

Topic category: Hydrogeology
Keywords: Groundwater, development, wells
County: Catron County

Title: Geohydrologic Investigation Report: Wildhorse Ranch Subdivision Phase 2, Catron County, NM

Author: Anderson Engineering, Inc, MJDarrconsult, Inc.

Date: 1997

Publication/journal/publisher: Reserve, NM: The Group

Type of document: Book

Source of document / Search method (phone, internet, library, etc.):

http://www.worldcat.org/oclc/85108126&referer=brief_results

Purchase Price:

Web site address:

Document Location:

Work initiated by:

Work funded by:

Type of review:

Location of Work: Catron County

Abstract or brief summary:

Topic category: Hydrogeology
Keywords: Groundwater, development, wells
County: Catron County

Title: Geohydrologic Investigation Report: Proposed "Wildhorse Ranch" Subdivision - Phase 4, Catron County, NM

Author: Anderson Engineering, Inc, MJDarrconsult, Inc.

Date: 2002

Publication/journal/publisher: Grants, NM: Anderson Engineering, Inc #85192300

Type of document: Book

Source of document / Search method (phone, internet, library, etc.):

http://www.worldcat.org/oclc/85192300&referer=brief_results

Purchase Price:

Web site address:

Document Location:

Work initiated by:

Work funded by:

Type of review:

Location of Work: Catron County

Abstract or brief summary:

Topic category: Hydrogeology
Keywords: Groundwater, alluvial basin, aquifer
County: Grant & Catron Counties

Title: Geohydrology and Water Resources of Alluvial Basins in South-Central Arizona and Parts of Adjacent States

Author: Anderson, T.W., G.W. Freethey, and P. Tucci

Date: 1992

Publication/journal/publisher: U.S. Geological Survey, Professional Paper 1406-B, p. B1-B67, 3 plates in pocket

Type of document: Electronic file (DJVU)

Source of document / Search method (phone, internet, library, etc.):
USGS publication search <<http://pubs.er.usgs.gov/usgspubs/pp/pp1406B>>

Purchase Price: \$4.50

Web site address: <http://pubs.er.usgs.gov/usgspubs/pp/pp1406B>

Document Location: USGS online

Work initiated by: USGS

Work funded by: USGS

Type of review: Unknown

Location of Work: South-central Arizona, Grant and Catron Counties

Abstract or brief summary:

The alluvial basins described in this report include about 82,000 square miles in south-central Arizona and parts of adjacent States. The area is composed of 72 basins that are virtually independent hydrologic systems.

Topic category: Hydrogeology

Keywords: Hydrogeologic flow systems, basin and range physiographic province, southwestern US

County: Southwest US

Title: Classification of hydrogeologic areas and hydrogeologic flow systems in the basin and range physiographic province, southwestern United States

Author: Anning, D.W. and A.D. Konieczki

Date: 2005

Publication/journal/publisher: U.S. Geological Survey, Professional Paper 1702. 44p. with 2 plates

Type of document: Electronic file (PDF)

Source of document / Search method (phone, internet, library, etc.):

USGS publication search <<http://pubs.er.usgs.gov/usgspubs/pp/pp1702>>

Purchase Price: \$30.00

Web site address: <http://pubs.usgs.gov/pp/2005/pp1702/pdf/pp1702.pdf>

Document Location: USGS online

Work initiated by: USGS

Work funded by: USGS

Type of review: Unknown

Location of Work: Basin and range province, SW US

Abstract or brief summary:

The hydrogeology of the Basin and Range Physiographic Province in parts of Arizona, California, New Mexico, Utah, and most of Nevada was classified at basin and larger scales to facilitate information transfer and to provide a synthesis of results from many previous hydrologic investigations. Hydrogeologic areas consist of coincident ground-water and surface-water basins and were delineated on the basis of existing sets of basin boundaries that were used in past investigations by State and Federal government agencies. Hydrogeologic areas are conceptualized as a control volume consisting of three hydrogeologic components: the soils and streams, basin fill, and consolidated rocks. Hydrogeologic areas were classified into 19 groups through a cluster analysis of 8 characteristics of each area's hydrologic system. Conceptual models of the hydrologic systems of a representative hydrogeologic area for each group were developed to help distinguish groups and to synthesize the variation in hydrogeologic systems in the Basin and Range Physiographic Province.

Topic category: Hydrogeology
Keywords: Groundwater, Catron
County: Catron County

Title: Ground-Water Resources of Catron County, New Mexico

Author: Basabilvazo, G.T.

Date: 1997

Publication/journal/publisher: U.S. Geological Survey, Water-Resources Investigations Report 96-4258. Prepared in Cooperation with the New Mexico State Engineer Office and the New Mexico Bureau of Mines and Mineral Resources.

Type of document: Electronic file (DJVU)

Source of document / Search method (phone, internet, library, etc.):

USGS publication search <<http://pubs.er.usgs.gov/usgspubs/wri/wri964258>>

Purchase Price: \$15.00

Web site address: <http://pubs.er.usgs.gov/usgspubs/wri/wri964258>

Document Location: USGS website

Work initiated by: USGS, NM OSE, NMBGMR

Work funded by: USGS, NM OSE, NMBGMR

Type of review: Unknown

Location of Work: Catron County

Abstract or brief summary:

This report describes the occurrence, availability, and quality of ground-water and related surface-water resources in Catron County, the largest county in New Mexico.

Topic category: Hydrogeology
Keywords: Transmissivity, Columbus Basin
County: Luna County

Title: Transmissivity estimation and correlation structure in the Columbus Basin, New Mexico

Author: Blandford, N.

Date: 1986

Publication/journal/publisher: New Mexico Geological Society, Spring Meeting, April 4, 1986, Socorro, New Mexico, Abstract provided in New Mexico Geology V. 8 No. 3, 70 p.

Type of document: Journal Article

Source of document / Search method (phone, internet, library, etc.):

NMBGMR search

<<http://geoinfo.nmt.edu/publications/search/Results.cfm?Code=V8%2E3NMG&NoForm=TRUE>>

Purchase Price: \$4.00 for entire journal

Web site address: NA

Document Location: NMBGMR GIC

Work initiated by: NMT

Work funded by: unknown

Type of review: Peer review

Location of Work: Columbus Basin, New Mexico

Abstract or brief summary:

This summary describes a portion of an ongoing stochastic groundwater modeling study of the Columbus Basin, New Mexico. There are two T values and 38 specific-capacity (C) values available for the portion of the Columbus Basin under study. Two linear regressions (T vs C and log(T) vs log(C)) were performed in order to determine whether there was a meaningful correlation between the variables T and C. Once the 38 C values in the Columbus Basin were converted to T's, a spatial correlation structure of the T values was sought assuming an isotropic statistical field. The variogram estimate for log-transformed T data exhibited a clearly discernible correlation structure, and this structure can be used as input to the stochastic groundwater model.

Topic category: Hydrogeology

Keywords: groundwater, water management, modeling, parameter estimation, inverse problem, uncertainty, finite elements

County: Luna County

Title: Large scale parameter estimation through the inverse procedure and uncertainty propagation in the Columbus Basin, New Mexico

Author: Blandford, T.N. and J.L. Wilson

Date: 1987

Publication/journal/publisher: New Mexico Water Resources Research Institute, Las Cruces, New Mexico. Technical Completion Report No. 226, 247 p. September 1987.

Type of document: Electronic file (PDF)

Source of document / Search method (phone, internet, library, etc.):
internet <<http://wrri.nmsu.edu/publish/techrpt/abstracts/abs226.html>>

Purchase Price: online

Web site address: <http://wrri.nmsu.edu/publish/techrpt/tr226/tr226.pdf>

Document Location: WRRI online

Work initiated by: WRRI, NMT

Work funded by: USGS, NM, DOE

Type of review: Peer review

Location of Work: Columbus Basin, New Mexico

Abstract or brief summary:

Estimates of the aquifer parameters storativity, transmissivity, boundary heads and fluxes were made for the Columbus Basin, New Mexico. A two-dimensional groundwater flow code called CERT was used. CERT employs a non-linear unconstrained generalized weighted least squares minimization algorithm to obtain optimal aquifer parameters from historic observations of hydraulic head. An initial or prior estimate of the aquifer parameters was obtained using kriging and other geostatistical tools. The record of historic observed head data from 1930 to 1975 was used for the least squares fit. Optimal parameter estimates for transmissivity, storativity and fluxes were reasonable. Nodal and zoned values of the parameters were estimated. The algorithm had difficulty estimating realistic boundary heads for conceptualization and data for the Columbus Basin. A validation study of CERT was conducted by estimating transmissivity and/or nodal fluxes using portions of the observed head data set divided in space or time. A posterior linearized estimate of the parameter covariance matrices was also conducted. These results were used as input to the uncertainty propagation algorithm coded into CERT, and predictions of heads and head standard deviations were made over the time period 1930 to 1975. Model heads matched well with observed heads when the model input parameters were conditioned only on a portion of the observed head data. Values of the standard deviation on heads were reasonable once boundary node correlation was accounted for.

Topic category: Hydrogeology

Keywords: Groundwater, Elk Ridge, pump test,
groundwater model

County: Catron County

Title: Supplemental hydrogeologic report for Elk Ridge Subdivision, Catron County, NM: Pump test results, groundwater model construction, summary of groundwater availability

Author: Braden, C.

Date: 1997

Publication/journal/publisher: Sandia Environmental, Inc.

Type of document: Book

Source of document / Search method (phone, internet, library, etc.):

http://www.worldcat.org/oclc/85293540&referer=brief_results

Purchase Price: Unknown

Web site address: http://www.worldcat.org/oclc/85293540&referer=brief_results

Document Location: Contact Sandia Environmental

Work initiated by:

Work funded by:

Type of review:

Location of Work: Catron County

Abstract or brief summary:

Topic category: Hydrogeology
Keywords:
County: Hidalgo County

Title: Reservoir Sites, Redrock and Alma Reservoir Sites: near Lordsburg, NM

Author: Burchard, R.W.

Date: 1928

Publication/journal/publisher: Dept. of the Interior, US Geological Survey

Type of document: Map Sheet

Source of document / Search method (phone, internet, library, etc.):

Purchase Price:

Web site address:

Document Location:

Work initiated by:

Work funded by:

Type of review:

Location of Work: Hidalgo County

Abstract or brief summary:

Topic category: Hydrogeology
Keywords: Groundwater, development, wells
County: Catron County

Title: Geohydrologic Investigation Report: Proposed "Blue Hills" Subdivision - Phase 4, Catron County, NM

Author: Darr, M.J.

Date: 2000

Publication/journal/publisher: Reserve, NM: Elkhorn Development Services, MJDarrconsult, Inc.

Type of document: Book

Source of document / Search method (phone, internet, library, etc.):

http://www.worldcat.org/oclc/85105223&referer=brief_results

Purchase Price:

Web site address:

Document Location:

Work initiated by:

Work funded by:

Type of review:

Location of Work: Catron County

Abstract or brief summary:

Topic category: Hydrogeology
Keywords: Groundwater, wells, irrigation
County: Luna County

Title: Underground water of Luna County, New Mexico

Author: Darton, N.H.

Date: 1915

Publication/journal/publisher: U.S. Geological Survey, Water Supply Paper 345-C, p. 25-40; v. 221 p. :illus., plates, fold. maps, diagrs. (part fold.) ;23 cm.

Type of document: Electronic file (DJVU)

Source of document / Search method (phone, internet, library, etc.):

USGS publication search <<http://pubs.er.usgs.gov/usgspubs/wsp/wsp345C>>

Purchase Price: not available

Web site address: <http://pubs.er.usgs.gov/usgspubs/wsp/wsp345C>

Document Location: USGS online

Work initiated by: USGS

Work funded by: USGS

Type of review: Unknown

Location of Work: Luna County

Abstract or brief summary:

An early 1900's study of the groundwater resources in Luna County for domestic and irrigation use.

Topic category: Hydrogeology
Keywords: Groundwater, geology, Luna
County: Luna County

Title: Geology and Underground Water of Luna County, New Mexico

Author: Darton, N.H.

Date: 1916

Publication/journal/publisher: U.S. Geological Survey, Bulletin 618, 188 p. :ill., maps ;23 cm.

Type of document: Printed report

Source of document / Search method (phone, internet, library, etc.):
USGS publication search <<http://pubs.er.usgs.gov/usgspubs/b/b618>>

Purchase Price: not available

Web site address: <http://pubs.er.usgs.gov/usgspubs/b/b618>

Document Location: Contact USGS (photocopy at DBS&A)

Work initiated by: USGS

Work funded by: USGS

Type of review: Agency Review

Location of Work: Luna County

Abstract or brief summary:

This report presents the results of an examination of the greater part of Luna County. The purpose of the work was to determine the geologic structure of the region and to procure all data bearing on the prospects for obtaining underground water for domestic use and irrigation. One of the principal purpose of the investigation was to determine the extent of the area underlain by water-bearing deposits, the depth to these deposits, and the amount of water available. The report includes discussion of topography, climate, geology, structural geology, mineral resources, water resources, irrigation, and elevations.

Topic category: Hydrogeology
Keywords: Groundwater, Playas Valley
County: Hidalgo County

Title: Reconnaissance of Ground Water in Playas Valley, Hidalgo County, New Mexico

Author: Doty, G.C.

Date: 1960

Publication/journal/publisher: Prepared in cooperation with the U.S. Geological Survey. Technical Report 15, New Mexico State Engineer, Santa Fe, New Mexico.

Type of document: Report

Source of document / Search method (phone, internet, library, etc.):

http://www.ose.state.nm.us/PDF/Publications/Library/OSE_TechnicalReports.pdf

Purchase Price: Contact OSE

Web site address:

Document Location: Contact NM OSE

Work initiated by: USGS, OSE

Work funded by: USGS, OSE

Type of review: Agency Review

Location of Work: Hidalgo County

Abstract or brief summary:

Playas Valley is a north-trending intermountain valley in the Basin and Range province of southwestern New Mexico. A reconnaissance investigation of the area was made by the U.S. Geological survey in cooperation with the State Engineer of New Mexico to determine the availability of water throughout the valley. The area investigated is 925 square miles in southern Hidalgo County, comprising Townships 26-34 S., Ranges 16-18 W. It includes the Playas Valley Underground Water Basin, 515 miles in extent. Annual pumpage from the main body of ground water in the valley exceeds annual recharge. Maximum long-term utilization of the supply will require proper spacing of wells and other conservative practices.

Topic category: Hydrogeology

Keywords: Groundwater

County: Southwestern NM

Title: New Mexico State Planning Office Report - Southwestern closed basins

Author: Doty, G.C.

Date: 1965

Publication/journal/publisher: U.S. Geological Survey, Open-File Report 65-45, 30 p.

Type of document: Printed report

Source of document / Search method (phone, internet, library, etc.):

USGS publication search <<http://pubs.er.usgs.gov/usgspubs/ofr/ofr6545>>

Purchase Price: Unknown

Web site address: New Mexico State Planning Office Report - Southwestern closed basins

Document Location: Contact USGS

Work initiated by:

Work funded by:

Type of review:

Location of Work: Southwestern NM

Abstract or brief summary:

Topic category: Hydrogeology
Keywords: Groundwater, irrigation, wells, Luna
County: Luna County

Title: Availability of Ground Water near Arena, Luna County, New Mexico

Author: Doty, G.C.

Date: 1969

Publication/journal/publisher: U.S. Geological Survey, Open-File Report 69-77, 21 p.; 2 figs.

Type of document: Electronic file (DJVU)

Source of document / Search method (phone, internet, library, etc.):

USGS publication search <<http://pubs.er.usgs.gov/usgspubs/ofr/ofr6977>>

Purchase Price: \$10.00

Web site address: <http://pubs.er.usgs.gov/usgspubs/ofr/ofr6977>

Document Location: USGS online

Work initiated by: New Mexico State Engineer

Work funded by: New Mexico State Engineer?

Type of review: Unknown

Location of Work: Luna County

Abstract or brief summary:

USGS study of groundwater resources in the Arena area (around Deming and Columbus), to determine irrigation potential.

Topic category: Hydrogeology
Keywords: Groundwater, development, wells
County: Catron County

Title: Geohydrologic Investigation Report: Proposed "Spring Canyon" Subdivision - Phase 4, Catron County, NM

Author: Elkhorn Development Services, Hitching Post Land Company, MJDarrconsult, Inc.

Date: 2005

Publication/journal/publisher: Albuquerque, NM: The Company

Type of document: Book

Source of document / Search method (phone, internet, library, etc.):

http://www.worldcat.org/oclc/85099365&referer=brief_results

Purchase Price:

Web site address:

Document Location:

Work initiated by:

Work funded by:

Type of review:

Location of Work: Catron County

Abstract or brief summary:

Topic category: Hydrogeology
Keywords: Groundwater, development, wells
County: Catron County

Title: Geohydrologic Report: Wildhorse Ranch Subdivision Phase 1, Catron County, NM

Author: Elkhorn Development Services, MJDarrconsult, Inc.

Date: 1997

Publication/journal/publisher: Reserve, NM: The Group

Type of document: Book

Source of document / Search method (phone, internet, library, etc.):

http://www.worldcat.org/oclc/85102226&referer=brief_results

Purchase Price:

Web site address:

Document Location:

Work initiated by:

Work funded by:

Type of review:

Location of Work: Catron County

Abstract or brief summary:

Topic category: Hydrogeology
Keywords: Groundwater, development, wells
County: Catron County

Title: Geohydrologic Investigation Report: Sugarloaf Mountain Subdivision, Catron County, NM

Author: Elkhorn Development Services, MJDarrconsult, Inc.

Date: 1998

Publication/journal/publisher: Reserve, NM: The Services

Type of document: Book

Source of document / Search method (phone, internet, library, etc.):

http://www.worldcat.org/oclc/85292511&referer=brief_results

Purchase Price:

Web site address:

Document Location:

Work initiated by:

Work funded by:

Type of review:

Location of Work: Catron County

Abstract or brief summary:

Topic category: Hydrogeology
Keywords: Groundwater, development, wells
County: Catron County

Title: Geohydrologic Report: Golden Horseshoe Subdivision, Catron County, NM

Author: Elkhorn Group, MJDarrconsult, Inc.

Date: 1997

Publication/journal/publisher: Reserve, NM: The Group

Type of document: Book

Source of document / Search method (phone, internet, library, etc.):

http://www.worldcat.org/oclc/85187168&referer=brief_results

Purchase Price:

Web site address:

Document Location:

Work initiated by:

Work funded by:

Type of review:

Location of Work: Catron County

Abstract or brief summary:

Topic category: Hydrogeology
Keywords: Groundwater, development, wells
County:

Title: Geohydrologic Report: Wildwood Highlands, Phase II Subdivision

Author: Elkhorn Group, MJDarrconsult, Inc.

Date: 1997

Publication/journal/publisher: MJDarrconsult, Inc.

Type of document: Book

Source of document / Search method (phone, internet, library, etc.):

http://www.worldcat.org/oclc/85190182&referer=brief_results

Purchase Price:

Web site address:

Document Location:

Work initiated by:

Work funded by:

Type of review:

Location of Work:

Abstract or brief summary:

Topic category: Hydrogeology
Keywords: Groundwater, development, wells
County: Catron County

Title: Geohydrologic reconnaissance study: Wild Horse Ranch, Catron County, NM

Author: Elkhorn Group, MJDarrconsult, Inc., Enhanced Solutions

Date: 1997

Publication/journal/publisher: Reserve, NM: The Group

Type of document: Book

Source of document / Search method (phone, internet, library, etc.):

http://www.worldcat.org/oclc/85185792&referer=brief_results

Purchase Price:

Web site address:

Document Location:

Work initiated by:

Work funded by:

Type of review:

Location of Work: Catron County

Abstract or brief summary:

Topic category: Hydrogeology

Keywords: Geology, ground-water flow, Mimbres Basin, Southwestern New Mexico

County: Southwestern NM

Title: Geologic controls on ground-water flow in the Mimbres Basin, southwestern New Mexico

Author: Finch, S.T.Jr., A. McCoy, and E. Melis

Date: 2008

Publication/journal/publisher: In New Mexico Geological Society Fall Field Conference Guidebook - 59, Geology of the Gila Wilderness-Silver City area, 189-196.

Type of document: Paper in Book

Source of document / Search method (phone, internet, library, etc.):

<http://nmgs.nmt.edu/publications/guidebooks/59/>

Purchase Price: \$45.00 for entire book

Web site address: <http://nmgs.nmt.edu/publications/guidebooks/59/>

Document Location: Contact NMGS

Work initiated by:

Work funded by:

Type of review: Journal Peer Review

Location of Work: Southwestern New Mexico

Abstract or brief summary:

A three-dimensional calibrated regional ground-water flow model of the Mimbres Basin developed by McCoy and Finch (unpubl. report for Chino Mines Company, 2006) shows that ground-water flow is controlled by the geology and structure of the mountain bedrock and basin fill, and that the basin can be divided into four major hydrogeologic regions.

Topic category: Hydrogeology

Keywords: Earth fissure, Mimbres Basin, groundwater levels, deformation, Deming

County: Luna County

Title: Digital documentation of deformation and ground-water levels near an earth fissure in the Mimbres Basin, New Mexico

Author: Friesen, R.L. and W.C. Haneberg

Date: 1992

Publication/journal/publisher: In New Mexico Geological Society, 1992 Annual Spring Meeting, Abstracts with Programs, New Mexico Institute Mining and Technology, Socorro, New Mexico. New Mexico Geology, v. 14 no. 3, p. 63, August 1992.

Type of document: Journal Article

Source of document / Search method (phone, internet, library, etc.):

NMBGMR search

<<http://geoinfo.nmt.edu/publications/search/Results.cfm?Code=V14%2E3NMG&NoForm=TRUE>>

Purchase Price: \$4.00

Web site address:

Document Location: Contact NMBGMR

Work initiated by: NMT, NMBGMR

Work funded by: USGS, WRRRI

Type of review: Symposium peer review

Location of Work: South central Mimbres Basin Near Deming

Abstract or brief summary:

The fissure selected for this study is located approximately 12 mi south and 2 mi west of Deming, New Mexico, in the south-central portion of the Mimbres Basin. To better understand the kinematics and mechanics of fissuring, we began an investigation to determine if sensitive borehole tiltmeters could be used to document surficial deformation near a large fissure. Water levels in this part of the basin have dropped approximately 70 ft since the turn of the century, and previously published geophysical profiles suggest the presence of both buried normal faults and stratigraphic irregularities beneath the fissures. Harmonic analysis of early data from the site shows that tiltmeter signals contain daily, monthly (28 day), and annual periodicities, and that daily tiltmeter maxima correspond to water-level minima. Monitoring at this site is expected to continue for one to two years.

Topic category: Hydrogeology
Keywords: Groundwater, Luna, Red Mountain
County: Luna County

Title: Ground Water Conditions in Area South and West of Red Mountain, Luna County, New Mexico

Author: Galloway, S.E.

Date: 1953

Publication/journal/publisher: Office of the State Engineer Hydrology Report, September 1953

Type of document: Printed report

Source of document / Search method (phone, internet, library, etc.):

salsa search

<<http://salsa.stlib.state.nm.us/ipac20/ipac.jsp?session=S239930108JA8.1284750&profile=ose&uri=full%3D3100001%7E%21702936%7E%2117&source=~!marquis&ri=2&aspect=advanced&menu=search&&ipp=20&spp=20&term=Luna+County&index=.GW&uindex=&oper=&term=Luna+County&index=.SW&uindex=&oper=&term=Luna+County&index=.TW&uindex=&aspect=advanced&menu=search&ri=2#focus>>

Purchase Price: Contact OSE

Web site address:

Document Location: OSE Library

Work initiated by:

Work funded by:

Type of review:

Location of Work:

Abstract or brief summary:

With special reference to predicated effects of future pumpage in T24S R11W and T23S R11W on local and adjacent areas.

Topic category: Hydrogeology
Keywords: Groundwater, San Ignacio Creek Estates,
Catron
County: Catron County

Title: Geologic and hydrologic groundwater conditions in the San Ignacio Creek Estates, Catron, County, NM

Author: Gillespie, E.L.

Date: 1984

Publication/journal/publisher: http://www.worldcat.org/oclc/85832015&referer=brief_results

Type of document: Book

Source of document / Search method (phone, internet, library, etc.):
http://www.worldcat.org/oclc/85832015&referer=brief_results

Purchase Price:

Web site address:

Document Location: WorldCat Libraries

Work initiated by:

Work funded by:

Type of review:

Location of Work: Catron County

Abstract or brief summary:

Topic category: Hydrogeology
Keywords: Groundwater, Last Frontier, Catron
County: Catron County

Title: Geologic & hydrologic ground water conditions of the Last Frontier area, Catron County, NM,
Units no. 11, 11 & IV

Author: Gillespie, E.L.

Date: 1985

Publication/journal/publisher: http://www.worldcat.org/oclc/85832022&referer=brief_results

Type of document: Book

Source of document / Search method (phone, internet, library, etc.):
http://www.worldcat.org/oclc/85832022&referer=brief_results

Purchase Price:

Web site address:

Document Location: WorldCat Libraries

Work initiated by:

Work funded by:

Type of review:

Location of Work: Catron County

Abstract or brief summary:

Topic category: Hydrogeology

Keywords: Mimbres Basin, groundwater levels, earth fissure

County: Luna County

Title: Tilts, strains, and ground-water levels near an earth fissure in the Mimbres Basin, New Mexico

Author: Haneberg W.C. and R.L. Friesen

Date: 1995

Publication/journal/publisher: Geological Society of America Bulletin

Volume 107, Issue 3 (March 1995) pp. 316–326

Type of document: Journal Article

Source of document / Search method (phone, internet, library, etc.):

GSA Journal search <<http://www.gsjournals.org/perlserv/?request=get-pdf&doi=10.1130%2F0016-7606%281995%29107%3C0316%3ATSAGWL%3E2.3.CO%3B2>>

Purchase Price: \$25.00 (1 day access to this article only)

Web site address:

Document Location: Contact GSA

Work initiated by: NMBGMR

Work funded by:

Type of review: Peer review

Location of Work: Mimbres Basin

Abstract or brief summary:

Vertical deflection profiles derived from microradian-sensitivity tiltmeter data collected over a 1 yr period suggest that an earth fissure in the subsiding Mimbres Basin is located near the inflection point of an evolving surficial fold of infinitesimal amplitude. Water levels beneath the study site also fell steadily during the period of observation. Calculated curvature profiles, which reflect the sign and relative magnitude of fiber strain along the ground surface, further imply that the fissure was within a zone of contraction throughout the study period. On the basis of the occurrence of right steps in the trace of the fissure, we speculate that our data may reflect contraction across one of the steps as a consequence of left-lateral slip along the fissure.

Topic category: Hydrogeology

Keywords: Deming, soil deformation, groundwater withdrawal, seismic reflection profiles

County: Luna County

Title: Use of seismic reflection profiles to characterize soil deformation associated with earth fissures and groundwater withdrawal near Deming, New Mexico

Author: Haneberg, W.C.

Date: 1990

Publication/journal/publisher: New Mexico Bureau of Geology and Mineral Resources, Open File Report 367, May 1990.

Type of document: Electronic file (PDF)

Source of document / Search method (phone, internet, library, etc.):
NMBGMR search

Purchase Price: \$10.00

Web site address: http://geoinfo.nmt.edu/publications/openfile/downloads/OFR300-399/351-375/367/ofr_367.pdf

Document Location: NMBGMR online

Work initiated by: NMBGMR

Work funded by: NMBGMR and NMT Research Council

Type of review: Unknown

Location of Work: near Deming, New Mexico

Abstract or brief summary:

Fissures associated with groundwater withdrawal in New Mexico have so far been limited to the Deming area, where groundwater is pumped heavily for irrigation. Funds from the NMIMT Research Council grant were used for collection and processing of 1.5 km of high-resolution, shallow seismic reflection lines across an area of known earth fissures south of Deming, New Mexico. Additional funding from the New Mexico Bureau of Mines and Mineral Resources was used for 1) collection and processing of seismic data, 2) collection of gravimetric and topographic data, and 3) formulation of mechanical models for stress and displacement fields in compressible elastic layers draped over irregularities. Seismic, gravity, and topographic surveys show that the northern Cox earth fissure is developed above a small, shallow structural high, perhaps associated with a series of buried normal faults. In particular, the velocity anomalies associated with the structural high can be understood using a simple mechanical model for flexure of a gravity-loaded elastic layer.

Topic category: Hydrogeology

Keywords: Groundwater, groundwater modeling, bolson-fill aquifer, Mimbres Basin

County: Grant and Luna Counties

Title: Hydrogeologic Framework and Preliminary Simulation of Ground-Water Flow in the Mimbres Basin, Southwestern New Mexico

Author: Hanson, R.T., J.S. McLean, and R.S. Miller

Date: 1994

Publication/journal/publisher: U.S. Geological Survey, Water-Resources Investigations Report 94-4011, Prepared in Cooperation with the New Mexico State Engineer Office, viii, 118 p. :ill., maps ;28 cm.

Type of document: Electronic file (DJVU)

Source of document / Search method (phone, internet, library, etc.):

USGS publication search <<http://pubs.er.usgs.gov/usgspubs/wri/wri944011>>

Purchase Price: \$10.00

Web site address: <http://pubs.er.usgs.gov/usgspubs/wri/wri944011>

Document Location: USGS online

Work initiated by: NM OSE

Work funded by: USGS, NM OSE?

Type of review: Unknown

Location of Work: Mimbres Basin

Abstract or brief summary:

The bolson-fill aquifer is the major water-yielding unit in the Mimbres Basin, and ranges from 0 to about 3,700 feet thick. Ground water generally flows southward from the northern highland areas of the basin. Before 1910, ground-water recharge and discharge were approximately equal; by 1975, however, about 75 percent of the 146,000 acre-feet withdrawn per year was ground water, most of it from ground-water storage. Transmissivity of the bolson-fill aquifer ranges from 10 to 50,000 feet squared per day. Hydraulic conductivity ranges from 0.03 to 800 feet per day. Reported storage-coefficient values representing confined parts of the aquifer range from 0.00036 to 0.0036; those representing unconfined parts of the aquifer range from 0.04 to 0.24.

Topic category: Hydrogeology
Keywords: Hydrogeology, groundwater flow, model
County: Grant and Luna Counties

Title: Regional groundwater flow model : San Vicente Basin, Grant and Luna Counties, New Mexico

Author: Hargis & Montgomery, Inc.

Date: 1983

Publication/journal/publisher: Hargis & Montgomery, Inc. Tucson, Arizona.

Type of document: Report

Source of document / Search method (phone, internet, library, etc.):

http://salsa.stlib.state.nm.us/ipac20/ipac.jsp?session=123RS600A0855.1079587&profile=nms&source=~!marquis&view=subscriptionssummary&uri=full=3100001~!679297~!4&ri=7&aspect=basic_search&menu=search&ipp=20&spp=20&staffonly=&term=Hydrogeology+---+New+Mexico+--+Grant+County.&index=SUBJECT&uindex=&aspect=basic_search&menu=search&ri=7#focus

Purchase Price: Unknown

Web site address:

Document Location: New Mexico State Library

Work initiated by:

Work funded by:

Type of review:

Location of Work: Grant and Luna Counties

Abstract or brief summary:

Topic category: Hydrogeology

Keywords: Little Colorado River, C Aquifer, Catron, Hydrogeology, Groundwater Budget

County: Catron County

Title: Generalized hydrogeology and ground-water budget for the C Aquifer, Little Colorado River basin and parts of the Verde and Salt River basins, Arizona and New Mexico

Author: Hart, R.J., J.J. Ward, D.J. Bills, and M.E. Flynn

Date: 2002

Publication/journal/publisher: U.S. Geological Survey, Water Resources Investigation Report 2002-4026, 47 p. Tucson, Arizona. February 2002.

Type of document: Electronic file (PDF)

Source of document / Search method (phone, internet, library, etc.):

USGS publication search <<http://pubs.er.usgs.gov/usgspubs/wri/wri024026>>

Purchase Price: not in stock

Web site address: <http://az.water.usgs.gov/pubs/pdfs/WRIR02-4026WEB.pdf>

Document Location: USGS online

Work initiated by: USGS

Work funded by: USGS and National Park Service

Type of review: Unknown

Location of Work: Little Colorado River Basin in NM and AZ

Abstract or brief summary:

The C aquifer underlies the Little Colorado River Basin and parts of the Verde and Salt River Basins and is named for the primary water-bearing rock unit of the aquifer, the Coconino Sandstone. Ground-water development in the C aquifer has increased steadily since the 1940s because population growth has produced an increased need for agricultural, industrial, and public water supply. Ground-water budget components for the C aquifer were evaluated using measured or estimated discharge values. Downward leakage to the Redwall-Muav Limestone aquifer is a major discharge component for the ground-water budget.

Topic category: Hydrogeology
Keywords: Hydrology, water transfer, Tyrone, Gila River
County: Grant County

Title: Hydrogeologic Evaluation of Proposed Transfer of Water from the Gila River to Tyrone by the Phelps Dodge Corporation

Author: Hathaway, D.L.

Date: 1986

Publication/journal/publisher: New Mexico Office of the State Engineer

Type of document: Printed report

Source of document / Search method (phone, internet, library, etc.):

http://www.ose.state.nm.us/PDF/Publications/Library/OSE_HydrologyReports.pdf

Purchase Price: Unknown

Web site address: http://www.ose.state.nm.us/PDF/Publications/Library/OSE_HydrologyReports.pdf

Document Location: Contact NM OSE

Work initiated by:

Work funded by:

Type of review:

Location of Work: Grant County

Abstract or brief summary:

Topic category: Hydrogeology
Keywords: Ground Water Appropriation, Mimbres Basin
County:

Title: Hydrogeologic Evaluation of A.T. Cross Cattle Company Applications M-4750 Through M-4759 to Appropriate Ground Water from the Mimbres Basin

Author: Hathaway, D.L.

Date: 1987

Publication/journal/publisher: Office of the State Engineer Hydrology Report April 1987 TDH87-8

Type of document:

Source of document / Search method (phone, internet, library, etc.):

http://www.ose.state.nm.us/publications_library_hydrologyrpts.html

Purchase Price:

Web site address:

Document Location:

Work initiated by:

Work funded by:

Type of review:

Location of Work: Mimbres Basin

Abstract or brief summary:

Topic category: Hydrogeology
Keywords: Ground-water modeling, Animas Valley,
Hidalgo County
County: Hidalgo County

Title: Ground-Water Modeling in a Southwestern Alluvial Basin

Author: Hawkins, D.B. and D.B. Stephens

Date: 1983

Publication/journal/publisher: Ground Water, Volume 21, Number 6, 733-739.

Type of document: Journal Article

Source of document / Search method (phone, internet, library, etc.):

Purchase Price: Unknown

Web site address:

Document Location: DBS&A Library

Work initiated by:

Work funded by:

Type of review: Peer reviewed

Location of Work: Animas Valley, Hidalgo County

Abstract or brief summary:

This paper focuses on the application of a numerical ground-water flow model to part of a southwestern alluvial basin. The model study emphasizes the parameter estimation and calibration process. In particular, the paper discusses the application of a flow net and a stochastic interpolation scheme called kriging to determine the distribution of transmissivities to be used as input to the model. The study area includes the Lower Animas Valley between the village of Animas and Interstate Route 10 and between the Pyramid and Peloncillo Mountains. The model area also encompasses most of the Lightning Dock Known Geothermal Resource Area.

Topic category: Hydrogeology
Keywords: Groundwater, aquifer, trans-international
County: Southwestern NM

Title: Trans-International Boundary Aquifers in Southwestern New Mexico

Author: Hawley, J.W., B.J. Hibbs, J.F. Kennedy, B.J. Creel, M.D. Remmenga, M. Johnson, M.M. Lee, and P. Dinterman

Date: 2000

Publication/journal/publisher: Prepared for the U.S. Environmental Protection Agency-Region 6 and the International Boundary and Water Commission-U.S. Section. Technical Completion Report, Interagency contract number X-996350-01-3, New Mexico Water Resources Research Institute. March 2000

Type of document: printed report, pdf

Source of document / Search method (phone, internet, library, etc.):

<http://wrri.nmsu.edu/publish/otherhpt/swnm/DjVu/downl.html>

Purchase Price: available online

Web site address: <http://wrri.nmsu.edu/publish/otherhpt/swnm/DjVu/downl.html>

Document Location: online

Work initiated by: US EPA and NM WRRI

Work funded by: US EPA and NM WRRI

Type of review: Peer review

Location of Work: Southwestern New Mexico

Abstract or brief summary:

The study was undertaken to characterize binational aquifers in southwestern New Mexico and prepare data for an international data exchange with the Republic of Mexico. This report covers an area of about 37,000 km² in southwestern New Mexico and adjacent parts of Arizona and Mexico. In both the Mexican Highland and Datil-Mogollon sections, groundwater occurs primarily in poorly consolidated sediments.

Topic category: Hydrogeology

Keywords: Mimbres Basin, alluvial-fill thickness, gravity anomalies

County: Southwestern NM

Title: Estimation of alluvial-fill thickness in the Mimbres ground-water basin, New Mexico, from interpretation of isostatic residual gravity anomalies

Author: Heywood, C.E.

Date: 2002

Publication/journal/publisher: US Geological Survey, Water Resources Investigations Report 2002-4007, 15 p. Albuquerque, New Mexico, 2002.

Type of document: Electronic file (PDF)

Source of document / Search method (phone, internet, library, etc.):
internet <<http://pubs.er.usgs.gov/usgspubs/wri/wri024007>>

Purchase Price: \$4.00

Web site address: <http://nm.water.usgs.gov/publications/abstracts/wrir02-4007.pdf>

Document Location: USGS online

Work initiated by: USGS, OSE

Work funded by: USGS, OSE

Type of review: Agency Review

Location of Work: Mimbres Basin

Abstract or brief summary:

The geologic structure of the Mimbres ground-water basin in southwest New Mexico is characterized by north- and northwest-trending structural subbasins. Sedimentation of Miocene and Pliocene age has filled and obscured the boundaries of these subbasins and formed potentially productive aquifers of varied thickness. The location and depth of the subbasins can be estimated from analysis of isostatic residual gravity anomalies. Density contrasts of various basement lithologies generate complex regional gravity trends, which are convolved with the gravity signal from the Miocene and Pliocene alluvial fill. An iterative scheme was used to separate these regional gravity trends from the alluvial-fill gravity signal, which was inverted with estimated depth-density relations to compute the thickness of the alluvial fill at 1-kilometer spacing. The thickness estimates were constrained by exploratory drill-hole information, interpreted seismic-refraction profiles, and location of bedrock lithology from surficial geologic mapping. The resulting map of alluvial-fill thickness suggests large areas of thin alluvium that separate deep structural subbasins.

Topic category: Hydrogeology

Keywords: Animas Basin, Gila river, Mimbres river basin, ground water, ground-water quality

County: Grant, Hidalgo, Catron, Luna

Title: Some notes on the hydrogeology and ground-water quality of the Animas system, southwestern New Mexico

Author: Hibbs, B.J., M.M. Lee, J.W. Hawley, and J.F. Kennedy

Date: 2000

Publication/journal/publisher: New Mexico Geological Society Fall Field Conference Guidebook - 51, Southwest Passage-A trip through the Phanerozoic

Type of document: Paper in Book

Source of document / Search method (phone, internet, library, etc.):

<http://nmgs.nmt.edu/publications/guidebooks/51/>

Purchase Price: \$25.00 for Entire Book

Web site address: <http://nmgs.nmt.edu/publications/guidebooks/51/>

Document Location: Contact NMGS

Work initiated by: California State University and New Mexico Sate University

Work funded by:

Type of review: Journal Peer Review

Location of Work: Grant, Hidalgo, Catron, Luna

Abstract or brief summary:

The Animas basin system comprises an interconnected group of four subbasins (Lordsburg, Lower and Upper Animas, and Cloverdale) with a total surface watershed of about 6340 km², and a ground-water flow system area of about 6025 km².

Topic category: Hydrogeology

Keywords: Groundwater, permit, location change, well,
Gila-San Francisco Underground Water Basin

County: Grant County

Title: Hydrologic Evaluation of Application GSF-1745 into GSF-1014 for Permit to Change Location of Well and Place or Purpose of Use in the Gila-San Francisco Underground Water Basin, Grant County, New Mexico

Author: Johnson, M.S.

Date: 2000

Publication/journal/publisher: New Mexico Office of the State Engineer, Technical Division Hydrology Report 00-3. December 2000.

Type of document: Printed report

Source of document / Search method (phone, internet, library, etc.):

http://www.ose.state.nm.us/PDF/Publications/Library/OSE_HydrologyReports.pdf

Purchase Price: Contact OSE

Web site address: http://www.ose.state.nm.us/PDF/Publications/Library/OSE_HydrologyReports.pdf

Document Location: DBS&A SW library

Work initiated by: OSE

Work funded by: OSE

Type of review: Agency Review

Location of Work: Gila-San Francisco Basin, Grant County

Abstract or brief summary:

A ground-water flow model of the Silver City area that includes the move-to site was developed and used to estimate hydrologic effects of the transfer proposed in the application GSF-1745 into GSF-1014. Application was made to change location of well and place or purpose of use of 574.71 ac-ft/yr of ground water used for mining, milling and related purposes at the Pinos Altos Mines in the Gila-San Francisco Basin under GSF-1745, to municipal, industrial, domestic and all other purposes allowed under GSF-1014. The hydrologic issues addressed in this report are as follows: 1) capacity of the existing diversion works (wells) and source of supply (aquifer) to supply the requested diversions; 2) depletions to surface water sources in the area such as Mangas Springs and the Gila River resulting from the proposed diversions; and 3) water-level changes at wells of other ownership and at administrative blocks in the Mimbres Basin.

Topic category: Hydrogeology
Keywords: Groundwater, groundwater model, Silver City
County: Grant County

Title: Modifications to the OSE Silver City Ground-Water Flow Model

Author: Johnson, M.S.

Date: 2002

Publication/journal/publisher: New Mexico Office of the State Engineer, Technical Memorandum, February 6, 2002

Type of document:

Source of document / Search method (phone, internet, library, etc.):

Office of the State Engineer, Tom Morrison, Hydrology Bureau Chief

Purchase Price:

Web site address:

Document Location: Personal communication with Mike Johnson, mike.johnson@state.nm.us

Work initiated by: OSE

Work funded by: OSE

Type of review: Agency Review

Location of Work: Silver City

Abstract or brief summary:

The purpose of this memorandum is to document some modifications to a ground-water flow model originally developed by the Office of the State Engineer (OSE) Hydrology Bureau for a water rights evaluation involving one of the Town of Silver City's well fields (Johnson, 2000). The model is to be used at the request of the Interstate Stream Commission to analyze ground-water pumping to meet projected municipal demands in the central Grant County area (Silver City, Central and Bayard), as an alternative to meeting these demands by developing a surface water supply from the Gila River.

Topic category: Hydrogeology

Keywords: Groundwater, development, Southwest New Mexico

County: Southwestern NM

Title: Analysis of Effects of Ground-Water Development to Meet Projected Demands in Regional Planning District 4, Southwest New Mexico

Author: Johnson, M.S., L.M. Logan, and D.H. Rappuhn

Date: 2002

Publication/journal/publisher: New Mexico Office of the State Engineer Hydrology Bureau, Hydrology Report 02-04, March 2002.

Type of document: Electronic file (PDF)

Source of document / Search method (phone, internet, library, etc.):

http://www.ose.state.nm.us/publications_library_hydrologyrpts.html

Purchase Price:

Web site address: <http://www.ose.state.nm.us/PDF/Publications/Library/HydrologyReports/HR-02-04.pdf>

Document Location: NM OSE

Work initiated by: NM OSE, Hydrology Bureau

Work funded by:

Type of review: None

Location of Work: Silver City area, Luna County, Deming, Columbus, Lordsburg, Animas Basin

Abstract or brief summary:

The Colorado River Basin Project Act of 1968 allows for the consumptive use of an annual average of 18,000 ac-ft of Gila River water in any period of ten consecutive years by New Mexico users. Potential uses for New Mexico's portion of the Gila River supply include agricultural, municipal, and industrial uses in Grant, Hidalgo, and Luna Counties. This water could replace future groundwater demands. This report evaluates existing groundwater supplies and estimates the hydrologic effects of attempting to meet selected future demands through continued groundwater pumping.

Topic category: Hydrogeology

Keywords: Mimbres, Animas, Playas Basin, Luna, Grant, Hidalgo, Hydrogeology, basin-fill aquifers, ground water

County: Grant, Hidalgo, Luna Counties

Title: The hydrogeologic framework of the basin-fill aquifers and associated ground-water-flow systems in southwestern New Mexico--an overview

Author: Kennedy, J.F., J.W. Hawley, and M. Johnson

Date: 2000

Publication/journal/publisher: New Mexico Geological Society Fall Field Conference Guidebook - 51, Southwest Passage-A trip through the Phanerozoic

Type of document: Paper in Book

Source of document / Search method (phone, internet, library, etc.):

<http://nmgs.nmt.edu/publications/guidebooks/51/>

Purchase Price: \$25.00 for Entire Book

Web site address: <http://nmgs.nmt.edu/publications/guidebooks/51/>

Document Location: Contact NMGS

Work initiated by: New Mexico Water Resources Research institute

Work funded by:

Type of review: Journal Peer Review

Location of Work: Mimbres, Animas and Playas Basins in Luna, Grant and Hidalgo Counties

Abstract or brief summary:

Ongoing cooperation between the governments of the United States and the Republic of Mexico particularly projects involving the U.S. Environmental Protection Agency, requires that major aquifer systems with transboundary components be adequately characterized in terms of their hydrogeologic framework, ground-water-flow regimes and water-quality conditions. As part of this program, the New Mexico Water Resources Research Institute and cooperating institutions have developed Geographic Information System (GIS) coverages (ARC/INFO® format) that integrate large amounts of available surface and subsurface information on basin-fill aquifers in the International Boundary region between Trans-Pecos Texas and southeastern Arizona.

Topic category: Hydrogeology

Keywords: Groundwater, groundwater model, basin-fill aquifer

County: New Mexico

Title: Summary of U.S. Geological Survey ground-water-flow models of basin-fill aquifers in the Southwestern Alluvial Basins region, Colorado, New Mexico, and Texas

Author: Kernodle, J.M.

Date: 1992

Publication/journal/publisher: U.S. Geological Survey, Open-File Report 90-361, viii, 81 p. :ill., maps ;28 cm.

Type of document: Electronic file (DJVU)

Source of document / Search method (phone, internet, library, etc.):

USGS publication search <<http://pubs.er.usgs.gov/usgspubs/ofr/ofr90361>>

Purchase Price: \$15.00

Web site address: <http://pubs.er.usgs.gov/usgspubs/ofr/ofr90361>

Document Location: USGS online

Work initiated by: USGS

Work funded by: USGS

Type of review: Unknown

Location of Work: New Mexico, Colorado, Texas, Animas Basin

Abstract or brief summary:

Four ground-water-flow models of basin-fill aquifer systems in Colorado, new Mexico, and Texas were completed in conjunction with the Southwest Alluvial Basins study that is part of the Geological Survey's Regional Aquifer-System Analysis program. Includes modeling of the Animas Basin in NM.

Topic category: Hydrogeology

Keywords: Geology, water-bearing, Grant County, Tyrone

County: Grant County

Title: Water-bearing properties of selected geologic materials in mining areas of Grant County, New Mexico

Author: Kilmer, C.L.

Date: 2008

Publication/journal/publisher: In New Mexico Geological Society Fall Field Conference Guidebook - 59, Geology of the Gila Wilderness-Silver City area, 199-203.

Type of document: Paper in Book

Source of document / Search method (phone, internet, library, etc.):

<http://nmgs.nmt.edu/publications/guidebooks/59/>

Purchase Price: \$45.00

Web site address: <http://nmgs.nmt.edu/publications/guidebooks/59/>

Document Location: Contact NMGS

Work initiated by:

Work funded by:

Type of review: Journal Peer Review

Location of Work: Grant County

Abstract or brief summary:

Investigations related to mining activities in Grant County have resulted in the development of significant amounts of information on ground-water occurrence and water-bearing properties of geologic materials in the principal mining areas of the county. This information is seldom published, but constitutes a valuable resource for present and future efforts to understand and manage ground-water resources in the area. This paper presents summary data from well tests performed in the principal central Grant County mining areas, including the Tyrone, Fierro-Hanover, Santa Rita, and Hurley areas. A brief summary of published resources on ground-water occurrence in Grant County is also included.

Topic category: Hydrogeology

Keywords: Gila River valley, Grant, pipelines, geology, hydrology, water supply

County: Grant County

Title: Geohydrology of the upper pipe line draw area Grant County, New Mexico, Addendum

Author: Lavery N.G. and F.D. Trauger

Date: 1977

Publication/journal/publisher: Exxon Company

Type of document: loose-leaf notebook with maps

Source of document / Search method (phone, internet, library, etc.):

Salsa search

<http://salsa.stlib.state.nm.us/ipac20/ipac.jsp?session=O23F92393101W.1279270&profile=ose&source=~!marquis&view=subscriptionssummary&uri=full=3100001~!679425~!5&ri=4&aspect=basic_search&menu=search&ipp=20&spp=20&staffonly=&term=Water-supply+--+New+Mexico+--+Grant+County.&index=SUBJECT&uindex=&aspect=basic_search&menu=search&ri=4#focus>

Purchase Price: Contact OSE

Web site address:

Document Location: OSE Library

Work initiated by:

Work funded by:

Type of review:

Location of Work: Grant County

Abstract or brief summary:

Topic category: Hydrogeology

Keywords: Gila conglomerate, permeability, Tyrone, Grant

County: Grant County

Title: The lower part of the Gila conglomerate: Its extent and permeability in the vicinity of Tyrone, Grant County, New Mexico

Author: Lavery N.G. and F.D. Trauger

Date: 1977

Publication/journal/publisher: Exxon Company

Type of document: map

Source of document / Search method (phone, internet, library, etc.):

Salsa search

<http://salsa.stlib.state.nm.us/ipac20/ipac.jsp?session=O23F92393101W.1279270&profile=ose&source=~!marquis&view=subscriptionssummary&uri=full=3100001~!679426~!7&ri=4&aspect=basic_search&menu=search&ipp=20&spp=20&staffonly=&term=Water-supply+--+New+Mexico+--+Grant+County.&index=SUBJECT&uindex=&aspect=basic_search&menu=search&ri=4#focus>

Purchase Price:

Web site address:

Document Location: OSE Library

Work initiated by:

Work funded by:

Type of review:

Location of Work: Grant County

Abstract or brief summary:

Topic category: Hydrogeology
Keywords: Groundwater, Lordsburg, Grant
County: Grant County

Title: Four Ground-Water Studies Near Lordsburg, New Mexico

Author: Loeltz, O.J., A.M. Morgan, C.R. Murray, and C.V. Theis

Date: 1942

Publication/journal/publisher: Published in Sixteenth and Seventeenth Biennial Reports of the State Engineer of New Mexico, for the 31st, 33rd, and 34th Fiscal Years, July 1, 1942 to June 30, 1946. Prepared in cooperation with U.S. Geological Survey.

Type of document: Printed report

Source of document / Search method (phone, internet, library, etc.):
DBS&A Library

Purchase Price: Contact OSE

Web site address:

Document Location: OSE

Work initiated by: OSE, USGS

Work funded by: ACE

Type of review: Agency Peer Review

Location of Work: Lordsburg, New Mexico

Abstract or brief summary:

Contains summaries for the following studies: 1) Ground-water conditions near Lordsburg, NM; 2) Report on pumping tests conducted for US Corps of Engineers on Lordsburg Army Camp Well No. 1 in New Mexico; 3) Report of testing of water-supply well for Lordsburg Airfield, Lordsburg, New Mexico; and 4) Ground-water conditions near Lordsburg, New Mexico.

Topic category: Hydrogeology
Keywords: Groundwater, Sawtooth, Pie Town
County: Catron County

Title: The hydrogeology of the Sawtooth Subdivision near Pie Town, NM

Author: MacGill, P.

Date: 1995

Publication/journal/publisher:

Type of document: Book

Source of document / Search method (phone, internet, library, etc.):

http://www.worldcat.org/oclc/124272726&referer=brief_results

Purchase Price: Unknown

Web site address: http://www.worldcat.org/oclc/124272726&referer=brief_results

Document Location: New Mexico State Library

Work initiated by:

Work funded by:

Type of review:

Location of Work: Catron County

Abstract or brief summary:

Topic category: Hydrogeology
Keywords: Groundwater, Starfire Ranch, Quemado
County: Catron County

Title: The geohydrology of the "Starfire Ranch" Subdivision north of Quemado, NM

Author: MacGill, P.

Date: 1996

Publication/journal/publisher:

Type of document: Book

Source of document / Search method (phone, internet, library, etc.):

http://www.worldcat.org/oclc/136124083&referer=brief_results

Purchase Price: Unknown

Web site address: http://www.worldcat.org/oclc/136124083&referer=brief_results

Document Location: New Mexico State Library

Work initiated by:

Work funded by:

Type of review:

Location of Work: Catron County

Abstract or brief summary:

Topic category: Hydrogeology
Keywords: Gila River, point of diversion
County:

Title: Hydrogeologic Evaluation of Proposed Change in Point of Diversion to the Gila River by the Phelps Dodge Corporation, GSF-70-D-A into 02260 and GSF-331 into 02260

Author: Mattingly, B.E.

Date: 1989

Publication/journal/publisher: New Mexico Office of the State Engineer TDH-89-5, June 1989

Type of document:

Source of document / Search method (phone, internet, library, etc.):

http://www.ose.state.nm.us/publications_library_hydrologyrpts.html

Purchase Price:

Web site address:

Document Location:

Work initiated by:

Work funded by:

Type of review:

Location of Work:

Abstract or brief summary:

Topic category: Hydrogeology

Keywords: Groundwater, groundwater model, Chino Mine, Discharge, Discharge Permit

County: Grant and Luna Counties

Title: Mimbres Basin ground-water-flow model in support of Chino Mines Company supplemental discharge permit for closure, DP-1340, Condition 86

Author: McCoy, A. and S.T.Jr. Finch

Date: 2006

Publication/journal/publisher: John Shomaker & Associates, Inc. Water Resource and Environmental Consultants, Albuquerque, NM. Prepared for Chino Mines Company, Hurley, New Mexico. February 2006. Appendix D of Report on Water Treatment System Sustainability, DP-1340, Condition 86.

Type of document: Printed report

Source of document / Search method (phone, internet, library, etc.):

internet (from Sandia Labs reference list)

<https://waterportal.sandia.gov/nmstateengineer/models/sn1modelassumptions>

Purchase Price: NA

Web site address:

Document Location: Contact NMED

Work initiated by: John Shomaker and Associates

Work funded by: Chino Mines Company

Type of review: Agency Review

Location of Work: Mimbres Basin

Abstract or brief summary:

The report is the complete documentation for the regional ground-water-flow model used in sustainability analysis of Chino's proposed water treatment system. The three objectives of the ground-water-flow modeling are: 1) evaluate water-supply availability for Chino's Closure-Closeout Plan; 2) evaluate regional transport and capture of ground-water contaminants; and 3) evaluate ground-water management options. JSAI developed a calibrated, three-dimensional, finite-difference ground-water-flow model to represent the basin-fill and bedrock aquifers of the Mimbres Basin, using previous ground-water-flow models as a foundation. The JSAI model covers the entire Mimbres Basin, has four elevation-based layers, and a uniform grid spacing of 0.5 miles. The report includes detailed discussion of the conceptual model of the Mimbres Basin, model framework, model calibration, and predictive model results.

Topic category: Hydrogeology

Keywords: Soil moisture, phreatophytes, salt cedar,
Gila River

County: Arizona

Title: Soil-moisture and energy relationships associated with riparian vegetation near San Carlos, Arizona

Author: McQueen, I.S. and R.F. Miller

Date: 1972

Publication/journal/publisher: U.S. Geological Survey, Professional Paper 655-E, 50 p.

Type of document: Electronic file (DJVU)

Source of document / Search method (phone, internet, library, etc.):

USGS publication search <<http://pubs.er.usgs.gov/usgspubs/pp/pp655E>>

Purchase Price: \$2.25

Web site address:

Document Location: USGS online

Work initiated by: USGS

Work funded by: USGS

Type of review: Unknown

Location of Work: San Carlos, Arizona

Abstract or brief summary:

Measurements of soil-moisture content and stress made under and near selected species of riparian trees in Arizona supply additional knowledge about the mechanism of moisture movement and utilization. Solar radiation provides energy to move soil moisture both upward and downward from the upper part of a soil profile. Profiles of chemical analyses show higher concentrations of salts at the surfaces of unshaded sites than at the surfaces of shaded sites, which indicates that evaporation loss is greater at unshaded sites than at shaded sites. This relation is confirmed by moisture-stress profiles. Profiles of soil-moisture stress under salt cedar and willow trees show no evidence of soil-moisture depletion by the trees. At one site, soil moisture increased during the season of maximum plant growth, even though a dense stand of annual grasses was growing on the site. The tree roots may have supplied moisture to the soils to maintain the soil moisture in hydraulic equilibrium with the water table. Cottonwood and mesquite trees, however, deplete soil moisture even when ground water is available.

Topic category: Hydrogeology
Keywords: Groundwater, Duncan Virden Valley, wells, springs, water analysis, map, Hidalgo
County: Hidalgo County

Title: Duncan-Virden Valley Greenlee County, AZ and Hidalgo County, NM: Records of Wells and Springs, Well Logs, Water Analyses and Map Showing Locations of Wells and Springs

Author: Morrison, R.B. and H.M. Babcock

Date: 1942

Publication/journal/publisher: Geological Survey (US), AZ State Water Commissioner, Tucson, AZ

Type of document: Book

Source of document / Search method (phone, internet, library, etc.):

Purchase Price:

Web site address:

Document Location:

Work initiated by:

Work funded by:

Type of review:

Location of Work: Hidalgo County

Abstract or brief summary:

Topic category: Hydrogeology

Keywords: Groundwater, Zuni Salt Lake, Coal mining, surface mining, springs

County: Catron County

Title: Geohydrology and Potential Hydrologic Effects of Surface Coal Mining of the San Agustin Coal Area and Adjacent Areas, Catron and Cibola Counties, New Mexico

Author: Myers, R.G.

Date: 1992

Publication/journal/publisher: U.S. Geological Survey, Water-Resources Investigations Report 92-4004, v, 52 p. :ill., maps ;28 cm., Prepared in cooperation with the U.S. Bureau of Land Management.

Type of document: Electronic file (DJVU)

Source of document / Search method (phone, internet, library, etc.):

USGS publication search <<http://pubs.er.usgs.gov/usgspubs/wri/wri924004>>

Purchase Price: \$15.00

Web site address: <http://pubs.er.usgs.gov/usgspubs/wri/wri924004>

Document Location: USGS website

Work initiated by: USGS, BLM

Work funded by: USGS, BLM

Type of review: Unknown

Location of Work: San Agustin Coal area, Catron and Cibola Counties

Abstract or brief summary:

The San Augustine Coal Area is located in northwestern Catron County and southwestern Cibola County in west-central New Mexico. Coal is present in the Cretaceous Dakota Sandstone and in the upper and lower members of the Moreno Hill Formation of the Cretaceous Mesaverde Group. Aquifers are present in the Triassic Chinle Formation; Cretaceous units including the main body of the Dakota Sandstone, the Mancos Shale and intertongued Dakota Sandstone, and Mesaverde Group; the Tertiary Baca Formation and Datil Group; and the Quaternary alluvium. The potentiometric surface of each aquifer is controlled by the surface-water drainage system and topography. The water in these aquifers is generally fresh but locally is brackish. The aquifers in the Dakota SS, Mesaverde Group and the alluvium would be affected most by mining activities in the area. Wells and springs within the excavated area would be destroyed. Main effect of the mining would be lowering water levels. Zuni Salt Lake and a small cinder-cone lake that contain brine are used by Pueblo Indians for religious purposes and for the production of salt. Coal-mining activities within the subbasins that contribute surface-water runoff to Zuni Salt Lake could decrease the quality of the salt produced, the discharge from Smith Spring, and the volume of water in Zuni Salt Lake.

Topic category: Hydrogeology

Keywords: Groundwater, San Agustin, Alamosa Creek, Monticello Box, Upper Gila Basin, aquifer, basalt, wells

County: Catron County

Title: Geohydrology of the San Agustin Basin, Alamosa Creek Basin Upstream from Monticello Box, and Upper Gila Basin in Parts of Catron, Socorro, and Sierra Counties, New Mexico

Author: Myers, R.G., J.T. Everheart and C.A. Wilson

Date: 1994

Publication/journal/publisher: U.S. Geological Survey, Water Resources Investigations Report 94-4125, v, 70 p. :ill., maps ;28 cm., Prepared in Cooperation with the New Mexico State Engineer Office.

Type of document: Electronic file (DJVU)

Source of document / Search method (phone, internet, library, etc.):

USGS publication search <<http://pubs.er.usgs.gov/usgspubs/wri/wri944125>>

Purchase Price: \$10.00

Web site address: <http://pubs.er.usgs.gov/usgspubs/wri/wri944125>

Document Location: USGS website

Work initiated by: USGS

Work funded by: USGS

Type of review: Unknown

Location of Work: San Agustin Basin and Upper Gila Basin, Catron, Socorro, and Sierra Counties

Abstract or brief summary:

The San Agustin Basin, the Alamosa Creek Basin upstream from Monticello Box, and the upper Gila Basin are located in parts of Catron, Socorro, and Sierra Counties in west-central New Mexico. Four major aquifers are within the study area: (1) the San Agustin bolson-fill aquifer; (2) the Datil aquifer; (3) the shallow upland aquifers; and (4) the Alamosa Creek shallow aquifer. Two minor aquifers, the Baca Formation at the northern edge of the San Agustin Basin and a basalt to basaltic andesite unit overlying the Datil Group, yield some water to wells. Sixty-three vertical electrical- resistivity soundings were used to estimate the depth to bedrock and the saline/freshwater interface in the San Agustin bolson-fill aquifer. The dissolved-solids concentration of ground-water samples ranged from 74 to 23,500 milligrams per liter. The dominant cations varied; the dominant anion of freshwater generally was bicarbonate. Point-of-discharge temperatures of well or spring water that exceed 21 degrees Celsius are associated with faults in the areas of shallow or exposed bedrock. The dissolved-solids concentration of this warm water ranged from 120 to 1,200 milligrams per liter.

Topic category: Hydrogeology
Keywords: Groundwater, surface water, water rights, allocations
County: New Mexico

Title: Water Administration Technical Engineering Resource System (W.A.T.E.R.S.) database

Author: New Mexico Office of the State Engineer and Interstate Stream Commission

Date:

Publication/journal/publisher: < http://www.ose.state.nm.us/waters_db_index.html >

Type of document: Electronic file (online)

Source of document / Search method (phone, internet, library, etc.):
internet

Purchase Price: available online

Web site address: http://www.ose.state.nm.us/waters_db_index.html

Document Location: NM OSE online

Work initiated by: NM OSE

Work funded by: NM OSE

Type of review: Agency Review

Location of Work: New Mexico

Abstract or brief summary:

A searchable database of well data, surface water data, and water rights data.

Topic category: Hydrogeology
Keywords: Groundwater, landfill, Turner Ranch
County: Grant County

Title: Preliminary Assessment of Hydrogeologic Conditions at Proposed Turner Ranch Landfill Site, Grant County, New Mexico

Author: Newcomer, R.W. Jr.

Date: 1994

Publication/journal/publisher: John Shomaker and Associates, Inc. Albuquerque, New Mexico.
Prepared for Engineers Inc., Silver City, New Mexico. July 25, 1994

Type of document: Printed report

Source of document / Search method (phone, internet, library, etc.):
DBS&A Southwest Library

Purchase Price: Contact John Shomaker and Assoc.

Web site address:

Document Location: DBS&A SW library

Work initiated by: John Shomaker and Associates

Work funded by: Engineers, Inc.

Type of review:

Location of Work: Turner Ranch Landfill Site, Grant County, NM

Abstract or brief summary:

Engineers, Inc. retained John Shomaker & Associates (JSAI) to perform a preliminary assessment of the hydrogeologic conditions at the proposed Turner Ranch landfill site. As a part of the study, JSAI evaluated existing information, review published and unpublished hydrogeologic and geologic information for the area, and collected and logged drill cuttings from four test holes, which were completed as monitor wells at the site. The depth to water in the part of the site where waste will be placed ranges from 100 to 150 ft. There are no known faults within 200 ft of the site. Evaporation appears to exceed precipitation for much of the year.

Topic category: Hydrogeology
Keywords: Groundwater, Animas Valley
County: Hidalgo County

Title: Water-level data compiled for hydrogeologic study of Animas Valley, Hidalgo County, New Mexico

Author: O'Brien, K.M. and W.J. Stone

Date: 1981

Publication/journal/publisher: New Mexico Bureau of Mines and Mineral Resources, Socorro, NM, Open File Report 130, 66 pages.

Type of document: printed report, pdf

Source of document / Search method (phone, internet, library, etc.):

NMBGMR search <<http://geoinfo.nmt.edu/publications/openfile/details.cfm?Volume=130>>

Purchase Price: \$10.00 for CD

Web site address: http://geoinfo.nmt.edu/publications/openfile/downloads/OFR100-199/126-150/130/ofr_130.pdf

Document Location: NMT online

Work initiated by: USGS

Work funded by: USGS

Type of review: Unknown

Location of Work: Animas Valley, Hidalgo County

Abstract or brief summary:

The Animas Valley is a closed basin located in western Hidalgo County, southwest New Mexico. The present study was initiated as part of the US Geological Survey Water-Resource Division's Southwest Alluvial Basin Regional Aquifer System Analysis. This report (OF-130) gives the basic water-level data compiled. Water-level data used in this report were compiled from published sources and the files of the Deming Office of the New Mexico State Engineer. Comparison of the depth to water in 1913 and in 1976 at similar locations yields, in most cases, a water-level decline.

Topic category: Hydrogeology

Keywords: Groundwater, wells, Hidalgo, drilling, geophysical, Animas Valley

County: Hidalgo County

Title: Drill Hole and Testing Data Compiled for Hydrogeologic Study of Animas Valley, Hidalgo County, New Mexico

Author: O'Brien, K.M. and W.J. Stone

Date: 1982

Publication/journal/publisher: New Mexico Bureau of Mines and Mineral Resources, Socorro, New Mexico, Open-file Report 132, 81 pages.

Type of document: Electronic file (PDF)

Source of document / Search method (phone, internet, library, etc.):

NMBGMR search <<http://geoinfo.nmt.edu/publications/openfile/details.cfm?Volume=132>>

Purchase Price: \$10.00 for CD

Web site address: http://geoinfo.nmt.edu/publications/openfile/downloads/OFR100-199/126-150/132/ofr_132.pdf

Document Location: NMT online

Work initiated by: USGS

Work funded by: USGS

Type of review: Unknown

Location of Work: Animas Valley, Hidalgo County

Abstract or brief summary:

New Mexico Bureau of Mines and Mineral Resources conducted this investigation of groundwater resources in the Animas Valley under contract to USGS. This report gives the drill hole and testing data including description of cuttings, soil samples, sieve analyses, and geophysical logging.

Topic category: Hydrogeology
Keywords: Groundwater, Animas Valley
County: Hidalgo County

Title: Water-quality data compiled for hydrogeologic study of Animas Valley, Hidalgo County, New Mexico

Author: O'Brien, K.M. and W.J. Stone

Date: 1982

Publication/journal/publisher: New Mexico Bureau of Mines and Mineral Resources, Socorro, NM, Open File Report 131, 27 pages.

Type of document: printed report, pdf

Source of document / Search method (phone, internet, library, etc.):

NMBGMR search <<http://geoinfo.nmt.edu/publications/openfile/details.cfm?Volume=131>>

Purchase Price: \$10.00 for CD

Web site address: http://geoinfo.nmt.edu/publications/openfile/downloads/OFR100-199/126-150/131/ofr_131.pdf

Document Location: NMT online

Work initiated by: USGS

Work funded by: USGS

Type of review: Unknown

Location of Work: Animas Valley, Hidalgo County

Abstract or brief summary:

Water quality data including specific conductance, cations and anions for the upper, middle, and lower Animas valley and the known geothermal resource area (KGRA).

Topic category: Hydrogeology
Keywords: Hydrologic model, Animas Valley, Hidalgo
County: Hidalgo County

Title: A Two-Dimensional Hydrologic Model of the Animas Valley, Hidalgo County, New Mexico

Author: O'Brien, K.M. and W.J. Stone

Date: 1983

Publication/journal/publisher: New Mexico Bureau of Mines and Mineral Resources, Open-File Report 133, January 1983, 51 pages.

Type of document: Electronic file (PDF)

Source of document / Search method (phone, internet, library, etc.):

NMBGMR search <<http://geoinfo.nmt.edu/publications/openfile/details.cfm?Volume=133>>

Purchase Price: \$10.00 for CD

Web site address: http://geoinfo.nmt.edu/publications/openfile/downloads/OFR100-199/126-150/133/ofr_133.pdf

Document Location: NMBGMR online

Work initiated by: USGS

Work funded by: USGS

Type of review: Peer review

Location of Work: Animas Valley, Hidalgo County

Abstract or brief summary:

A model using a steady-state simulation and a transient simulation of groundwater flow in the Animas Valley was run. This report details results of the modeling simulations.

Topic category: Hydrogeology
Keywords: Groundwater, Animas Valley
County: Hidalgo County

Title: Ground Water in Animas Valley, Hidalgo County, New Mexico

Author: Reeder, H.O.

Date: 1957

Publication/journal/publisher: State of New Mexico, State Engineer Office, Technical Report No. 11.
Prepared in cooperation with the U.S. Geological Survey.

Type of document: Printed report

Source of document / Search method (phone, internet, library, etc.):

http://www.ose.state.nm.us/PDF/Publications/Library/OSE_TechnicalReports.pdf

Purchase Price: Contact OSE

Web site address: <http://www.ose.state.nm.us/PDF/Publications/Library/TechnicalReports/TechReport-011.pdf>

Document Location: Contact NM OSE

Work initiated by: USGS, OSE

Work funded by: USGS, OSE

Type of review: Agency Review

Location of Work: Animas Valley, Hidalgo County

Abstract or brief summary:

This investigation was made primarily to obtain information on the development of ground water for irrigation in the Animas Valley and to evaluate the effects of pumping on the ground-water supply. Tests made on a number of wells throughout the valley indicate wide ranges in yield, drawdown, and specific capacity. The coefficient of transmissibility of the aquifer, on the basis of three aquifer tests and the specific capacity of the wells, may be taken as being on the order of 50,000 gallons per day per foot. Chemical analyses were made of water samples from 16 wells throughout Animas Valley. On the basis of the data discussed it is estimated that, on the average, less than 0.1 inch of the normal annual precipitation of about 10 inches that falls on the drainage area contributes to the ground-water body.

Topic category: Hydrogeology
Keywords: Groundwater, water levels
County: Hidalgo and Luna Counties

Title: Annual Water Level Measurements in Observation Wells, 1951-1955, and Atlas of Maps Showing Changes in Water Levels for Various Periods from Beginning of Record Through 1954, New Mexico.

Author: Reeder, H.O. and Others

Date: 1959

Publication/journal/publisher: Technical Report No. 13, State of New Mexico State Engineer Office, Santa Fe, New Mexico

Type of document: printed report

Source of document / Search method (phone, internet, library, etc.):

http://www.ose.state.nm.us/publications_library_tchrpts.html

Purchase Price: Contact OSE

Web site address: http://www.ose.state.nm.us/publications_library_tchrpts.html

Document Location: NM OSE, DBS&A library

Work initiated by: USGS, OSE

Work funded by: USGS, OSE

Type of review: Unknown

Location of Work: High Plains, Pecos River Valley, South-Central Closed Basins, Rio Grande Valley, Southwestern New Mexico

Abstract or brief summary:

Areas of observation for southwestern New Mexico included Animas Valley, Playas Valley, and Mimbres Valley. This report tabulates the annual measurements of water levels in the observation wells in the various irrigated areas from 1951 to 1955. It summarizes changes in water levels by discussion and with an atlas of nearly all the maps of change in water levels for the period of record to 1955 for each area in which observations are being made. Included also are hydrographs for the period of record through 1954 of several selected wells in the various areas irrigated principally or wholly from ground-water sources.

Topic category: Hydrogeology
Keywords: Groundwater, development, wells
County: Catron County

Title: Geohydrology conditions at the proposed Lost Cabin Subdivision, Catron County, NM

Author: Schipper, M.R.

Date: 1978

Publication/journal/publisher: Albuquerque, NM: Geohydrology Associates, Inc.

Type of document: Book

Source of document / Search method (phone, internet, library, etc.):

http://salsa.stlib.state.nm.us/ipac20/ipac.jsp?session=1H3982B006626.1205320&profile=nms&uri=link=3100007~!1963333~!3100001~!3100002&aspect=basic_search&menu=search&ri=1&source=~!marquis&term=Geohydrology+conditions+at+the+proposed+Lost+Cabin+Subdivision%2C+Catron+County%2C+New+Mexico+%2F&index=ALTITLE#focus

Purchase Price:

Web site address:

Document Location:

Work initiated by:

Work funded by:

Type of review:

Location of Work: Catron County

Abstract or brief summary:

Topic category: Hydrogeology

Keywords: Groundwater, Animas, Playas, Hachita, San Luis, soil analysis, water supply

County: Grant and Hidalgo Counties

Title: Ground water in the Animas, Playas, Hachita, and San Luis Basins, New Mexico, with analyses of water and soil

Author: Schwennesen, A.T. and R.F. Hare

Date: 1918

Publication/journal/publisher: U.S. Geological Survey, Water-Supply Paper 422, 152 p. :illus. ;23 cm., Prepared in Cooperation with the New Mexico Agricultural Experiment Station, Washington, Government Printing Office

Type of document: Electronic file (DJVU)

Source of document / Search method (phone, internet, library, etc.):

USGS publication search <<http://pubs.er.usgs.gov/usgspubs/wsp/wsp422>>

Purchase Price: not in stock

Web site address: <http://pubs.er.usgs.gov/usgspubs/wsp/wsp422>

Document Location: USGS online

Work initiated by: USGS

Work funded by: USGS

Type of review: Unknown

Location of Work: Grant and Hidalgo Counties

Abstract or brief summary:

Analysis of the quality and quantity of groundwater for use in agriculture in the early 1900's.

Topic category: Hydrogeology

Keywords: Geology, hydrology, Luna County, Tres Hermanas Mountains

County: Luna County

Title: Report of Investigation of the Geology and Hydrology of Township 27 South, Range 8 West, Luna County, New Mexico

Author: Spiegel, Z.

Date: 1958

Publication/journal/publisher: New Mexico Office of the State Engineer, Hydrology Report, April 1958

Type of document: Printed report

Source of document / Search method (phone, internet, library, etc.):

http://www.ose.state.nm.us/publications_library_hydrologyrpts.html

Purchase Price: Contact OSE

Web site address:

Document Location: OSE Library

Work initiated by: OSE

Work funded by: OSE

Type of review: Unknown

Location of Work: Luna County

Abstract or brief summary:

This document provides a report on the geology and hydrology of Township 27 South, Range 8 West in Luna County, which was investigated on April 9-11, 1958. The investigation was made to determine the probable effect of four proposed irrigation wells in Sections 28 and 33, T. 27 S., R. 8 W. on an existing stock well in the SW4SE4SE4 Section 32, T. 27 S., R. 8 W. The document discusses regional geology and hydrology, and the probable effect of the proposed wells on the existing well. The transmissibility of the aquifer at the sites of the proposed wells is believed to be relatively low, probably less than 10,000 gpd/ft. Although the drawdown predicted would cause the water level in well 27S.8W.32.443 to fall below the principal water-bearing bed after about 20 years, it is believed that additional water-bearing beds are present at somewhat greater depths.

Topic category: Hydrogeology

Keywords: Basin and range, ground water, ground water quality

County: Hidalgo

Title: Challenges of Basin-and-Range hydrogeology-examples from Hidalgo County, New Mexico

Author: Stone, W.J.

Date: 2000

Publication/journal/publisher: New Mexico Geological Society Fall Field Conference Guidebook - 51, Southwest Passage-A trip through the Phanerozoic

Type of document: Paper in Book

Source of document / Search method (phone, internet, library, etc.):

<http://nmgs.nmt.edu/publications/guidebooks/51/>

Purchase Price: \$25.00 for Entire Book

Web site address: <http://nmgs.nmt.edu/publications/guidebooks/51/>

Document Location: Contact NMGS

Work initiated by: Los Alamos National Laboratory

Work funded by:

Type of review: Journal Peer Review

Location of Work: Hidalgo County

Abstract or brief summary:

Hydrogeologic studies in basin-and-range country face challenges beyond those normally met in other regions. Challenges to characterizing ground-water occurrence include sparsity of wells in the ranges and stratigraphic variability of the basin-fill aquifers over short distances.

Topic category: Hydrogeology
Keywords: Groundwater, wells, Gila National Forest, Catron
County: Catron County

Title: Availability of Ground Water at Proposed Well Sites in Gila National Forest, Sierra and Catron Counties, New Mexico

Author: Trauger, F.D.

Date: 1960

Publication/journal/publisher: New Mexico State Engineer Office, Santa Fe, New Mexico. Technical Report 18, Prepared in Cooperation with the U.S. Geological Survey and the U.S. Forest Service.

Type of document: printed report, pdf

Source of document / Search method (phone, internet, library, etc.):

http://www.ose.state.nm.us/publications_library_techrpts.html

Purchase Price: available online

Web site address: <http://www.ose.state.nm.us/PDF/Publications/Library/TechnicalReports/TechReport-018.pdf>

Document Location: online

Work initiated by: USGS

Work funded by: USFS, USGS, OSE

Type of review: Unknown

Location of Work: Catron and Sierra Counties

Abstract or brief summary:

One proposed well site in Catron County and four sites in Sierra County were examined. The proposed sites are in high mountainous country. Ground water in quantities sufficient to supply stock wells and camp facilities can be developed where needed. In general, wells should be drilled more than 500 feet deep, and water levels in the wells probably will be deep. Water in some of the areas may be under artesian pressure. The chemical quality of the ground water in all areas is such that the water probably is suitable for livestock and human use.

Topic category: Hydrogeology
Keywords: Groundwater, geology, Gila Cliff Dwellings, Catron
County: Catron County

Title: Geology and availability of ground water in the vicinity of Gila Cliff Dwellings National Monument, Catron County, New Mexico

Author: Trauger, F.D.

Date: 1963

Publication/journal/publisher: U.S Geological Survey, Open File Report 63-122, 24 p.

Type of document: Printed report

Source of document / Search method (phone, internet, library, etc.):
USGS publication search <<http://pubs.er.usgs.gov/usgspubs/ofr/ofr63122>>

Purchase Price: Unknown

Web site address: <http://pubs.er.usgs.gov/usgspubs/ofr/ofr63122>

Document Location: Contact USGS

Work initiated by:

Work funded by:

Type of review:

Location of Work: Catron County

Abstract or brief summary:

Topic category: Hydrogeology

Keywords: Groundwater, Hachita Valley, Big Hatchet Mountains, Hidalgo

County: Hidalgo County

Title: Groundwater in Central Hachita Valley, Northeast of the Big Hatchet Mountains, Hidalgo County, New Mexico

Author: Trauger, F.D. and E.H. Herrick

Date: 1962

Publication/journal/publisher: New Mexico State Engineer, Santa Fe, New Mexico. Technical Report 26. Prepared in Cooperation with the U.S. Geological Survey and the U.S. Army Corps of Engineers.

Type of document: Printed report

Source of document / Search method (phone, internet, library, etc.):

http://www.ose.state.nm.us/publications_library_techrpts.html

Purchase Price: Contact OSE

Web site address:

Document Location: DBS&A Library

Work initiated by: USGS, OSE, ACE

Work funded by: USGS, OSE, ACE

Type of review: Unknown

Location of Work: Central Hachita Valley, Hidalgo County

Abstract or brief summary:

The purpose of the investigation was to determine whether a supply of 36,000 gpd of potable water could be developed for a small installation planned in Thompson Canyon in the Big Hatchet Mountains. The topography and geology were examined briefly, wells in the area were inventoried, samples of water from five wells were collected for chemical analysis, and approximate specific capacities of some of the wells were determined. Report summarizes all that is known of the occurrence of ground water in the area.

Topic category: Hydrogeology
Keywords: Groundwater, southwest New Mexico,
geology
County: Southwestern NM

Title: Ground Water--Its Occurrence and Relation to the Economy and Geology of Southwestern New Mexico

Author: Trauger, F.D. and G.C. Doty

Date: 1965

Publication/journal/publisher: In J.P. Fitzsimmons and C. Lochman-Balk (eds.), Guidebook of Southwestern New Mexico II, New Mexico Geological Society, Sixteenth Field Conference-October 15-17, 1965.

Type of document: Journal Article

Source of document / Search method (phone, internet, library, etc.):

<http://geoinfo.nmt.edu/publications/nmgs/guidebooks/16/>

Purchase Price: \$12.50

Web site address: <http://geoinfo.nmt.edu/publications/nmgs/guidebooks/16/>

Document Location: Contact NMBGMR

Work initiated by: USGS?

Work funded by: USGS?

Type of review: Peer review

Location of Work: Southwestern New Mexico

Abstract or brief summary:

Description of groundwater characteristics in the region. The largest quantities of water come from the alluvium and bolson fill. Groundwater is also found in the geologic formations. Discusses recharge and discharge and aquifer characteristics. The geologic environment of SW NM has created a situation whereby large supplies of ground water have been accumulated slowly over a long period of time; these supplies are locally being depleted as a result of pumping for irrigation, municipal, and industrial use. The reserves of ground water are large, but they also are limited.

Topic category: Hydrogeology

Keywords: Gila River valley, Grant, pipelines, geology, hydrology, water supply

County: Grant County

Title: Geohydrology of the upper pipe line draw area Grant County, New Mexico

Author: Trauger, F.D. and N.G. Lavery

Date: 1976

Publication/journal/publisher: Exxon Company

Type of document: loose-leaf notebook with maps

Source of document / Search method (phone, internet, library, etc.):

Salsa search

<http://salsa.stlib.state.nm.us/ipac20/ipac.jsp?session=O23F92393101W.1279270&profile=ose&source=~!marquis&view=subscriptionssummary&uri=full=3100001~!679424~!4&ri=4&aspect=basic_search&menu=search&ipp=20&spp=20&staffonly=&term=Water-supply+--+New+Mexico+--+Grant+County.&index=SUBJECT&uindex=&aspect=basic_search&menu=search&ri=4#focus>

Purchase Price: Contact OSE

Web site address:

Document Location: OSE Library

Work initiated by:

Work funded by:

Type of review:

Location of Work: Grant County

Abstract or brief summary:

Topic category: Hydrogeology
Keywords: Geology, hydrology, Lordsburg mesa, Hidalgo
County: Hidalgo County

Title: Geology and hydrology of Lordsburg mesa drainage area, Hidalgo County, New Mexico

Author: Turner, S.F. and P.A. Manera

Date: 1965

Publication/journal/publisher: Turner and Associates, Phoenix, Arizona, April 1965

Type of document: Printed report

Source of document / Search method (phone, internet, library, etc.):

salsa search

<<http://salsa.stlib.state.nm.us/ipac20/ipac.jsp?session=1239VC076918N.1285418&profile=ose&source=~!marquis&view=subscriptionssummary&uri=full=3100001~!704879~!0&ri=24&aspect=advanced&menu=search&ipp=20&spp=20&staffonly=&term=Hydrology&index=.GW&uindex=&oper=&term=Hidalgo+County&index=.SW&uindex=&aspect=advanced&menu=search&ri=24#focus>>

Purchase Price:

Web site address:

Document Location: OSE Library

Work initiated by:

Work funded by:

Type of review:

Location of Work: Hidalgo County

Abstract or brief summary:

Topic category: Hydrogeology
Keywords: Water survey, Sawtooth, Pietown, Catron
County: Catron County

Title: Electronic water survey report for "The Sawtooth" a type IV subdivision, lying in sections 5, 7 & 8, T.1N., R.12W., NMPM north of Pietown, Catron County, NM

Author: Unknown

Date: 1995

Publication/journal/publisher: Worldcat Libraries

Type of document: Book

Source of document / Search method (phone, internet, library, etc.):

http://www.worldcat.org/oclc/124434794&referer=brief_results

Purchase Price:

Web site address:

Document Location: NM State Library

Work initiated by:

Work funded by:

Type of review:

Location of Work: Catron County

Abstract or brief summary:

Topic category: Hydrogeology
Keywords: Groundwater, The Woods, Catron
County: Catron County

Title: Hydrogeology of "The Woods" a type IV subdivision, Catron County, NM

Author: Whitehead, N.H.

Date: 1996

Publication/journal/publisher: Socorro, NM: Landmark Professional Services

Type of document: Printed report

Source of document / Search method (phone, internet, library, etc.):

http://www.worldcat.org/oclc/136147881&referer=brief_results

Purchase Price: Unknown

Web site address: http://www.worldcat.org/oclc/136147881&referer=brief_results

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Work initiated by:

Work funded by:

Type of review:

Location of Work: Catron County

Abstract or brief summary:

Topic category: Hydrogeology

Keywords: Groundwater, alluvial basin, aquifer

County: Southwest US

Title: Geohydrology of the southwest alluvial basins, Regional aquifer-systems analysis in parts of Colorado, New Mexico, and Texas

Author: Wilkins, D.W.

Date: 1986

Publication/journal/publisher: U.S. Geological Survey Water-Resources Investigations Report 84-4224

Type of document: unknown

Source of document / Search method (phone, internet, library, etc.):

<http://pubs.er.usgs.gov/usgspubs/wri/wri844224>

Purchase Price:

Web site address: <http://pubs.er.usgs.gov/usgspubs/wri/wri844224>

Document Location: Contact USGS

Work initiated by: USGS

Work funded by: USGS

Type of review: Unknown

Location of Work: New Mexico, Colorado, Texas

Abstract or brief summary:

The Southwest Alluvial Basins study is part of the National Regional Aquifer-Systems Analysis program. Twenty-two structural basins extend from the San Luis Basin in southern Colorado to the Presidio Basin in western Texas. Closed surface-water basins west of the Guadalupe Mountains and east of the Peloncillo Mountains are included in the study. The study area is bounded on the east by predominately Precambrian and Paleozoic rocks. Tertiary and Quaternary volcanics also are present. Tertiary and Quaternary volcanic rocks, and also Mesozoic rocks west of the Espanola and Albuquerque-Belen Basins, form the west boundary. The east and west boundary units converge at the north end of the study area to form the north boundary. The study area extends south to the international border between the United States and Mexico. The Santa Fe Group sediments of late Oligocene to middle Pleistocene age comprise the main aquifer in the area. Estimated maximum depths of sediments in the rift basins range from 8,000 ft in the Tularosa-Hueco Basin to 30,000 ft in the San Luis Basin. The average thickness of sediments in closed basins is about 4,000 ft. Santa Fe deposits are composed of layers of gravel, sand, silt, and clay interbedded with local volcanic lows of tuffs. Lacustrine deposits are more prevalent in the closed basins. Wells produce as much as 2,000 gal of water/min. Potentiometric-surface altitudes for 1971-82 indicate that water recharges in the highland areas around the basins and discharges in the center of valleys. Water generally flows from the east and west southward along the axis of the valleys. Groundwater quality for the region has been zoned into calcium sulfate, calcium chloride, magnesium sulfate, magnesium chloride; sodium sulfate, sodium chloride; sodium bicarbonate; and calcium bicarbonate, magnesium bicarbonate types.

Topic category: Hydrogeology

Keywords: Laramide, Mid-Tertiary, Animas Valley,
Lightning Dock geothermal system

County: Hidalgo County

Title: Evidence for large-scale Laramide tectonic inversion and a Mid-Tertiary caldera ring fracture zone at the Lightning Dock geothermal system, New Mexico

Author: Witcher, J.C.

Date: 2008

Publication/journal/publisher: In New Mexico Geological Society Fall Field Conference Guidebook - 59, Geology of the Gila Wilderness-Silver City area, 177-188.

Type of document: Paper in Book

Source of document / Search method (phone, internet, library, etc.):

<http://nmgs.nmt.edu/publications/guidebooks/59/>

Purchase Price: \$45.00

Web site address: <http://nmgs.nmt.edu/publications/guidebooks/59/>

Document Location: Contact NMGS

Work initiated by:

Work funded by:

Type of review: Journal Peer Review

Location of Work: Hidalgo County

Abstract or brief summary:

Stratigraphy in a recent intermediate depth (2,100 ft) geothermal test hole is interpreted along side previous deep (7,001 to 7,404 ft depth) exploration holes to study large-scale structural controls for the Lightning Dock geothermal system and refine the stratigraphic and structural characterization of the shallow reservoir.

Topic category: Hydrogeology
Keywords: Hydrogeology, Frenchman's Well Ranch
County: Catron County

Title: A preliminary appraisal of the ground-water resources of the Frenchman's Well Ranch

Author: WK Summers & Associates, Inc.

Date: 1982

Publication/journal/publisher: Socorro, NM: WK Summers & Associates, Inc.

Type of document: Book

Source of document / Search method (phone, internet, library, etc.):

Purchase Price:

Web site address:

http://salsa.stlib.state.nm.us/ipac20/ipac.jsp?session=123RS600A0855.1079587&profile=nms&uri=link=3100007~!1940697~!3100001~!3100002&aspect=basic_search&menu=search&ri=1&source=~!marquis&term=A+preliminary+appraisal+of+the+ground-water+resources+of+the+Frenchman%27s+Well+Ranch+%2F&index=ALTITLE#focus

Document Location: New Mexico State Library

Work initiated by:

Work funded by:

Type of review:

Location of Work: Catron County

Abstract or brief summary: