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*Roger C Baker*  
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1964

ANNOTATED BIBLIOGRAPHY  
OF GROUND - WATER  
PUBLICATIONS AND  
OPEN - FILE REPORTS

OF THE TEXAS WATER COMMISSION  
AND U. S. GEOLOGICAL SURVEY  
FOR TEXAS THROUGH AUGUST 1963

CIRCULAR NO. 64 - 02

TEXAS WATER COMMISSION  
DECEMBER 1964

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TEXAS WATER COMMISSION

Joe D. Carter, Chairman  
O. F. Dent, Commissioner  
H. A. Beckwith, Commissioner

Circular No. 64-02

ANNOTATED BIBLIOGRAPHY OF GROUND-WATER  
PUBLICATIONS AND OPEN-FILE REPORTS

of the Texas Water Commission  
and U. S. Geological Survey  
for Texas through August 1963

By

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and the  
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ANNOTATED BIBLIOGRAPHY OF GROUND - WATER  
PUBLICATIONS AND OPEN - FILE REPORTS  
of the Texas Water Commission and U. S. Geological Survey  
for Texas through August 1963

INTRODUCTION

The purpose of this report is to make known, in summarized form, the results of basic hydrologic investigations that have been made and the resulting basic data and interpretive reports that have been written by the Texas Water Commission or the U. S. Geological Survey concerning the ground-water resources of Texas. It covers a period from 1896 through August 1963. Annotations are included for each type of publication unless the title is considered self-explanatory.

Annotations of surface-water reports may be found in a companion volume, Texas Water Commission Circular No. 63-04.

PROCEDURE FOR OBTAINING THE AVAILABLE INFORMATION

Some of the publications and reports listed herein are available for inspection only at the appropriate offices, some can be reproduced, and others are available in limited quantities for distribution. Persons wishing to obtain more information concerning any reference should apply directly to the agency under which the reference is listed. Further inquiries may be addressed to:

Chief Engineer, Texas Water Commission  
P. O. Box 12311 - Capitol Station  
Austin, Texas 78711

or

District Geologist  
U. S. Geological Survey  
Ground Water Branch  
807 Brazos Street  
Austin, Texas 78701

## SCOPE OF WORK

This bibliography has been divided into two major categories: (1) Texas Water Commission publications, and (2) U. S. Geological Survey publications.

The Texas Water Commission publications are divided into eight series: (1) Biennial Reports to the Governor of Texas, (2) Planning Series, (3) Bulletins, (4) Circulars, (5) Memorandum Reports, (6) Limited Distribution Reports, (7) Unnumbered Publications, and (8) Open-File Reports. Unnumbered Publications and Open-File Reports are listed alphabetically by authors. The other series of publications are listed numerically. Publications prepared before January 1962 will bear the name "Texas Board of Water Engineers"; those issued after that date will bear the name "Texas Water Commission."

The U. S. Geological Survey publications are divided into seven series: (1) Annual Reports of the Director of the U. S. Geological Survey, (2) Bulletins, (3) Water-Supply Papers, (4) Circulars, (5) Folios of the Geologic Atlas, (6) Hydrologic Atlases, and (7) Open-File Reports. Publications in series 1 through 6 are listed numerically. The titles of some of these publications refer to the United States or other states; however, all contain some information on the hydrology, quality, or use of the ground waters of Texas. The Open-File Reports are listed alphabetically by authors.

Information in publications by one agency, in a few cases, has been repeated in publications by the other agency. Both reports are listed herein. Also, some publications that were superceded by a later publication have been included. All reports are included to better show the development of hydrologic records in Texas.

An index is provided at the end of this Circular to assist the reader in finding those reports that apply specifically to certain counties, river basins, or other districts or areas of the State. Unnumbered Publications and Open-File Reports, which are listed alphabetically by authors in the annotations, have been assigned arbitrary numbers for purposes of coding to the Index. These numbers bear no subjective relationship to the individual reports, and do not correspond with numbers assigned for indexing purposes in other lists of publications.

This report covers items in report form as of August 31, 1963. Voluminous material that was not in report form is available in files of the U. S. Geological Survey and Texas Water Commission, and considerable material on various ground-water subjects has been published in technical journal articles and nowhere else. Those interested in the possible availability of information not listed herein are invited to correspond with either the Texas Water Commission or the U. S. Geological Survey or both for additional information.

TEXAS WATER COMMISSION PUBLICATIONS

Biennial Reports to the Governor of Texas

First Report (1913-14), J. C. Nagle, Chairman.

Contains brief section concerning irrigation from wells and recommendations for modification of the General Irrigation Law of 1913 to give the Board more authority over water developed from wells.

Second Report (1914-16), J. C. Nagle, Chairman.

Includes brief discussion on the need for more authority in order to obtain much needed information concerning ground water.

Third Report (1916-18), W. T. Potter, Chairman.

This report is devoted entirely to surface-water data.

Fourth Report (1918-20), W. T. Potter, Chairman.

This report is devoted entirely to surface-water data.

Fifth Report (1920-22), W. T. Potter, Chairman.

This report is devoted entirely to surface-water data.

Sixth Report (1922-24), John A. Norris, Chairman.

This report is devoted entirely to surface-water data.

Seventh Report (1924-26), John A. Norris, Chairman.

This report is devoted entirely to surface-water data.

Eighth Report (1926-28), John A. Norris, Chairman.

This report is devoted entirely to surface-water data.

Ninth Report (1928-30), John A. Norris, Chairman.

Includes short section on ground water describing the need for ground-water surveys, cooperative programs, and areas where projects are being conducted.

Tenth Report (1930-32), John A. Norris, Chairman.

Includes statements on ground-water legislation (House Bill 16) passed by the 41st Legislature, status of Federal-State cooperative programs, results of ground-water investigations in southwestern Texas, and a summary of ground-water conditions of the Toyah Basin in West Texas.

Eleventh Report (1932-34), John A. Norris, Chairman.

Includes summary of work completed under Federal-State cooperative program and lists of available ground-water publications and reports to be published. Also includes summaries of ground-water data in southern Texas, Atascosa and Frio Counties, Duval County, Houston-Galveston area, Dimmit and Zavala Counties, Webb County, and the Toyah Basin of West Texas.

Twelfth Report (1934-36), C. S. Clark, Chairman.

Duties of the State Board of Water Engineers are listed in this report. Included in ground-water section are areas of study, personnel conducting investigations, list of available reports, outstanding conclusions of recent studies, discussion of need for adequate laws to protect ground-water

supplies, summaries of ground water in the El Paso, Houston, and San Antonio areas and in Brooks, Calhoun, Hidalgo, Jim Wells, and Kenedy Counties.

Thirteenth Report (1936-38), C. S. Clark, Chairman.

Ground-water section contains lists of counties covered by detailed investigations, water-level-observation programs, and Works Progress Administration water-well inventories. Also included are lists of publications, conclusions of recent studies, and summaries of ground-water conditions in the High Plains, Balcones fault zone, El Paso area, Houston district, Lufkin area, and Gulf Coast area. In addition there are discussions on waste and contamination of ground water and the need for more adequate ground-water legislation.

Fourteenth Report (1938-40), C. S. Clark, Chairman.

Ground-water data include lists of investigations in progress, published reports, and reports awaiting publication. Also included are discussions of the High Plains region, El Paso area, Winter Garden district, Houston district, Galveston district, Lufkin area, Balcones fault zone, Balmorhea area, Big Spring area, East Texas oil field, Pecos River Joint Investigation project, Gulf Coast area, equipment for exploring leaking wells, water-level-observation program, and statewide water-well inventories.

Fifteenth Report (1940-42), C. S. Clark, Chairman.

Contains lists of ground-water investigations in progress, published reports, and reports awaiting publication. Includes summaries of ground-water conditions in the High Plains region, El Paso area, Pecos River basin, Winter Garden district, Houston district, Galveston-Texas City-Baytown district, Lufkin area, Balcones fault zone, and Big Spring area. Also there are discussions of exploration equipment for finding salt-water leaks in water wells, measurements of water levels, chemical analyses of water, and ground water for war activities.

Sixteenth Report (1942-44), C. S. Clark, Chairman.

This report includes lists of published and unpublished ground-water reports and summaries of ground-water conditions in the High Plains region, El Paso area, Pecos River basin, Winter Garden district, Houston district, Galveston-Texas City-Baytown district, Lufkin area, Balcones fault zone, Big Spring area, and East Texas area. Also included are discussions of the water-level-observation program, ground water for war activities, and quality of water.

Seventeenth Report (1944-46), C. S. Clark, Chairman.

Ground-water section includes discussions of the increase in use of ground water in Texas, summary of ground-water conditions in areas under study in Texas, and a list of publications and reports. Also included is a section on quality of water describing current investigations and deficiencies in present program.

Eighteenth Report (1946-48), E. V. Spence, Chairman.

Section on ground water includes discussions of the history of ground-water investigations in Texas, the occurrence, source, and movement of ground water, purpose of ground-water investigations, principal aquifers in Texas, public water supplies, and the water-level-observation program. Also included are summaries on the High Plains region, Salt Flat area, El Paso area, Pecos River basin, Midland-Odessa area, Big Spring area, Balcones

fault zone, Winter Garden district, Atascosa County, Lower Rio Grande Valley, Dallas-Fort Worth area, Houston district, Galveston-Texas City-Baytown area, Lufkin-Nacogdoches area, and East Texas. Quality-of-water section discusses quality and treatment of surface and ground waters. List of ground-water publications included at end of report.

Nineteenth Report (1948-50), H. A. Beckwith, Chairman.

Ground-water section includes a history of ground-water investigations in Texas, conditions governing the occurrence, recharge, and movement of ground water, principal aquifers in Texas, summary of ground-water studies in progress, and reports issued during biennium ended August 31, 1950. Quality-of-water section includes composition of typical ground waters in Texas.

Twentieth Report (1950-52), H. A. Beckwith, Chairman.

Included is summary of ground-water investigations and research which discusses the present use of ground water, quantity of ground water available, work accomplished during the biennium, and proposed work during the coming biennium. Included in appendix is procedure for State Board of Water Engineers to make designation of underground-water reservoirs.

Twenty-first Report (1952-54), H. A. Beckwith, Chairman.

Includes list of ground-water investigations completed or in progress during biennium and discussion of need for intelligent development of ground-water resources in Texas. Also included is a history of the ground-water studies in Texas.

Twenty-second Report (1954-56), R. M. Dixon, Chairman.

Ground-water section includes summary of past appropriations, areas covered by previous investigations, specific duties of Ground Water Division, and list of ground-water projects and status of progress.

Twenty-fifth Report (1960-62), Joe D. Carter, Chairman.

Comprehensive ground-water section summarizes status of detailed investigations, continuing observation programs, reconnaissance studies, and water-level-observation program. Also included are discussions of Texas Water Commission's functions as related to Texas Water Pollution Control Board, programs initiated in cooperation with the Pollution Control Board, freshwater-protection programs, and delineation of underground-water reservoirs.

Planning Series

Texas Board of Water Engineers, 1958, Texas water resources planning at the end of the year 1958, A progress report to the 56th Legislature, Durwood Manford, Chairman of the Board.

Ground-water portion of this report includes discussions of the major aquifers in the State, ground-water use in 1957, potential ground-water development in each river basin, summary of the present status of ground-water information in Texas, and recommendations with accompanying time-cost estimates of proposed ground-water studies. Also included is a summary of the ground-water-quality program and proposed ground-water investigations for the fiscal years 1959-63.

Texas Board of Water Engineers, 1961, A plan for meeting the 1980 water requirements of Texas, prepared for submittal to the 57th Legislature, Durwood Manford, Chairman of the Board.

The ground-water data contained in this report are as follows:

(1) description of historical and present uses of ground waters by municipalities, industries, and irrigation; (2) summary of the increased use of ground water; (3) estimates of 1980 municipal and industrial water requirements; (4) summary of principal aquifers occurring in each river basin of the State; (5) list of additional items which must be considered in planning long-range development of the State's water resources; and (6) tabulations of ground-water information by river basins.

Bulletins

(Index code--WcB 5001, etc.)

- WcB 5001. Geology and ground-water resources of the Houston district, Texas: 1950, by J. W. Lang, A. G. Winslow, and W. N. White.  
Gives information about the geology in relation to ground water. Summarizes the results of previous investigations, gives the results of deep-well exploration, and brings up to 1950 information about pumpage, fluctuations of water levels, pumping tests, and quality of water.
- WcB 5003. Geology and ground-water resources of Walker County, Texas: 1950, by A. G. Winslow.  
Gives information about the geology and occurrence of ground water and the development and use. Also given are records of wells, logs, and chemical analyses of ground water.
- WcB 5004. Development of ground water for irrigation in the Dell City area, Hudspeth County, Texas: 1950, by R. A. Scalapino.  
Gives information about the geology and occurrence of ground water, development, and fluctuations of water levels. Also gives records of wells, logs, water levels, and chemical analyses of ground water.
- WcB 5101. Water supply of the Houston Gulf Coast region: 1951, by W. H. Goines, A. G. Winslow, and J. R. Barnes.  
Summarizes the development and use of water from both surface and underground sources. Shows that greater development is possible.
- WcB 5102. Summary of the development of ground water for irrigation in the Lobo Flats area, Culberson and Jeff Davis Counties, Texas: 1951, by J. W. Hood and R. A. Scalapino.  
Summarizes the geology in relation to the occurrence of ground water. Gives information about the development and fluctuations of water levels; also gives records of wells, logs, and chemical analyses of ground water.
- WcB 5103. Ground-water resources of Parker County, Texas: 1951, by G. J. Stramel.  
Gives information about the geologic formations and their water-bearing properties and ground-water development and use; also gives records of wells, logs, and chemical analyses of ground water.
- WcB 5104. Development of wells for irrigation and fluctuation of water levels in the High Plains of Texas to January 1951: 1951, by E. R. Leggat.
- WcB 5201. The Houston district, Texas, pumpage and decline of artesian pressure during 1950-51: 1952, by A. G. Winslow and T. R. Fluellen, Jr.  
Reviews and brings up to 1950 the pumpage and fluctuations of water levels; also gives tables of pumpage and declines of artesian pressures in wells.

- WcB 5202. Summary of ground-water development in the Pecos area, Reeves and Ward Counties, Texas, 1947-51: 1952, by J. W. Hood and D. B. Knowles.  
Gives information about the use of ground water and changes in water levels.
- WcB 5203. Records of wells, drillers' logs, water analyses, and map showing location of wells in Winter Garden district, Dimmit and Zavala Counties and eastern Maverick County, Texas: 1952, by D. E. Outlaw and others.
- WcB 5204. Ground-water resources in the vicinity of Kenmore Farms, Kendall County, Texas: 1952, by W. O. George and W. W. Doyel.  
Gives information about the geology and occurrence of ground water and the movement of ground water; also gives records of wells, logs, and chemical analyses of ground water.
- WcB 5206. Results of artificial recharge of the ground-water reservoir at El Paso, Texas: 1952, by R. W. Sundstrom and J. W. Hood.  
Gives the results of a recharge test in the Montana well field and evaluates the feasibility of artificial recharge at the Montana and Mesa well fields.
- WcB 5207. Geology and ground-water resources of Lynn County, Texas: 1952, by E. R. Leggat.  
Gives information about the geologic formations and their water-bearing properties and the development and use of ground water. Also gives water levels in wells, records of wells, logs, and chemical analyses of ground water.
- WcB 5208. Water resources of Waller County, Texas: 1952, by T. R. Fluellen and W. H. Goines.  
Gives information about the relation of geology to the occurrence of ground water and the utilization of ground water. Information about surface-water supply is also given along with records of wells, logs, and chemical analyses of ground water.
- WcB 5209. Ground-water resources of Starr County, Texas: 1952, by O. C. Dale.  
Gives information about the occurrence of ground water; also gives records of wells, logs, and chemical analyses of ground water.
- WcB 5210. Ground-water resources of Ector County, Texas: 1952, by D. B. Knowles.  
Gives information about the geologic formations and their water-bearing properties and the development and use of water from wells. Also gives records of wells, drillers' logs, and chemical analyses of water from wells.
- WcB 5301. Ground-water resources of the Odell sandhills, Wilbarger County, Texas: 1953, by G. W. Willis and D. B. Knowles.  
Gives the results of test drilling, indicates areas favorable for additional development of ground water, gives the results of pumping tests and theoretical drawdowns and pumping levels for assumed spacing of production wells. Also gives records of wells, logs, and chemical analyses of ground water.

- WcB 5302. Records of water-level measurements in Hale County, Texas, 1910-1953: 1953, by C. R. Follett.
- WcB 5303. Records of water-level measurements in Lubbock County, Texas, 1936-1953: 1953, by C. R. Follett.
- WcB 5304. Records of water-level measurements in Floyd County, Texas, 1913-1953: 1953, by C. R. Follett.
- WcB 5305. Records of water-level measurements in Deaf Smith County, Texas, 1914-1953: 1953, by C. R. Follett.
- WcB 5306. Records of water-level measurements in Lamb County, Texas, 1914-1953: 1953, by C. R. Follett.
- WcB 5307. Records of water-level measurements in Swisher County, Texas, 1914-1953: 1953, by C. R. Follett.
- WcB 5401. Pumpage of ground water and decline of artesian pressure in the Houston district, Texas, during 1951 and 1952: 1954, by W. W. Doyel, A. G. Winslow, and W. L. Naftel.
- WcB 5402. Summary of ground-water development in the Southern High Plains, Texas: 1954, by E. R. Leggat.  
Brings up to 1954 information about the use of ground water, the fluctuations of water levels, and summarizes the effects of ground-water development on the pumping levels and discharges of wells.
- WcB 5403. Ground-water resources of Cameron County, Texas: 1954, by O. C. Dale and W. O. George.  
Gives information about the water-bearing formations and the use of ground water. Also gives records of wells, logs, and chemical analyses of ground water.
- WcB 5404. Records of water-level measurements in Dallam, Hansford, Hartley, Hutchinson, Moore, Ochiltree, and Sherman Counties, Texas: 1954, by C. R. Follett.
- WcB 5405. Records of water-level measurements in Martin County, Texas, 1936-1953: 1954, by C. R. Follett.
- WcB 5406. Records of water-level measurements in Bailey, Briscoe, Castro, Parmer, Potter, and Randall Counties, Texas: 1954, by C. R. Follett.
- WcB 5407. Records of water-level measurements in Cochran, Crosby, Gaines, Hockley, Lynn, and Terry Counties, Texas: 1954, by C. R. Follett.
- WcB 5408. Records of water-level measurements in Loving and Ward Counties, Texas: 1954, by C. R. Follett.

- WcB 5409. Salt water and its relation to fresh ground water in Harris County, Texas: 1954, by A. G. Winslow and W. W. Doyel.  
Gives a summary of the relation between fresh and salt water in aquifers; considers the possible means of natural discharge from the aquifer, the probable occurrence of fresh and salt water prior to ground-water withdrawals, and the present occurrence of salt water. Also shows the effect of ground-water withdrawals and considers the possible sources of salt-water contamination.
- WcB 5410. Ground-water development in the Southern High Plains of Texas, 1953: 1954, by E. R. Leggat.  
Summarizes the ground-water development, use, and fluctuations of water levels to 1954. Shows the decline in water levels from January 1953 to January 1954.
- WcB 5411. Ground-water resources of Tom Green County, Texas: 1954, by G. W. Willis.  
Gives information about the geology in relation to the ground water and the occurrence, quality, and development of ground water. Also gives records of wells, logs, and chemical analyses of ground water.
- WcB 5412. Ground-water resources of the San Antonio area, Texas, a progress report of current studies: 1954, by J. W. Lang.  
Gives a summary of the geology and the occurrence of ground water. Also gives information about the hydrology and an estimate of the perennial yield of the Edwards Limestone aquifer. Also discusses water-supply problems.
- WcB 5413. Records of wells in Bastrop County, Texas: 1954, by G. M. Austin.  
Gives records of wells, logs, and chemical analyses of ground water.
- WcB 5414. Records of water-level measurements in Reeves County, Texas: 1954, by C. R. Follett.
- WcB 5415. Records of water-level measurements in Culberson, Hudspeth, and Jeff Davis Counties, Texas: 1954, by C. R. Follett.
- WcB 5416. Records of water-level measurements in Atascosa and Frio Counties, Texas: 1954, by B. W. Swartz.
- WcB 5417. Records of water-level measurements in El Paso County, Texas: 1954, by C. R. Follett.
- WcB 5418. Ground-water resources of Jones County, Texas: 1954, by A. G. Winslow, W. W. Doyel, and C. H. Gaum.  
Gives information about the geologic formations and their relation to the occurrence of ground water, utilization, quality, and possibilities for future development. Also gives records of wells, logs, and chemical analyses of ground water.

- WcB 5501. Records of wells in Hays County, Texas: 1955, by K. J. DeCook and W. W. Doyel.  
Gives logs of wells, water levels, and chemical analyses of ground water.
- WcB 5502. Geology and ground-water resources of Galveston County, Texas: 1955, by B. M. Petitt, Jr., and A. G. Winslow.  
Gives information about the geologic formations and their water-bearing properties, the history of water supplies, the ground-water hydrology, and the quality of water. Also gives records of wells, logs, and chemical analyses of ground water.
- WcB 5503. Records of water-level measurements in Haskell and Knox Counties, Texas: 1955, by C. R. Follett.
- WcB 5601. Geology and ground-water resources of Medina County, Texas: 1956, by C. L. R. Holt, Jr.  
Describes the rock units and their water-bearing properties. Gives information about the occurrence, recharge, movement, discharge, and quality of ground water, and fluctuations of water levels. Also gives records of wells and springs, logs, water levels, and chemical analyses of ground water.
- WcB 5602. Pumpage of ground water and changes in artesian pressure in the Houston district and Baytown-La Porte area, Texas, 1953-55: 1956, by L. A. Wood.
- WcB 5603. Ground-water resources of the El Paso district, Texas, Progress Report No. 7: 1956, by R. E. Smith.  
Brings up to 1956 information about pumpage and the fluctuation of water levels. Also gives information about the removal of water from storage in the Hueco bolson and about salt-water encroachment. Gives water levels in wells and chemical analyses of ground water.
- WcB 5604. Ground-water resources of the Crane sandhills, Crane County, Texas: 1956, by G. H. Shafer.  
Gives information about the geologic formations and their water-bearing properties, the development of water from wells, and the quality of ground water. Also gives records of wells, logs, and chemical analyses of ground water.
- WcB 5605. Basic data and summary of ground-water resources of Chambers County, Texas: 1956, by W. W. Doyel.  
Gives information about the occurrence of ground water and the decline in water levels. Also gives records of wells, logs, water levels in wells, and chemical analyses of ground water.
- WcB 5606. Records of water-level measurements in Bexar County, Texas: 1956, by C. R. Follett.
- WcB 5607. Water-level decline maps of 17 counties in the Southern High Plains, Texas, January 1955 to January 1956: 1956, by C. R. Follett.

- WcB 5608. Ground-water resources of the San Antonio area, Texas: 1956, by B. M. Petitt, Jr. and W. O. George.
- Volume I: Gives information about the water-bearing formations and structure. For the Edwards and associated limestones, gives information about the recharge by basins, the yields of wells, fluctuations of water levels, the movement of water in the Balcones fault zone, the relation of water levels to spring flow, the relation of reservoir storage to water levels in wells, and the temperature of the water.
- Volume II, Part 1: Gives the records of wells and springs.
- Volume II, Part 2: Gives records of drillers' logs.
- Volume II, Part 3: Gives the water levels in wells, chemical analyses of ground water, records of streamflow and reservoir contents, discharge measurements, and precipitation.
- WcB 5609. Records of water-level measurements in Medina County, Texas, 1930 to March 1956: 1956, by C. R. Follett.
- WcB 5610. Records of water-level measurements in Comal and Guadalupe Counties, Texas, 1933 to March 1956: 1956, by C. R. Follett.
- WcB 5611. Records of water-level measurements in Kinney, Uvalde, and Val Verde Counties, Texas, 1929 to March 1956: 1956, by C. R. Follett.
- WcB 5612. Records of water-level measurements in Hays, Travis, and Williamson Counties, Texas, 1937 to May 1956: 1956, by C. R. Follett.
- WcB 5613. Records of water-level measurements in Childress, Cottle, Hardeman, and King Counties, Texas, 1940 to January 1956: 1956, by C. R. Follett.
- WcB 5614. Records of water-level measurements in Foard and Wilbarger Counties, Texas, 1936 to January 1956: 1956, by C. R. Follett.
- WcB 5615. Ground-water resources of the Hueco bolson, northeast of El Paso, Texas: 1956, by D. B. Knowles and R. A. Kennedy.
- Gives information about the occurrence of ground water and the ground-water reservoirs, ground-water development and fluctuations of water levels, pumping tests and application of the results, and the ground water in storage.
- WcB 5617. Records of water-level measurements in Dimmit, Maverick, and Zavala Counties, Texas, 1920, 1928 to September 1956: 1956, by C. R. Follett.
- WcB 5701. Artificial-recharge experiments at McDonald well field, Amarillo, Texas: 1957, by E. A. Moulder and D. R. Frazor.
- Describes a recharge test made to determine the practicability of recharge through wells, the recharge-head relationship of injection wells, the storage and transmitting properties of the aquifer, the effect on water levels, and the percentage of water that can be recovered by pumping, and gives the test data.
- WcB 5702. Records of water levels in Bastrop and Caldwell Counties, Texas, 1937 through December 1956: 1957, by B. W. Swartz.

- WcB 5703. Records of water levels in Aransas and San Patricio Counties, Texas, 1938 through December 1956: 1957, by B. W. Swartz.
- WcB 5704. Geology and ground-water resources of Lamb County, Texas: 1957, by E. R. Leggat.  
Describes the geologic formations and their water-bearing properties and gives information about the occurrence, recharge, discharge, development and quality of ground water, and the fluctuations of water levels. Also gives records of wells, logs, water levels, and chemical analyses of ground water.
- WcB 5705. Water level decline maps, 1956 to 1957, and water levels in observation wells in 20 counties in the Southern High Plains, Texas: 1957, by C. R. Follett.
- WcB 5706. The use of ground water for irrigation in Childress County, Texas: 1957, by G. H. Shafer.  
Gives information about the occurrence, use, and quality of ground water. Also gives records of wells, logs, and chemical analyses of ground water.
- WcB 5707. Water level maps and water levels in observation wells in the North High Plains, Texas: 1957, by C. R. Follett.
- WcB 5708. Records of wells in Travis County, Texas: 1957, by Ted Arnow.  
Gives records of wells, logs, and chemical analyses of ground water.
- WcB 5709. Geology and ground-water resources of Tarrant County, Texas: 1957, by E. R. Leggat.  
Gives information about the geologic units and their water-bearing properties; occurrence, development, and use of ground water; and fluctuations of water levels. For the principal ground-water reservoirs, gives information about the yields and specific capacities of wells, the results and application of results of pumping tests, the potential for future development, and the quality of the water. Also gives records of wells, logs, water levels, and chemical analyses of ground water.
- WcB 5710. Ground-water geology of Wilson County, Texas: 1957, by R. B. Anders.  
Gives information about the geology and water-bearing properties of the formations, development of ground water, pumping tests, and quality of water. Also gives records of wells, logs, and chemical analyses of ground water.
- WcB 5711. Ground-water resources of Goliad County, Texas: 1957, by O. C. Dale, E. A. Moulder, and Ted Arnow.  
Gives information about the rock formations and their water-bearing properties. Also, gives the occurrence of ground water, pumping tests, present and potential development, relationship between ground water and surface water, and quality of water. Also gives records of wells, logs, and chemical analyses of ground water.

- WcB 5712. Ground-water geology of the Alpine area, Brewster, Jeff Davis, and Presidio Counties, Texas: 1957, by R. T. Littleton and G. L. Audsley. Gives information about the geologic formations and their water-bearing properties, geologic structure, occurrence of ground water, and movement and the quality of water. Gives information about ground-water exploration, and indicates areas of possible additional development. Also gives records of wells, logs, water levels, and chemical analyses of ground water.
- WcB 5801. Ground-water geology in the vicinity of Dove and Croton Creeks, Stonewall, Kent, Dickens, and King Counties, Texas, with special reference to salt-water seepage: 1958, by L. G. McMillion. Gives information about the geology, including the stratigraphy of the salt-producing areas and geologic structure, and about topography and the water table, ground water in northeast Kent County, and the artesian system of the Childress dolomite. Also contains records of wells and exploration holes and logs.
- WcB 5802. Ground-water conditions in Carson County, Texas: 1958, by Chris Gard. Gives information about the geologic formations and water supply, the source, movement, chemical quality, and utilization of ground water, and well performance. Also gives records of wells, logs, and chemical analyses of ground water.
- WcB 5803. Ground-water geology of Real County, Texas: 1958, by A. T. Long, Jr. Gives information about the rock formations and their water-bearing properties, the occurrence and movement of ground water and the relation to streamflow and development, and quality of water. Also gives records of wells, logs, water levels, and analyses of ground water.
- WcB 5804. Records of water-level measurements in Jackson, Matagorda, and Wharton Counties, Texas, 1934 to April 1958: 1958, by F. A. Rayner.
- WcB 5805. Pumpage of ground water and fluctuations of water levels in the Houston district and Baytown-La Porte area, Texas, 1955-57: 1958, by L. A. Wood. Also gives information about the changes in chemical quality of the water.
- WcB 5806. Records of water-level measurements in Collingsworth, Hemphill, Roberts, and Wheeler Counties, Texas, 1937 through July 1958: 1958, by F. A. Rayner.
- WcB 5808. Pumpage of ground water and changes in water levels in Galveston County, Texas, 1952-57: 1958, by L. A. Wood. Also gives information about subsidence of the land surface and changes in chemical quality of the ground water.
- WcB 5901. Records of water-level measurements in Chambers, Liberty, and Montgomery Counties, Texas, 1931 through April 1958: 1959, by F. A. Rayner.
- WcB 5902. Records of water-level measurements in Bell, McLennan, and Somervell Counties, Texas, 1930 through 1957: 1959, by F. A. Rayner.

- WcB 5903. Records of water-level measurements in Crockett, Glasscock, Reagan, Upton, and Terrell Counties, Texas, 1937 through 1957: 1959, by F. A. Rayner.
- WcB 5904. Records of water-level measurements in Brazoria, Fort Bend, and Waller Counties, Texas, 1931 through June 1958: 1959, by F. A. Rayner.
- WcB 5906. Records of water-level measurements in Crane and Midland Counties, Texas, 1937 through 1957: 1959, by F. A. Rayner.
- WcB 5907. Records of water-level measurements in Mitchell, Nolan, Sterling, and Tom Green Counties, Texas, 1938 through 1957: 1959, by F. A. Rayner.
- WcB 5908. Water-level measurements and maps, Southern High Plains, Texas, 1958 and 1959: 1959, by F. A. Rayner.
- WcB 5909. Water-level measurements and maps, Northern High Plains, Texas, 1958 and 1959: 1959, by F. A. Rayner.
- WcB 5911. Ground-water geology of Bexar County, Texas: 1959, by Ted Arnow.  
Gives information about the geology and water-bearing properties of the formations, and, for the Edwards and associated limestones, the recharge, discharge, movement of water, fluctuations of water levels, and quality of the water.
- WcB 5916. Geology and ground-water resources of Winkler County, Texas: 1959, by Sergio Garza and J. B. Wesselman.  
Gives information about the geologic formations and their water-bearing properties; gives information about the occurrence, movement, use and quality of ground water, and the results of pumping tests. Also gives records of wells, logs, and chemical analyses of ground water.
- WcB 6002. Brine production and disposal on the lower watershed of Chambers and Richland Creeks, Navarro County, Texas: 1960, by F. L. Osborne, Jr.  
Gives information about the history of oil development, geology, brine production and disposal, and the quality of water.
- WcB 6003. Geology and ground-water resources of Dimmit County, Texas: 1960, by C. C. Mason.  
Gives information about the rock formations and their water-bearing properties. For the Carrizo Sand, gives information about the occurrence and withdrawals of ground water, changes in water levels, and recharge. Also gives information about the quality of water, records of wells, logs, water levels, and chemical analyses of ground water.
- WcB 6004. Geology and ground-water resources of Hays County, Texas: 1960, by K. J. DeCook.  
Gives information about the geology and water-bearing properties of the rock units and structural geology; gives information about the occurrence, recharge, movement, discharge, quality, and utilization of ground water. Also gives records of wells and springs, water levels, logs, and chemical analyses of ground water.

- WcB 6005. Water-level measurements in Culberson, Hudspeth, and Jeff Davis Counties, Texas: 1960, by Jack Stearman.
- WcB 6007. Ground-water geology of Karnes County, Texas: 1960, by R. B. Anders. Gives information about the geologic formations and occurrence of ground water, ground-water development, changes in water levels, and potential development. Also gives records of wells, logs, and chemical analyses of ground water.
- WcB 6008. Water levels in observation wells in Cameron, Hidalgo, and Starr Counties, Texas, 1950-1959: 1960, by Jack Stearman.
- WcB 6009. Water levels in observation wells in Haskell and Knox Counties, Texas, 1956-1960: 1960, by Jack Stearman.
- WcB 6010. Geology and ground-water resources of Hale County, Texas: 1960, by J. G. Cronin and L. G. Wells. Gives information about the geologic formations and their water-bearing properties; gives information about the occurrence of ground water, the hydraulic properties of the aquifer, recharge, movement and discharge of water, and the water in storage. Also gives records of wells, logs, water levels, and chemical analyses of ground water.
- WcB 6011. Water levels in observation wells, Southern High Plains, Texas, 1959 and 1960: 1960, by Jack Stearman.
- WcB 6012. Water levels in observation wells, Northern High Plains, Texas, 1958-1960: 1960, by Jack Stearman.
- WcB 6013. Geology and ground-water resources of Grayson County, Texas: 1960, by E. T. Baker, Jr. Gives information about the rock units and their water-bearing properties, the occurrence and movement of ground water, and for the water-bearing formations, the fluctuations of water levels, the hydraulic characteristics, future development, use, and quality of water. Also gives records of wells and springs, water levels, logs, and chemical analyses of ground water.
- WcB 6014. Ground-water resources of the Lower Rio Grande Valley Area, Texas: 1961, by R. C. Baker and O. C. Dale. Volume I: Gives information about the sources of ground water and the principal ground-water reservoirs; gives information about the development of ground water, fluctuations of water levels, quality of water, hydraulic characteristics, and hydrology. Volume II: Gives records of wells, logs, water levels, and chemical analyses of ground water.
- WcB 6015. Water levels in observation wells in Atascosa and Frio Counties, Texas, 1955-1960: 1960, by Jack Stearman.

- WcB 6016. Reconnaissance investigation of the ground-water resources of the Canadian River Basin, Texas: 1960, by the staff of the Ground Water Division.  
 Gives information about the geology and the occurrence of ground water by geologic units, the quality and development of ground water, and ground water available for future development.
- WcB 6017. Ground-water geology of the Hickory Sandstone Member of the Riley Formation, McCulloch County, Texas: 1961, by C. C. Mason.  
 Gives information about the stratigraphic units and their water-bearing properties in McCulloch County. For the Hickory Sandstone Member, gives information about the hydrologic characteristics, use of water, recharge, movement and discharge, water in storage, fluctuations of water levels, and quality of water. Also gives records of wells, logs, water levels, and chemical analyses of ground water.
- WcB 6101. Water levels in observation wells, Southern High Plains, Texas, 1960 and 1961: 1961, by D. C. Draper.
- WcB 6102. Geology and ground-water resources of Carson County and part of Gray County, Texas, Progress Report No. 1: 1961, by A. T. Long, Jr.  
 Gives information about the geologic formations and their water-bearing properties and the occurrence, use, availability and quality of ground water, and the fluctuations of water levels. Also gives tables of water levels and chemical analyses of ground water.
- WcB 6103. Annual water-level measurements in observation wells, Northern High Plains, Texas, 1960 and 1961: 1961, by R. C. Lucas.
- WcB 6105. Ground-water geology of Live Oak County, Texas: 1961, by R. B. Anders and E. T. Baker, Jr.  
 Gives information about the geology and occurrence of ground water, pumping tests, changes in water levels, development and potential development, and quality of water. Also gives records of wells, drillers' logs, and chemical analyses of ground water.
- WcB 6106. Geology and ground-water resources of Pecos County, Texas: 1961, by C. A. Armstrong and L. G. McMillion.  
 Volume I: Gives information about the geologic formations and their water-bearing properties. Describes the Pecos aquifer, including development, movement, recharge and discharge, and quality of water. Gives detailed descriptions of the areas of ground-water development. Also gives records of wells.  
 Volume II: Gives drillers' logs, water levels in wells, and chemical analyses of water.
- WcB 6107. A summary of the occurrence and development of ground water in the Southern High Plains of Texas: 1961, by J. G. Cronin.  
 Gives information about the geologic units and their water supply. For the Ogallala Formation, gives information about the occurrence, use, recharge and movement of ground water, hydraulic properties, fluctuations of water levels, water in storage, and quality of water. Also gives the outlook for the future.

- WcB 6109. Geology and ground-water resources of the Northern High Plains of Texas, Progress Report No. 1: 1961, by W. H. Alexander, Jr.  
Gives information about the geologic formations and their water-bearing properties; gives the occurrence, use, availability, and quality of ground water, together with fluctuations of water levels. Also gives chemical analyses of water from selected wells.
- WcB 6110. Ground-water reconnaissance of the Marfa area, Presidio County, Texas: 1961, by M. E. Davis.  
Gives information about the geologic formations and their water-bearing properties; gives information about the occurrence, movement, recharge, and quality of ground water. Also gives records of wells, logs, and chemical analyses of ground water.
- WcB 6111. A reconnaissance of the ground-water resources of the Marathon area, Brewster County, Texas: 1961, by K. J. DeCook.  
Gives information about the geologic formations and their water-bearing properties; gives information about the occurrence, movement, recharge, discharge, and quality of ground water, together with the fluctuations of water levels. Also gives records of wells, logs, and chemical analyses of ground water.
- WcB 6201. Recharge, discharge, and changes in ground-water storage in the Edwards and associated limestones, San Antonio area, Texas, A progress report on studies, 1955-59: 1962, by Sergio Garza.
- WcB 6202. Ground-water resources of Victoria and Calhoun Counties, Texas: 1962, by R. F. Marvin, G. H. Shafer, and O. C. Dale.  
Gives information about the occurrence, movement, and quality of ground water, pumping tests, fluctuations of water levels, and present and potential development.
- WcB 6203. Ground-water resources of the lower Mesilla Valley, Texas and New Mexico: 1962, by E. R. Leggat, M. E. Lowry, and J. W. Hood.  
Gives information about the geology pertinent to the occurrence of ground water, recharge, movement and discharge of ground water, fluctuations of water levels, water in storage, and quality of water. Also gives records of wells, logs, and chemical analyses of ground water.
- WcB 6204. Development of ground water in the El Paso district, Texas, 1955-60, Progress Report No. 8: 1962, by E. R. Leggat.  
Gives information about the development and pumpage of ground water, fluctuations of water levels, results of pumping tests, quality of water, and artificial recharge. Also gives records of wells and chemical analyses of ground water.
- WcB 6207. Water-level measurements through 1962 in selected observation wells, Southern High Plains, Texas: 1962, by staff of Well Observation Program of the Ground Water Division.

- WcB 6208. Ground-water geology of Edwards County, Texas: 1962, by A. T. Long, Jr.  
Gives information about the rock formations and their water-bearing properties; also gives the occurrence and movement of ground water, relation to streamflow, present and potential development, and quality of water. Also gives records of wells, logs, and chemical analyses of ground water.
- WcB 6209. Ground-water resources of Haskell and Knox Counties, Texas: 1962, by William Ogilbee and F. L. Osborne, Jr.  
Gives information about the geologic formations and their water-bearing properties. For the Seymour Formation, gives the extent, source, occurrence, recharge, movement, discharge, utilization and availability of ground water, the hydraulic properties, and the fluctuations of water levels. Also gives records of wells, logs, water levels, and chemical analyses of ground water.
- WcB 6210. Ground-water geology of Bandera County, Texas: 1962, by R. D. Reeves and F. C. Lee.  
Gives information about the stratigraphy and water-bearing properties of the rock units; gives information about the occurrence and movement, development, and quality of ground water. Also gives records of wells and springs, logs, and analyses of water.
- WcB 6211. Pumpage of ground water and fluctuation of water levels in the Houston district and the Baytown-La Porte area, Texas, 1957-61: 1962, by R. B. Anders and W. L. Naftel.
- WcB 6212. Geology and ground-water resources of Uvalde County, Texas: 1962, by F. A. Welder and R. D. Reeves.  
Gives information about the rock units and their water-bearing properties and information about the occurrence, recharge, discharge, movement and quality of ground water, and the fluctuations of water levels. Also gives information on the potential development of ground water, together with records of wells and springs, water levels, logs, and chemical analyses of ground water.
- WcB 6213. Annual water-level measurements in observation wells, Northern High Plains, Texas, 1961 and 1962: 1962, by the staff of the Well Observation Section of the Ground Water Division.
- WcB 6214. Geology and ground-water resources of Reeves County, Texas: 1962, by William Ogilbee and J. B. Wesselman, with section on Quality of water by Burdge Ireland.  
Volume I: Gives information about the stratigraphic units and their water-bearing properties, and for the minor aquifers gives information about the occurrence, development and use of ground water. For the Cenozoic alluvium, the principal aquifer, gives information about the movement, recharge, discharge, storage, hydraulic properties, utilization of ground water, fluctuations of water levels, and well construction. Also gives information about quality of water and potential development of ground water, and records of wells and springs.  
Volume II: Gives logs, water levels, and chemical analyses of ground water.

- WcB 6216. Geology and ground-water resources of Kinney County, Texas: 1962, by R. R. Bennett and A. N. Sayre.  
Gives information about the rock formations and their water-bearing properties. For the Edwards and associated limestones, gives information about the occurrence, recharge, movement, and discharge of ground water and also fluctuations of water levels and spring discharge; gives quality of water for the different aquifers. Also gives records of wells and springs, water levels, logs, and chemical analyses of ground water.
- WcB 6301. Availability of ground water from the Goliad Sand in the Alice area, Texas: 1963, by C. C. Mason.  
Gives information about the geology in relation to ground water and the occurrence, quality, and development of ground water, pumping tests, changes in water levels, problems of well construction, and future development. Also gives records of wells, water levels, logs, and chemical analyses of ground water.
- WcB 6302. Availability and quality of ground water in Smith County, Texas: 1963, by J. W. Dillard.  
For the principal aquifers, gives information about the geology and structure, source and movement of water, water levels, water-bearing characteristics, chemical quality of water, utilization and present development, well construction and yields, ground water available for development, and physical factors affecting future development.
- WcB 6303. Pumpage of ground water and changes in water levels in Galveston County, Texas, 1958-62: 1963, by R. B. Anders and W. L. Naftel.  
Also gives information about the subsidence of the land surface and changes in chemical quality of the ground water.
- WcB 6305. Reconnaissance investigation of the ground-water resources of the Gulf Coast region, Texas: 1963, by L. A. Wood, R. K. Gabrysch, and Richard Marvin.  
Gives information about the geology and aquifers in the region; gives the occurrence, chemical quality, and utilization of ground water, changes in water levels, and problems by subregions. Also gives a quantitative estimate of the availability of ground water in the region.
- WcB 6306. Reconnaissance investigation of the ground-water resources of the Red River, Sulphur River, and Cypress Creek Basins, Texas: 1963, by E. T. Baker, Jr., A. T. Long, Jr., R. D. Reeves, and L. A. Wood.  
Gives information about the general geology of the basins. By subdivisions of the area, gives for the primary aquifers a physical description, recharge, movement, and discharge of ground water, chemical quality, utilization and present development, changes in water levels, availability and potential development, and problems. Also describes the secondary aquifers.

WcB 6307. Reconnaissance investigation of the ground-water resources of the Sabine River Basin, Texas: 1963, by B. B. Baker, J. W. Dillard, V. L. Souders, and R. C. Peckham.

Contains the same type of information as WcB 6306.

WcB 6308. Reconnaissance investigation of the ground-water resources of the Neches River Basin, Texas: 1963, by B. B. Baker, R. C. Peckham, J. W. Dillard, and V. L. Souders.

Contains the same type of information as WcB 6306.

## Circulars

(Index code--WcC 63-03, etc.)

- WcC 63-03. The development of the science of hydrology: 1963, by P. B. Jones, G. D. Walker, R. W. Harden, and L. L. McDaniels.  
A summary of the historical development of surface-water and ground-water hydrology as a science. Ground-water hydrology section contains discussions of the historical development before 1900 and during the 20th century. Also included is a section on the professional status of the hydrologist in the United States and a glossary of selected hydrologic terms.
- WcC 63-05. Summary of the ground-water aquifers in the Rio Grande Basin: 1963, by R. C. Peckham.  
Condensation of data concerning primary and secondary aquifers from reconnaissance reports of the Rio Grande Basin. Includes water level, pumpage, quality, recharge, and availability data.

## Memorandum Reports

(Index code--MR 62-01, etc.)

- MR 62-01. Ground-water conditions in the vicinity of Burnet, Texas: 1962, by J. R. Mount.  
Report includes discussions on the general geology, principal water-bearing units, pumping tests, and streamflow in the Burnet area. Included in tables are records of wells and springs, chemical analyses, logs of wells, water levels in selected wells, pumpage records, streamflow observations, and pumping-test data.
- MR 62-02. Reconnaissance survey of salt water disposal in the Mexia, Negro Creek, and Cedar Creek oil fields, Limestone County, Texas: 1962, by S. C. Burnitt, H. D. Holloway, and J. T. Thornhill.  
This report discusses the surface and shallow subsurface geology of the Mexia, Negro Creek, and Cedar Creek oil-field areas and the method of brine disposal. Also included are tabulations of the amount of brine produced, chemical analyses of water collected from stream-sampling points during 1957-61, geologic map showing chloride concentrations in streams and location of water samples obtained, and two generalized geologic cross sections showing shallow subsurface relationships.

Limited Distribution Reports

(Index code--LD-0162-MR, etc.)

- LD-0162-MR. City of Hawkins, Wood County, Texas, investigation of ground-water contamination: 1962, revised March 1963, by S. C. Burnitt. This report presents data concerning general geology and ground water in the Hawkins area, Hawkins municipal water supply, development of oil production in the area, production and disposal of brine, area of contamination and possible sources of the contaminants, and recommendations for necessary action required to correct the situation. Report also includes an appendix divided into two sections: (1) summary of Railroad Commission investigation as of June 1962 and (2) summary of developments of Railroad Commission investigation from June 1962 to December 1962.
- LD-0262-MR. Henderson oil field area, Rusk County, Texas, investigation of ground-water contamination: 1962, by S. C. Burnitt. Reports on general geologic and ground-water conditions surrounding contaminated water well in Rusk County. Includes general discussion on use of open, unlined surface pits as a means of brine disposal, probable source of contaminants of the subject well, and recommendations for alleviating further salt-water contamination of ground and surface water in the area.
- LD-0362-MR. City of Valera, Coleman County, Texas, investigation of ground-water contamination: 1962, by H. D. Holloway. This report pertains to an investigation of six water wells in Valera, Texas, which were contaminated by gasoline. A brief discussion of the general geology of the area, a summary of the current investigation, and recommendations to correct the situation are included.
- LD-0163-MR. Bacteriological pollution of ground water in the Big Spring area, Howard County, Texas: 1963, by H. D. Holloway. Reports on investigation of polluted water well north of Big Spring, Texas. Includes discussion of probable source of contamination and recommendations to alleviate problem. Included in the text are discussions on the local geology, occurrence and quality of ground water, and effects of using unlined surface pits as a means of waste disposal.

Unnumbered Publications

(Index code--UP 1, etc.)

- UP 1. Adair, S. W., 1939, Records of wells, drillers' logs, water analyses, and map showing location of wells and springs in Carson County, Texas.
- UP 2. Alexander, W. H., Jr., 1946, Records of wells, drillers' logs, water analyses, and map showing locations of wells in Deaf Smith County, Texas.
- UP 3. \_\_\_\_\_ 1947, Ground-water resources of San Jacinto County, Texas.  
Gives information on the geologic formations and their water-bearing properties and the development of water supplies from wells. Also tabulates records of wells, logs of wells, and chemical analyses of ground water.
- UP 4. Alexander, W. H., Jr., and Breeding, S. D., 1945, Ground-water resources of Liberty County, Texas.  
Gives information about the geology, ground-water development, withdrawals, and temperature. Also tabulates records of wells, logs of wells, and chemical analyses of ground water.
- UP 5. Alexander, W. H., Jr., Broadhurst, W. L., and Lang, J. W., 1945, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Lubbock County, Texas.
- UP 6. Alexander, W. H., Jr., Broadhurst, W. L., and White, W. N., 1942, Progress report on ground water in the High Plains in Texas.  
Brings up to 1942 information about the development and use of ground water for irrigation and the fluctuations of water levels.
- UP 7. \_\_\_\_\_ 1943, Progress report on ground water in the High Plains in Texas.  
Brings up to 1943 information about the fluctuations of water levels and gives estimates of the change in amount of water in storage.
- UP 8. Alexander, W. H., Jr., and Dante, J. H., 1946, Ground-water resources of the area southwest of Amarillo.  
Gives information about pumpage and fluctuations of water levels, also records of wells, logs, and chemical analyses of ground water.
- UP 9. Alexander, W. H., Jr., and Lang, J. W., 1945, Ground water in the High Plains of Texas, Progress Report No. 5.  
Brings up to 1945 information about the irrigation development and fluctuations of water levels.
- UP 10. Altgelt, E. S., and Michal, E. J., 1937, Records of wells, drillers' logs, water analyses, and map showing location of wells in Guadalupe County, Texas.

- UP 11. Austin, A. M., 1959, Occurrence of ground water in the Palangana brine field, Duval County, Texas.  
This report summarizes ground-water conditions in east-central Duval County. Included are interpretations of electric logs, water analyses, drillers' logs, and available geologic data.
- UP 12. Barnes, B. A., 1938, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells in Hays County, Texas.
- UP 13. \_\_\_\_\_ 1941, Records of wells, drillers' and electrical logs, water-level measurements, and map showing location of wells in Galveston County, Texas.
- UP 14. Barnes, B. A., and Cumley, J. C., 1942, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Blanco County, Texas.
- UP 15. Barnes, B. A., Follett, C. R., and Sundstrom, R. W., 1944, Ground-water supply of Bryan, Texas.  
Gives the results of pumping tests on the wells used for municipal supply and recommends locations for additional development.
- UP 16. Barnes, J. R., 1948, Ground-water resources of Wharton County, Texas.  
Gives information on the geology and occurrence of ground water, withdrawals, development for irrigation, and quality of water. Also tabulates records of wells, logs of wells, water levels, and chemical analyses of ground water.
- UP 17. Barnes, J. R., Ellis, W. C., Leggat, E. R., Scalapino, R. A., and George, W. O., 1949, Geology and ground water in the irrigation region of the Southern High Plains of Texas, Progress Report No. 7.  
Gives information about the geology, precipitation, recharge and natural discharge, development, fluctuations of water levels, interference between wells, quantity of water available, and quality of water.
- UP 18. Bennett, R. R., and Cromack, G. H., 1940, Records of wells, drillers' logs, water analyses, and map showing location of wells in Kinney County, Texas.
- UP 19. Bradshaw, E. L., and Follett, C. R., 1938, Records of wells, drillers' logs, water analyses, cross sections, and map showing location of wells in Parmer County, Texas.
- UP 20. Bridges, T. W., and Cromack, G. H., 1940, Records of wells, drillers' logs, water analyses, and map showing location of wells in Wharton County, Texas.
- UP 21. Broadhurst, W. L., 1936, Records of wells, drillers' logs, water analyses, and map showing location of wells in Hansford County, Texas.
- UP 22. \_\_\_\_\_ 1937, Records of wells, drillers' logs, water-level measurements, water analyses, and map showing location of wells in Bailey County, Texas.

- UP 23. Broadhurst, W. L., 1938, Records of wells, drillers' logs, water analyses, and map showing location of wells in Lamb County, Texas.
- UP 24. \_\_\_\_\_ 1942, Records of wells and springs, drillers' logs, water analyses, and map showing locations of wells and springs in Harrison County, Texas.
- UP 25. \_\_\_\_\_ 1942, Records of wells, drillers' logs, water analyses, and map showing location of wells in Upshur County, Texas.
- UP 26. \_\_\_\_\_ 1943, Records of wells, springs, drillers' logs, water analyses, and map showing locations of wells and springs in Camp, Franklin, and Titus Counties, Texas.
- UP 27. \_\_\_\_\_ 1943, Records of wells, drillers' logs, water analyses, and map showing location of wells in Gregg County, Texas.
- UP 28. \_\_\_\_\_ 1943, Records of wells, springs, drillers' logs, water analyses, and map showing locations of wells and springs in Hopkins County, Texas.
- UP 29. \_\_\_\_\_ 1943, Records of wells, drillers' logs, water analyses, and map showing location of wells in Marion County, Texas.
- UP 30. \_\_\_\_\_ 1943, Records of wells, springs, drillers' logs, water analyses, and map showing location of wells and springs in Rains County, Texas.
- UP 31. \_\_\_\_\_ 1947, Ground water in High Plains of Texas, Progress Report No. 6. Brings up to 1947 information about the development of irrigation and the fluctuations of water levels. Also gives information about the losses and gains of water in storage and the declines in pumping levels.
- UP 32. Broadhurst, W. L., and Alexander, W. H., Jr., 1944, Progress report on ground water in the High Plains in Texas. Brings up to 1944 information about the pumpage and the fluctuations of water levels.
- UP 33. Broadhurst, W. L., and Breeding, S. D., 1943, Water resources of Harrison County, Texas. Gives information about the geology and development of water supplies. Also tabulates records of wells, logs of wells, and chemical analyses of ground water.
- UP 34. \_\_\_\_\_ 1943, Water resources of Marion County, Texas. Describes the geology and ground-water development. Also tabulates records of wells, logs of wells, and chemical analyses of ground water.
- UP 35. \_\_\_\_\_ 1945, Water resources of Gregg County, Texas. Gives information about the geology and the development of water supplies from wells. Also tabulates well records, logs of wells, and chemical analyses of ground water.

- UP 36. Broadhurst, W. L., and Dwyer, B. C., 1947, Public water supplies in central and north-central Texas.  
For the municipalities using ground water from wells gives information about wells, logs, and chemical analyses of water.
- UP 37. Broadhurst, W. L., and Follett, C. R., 1944, Ground-water resources of Nocona, Montague County, Texas.  
Reviews ground-water occurrence and use at and near Nocona. Makes recommendations for distribution of pumping and area for future development. Gives records of wells, logs, and chemical analyses of ground water.
- UP 38. Broadhurst, W. L., Follett, C. R., Lang, J. W., Brigance, B. G., and Shafer, G. H., 1938, Records of wells, drillers' logs, water analyses, and map showing location of wells in Hale County, Texas.
- UP 39. Broadhurst, W. L., Lang, J. W., and Shafer, G. H., 1938, Records of wells and springs, drillers' logs, and water analyses, and map showing location of wells and springs in Floyd County, Texas.
- UP 40. Broadhurst, W. L., Sundstrom, R. W., and Rowley, J. H., 1946, Public water supplies in southern Texas.  
For the municipalities using ground water gives information about wells, logs, and chemical analyses of water.
- UP 41. Broadhurst, W. L., Sundstrom, R. W., and Weaver, D. E., 1949, Public water supplies in western Texas.  
For municipalities using ground water gives information about wells, logs, and chemical analyses of water.
- UP 42. Chenault, H. L., 1937, Records of wells, drillers' logs, water analyses, and map showing location of wells in Freestone County, Texas.
- UP 43. Christian, W. G., 1942, Records of wells and springs, drillers' logs, water analyses, and map showing locations of wells and springs in Donley County, Texas.
- UP 44. Christian, W. G., and Smyers, L. C., 1938, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Randall County, Texas.
- UP 45. Clark, W. I., Jr., 1937, Records of wells, drillers' logs, and water analyses, and map showing location of wells in Burleson County, Texas.
- UP 46. \_\_\_\_\_ 1937, Records of wells, drillers' logs, water analyses, and map showing location of wells in Lee County, Texas.
- UP 47. \_\_\_\_\_ 1937, Records of wells, drillers' logs, water analyses, and map showing location of wells in Milam County, Texas.
- UP 48. Cromack, G. H., 1936, Records of wells, drillers' logs, water analyses, and map showing locations of wells in Cherokee County, Texas.
- UP 49. \_\_\_\_\_ 1937, Records of wells, drillers' logs, water analyses, and map showing location of wells in Nacogdoches County, Texas.

- UP 50. Cromack, G. H., 1942, Records of wells, drillers' logs, water analyses, and map showing location of wells in Hardin County, Texas.
- UP 51. \_\_\_\_\_ 1942, Records of wells, drillers' logs, water analyses, and map showing location of wells in Jasper and Newton Counties, Texas.
- UP 52. \_\_\_\_\_ 1943, Records of wells, drillers' logs, water analyses, and map showing locations of wells in Fayette County, Texas.
- UP 53. \_\_\_\_\_ 1943, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Grimes County, Texas.
- UP 54. \_\_\_\_\_ 1944, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Terry County, Texas.
- UP 55. \_\_\_\_\_ 1945, Records of wells, drillers' logs, water analyses, and map showing location of wells in Yoakum County, Texas.
- UP 56. \_\_\_\_\_ 1946, Records of wells, drillers' logs, water analyses, and map showing locations of wells in Gaines County, Texas.
- UP 57. Cromack, G. H., and Bridges, T. W., 1944, Records of wells, drillers' logs, water analyses, and map showing location of wells in Matagorda County, Texas.
- UP 58. Cumley, J. C., 1938, Records of wells, drillers' logs, water analyses, and map showing location of wells in Dawson County, Texas.
- UP 59. \_\_\_\_\_ 1940, Records of wells, drillers' logs, water analyses, and map showing location of wells in northern part of Jim Hogg County, Texas.
- UP 60. \_\_\_\_\_ 1940, Records of wells, drillers' logs, water analyses, and map showing location of wells in Victoria County, Texas.
- UP 61. \_\_\_\_\_ 1943, Records of wells and springs, drillers' logs, water analyses, and map showing locations of wells and springs in Dallas County, Texas.
- UP 62. Cumley, J. C., Cromack, G. H., and Follett, C. R., 1942, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Williamson County, Texas.
- UP 63. Dalgarn, J. C., Broadhurst, W. L., and Follett, C. R., 1940, Records of wells and springs, drillers' logs, water analyses, and map showing locations of wells and springs in Armstrong County, Texas.
- UP 64. Dante, J. H., 1946, Records of wells, drillers' logs, water analyses, and map showing locations of wells in Briscoe County, Texas.
- UP 65. \_\_\_\_\_ 1946, Records of wells, drillers' logs, water analyses, and map showing location of wells in Swisher County, Texas.

- UP 66. Dante, J. H., 1947, Records of wells and springs in northern Pecos County, Texas.  
Gives records of wells, logs of wells, and chemical analyses of ground water.
- UP 67. Davis, D. A., 1937, Records of wells, drillers' logs, water analyses, and map showing location of wells in Ector County, Texas.
- UP 68. \_\_\_\_\_ 1938, Records of wells, drillers' logs, water analyses, and map showing location of wells in Brown County, Texas.
- UP 69. \_\_\_\_\_ 1938, Records of wells, drillers' logs, water analyses, and map showing location of wells in Midland County, Texas.
- UP 70. Davis, L. G., 1939, Records of wells, drillers' logs, water analyses, and map showing location of wells in Ochiltree County, Texas.
- UP 71. \_\_\_\_\_ 1942, Records of wells, drillers' logs, water analyses, and map showing locations of wells and test holes in Chambers County, Texas.
- UP 72. \_\_\_\_\_ 1942, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Robertson County, Texas.
- UP 73. Dennis, P. E., and Lang, J. W., 1941, Records of wells and springs and analyses of water in Loving, Ward, Reeves, and northern Pecos Counties, Pecos River Basin, Texas.
- UP 74. \_\_\_\_\_ 1941, Records of auger holes, including logs, records of fluctuations of water levels, water analyses, and map showing locations of wells, Pecos River Basin, Texas.
- UP 75. Dillard, J. W., 1960, Memorandum report of preliminary ground-water investigation of Shelby County, Texas.  
Brief report discussing available geologic and ground-water data in Shelby County.
- UP 76. Draper, D. C., 1960, Investigation of contamination complaint in south-central Knox County, Texas. (Contamination Report No. 7).  
Report on alleged contamination of ground water south of Salt Fork of Brazos in Knox County.
- UP 77. Elledge, G. A., 1937, Records of wells, drillers' logs, water analyses, and maps showing location of wells in Fort Bend County (west of Brazos River), Texas.
- UP 78. Ellis, W. C., 1947, Ground-water resources of Borden County, Texas.  
Gives information about ground-water reservoirs and use. Also tabulates records of wells, logs of wells, and chemical analyses of ground water.
- UP 79. Follett, C. R., 1937, Records of wells, drillers' logs, water analyses, and map showing locations of wells in Dallam County, Texas.

- UP 80. Follett, C. R., 1938, Records of wells, drillers' logs, water analyses, and map showing location of wells in Swisher County, Texas.
- UP 81. \_\_\_\_\_ 1942, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Morris County, Texas.
- UP 82. \_\_\_\_\_ 1942, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Wood County, Texas.
- UP 83. \_\_\_\_\_ 1943, Records of wells, drillers' logs, water analyses, and map showing location of wells in Rusk County (northwestern part), Texas.
- UP 84. \_\_\_\_\_ 1943, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Sabine and San Augustine Counties, Texas.
- UP 85. \_\_\_\_\_ 1943, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Washington County, Texas.
- UP 86. \_\_\_\_\_ 1947, Ground-water resources of Brazoria County, Texas.  
Gives information about ground-water reservoirs, development of water supplies, water levels and artesian pressures, and quality of water. Also tabulates records of wells, logs of wells, and chemical analyses of ground water.
- UP 87. Follett, C. R., and Cumley, J. C., 1943, Records of wells, drillers' logs, water analyses, and map showing location of wells in Jackson County, Texas.
- UP 88. Follett, C. R., and Dante, J. H., 1946, Records of wells, drillers' logs, water analyses, and map showing locations of wells in Floyd County, Texas.
- UP 89. Follett, C. R., and Foster, C. V., 1940, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Roberts County, Texas.
- UP 90. Follett, C. R., and Harrison, J. H., 1938, Records of wells, springs, drillers' logs, representative earthen tanks, and water analyses, and map showing location of wells, springs, and tanks in Hartley County, Texas.
- UP 91. Follett, C. R., Sundstrom, R. W., and White, W. N., 1944, Ground-water resources in the vicinity of Vernon, Texas.  
Gives information about the occurrence and use of ground water and the fluctuation of water levels near Vernon. Includes a description of the ground-water reservoir, the movement of water in it, and an estimate of the amount of water in storage. Indicates area favorable for additional supplies. Also records of wells and springs, logs, and analyses of ground water.

- UP 92. Follett, C. R., and White, W. N., 1942, Records of wells and springs, drillers' logs, water analyses, and map showing locations of wells and springs in Cass County, Texas.
- UP 93. Follett, C. R., White, W. N., and Ireland, Burdige, 1949, Occurrence and development of ground water in the Linn-Faysville area, Hidalgo County, Texas.  
Gives information about irrigation development and extent, the sprinkler method as used, and the duty of water. Also gives information about the rock formations, ground-water recharge, fluctuations of water levels, and quality of water. Also records of wells, acres irrigated, logs of wells, chemical analyses, and measurements of water levels.
- UP 94. Follett, C. R., and Wilson, Bruce, 1939, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Collingsworth County, Texas.
- UP 95. Forbes, H. M., and Lance, J. F., 1941, Records of wells, drillers' logs, water analyses, and map showing location of wells in Winkler County, Texas.
- UP 96. Foster, C. V., 1942, Records of wells, drillers' logs, water analyses, and map showing locations of wells in Childress County, Texas.
- UP 97. Frazier, J. M., Jr., 1939, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Edwards County, Texas.
- UP 98. \_\_\_\_\_ 1939, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Gonzales County, Texas.
- UP 99. \_\_\_\_\_ 1940, Records of wells, drillers' logs, water analyses, and map showing location of wells in Kendall County, Texas.
- UP 100. \_\_\_\_\_ 1940, Val Verde County, Texas.  
Gives records of wells and springs, logs of wells, and chemical analyses of ground water.
- UP 101. \_\_\_\_\_ 1941, Records of wells and springs, drillers' logs, water analyses, and map showing locations of wells and springs in Irion County, Texas.
- UP 102. Frazier, J. M., Jr., Dalgarn, J. C., and Follett, C. R., 1941, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Tom Green County, Texas.
- UP 103. Gard, Chris, 1957, Records of wells producing water from the Travis Peak Formation in the Dallas area, Texas.  
Report contains records of water wells producing from the Travis Peak Formation in the Dallas area. The Dallas area, as used in this report, includes all of Dallas County and adjacent parts of Collin, Denton, and Tarrant Counties.

- UP 104. George, W. O., 1936, Records of wells, drillers' logs, water analyses, and map showing location of wells in Lavaca County, Texas.
- UP 105. \_\_\_\_\_ 1947, Geology and ground-water resources of Comal County, Texas. Gives information about the geology of the county, discharge and source of Comal Springs, chemical quality of the water, and surface-water supplies. Also tabulates records of wells, logs of wells, water levels, and chemical analyses of ground water.
- UP 106. George, W. O., Cumley, J. C., and Follett, C. R., 1941, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Travis County, Texas.
- UP 107. George, W. O., and Dalgarn, J. C., 1942, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Sterling County, Texas.
- UP 108. George, W. O., and Rose, N. A., 1942, Ground-water resources of Fort Worth and vicinity, Texas.  
Gives information about the geology in relation to ground water, ground-water development and pumpage, and changes in water levels. Also records of wells, logs, and chemical analyses of ground water.
- UP 109. Harden, R. W., 1960, Preliminary investigation of the occurrence of ground water in the Trinity Group near Gainesville, Cooke County, Texas. This report summarizes the occurrence and development of ground water in and around the city of Gainesville. It contains data on major wells in the area, brief geologic and hydrologic explanations, a projection of future water needs of the area, and maps showing the position of the water-bearing sands.
- UP 110. Heuser, J. F., 1937, Records of wells, drillers' logs, and water analyses, and map showing location of wells west of the Brazos River, Brazoria County, Texas.
- UP 111. Huggins, L. P., 1936, Records of wells, drillers' logs, water analyses, and maps showing location of wells in Foard County, Texas.
- UP 112. \_\_\_\_\_ 1937, Records of wells, drillers' logs, water analyses, and map showing location of wells in Knox County, Texas.
- UP 113. Hughett, M. G., and Brigance, B. G., 1937, Records of wells, drillers' logs, water analyses, and maps showing location of wells in Lubbock County, Texas.
- UP 114. Johnson, C. E., 1939, Records of wells, drillers' logs, water analyses, and map showing location of wells in San Patricio County, Texas.
- UP 115. \_\_\_\_\_ 1940, Records of wells and springs, drillers' logs, water analyses, cross sections, and map showing location of wells and springs in Aransas County, Texas.
- UP 116. Knowles, D. B., 1946, Ground water in parts of Scurry County, records of wells, drillers' logs, water analyses, and map showing location of wells in Scurry County, Texas.

- UP 117. Knowles, D. B., 1947, Ground water in northwestern Nolan County, Texas, records of wells, drillers' logs, water analyses, and map showing location of wells.
- UP 118. Knowles, D. B., and Lang, J. W., 1947, Preliminary report on the geology and ground-water resources of Reeves County, Texas.  
Describes the geologic formations and their water-bearing properties, development from springs and wells, and the quality of water. Also tabulates records of wells, logs of wells, and chemical analyses of ground water.
- UP 119. Lang, J. W., 1936, Records of wells, drillers' logs, water analyses, and map showing location of wells in Martin County, Texas.
- UP 120. \_\_\_\_\_ 1937, Records of wells, test wells and drillers' logs, water analyses, and map showing location of wells in Andrews County (south half), Texas.
- UP 121. \_\_\_\_\_ 1937, Records of wells, drillers' logs, water analyses, and map showing location of wells in Glasscock County, Texas.
- UP 122. Lang, J. W., Broadhurst, W. L., and Ryman, L. J., 1939, Records of wells, drillers' logs, and water analyses, and map showing location of wells in Castro County, Texas.
- UP 123. Lang, J. W., and Davis, L. G., 1940, Records of wells, test wells, drillers' logs, chemical analyses of water, and map showing locations of wells in Andrews County, Texas.
- UP 124. Lang, J. W., and Follett, C. R., 1938, Records of wells, drillers' logs, water analyses, and map showing location of wells in Deaf Smith County, Texas.
- UP 125. Lang, J. W., and Sundstrom, R. W., 1946, Ground-water resources of the Houston district, Texas, progress report for 1946, with section on results of pumping tests at new Southwest pumping plant.  
Brings up to 1946 the information about the development of ground water, the pumpage and change in water levels in the Houston, Pasadena, and Katy areas, the fluctuations of water levels in the outcrop area of the water-bearing sands, the water levels in the Bammel gas field area, and the chemical quality of the ground water. Also gives the results of pumping tests at Southwest pumping plant and computed water levels for assumed conditions.
- UP 126. Lang, J. W., and Twichell, Trigg, 1945, Water resources of the Lubbock district, Texas.  
Describes the occurrence of ground water, test drilling and results, and computed drawdowns for an assumed well field. Also well records, logs, and analyses of ground water.
- UP 127. Littleton, R. T., 1956, Contamination of surface and ground water in southeast Young County, Texas.  
Report on alleged ground-water contamination in alluvium of the Clear Fork of the Brazos River near its confluence with the Brazos River in southeast Young County.

- UP 128. Livingston, Penn, 1939, Records of wells, drillers' logs, water analyses, and map showing location of wells in Montgomery County, Texas.  
[This report is contained also in a compilation volume, UP 216, listed on page 42.]
- UP 129. \_\_\_\_\_ 1945, Ground-water resources at Sherman, Texas.  
Gives information about the municipal wells, pumping tests, and computed drawdowns and pumping levels with assumed additional wells.
- UP 130. \_\_\_\_\_ 1947, Ground-water resources of Bexar County, Texas.  
Reviews geology of and recharge to the Edwards Limestone reservoir. Gives discharge from the Edwards Limestone reservoir at different places in Bexar County to 1946 and estimated average discharge from the reservoir in 1934 and 1946. Also tabulates records of wells, water levels in wells, and chemical analyses of ground water.
- UP 131. \_\_\_\_\_ 1947, Relationship of ground water to the discharge of the Leona River in Uvalde and Zavala Counties, Texas.  
Gives information about wells and springs in the valley, discharge of the Leona River, chemical character of the water, and the relation of ground water to the flow of the Leona River. Also tabulates records of wells, water levels, and the altitude of points along the Leona River.
- UP 132. Livingston, Penn, and Cromack, G. H., 1942, Water-well data, Jefferson County, Texas.  
Gives records of wells, logs of wells, and chemical analyses of ground water.
- UP 133. \_\_\_\_\_ 1942, Water-well data in Orange County, Texas.  
Gives records of wells, logs of wells, and chemical analyses of ground water.
- UP 134. Livingston, Penn, and Turner, S. F., 1939, Records of wells, drillers' logs, water analyses, and map showing location of wells in Fort Bend County (east of Brazos River), Texas.  
[This report is contained also in a compilation volume, UP 216, listed on page 42.]
- UP 135. \_\_\_\_\_ 1939, Records of wells, drillers' logs, water analyses, and map showing location of wells in Galveston County, Texas.  
[This report is contained also in a compilation volume, UP 216, listed on page 42.]
- UP 136. \_\_\_\_\_ 1939, Records of wells, drillers' logs, water analyses, and map showing location of wells in Harris County, Texas.  
[This report is contained also in a compilation volume, UP 216, listed on page 42.]
- UP 137. Lonsdale, J. T., Johnson, C. E., and Cumley, J. C., 1941, Records of wells, drillers' logs, water analyses, and map showing locations of wells in Calhoun County, Texas.

- UP 138. Lonsdale, J. T., and Nye, S. S., 1938, Records of wells, drillers' logs, water analyses, and map showing location of wells in Hidalgo County, Texas.
- UP 139. \_\_\_\_\_ 1941, Records of wells, drillers' logs, water analyses, and map showing location of wells in Hidalgo County, Texas.
- UP 140. Lyle, W. M., 1936, Records of wells, drillers' logs, water analyses, and map showing location of wells in Henderson County, Texas.
- UP 141. \_\_\_\_\_ 1937, Records of wells, drillers' logs, water analyses, and map showing location of wells in Rusk County, Texas.
- UP 142. \_\_\_\_\_ 1937, Records of wells, drillers' logs, water analyses, and map showing location of wells in Smith County, Texas.
- UP 143. \_\_\_\_\_ 1938, Records of wells, drillers' logs, water analyses, and map showing location of wells in Panola County, Texas.
- UP 144. \_\_\_\_\_ 1938, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Shelby County, Texas.
- UP 145. \_\_\_\_\_ 1940, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Mason County, Texas.
- UP 146. Lynch, W. A., 1934, Records of wells, drillers' logs, and water analyses in Nueces County, Texas.
- UP 147. \_\_\_\_\_ 1940, Records of wells, drillers' logs, water analyses, and map showing location of wells in Live Oak County, Texas.
- UP 148. Lynch, W. A., and Frazier, J. M., Jr., 1940, Records of wells, test wells, drillers' logs, chemical analyses of water, and map showing location of wells in Bee County, Texas.
- UP 149. Mapp, H. M., 1938, Records of wells, drillers' logs, water analyses, and map showing location of wells in De Witt County, Texas.
- UP 150. Marek, E. L., 1936, Records of wells, drillers' logs, water analyses, and map showing location of wells in Wilson County, Texas.
- UP 151. May, R. E., 1938, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Austin County, Texas.
- UP 152. \_\_\_\_\_ 1938, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Colorado County, Texas.
- UP 153. McMillion, L. G., 1956, Artesian water in the Elkhart area, southern Anderson County, Texas.  
The occurrence of artesian water in the Queen City Formation and related ground-water conditions are described in this report.

- UP 154. Merritt, R. B., and Follett, C. R., 1946, Records of wells, drillers' logs, water analyses, and map showing location of wells in Hale County, Texas.
- UP 155. Michal, E. J., 1937, Records of wells, drillers' logs, water analyses, and map showing location of wells in Comal County, Texas.
- UP 156. Mueller, C. B., 1939, Records of wells and springs, drillers' logs, water analyses, and map showing locations of wells and springs in Crosby County, Texas.
- UP 157. \_\_\_\_\_ 1940, Records of wells and springs, drillers' logs, water analyses, and map showing locations of wells and springs in Callahan County, Texas.
- UP 158. Mueller, C. B., Lang, J. W., and Broadhurst, W. L., 1940, Records of wells, drillers' logs, water analyses, and map showing location of wells in Hockley County, Texas.
- UP 159. Muenster, R. A., 1936, Records of wells, drillers' logs, water analyses, and maps showing location of wells in Refugio County, Texas.
- UP 160. Muenster, R. A., and Michal, E. J., 1938, Records of wells, drillers' logs, water analyses, and map showing location of wells in Refugio County and part of Goliad County, Texas.
- UP 161. Peckham, R. C., 1960, Investigation of contamination complaint, Clemens Prison Farm, Brazoria County, Texas. (Contamination Report No. 9).  
Report presents data that indicates deterioration in quality of water in southwestern Brazoria County, which appears to have resulted from completing the subject well through the fresh and salt water interface.
- UP 162. Rayner, F. A., 1960, Memorandum report of mathematical method of comparing chemical analyses.  
Mathematical method of comparing chemical analyses using chloride concentration as the control element.
- UP 163. Rayner, F. A., and McMillion, L. G., 1960, Underground water conservation districts in Texas.  
Contains general information on creation, authority, management, and operation of underground water conservation districts in Texas.
- UP 164. Rasmussen, W. C., 1947, Geology and ground-water resources of Caldwell County, Texas.  
Gives information about the geology and development of water supplies. Also tabulates records of wells, logs of wells, and chemical analyses of ground water.

- UP 165. Root, E. L., and Harrison, J. W., 1937, Water table survey in the Lower Rio Grande Valley; Part 1 - Willacy County, Texas; Part 2 - Cameron County Water Improvement District No. 2; Part 6 - Cameron County Water Control and Improvement District No. 5; and Section 1 of Part 9 - Cameron County Water Improvement District No. 6.  
Gives depths to water, logs of test holes, and altitude of water levels in some test holes.
- UP 166. Rorabaugh, M. I., 1949, Memorandum on multiple-step drawdown test, Southwest well field, Houston, Texas.  
Gives the partially successful results of multiple-step drawdown tests on two wells.
- UP 167. Rose, N. A., 1943, Records of wells, drillers' logs, water analyses, and map showing location of wells in Montgomery County, Texas.
- UP 168. Rose, N. A., and Alexander, W. H., Jr., 1944, Progress report on the ground-water resources of the Houston district, Texas.  
Brings up to 1944 information about development, pumpage, and changes in water levels in the Houston, Pasadena, and Katy areas, the fluctuations of water levels in the outcrop area of the water-bearing sands, and the chemical character of the ground water. Also gives information about the temperature of ground water and the rise of water levels in the Bannel gas field.
- UP 169. Rose, N. A., and Stuart, W. T., 1943, Pump settings and pumping levels in the Houston district, Texas.  
Also gives the decline of water levels in wells screened opposite the heavily pumped sands in the Houston, Pasadena, and adjacent localities.
- UP 170. Rose, N. A., White, W. N., and Livingston, Penn, 1943, Exploratory water-well drilling in the Houston district, Texas.  
Describes equipment and methods used in drilling exploration holes, coring, drill-stem tests, electrical logging, and drilling mud. Also describes laboratory studies including mechanical analyses, permeability tests, porosity determinations, and microscopic examinations of cuttings. Gives comparison and correlations of electrical logs with drillers' logs, core samples, and salinity of the water.
- UP 171. Russell, F. E., and Huggins, L. P., 1936, Records of wells, drillers' logs, water analyses, and map showing location of wells in Hardeman County, Texas.
- UP 172. Samuell, J. H., 1937, Records of wells, drillers' logs, water-level measurements, analyses of water from wells, streams, and lakes, and map showing locations in Eastland County, Texas.
- UP 173. \_\_\_\_\_ 1937, Records of wells, drillers' logs, water-level measurements, water analyses, and map showing location of wells in Howard County, Texas.

- UP 174. Samuell, J. H., 1937, Records of wells and drillers' logs, water analyses from wells, streams, and tanks, and map showing location of wells, streams, and tanks in Stephens County, Texas.
- UP 175. Samuell, J. H., and Davis, D. A., 1938, Records of wells and springs, drillers' logs, test well logs, records of streams and lakes, analyses of water from wells, springs, streams, and lakes, and map showing locations in Coleman County, Texas.
- UP 176. Scalapino, R. A., 1949, Ground-water resources of the El Paso area, Texas, Progress Report No. 6.  
Gives information about the amount of water pumped, fluctuations of water levels and water removed from storage in 1936-48. Also information about salt-water encroachment, the feasibility of artificial recharge, and quality of water. Also gives analyses of ground water.
- UP 177. Shafer, G. H., 1937, Records of wells, drillers' logs, water analyses, and map showing location of wells in Karnes County, Texas.
- UP 178. \_\_\_\_\_ 1937, Records of wells, drillers' logs, water analyses, and map showing location of wells in Leon County, Texas.
- UP 179. \_\_\_\_\_ 1939, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in San Saba County, Texas.
- UP 180. Shafer, G. H., and Follett, C. R., 1938, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Oldham County, Texas.
- UP 181. Shafer, G. H., and Lyle, W. M., 1937, Records of wells, drillers' logs, water analyses, and map showing location of wells in Gregg County, Texas.
- UP 182. Shamburger, V. M., Jr., 1958, Reconnaissance report on alleged contamination of California Creek near Avoca, Jones County, Texas. (Contamination Report No. 5).  
Report concludes that the brine flowing from springs on California Creek is probably the result of leakage from oil wells and improperly plugged holes which allow highly mineralized water under artesian head to move upward and contaminate shallow strata.
- UP 183. \_\_\_\_\_ 1958, Reconnaissance of water well contamination in the city of Victoria and at Placedo Junction, Victoria County, Texas. (Contamination Report No. 2).  
Includes chemical analyses of well water which indicate the contaminated area and points out apparant source of contaminants.
- UP 184. \_\_\_\_\_ 1958, Reconnaissance report on the Bishkin-Meyers well near Pierce, Wharton County, Texas. (Contamination Report No. 4).  
Report presents results of investigation of alleged contamination of a newly completed irrigation well.

- UP 185. Shamburger, V. M., Jr., 1958, Memorandum report on water well contamination in the Saspamco area, Wilson County, Texas. (Contamination Report No. 3).  
Report includes chemical analyses of well waters and discussion of probable sources of contaminants in the area.
- UP 186. \_\_\_\_\_ 1959, Reconnaissance of water well pollution and the occurrence of shallow ground water, Runnels County, Texas.  
This report summarizes water well pollution complaints, possible sources of water well contaminants, chemical analyses of water from alleged by contaminated wells, and steps needed to alleviate the problem.
- UP 187. \_\_\_\_\_ 1960, A reconnaissance of alleged salt-contamination of soils near Stamford, Jones County, Texas. (Contamination Report No. 6).  
Report on soil contamination resulting from rising water table.
- UP 188. Shields, Elgean, 1937, Records of wells, drillers' logs, water analyses, and maps showing location of wells in Gillespie County, Texas.
- UP 189. Smith, H. A., 1940, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Taylor County, Texas.
- UP 190. Smyers, L. G., 1938, Records of wells, springs, and representative earthen tanks, drillers' logs, water analyses, and map showing location of wells and tanks in Potter County, Texas.
- UP 191. Stearman, J. W., 1960, A reconnaissance investigation of alleged contamination of irrigation wells near Lockett, Wilbarger County, Texas. (Contamination Report No. 8).  
Report on ground-water contamination in the Seymour Formation in western Wilbarger County near the Foard County line.
- UP 192. Sundstrom, R. W., 1948, Ground-water resources in the southern region of Texas. [In compilation by Texas Board of Water Engineers of papers presented at the South Texas Water Conference at Corpus Christi, Texas, August 1948.]  
Gives a generalized description of the aquifers and their water-bearing properties.
- UP 193. \_\_\_\_\_ 1948, Results of pumping test at Waxahachie, Texas.  
Gives the results of pumping tests in the city wells and the computed lowering of the pumping levels by increasing the pumpage from the city wells and by adding a new well.
- UP 194. Sundstrom, R. W., Cromack, G. H., and West, N. N., 1949, Ground-water resources of Matagorda County, Texas.  
Discusses ground-water reservoirs, development, fluctuations of artesian pressures, and quality of water. Also tabulates records of wells, logs of wells, and chemical analyses of ground water.

- UP 195. Sundstrom, R. W., and Follett, C. R., 1945, Ground-water resources of Atascosa County, Texas, Progress Report.  
Gives development of ground water by aquifers, use, water levels, and potential for additional development. Also tabulates records of wells, logs of wells, and chemical analyses of ground water.
- UP 196. Sundstrom, R. W., Hastings, W. W., and Broadhurst, W. L., 1945, Public water supplies in eastern Texas, v. 1 and 2.  
For the municipalities using ground water gives information about wells, logs, and chemical analyses of water.
- UP 197. Texas Board of Water Engineers, 1957, List of ground-water publications.
- UP 198. \_\_\_\_\_ 1958, Water use reported by municipalities and industries in Texas.  
Report presents a compilation of the quantity of municipal and industrial water used in 1957 and estimates of the water demands for the years 1975 and 2000.
- UP 199. \_\_\_\_\_ 1961, Historical ground-water uses by municipalities for the years 1955 through 1959 for selected areas in Texas.  
This report presents the amounts of ground water used by municipalities in the area studied by the U. S. Study Commission-Texas. The aquifers yielding the water are noted as well as past changes in the sources of supply.
- UP 200. Texas Board of Water Engineers and U. S. Geological Survey, 1957, Estimated use of ground water in watersheds of Texas.  
Report presents tabulation of quantity of ground water used in 1955 in the various watersheds of the State. Included are discussions of the interrelationship of surface water and ground water and general aspects of ground-water occurrence in Texas.
- UP 201. Turner, S. F., 1938, Ground water in the vicinity of Bryan and College Station, Texas.  
Gives information about ground-water conditions and development near Bryan and College Station and recommends area for exploration for future supplies.
- UP 202. \_\_\_\_\_ 1939, Records of wells, drillers' logs, water analyses, and map showing location of wells in Grimes County, Texas.
- UP 203. Turner, S. F., and Cumley, J. C., 1940, Records of wells, drillers' logs, water analyses, and map showing location of wells in Brooks County, Texas.
- UP 204. \_\_\_\_\_ 1940, Records of wells, drillers' logs, water analyses, and map showing location of wells in Kenedy County, Texas.
- UP 205. Turner, S. F., and Livingston, Penn, 1939, Records of wells, drillers' logs, water analyses, and map showing location of wells east of the Brazos River, Brazoria County, Texas.  
[This report is contained also in a compilation volume, UP 216, listed on page 42.]

- UP 206. Turner, S. F., and Livingston, Penn, 1939, Records of wells, drillers' logs, water analyses, and map showing location of wells in Waller County, Texas.  
 [This report is contained also in a compilation volume, UP 216, listed on page 42.]
- UP 207. Turner, S. F., Lynch, W. A., and Cumley, J. C., 1940, Records of wells, drillers' logs, and water analyses, and map showing location of wells in Jim Wells County, Texas.
- UP 208. Turner, S. F., Robinson, T. W., and Cromack, G. H., 1940, Records of wells, drillers' logs, water analyses, and maps showing location of wells in Winter Garden district in Dimmit and Zavala Counties and eastern Maverick County, Texas.
- UP 209. White, J. W., 1961, Investigation of salt water contamination in a Woodbine well near Sherman, Grayson County, Texas. (Contamination Report No. 10).  
 Contains data relating to local contamination of the Woodbine Formation as a result of improper well construction.
- UP 210. White, W. N., 1938, Progress report on the ground-water resources of the Houston district, Texas. [This report is contained also in a compilation volume, UP 216, listed on page 42.]  
 Brings up to 1938 information about the fluctuations of the water levels and pumpage.
- UP 211. \_\_\_\_\_ 1939, Progress report on the ground-water resources of the Houston district, Texas.  
 Brings through 1938 information about the fluctuations of water levels.
- UP 212. \_\_\_\_\_ 1939, Progress report on the ground-water resources of the Houston district, Texas. [This report is contained also in a compilation volume, UP 216, listed on page 42.]  
 Gives information on fluctuations of water levels in 1937, 1938, and early part of 1939.
- UP 213. White, W. N., Broadhurst, W. L., and Lang, J. W., 1938, Ground water in the High Plains in Texas.  
 Gives information about the pumpage and fluctuation of water levels.
- UP 214. \_\_\_\_\_ 1940, Ground water in the High Plains in Texas.  
 Gives information about the recharge and discharge of ground water and brings up to 1940 the development, pumpage, and fluctuations of water levels. Gives tables of water levels in wells.

- UP 215. White, W. N., Gale, H. S., and Nye, S. S., 1938, Ground-water resources of the Balmorhea area in western Texas.  
Principal purposes of the investigation were to determine if increased withdrawals of water from wells would result in a material reduction in the discharge of the springs and to compile a long-time record of the flow of springs to serve as a basis for protecting the owners' rights. Gives information about the geology and its relation to springs and wells and the occurrence, intake, and discharge of ground water. Also gives chemical analyses of water from wells and springs and discharge measurements of springs and streams.
- UP 216. White, W. N., Livingston, Penn, and Turner, S. F., 1939, Ground-water resources of the Houston-Galveston area and adjacent region, Texas, 1939. [This volume contains the following 11 reports which are also annotated elsewhere herein: Texas Water Commission Unnumbered Publications (UP) 128, 134, 135, 136, 205, 206, 210, 212, and 221; and U. S. Geological Survey Open-File Reports (GsO) 213 and 215.]  
This compilation volume gives records of wells, drillers' logs, water analyses, and maps showing location of wells in the following six counties: Montgomery, Fort Bend (East of Brazos River), Galveston, Harris, Brazoria (East of Brazos River), and Waller. Also contained is information on fluctuations of water levels, pumpage, and chemical character of the public-water supply.
- UP 217. White, W. N., and Meinzer, O. E., 1931, Ground water in the Winter Garden and adjacent district in southwestern Texas.  
Gives information about the geology, recharge to the Carrizo Sand, fluctuations of water levels, and salt-water contamination.
- UP 218. White, W. N., Rose, N. A., and Guyton, W. F., 1940, Progress report on the ground-water resources of the Houston district.  
Gives a description of the geology, and brings up to the latter part of 1940 information about the pumpage and fluctuations of water levels in the Houston, Pasadena, and Katy areas. Also gives information about the fluctuations of water levels along the Hempstead and Conroe highways, the chemical quality of the ground water, the results of exploratory well drilling, and the results of pumping tests.
- UP 219. \_\_\_\_\_ 1942, Ground-water resources of the Houston district, Texas, progress report with records of wells, pumpage, water-level fluctuations in wells, and well analyses, Harris County and adjoining parts of Fort Bend and Waller Counties, Texas.
- UP 220. \_\_\_\_\_ 1942, Progress report on the ground-water resources of the Houston district, Texas.  
Gives up to 1942 the pumpage and fluctuations of water levels in wells in the Houston, Pasadena, and adjacent areas and the Katy area.

UP 221. White, W. N., Turner, S. F., and Livingston, Penn, 1937, Progress report on the ground-water resources of the Houston district, Texas. [This report is contained also in a compilation volume, UP 216, listed on page 42.]

Brings up to 1937 the fluctuations of water levels in relation to pumpage for different parts of the Houston district. Estimates the probable effect of additional pumping near Pasadena and evaluates areas for the development of additional supplies. Also, gives water-level fluctuations in wells and chemical analyses of ground water.

Open-File Reports

(Index code--Wc0 1, etc.)

- Wc0 1. Gard, Chris, 1955, Water resources of northern Childress County, Progress Report No. 4.  
This preliminary report presents the results of a four-day investigation and includes discussions of geology, development of ground water, and surface-water conditions.
- Wc0 2. \_\_\_\_\_ 1955, Water resources of Collingsworth County, Progress Report No. 3.  
Preliminary report includes discussions of geology, development of ground water, chemical character of ground water, surface-water conditions, and recommendations. Contains tabulation of data on 67 drilled holes and chemical analyses for 15 wells.
- Wc0 3. \_\_\_\_\_ 1955, Water resources of southern Hemphill County, Progress Report No. 2.  
This preliminary report includes data collected during a two-day investigation and discussions of geology, ground-water development, surface-water conditions, and recommendations for future investigations in Hemphill County south of the Canadian River.
- Wc0 4. \_\_\_\_\_ 1955, Ground-water conditions in Knox and Haskell Counties.  
Preliminary report based on interviews with local residents. Contains discussions of geology, ground-water occurrence and development, salt-water pollution, and recommendations for further investigations.
- Wc0 5. \_\_\_\_\_ 1955, Water resources of Wheeler County, Progress Report No. 1.  
This report presents the results of a two-week preliminary investigation and includes discussions on geology and the occurrence of ground water, development of wells, surface water, and recommendations for further investigations.
- Wc0 6. \_\_\_\_\_ 1956, Proposed city of Lubbock well fields in Bailey and Lamb Counties.  
This report includes discussions of geology, ground-water conditions, utilization of ground water, and relationship of ground-water withdrawals from proposed city well fields and irrigated areas in the northern half of Bailey County and the northwestern corner of Lamb County.
- Wc0 7. \_\_\_\_\_ 1956, Ground water in Permian rocks in Pecos, Reeves, and Ward Counties.  
A preliminary report containing brief, generalized discussions of geology, hydrology, utilization, and chemical character of ground water.
- Wc0 8. \_\_\_\_\_ 1956, Predicted pumping levels in Travis Peak wells in the Dallas area, Texas.  
This report includes inventories of wells and pumpage and measurements of pumping levels in Travis Peak wells in all of Dallas County and the adjacent parts of Collins, Denton, and Tarrant Counties.

- WcO 9. Gard, Chris, 1956, Report on proposed bond issue, Yoakum County Water Control and Improvement District Number 1.  
This report includes discussions of geology, utilization of ground water, chemical character of ground water, quantitative analysis of ground-water supply, and well construction in the southwestern part of Yoakum County.
- WcO 10. \_\_\_\_\_ 1956, Report on proposed bond issue, Yoakum County Water Control and Improvement District Number 2.  
This report contains discussions of geology, ground-water conditions, chemical character of ground water, utilization of ground water, and quantitative analysis of ground-water supply in northwestern Yoakum County.
- WcO 11. \_\_\_\_\_ 1957, Marathon pumping tests, Brewster County, Texas.  
This report presents the results of pumping tests of three wells in the Marathon area.
- WcO 12. \_\_\_\_\_ 1957, Ground-water conditions in Carson County, Texas.  
This preliminary report includes discussions of geology, source and movement of ground water, amount of water in storage, quality of ground water, utilization of ground water, and conservation of ground water.
- WcO 13. Holloway, H. D., 1963, Rustler Formation, South Ward field, Ward County, Texas.  
Interoffice memorandum report on reconnaissance study to determine feasibility of using Rustler Formation for disposal of brine and effects this practice would have on usable quality ground water in the area. Includes discussions of geology, occurrence of ground water, practices of the oil industry, contamination problems, and conclusions and recommendations.
- WcO 14. McMillion, L. G., 1958, Report on bond issue, Reagan County Water Control and Improvement District, with special reference to ground water.  
This report contains discussions of chemical character of ground water, geology of water-bearing rocks, utilization of ground water, and quantitative analysis of ground-water supply in northern Reagan County.
- WcO 15. Shamburger, V. M., Jr., 1958, Alleged well contamination in relation to brine disposal in Clemville, Matagorda County.  
This report includes discussions of geology and occurrence of ground water, brine movement in relation to ground water, quality of water in wells, and brine disposal methods in the area.
- WcO 16. \_\_\_\_\_ 1959, Reconnaissance of alleged water well contamination in the Garwood-Nada area, Colorado County.  
Report includes discussions of general geology and occurrence of ground water, quality of well water, brine disposal and brine quality, and conclusions and recommendations.

WcO 17. Stevens, J. C., 1957, Ground-water geology of Hovey area, Brewster and Pecos Counties, Texas.

This report contains descriptive discussions of stratigraphy and structure in the Hovey area. Also included are discussions on the occurrence, recharge, and quality of ground water and grouping and correlation of ground waters on the basis of their chemical analysis.

U. S. GEOLOGICAL SURVEY PUBLICATIONS

Annual Reports of the Director  
of the U. S. Geological Survey

(Index code--A 18, etc.)

- A 18. Eighteenth Report (1896-97), Part II-B, Geology of the Edwards plateau and Rio Grande Plain adjacent to Austin and San Antonio, Texas, with reference to the occurrence of underground waters, by R. T. Hill and T. W. Vaughan.  
Describes the geology and water-bearing properties of the geologic units, the occurrence of ground water in the Edwards Plateau, and the occurrence, quality, development, and discharge of ground water in the adjacent Coastal Plain area.
- A 21a. Twenty-first Report (1899-1900), Part IV-C, The High Plains and their utilization, by W. D. Johnson.  
Gives some general information about the occurrence of ground water in the High Plains applicable to the part in Texas.
- A 21b. Twenty-first Report (1899-1900), Part VII, Geography and geology of the Black and Grand Prairies, Texas, with detailed descriptions of the Cretaceous formations and special reference to artesian waters, by R. T. Hill.  
Describes the occurrence and use of ground water by artesian reservoirs and by counties.
- A 22. Twenty-second Report (1900-1901), Part IV-C, The High Plains and their utilization, by W. D. Johnson.  
Gives information about the occurrence and utilization of ground water.

Bulletins

(Index code--GsB 837)

- GsB 837. Tertiary and Quaternary Geology of the lower Rio Grande region, Texas: 1932, by A. C. Trowbridge.  
Gives a good description of the geology and a brief statement about ground water and ground-water conditions.

## Water-Supply Papers

(Index code--W 13, etc.)

- W 13. Irrigation systems in Texas: 1898, by W. F. Hutson.  
Describes irrigation systems in Texas, some of which use ground water.
- W 71. Irrigation systems of Texas: 1902, by T. U. Taylor.  
Consists largely of information about irrigation with surface water. Describes irrigation systems using ground water near San Antonio, Carrizo Springs, and in the rice belt.
- W 105. The water powers of Texas: 1904, by T. U. Taylor.  
Gives brief descriptions of Hackberry and Santa Rosa Springs.
- W 141. Observations on the ground waters of the Rio Grande Valley: 1905, by C. S. Slichter.  
Describes ground-water conditions at the narrows of the Rio Grande and at the "Llanoria Mesa" near El Paso; gives a summary of tests of pumping plants in Trans-Pecos, Texas. Also gives analyses of water from wells and data concerning wells near El Paso.
- W 149. Preliminary list of deep borings in the United States: 1905, by N. H. Darton.  
Gives information about wells 400 feet or more in depth and a list of the principal publications relating to the underground waters of Texas.
- W 154. The geology and water resources of the eastern portion of the Panhandle of Texas: 1906, by C. N. Gould.  
Describes the geology and occurrence of ground water and surface water. Also gives a summary of water conditions by counties.
- W 190. Underground waters of the Coastal Plain of Texas: 1907, by T. U. Taylor.  
Gives information about wells and the ground-water resources by counties.
- W 191. The geology and water resources of the western portion of the Panhandle of Texas: 1907, by C. N. Gould.  
Gives information about the geology and occurrence of ground water and surface water. Also gives a summary of water conditions by counties.
- W 276. Geology and underground waters of northeastern Texas: 1911, by C. H. Gordon.  
Gives information about the geology and occurrence of ground water; gives a review of the geology and ground-water resources by counties. Contains a table of well data.
- W 317. Geology and underground waters of the Wichita region, north-central Texas: 1913, by C. H. Gordon.  
Gives information about the geologic formations and their water-bearing capacity and a description of the geology and ground-water conditions by counties.

- W 335. Geology and underground waters of the southeastern part of the Texas Coastal Plain: 1914, by Alexander Deussen.  
Describes the geology of the area and gives information about the geology and ground-water occurrence by counties.
- W 375-G. Ground water in LaSalle and McMullen Counties, Texas: 1916, by Alexander Deussen and R. B. Dole.  
Describes the geology and water-bearing formations, the chemical character of water, and irrigation with ground water. Also gives records of wells and chemical analyses.
- W 520-F. Temperature of water available for industrial use in the United States: 1925, by W. D. Collins.  
Gives for the United States a map showing the approximate temperature of water from nonthermal wells at depths of 30 to 60 feet.
- W 557. Large springs in the United States: 1927, by O. E. Meinzer.  
Contains information about springs in Cretaceous limestone in Texas.
- W 658. The industrial utility of public water supplies in the United States, 1932: 1934, by W. D. Collins, W. L. Lamar, and E. W. Lohr.  
Gives descriptions of 20 public water supplies in Texas and chemical analyses of the water produced.
- W 659-C. Index of analyses of natural waters in the United States, 1926 to 1931: 1932, by W. D. Collins and C. S. Howard.  
Gives reference to "Chemical analyses of Texas well waters," by Chester Cohen, 1931, Texas Dept. of Health, containing 1,168 analyses.
- W 660. Artesian water in Somervell County, Texas: 1934, by A. G. Fiedler.  
Describes the general geology, development and head of artesian water, area of artesian flow, quantity of water discharge, recharge, quality of water, construction and repair of wells, and gives recommendations for the conservation of artesian water. Also gives records of wells.
- W 676. Geology and ground-water resources of Atascosa and Frio Counties, Texas: 1935, by J. T. Lonsdale.  
Gives information about the geologic formations and their water-bearing properties, irrigation from wells, municipal supplies, availability of water for domestic and livestock use, well drilling and pumping methods, quality of water, and conservation of water. Also gives records of wells.
- W 678. Geology and ground-water resources of Uvalde and Medina Counties, Texas: 1936, by A. N. Sayre.  
Gives information about the rock formations and their water-bearing properties, ground-water intake, movement, discharge and utilization, and well-drilling methods. Also gives records of wells, water levels, and logs.

- W 679-B. Thermal springs in the United States: 1937, by N. D. Stearns, H. T. Stearns, and G. A. Waring.  
Gives information, including geology, temperature, and approximate discharge, for three thermal springs in Texas.
- W 773-B. Water resources of the Edwards Limestone in the San Antonio area, Texas: 1936, by Penn Livingston, A. N. Sayre, and W. N. White.  
Gives information about the Edwards Limestone as a ground-water reservoir, including recharge, discharge, fluctuations in artesian pressure, artesian-pressure gradients, movement of water, safe yield, and quality of water.
- W 773-D. Ground-water resources of Kleberg County, Texas: 1936, by Penn Livingston and T. W. Bridges.  
Describes the geologic formations and their water-bearing properties, utilization, movement and chemical character of ground water, fluctuations of water levels, defective wells, waste of water, and well-drilling methods. Also gives records of wells.
- W 776. Geology and ground-water resources of Duval County, Texas: 1937, by A. N. Sayre.  
Describes the geologic formations and their water-bearing properties, the development of ground-water supplies, and the possibilities for irrigation. Also gives records of wells and logs.
- W 778. Geology and ground-water resources of Webb County, Texas: 1937, by J. T. Lonsdale and J. R. Day.  
Describes the geologic formations and their water-bearing properties, and mineral resources. Also gives records of wells and chemical analyses of ground water.
- W 796-A. Methods of locating salt-water leaks in water wells: 1937, by Penn Livingston and W. A. Lynch.  
Describes the pumping, velocity, samples, and electrical conductivity methods for locating salt-water leaks in wells. Also gives suggestions for well construction to avoid leaks.
- W 849-A. Geology and ground-water resources of the Lufkin area, Texas: 1941, by W. N. White, A. N. Sayre, and J. F. Heuser.  
Gives information about the rock formations and their water-bearing properties. Also gives records of wells, logs, and chemical analyses of ground water.
- W 849-C. Geology and ground-water resources of the Balmorhea area, western Texas: 1941, by W. N. White, H. S. Gale, and S. S. Nye.  
Describes the general geology and the geologic structure and its relation to the occurrence of ground water, springs, intake of ground water, and records of discharge. Also gives records of wells and water levels.

- W 889-C. Ground-water resources of the Houston district, Texas: 1944, by W. N. White, N. A. Rose, and W. F. Guyton.  
Gives information about the general geology, pumpage, decline of water levels, chemical character of the ground water, results of exploratory well drilling, and the transmissibility and storage capacity of the water-bearing beds. Also gives records of wells, logs, and chemical analyses of ground water.
- W 889-D. Exploratory water-well drilling in the Houston district, Texas: 1944, by N. A. Rose, W. N. White, and Penn Livingston.  
Describes the equipment and methods used in drilling wells and making tests; gives the results of laboratory determinations and gives comparisons and correlations.
- W 889-F. Ground water in the High Plains of Texas: 1946, by W. N. White, W. L. Broadhurst, and J. W. Lang.  
Gives information about the source, recharge, and natural discharge of ground water, the development and use of ground water for irrigation, the fluctuations of water levels, and the effects of pumping on ground-water supply. Also gives records of water-level measurements.
- W 913. Geology and ground-water resources of the Big Spring area, Texas: 1944, by Penn Livingston and R. R. Bennett.  
Describes the general geology and occurrence of ground water, the source and movement of ground water, pumpage and its effect on the water table, well-drilling methods, and the chemical character of the water. Also gives records of wells, logs, and chemical analyses of ground water.
- W 919. Ground-water resources of the El Paso area, Texas: 1945, by A. N. Sayre and Penn Livingston.  
Describes the general geology, occurrence and quality of ground water, quantity pumped from wells, changes in water levels, and recharge to the water-bearing formations; gives estimates of the potable ground water in storage and information about the mineral contamination of water in wells, and well construction. Gives records of wells, logs, water levels, and chemical analyses of ground water, together with the results of well exploration and contamination tests in 1939.
- W 1047. Public water supplies in eastern Texas: 1948, by R. W. Sundstrom, W. W. Hastings, and W. L. Broadhurst.  
Gives a summarized description of the public water supplies in eastern Texas. For the public supplies using ground water, gives the probable water-bearing formation. The description of each supply using ground water is given as follows: population, name and ownership of supply, source of supply (number of wells), pumpage, storage, number of customers served, treatment, analyses of water, and for some supplies, drillers' logs of wells.

- W 1069. Public water supplies in central and north-central Texas: 1949, by R. W. Sundstrom, W. L. Broadhurst, and B. C. Dwyer.  
Gives a summarized description of the public supplies in central and north-central Texas. For the public supplies using ground water, gives the probable water-bearing formation. The description of each supply using ground water is given as follows: population, name and ownership of supply, source of supply (number of wells), pumpage, storage, number of customers served, treatment, analyses of water, and for some supplies, drillers' logs of wells.
- W 1070. Public water supplies in southern Texas: 1950, by W. L. Broadhurst, R. W. Sundstrom, and J. H. Rowley.  
Gives a summarized description of the public supplies in southern Texas. For the public supplies using ground water, gives the probable water-bearing formation. The description of each supply using ground water is given as follows: population, name and ownership of supply, source of supply (number of wells), pumpage, storage, number of customers served, treatment, analyses of water, and for some supplies, drillers' logs of wells.
- W 1079-A. Ground-water resources of Liberty County, Texas: 1950, by W. H. Alexander, Jr., with a section on stream runoff by S. D. Breeding.  
Describes the geologic formations and their water-bearing properties, the development of water supplies from wells, estimated withdrawal, and temperature of ground water. Also gives records of wells, logs, and chemical analyses of ground water.
- W 1079-B. Ground-water resources of Gregg County, Texas: 1950, by W. L. Broadhurst, with a section on stream runoff by S. D. Breeding.  
Gives information about the geologic formations and their water-bearing properties and the development of water supplies from wells. Also gives records of wells, logs, and chemical analyses of ground water.
- W 1079-C. Ground-water resources of Atascosa County, Texas: 1950, by R. W. Sundstrom and C. R. Follett.  
Describes the development and use of ground water from the different water-bearing formations. Also gives records of wells, logs, and chemical analyses of ground water.
- W 1106. Public water supplies in western Texas: 1951, by W. L. Broadhurst, R. W. Sundstrom, and D. E. Weaver.  
Gives a summarized description of the public supplies in western Texas. For the public supplies using ground water, gives the probable water-bearing formation. The description of each supply using ground water is given as follows: population, name and ownership of supply, source of supply (number of wells), pumpage, storage, number of customers served, treatment, analyses of water, and for some supplies, drillers' logs of wells.

- W 1138. Geology and ground-water resources of Comal County, Texas: 1952, by W. O. George, with sections on Surface-water runoff, by S. D. Breeding, and Chemical character of the water, by W. H. Hastings.  
Describes the geologic formations and their water-bearing properties, structural geology, methods of well construction, and the occurrence of ground water with special reference to the discharge and source of Comal Springs. Gives information about surface water and the chemical character of the water. Also gives records of wells and springs, logs, and chemical analyses of ground water.
- W 1300. The industrial utility of public water supplies in the United States, 1952, Part 2, States west of the Mississippi River: 1954, by E. W. Lohr and S. K. Love.  
Gives information about the ownership, source and treatment of water, and the storage for public water supplies in Texas, together with chemical analyses of water produced.
- W 1360-F. Salt water and its relation to fresh ground water in Harris County, Texas: 1957, by A. G. Winslow, W. W. Doyel, and L. A. Wood.  
Gives information about the relation between fresh and salt water in aquifers, the natural flushing of connate water from the aquifer, the probable occurrence of fresh and salt water before ground-water withdrawals, and the present occurrence of salt water. Describes the effect of ground-water withdrawals and the possible sources of salt-water contamination.
- W 1365. Saline-water resources of Texas: 1956, by A. G. Winslow and L. R. Kister.  
Gives information about the general geology and saline-water aquifers. Also gives information on saline surface water, records of saline water wells and springs, chemical analyses, and related physical measurements of saline ground water.
- W 1374. Preliminary survey of the saline-water resources of the United States: 1957, by R. A. Krieger, J. L. Hatchett, and J. L. Poole.  
Gives records of wells and springs producing saline water and chemical analyses of the water.
- W 1416. Geology and ground-water resources of Galveston County, Texas: 1957, by B. M. Petitt, Jr., and A. G. Winslow.  
Describes the geologic formations and their water-bearing properties, history of water supplies, ground-water hydrology, and quality of water. Also gives records of wells, logs, and chemical analyses of ground water.
- W 1422. Geology and ground-water resources of Medina County, Texas: 1959, by C. L. R. Holt, Jr.  
Gives information about the rock formations and their water-bearing properties, structure, and the occurrence, movement, and quality of ground water. Also gives records of wells and springs, logs, water levels, and chemical analyses of ground water.

- W 1426. Ground-water resources of the Hueco bolson, northeast of El Paso, Texas: 1958, by D. B. Knowles and R. A. Kennedy.  
Describes the general geology and the hydrology, including ground-water reservoirs, development and occurrence of ground water, water levels, pumping tests, recharge to the Hueco bolson, and ground water in storage. Also gives records of wells, logs, and chemical analyses of ground water.
- W 1481. Geology and ground-water resources of the Winter Garden district, Texas, 1948: 1960, by S. F. Turner, T. W. Robinson, and W. N. White, revised by D. E. Outlaw, W. O. George, and others.  
Describes the rock formations and their water-bearing properties and the principal aquifers, including withdrawals, fluctuations of water levels, hydraulic properties, interference between wells, depletion, salt-water leaks in wells, and quality of water. Also gives records of wells, logs, water levels, and chemical analyses of ground water.
- W 1539-G. Ground-water geology of Karnes County, Texas: 1962, by R. B. Anders.  
Describes the geologic formations and the occurrence of ground water. Includes aquifer tests, development, and quality of water.
- W 1539-U. Geology and ground-water resources of Hale County, Texas: 1963, by J. G. Cronin and L. C. Wells.  
Describes the geologic formations and their water-bearing properties and the ground water, including hydraulic properties of aquifer, movement, recharge, natural discharge, withdrawals from wells, water in storage, and the quality of the water. Also discusses the outlook for the future.
- W 1582. Geology and ground-water resources of Winkler County, Texas: 1962, by Sergio Garza and J. B. Wesselman.  
Gives information about the geologic formations and their water-bearing properties and ground water, including source and occurrence, movement, recharge, discharge, storage, utilization, pumping tests, and quality. Also gives records of wells, logs, and chemical analyses of ground water.
- W 1588. Ground-water geology of Bexar County, Texas: 1963, by Ted Arnow.  
Gives information about the geology and water-bearing properties of the formations, geologic structure, recharge, discharge, movement, and quality of water in the Edwards Limestone, together with fluctuations of water levels.
- W 1612. Geology and ground-water resources of Hays County, Texas: 1963, by K. J. DeCook.  
Describes the stratigraphy and water-bearing properties of the rock units, structural geology, ground-water resources, including recharge, movement and discharge, and the quality and utilization of ground water.
- W 1619-J. Ground-water geology of Edwards County, Texas: 1963, by A. T. Long, Jr.  
Describes the rock formations and their water-bearing properties, the occurrence, movement, development and quality of ground water, and the relation between ground water and streamflow.

W 1646. Ground-water geology of Grayson County, Texas: 1963, by E. T. Baker, Jr.

Describes the rock units and their water-bearing properties, the recharge, discharge, use and quality of ground water, hydraulic characteristics, and future development of the water-bearing formations.

The following Water-Supply Papers give information on water levels and artesian pressure in observation wells in Texas:

Year	Water-Supply Paper	Year	Water-Supply Paper	Year	Water-Supply Paper
1935	777	1943	989	1951	1,194
1936	817	1944	1,019	1952	1,224
1937	840	1945	1,026	1953	1,268
1938	845	1946	1,074	1954	1,324
1939	886	1947	1,099	1955	1,407
1940	909	1948	1,129	1956-59	1,549
1941	939	1949	1,159		
1942	947	1950	1,168		

Circulars

(Index code--GsC 6, etc.)

- GsC 6. Mineral-water supply of the Mineral Wells area, Texas: 1934, by S. F. Turner.  
Gives information about the availability and quality of ground water in the area. Also gives chemical analyses of ground water.
- GsC 114. The water situation in the United States with special reference to ground water: 1951, by C. L. McGuinness.  
Gives a general discussion of ground water in nature, the effect of land-use practices, ground water as affected by use, ground water and the National economy, the current situation (by regions), and the Federal concern in water resources. Also gives a summary of current (1950) water situation by states.
- GsC 115. Estimated use of water in the United States--1950: 1951, by K. A. MacKichan.  
Gives a breakdown of the types of uses and amounts of surface water and ground water used by states.
- GsC 347. Water rights in areas of ground-water mining: 1955, by H. E. Thomas.  
Gives an evaluation of the systems of water rights, the basis of water rights, by states, and the water rights and problems in some areas of ground-water mining, which includes the High Plains area of Texas.
- GsC 398. Estimated use of water in the United States, 1955: 1957, by K. A. MacKichan.  
Gives the withdrawal of water by states and by different uses.

Folios of the Geologic Atlas  
of the United States

(Index code--F 42, etc.)

- F 42. Nueces Folio, Texas: 1898, by R. T. Hill and T. W. Vaughan.  
Indicates the water-bearing beds from which springs discharge in the area.
- F 64. Uvalde Folio, Texas: 1900, by T. W. Vaughan.  
Gives information about the occurrence and availability of ground water from the different formations.
- F 76. Austin Folio, Texas: 1902, by R. T. Hill and T. W. Vaughan.  
Gives general information about the availability of ground water near Austin.
- F 166. El Paso Folio, Texas: 1909, by G. B. Richardson.  
Gives general information about the occurrence, availability, and quality of ground water.
- F 183. Llano-Burnet Folio, Texas: 1912, by Sidney Paige.  
Gives a general statement about the availability of ground water.
- F 194. Van Horn Folio, Texas: 1914, by G. B. Richardson.  
Gives information about the sources and availability of ground water in the area.

Hydrologic Investigations Atlases

(Index code--H 2, etc.)

- H 2. Areas of principal ground-water investigations in the Arkansas, White, and Red River Basins: 1953, by S. W. Lohman and V. M. Burtis.
- H 3. General availability of ground water and depth to water level in the Arkansas, White, and Red River Basins: 1953, by S. W. Lohman, V. M. Burtis, and others.

## Open-File Reports

(Index code--Gs0 1, etc.)

- Gs0 1. Alexander, W. H., Jr., 1946, Ground water in the vicinity of Lamesa, Dawson County, Texas.  
Gives information about the municipal water supply and the effects of pumping. Also gives records of wells, logs, and chemical analyses of ground water.
- Gs0 2. Audsley, G. L., 1956, Reconnaissance of ground-water development in the Fort Stockton area, Pecos County, Texas.  
Gives information about the pumpage of ground water and the effects on artesian pressures, the water supply of Fort Stockton and the quality of water. Also gives records of wells, logs, and chemical analyses of ground water.
- Gs0 3. \_\_\_\_\_ 1959, Records of wells and results of exploratory drilling in the El Paso Valley and Hueco bolson southeast of El Paso, Texas.  
Gives records of wells, logs, and chemical analyses of ground water.
- Gs0 4. Baker, R. C., 1958, Water supply for Persimmon Gap and Santa Elena Ranger Stations, Big Bend National Park, Brewster County, Texas.  
Indicates possible sources of ground water for the ranger stations.
- Gs0 5. Baker, R. C., Hughes, L. S., and Yost, I. D., 1962, Natural sources of salinity in the Brazos River, Texas, with particular reference to the Croton and Salt Croton Creek basins.  
Information is given about the quality of water and the sources of salinity in the Brazos River. For the Croton Creek-Salt Croton Creek areas, describes the general geology, the salt-producing areas, gives theories of the sources of salt water, and discusses methods for the potential abatement of contamination.
- Gs0 6. Barnes, B. A., 1940, Memorandum on the public water supply of Alice, Jim Wells County, Texas.
- Gs0 7. \_\_\_\_\_ 1940, Memorandum on the public water supply of Falfurrias, Brooks County, Texas.
- Gs0 8. \_\_\_\_\_ 1940, Memorandum on the public water supply of Premont, Jim Wells County, Texas.
- Gs0 9. \_\_\_\_\_ 1941, Ground-water investigations in the vicinity of Galveston, Texas, with special reference to salt-water intrusion.  
Gives information about the principal water-bearing beds, the decline in artesian pressures, the rise in chlorides, and the depth to salty water.
- Gs0 10. \_\_\_\_\_ 1941, Water supply in the vicinity of Texas City, Texas.  
Briefly describes the increase in ground-water pumpage, the decline in artesian pressures, and the rise in chlorides.

- GsO 11. Barnes, B. A., 1942, Results of test drilling by city of Galveston, November 1941 to June 1942.  
Describes the test wells and gives a summary of conditions disclosed by the test-drilling program. Also gives logs of the test wells and chemical analyses of the water from different depths.
- GsO 12. \_\_\_\_\_ 1946, Theoretical effect of increasing present withdrawals of ground water in the Lufkin area, Texas.  
Gives information pertinent to the question of whether the Carrizo Sand and the sand (top Wilcox?) below the separating clay are separate aquifers and if they are separate, whether an additional supply of water could be developed from the lower sand.
- GsO 13. Bennett, R. R., 1941, Ground water in the vicinity of Killeen, Texas.  
Gives information about the general geology of the area with reference to the occurrences and availability of ground water.
- GsO 14. \_\_\_\_\_ 1941, Marfa Water Supply.  
Gives general information about the wells and use of ground water at Marfa.
- GsO 15. \_\_\_\_\_ 1942, Memorandum on ground water in the area about 8 miles north of Belton, Texas.  
Reviews the general occurrence, quantity, and quality of ground water in the area.
- GsO 16. \_\_\_\_\_ 1942, Memorandum regarding occurrence of ground water in the area 6-1/2 miles east of Del Rio, Texas.  
Gives general information about the availability of ground water in the area.
- GsO 17. \_\_\_\_\_ 1942, Ground-water resources in the vicinity of Palestine, Texas.  
Gives a survey of the rock formations and their water-bearing properties in the Palestine area. Also gives records of wells, drillers' logs, and chemical analyses of ground water.
- GsO 18. \_\_\_\_\_ 1942, Memorandum on water supply from San Felipe Springs, near Del Rio, Texas.  
Gives information about the discharge and quality of water from the springs.
- GsO 19. \_\_\_\_\_ 1942, Occurrence of ground water in terrace gravels along San Marcos River.  
Gives general information about the occurrence of ground water in the area between San Marcos and Martindale, and also near Lockhart.
- GsO 20. Bennett, R. R., and Livingston, Penn, 1942, Ground Water at the Bombardier School near Del Rio, Texas.  
Gives information about test wells and analyses of water from the wells.
- GsO 21. Bridges, T. W., 1935, Records of wells, drillers' logs, and water analyses, and map showing location of wells in Matagorda County, Texas.

- Gs0 22. Bridges, T. W., 1935, Records of wells, drillers' logs, and water analyses, and map showing location of wells in Wharton County, Texas.
- Gs0 23. Broadhurst, W. L., 1941, A few notes regarding ground water in Brownsville-San Benito-La Feria district, Texas.  
Gives information about wells and the quality of ground water in the district.
- Gs0 24. \_\_\_\_\_ 1943, Ground water in the Corsicana-Angus area, Navarro County, Texas.  
Gives general information about the occurrence of ground water. Also gives data about wells and chemical analyses of ground water.
- Gs0 25. \_\_\_\_\_ 1943, Results of pumping tests of a well (Ed Heuss No. 1) 3.7 miles northeast of Killeen, Bell County, Texas.
- Gs0 26. \_\_\_\_\_ 1944, Development of ground water for public supply at Commerce, Texas.  
Gives general information about the occurrence and availability of ground water. Also gives records of wells, logs, and chemical analyses of ground water.
- Gs0 27. \_\_\_\_\_ 1944, Results of pumping test of municipal wells at Tyler, Texas.  
Gives computed drawdowns from assumed numbers of wells, well spacing, and rates of pumping. Also gives records of wells, logs, and chemical analyses.
- Gs0 28. \_\_\_\_\_ 1945, Ground-water conditions at De Kalb, Bowie County, Texas.  
Summarizes the occurrence and availability of ground water.
- Gs0 29. \_\_\_\_\_ 1951, Ground water in Texas for irrigation.  
Gives information about irrigation from ground water in 1950 and considers the different meanings of "safe yield" by comparing the effects of using water for irrigation from the Carrizo Sand in the Winter Garden district and from the Ogallala Formation in the Southern High Plains.
- Gs0 30. Broadhurst, W. L., and Ellsworth, C. E., 1950, Supplementary report on surface-water and ground-water surveys, Nueces River Basin, Texas.  
Gives general information about surface water and the occurrence and availability of ground water below the Balcones fault zone.
- Gs0 31. Broadhurst, W. L., and Follett, C. R., 1942, Ground water in the Gladewater-Big Sandy district, Texas.  
Gives general information about the geology and about wells and the sources of water to the wells. Also gives records of wells, logs, and chemical analyses of ground water.
- Gs0 32. \_\_\_\_\_ 1944, Preliminary report of ground-water resources near Stamford in Jones and Haskell Counties, Texas.  
Gives information about the availability of ground water. Also gives records of wells and chemical analyses of ground water.

- GsO 33. Broadhurst, W. L., George, W. O., and Sundstrom, R. W., 1946, Accuracy of pumping-test methods and nonequilibrium formula for computing future drawdowns in wells.  
Gives a brief discussion of wells, aquifers, rates of withdrawal of water, and comparisons of computed and actual drawdowns for five areas.
- GsO 34. Broadhurst, W. L., Sundstrom, R. W., and White, W. N., 1949, Ground water in the vicinity of Amarillo and Lubbock, Texas.  
Gives general information about the availability, development and use of ground water, and changes in water levels for the Texas High Plains and information about the availability, development and use of ground water and changes in water levels in the vicinity of Amarillo and Lubbock.
- GsO 35. Broadhurst, W. L., and Twichell, Trigg, 1942, Water supply in the sandflat area and adjacent territory in Rusk, Nacogdoches, and Shelby Counties, Texas.  
Gives information about the water-bearing units and data about wells and springs. Also gives records of wells, logs, and chemical analyses of ground water.
- GsO 36. Broadhurst, W. L., and White, W. N., 1939, Ground water in vicinity of site of the U. S. Veterans' Hospital, Amarillo, Texas.  
Gives a description of water wells; also gives logs of wells and chemical analyses of ground water.
- GsO 37. \_\_\_\_\_ 1942, Water supply near Woodall in southwestern corner of Harrison County, Texas.  
Gives general information about the availability of ground water. Also gives records of wells, logs, and chemical analyses of ground water.
- GsO 38. Cady, R. C., 1937, Ground water in Wise County.  
Gives information about the geologic formations and the availability of ground water. Also gives data about water wells.
- GsO 39. Clark, C. S., and Sundstrom, R. W., 1940, Report of investigation made for an additional water supply for the city of Rusk, Texas.  
Gives the results of an investigation of surface water and the availability of ground water.
- GsO 40. Cromack, G. H., 1944, Midland city water supply.  
Gives general information about the water supply. Also gives records of wells and logs.
- GsO 41. \_\_\_\_\_ 1944, Ground-water conditions in Premont-La Gloria-Falfurrias district, Texas.  
Gives general information about the source, quality, and use of ground water, and the decline of water levels.
- GsO 42. \_\_\_\_\_ 1945, Water wells in Linn district, Hidalgo County, Texas.  
Gives a brief history of ground-water development. Also gives records of wells and chemical analyses of ground water.

- Gs0 43. Cromack, G. H., and White, W. N., 1942, Ground water in West Point-Flatonina area, Fayette County, Texas.  
Describes the general availability of ground water in the area.  
Gives records of wells, logs, and chemical analyses of ground water.
- Gs0 44. Cronin, J. G., 1959, Notes on the availability of ground water in the South Plains of Texas.  
Gives information about the ground-water supplies in the Ogallala Formation, including an estimate of the amount of water in storage. Also gives information about the limitations of artificial recharge.
- Gs0 45. \_\_\_\_\_ 1960, Approximate saturated thickness of the Ogallala Formation prior to large-scale development of ground water, Southern High Plains of Texas.  
The saturated thickness is shown on a map. Text explains how the map was prepared.
- Gs0 46. Cumley, J. C., 1935, Records of wells, drillers' logs, and water analyses, and map showing location of wells in Jackson County, Texas.
- Gs0 47. \_\_\_\_\_ 1935, Records of wells, drillers' logs, and water analyses, and map showing location of wells in Jim Hogg County, Texas.
- Gs0 48. Dale, O. C., and Broadhurst, W. L., 1953, Memorandum on ground-water irrigation in Mitchell County, Texas.  
Gives general information about irrigation with water from wells. Also gives records of wells, logs, and chemical analyses of ground water.
- Gs0 49. Dante, J. H., 1946, Progress report, ground water in the vicinity of Paducah, Cottle County, Texas.  
Gives information about the occurrence and quality of ground water and recommends areas for test drilling. Also gives records of wells and chemical analyses.
- Gs0 50. Dante, J. H., and Follett, C. R., 1945, Ground water in the vicinity of Paducah, Cottle County, Texas.  
Gives the results of a brief survey of ground-water occurrence and quality.
- Gs0 51. Ellis, W. C., and Scalapino, R. A., 1948, Memorandum to the Texas State Board of Water Engineers regarding the proposed development of water-supply wells for the city of Lubbock, in an area northwest of the city along Yellowhouse Draw.  
Gives information about the availability and quality of ground water northwest of Lubbock.
- Gs0 52. Follett, C. R., 1942, Ground-water resources in the Brenham-Gay Hill area, Washington County, Texas.  
Gives information about water wells and the occurrence of ground water. Also gives records of wells, logs, and chemical analyses of ground water.

- GsO 53. Follett, C. R., and Dante, J. H., 1945, Ground water in the vicinity of Benjamin, Texas.  
Gives information about the availability and quality of ground water near Benjamin.
- GsO 54. Follett, C. R., and George, W. O., 1945, Ground-water resources in the vicinity of Kyle, Hays County, Texas.  
Gives information about the occurrence and quality of ground water in the area. Also gives records of wells, logs, and chemical analyses of ground water.
- GsO 55. George, W. O., 1940, Memorandum on the ground-water conditions in the vicinity of Baird, Texas.  
Gives information about the water supply, the occurrence and quality of ground water in the area, and makes recommendations for additional development. Also gives records of wells, drillers' logs, and chemical analyses of ground water.
- GsO 56. \_\_\_\_\_ 1941, Memorandum on ground-water supplies in the vicinity of the Seagoville Federal Reformatory for Women in Dallas County, Texas.  
Gives information about the possible sources of ground water and makes recommendations in test drilling.
- GsO 57. \_\_\_\_\_ 1942, Memorandum on test-well drilling at Seagoville Reformatory, Dallas County, Texas.  
Gives the results of test drilling in the alluvium, with logs of test wells and chemical analyses of the water.
- GsO 58. \_\_\_\_\_ 1943, Additional ground-water supplies for Big Spring, Texas.  
Gives general information about the occurrence and quality of ground water in four areas. Suggests an area for test drilling.
- GsO 59. \_\_\_\_\_ 1943, Kelly Field, Bexar County, Texas.  
Gives the locations and some information about water wells near Kelly Field.
- GsO 60. \_\_\_\_\_ 1943, Ground-water resources of Leon Springs Military Reservation and vicinity.  
Describes the geologic formations and their water-bearing qualities. Also gives records of wells, logs, and chemical analyses of ground water.
- GsO 61. \_\_\_\_\_ 1944, Memorandum on the water supply for the city of Denton, Texas.  
Reviews information about the wells used for municipal supply and indicates the sources of the salty water.
- GsO 62. \_\_\_\_\_ 1944, Water supply for the city of San Saba, Texas.  
Gives information about the municipal supply and considers the available sources of water.
- GsO 63. \_\_\_\_\_ 1944, Memorandum on water well no. 2, Federal Reformatory for Women at Seagoville.  
Gives a discussion of some questions relative to a second well (then) being constructed.

- Gs0 64. George, W. O., 1945, Exploration for ground water at Childress, Texas. Summarizes information about the occurrence of ground water and recommends areas for exploratory drilling.
- Gs0 65. \_\_\_\_\_ 1947, Ground water in the Linn district, north-central Hidalgo County, Texas. Gives a brief resumé of the available data. Also gives records of wells and chemical analyses.
- Gs0 66. \_\_\_\_\_ 1947, Ground water conditions in the vicinity of Mason, Texas. Gives general information about the availability of ground water near Mason. Also gives records of wells, logs, and chemical analyses of ground water.
- Gs0 67. \_\_\_\_\_ 1952, Recharge of Texas underground water reservoirs. Summarizes the methods of artificial recharge and indicates their applicability to ground-water reservoirs in Texas.
- Gs0 68. George, W. O., and Alexander, W. H., Jr., 1943, Ground water resources at Goodfellow Auxiliary Field No. 4, U. S. Air Corps, San Angelo, Texas. Gives information about the availability and quality of good water, well data, and logs.
- Gs0 69. George, W. O., and Barnes, B. A., 1945, Results of tests on wells at Waco, Texas. Gives the results of an investigation, including pumping tests and computed declines of water levels for assumed pumping rates and well spacing, made to answer questions as to the feasibility of an additional well and the most economical spacing of wells.
- Gs0 70. George, W. O., Barnes, B. A., and Broadhurst, W. L., 1946, Exploration of the Michie sandhills area, Childress County, Texas. Gives the results of test drilling, pumping tests, and chemical analyses of the ground water.
- Gs0 71. George W. O., and Bennett, R. R., 1942, Ground-water resources in the area between Buda and San Marcos. Describes the general occurrence of ground water and gives sites for three project test wells.
- Gs0 72. George, W. O., and Broadhurst, W. L., 1942, Water-well data in the Cotulla-Encinal-Gardendale area, LaSalle County, Texas. Gives a brief description of 16 wells in the area. Also gives logs and chemical analyses of ground water.
- Gs0 73. George, W. O., and Follett, C. R., 1942, Ground-water resources in block C-6, west of Clarendon, Donley County, Texas. Gives the available information about the source of ground water.
- Gs0 74. \_\_\_\_\_ 1942, Ground-water supplies for International Minerals and Chemical Company (Magnesium plant). Gives information about three wells and makes suggestions about additional wells.

- Gs0 75. George, W. O., and Johnson, C. E., 1941, Memorandum on ground-water resources in the vicinity of Crowell, Texas.  
Describes the occurrence, availability, and quality of ground water in an alluvial area north of Margaret. Also gives logs of test wells and chemical analyses of ground water.
- Gs0 76. George, W. O., and Livingston, Penn, 1942, Ground water at Bryan Airport, Brazos County, Texas.  
Gives information about recently drilled wells in the area and makes suggestions for the improvement of the quality of water or for the location of a new well.
- Gs0 77. \_\_\_\_\_ 1943, Ground water in the vicinity of Marfa Army Flying Field.  
Gives well data, logs, and chemical analyses of ground water.
- Gs0 78. George, W. O., and Rose, N. A., 1941, Arlington water supply.  
Gives a brief description of the occurrence and quality of ground water at Arlington.
- Gs0 79. George, W. O., and Turner, S. F., 1938, Memorandum on the ground-water resources of Seadrift, Texas.  
Gives the results of an investigation made to find a new water supply for Seadrift.
- Gs0 80. George, W. O., and Welder, F. A., 1955, Geology of the Canyon Reservoir site on the Guadalupe River, Comal County, Texas.  
Gives a description of the general geology of the reservoir site, including six measured sections and a geologic map.
- Gs0 81. George, W. O., and White, W. N., 1942, Ground water in the vicinity of Burnet and Bertram, Burnet County, Texas.  
Gives information about the geology and water-bearing properties of the formations. Also gives records of wells, drillers' logs, and chemical analyses of ground water.
- Gs0 82. Getzendaner, F. M., 1938, Some ground-water problems of Uvalde, Medina, and Bexar Counties, Texas.  
Gives estimates of recharge to and discharge from the Edwards underground reservoir west of San Antonio and information about the movement of ground water to San Antonio.
- Gs0 83. Guyton, W. F., 1942, Results of pumping test of wells at Camp Swift, Texas.  
Gives an analysis of the results of pumping and the theoretical optimum rate of pumping from each well.
- Gs0 84. \_\_\_\_\_ 1942, Memorandum on the Carrizo water well supplying city of Lufkin.  
Gives answers based on theoretical assumptions to the following questions: What the effect of increased pumping from the Southland Paper Mill wells will be on the city well; whether the supply from the Carrizo Sand is adequate for both city and paper mill; and whether a new well should be drilled into the Carrizo Sand, and if so, what the best location is for such a well.

- GsO 85. Guyton, W. F., and George, W. O., 1943, Results of pumping test of wells at Camp Hood, Texas.  
Describes the general geology, gives an analysis of the results of pumping tests, and computations of the effect of pumping in the water levels in the Camp Hood wells and the Belton wells also gives chemical analyses of the ground water.
- GsO 86. Guyton, W. F., and Rose, N. A., 1943, Progress report on test drilling and pumping in the Sparta Sand in the Lufkin area, Texas.  
Gives the results of test drilling and pumping tests, quality of water, and conclusions.
- GsO 87. Hastings, W. W., and Broadhurst, W. L., 1944, Contamination of surface streams from oil-field waste in the vicinity of Luling, Texas.  
Gives information about the amounts of salt water produced and the methods of disposal.
- GsO 88. Hood, J. W., 1950, Phenomenal increase in irrigation with ground water near Pecos, Texas, described.  
Gives information about the changes in water levels.
- GsO 89. Jacob, C. E., 1940, Summary of results of recovery and interference tests conducted by the Geological Survey in cooperation with the Water Department of the city of Houston, Texas, September and October 1939.
- GsO 90. Lang, J. W., 1941, Results of plugging a leaky artesian well at Pecos Junior High School, Pecos, Texas.
- GsO 91. \_\_\_\_\_ 1942, Available supplies of ground water of low mineral content in vicinity of Fort Stockton, Texas.  
Gives information about the occurrence, availability, and quality of ground water in the area.
- GsO 92. \_\_\_\_\_ 1942, Ground water available for emergency landing fields near flying school at Pecos, Texas.  
Gives the measured decline of water levels in test holes near the leaky well.
- GsO 93. \_\_\_\_\_ 1943, Marfa Army Air Base, supplementary data on well 3.  
Gives the results of pumping of the well.
- GsO 94. \_\_\_\_\_ 1943, Ground-water conditions in the Memphis area, Texas.  
Part 1 gives information about the Memphis water supply and indicates areas for exploratory drilling.  
Part 2 gives the information about test drilling and an appraisal of the area explored by test drilling. Also gives records of wells, logs, and chemical analyses of ground water.
- GsO 95. \_\_\_\_\_ 1943, Ground water resources of the Toyah area, Reeves County, Texas.  
Gives information about the geologic formations and the occurrence and quality of ground water. Also gives records of wells, logs, and chemical analyses of ground water.

- Gs0 96. Lang, J. W., 1944, Ground water at Coleman, Texas.  
Gives information about the availability and quality of ground water and about test wells.
- Gs0 97. \_\_\_\_\_ 1944, A few facts regarding ground-water supply of Fort Worth and vicinity, Texas.  
Gives information about the increase in withdrawals of ground water and the changes in water levels.
- Gs0 98. \_\_\_\_\_ 1944, Water wells in vicinity of Lubbock, Texas.  
Gives records of wells, logs, water levels, and chemical analyses of ground water.
- Gs0 99. \_\_\_\_\_ 1944, Carbon black plant site near Odessa, Texas.  
Gives information about the availability of ground water near the site.
- Gs0 100. \_\_\_\_\_ 1945, Progress report on water supply at Big Spring, Texas.  
Gives information about the city water system and the estimated perennial yield of the well fields and reservoirs.
- Gs0 101. Lang, J. W., and others, 1946, Geology and ground-water supplies of Southwest Waterworks area.  
Gives a brief description of the principal aquifers and the use of ground water.
- Gs0 102. Lang, J. W., 1949, Ground-water conditions in the vicinity of the South Houston oil field and need for protecting fresh-water sands from contamination.  
Gives information about a gas fire, the occurrence of oil and gas, and the occurrence of ground water in the area.
- Gs0 103. \_\_\_\_\_ 1953, Ground water in the Trinity Group in the San Antonio area, Texas.  
Summarizes information about the availability of water from the Trinity Group.
- Gs0 104. Lee, Frank, 1954, Records of test holes along the Rio Grande in Terrell and Val Verde Counties.  
Gives electric logs and descriptive logs of the test holes.
- Gs0 105. Leggat, E. R., 1957, Memo on the water-supply wells at Biggs Air Force Base, El Paso, Texas.  
Gives information about the water supply and the causes for the decline performance of the wells.
- Gs0 106. \_\_\_\_\_ 1957, Memo on ground-water conditions and suggestions for test drilling in the Logan Heights area, El Paso, Texas.
- Gs0 107. \_\_\_\_\_ 1963, Water supply for the Castolon area, Big Bend National Park, Brewster County, Texas.  
Gives information about the possible sources of water in the area.

- GsO 108. Livingston, Penn, 1939, Test on flowing well of San Antonio Public Service Co. near Roosevelt Park in San Antonio, Texas.  
Gives the results of the test, fluctuations of water levels in nearby observation wells, and conclusions about the underground reservoir.
- GsO 109. \_\_\_\_\_ 1940, Ground-water conditions in vicinity of reservoir site on Cibolo Creek at Boerne, Texas.  
Gives the results of an investigation of the water losses from the reservoir.
- GsO 110. \_\_\_\_\_ 1941, Ground water in the vicinity of Sabine Pass, Texas.  
Describes the availability and quality of ground water.
- GsO 111. \_\_\_\_\_ 1942, Water supply of Big Spring, Texas.  
Gives a computation of the amount of ground water in storage and the rate of recharge to the principal source of water supply for Big Spring.
- GsO 112. \_\_\_\_\_ 1942, Relation of shallow ground water to Las Moras Spring at Brackettville, Texas.  
Gives the results of an investigation possible sources of pollution to the spring.
- GsO 113. \_\_\_\_\_ 1942, Ground water in the vicinity of Hondo, Medina County, Texas.  
Gives information about the availability and quality of ground water and describes pumping tests.
- GsO 114. \_\_\_\_\_ 1942, A few interesting facts regarding the natural flow from artesian well 4 owned by the San Antonio Public Service Co., San Antonio, Texas.  
Gives information about the natural flow and the changes in water levels in other wells.
- GsO 115. \_\_\_\_\_ 1946, Office memorandum regarding the drilling of wells by Ward County Irrigation District No. 1 near Barstow, Texas.  
Describes the method used and the difficulties met in drilling wells. Also gives logs and chemical analyses of ground water.
- GsO 116. Livingston, Penn, and Bennett, R. R., 1940, Ground water in the vicinity of Sanderson, Texas.  
Gives information about the general geology, the relation of geology to the occurrence of ground water, and a description of tests on the new city well. Also gives records of wells and logs.
- GsO 117. \_\_\_\_\_ 1942, Ground water in the vicinity of McGregor, McLennan County, Texas.  
Gives general information about the occurrence of ground water, well data, logs, and chemical analyses of ground water.

- GsO 118. Livingston, Penn, and Birdsall, J. M., 1944, Progress report on the ground-water supply of the El Paso area, Texas.  
Gives information about the development of water supplies, pump-age, water levels, and quantity and quality of water. Also gives chemical analyses and maps showing the water levels in wells yearly in January from 1936 to 1943 and the changes in water levels in January from 1936 to 1939 and 1936 to 1943.
- GsO 119. Livingston, Penn, and Broadhurst, W. L., 1942, Exploration of salty wells on the King Ranch, Texas.  
Describes briefly tests made on eight wells and gives conclusions.
- GsO 120. Livingston, Penn, and George, W. O., 1942, Ground water in the vicinity of Godley, Texas.  
Gives information about the Rock formations and their water-bearing properties.
- GsO 121. Livingston, Penn, and Hastings, W. W., 1942, Test well at proposed army camp 5 miles southeast of Gatesville, Texas.  
Gives information about a test well, conclusions about the quality of water, and computations of drawdown to be expected for well field.
- GsO 122. Livingston, Penn, and Lang, J. W., 1943, Ground water in the vicinity of the Army Flying School (Bombardier), Midland, Texas.  
Gives information about the availability and use of ground water and recommends areas for additional development.
- GsO 123. Livingston, Penn, Sundstrom, R. W., and George, W. O., 1940, A few facts concerning ground water in Texas.  
For selected areas, gives a general description of the occurrence of ground water in relation to hydrologic principles. Also gives a list of published reports on Texas ground-water resources (to 1940).
- GsO 124. Lonsdale, J. T., 1932, Underground water resources of Atascosa and Frio Counties, Texas. (USGS Press Release)  
Summarizes information about the history of artesian well drilling, artesian conditions, and the water-bearing properties of the rock formations.
- GsO 125. Lonsdale, J. T., and Day, J. R., 1933, Ground water resources of Webb County, Texas.  
Gives information about the water-bearing properties of the rock formations.
- GsO 126. Lynch, W. A., 1935, Results of ground-water investigation in Bee County, Texas.  
Describes the general geology, well development, and ground water in individual areas.
- GsO 127. \_\_\_\_\_ 1935, Records of wells, water analyses, and map showing location of wells in Bee County, Texas.
- GsO 128. \_\_\_\_\_ 1935, Records of wells in Live Oak County.

- Gs0 129. Mason, Curtis C., 1962, Ground water resources of Refugio County, Texas.  
Gives information about the geology, the occurrence, quality, and use of ground water, pumping tests, changes in water levels, problems in well construction, and an estimate of potential for future ground-water development. Also gives records of wells, logs, and chemical analyses of ground water.
- Gs0 130. Meinzer, O. E., and White, W. N., 1931, Survey of the underground waters of Texas. (USGS Press Release)  
Gives summary results of investigations in the southwest Texas (Winter Garden), Glen Rose (Somervell County), and west Texas-Toyah basin areas; also gives more detailed results of the investigations in these areas.
- Gs0 131. Moulder, E. A., 1957, Development of ground water from the Carrizo Sand and Wilcox Group in Dimmit, Zavala, Maverick, Frio, Atascosa, Medina, Bexar, Live Oak, McMullen, LaSalle, and Webb Counties, Texas.  
Gives a brief history of irrigation, an inventory of ground-water withdrawals, and shows the relation of withdrawals to water levels.
- Gs0 132. Nye, S. S., 1927, Geology and water resources in the vicinity of Amarillo, Texas.  
Gives information about the geologic formations, their importance as sources of ground water, and ground-water conditions at different parts of the area. Also gives well data and logs.
- Gs0 133. \_\_\_\_\_ 1930, Pumping test of well at site of proposed Federal Detention Prison about 1 mile south of La Tuna, Texas.  
Describes the procedure used in making the pumping test.
- Gs0 134. Nye, S. S., and Rupp, V. W., 1941, Partial records of wells in southeastern part of Reeves County, Texas.  
Also gives logs and chemical analyses of ground water.
- Gs0 135. Petitt, B. M., Jr., 1956, Memorandum on irrigation by ground water from the Edwards and associated limestones in the San Antonio-Hondo-Uvalde area, Texas.  
Gives information about the development of irrigation using water from wells and gives an estimate of the additional areas that could be irrigated with water from the Edwards and associated limestones.
- Gs0 136. Rose, N. A., 1943, Results of pumping test of wells at Tank Destroyer Center, North Camp Hood, near Gatesville, Texas.  
Gives information about the wells and the results of pumping tests. Also gives the computed lowering of water levels in the well field and in other wells from assumed pumping conditions.
- Gs0 137. \_\_\_\_\_ 1943, Progress report on ground-water resources of the Texas City area, Texas.  
Describes the geologic formations and their water-bearing properties, the pumpage, the decline in artesian pressure, and the chemical character of the ground water. Also gives records of wells, logs, and chemical analyses of ground water.

- GsO 138. Rose, N. A., 1945, Ground water in the Beaumont area, Texas, with special reference to southeastern Hardin and southwestern Jasper County, Texas.  
Gives information about the occurrence and quality of ground water near Beaumont.
- GsO 139. \_\_\_\_\_ 1945, Ground water in the Greenville area, Hunt County, Texas.  
Gives general information about the occurrence and availability of ground water.
- GsO 140. \_\_\_\_\_ 1945, Quantities of ground water used in Texas and the available supply.  
Gives a general description of the important water-bearing formations, their development, and potential for additional development.
- GsO 141. Rose, N. A., and George, W. O., 1942, Ground-water resources in selected areas in Erath, Hood, and Hamilton Counties, Texas.  
Gives general information about the availability and quality of water at five areas.
- GsO 142. Rose, N. A., and Stuart, W. T., 1943, Results of pumping test at the Abercrombie-Harrison Gasoline Plant, Sweeny, Texas.  
Gives the results of a pumping test and computed drawdowns for three, four, and five wells at assumed spacing and varying rates of combined pumpage.
- GsO 143. Rose, N. A., White, W. N., and Livingston, Penn, 1940, Test drilling in the San Jacinto flood plain, Texas.  
Describes the test drilling and gives an estimate of the amount of underflow in the alluvium.
- GsO 144. Sayre, A. N., 1933, Ground-water resources of Duval County, Texas. (USGS Press Release)  
Gives general information about the geologic formations and their water-bearing properties, and describes development of water supplies from wells by areas.
- GsO 145. \_\_\_\_\_ 1938, Memorandum regarding the establishing of gaging stations on streams and springs in the Balcones fault zone region of Texas.  
Reviews information about the movement of water in the Balcones fault zone region and recommends a program of stream gaging for the region.
- GsO 146. \_\_\_\_\_ 1940, Ground-water supplies of the El Paso area, Texas.  
Reviews the availability, development, and use of ground water, and gives computations of the amount of water in storage.
- GsO 147. \_\_\_\_\_ 1942, Memorandum regarding development of a new water supply in the El Paso, Texas area.  
Gives information about the availability of ground water east of the Rock Island Railroad and 5 miles south of the Texas-New Mexico boundary, and gives an estimate of the effect of additional withdrawal on the municipal supply.

- Gs0 148. Sayre, A. N., 1942, Memorandum regarding the sites for additional wells for the municipal supply at Pecos, Texas.  
Gives information about the availability and quality of ground water and recommends areas for test drilling. Also gives chemical analyses of water from selected wells.
- Gs0 149. Sayre, A. N., and Lang, J. W., 1942, Memorandum regarding water supplies at Pecos, Texas for a proposed Basic Training School of the U. S. Army Air Corps.  
Gives information about the occurrence and quality of ground water and recommends an area for additional development. Also gives chemical analyses of water from selected wells.
- Gs0 150. Sayre, A. N., and Livingston, Penn, 1937, The ground-water resources of the El Paso, Texas area.  
Consists of the conclusions and recommendations from a ground-water investigation of the area.
- Gs0 151. \_\_\_\_\_ 1940, Memorandum regarding the El Paso water supply.  
Gives the results of testing some of the municipal wells to determine the sources of mineralized water. Also reviews the results of test drilling.
- Gs0 152. Sundstrom, R. W., 1939, Ground water resources in the vicinity of Normangee, Leon County, Texas.  
Gives information about the source and quality of water used for the Normangee water supply. Also gives information about other possible sources of ground water in the area.
- Gs0 153. \_\_\_\_\_ 1940, Memorandum regarding water supply of Palestine, Texas.  
Gives a brief survey of the probable sources of ground water, the quality of water, and the yields of wells near Palestine, and makes recommendations for exploratory drilling.
- Gs0 154. \_\_\_\_\_ 1941, Beaumont water supply.  
Gives the possible sources of salt-water contamination to the Beaumont water supply on the Neches River.
- Gs0 155. \_\_\_\_\_ 1941, Freeport water supply.  
Summarizes the availability and use of ground water near Freeport.
- Gs0 156. \_\_\_\_\_ 1941, Water supply in the vicinity of Hughes Springs, Cass County, Texas.  
Gives information about the availability and quality of ground water.
- Gs0 157. \_\_\_\_\_ 1941, Ground-water resources in the vicinity of Jasper, Jasper County, Texas.  
Gives information about important wells and the quality of water in the area. Also gives records of wells, logs, chemical analyses of ground water, and discharge of streams near Jasper.
- Gs0 158. \_\_\_\_\_ 1941, Water supply of La Marque, Galveston County, Texas.  
Makes some recommendations for the development of a water supply for La Marque.

- GsO 159. Sundstrom, R. W., 1941, Water supply in the vicinity of New Boston, Hooks, and Leary, Bowie County, Texas.  
Summarizes the occurrence and availability of ground water in the area.
- GsO 160. \_\_\_\_\_ 1942, Supplemental memorandum on additional deep wells to the Carrizo sand in LaSalle County, Texas.  
Gives a brief description of 10 wells, also chemical analyses of ground water.
- GsO 161. \_\_\_\_\_ 1942, Ground water in the vicinities of Sunray and Etter, Moore County, Texas.  
Gives information about the availability of ground water and logs of water wells.
- GsO 162. \_\_\_\_\_ 1942, Ground water resources in the vicinities of Sunray, Etter, and Dumas, Moore County, Texas, supplementary memorandum.  
Gives descriptions of 23 wells and drillers' logs of 10 wells. Also gives a brief description of the ground-water reservoir and recommendations for additional development.
- GsO 163. \_\_\_\_\_ 1943, Ground water in the vicinity of Wichita Falls, Texas.  
Gives information about the occurrence, availability, and quality of ground water.
- GsO 164. \_\_\_\_\_ 1944, Results of the pumping test of wells to the 700 foot sands at the Celanese plant near Bishop, Texas.  
Gives computed drawdowns for an assumed number of wells at assumed distances and rates of pumping.
- GsO 165. \_\_\_\_\_ 1944, Results of pumping test of wells to the 900 foot sands at the Celanese plant near Bishop, Texas.  
Gives computed drawdowns for an assumed number of wells, well spacing, and rate of pumping.
- GsO 166. \_\_\_\_\_ 1945, Memorandum to the Texas State Board of Water Engineers regarding the new municipal water supply at Crowell, Texas.  
Gives the results of an investigation of the city of Crowell water-supply system to determine the cause of water shortage.
- GsO 167. \_\_\_\_\_ 1945, Ground-water resources of the El Paso, Texas, area.  
Gives information about the amount of water pumped in 1944, the change in water levels 1943 and 1944, and the removal of water from storage in the Mesa during 1943 and 1944.
- GsO 168. \_\_\_\_\_ 1947, Notes on the relationship of geology to the quality of ground water in Texas.  
Gives brief statements about the geology and chemistry of ground water and some examples of the relationship of geology to the general character of ground water in Texas.

- GsO 169. Sundstrom, R. W., 1949, Ground water in the vicinity of Amarillo and Lubbock, Texas.  
Gives general information about the availability, development, and use of ground water and changes in water levels for the Texas High Plains, and information about the availability, development, and use of ground water and changes in water levels in the vicinity of Amarillo and Lubbock.
- GsO 170. \_\_\_\_\_ 1952, Ground water for irrigation at the Federal Correctional Institution, La Tuna, Texas.  
Answers questions as to the availability and suitability of ground water for irrigation, the effect of pumping on other wells, and the type and construction of wells.
- GsO 171. \_\_\_\_\_ 1954, The outlook for ground-water resources in Texas.  
Gives information about ground-water use. For the High Plains, describes development and use of ground water, the decline of water levels, and lists the additional facts needed. Also discusses the development in the Houston, San Antonio, and El Paso areas.
- GsO 172. \_\_\_\_\_ 1957, Our underground water.  
Summarizes the use and importance of ground water in Texas.
- GsO 173. Sundstrom, R. W., and Barnes, B. A., 1942, Ground-water resources in the vicinity of Gatesville, Texas.  
Gives information about existing sources of ground water in the area and gives computations of the lowering of the artesian head for assumed conditions of additional pumping.
- GsO 174. Sundstrom, R. W., and George, W. O., 1942, Water resources in the vicinity of Melvin, McCulloch County, and Menard, Menard County, Texas.  
Gives information about the availability of water in the two areas.
- GsO 175. Sundstrom, R. W., and Lohr, E. W., 1939, Memorandum on the ground-water supply of Somerville, Texas.  
Gives information about the occurrence and quality of ground water near Somerville.
- GsO 176. Sundstrom, R. W., and White, W. N., 1942, Ground-water resources in the vicinity of Amarillo, Texas.  
Gives information about the availability, use, and quality of ground water in the vicinity of Amarillo and in Carson County. Also gives tables of pumpage, pumping tests, logs of wells, and analyses of ground water.
- GsO 177. Texas Board of Water Engineers, 1934, Records of wells and water-level fluctuations in observation wells in Dimmit, Zavala, and eastern Maverick Counties, Texas.
- GsO 178. Theis, C. V., 1937, Ground water in the Southern High Plains.  
Describes ground-water occurrence and use by districts. Gives a theoretical analysis of the effects of pumping in relation to recharge and natural discharge.

- GsO 179. Theis, C. V., Burleigh, H. P., and Waite, H. A., 1935, Ground water in the Southern High Plains (USGS Press Release)  
Gives a general description of the occurrence of ground water and the water-bearing properties of the rock formations.
- GsO 180. Turner, S. F., 1932, Ground-water conditions in East Texas oil field. Gives information about ground-water conditions in the East Texas oil field with particular consideration of the possibility of contamination from oil-field operations.
- GsO 181. \_\_\_\_\_ 1934, Well records, drillers' logs, and water analyses in Kenedy County, Texas.
- GsO 182. \_\_\_\_\_ 1938, Memorandum for the Federal Prison Bureau on a ground-water supply for the Texarkana site.  
Summarizes information about the availability of water at the site.
- GsO 183. \_\_\_\_\_ 1939, The ground-water resources of Texas--their conservation and development.  
Mentions several areas in which ground water was wasted or polluted. Also gives a bibliography of U. S. Geological Survey and Texas Board of Water Engineers publications.
- GsO 184. Turner, S. F., and Cumley, J. C., 1934, Records of wells, drillers' logs, and water analyses, and map showing location of wells in Brooks County, Texas.
- GsO 185. Turner, S. F., and Livingston, Penn, 1933, Records of wells in Harris County, Texas.
- GsO 186. \_\_\_\_\_ 1935, Records of wells in Harris, Galveston, Waller, Fort Bend, Brazoria, and Grimes Counties, Texas.
- GsO 187. Turner, S. F., Lynch, W. A., and Cumley, J. C., 1934, Records of wells, drillers' logs, and water analyses, and map showing location of wells in Jim Wells County, Texas.
- GsO 188. Welder, F. A., and George, W. O., 1955, Records of test wells at Canyon Reservoir site in Comal County, Texas.  
Gives information, including electric logs and description logs, drawdowns, and computed transmissibilities for six test wells.
- GsO 189. Wells, H. M., and Burleigh, H. P., 1936, Preliminary report on the underground water supply of the Plainview, Texas project.  
Gives general information about the availability and use of ground water and the ground-water hydrology in a discussion of the feasibility of establishing a resettlement project by means of underground-water development.
- GsO 190. White, W. N., 1933, The new city well at Pecos, Texas.  
Gives the results of test pumping a new city well and chemical analyses of the water.

- Gs0 191. White, W. N., 1933, The water supply at Randolph Field near San Antonio, Texas.  
Describes the water supply and makes recommendations for a new supply.
- Gs0 192. \_\_\_\_\_ 1935, Summary report on the survey of the underground waters of Texas.  
Gives a list of the reports issued or in preparation to 1935, and a summary of the results of the ground-water investigations in different areas.
- Gs0 193. \_\_\_\_\_ 1936, Ground water in Hansford County, Texas.  
Gives general information about the water-bearing beds, the depth and slope of the water table, and the wells of large yields.
- Gs0 194. \_\_\_\_\_ 1937, Investigations of underground water in the High Plains, Texas.  
Explains some of the methods to be used in making the investigation.
- Gs0 195. \_\_\_\_\_ 1939, A few facts regarding ground-water supplies in Texas.  
Gives general information about ground-water supplies and describes the types of ground-water investigations being made.
- Gs0 196. \_\_\_\_\_ 1940, Ground water in the Corpus Christi area, Texas.  
Gives information about the availability of ground water in the area by counties.
- Gs0 197. \_\_\_\_\_ 1940, The movement of underground water in Texas.  
Shows that the flow of ground water is analogous to the flow of surface water and describes the flow in three major Coastal Plain aquifers.
- Gs0 198. \_\_\_\_\_ 1941, Abilene Water Supply.  
Gives information about the availability of ground water and about the reservoirs furnishing the Abilene water supply.
- Gs0 199. \_\_\_\_\_ 1941, Water supply of Baytown.  
Gives information about the general availability and use of ground water and gives an appraisal of the capability for additional development.
- Gs0 200. \_\_\_\_\_ 1941, Brownwood water supply.  
Describes briefly the availability of water in the area.
- Gs0 201. \_\_\_\_\_ 1941, Ground water in the vicinity of Port O'Connor, Calhoun County, Texas.  
Summarizes information about the availability and quality of ground water at Port O'Connor.
- Gs0 202. \_\_\_\_\_ 1941, Water supply of San Angelo.  
Gives general information about the availability and quality of ground water.

- GsO 203. White, W. N., 1942, Emergency water supply for naval reserve air base near Corpus Christi, Texas.  
Suggests an area where an emergency supply from ground water might be developed.
- GsO 204. \_\_\_\_\_ 1943, Ground water in the vicinity of Diltz Field, Wilson County, Texas.  
Gives information about the availability and use of ground water. Also gives records of wells, logs, and chemical analyses of ground water.
- GsO 205. \_\_\_\_\_ 1943, The geology of ground-water supplies in Texas.  
Gives summary information about the importance and use of ground water, the geology in relation to the occurrence of ground water, and a general description of the most important aquifers.
- GsO 206. \_\_\_\_\_ 1944, Ground water, Red River below Denison Dam.  
Gives general information about the geology and the principal water-bearing formations.
- GsO 207. \_\_\_\_\_ 1944, Ground-water problems in the Texas City-Alta Loma-Baytown district, Texas.  
States briefly that rising chloride content of the ground water and low permeability of some sources tend to limit the availability of ground water.
- GsO 208. \_\_\_\_\_ 1945, Ground water in Beaumont, Nederland, Port Neches, and Port Arthur areas, Texas.  
Gives information about the quality of the ground water in the above areas. Also gives the increase in chloride in selected wells from 1941 to 1945 and the chloride in water at different depths in a well near Port Neches.
- GsO 209. \_\_\_\_\_ 1945, Ground water in Texas.  
Tells of the interest in ground-water investigations and gives a brief statement about the current (1945) programs.
- GsO 210. \_\_\_\_\_ 1946, The occurrence and development of ground water in the 17 western states.  
Describes briefly the availability and use of ground water in the 17 western states, the methods used in ground-water investigations, and the typical problems requiring investigations.
- GsO 211. \_\_\_\_\_ 1947, A few notes on origin of ground water with special reference to Texas.  
Describes briefly the source, movement, occurrence, and recharge of ground water and gives some facts about the character of the rocks and geologic structure affecting the occurrence of ground water in Texas.
- GsO 212. White, W. N., and George, W. O., 1943, Summary report on the leakage at the dam of the Tarrant County Water Control and Improvement District No. 1 near Bridgeport, Wise County, Texas.  
Describes an investigation made to determine if water produced by seeps and springs was natural ground-water flow or was water leaking through the dam. Also gives logs of wells and analyses of water.

- Gs0 213. White, W. N., and Livingston, P. P., 1933, Ground water resources in the Houston district, Texas. [This report is contained also in a compilation volume, UP 216, listed on page 42.]  
Gives information about pumping, fluctuations of artesian pressures, and chemical character of the public-water supply.
- Gs0 214. White, W. N., and Livingston, Penn, 1941, Water resources of Austin, Texas.  
Gives information about geologic formations and the availability and quality of ground water. Also gives logs of wells.
- Gs0 215. White, W. N., Livingston, Penn, and Turner, S. F., 1932, Ground-water resources of the Houston-Galveston area. [This report is contained also in a compilation volume, UP 216, listed on page 42.]  
Brings up to 1932 information about pumpage and fluctuations of water levels.
- Gs0 216. White, W. N., and Sundstrom, R. W., 1941, Water resources in the vicinity of Freeport, Texas.  
Summarizes the availability and use of ground water near Freeport and in areas inland from Freeport. Also gives records of wells, logs, and chemical analyses of ground water.
- Gs0 217. White, W. N., Turner, S. F., and Lynch, W. A., 1934, Ground water in Dimmit and Zavala Counties, Texas. (USGS Press Release)  
Describes briefly the source of ground water used for irrigation, ground-water recharge, pumpage since 1929-30, and fluctuations of water levels.
- Gs0 218. Winslow, A. G., 1956, Ground-water supplies for irrigation in Texas. Describes the availability and use of ground water, with particular reference to irrigation by recognized divisions such as regions, basins, or areas.
- Gs0 219. Wood, L. A., 1956, Availability of ground water in the Gulf Coast region of Texas.  
Gives information about the general geology, the availability, use, and quality of ground water, the quantity of water in transient storage, the water derived from compaction, recharge and discharge, and the relation of fresh ground water to salty ground water.
- Gs0 220. Works Progress Administration, 1935-39, Texas ground-water survey. Gives a description of the project and a report for Eastland County, including records of wells and springs, water levels, logs of wells, and chemical analyses of water.

## INDEX TO AREAS

This index is organized by areas in the State rather than by topics. The index is divided into four groups: (1) Counties, (2) River Basins, (3) Areas or Districts, and (4) a list of the remaining reports that are statewide or general in scope. Reports covering small areas may be indexed under the counties as well as the areas, but are not indexed under river basins or large areas.

The following table shows the codes used in this index to categorize the various report series:

<u>Texas Water Commission</u>	<u>U. S. Geological Survey</u>
Bulletins.....WcB	Annual Reports.....GSA
Circulars.....WcC	Bulletins.....GSA
Memorandum Reports.....MR	Water-Supply Papers.....W
Limited Distribution Reports.....LD-	Circulars.....GSC
Unnumbered Publications.....UP	Folios.....F
Open-File Reports.....WcO	Hydrologic Atlases.....G
	Open-File Reports.....GSO

## INDEX TO AREAS

Texas Water Commission Biennial Reports (page 3) and reports of the Planning Series (page 6) have not been assigned prefix codes herein as they are predominantly statewide in scope.

Because the report series are rather numerous, each item in the index is referenced to the page on which the report is listed, as well as to the report series and number.

### Counties

<p>Anderson: UP 153, p. 35; GSO 17, p. 59; GSO 183, p. 72.</p> <p>Andrews: UP 120, p. 33; UP 123, p. 33.</p> <p>Angelina: W 849-A, p. 50; GSO 12, p. 59; GSO 84, p. 65; GSO 86, p. 66.</p> <p>Aransas: WcB 5703, p. 13; UP 115, p. 32.</p> <p>Armstrong: UP 63, p. 28.</p> <p>Atascosa: WcB 5416, p. 10; WcB 6015, p. 16; UP 195, p. 40; W 676, p. 49; W 1079-C, p. 52; GSO 124, p. 69; GSO 131, p. 70.</p> <p>Austin: UP 131, p. 35.</p> <p>Bailly: WcB 5406, p. 9; UP 22, p. 25; WcO 6, p. 44.</p> <p>Bandera: WcB 6210, p. 19.</p> <p>Beckton: WcB 5413, p. 10; WcB 5702, p. 12; GSO 83, p. 67.</p> <p>Bear: UP 148, p. 35; GSO 126, p. 69; GSO 127, p. 69.</p> <p>Bell: WcB 5902, p. 14; GSO 13, p. 59; GSO 15, p. 59; GSO 25, p. 60; GSO 85, p. 68.</p>	<p>Bexar: WcB 5606, p. 11; WcB 5911, p. 15; UP 130, p. 34; W 1588, p. 41; GSO 59, p. 63; GSO 60, p. 63; GSO 62, p. 65; GSO 108, p. 68; GSO 116, p. 68; GSO 131, p. 70; GSO 191, p. 76.</p> <p>Blanco: UP 14, p. 25.</p> <p>Borden: UP 78, p. 29.</p> <p>Bowie: GSO 28, p. 60; GSO 159, p. 73; GSO 182, p. 75.</p> <p>Bracoria: WcB 5909, p. 15; UP 86, p. 30; UP 110, p. 32; UP 161, p. 36; UP 205, p. 40; UP 216, p. 42; GSO 142, p. 71; GSO 155, p. 72; GSO 186, p. 75; GSO 216, p. 78.</p> <p>Brooks: UP 18, p. 29; UP 201, p. 40; GSO 76, p. 63.</p> <p>Brewster: WcB 5712, p. 14; WcB 6113, p. 18; WcO 11, p. 45; WcO 17, p. 46; GSO 4, p. 58; GSO 107, p. 67.</p> <p>Briscoe: WcB 5406, p. 9; UP 64, p. 28.</p> <p>Brooks: UP 203, p. 40; GSO 7, p. 63; GSO 41, p. 61; GSO 184, p. 74.</p>
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Brown: UP 68, p. 29; GsO 200, p. 76.  
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 Burnet: MR 62-01, p. 22; F 183, p. 57;  
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## INDEX TO AREAS

This index is organized by areas in the State rather than by topics. The index is divided into four groups: (1) Counties, (2) River Basins, (3) Areas or Districts, and (4) a list of the remaining reports that are statewide or general in scope. Reports covering small areas may be indexed under the counties as well as the areas, but are not indexed under river basins or large areas.

The following table shows the codes used in this index to categorize the various report series:

<u>Texas Water Commission</u>	<u>U. S. Geological Survey</u>
Bulletins.....WcB	Annual Reports.....A
Circulars.....WcC	Bulletins.....GsB
Memorandum Reports.....MR	Water-Supply Papers.....W
Limited Distribution Reports.....LD-	Circulars.....GsC
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Open-File Reports.....WcO	Hydrologic Atlases.....H
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Texas Water Commission Biennial Reports (page 3) and reports of the Planning Series (page 6) have not been assigned prefix codes herein as they are predominantly statewide in scope.

Because the report series are rather numerous, each item in the index is referenced to the page on which the report is listed, as well as to the report series and number.

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