material: Stern G

## Rhode Island:

Index map, study areas and installations:  
 Allen GW

## Surface water:

Levels, Idaho, northern: Fader GW  
 Quality, Arkansas, 1949: Geurin GW  
 Kansas-Nebraska, Republican River basin:  
 U.S.G.S., Quality of Water Branch 7GW  
 Montana, Tongue River basin: U.S. G. S. ,  
 Quality of Water Branch 2GW  
 Yellowstone Valley: U.S. G. S. , Quality  
 of Water Branch 2GW  
 Montana-North Dakota, Little Missouri  
 River basin: U.S. G. S. , Quality of  
 Water Branch 6GW  
 Nebraska, Niobrara River basin: U.S.G.S.,  
 Quality of Water Branch 3GW  
 North Dakota, Red River of the North  
 basin: U.S.G.S., Quality of Water  
 Branch 4GW  
 Wyoming-Montana, Bighorn River basin:  
 U.S. G. S. , Quality of Water Branch  
 5GW

Powder River basin: Hembree GW  
 Sediments, Nebraska, Middle Loupe River:  
 Vice GW  
 Wyoming-Montana, Powder River basin:  
 Hembree GW  
 Streamflow, New York, Suffolk County:  
 Brice GW  
 Virginia, Rockbridge County: Tice GW  
 Washington, peak discharges: Bodhaine,  
 Robinson GW

#### Surveys:

Aeromagnetic, Maine, Katahdin area:  
 Balsley GW  
 Trace elements, research activities:  
 Rabbitt 1,2G

#### Tennessee:

Geologic maps, Cowee, Mount Guyot quad-  
 rangles: King G

#### Texas:

Ground water-streamflow, Atascosa, Frio,  
 Nuecos Rivers: Holland GW

#### United States:

Copper-uranium, west of Colorado River:  
 Everhart G  
 Ground water, relation to vegetation:  
 Robinson 2GW  
 Resources: Piper GW  
 Lead-zinc, Wisconsin-Illinois-Iowa district:  
 Heyl G  
 Phosphoria formation, sections of:  
 McKelvey G

#### Utah:

Copper, Apex and Paymaster mines, Wash-  
 ington County: Kinkel G  
 Geologic map: Varnes G  
 Ground water, bibliography: Fix GW  
 Resources, Navajo, Hopi Indian reserva-  
 tions: Halpenny GW  
 Henry Mountains: Reinhardt G  
 Maps, aeromagnetic: Dempsey 3G  
 Phosphoria formation, sections of:  
 McKelvey G  
 Uranium, Beaver County: Wyant, Stugard G.  
 San Rafael Swell: Reynard 1G  
 Silver Reef, Washington County: Stugard G  
 Well records, East Shore area: Nelson GW

#### Virgin Islands:

Ground water, McGuinness 2GW  
 Supply, St. Thomas, St. Croix:  
 McGuinness 1GW

#### Virginia:

Surface water, streamflow, Rockbridge  
 County: Tice GW

#### Washington:

Dam sites, Lewis River: Bateman C  
 Southwestern: Bateman, Erdmann C  
 Geology, lower Snake River: Waldron G  
 Ground water, resources, Skagit County:  
 Sceva GW  
 Walla Walla basin: Newcomb GW  
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#### Wyoming:

Iron, titaniferous, Laramie Range:  
 Newhouse G  
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 Anonymous 2G