STONE, WILLIAM J., LYFORD, FOREST P., FRENZEL, PETER F., MIZELL, NANCY H., AND PADGETT, ELIZABETH T.

HYDROGEOLOGY AND WATER RESOURCES OF SAN JUAN BASIN, NEW MEXICO HYDROLOGIC REPORT 6

The San Juan Basin of northwest New Mexico contains a wealth of energy resources. Although petroleum reserves are nearly depleted, vast reserves of uranium and coal remain to be extracted. In this arid to semiarid region, surface-water resources are limited and fully appropriated. New water supplies for energy development and growing municipalities must, therefore, be derived from negotiated surface water or ground water.

New Mexico Bureau of Mines and Mineral Resources: Socorro, NM 1983

Notes

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STONE, WILLIAM J., LYFORD, FOREST P., FRENZEL, PETER F., MIZELL, NANCY H., AND PADGETT, ELIZABETH T.

HYDROGEOLOGY AND WATER RESOURCES OF SAN JUAN BASIN, NEW MEXICO HYDROLOGIC REPORT 6

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THORN, CONDE' R., LEVINGS, GARY W., CRAIGG, STEVEN D., DAM, WILLIAM L., AND KERNODLE, JOHN MICHAEL

HYDROGEOLOGY OF THE OJO ALAMO SANDSTONE IN THE SAN JUAN STRUCTURAL BASIN, NEW MEXICO, COLORADO, ARIZONA, AND UTAH, HYDROLOGIC INVESTIGATION ATLAS HA-720-B

Includes two maps: Map 1. Hydrologic Investigations; Map 2. Hydrologic Investigations. This report is one in a series resulting from the U.S. Geological Survey's Regional Aquifer-System Analysis (RASA) study of the San Juan structural basin that began in October 1984. The purpose of the RASA (Welder, 1986) are to (1) Define and evaluate the aquifer system; (2) Assess the effects of past, present, and potential ground-water use on aquifers and streams, and (3) determine the availability and quality of ground water. Pervious repots in the series describe the hydrology of the Dakota Sandstone (Craigg and Others, 1989), Gallup Sandstone (Kernodle and others, 1989), Morrison Formation (Dam and others, 1990), Point Lookout Sandstone (Craigg and others, 1990, Pictured Cliffs Sandstone (Dam and others, 1990), Kirtland Shale and Fruitland Formation (Kernodle and others, 1990), Menefee Formation (Levings and others, 1990), and Cliff House Sandstone (Thorn and others, 1990) in the San Juan structural basin. This report summarizes information on the geology and the occurrence and quality of water in the Ojo Alamo sandstone, one of the primary water-bearing units in the regional aquifer system.

Publisher U.S. Department of the Interior Geological Survey:
Reston, VA 1990
Notes Map Scales 1:1,000,000 and 1:2,000,000

BookID/Cat-ID Bookid 1804 Cat 44
LEVINGS, GARY W., CRAIGG, STEVEN D., DAM, WILLIAM L., KERNODLE, JOHN MICHAEL, AND THORN, CONDE' R.

HYDROGEOLOGY OF THE SAN JOSE, NACIMIENTO, AND ANIMAS FORMATIONS IN THE SAN JUAN STRUCTURAL BASIN, NEW MEXICO, COLORADO, ARIZONA, AND UTAH, HYDROLOGIC INVESTIGATIONS ATLAS HA-720-A

Includes two maps: Map 1. Hydrologic Investigations; Map 2.
Hydrologic Investigations. This report is one in a series resulting from the U.S. Geological Survey's Regional Aquifer-System Analysis (RASA) study of the San Juan structural basin that began in October 1984. The purpose of the RASA (Welder, 1986) are to (1) Define and evaluate the aquifer system; (2) Assess the effects of past, present, and potential ground-water use on aquifers and streams, and (3) determine the availability and quality of ground water. Previous reports in the series describe the hydrology of the Dakota Sandstone (Craigg and Others, 1989), Gallup Sandstone (Kernodle and others, 1989), Morrison Formation (Dam and others, 1990), Point Lookout Sandstone (Craigg and others, 1990), Pictured Cliffs Sandstone (Dam and others, 1990), Kirtland Shale and Fruitland Formation (Kernodle and others, 1990), Menefee Formation (Levings and others, 1990), and Cliff House Sandstone (Thorn and others, 1990) in the San Juan structural basin. On a regional scale, the San Jose, Nacimiento, and Animas Formations are hydraulically connected and form one of the primary water-bearing units in the regional aquifer system. This report summarizes information on the geology and the occurrence and quality of water in the San Jose, Nacimiento, and Animas Formations.

Publisher: U.S. Department of the Interior Geological Survey
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MICHAEL, KERNODLE JOHN, THORN, CORDE' R., LEVINGS, GARY W., CRAIGG, STEVEN D., AND DAM, WILLIAM L.
HYDROGEOLOGY OF THE KIRTLAND SHALE AND FRUITLAND FORMATION IN THE SAN JUAN STRUCTURAL BASIN, NEW MEXICO, COLORAO, ARIZONA, AND UTAH HYDROLOGIC INVESTIGATIONS ATLAS HA-720-C
Includes two maps: Map 1. Hydrologic Investigations; Map 2. Hydrologic Investigations. This report is one in a series resulting from the U.S. Geological Survey's Regional Aquifer-System Analysis (RASA) study of the San Juan structural basin that began in October 1984. The purpose of the RASA (Welder, 1986) are to (1) Define and evaluate the aquifer system; (2) Assess the effects of past, present, and potential ground-water use on aquifers and streams, and (3) determine the availability and quality of ground water. Previous reports in the series describe the hydrology of the Dakota Sandstone (Craigg and Others, 1989), Gallup Sandstone (Kernodle and others, 1989), Morrison Formation (Dam and others, 1990), Point Lookout Sandstone (Craigg and others,1990), Pictured Cliffs Sandstone (Dam and others, 1990), Menefee Formation (Levings and others, 1990), Cliff House Sandstone (Thorn and others, 1990) and Ojo Alamo Sandstone (Thorn and others, 1990) in the San Juan structural basin.

This report summarizes information on the geology and the occurrences and quality of water in the combined Kirtland Shale and Fruitland Formation, one of the primary water-bearing units in the regional aquifer system. These two formations are treated as a single hydrogeologic unit because they commonly are mapped together, they contain strata of similar lithology, and they have similar hydrologic properties.
HYDROGEOLOGY OF THE PICTURED CLIFFS SANDSTONE IN THE SAN JUAN STRUCTURAL BASIN, NEW MEXICO, COLORADO, AND UTAH

Includes two maps: Map 1. Hydrologic Investigations; Map 2. Hydrologic Investigations. This report is one in a series resulting from the U.S. Geological Survey's Regional Aquifer-System Analysis (RASA) study of the San Juan structural basin that began in October 1984. The purpose of the RASA (Welder, 1986) are to (1) Define and evaluate the aquifer system; (2) Assess the effects of past, present, and potential ground-water use on aquifers and streams, and (3) determine the availability and quality of ground water.

Previous reports in the series describe the hydrology of the Dakota Sandstone (Craig and Others, 1989), Gallup Sandstone (Kernodle and others, 1989), Morrison Formation (Dam and others, 1990), Point Lookout Sandstone (Craig and others, 1990) Pictured Cliffs Sandstone (Dam and others, 1990), Kirtland Shale and Fruitland Formation (Kernodle and others, 1990), Menefee Formation (Levings and others, 1990), and Cliff House Sandstone (Thorn and others, 1990) in the San Juan structural basin. This report summarizes information on the geology and the occurrences and quality of water in the Pictured Cliffs Sandstone, one of the primary water-bearing units in the regional aquifer system.

HYDROLOGY OF THE CLIFF HOUSE SANDSTONE IN THE SAN JUAN STRUCTURAL BASIN, NEW MEXICO, COLORADO, ARIZONA, AND UTAH

This report summarizes knowledge about the hydrogeology of the Cliff House Sandstone of Late Cretaceous age in the basin. Data used in this report were derived from data collected during the study, from existing records in the U. S. Geological Survey's national, computerized Water-Data Storage and Retrieval System (WATSTORE) data base, and the Petroleum Information Corporation's data base. All data available for the Cliff House Sandstone were included in the discussions in the text; however, not all data could be plotted on the illustrations.
LEVINGS, G.W., CRAIGG, S.D., DAM, W.L., KERNODLE, J.M., AND THORN, C.R.
HYDROGEOLOGY OF THE MENEFEE FORMATION IN THE SAN JUAN STRUCTURAL BASIN, NEW MEXICO, COLORADO, ARIZONA, AND UTAH
This report summarizes information about the hydrogeology of the Menefee Formation of Late Cretaceous age in the basin.
Data used in this report were derived from data collected during the study, from existing records in the U.S. Geological Survey's national computerized Water-Data Storage and Retrieval System (WATSTORE) data base, and the Petroleum Information Corporation data base. All data available for the Menefee Formation were included in the discussion in the text; however, not all the data could be plotted on the illustrations.

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CRAIGG, S.D., DAM, W.L., KERNODLE, J.M., THORN, C.R., AND LEVINGS, G.W.
HYDROGEOLOGY OF THE POINT LOOKOUT SANDSTONE IN THE SAN JUAN STRUCTURAL BASIN, NEW MEXICO, COLORADO, ARIZONA, AND UTAH
This report summarizes information about the hydrogeology of the Point Lookout Sandstone of Late Cretaceous age in the basin. Data used in this report were derived from data collected during the study, from existing reports in the U.S. Geological Survey's national, computerized Water-Data Storage and Retrieval System (WATSTORE) data base, and the Petroleum Information Corporation's data base. All data available for the Point Lookout Sandstone were included in the discussions in the text; however, not all of the data could be plotted on the illustrations.

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KERNODLE, J.M., LEVINGS, G.W., CRAIGG, S.D., AND DAM, W.L.
HYDROGEOLOGY OF THE GALLUP SANDSTONE IN THE SAN JUAN STRUCTURAL BASIN, NEW MEXICO, COLORADO, ARIZONA, AND UTAH
This is one in a series of reports from the U.S. Geological Survey's San Juan Structural Basin Regional Aquifer-System (RASA) project to define and understand the hydrogeology and geochemistry of the 19,400-square-mile study area. This report contains 14 figures showing geologic, hydrogeologic, and water-quality data for the Gallup Sandstone.
Publisher U.S. Department of the Interior Geological Survey: Albuquerque, NM 1987

BookID/Cat-ID Bookid 68 Cat 44
DAM, W.L., KERNODLE, J.M., LEVINGS, G.W., AND CRAIGG, S.D.
HYDROGEOLOGY OF THE MORRISON FORMATION IN THE SAN JUAN STRUCTURAL BASIN, NEW MEXICO, COLORADO, UTAH, AND ARIZONA
The purpose of this report is to summarize knowledge about the hydrogeology of the Morrison Formation in the San Juan
Data used in this report consist of new data collected during the study and existing records in the U.S. Geological Survey's computerized WATSTORE (National Water-Data Storage and Retrieval System) data base and the Petroleum Information Corporation's data base.

Publisher U.S. Department of the Interior Geological Survey: Albuquerque, NM 1987

BookID/Cat-ID Bookid 69 Cat 44 CRAIGG, S.D., DAM, W.L., KERNODLE, J.M., AND LEVINGS, G.W. HYDROGEOLOGY OF THE DAKOTA SANDSTONE IN THE SAN JUAN STRUCTURAL BASIN, NEW MEXICO, COLORADO, ARIZONA, AND UTAH This report is one in a series of report resulting from the U.S. Geological Survey's San Juan Structural Basin Regional Aquifer-System Analysis (RASA) project to define and understanding the hydrogeology and geochemistry of the 19,400-square-mile study area. This report contains 15 figures showing geologic, hydrogeologic, and water-quality data that summarize knowledge about the hydrogeology of the Dakota Sandstone.

Publisher U.S. Department of the Interior Geological Survey: Albuquerque, NM 1987

BookID/Cat-ID Bookid 3164 Cat 44 LEVINGS, GARY W., KERNODLE, JOHN M., AND THORN, CONDE R. SUMMARY OF THE SAN JUAN STRUCTURAL BASIN REGIONAL AQUIFER-SYSTEM ANALYSIS, NEW MEXICO, COLORADO, ARIZONA, AND UTAH WATER-RESOURCES INVESTIGATIONS REPORT 95-4188 Ground-water resources are the only source of water in most of the San Juan structural basin and are mainly used for municipal, industrial, and stock purposes. Industrial use increased dramatically during the late 1970's and early 1980's because of increased exploration and development of uranium and coal resources.


BookID/Cat-ID Bookid 4646 Cat 44 KERNODLE, JOHN MICHAEL HYDROGEOLOGY AND STEADY-STATE SIMULATION OF GROUND-WATER FLOW IN THE SAN JUAN BASIN, NEW MEXICO, COLORADO, ARIZONA, AND UTAH WATER-RESOURCES INVESTIGATIONS REPORT 95-4187 As part of the multidisciplinary regional aquifer-system analysis, a three-dimensional steady-state ground-water-flow model was constructed for the San Juan Basin in parts of New Mexico, Colorado, Arizona, and Utah. The model simulated ground-water flow in 12 hydrostratigraphic units representing all the major source of ground water from aquifers of Jurassic and younger age.


BookID/Cat-ID Bookid 1808 Cat 44 THORN, CONDE'R., LEVINGS, GARY W., CRAIGG, STEVEN D., DAM,
HYDROGEOLOGY OF THE CLIFF HOUSE SANDSTONE IN THE SAN JUAN STRUCTURAL BASIN, NEW MEXICO, COLORADO, ARIZONA, AND UTAH
HYDROLOGIC INVESTIGATIONS ATLAS HA-720-E

Includes two maps: Map 1. Hydrologic Investigations; Map 2. Hydrologic Investigations. This report is one in a series resulting from the U.S. Geological Survey's Regional Aquifer-System Analysis (RASA) study of the San Juan structural basin that began in October 1984. The purpose of the RASA (Welder, 1986) are to (1) Define and evaluate the aquifer system; (2) Assess the effects of past, present, and potential ground-water use on aquifers and streams, and (3) determine the availability and quality of ground water.

Previous reports in the series describe the hydrology of the Dakota Sandstone (Craig and Others, 1989), Gallup Sandstone (Kernodle and others, 1989), Morrison Formation (Dam and others, 1990), Point Lookout Sandstone (Craig and others, 1990), Menefee Formation (Levings and others, 1990), and Cliff House Sandstone (Thorn and others, 1990) in the San Juan structural basin. This report summarizes information on the geology and the occurrences and quality of water in the Cliff House Sandstone, one of the primary water-bearing units in the regional aquifer system.

Publisher U.S. Department of the Interior Geological Survey: Reston, VA 1990
Notes Map Scales 1:1,000,000 and 1:2,000,000

HYDROGEOLOGY OF THE MENEFEE FORMATION IN THE SAN JUAN STRUCTURAL BASIN, NEW MEXICO, COLORADO, ARIZONA, AND UTAH
HYDROLOGIC INVESTIGATIONS ATLAS HA-720-F

Includes two maps: Map 1. Hydrologic Investigations; Map 2. Hydrologic Investigations. This report is one in a series resulting from the U.S. Geological Survey's Regional Aquifer-System Analysis (RASA) study of the San Juan structural basin that began in October 1984. The purpose of the RASA (Welder, 1986) are to (1) Define and evaluate the aquifer system; (2) Assess the effects of past, present, and potential ground-water use on aquifers and streams, and (3) determine the availability and quality of ground water.

Previous reports in the series describe the hydrology of the Dakota Sandstone (Craig and Others, 1989), Gallup Sandstone (Kernodle and others, 1989), Morrison Formation (Dam and others, 1990), Point Lookout Sandstone (Craig and others, 1990) and Cliff House Sandstone (Thorn and others, 1990) in the San Juan structural basin. This report summarizes information on the geology and the occurrences and quality of water in the Menefee Formation, one of the primary water-bearing units in the regional aquifer system.

Publisher U.S. Department of the Interior Geological Survey: Reston, VA 1990
Notes Map Scales 1:1,000,000 and 1:2,000,000