TULAROSA BASIN AND SALT BASIN

REGIONAL WATER PLAN

2000 - 2040

Volume 2 - Appendices

South Central Mountain RC&D Council, Inc.

May 2002

Prepared by   in association with

JOHN SHOMAKER & ASSOCIATES, INC.

LIVINGSTON ASSOCIATES, P.C.   **JOHN SHOMAKER AND ASSOCIATES, INC.**
Consulting Engineers

Appendices

Public Participation Program

APPENDIX

2.1

TULAROSA/SACRAMENTO RIVER BASIN 40 YEAR REGIONAL WATER PLAN

Steering Committee Meeting

INFORMATION PACKET

November 9, 1995

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CONSULTING • ENGINEERS

Regional Water Planning and Water Resource Assessment

What is regional water planning? A process whereby local communities and interest groups with common hydrologic and political ties work together to (1) develop information about the quantity and quality of their water resource, and (2) agree on management strategies for meeting current and future.demand within the region. Regional planning is an ongoing public process which builds trust between competing interests by dispelling traditional myths and encouraging collaboration in solving water and related land-use problems.

Why is regional planning important to New Mexico and its citizens? Regional planning begins with open dialogue at the community level, allowing citizens direct involvement in developing water management alternatives; the resulting programs and projects have the public support necessary for successful implementation. Such planning is imperative if New Mexico has any hope of protecting its remaining water resources from out-of-state appropriators.

HB-310 and SB-467 both allocate $750,000 to the Interstate Stream Commission (ISC) for regional water planning. Grant funds are disbursed to regional entities such as Councils of Government or Resource Conservation & Development districts which begin local public processes for developing 40-year water plans. The regions also receive training and technical support so their evolving strategies will provide guidelines for the development of a state water plan.

The ISC has received 13 planning proposals out of a potential 18 regions. It is anticipated that recurring annual appropriations over a five-year period and totaling $4,000,000 will prepare every region in the state to make well-informed resource management decisions.

What is "water resource assessment for planning purposes"? A statewide inventory of surface and ground water resources on a regional basis. The level of detail varies, based on availability of data in a particular area, but an assessment for planning purposes relies primarily on compiling all existing data within a basin to provide the best analysis of a region's water supply without extensive and expensive investigation. It also provides an evaluation of water use within a region, and identifies additional data needs. This information is developed concurrently with regional planning, allowing local administrators to more wisely address issues like subdivision permits and landfill alternatives.

HB-386 and SB-468 appropriate $700,000 and $850,000 respectively for continuing the statewide water resource assessment. This level of appropriation recurring annually for three years will provide for a fundamental assessment of available surface and ground waters, supplying the data necessary for regional as well as state water planning purposes.

What is the difference between an assessment for planning purposes and the type of assessment proposed for the Middle Rio Grande? Assessments for planning purposes are performed with existing data to provide fundamental information to both planning regions and the State Engineer Office *in a timely manner.* The Middle Rio Grande investigation involves an intensified level of data collection for evaluating aquifer performance for a large population growth scenario, and will require $10,000,000 in state matching funds and five years to complete. Time and funds are not available for this degree of investigation statewide. If performed, however, intensive studies such as the one proposed for the middle Rio Grande would serve to enhance knowledge of the resource, permitting further refinement of the regional plans that will be functioning as tools for water management decisions.

Is conservation a component of regional water planning? The Regional Water Planning Handbook, developed last year for the ISC by a citizen work group, requires that regions prepare a water conservation plan as a means of meeting current and future demands before more exotic or costly options are pursued. Copies of the handbook are available from the Interstate Stream Commission, (505) 827-6160.
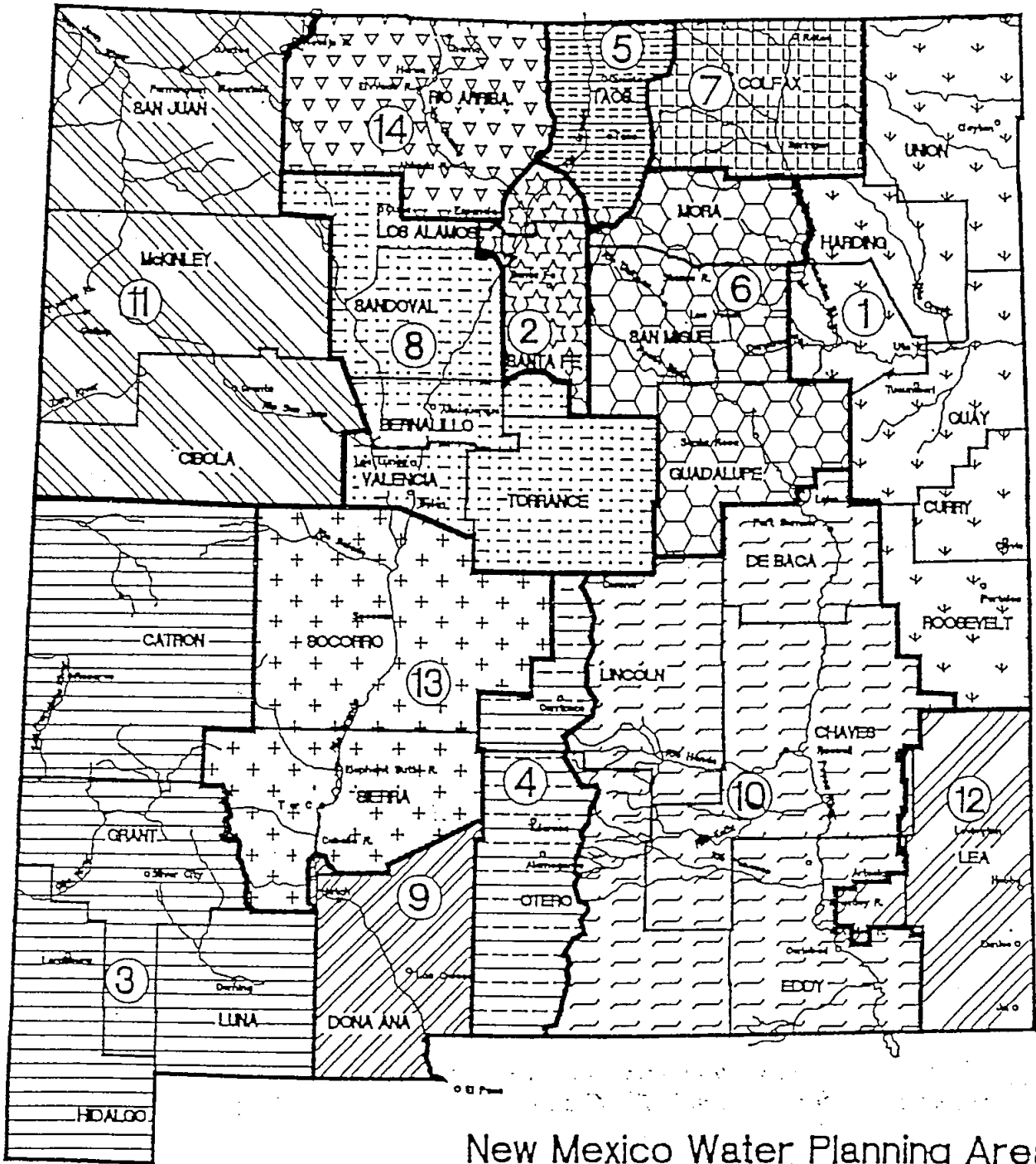
New Mexico Water Planning Areas

Proposed Regional Water
Planning Boundaries

Further subdivisions of these
areas will likely occur resulting
in as many as 18 regions.

Tularosa/Sacramento River Basin 40 - Year Water Plan Preliminary Schedule of Public Hearings			
Community	**First Round**	**Second Round**	**Third Round**
Alamogordo	*Dec. 7, '95*	*March 14, '96*	*July 17, '96*
Carrizozo	*Nov. 30, '95*	*March 13, '96*	*July 16, '96*
Corona	*Nov. 28, '95*	*March 13, '96*	*July 16, '96*
Mescalero	*Dec. 6, '95*	*March 12, '96*	*July 15, '96*
Timberon	*Dec. 5, '95*	*March 11, '96*	*July 14, '96*
Tularosa	*Dec. 4, '95*	*March 12, '96*	*July 15, '96*
Oro Grande	*Dec. 8, '95*	*March 14, '96*	*July 17, '96*

bold indicates evening meeting

ID	Task Name	Duration	Start	Finish
1	Steering Committee Mtg.	1d	11/8/95	11/8/95
2	Data Collection/Reports	60d	11/9/95	1/31/96
3	First Round Hearings	10d	11/28/95	12/11/95
4	Public Comments	7d	12/12/95	12/20/95
5	Second Round Hearings	7d	3/11/96	3/19/96
6	Public Comments	7d	3/20/96	3/28/96
7	Third Round Hearings	7d	7/15/96	7/23/96
8	Public Comments	7d	7/24/96	8/1/96
9	Preliminary Draft Report	115d	2/1/96	7/10/96
10	Comments	30d	8/2/96	9/12/96
11	Final Draft Report	30d	9/13/96	10/24/96
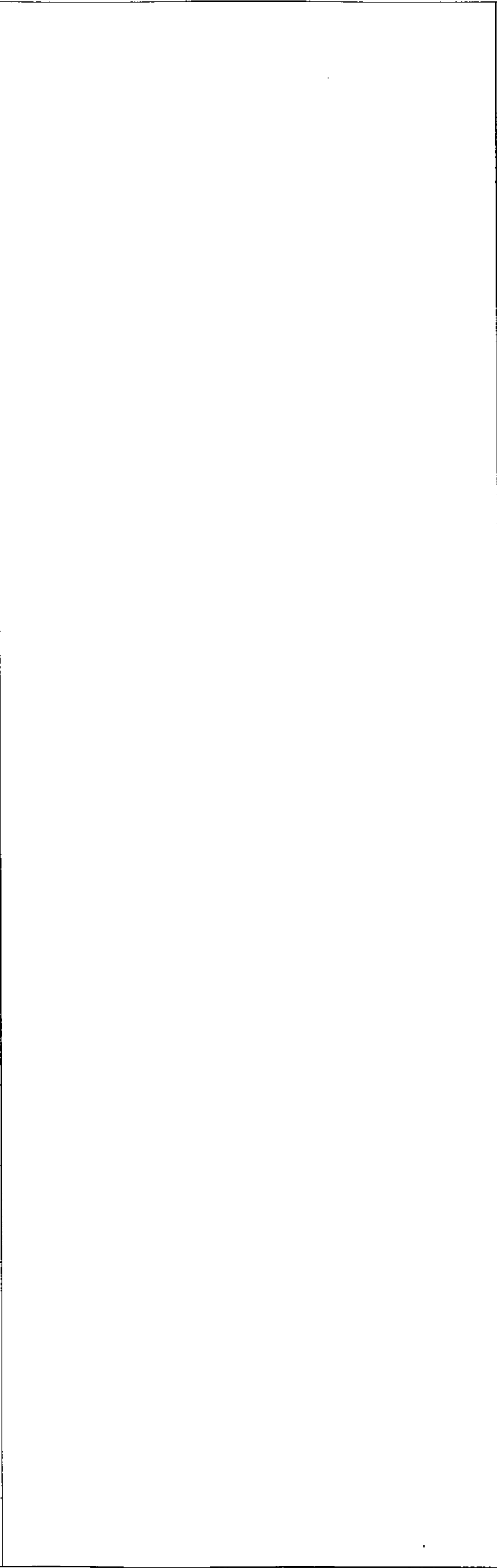
Task	
Progress	
Milestone	◆
Summary	
Rolled Up Task	
Rolled Up Milestone	◇
Rolled Up Progress	

Project:
Date: 11/9/95

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State Engineers Office

1. County Profile Lincoln County, New Mexico Water Resources Assessment for Planning Purposes, the New Mexico Interstate Stream Commission and the New Mexico State Engineer Office, Santa Fe, New Mexico, 1974.

2. County Profile, Otero County, New Mexico Water Resources Assessment for Planning Purposes, the New Mexico Interstate Stream Commission and the New Mexico State Engineer Office, Santa Fe, New Mexico 1975.

3. Fleming, W. M. Fleming. 1986. Analysis of Alamogordo's 40-Year Water supply and Demand. NMSEO Hydrology Report 86 - 2.

4. *Garza, S. and J. S. McLean. 1977. Fresh-Water Resources in the Southeastern Part of the Tularosa Basin. NMSEO Tech. Report 40.

5. Hydrographic Survey/The Water Rights Adjudication Process, Hydrographic Survey Section, New Mexico State Engineer Office, August, 1986.

6. Morrison, T.D. 1989. A Regional Model of the Basin Fill Aquifer Near Tularosa and Alamogordo, New Mexico. MNSEO Hydrology Report 89-3.

7. Nixon, J. 1982. SEO memorandum regarding the depletion of irrigation water for agricultural use in the Tularosa Basin.

8. Water Use in New Mexico in 1985, Wilson, Brian, New Mexico State Engineer Office, Technical Report 46, November 1986.

9. Tolisano, J. 1986. Analysis of Alamogordo's Surface Water Supply. NMSEO Hydrology Report 86- 3.

10. Bjorklund, L.J., 1957. Reconnaissance of groundwater conditions in the Crow Flats area, Ortero County. Technical Report 8.

11. Sorenson, E.F., 1982. Water use by categories in New Mexico counties and river basins, and irrigated acreage in 1980. Tech. Report 44.

12. Hudson, J.D., and R.L. Borton, 1983. Groundwater levels in New Mexico, 1978 - 80. NMSEO Basic Data Report.

13. Fresnal (Creek) Hydrographic Survey, 1912

14. *Draft Amended Lower Pecos River Basin Study (Sacramento River Area of Otero County), 1992

USGS

1. McDonald, M.G. and A. W. Harbaugh, 1983. A Modular Three-Dimensional Finite-Difference Groundwater Flow Model. Book 6: Modeling Techniques, US Geological Survey.

2. Meinzer, O. E. And R. F. Hare. 1915. Geology and Water Resources of the Tularosa Basin, New Mexico. USGS Water Supply Paper 343.

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3. *Orr, B.R. and R.G. Myers. 1986. Water Resources in Basin Fill Deposits in the Tularosa Basin, New Mexico. USGS Report 85-4219

US Bureau of Reclamation

1. Bureau of Reclamation, High Plains States Groundwater Demonstration Program, Phase 1 Report, 1987.

2. Bureau of Reclamation. 1986. Working Document For Alamogordo Municipal and Industrial Water Supply Study, New Mexico. Southwest Region, Amarillo.

3. *Bureau of Reclamation, Tularosa Basin Water and Energy Study, New Mexico, Southwest Region Amarillo, Texas. 1984

4. *DOI, Office of Saline Water. Saline Ground-Water Resources of the Tularosa Basin, New Mexico. Research and Development Report No. 561

City of Alamogordo

1. Herkenhoff and Associates. 1982. Water Master Plan Update: City of Alamogordo. Consulting report to Alamogordo.

2. Leedshill - Herkenhoff, "40 Year Water Study for City of Alamogordo, Village of Tularosa, Otero and Lincoln County", 1987.

3. Molzin - Corbin & Assoc. 1990. Effluent Disposal Study for Alamogordo.

4. *Boyle Eng. Corp., 1995 Planning Level Water Treatment Study

Otero County

1. Otero County Water Resources Assessment for Planning Purposes.
2. *Leedshill-Herkenhoff, 1993. Otero County 40 - Year Water Plan, 1990 - 2030

New Mexico State University

1. Cotter, D. J. and D. B. Croft, 1974. Water Application Practices and Landscape Attributes Associated With Residential Water Consumption, NM Water Resource Research Inst. Rpt 49.

University of New Mexico

1. *Historical and Projected Population Trends for Water Planning Districts in New Mexico: 1960 - 2060, Bureau of Business and Economic Research, July 1995.

USDA/NRCS/SCS

1. Sources of Irrigation Water and Irrigated and Dry Cropland Acreage in New Mexico, by County, 1986 - 1988.

2. Water Use By Categories in NM Counties and River Basins and Irrigated Acreage in 1980.

3. *Irrigation Water Management Study 1991

Misc.

1. Arizona Dept. Of Water Resources. 1988. Draft Management Plan for the Prescott Management Area.

2. Grisham, A. and W. M. Fleming. 1989. Long-Term Options for Municipal Water Conservation.JOURNAL AWWA, Vol 81, No. 3, pp. 34-42.

3. Hillen, D. 1983. Advances in Irrigation, v. 1: D. Hillen, ed., Academic Press.

4. Jacoby, B. 1990. Xeriscape Ordinances for New Development. Proc. Conserve 90 Conference, Phoenix, pp. 225 - 229.

5. Jensen, M. E. 1981. Summary and Challenges: Irrigation Scheduling for Water Conservation. Am. Soc. Of Ag. Engr., pp. 275 - 278.

6. Larsen, K. R. 1990. The Phoenix Water Resources Plan for 1990: a Holistic Approach, Proc. Conserve 90 Conference, Phoenix, pp. 391 - 398.

7. Maddaus, W. O. 1987. Water Conservation. AWWA, Denver.

8. Martin, W. E. et al. 1984. Saving Water in a Desert City. Res. For the Future Monograph.

9. Metcalf and Eddy. 1979. Wastewater Engineering: Treatment, Disposal and Reuse. McGraw-Hill.

10. Residential Water Demand, Alternative Choices for Management, Grima, Angelo P., University of Toronto Press, Toronto, 1972, 211 p.

11. City of Albuquerque Water Conservation plan

Table 12

Projected Ratios, Populations, and Average Annual Growth Rates, by Water Basin: Lincoln County, July 1, 1990 - July 1, 2060

Projection Period: July 1, 1990 - July 1, 2060

Projected Ratios

Water Basin	1990	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
Lincoln County	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
Tularosa/Sacramento	0.11073	0.09851	0.08939	0.08022	0.07177	0.06356	0.05623	0.04972	0.04393	0.03878	0.03421	0.03015	0.02656	0.02339	0.02058
Carrizozo CCD	0.10312	0.09251	0.08469	0.07654	0.06889	0.06131	0.05448	0.04836	0.04287	0.03795	0.03357	0.02966	0.02618	0.02309	0.02035
Corona CCD (part)	0.00761	0.00599	0.00470	0.00368	0.00288	0.00225	0.00175	0.00137	0.00106	0.00083	0.00064	0.00050	0.00039	0.00030	0.00023
Lower Pecos	0.88927	0.90149	0.91061	0.91978	0.92823	0.93644	0.94377	0.95028	0.95607	0.96122	0.96579	0.96985	0.97344	0.97661	0.97942
Capitan CCD	0.18193	0.18338	0.18404	0.18456	0.18474	0.18471	0.18440	0.18390	0.18317	0.18220	0.18104	0.17970	0.17821	0.17659	0.17485
Ruidoso CCD	0.59931	0.61643	0.63127	0.64598	0.65980	0.67316	0.68576	0.69784	0.70926	0.71991	0.72991	0.73931	0.74814	0.75646	0.76429
Hondo CCD	0.07276	0.06854	0.06428	0.06025	0.05653	0.05312	0.04979	0.04637	0.04317	0.04013	0.03726	0.03457	0.03204	0.02967	0.02746
Corona CCD (part)	0.03527	0.03314	0.03101	0.02899	0.02715	0.02545	0.02382	0.02217	0.02047	0.01898	0.01758	0.01627	0.01504	0.01389	0.01282

Projected Populations

Water Basin	1990	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
Lincoln County	12,258	14,370	15,521	16,687	17,910	19,217	20,634	22,085	23,580	25,189	26,803	28,429	30,075	31,760	33,480
Tularosa/Sacramento	1,357	1,416	1,388	1,339	1,285	1,221	1,160	1,098	1,036	977	917	857	799	743	689
Carrizozo CCD	1,264	1,329	1,315	1,277	1,234	1,178	1,124	1,068	1,011	956	900	843	787	733	681
Corona CCD (part)	93	86	73	61	52	43	36	30	25	21	17	14	12	9	8
Lower Pecos	10,901	12,954	14,134	15,349	16,625	17,996	19,474	20,987	22,544	24,212	25,886	27,572	29,276	31,017	32,791
Capitan CCD	2,230	2,635	2,857	3,080	3,309	3,550	3,805	4,061	4,319	4,590	4,852	5,109	5,360	5,609	5,854
Ruidoso CCD	7,346	8,858	9,798	10,780	11,817	12,936	14,150	15,412	16,724	18,134	19,564	21,018	22,500	24,025	25,589
Hondo CCD	892	985	998	1,005	1,013	1,021	1,027	1,024	1,018	1,011	999	983	964	942	919
Corona CCD (part)	432	476	481	484	486	489	492	490	483	478	471	463	452	441	429

Projected Average Annual Growth Rates

Water Basin	1990-95	1995-00	2000-05	2005-10	2010-15	2015-20	2020-25	2025-30	2030-35	2035-40	2040-45	2045-50	2050-55	2055-60
Lincoln County	3.18	1.54	1.45	1.41	1.41	1.42	1.36	1.31	1.32	1.24	1.18	1.13	1.09	1.05
Tularosa/Sacramento	0.84	-0.40	-0.72	-0.81	-1.02	-1.03	-1.10	-1.17	-1.17	-1.27	-1.35	-1.41	-1.46	-1.50
Carrizozo CCD	1.01	-0.23	-0.58	-0.69	-0.92	-0.94	-1.02	-1.10	-1.12	-1.22	-1.30	-1.37	-1.42	-1.47
Corona CCD (part)	-1.60	-3.32	-3.43	-3.50	-3.53	-3.55	-3.63	-3.71	-3.72	-3.82	-3.91	-3.98	-4.03	-4.08
Lower Pecos	3.45	1.74	1.65	1.60	1.58	1.58	1.50	1.43	1.43	1.34	1.26	1.20	1.16	1.11
Capitan CCD	3.34	1.61	1.51	1.43	1.41	1.39	1.30	1.23	1.21	1.11	1.03	0.96	0.91	0.86
Ruidoso CCD	3.74	2.02	1.91	1.84	1.81	1.79	1.71	1.63	1.62	1.52	1.43	1.36	1.31	1.26
Hondo CCD	1.99	0.26	0.15	0.14	0.16	0.13	-0.06	-0.12	-0.14	-0.24	-0.32	-0.39	-0.45	-0.50
Corona CCD (part)	1.93	0.21	0.10	0.10	0.12	0.10	-0.08	-0.28	-0.19	-0.29	-0.37	-0.44	-0.50	-0.55

Table 14

Projected Ratios, Populations, and Average Annual Growth Rates, by Water Basin: Otero County, July 1, 1990 - July 1, 2060

Projection Period: July 1, 1990 - July 1, 2060

Projected Ratios

Water Basin	1990	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
Otero County	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000
Pecos Basin	0.05721	0.05897	0.06075	0.06256	0.06438	0.06622	0.06808	0.06980	0.07100	0.07235	0.07405	0.07583	0.07759	0.07933	0.08103
Mescalero CCD (part)	0.29486	0.29879	0.30276	0.30675	0.31077	0.31482	0.31890	0.32301	0.32715	0.33131	0.33550	0.33971	0.34395	0.34822	0.35251
SE Otero CCD (part)	0.70514	0.70121	0.69724	0.69325	0.68923	0.68518	0.68110	0.67699	0.67285	0.66869	0.66450	0.66029	0.65605	0.65178	0.64749
Tularosa/Sacramento Basin	0.94279	0.94103	0.93925	0.93744	0.93562	0.93378	0.93192	0.93020	0.92900	0.92765	0.92595	0.92417	0.92241	0.92067	0.91897
Alamogordo CCD	0.80489	0.79941	0.79357	0.78734	0.78070	0.77363	0.76612	0.75832	0.75158	0.74395	0.73454	0.72429	0.71356	0.70232	0.69057
Tularosa CCD	0.09713	0.09611	0.09506	0.09396	0.09283	0.09165	0.09043	0.08920	0.08768	0.08635	0.08544	0.08457	0.08364	0.08264	0.08158
Mescalero CCD (part)	0.03715	0.03872	0.04033	0.04199	0.04368	0.04542	0.04720	0.04902	0.05050	0.05199	0.05376	0.05563	0.05750	0.05939	0.06127
SE Otero CCD (part)	0.06083	0.06576	0.07104	0.07672	0.08279	0.08930	0.09625	0.10345	0.11024	0.11771	0.12626	0.13551	0.14530	0.15565	0.16658

Projected Populations

Water Basin	1990	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	2060
Otero County	52,093	55,037	57,065	58,984	60,555	62,185	63,750	64,943	65,694	66,328	66,710	66,878	67,072	67,147	67,173
Pecos Basin	2,980	3,246	3,467	3,690	3,899	4,118	4,340	4,533	4,664	4,799	4,940	5,072	5,204	5,327	5,443
Mescalero CCD (part)	879	970	1,050	1,132	1,212	1,296	1,384	1,464	1,526	1,590	1,657	1,723	1,790	1,855	1,919
SE Otero CCD (part)	2,102	2,276	2,417	2,558	2,687	2,821	2,956	3,069	3,138	3,209	3,283	3,349	3,414	3,472	3,524
Tularosa/Sacramento Basin	49,113	51,792	53,598	55,294	56,656	58,067	59,410	60,410	61,030	61,529	61,770	61,806	61,868	61,820	61,730
Alamogordo CCD	39,530	41,403	42,534	43,535	44,231	44,923	45,515	45,810	45,869	45,774	45,372	44,766	44,146	43,418	42,629
Tularosa CCD	4,770	4,978	5,095	5,195	5,259	5,322	5,372	5,389	5,351	5,313	5,277	5,227	5,175	5,109	5,036
Mescalero CCD (part)	1,825	2,005	2,162	2,322	2,475	2,638	2,804	2,962	3,082	3,199	3,321	3,438	3,558	3,671	3,782
SE Otero CCD (part)	2,987	3,406	3,808	4,242	4,691	5,185	5,718	6,249	6,728	7,243	7,799	8,375	8,989	9,622	10,283

Projected Average Annual Growth Rates

Water Basin	1990-95	1995-00	2000-05	2005-10	2010-15	2015-20	2020-25	2025-30	2030-35	2035-40	2040-45	2045-50	2050-55	2055-60
Otero County	1.10	0.72	0.66	0.53	0.53	0.50	0.37	0.23	0.19	0.11	0.05	0.06	0.02	0.01
Pecos Basin	1.70	1.32	1.25	1.10	1.09	1.05	0.87	0.57	0.57	0.58	0.52	0.52	0.46	0.43
Mescalero CCD (part)	1.97	1.58	1.51	1.36	1.35	1.31	1.13	0.83	0.82	0.83	0.77	0.76	0.71	0.68
SE Otero CCD (part)	1.59	1.21	1.13	0.98	0.98	0.93	0.75	0.45	0.45	0.45	0.40	0.39	0.33	0.30
Tularosa/Sacramento Basin	1.06	0.69	0.62	0.49	0.49	0.46	0.33	0.20	0.16	0.08	0.01	0.02	-0.02	-0.03
Alamogordo CCD	0.93	0.54	0.47	0.32	0.31	0.26	0.13	0.03	-0.04	-0.18	-0.27	-0.28	-0.33	-0.37
Tularosa CCD	0.85	0.47	0.39	0.24	0.24	0.19	0.06	-0.14	-0.14	-0.14	-0.19	-0.20	-0.26	-0.29
Mescalero CCD (part)	1.89	1.50	1.43	1.28	1.27	1.23	1.09	0.80	0.74	0.75	0.69	0.68	0.63	0.60
SE Otero CCD (part)	2.62	2.23	2.16	2.01	2.00	1.96	1.78	1.48	1.47	1.48	1.42	1.42	1.36	1.33

TULAROSA/SACRAMENTO RIVER BASIN 40 YEAR REGIONAL WATER PLAN

Steering Committee Meeting

INFORMATION PACKET

February 21, 1996

LIVINGSTON • ASSOCIATES, P.C.

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TULAROSA/SACRAMENTO RIVER BASIN
40 YEAR REGIONAL WATER PLAN

STEERING COMMITTEE MEETING
FEBRUARY 21, 1996

AGENDA

1. First round public hearings summary

   - Attendance
   - Comments
   - Press

2. Comments on effectiveness of notices, etc.

   - Lead time
   - Day/Night
   - Others

3. Second round public hearings schedule

   - Advertisement dates
   - Newspapers
   - Set times
   - Others

4. Data presented at second round

   - Population figures (revised)
   - Existing water uses (preliminary)
   - Future water uses (preliminary)
   - First round comments addressed

4. Bibliography update

5. Status of data collection

   - Communities

     - Corona
     - Carrizozo
     - Oro Grande
     - Tularosa

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- Alamogordo
- Timberon

- Agricultural uses
- Recreational uses
- Domestic wells

6. Report materials

    - USGS mapping
    - NRCS mapping
    - SEO mapping
    - others

7. Scope/Other items

    - Other communities
    - Mescalero
    - Chapparal

TULAROSA/SACRAMENTO BASIN WATER PLAN
PUBLIC HEARING IN TIMBERON
DECEMBER 6, 1995

SIGN-IN SHEET

1. Howard Shanks

2. Chris Murtishaw

3. Murtishaw

4. Mark Clark

5. Jack Deaton

6. Raymond Wilson

7. Charla Jean Campbell

8. Kenneth W. Bradshaw

9. Sonny Griffin

10. D. D.

11. Curtis L. Reece

12. Ruby L Reece

13. S. Hollobaugh

14. Helene M. Cook

15. Butch Haupt

16. Dave Ayers

17. Ernestine Holler

18. Richard Moore
19. Paul R. Davis

20. Larry Watson

21. Bill Berkebile

22. Dwight Haisley

23. Keith H. Kessler

24. Curtis Schrader

25. Debbie Goss

26. Sid Benson

27. Evert Hicks

28. Eddie Livingston

TULSTODS/SACRAMENTO BASIN WATER PLAN
PUBLIC HEARING IN TULAROSA
DECEMBER 4, 1995

SIGN-IN SHEET

1. Linda Julien

2. Adam Kusmak

3. Joe M. Danzay

4. Guenna Rees

5. Jack Rees

6. Dan C. Abercrombie

7. Stephen E. DuBois

8. Richard H. Gutierrez

9. Howard Shanks

10. Margie Trujillo

11. Tom McKean

12. Jim Danlof

13. Ncolhand Dingledine

14. Eddie Livingston

TULAROSA/SACRAMENTO BASIN 40-YEAR WATER PLAN
FIRST ROUND PUBLIC HEARING SUMMARY
SIX COMMUNITIES, NOVEMBER 28 TO DECEMBER 19, 1995

NUMBER OF PARTICIPANTS: 109

QUESTIONS/COMMENTS: 63

TULAROSA/SACRAMENTO BASIN WATER PLAN
PUBLIC HEARING IN CORONA
NOVEMBER 28, 1995

SIGN-IN SHEET

1. Greg Haussler

2. Hollis Fuchs

3. Sue Stearns

4. J. Gibbs

5. Nolan Vickrey

6. Ellis Hodge

7. Howard Haskey

8. Karen Lerner

9. Van Shamblin

10. Glenn Brim

11. Jim Edwards

12. Howard Shanks

13. Teresa M. Barajas

14. Keith H. Kessler

15. Curtis Schrader

16. Hazel Bickford

17. Robin Ofuffer

18. Robert D. Bishop

19. Timothy Sanchez

20. Eddie Livingston

TULAROSA/SACRAMENTO BASIN WATER PLAN
PUBLIC HEARING IN CARRIZOZO
DECEMBER 8, 1995

SIGN-IN SHEET

1. Rene Burton

2. Greg Haussler

3. Keith Kessler

4. E. Williams

5. Carol Schlarb

6. Ruth Armstrong

7. Eddie Livingston

TULAROSA/SACRAMENTO BASIN WATER PLAN
PUBLIC HEARING IN OROGRANDE
DECEMBER 11, 1995

SIGN-IN SHEET

1. Karen Lerner

2. Eric Bailey

3. Linda Wilkerson

4. Don Crottzau

5. Bob Larceval

6. Leslie Honsberge

7. Theresa Kaup

8. Bear

9. Al Tengelitsch

10. Mr. & Mrs Edward Johnson

11. Joe Bailey

12. Ellen Bailey

13. Don Wilkerson

14. Doug Essex

15. Delta Rumsey

16. Earl Johnson

17. Keith Kessler

18. Eddie Livingston

TULAROSA/SACRAMENTO BASIN WATER PLAN
PUBLIC HEARING IN ALAMOGORDO
DECEMBER 19,1995

SIGN-IN SHEET

1. Angie M. Meck

2. David P. Gallagher

3. John Poland

4. Jean Dodd

5. Aubrey L. Dunn, Sr.

6. Joe Keeney

7. Rae Keeney

8. David Keeney

9. Joe P. Moore

10. Robert D. Bishop

11. Lisa Turner

12. Eddie Livingston

OFFICERS:
Bob Bishop, Chairman
Keith Kessler, Vice-Chairman
Sue Stearns, Secretary/Treasurer

RC&D COORDINATOR:
Howard Shanks

February 6, 1996

TO: Steering Committee Members - Tularosa and Sacramento
River Basin Regional Water Plan

The initial round of public meetings for the Regional Water
Plan was completed in December, and the next series of
meetings is set for March.

Once again, we need your participation and attendance at a
steering committee meeting to brief you on the progress of
the Water Plan and get your input and ideas for the next
series of meetings. The meeting is scheduled for February
21, 1996 at Alamogordo, New Mexico at the office of
Livingston and Associates, 1200 Indiana Avenue (corner of
Indiana and 12th Street). The meeting will begin at 1:30
p.m. and should last no more than 1 1/2 hours.

Hope to see you there.

Sincerely,

Robert Bishop, Chairman
RC&D Council

TULAROSA BASIN & SACRAMENTO RIVER

REGIONAL WATER PLANNING MEETING

Alamogordo Chamber of Commerce

Thursday, November 9, 1995

WELCOME & INTRODUCTIONS   10:00 AM   **Keith Kessler,**
                                                 Vice-Chairman

REGIONAL WATER PLAN: **Howard Shanks,**
 Background Information   RC&D Coordinator

PLANNING PROCESS: **Eddie Livingston,**
 Public Meetings (Schedule & Purpose)   Livingston & Assoc.
 Data Collection
 Population Projections
 Other Information

STEERING COMMITTEE RESPONSIBILITIES   **Keith Kessler**

QUESTIONS & COMMENTS

ADJOURN

SOUTH CENTRAL MOUNTAIN RC &D COUNCIL, INC.
P. O. Box 457, Carrizozo, New Mexico 88301
Telephone: 505-648-2941

OFFICERS:
Robert D. Bishop, Chairman
Keith Kessler, Vice-Chairman
Sue Stearns, Secretary-Treasurer

COORDINATOR
Howard Shank

October 23, 1995

TO: Interested Parties, Tularosa Basin & Sacramento
        River Regional Water Plan

SUBJECT: Formation of a Regional Water Planning Committee

        The South Central Mountain Resource Conservation and Development
(RC&D) Council is preparing to develop a Regional Water Plan for the
Tularosa and Sacramento River Basins.   The Interstate Streams Commission
has appropriated funds for this purpose and the RC&D Executive Committee
has selected Livingston and Associates, PC as a consultant to assist in the
preparation of a draft report.

        We need your participation on a Steering Committee to assure local
involvement and input during the planning process.   It is important that
local people have an input into decisions regarding water issues for the
future.

        A meeting has been scheduled for November 9, 1995 in Alamogordo to
establish a Steering Committee for this project. _The meeting will be held
at the Alamogordo Chamber of Commerce, 1301 N. White Sands Blvd., beginning
at 10:00 a.m._ We hope that you or a representative from your community or
organization can attend.

        Even if you cannot serve on this committee, we would appreciate your
attendance at this meeting to explain   regional water planning and how
information gathered may be helpful to your community.

        If you have any questions concerning the meeting or the study, please
call the RC&D office - 648-2941.   We look forward to meeting with you.

                                Sincerely,

                                Bob Bishop, Chairman

TULAROSA BASIN WATER PLANNING MEETING - CORONA AREA PARTICIPATION

The Public Participation portion of the meeting for Tularosa Basin Water Planning began at 11:20 a.m. Eddie Livingston of Livingston & Associates, thanked the council for allowing him to do the work. He distributed handouts with information explaining what the study entails. The State Engineer Office has mandated, by law, that this study be done - planning for the next 40 years so that we know how much water is available and how much is needed. Over 50 studies have already been prepared and this information will be incorporated into a usable plan but this study will include (which has not been done in the past):
1. Agriculture Use must be in the Plan
2. Water Conservation
3. Recreational use
4. Public participation

The basin is approximately 6,500 square miles. Howard Shanks said that ALL comments are important. The group was given a sheet which can be mailed to the RC&D office with comments for the plan.

Comments from Corona residents included: Water quality is a problem. The El Paso Natural Gas Co. wells are in the Tularosa Basin and can used by Corona but to date money has been a factor. The wells are located 15 miles from the Village, but hook up can be obtained within two miles if money can be found to pay for the connection. It was suggested that the Claunch-Pinto Study be used for the agriculture portion. It shows the results of controlling pinon-juniper and other brush species. Corona has no wastewater treatment plant. The village is entirely on septic tank systems. The school is the biggest user of water. Population projections are a key issue; there is a question whether University of New Mexico supplied accurate figures. As of July, subdividers must address water availability for a 40-year period as well as water quality. The new subdivision laws will regulate growth. Water conservation does not seem to be an issue in the Corona area. The system is approximately 50 years old but improvements have been made through a CDBG grant in the past 15 years.

Eddie displayed a variety of maps. These will be made available through a publication at a later meeting. The meeting adjourned at 12:40 p.m.

Tularosa/Sacramento River Basin 40 - Year Water Plan Preliminary Schedule of Public Hearings			
Community	**Second Round**	**Third Round**	**Fourth Round**
Alamogordo	April 11, '96	July 17, '96	October 30, '96
Carrizozo	April 4, '96	July 16, '96	October 24, '96
~~Corona~~	April 2, '96	July 16, '96	October 22, '96
Timberon	March 28, '96	July 14, '96	October 17, '96
Tularosa	April 9, '96	July 15, '96	October 29, '96
Oro Grande	March 26, '96	July 17, '96	October 15, '96

7pm OK ✓

High Rolls

WATER STUDY TO BEGIN ANOTHER ROUND OF MEETINGS

The Tularosa and Sacramento River Basin 40-Year Water Study is underway and another round of public meetings is scheduled to begin the last week of March and into April.   The study, funded by the Interstate Streams Commission, is attempting to answer the important questions about how much water is available - how much will be needed over the next 40 years - how do we balance future demands with supplies.

The South Central Mountain RC&D Council, located in Carrizozo, is conducting the study along with Livingston and Associates, Consulting Engineers, of Alamogordo. The Tularosa Basin is located in western Lincoln and Otero Counties.   The Sacramento River Basin is located in southeast Otero County and takes in the Timberon area.

Water planning is a priority in our state and water is the single most limiting factor for growth.

The public meetings are an essential part of the planning process. These meetings will be held in major communities throughout the area to provide information on each community's water supply and to discuss problems related to supply, availability and future demands.

Following is a list of locations and times for these meetings. The general public is encouraged to attend.

OROGRANDE, NM   : 6:30 PM, Tuesday, March 26th - Fire Station
TIMBERON   : 10:00 AM, Thursday, March 28th, Timberon Lodge
HIGH ROLLS   : 1:00 PM, Tuesday, April 2nd, Lions Club
CARRIZOZO/NOGAL: 6:30 PM, Thursday, April 4th, Village Hall in Carrizozo
TULAROSA/LA LUZ: 6:30 PM, Tuesday, April 9th, Tularosa Village Hall
ALAMOGORDO/HOLLOMAN AFB: 6:30 PM, Thursday, April 11th - Alamogordo Civic
   Center   7:00

The eastern part of Otero and Lincoln Counties is in the Pecos River Basin and a similar study is being conducted by the Pecos Valley Water Users Organization and the Sureste RC&D. For information on that study, please call 396-2535.

LIVINGSTON • ASSOCIATES, P.C.

CONSULTING • ENGINEERS

Ms. Norma Cinert   August 6, 1996
30 Dusty Lane
Tularosa, NM 88352

TULAROSA BASIN 40 YEAR REGIONAL WATER PLAN

Thank you for your interest in the Tularosa Basin 40 Year Regional Water Plan. As you requested, enclosed is a listing of attendees of the last public meeting held in Tularosa.

The next round of public meetings has not been scheduled, as we are still compiling the needed data. I will personally notify you when the date has been set.

If you have any questions, please call me.

LIVINGSTON ASSOCIATES, P.C.

Eddie C. Livingston, P.E.
President

rcd-001-01/el

Tularosa/Sacramento River Basin 40 - Year Water Plan Preliminary Schedule of Public Hearings			
Community	First Round	Second Round	Third Round
Alamogordo	*Dec. 19, '95*	*March 14, '96*	*July 17, '96*
Carrizozo	*Dec. 8, '95*	*March 13, '96*	*July 16, '96*
Corona	*Nov 28, '95*	*March 13, '96*	*July 16, '96*
Timberon	*Dec. 6, '95*	*March 11, '96*	*July 14, '96*
Tularosa	*Dec. 4, '95*	*March 12, '96*	*July 15, '96*
Oro Grande	*Dec.11, '95*	*March 14, '96*	*July 17, '96*

bold indicates evening meeting

TULAROSA/SACRAMENTO BASIN WATER PLAN
MAIL-IN COMMENTS FORM

Name	Address	Phone No.

Please send comments to:

South Central Mountain RC & D, Inc.
P.O. Box 457
Carrizozo, NM 88301

Alamogordo

Daily News

FRIDAY

October 13, 1995

50¢

Serving the Tularosa Basin since 1898

Lack of water may one day stagnate growth

By LISA TURNER
Daily News **Staff Writer**

Everybody knows Otero County is growing. But economic growth will eventually stagnate due to water scarcity, according to a report prepared by the University of New Mexico for the state.

That is one reason why the state and other agencies are preparing a 40-year regional water plan for the basin and the state, said Eddie Livingston, president and principal engineer for Livingston Associates, P.C in Alamogordo. The plan will consolidate information on water resources and other facts to promote wise water planning and use, Livingston said.

The plan, funded by the Interstate Stream Commission, will assess how much water is presently used and projects how much will be needed in the future based on population projections. No firm figures are available now because the plan is only in the first phase. Public input is needed to complete the first phase, and so the state will spon-

sor several rounds of public hearings in late 1995 and 1996, said Livingston.

A tentative schedule for initial local hearings includes a Dec. 7 meeting in Alamogordo, and meetings in both Mescalero and Timberon in early December.

The plan will investigate both surface and ground water sources, Livingston said. So far, the basin has relied almost exclusively on surface water. The basin's water supply is adequate, but residents cannot afford to squander the supply.

"It's a limited supply. There's quite a bit of ground water out there, but the quality of the ground water is good to very bad ..." Livingston said. Other sources of water for the local area include Bonito Lake, Alamo Canyon Springs, La Luz Fresnal Spring and Creek System and the well field near La Luz. The well field is used only during summer.

Although the local water supply is adequate now, the plan will help stretch out the supply of cheap, available water, he said.

Low increase seen in social security

WASHINGTON (AP)—The 47 million recipients of Social Security and Supplemental Security Income benefits will get a 2.6 per-

since benefits rose 1.3 percent in 1987. Benefits rose 2.8 percent this year.

Weather

Tonight, clouds will decrease and southwest winds will diminish to 5 to 15 mph. Thursday will be windy but mostly sunny. Winds will be from the southwest from 20 to 30 mph with higher gusts. Yesterday's high   86

"The idea that we are doing two different types of projects is totally incorrect," said City Manager Bob Stockwell in response to Moncada's opening statements.

...Moncada stared straight ahead, then Johnson looked at Stockwell as he finished.

"What group are we talking about, Mr. Stockwell?" asked Johnson. "Some of us are receiv-

...He also explained that wi ·revenue bond issue, the pi has a 30-day window built i request a public vote.

Public comments inclu some made by Michael Di

Objections made to water plan based on slow county growth

By LISA TURNER
Daily News Staff Writer

Several people voiced objections last night during a hearing on a local water plan when they learned that usage projections are based in part on an assumed slow population growth.

About 40 people attended the meeting at the Tularosa village hall. The meeting was one in a series in the second of three rounds of hearings to garner public input on a 40-year water plan for the Tularosa Basin.

The plan, funded by the Interstate Streams Commission, is under development by a local firm, Livingston Associates, P.C.

University of New Mexico projections place Otero's population at about 67,000 by the year 2040. Livingston Associates were directed to use this figure when they contracted with the state to do the study. But several people felt the population projection was too low and could skew the study.

"We need to seriously pursue the population projection ... I just can't believe those (numbers)," said Robert Bishop, chairman of the Southcentral Mountain RC&D Council and former Otero County Commissioner. Others echoed his opinion.

The comprehensive water study is the product of a 1980s water rights dispute between New Mexico and El Paso. The study will give the state leverage in case of a similar dispute in the future. A plan illustrating the state's future water needs should road block an attempt by El Paso or anyone threatening to usurp

The regional plan encompasses the entire 6,500-square-mile Tularosa Basin, incorporating the communities of Corona, Carrizozo, Tularosa, Nogal, Three Rivers, Mescalero, Alamogordo and Holloman AFB.

New Mexico water rights.

A draft is scheduled for completion in late 1996 after a third round of public hearings. The draft will inventory water sources, illustrate current water use and project future water consumption. The study will eventually be incorporated in a statewide plan.

The draft will include a summary of all existing water supply use, taking into consideration the quantity and quality of surface and groundwater resources in the basin, according to information from the South Central Mountain RC&D Council. The state is funding the study through the Council.

The regional plan encompasses the entire 6,500-square-mile Tularosa Basin, incorporating the communities of Corona, Carrizozo, Tularosa, Nogal, Three Rivers, Mescalero, Alamogordo and Holloman.

The next hearing will be in Alamogordo tomorrow at 7 p.m. in the civic center.

HAND-CRAFTED STYLE
Thimble Style Show and S April, 13 in the Alamogord Auxiliary members, hospi both will model hand-craf models an all-american Auxiliary Member Kathy Bc show. Proceeds from the st students in the community Tickets are $5 and can be f the door. Call Kay at 43

Tulie AD recommends closinc

By SHARON ANDERSON
Daily News Staff Writer

Tularosa School Board members were doused with facts and information on the local swimming pool at last night's regular meeting.

usage drops as students head back to school.

Then, Miller continued, the pool could be reopened in late August through September for use by physical education classes.

"I really hate to see you shut

"The city's hands are tied Miller replied.

Superintendent Mike Do explained that the school dis initially became involved in operations as part of a joint

Ṫimberon Newsletter

The Community Action Group

Dinner Theater Is Back

The Timberon Little Theater members are working feverishly on a new play to be performed in Timberon on Sunday, May 26 as part of the Memorial Day Weekend activities. The play, a comedy/melodrama entitled *Egad, What A Cad*, will be presented as the theater half of a Dinner Theater evening.

The dinner will be catered by Timberon's Hilltop Restaurant. It will be served buffet style and features an all-you-can-eat menu of beef brisket and enchilada casserole, plus green salad, several vegetables, desserts, dinner rolls, and drinks. The charge for the entire Dinner Theater is only $10.00 for adults and $6.50 for children.

If you enjoyed last year's presentation, you won't want to miss this one—and if you missed it last year—you REALLY don't want to miss this one. It should be even better, since "experience is the best teacher."

The dinner will be served at 6:00 P.M. and the play will begin at 7:30 P.M. If you can't make it for the dinner, walk-ins are allowed for the play. The charge is $3.00 and since the Little Theater is a non-profit organization, all proceeds above expenses will eventually be put back into the community.

Timberon Representatives Appreciation Day
"You won't want to miss this one!"

Mark your calendars...tie a string around your finger...or whatever it takes!

The Timberon Community Action Group is designating Saturday, May 11, 1996 as **"Timberon Representatives Appreciation Day."** Twelve very important people have been invited to attend and to enjoy a day in our town—on the town. They are: Senators Don Kidd, Diana Duran, Tim Jennings, and Leonard Rawson; Representatives Dub Williams, Terry Marquardt, and Barbara Casey; County Commission Chairman Richard Zierlein, County Commission Vice Chairman Ronny Rardin, Commissioner Tim McGinn, Sheriff John Lee, and Deputy Sheriff Terry Montoya.

The public will have the opportunity to meet with all of them at the Chateau De La Shay, where a prime rib dinner with all the trimmings (for just $8.95), will include a FREE SOCIAL HOUR from 6:30 P.M. to 7:30 P.M. But space is limited, so call early for reservations at 987-2342.

Many activities and facilities are being provided for the invited guests and their families, compliments of the businesses involved. These include golf provided by the TWSD Pro Shop, lodging at the Sacramento River Motel, dinner provided by the Hill Top Restaurant at the Chateau De La Shay, and horseback riding and video games at the Moss Ranch Stables.

Don't miss this "once in a lifetime" opportunity to meet and talk informally with your elected representatives.

Let's show them we appreciate that they care!

Remember the date—May 11.

South Central Mountain RC&D Meeting

The South Central Mountain RC&D Council returned to Timberon on March 28, represented by Howard Shanks, Ed Livingston, and Curtis Schrader. They up-dated their findings since their last visit in December of last year. The 40-year regional water plan they are developing will ultimately be part of the New Mexico State water plan. The Interstate Streams Commission and the office of the State Engineer are also supporting this draft. The population growth of our particular area is now calculated as 2.23% for the years 1996-2000. There will probably be another such meeting here in July or August of this year with more complete figures and information. Thanks to the efforts of Bill Berkebile, the TCAG, and the Home Extension Club ladies who provided refreshments, the meeting was enjoyed by a good turnout of interested citizens.

Hooray!!!

After a great deal of PRODDING, PATIENCE, and VERY GOOD WORK done by our legislators, commissioners, and local volunteers, our road is getting some much needed attention. All who travel the 14-mile road out of Timberon can bear witness to the improvement.

The Timberon Newsletter

Economic Development Planning Session Held

On December 6, approximately 22 people attended a meeting at the Community Center to hear and take part in a program presented by the South Central Mountain Resource Conservation and Development group. There were four guest speakers who explained the purpose of the RC&D, what it is doing and has done, and what the directors are doing in our specific area. Howard Shanks, Keith H. Kessler, Eddie C. Livingston, and Curtis Schrader were here from 10:00 A.M. through 12:00 P.M. discussing the group's plan for the Tularosa and Sacramento River Basin. They are gathering additional information to combine with previously collected data in order to formulate a 40-year regional water plan. This study will include good input from the public in each area
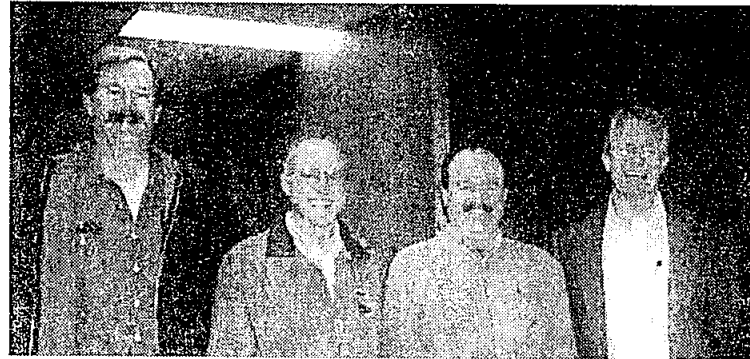
RC&D Directors (l to r) Keith Kessler, Howard Shanks, Curtis Schrader, and Eddie Livingston conduct Economic Development Planning Session in Timberon.

concerning the water supply and present and future water demands. They are interested in learning about the potential growth of Timberon in order to address the problems of such issues as: money for infrastructure, a monitor on the output from our water source, water storage, water rights, availability of water for fire fighting, funding for sealing the lakes on the golf course (used as water storage for the Timberon area), and the possibility of recreational development at the old Sacramento Lake area.

Future meetings will be held throughout 1996. The public will be kept informed as to dates and meeting places, and it is hoped that Timberon residents will attend and take an active part. It is in their best interests to do so.

"Santa Claus Is Coming To Town"

On December 23, SANTA will be flying into Timberon, weather permitting. He will go to AUDREY'S SNACKS and wants to meet ALL the children in Timberon. Santa will have a big bag of TOYS and a GIFT for all the kids. Audrey and Bill will have HOT CHOCO-LATE for them, too!

No matter what the weather is like, Santa will be here and he's expecting lots of children. EVERYONE, especial-ly ALL TIMBERON CHILDREN are invited to visit with Santa. So mark your calendar for 5:00 P.M., December 23.

Timberon Has Christmas Glow

Timberon "Main Street" is really "Beginning to look a lot like Christmas!" Anyone traveling through town after sundown is in for a pretty sight. There are four businesses and three residential properties which have been entered in the Christmas Decorating Contest so far, and the entry date has been extended until December 14 in the hope that more will be into the holiday spirit and join in. There is nothing to lose and much to gain, besides making Timberon even more beautiful than usual...and that's pretty difficult to do!

Wishing you a
Happy New Year!

Don't forget to make your reservations for the TCAG New Year's Eve party. The date is (of course) December 31...time is 9:00 p.m....place is Chateau de La Shay...cost is $10 per person. You can

dance to the music of D.J. "TRACY", have hors d'oeuvres, party favors and a very good time while greeting the New Year with friends. Just call 987-2258 or 987-2600.

NOW PLAYING

White Sands Mall   **CIN**

Pictures and opening dates are subject to change or deletion without notice.
Check with theatre or current newspaper fo

;till holed up,
two to leave

firmed they were Val Stanton and her 5-year-old daughter Mariah.

"She's out. That's good," said Tom Spillum, Mrs. Stanton's brother-in-law.

Authorities also did not identify the third-party negotiators meeting with the Freemen. Sen. Bob Brown, the president of the Montana Senate, confirmed they are state legislators.

Brown, a Republican who represents the ski resort town of Whitefish, said the negotiations were proposed by a state legislator from outside the Jordan area who has ties to someone with the Freemen.

That lawmaker recruited others to take part in the talks, Brown said. He declined to name the legislators involved.

The standoff began March 25 after federal agents arrested Freemen leaders LeRoy Schweitzer, 57, and Daniel Petersen, 53.

The Freemen have renounced all established authority, set up their own government, issued millions of dollars in bogus checks and threatened to kill those who stand in their way, authorities have said.

Schweitzer, Petersen and others face federal charges of writing millions of dollars in bogus checks and money orders, and threatening to kidnap and murder the federal judge who was involved in the foreclosure of the farm that serves as their base.

ROUNDUPS

The revenue to operate NMSU-A is derived from State and county funds and student tuition. Recently the state legislature voted to reduce the state share of operating costs for the school by an amount equal to three percent of student tuition.

on, call 437-

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call 437-4788.

• **The Otero County** lic **Land Use Advisory Council** (PLUAC) will hold a public meeting Tuesday at 7 p.m. in the County Commission meeting room, Otero County Courthouse room 104. An agenda is available for public viewing in the Otero County Administrative Office, room 101. For information, call 437-7427

• **The Golden Gears** will hold a regular meeting this Tuesday at 7 p.m. at VFW Auxiliary bldg. For information, contact Jack at 434-0200 or Mac at 434-8952.

• **Chapter AO, PEO Sisterhood** will meet this Tuesday at 7:30 p.m. at the home of Doris Duggan, 306 Scenic Dr. Call 437-4634 for regret only.

Wed. Dec. 6

• **The Bookmobile** from the New Mexico State Library will be at Oro Grande Post Office, from 11:15 a.m. to 12:45 p.m. For information, call the Rural Bookmobile Southwest Office at (505) 537-5121.

• **We Will Survive Widowed** will not meet this Wednesday. Meetings will resume on Dec. 13, at 220 Puerto Rico Ave. For information, call 434-3236.

• **The Otero County Health** Office holds a satellite clinic every Wednesday from 9 a.m. to 12 p.m., and 1:15-3 p.m. at the Community Center in Tularosa. Services include TB testing, immunizations, STD info, and family planning information. Advanced appointement is needed for PKU and pregnancy testing. For information, call 437-9340.

• **Duplicate Bridge** will meet Wednesday at 12:30 p.m. at Granada Center; call Ruby at 437-9070.

• **The New Mexico State University Alamogordo Jazz Ensemble** will meet in rehearsal every Monday and Wednesday at 5:30 p.m. to prepare for several concerts. Intrumentalists are

open house every Wednesday from 6:30-8 p.m. at 1012 Cuba Ave. For information, call 437-0993.

• **The New Mexico Symphony Orchestra** will be at the Flickinger Center for Performing Arts Wednesday, at 7:30 p.m. For information, call 437-2202.

• **Singles Together** will meet Wednesday from 7:30-8:30 p.m. at DK's Cafe. All singles 21 and older are welcome to attend. For information, call 585-9736.

Thu. Dec. 7

• **Alamo Squares** will hold a general membership meeting Thursday at 7 p.m. at Paul's Family Dinning. Dinner will be at 6 p.m. For information, contact Jim Yeager at 437-0174.

• **The second public meeting for the Regional Water Plan for the Tularosa Basin** scheduled for Thursday, Dec. 7, has been rescheduled for Tuesday, Dec. 19, at 7 p.m. For information, call 439-8588.

Fri. Dec. 8

• **The Otero County Scottish Rite Club** will hold their regular dinner meeting Friday at 6:30 p.m. at Paul's Family Dinning. All Scottish Rite Masons and their wives are welcome and encouraged to attend. For information, contact Joe Ash at 434-0198.

• **Kathy Manes, Children's** librarian at the Alamogordo Public Library, would like to invite all children and families to a special family holiday story exchange Friday from 7-8:30 p.m. in the Sacramento room. For information, call 439-4140.

• **The Alamogordo Woman's Club** will hold their annual Christmas Party at the Woman's Clubhouse, 12th St. and Indiana Ave. Friday at 11:30 a.m. This will be a pot-luck luncheon. In lieu of gift exchange, bring toys for tots and non-perishable food for the needy. For information, call 437-4704 or 437-0311.

ALAMO CIVIC CTR

PUBLIC SERVICE ANNOUNCEMENT:

NOTICE OF
PUBLIC MEETING
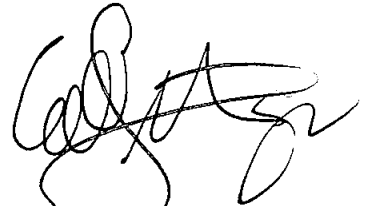
FOR THE

TULAROSA/SACRAMENTO RIVER BASIN 40-YEAR REGIONAL WATER PLAN

The public is invited to attend the second round of hearings and provide input to the planning process for a regional water plan for the Tularosa and Sacramento River Basins.

DATE	TIME	LOCATION
TUESDAY APRIL 9, 1996	6:30PM	**TULAROSA** VILLAGE HALL
THURSDAY APRIL 11, 1996	7:00PM	**ALAMOGORDO** CIVIC CENTER

SPONSORED BY THE SOUTH CENTRAL MOUNTAIN RC&D COUNCIL. FOR INFORMATION CALL LIVINGSTON ASSOCIATES, P.C., CONSULTING ENGINEERS AT 439-8588

PUBLIC MEETING SCHEDULE

TULAROSA BASIN WATER PLAN

DATE	TIME	LOCATION
TUESDAY, MARCH 26, 1996	6:30PM	**ORO GRANDE** FIRE STATION
THURSDAY MARCH 28, 1996	10:00AM	**TIMBERON** LODGE
TUESDAY, APRIL 2, 1996	1:00PM	**HIGH ROLLS** LIONS CLUB
THURSDAY APRIL 4, 1996	6:30PM	**CARRIZOZO** VILLAGE HALL
TUESDAY APRIL 9, 1996	6:30PM	**TULAROSA** VILLAGE HALL
THURSDAY APRIL 11, 1996	7:00PM	**ALAMOGORDO** CIVIC CENTER

SECOND ROUND OF PUBLIC MEETINGS ON THE
TULAROSA BASIN 40 -YEAR REGIONAL WATER PLAN,
2000 - 2040

WILL DISCUSS EXISTING AND FUTURE WATER USES

SPONSORED BY THE SOUTH CENTRAL MOUNTAIN RC&D
FOR INFORMATION CALL LIVINGSTON ASSOCIATES AT 439-8588

PUBLIC MEETING

TULAROSA BASIN WATER PLAN

THURSDAY APRIL 11, 1996 AT 7:00 PM

ALAMOGORDO CIVIC CENTER

SECOND ROUND OF PUBLIC MEETINGS ON THE
TULAROSA BASIN 40 -YEAR REGIONAL WATER PLAN,
2000 - 2040

WILL DISCUSS EXISTING AND FUTURE WATER USES

SPONSORED BY THE SOUTH CENTRAL MOUNTAIN RC&D
FOR INFORMATION CALL LIVINGSTON ASSOCIATES AT 439-8588

PUBLIC MEETING

TULAROSA BASIN WATER PLAN

TUESDAY APRIL 9, 1996 AT 6:30 PM

TULAROSA VILLAGE HALL

SECOND ROUND OF PUBLIC MEETINGS ON THE TULAROSA BASIN 40 -YEAR REGIONAL WATER PLAN, 2000 - 2040

WILL DISCUSS EXISTING AND FUTURE WATER USES

SPONSORED BY THE SOUTH CENTRAL MOUNTAIN RC&D
FOR INFORMATION CALL LIVINGSTON ASSOCIATES AT 439-8588

PUBLIC MEETING

TULAROSA BASIN WATER PLAN

THURSDAY MARCH 28, 1996 AT 10:00 AM

TIMBERON LODGE

SECOND ROUND OF PUBLIC MEETINGS ON THE TULAROSA BASIN 40 -YEAR REGIONAL WATER PLAN, 2000 - 2040

WILL DISCUSS EXISTING AND FUTURE WATER USES

SPONSORED BY THE SOUTH CENTRAL MOUNTAIN RC&D
FOR INFORMATION CALL LIVINGSTON ASSOCIATES AT 439-8588

PUBLIC MEETING

TULAROSA BASIN WATER PLAN

TUESDAY APRIL 2, 1996 AT 1:00 PM

HIGH ROLLS LIONS CLUB

SECOND ROUND OF PUBLIC MEETINGS ON THE TULAROSA BASIN 40 -YEAR REGIONAL WATER PLAN, 2000 - 2040

WILL DISCUSS EXISTING AND FUTURE WATER USES

SPONSORED BY THE SOUTH CENTRAL MOUNTAIN RC&D
FOR INFORMATION CALL LIVINGSTON ASSOCIATES AT 439-8588

PUBLIC MEETING

TULAROSA BASIN WATER PLAN

TUESDAY MARCH 26, 1996 AT 6:30 PM

ORO GRANDE FIRE DEPT.

SECOND ROUND OF PUBLIC MEETINGS ON THE TULAROSA BASIN 40 -YEAR REGIONAL WATER PLAN, 2000 - 2040

WILL DISCUSS EXISTING AND FUTURE WATER USES

SPONSORED BY THE SOUTH CENTRAL MOUNTAIN RC&D

PUBLIC MEETING

TULAROSA BASIN WATER PLAN

THURSDAY APRIL 4, 1996 AT 6:30 PM

CARRIZOZO VILLAGE HALL

SECOND ROUND OF PUBLIC MEETINGS ON THE TULAROSA BASIN 40 -YEAR REGIONAL WATER PLAN, 2000 - 2040

WILL DISCUSS EXISTING AND FUTURE WATER USES

SPONSORED BY THE SOUTH CENTRAL MOUNTAIN RC&D
FOR INFORMATION CALL LIVINGSTON ASSOCIATES AT 439-8588

TOWN MEETING

REGIONAL WATER PLANNING

CORONA SENIOR CITIZENS CENTER

NOVEMBER 28,1995
10AM - 12 NOON

THE SOUTH CENTRAL MOUNTAIN RC&D COUNCIL AND LIVINGSTON & ASSOCIATES ARE CONDUCTING PUBLIC MEETINGS IN THE TULAROSA BASIN TO DETERMINE FUTURE WATER NEEDS AND PRIORITIES FOR OUR CITIZENS.WE NEED YOUR INPUT.

FOR MORE INFORMATION CONTACT HOWARD SHANKS AT 505-648-2941

PUBLIC MEETING

REGIONAL WATER PLAN FOR THE TULAROSA BASIN

MONDAY DECEMBER 4, 1995 AT 7:00 PM
TULAROSA VILLAGE HALL

THE PURPOSE OF THE MEETING IS TO PROVIDE AND COLLECT INFORMATION FOR A REGIONAL WATER PLAN FOR THE TULAROSA BASIN

"PLEASE BE THERE, DON'T LET SOMEONE ELSE PLAN FOR YOUR FUTURE WATER NEEDS!"

Sponsored by the South Central Mountain RC&D, Inc.

NOTICE OF PUBLIC MEETING

REGIONAL WATER PLAN FOR THE TULAROSA BASIN

TUESDAY DECEMBER 19, 1995 AT 7:00 PM
ALAMOGORDO CIVIC CENTER

THE PURPOSE OF THIS FIRST PUBLIC MEETING IS TO PROVIDE INFORMATION ON THE REGIONAL WATER PLANNING PROCESS AND SOLICIT PUBLIC INPUT ON A REGIONAL WATER PLAN FOR THE TULAROSA BASIN

Sponsored by the South Central Mountain RC&D, Inc.
505-648-2941 or 439-8588

SOUTH CENTRAL MOUNTAIN
RC&D COUNCIL, INC.
P.O.BOX 457, CARRIZOZO, NEW MEXICO 88301 PH: 505-648-2941

March 19, 1996

TO: All Interested Citizens

FROM: Robert Bishop, Chairman
           South Central Mountain RC&D Council, Inc.

SUBJECT: The Future of Water in the Tularosa and Sacramento
           River Basins

The South Central Mountain RC&D Council, Inc. and Livingston & Associates, Consulting Engineers, will hold a series of public meetings to obtain input, testimony and relevant information regarding the future use of water within the Tularosa and Sacramento River Basin of Lincoln and Otero Counties.

The South Central Mountain RC&D Council is a non-profit organization interested in rural development issues in our area, particularly in the wise use of our natural resources and in the economic viability of our rural communities.

Our organization is currently developing a 40-year water regional water plan with the support of the Interstate Streams Commission and the Office of the State Engineer.

The regional water plan will ultimately be a part of a state water plan which will assist decision makers to determine how to deal with water issues for the next 40 years.

The public meetings are an essential part of the planning process and are scheduled during the months of March and April at the following locations:

MARCH

OROGRANDE: 6:30 PM - Tuesday, March 26th - Fire Station

TIMBERON: 10:00 AM - Thursday, March 28th - Timberon Lodge

APRIL

HIGH ROLLS: 1:00 PM - Tuesday - April 2nd - Lions Club

CARRIZOZO/NOGAL: 6:30 PM - Thursday - April 4th - Carrizozo Village Hall

TULAROSA/LA LUZ: 6:30 PM - Tuesday - April 9th - Tularosa Village Hall

ALAMOGORDO/HOLLOMAN AIR FORCE BASE:
                  6:30 PM - Thursday - April 11th - Alamogordo Civic Center

TULAROSA/SACRAMENTO BASIN WATER PLAN
PUBLIC HEARING IN CARRIZOZO
DECEMBER 8, 1995

SIGN - IN SHEET

Name	Address	Phone No.
Rene Benton	Box 181 Carrizozo	648-2102
Greg Haussler	Box 116, Capitan	354-2220
Keith Kessler	HC 67 Box 90 *Nogal, N.M 88341*	336-4886
R.E. WILLIAMS	BOX 100 NOGAL 88341	354-2200
Carol Schlarb	Box 247 Carrizozo	-648-2871
Ruth Armstrong	Box 628 Carrizozo	648-2435

TULAROSA/SACRAMENTO BASIN WATER PLAN
PUBLIC HEARING IN OROGRANDE
DECEMBER 11, 1995

SIGN - IN SHEET

Name	Address	Phone No.
KAREN LERNER	Roswell · SNMEDD	624-6133
ERIC BAILEY	PO BOX 9 OROGRANDE	434-6820 (915·912·543) W
Linda Wilkerson	po BOX 17 orogrande N.M	
DON CROTTEAU	BOX 26 OROGRANDE	434-0219
BOB LARCEVAL	BOX 45 OroGrande	437-3447
Leslie Honsberger	PO Box 73 OroGrande	437-2660
Theresa Kaup	#7 USHwy54 Orogrande	439-0023
BEAR	Box 47 OG 88342	434 3039
ALTENGARTsch	Po Box 32 OG.	—
Mr+Mrs Edward Johnson	Box 50 OROGRANDe, N.Mex	437 5412
JOE BAILEY	P.O. BOX 18	437-5078
Ellen Bail	Oro Grande	434-6820
Don Wilkerson	Oro Grande 88342	
Doug Essex	Oro Grande	437 7015
Delta Rumsey	Bx·24 Oro Grande	434-8666
Earl C. Johnson	Box 36 Oro Grande	437-0447
Keith Kessler	HC 67 BOX 90 Nogal, N.M. 88341	336-4886

TULAROSA/SACRAMENTO BASIN WATER PLAN
PUBLIC HEARING IN CORONA
NOVEMBER 28, 1995

SIGN - IN SHEET

Name	Address	Phone No.
Greg Haussler	Box 116 Capitan, N.M.	354-2746
Hollis Fuchs	Box 261 Capitan NM	354-2935
Sue Stearns	Box 98 Nogal NM	354-2487
J Gibbs	Corona, N.M.	849 4611
Nolan Vickrey	Corona N M	849 7777
Ellis Hodge	Corona	849-8502
David Hanley	Carrizozo	648-2418
KAREN LERNER	SF 201 1106 4 AST Roswell Roswell	624-6133
Van Shamblin	Box 1012 Capitan 88316	354-3104
GLENN BREIN	1900 W 2nd Roswell	622-6521
Jim Edwards	1216 Mechem Drive Ruidoso 88345	258-3272
Howard SHawks	457 Box 7H CARRIZO, NM	648-2841
Theresa N. Barajas	Corona Senior Citizens	849-1437 P.O. Box #5
Keith H. Kessler	HC 67 Box90 Nogal, N.M. 88341	336-4157-Fax 336-4886-Office
Curtis Schrader	Box 317 CLOUDCROFT, NM 88317	682-2411
Hazel Bickford	Cedarvale 87063	849-7755
Robert Pfeffer	Corona	849-2222
Robert D. Bishop	3115 Spur ct. NW Albuquerque 87104	244 0553
Timothy Sanchez	HC-68 Box45 Cedarvale N.M. 87009	849-1636

TULAROSA/SACRAMENTO BASIN WATER PLAN
PUBLIC HEARING IN TULAROSA
DECEMBER 4, 1995

SIGN - IN SHEET

Name	Address	Phone No.
W.T. & Linda Julien	52 Gardner Tularosa	585-9639
Adam Kusmak	500 Riata Rd. Tularosa	(505) 644-2797
[illegible]	Tularosa NM	
Guenna Rees	51 Gardner Tularosa	505-585-2909
Jack Rees	"	"
Dan C. Abercrombie	Bx 306 Alamogordo	434-5210
Stephen & _[illegible]_	618 Willow La Tularosa	585 9491
Richard H. _[illegible]_	Village of Tularosa	585-2080
Howard Sharkey	Rt 40	648-2941
Margie Trujillo	Tularosa	585-4497
Tom McKeen	Tularosa	585-8008
Jim Darby	Tularosa	
Heather Dingledine	Tularosa	

TULAROSA/SACRAMENTO BASIN WATER PLAN
PUBLIC HEARING IN ALAMOGORDO
DECEMBER 19, 1995

SIGN - IN SHEET

Name	Address	Phone No.
Angie M. Meck	1210 Post Ave, Alamo	439-1740
David P. Gallagher	P.O. Box 173 High Rolls	682-2720
John Poland	501 Sunglow Ave Alamogordo	434-6474
Jean Dodd	1302 Canyon Rd Alamogordo	434-3041
Aubrey L. Dunn, Sr	Box 386 Alamogordo, N.M.	437-7623
Joe Keeney	1206 Canyon Place Alamogordo NM	437-3678
Ane Keeney	"	"
David Keeney	923 Safuna Cir Alamogordo	439-8293
Joe P. Moore	1801 Granada Alamogordo	437-3090 439-4220
Robert D. Bishop	790 Laborcita LaLuz 88337	437-4862
Lisa Turner	P.O. Box 1603 Alamogordo	437-7120

TULAROSA/SACRAMENTO BASIN WATER PLAN
PUBLIC HEARING IN OROGRANDE
MARCH 26, 1996

SIGN - IN SHEET

Name	Address	Phone No.
		915 · 775 - 3397
Eric Bailey	Box 9 Orogrande	434 6820
Joe Bailey	Box 18	437-5078
Doug Essex	My Place Area	
Raul Rojas	P.O. 33	434-6733
Don Wilkerson	P.O. Box 2	
Ginoveva C Rojas	P.O Box 33	434-6733
R Tourchhot	P.O Box 32	
Troy Raines	P.O. Box 73	437-2660
Lin Miller	P.O Box 54	434-4452
Earl E. Johnson	P.O. Box 36 (Orogrande)	437-0447
Eddie Livingston		439-8588

TULAROSA/SACRAMENTO BASIN WATER PLAN
PUBLIC HEARING IN TIMBERON
MARCH 28, 1996

SIGN - IN SHEET

Name Please Print	Address	Phone No.
HOWARD SHAWICS	Box 457 CARRIZOZO	648-2941
JEAN Campbell	330, Timberon	987-2272
GRACE MEYERS	Box 208	987-2225
Mary Frances Seidl	Box 203	984-2273
(illegible)	Box 5 Timberon	987-2557
(illegible)	Box 3 Timberon	987-2334
(illegible)	_(illegible)_	_(illegible)_
Deborn England	Po Box 34 Timberon	987-2480
FLO STAPLETON	Po Bx 102 TIMBERON	987-2575
ROSE MARIE NETZER	PoBox 236 "	987-2384
Gloria Spradley	P.O.Box 250 -Timberan	987-2531
JOHN H.STAPLETON	PO Box 102 Timbera	987-2595
Bob Crislip	Po Box 342 Timberon	987-2523
Paula Crislip	Po Box 342 Timberon	987-2523
DAVE AYERS	Box 115 Timberon 88350	987-2312
Dwight Haisley	Box 134 Timberon 88350	987-2378
Larry Watson	Box 277 Timberon 88350	987-2512
BETTY L. REECE	P.O. Box 177	987-2253
Curtis Schrader	Box 317, Cloudcroft	682-2411

TULAROSA/SACRAMENTO BASIN WATER PLAN
PUBLIC HEARING IN HIGH ROLLS
APRIL 2, 1996

SIGN - IN SHEET

Name	Address	Phone No.
MEL PEARCE	29 OLD RANGER ROAD	682 3447
Clint McElhevy	25-27 Old Fire House Rd	682 - 2719
Joe Chambers	Box 487 High Rolls	682- 2462
Phil Haseltine	ESG - PO Box 25102 Santa Fe 87504	827-6160
Curtis Schrader	Box 317, Cloudcroft	682-2411
Eddie Livingston	1200 Indiana	439-8588

TULAROSA/SACRAMENTO BASIN WATER PLAN
PUBLIC HEARING IN HIGH ROLLS
APRIL 2, 1996

SIGN - IN SHEET

Name	Address	Phone No.
Helen Richardson	24 Wild Rose	687-3206
R.R. Richardson	" " "	" "

TULAROSA/SACRAMENTO BASIN WATER PLAN
PUBLIC HEARING IN CARRIZOZO
APRIL 4, 1996

SIGN - IN SHEET

Name	Address	Phone No.
HOWARD SHANKS	P.O. Box 457 Carrizozo	648-2941
Keith Kessler	HC 67 Box 90 Nogal	336-4986
Jim Edwards	1216 Mechem Drive Ruidoso	258-3272
Faustino Gallegos	Box 247 CARRIZOZO	648-2371
Frances Boling	Box 601 Carrizozo	648-4258
RENE BURTON	Box 181 CARRIZOZO	648-2102
(illegible)	Box 601	648-2125
BETTYE MARTINEZ	Box 220 San Antonio, NM	420-2685
Eileen Lovelace	Box 536 Carrizozo, NM	648-2158
Van Shamblin	Box 1012 Capitan 88316	354-3104
EDDIE LIVINGSTON	1200 Indiana	439-8588

TULAROSA/SACRAMENTO BASIN WATER PLAN
PUBLIC HEARING IN TULAROSA
APRIL 9, 1996

SIGN - IN SHEET

Name	Address	Phone No.
H.D. Hammanoff	P.O. Box 938	585 9082
CAROL GUILEZ	TULAROSA	
Chon Guilez	Tularosa	585-46 48
Lisa Turner	Alamogordo	437-7120
R. Jackie SANDOVAL	Tulie	585.4441
John Stockert	124 Sun Valley Rd Tulie	585-2946
Eddie Vigil	P.O. Box 955	585-4920
Robert Baca	HC72 Box 5056	585-2913
Norma E. Cinient	30 Dusty Ln, Tulie	585-2057
Gladys Nosker	Glencoe n.M	378-4654
Lowell Nosker	Glencoe n.m.	378-4558
Sharon Perry	18 Moon Ln. Tulie	585-2147
BILL & ROBYN HAYHURST	95 MTN MEADOWS Rd TULAROSA,	585-9000
TONY TAFOYA	933 Peach Circle	585-2535
Ray Quick	144 RockClift Rd LALuz	434-0589
John H. REES	51 Gardner Rd Tula	585-2909
Bill & Linda Julien	52 Gardner Tulie	585-9639
Gwinna Rees	51 Gardner Rd Tula	585-2909
Bob CARR	PO BOX 128	585-4986
J. HowArd BLACKBURN	1007 PECAN Dr.	585-2026

TULAROSA/SACRAMENTO BASIN WATER PLAN
PUBLIC HEARING IN TULAROSA
APRIL 9, 1996

SIGN - IN SHEET

Name	Address	Phone No.
James Williams	St. RT #1 Bent, NM	671-4598
STEPHEN C. DuBois	618 Willow Lane Tularosa.	585 9491
ROBERT BISHOP	790 LABORCITA LA LUZ, NM	437-4862
Bill Trammell	Box 965, Tularosa	585-2849
DAN ABERCROMBIE	Box 306 ALAMOGORDO	585-9583
FRANN E. BIRD	PO Box 204 Tularosa	585-9046
JOE B. BIRD	P.O. Box 204 Tularosa	585-9046
H B SHAW	TULAROSA	585-2986
Joe M Donahugue	Tylarosa Nm	—
Ken Hughes LGD	Bataan 201, Santa Fe 87523	800/432-7108
KAREN LERNER SNMEDD	110 E 4th St. Roswell 88201	624-6133
Stephanie L. DuBois	618 Willow Lane Tularosa 88352	585-9491
Fred Utter	Box 315, 303 7th St. Tularosa 88352	585-2625
Margie Smith	1208 Montezuma Tularosa	585-4497

TULAROSA/SACRAMENTO BASIN WATER PLAN
PUBLIC HEARING IN ALAMOGORDO
APRIL 11, 1996

SIGN - IN SHEET

Name	Address	Phone No.
PAUL BURNETT	1826 Lamar Cir - Alamo	434-1533
LESLIE BOWD	208 S. Bookout	585-9655 ← TULAROSA
JOE KEENEY	1206 Canyon Place	437-3678
Rae Keeney	"	"
Darrell Burrows	31 Oro Vista Dr	437-8715
Williams	510 San Andres	437-2751
Ray Quisk	144 Rockclic Rd	434-0589 La Luz
Sharon Perry	18 Moon Lane Tuli	585-2147
Norma E. Ginert	30 Dusty Ln Tuli	585-2057
Bob Fisk	Box 451 High Rolls	682-3680
Bill Hornback	%P O Box 1586 Alamo	585 9063
WM. WAGNER	841 LaGarcita Canyon Road - La Luz	437-7777 430-7777
Barbara Wagner	841 Labordita Canyon Rd La Luz	" "
Dennis Crimmins	#3 Marble Top, Alamogordo	437-7816
Charles Walker	699-16 Springs Cloudcroft	687 3508
Thelma Walker	" "	" " "
Evelyn K. Cook	Box 3 La Luz	437-1638
Alvin Cook	Box 3 La Luz	437-1638

COMMENTS The do-gooders that keep raching their brains(?) about the water shortage here in alamogordo, sound like the "little boy who wanted _____ to keep his cake & eat it too." You can't have it both ways.

If you had a cup of water & knew that was all you were going to get, would you keep handing it out to strangers?

This is only one sensible solution to the problem — quit trying to fill every available space in the area with a house or business.

I saw this very same problem in Yucca Valley, Ca. They wanted city-hood. They got it they wanted Progress, and all they got was a ghost town — businesses closed, people left town. All because of a lack of water. Greed breeds discontent.

I am my creed. I was born here 81 years ago & have lived here off & on all my life. It saddens me to see the lack of awe at this modern generation uses. "you can't have your cake & eat it too!"   The LORD Fed them MANNA & they were discontent.

Name Lettye Polson hosee

Address 34 Bonito Blvd

Daytime Phone Number 437-4411

E-mail CATH 385@hAUUS.Com

City Las Cruz   **State** N.M.   88.337

Contact Me ☐ Yes
        ☐ No

Received 1-9-2001

COMMENTS

Excelent Insert

Well written & Informative

Insert is a great distrubation method

Name Howard Barkley

Address 1409 Post Ave

Daytime Phone Number 434-4982

Contact Me ☒ Yes ☐ No

E-mail hbarkley@totecc.com

City Alamogordo

State NM 88310

Received 1-24-01

COMMENTS

1 Follow the Procedures carefully.

1 Appreciate what is being done and (future) planned.

1 Try to attend meetings but don't manage to succeed too often

(getting old and slow).

Name RUDY M. GROSS _____ E-mail _____

Address 605 SUNBEAM _____

Daytime Phone Number 434-7341 _____ City ALAMOGORDO _____

Contact Me ☐ Yes
☐ No _____ State _____

COMMENTS Just Keep up the food work, but please:

1. Monitor city growth - V's - current water supplies/distribution are we building faster then water supplies allow).

2. Continue to monitor (and keep public current) testing point on in regards to 05-satiwo. These projects to me are the most important "water planning" things on the table.

Name Mr. Norman, M. Spidell   E-mail _____

Address P.O. Box 3519

Daytime Phone Number _____

Contact Me ☐ Yes ☒ No

received
1-6-01

City Alamogordo

State NM 5831-3519

Mr Harold C Reynolds
1817 College Ave
Alamogordo, NM 88310-4712

Mr. Livingston: 5 Feb 2001

Re "Regional Water Planning":

1. **All** of our Water Supplies
are <u>Limited and Shrinking</u>!
They are Shrinking because
of Overuse, Waste and Pollution!

2. **All** of our Natural Resources
are <u>Limited and Shrinking</u>!

3. Therefore, <u>Growth</u> of Population,
Consumption, Waste and Pollution
<u>Must Stop</u>!

4. It is <u>Physically Impossible</u>
to Sustain Perpetual Growth!

5. Stability and Conservation
must be the Policies of
our Future!

6. _Strategies_
  a. _Water Conservation:_
    Everybody Must Conserve,
    including All Businesses!
  b. _Watershed Management:_
    Our Public Lands shall _Not_
    be managed solely for
    Water Production! They
    shall continue to be
    managed for Multiple
    Use, including Wildlife!
    Overgrazing Damages
    Watersheds!
  c. _Desalination:_
    This process will be _Too_
    Expensive for everything
    but Drinking!
  d. _Cloud Seeding:_
    Too Dangerous! We do _Not_
    Know enough about it!
    If we make it Rain here,
    by Cloud-Seeding, it will _Not_
    Rain somewhere else, down
    the Weather Stream!

This is Not in the Public
Interest! Not in the interest
of Public Welfare! This is
Greed!

e. Water Importation:
Once again, are we going
to take Water away from
someone else? NO!

f. Aquifer Storage and
Recharging:
Good! Do it with Flood
Waters!

g. Bottom Line:
Stop Population Growth!
Stop Building More Houses!
Stop All Immigration!
Educate the People!
Recognize Our Limits!

Face the Facts and
Bite the Bullet!

Growth Must Stop!

Conservation Must be the
Rule!

There is No Other Way!

Harold C Reynolds

TULAROSA/SACRAMENTO BASIN WATER PLAN
MAIL-IN COMMENTS FORM

Name	Address	Phone No.
Leslie Bond	208 S. Bookout Tularosa	585-9655

1. Long term groundwater levels are the best direct measure of net depletion in the basin.

2. Within your time and money constraints, please review and comment on the assumptions on "returns" to the system. My experience in Arizona is that there is virtually no groundwater recharge in basins except right at the mountain front.

Please send comments to:

South Central Mountain RC & D, Inc.
P.O. Box 457
Carrizozo, NM 88301

TULAROSA/SACRAMENTO BASIN WATER PLAN
MAIL-IN COMMENTS FORM

Name	Address	Phone No.
Paul Burnett	1826 Lamar Circle	505 434 1533

The demographics data presented at the public hearing in Alamogordo were not realistic. There is much greater growth than projected by UNM — It would be prudent to project a population of at least 100,000 by 2035 *. If we fail to plan for continuing growth the basin will choke. The plan needs to focus on how to catch more of the water that's available and be sure the containment system is enlarged and kept in good condition to prevent leakage before the water can be used and then recycled to recharge the basin.

* Note: The population growth rate of about 2% per year that we are now experiencing would, if it continues at the same level, result in doubling the population in 36 years. So there's a mathematical certainty that the population will hit 100,000 unless the present rate of growth slows. It could take 50 years to double, but it will happen some time in the 35 to 50 year time frame.

Mr. Livingston ~   12/30/95
Re your Water Study ~

Here are some facts and opinions about <u>Water</u> in Alamo, Tularosa Basin, New Mexico and the USA ~

Facts from the State Engineers ~

1. Alamogardo owns enough Water Rights for about <u>45,000</u> people.

2. Our underground Water Supply in the Tularosa Basin is <u>shrinking</u> every day, because, for many years we have been pumping water <u>out</u> of the ground faster than it is being recharged. The same is true for most Basins in New Mexico.

3. Every drop of Surface Water in the State of New Mexico is <u>Overappropriated</u>! There are more Rights than Supplies!

O·V·E·R

Other Facts:

1. The Ogalalla Aquifer, a great underground <u>sea</u> of water, has been pumped down to where many farmers can not afford to pump it any more!

2. Water supplies all over the USA are shrinking because of <u>Overuse</u> and <u>Pollution</u>!

3. Pork Barrel Boondoggles like the Central Arizona Project are <u>too expensive</u> to be constructed anywhere else! We can't balance the Budget and fund Boondoggles like this too!

4. In Alamo: Rainfall 10". Evaporation <u>12 feet</u> per year.

<u>Opinions</u>

1. Water Rights are <u>too expensive</u> to buy, even <u>if</u> someone would sell them!

2. Desalination will be <u>too expensive</u> for most of us! and only <u>Temporary</u>!

3. Long-term residents of Alamo-gordo have prior rights, <u>senior</u> rights, to their traditional amounts of ^{water} use at reasonable costs!

4. Greenery around residences is <u>Necessary</u> because it reduces cooling costs and conserves Energy! Energy Conservation is an Absolute Necessity!

5. Commercial Car Washes are out-rageous <u>wasters</u> of Water and Energy because Washing cars is <u>Not</u> a necessity; it is a <u>luxury</u>! Car Washes must be phased <u>out</u> in a few years!

6. Present residents of Alamo do <u>Not</u> want <u>their</u> water taken from them so that it can be sold to <u>strongers</u>!

7. Taxpayers Financial Resources are <u>shrinking</u> every day! We can <u>Not</u> pay for more Water!

8. Perpetual Growth is Physically _Impossible_ because _All_ of our "Natural Resources are _Shrinking_!

9. _Growth Must Stop_ / We do _Not_ want to drink our Reclaimed Sewage!

10. New technology _May_ help us but it would be foolish for us to gamble on that now! "Don't count your chickens until they hatch!"

11. The solution to our Water Problems: _Stop Growth Now_!

I urge you to recommend in your report that the best solution to water problems, all over the _Arid_ Southwest, is to _Stop Growth Now_!

We _Must_ Recognize Our _Limits_!

Water Conservation is _Necessary_ merely to maintain the _Status Quo_!

Harold E. Reynolds, BSF

Paul T. Burnett
pburnett@zianet.com

1826 Lamar Circle
Alamogordo, NM 88310-4741

Howard Shanks, Coordinator
South Central Mountain RC&D council, Inc.
P.O. Box 457
Carrizozo, NM 88301

March 24, 1998

Dear Howard,

As you know, I am very interested in the Regional Water Plan and would like to make a suggestion. You'll note I'm sending a copy to Eddie Livingston for consideration.

I propose that the RC&D Council incorporate in the Regional Water Plan a demonstration project for augmenting rainfall across the watersheds supplying the Tularosa Basin. I suggest that the Council contact Sandia and Los Alamos National Laboratories concerning the possibility of working with the RC&D Council in a technology transfer program to conduct a feasibility study, develop and action plan, and apply state-of-the-art technology in the proposed demonstration project. To make such a cooperative technology transfer initiative feasible, it may be necessary to set up or subcontract with a small business qualified to participate in existing Small Business Innovative Research or Small Business Technology Transfer Programs depending on the response and regulatory requirements. The point is to take advantage of the high-tech expertise available via technology transfer programs to attain the objective.

The technological basis for this proposal is straightforward. The natural water cycle of evaporation from oceans, rainfall over land masses, and runoff back into the oceans has been uninterrupted for many thousands of years. The objective of the proposal is to continually tap the stream of water vapor that passes above the surface on a daily basis, make use of that water in management of forest and human health, and recharge the sub-surface acquifers as an integral part of the natural water cycle.

From the technical perspective, the proposal would involve injecting condensation nuclei into the atmosphere from ground-based sites in a controlled manner along the trajectory of the moisture supply between the oceanic source(s) and the target area for rainfall augmentation. Ground based injection of condensation nuclei has been demonstrated to be practical in locations such as the former Soviet Union and early experiments elsewhere principally in endeavors to mitigate hail damage. I'm not aware of similar organized projects to augment rainfall over regions such as ours in forest management and water resource development program.

In preparing a long-term 40-year plan for developing and using our precious water resources, I'm convinced rainfall augmentation is an approach that should not be neglected, particularly in view of the progressive nature of technological evolution. I therefore encourage the RC&D Council to authorize and direct Mr. Livingston to investigate and recommend how a proposal for such a demonstration project can best be incorporated in the Regional Water Plan he is preparing.

Sincerely,

cc Eddie C. Livingston, P.E.

Paul T. Burnett

Tularosa
40-Yr-Plan   PF

4-17-98

Eddie —

In your regional water plan, I hope
you came across the four years of
stream gaging data ~~that~~ of flows of
the Sacramento River that ISC and
the City of Alamogordo with the USGS
funded in the mid eighties. The city's
idea was to divert it at Alamo canyon or
at some other point. The flow was
significant and the water wasn't being used.

Rusty

COMMENTS Your "conservation Alternatives" section on PG 6 of this section sound as if it was written by the Mayor or City Manager. CONSERVATION AS STATED IN YOUR ARTICLE AND BY THE CITY GOVERNMENT IS A ___FARCE___.

the cumulative escalation — the more the water utility must change

WATER CONSERVATION CONTAINS ITS OWN our

LESS WATER CONSUMED PER household. The more the water utility — our

PER unit of consumption to pay the costs of operating the utility. our

city government will ever use these higher rates to pay for "GENERAL REVENUES

for city GOVERNMENT — Though by itself, A

PROJECTS. "Conservation is an APPROPRIATE GOAL FOR CITY GOVERNMENT. water so

CURRENT RESIDENTS BEING ASKED TO USE LESS

Leaves the IMPRESSION of our water— consuming

AND MORE WATER-CONSUMING

That we will have enough TO ATTRACT MORE RESIDENTS TODAY

CONSERVATION WHY WE SHOULD DEPRIVE OURSELVES

INDUSTRY. CITIZENS AFLOAT/DO QUESTION our STREETS ARE MORE CONGESTED (TRAFFIC LIGHTS

TO (RESPONSE) RUNNING OUT OF WATER, UNTIL OUR one is going to

on (distance) AND OUR AIR MORE POLLUTED. Until these items are ADDRESSED, no

TAKE the water situation SERIOUSLY. ATTENDING MEETINGS DO NOT ACCOMPLISH anything.

Name FRED LETH-STEENSEN

Address 3102 LOS ROBLES   E-mail _____

Daytime Phone Number 443-7251

City Alamogordo

State N.M.

Contact Me ☐ Yes
           ☐ No

Flood Control -Not Diversion

This is a great idea. I hope I don't blow it.

Alamogordo and Otero County are face with problems of flood control, underground water recharge, and keeping taxes low. Can one idea help with all of these problems both easily and economically?

This simple idea solution came from Mr. Keith Clements of Clements Pump Co. The idea of using retention basins to halt the flow of flood water is generally accepted. Mr. Clements idea was to divert flood water from the canyons into the two gravel pits, one of which is west of La Luz and one of which is at South Florida Ave. and Desert Lakes Road.

The gravel pit west of La Luz is large enough to hold all flood water from Dry and Fresnal-La Luz canyons. The gravel pit south of Alamogord can hold all flood water from Marble and Alamo canyons.

This idea is presented for your consideration.

Leon Beck

Leon Beck
1300 Dewey Lane
Alamogordo, N M 88310-5556

Phone 437-2606

Email: lbeck@hauns.com

_ 100 foot deep open excavations

Facts About Water in Alamogordo, NM

1.   Average Annual Rainfall: 10 inches

2.   Average Annual Evaporation: 144 inches (12 feet).
Desert!

3.   Alamogordo owns enough Water Rights for about
45,000 people.

4.   But all of this water can Not be delivered to users
in Alamogordo because of our Old, Leaking and Plugged-Up
Water Lines; Bonita, et al.   We can deliver enough water for
only about 40,000 people.

5.   Our Ground Water Supply is Shrinking and has been
Shrinking for many years, because we have pumped Water out
of the ground faster than it has been re-charged.   Water
Tables have Dropped 10 feet in some areas.   The Air Force
has abandoned several large wells south of town.

6.   Mountain Water Supplies are Shrinking because of
the Drought.

7.   Our present population is over 30,000.

8.   Our little "Surplus" should be Saved for Emergencies
and Droughts.

9.   Purchase and Delivery of more Water Rights will be
Prohibitively Expensive, if not Impossible!

10.   All Water Supplies are Limited!

11.   Population Growth in Alamogordo Must Stop!

Harold C. Reynolds
Alamogordo
437-0961

Facts About Water in New Mexico

1. New Mexico is 80% Desert and Semi-Desert. Average Annual Rainfall in New Mexico is 18 inches. Average Annual Evaporation Rate is 64 inches, 5 Feet!

2. Every drop of Surface Water in New Mexico is Over-Appropriated! In other words: There are More Water Rights than Water Supplies!

3. All of our Underground Basins have been pumped Down! Some so far Down that it is barely economical to pump the Water.

4. New Mexico suffers a Net Water Deficit!

5. There is No Surplus Water in New Mexico!

6. There is No Free Water in New Mexico! Costs of Water Rights are Rising daily!

7. We will get No Water from other States!

8. Population Growth in New Mexico must Stop!

Harold C. Reynolds, BSF

Harold C. Reynolds
1817 College Ave.
Alamogordo, NM 88310
437-0961

BRACKISH WATER DESALINATION

The resources are available, the technology is here, the time is now.

Alamogordo can be made to bloom like a rose if it sizes the opportunity.

The only dependable water supply that Alamogordo has is its use of
the unlimited supply of brackish water existing in the Tularosa basis.

The most effective way of turning brackish water into high quality
drinking water is by use of desalination.

The only barrier to the use of the desalination process is the high cost
electricity. Us of solar energy generated electricity may now or soon
reduce this cost.
Solar generated electricity is already priced competitively with
electrivity generated by conventional fuels in many locations.
If you will notice the increase in your bill for natural gas and
electricity this winter, you may well conclude that solar energy
generated electricity may soon be the cheaper way to go.

Alamogordo is blessed with many hours of bright sunshine.
Tracking solar panel decks made in Albuquerque will catch the
maximum amount of this sushine. Solar tracke maker is Zomeworks.

The only limit to the amount of electricity that can be generated
by solar energy ia the square footage of collectors you build.
Solar energy is the only pollution free source of energy. It is
inexhaustible and so far the politicians have not put a tax on it.

Every rose has its thorn.

You may immediately say that the cost of building adequate solar
arrays is impractical because of the initial cost.

The age of cheap water is past. Regardless of what we do, if we
want more good water, we will have to pay more.

If we are forced to spend big bucks on a needed water supply, we
should examine all possibilities and pick the one that
will give us the best results over a long period of time.

Leon Beck
Leon Beck, 1300 Dewey Lane, Alamogordo, N M 88310-5556

LOOKING AHEAD AT FUTURE POTENTIAL INCOME FOR THE
CITY OF ALAMOGORDO

The City of Alamogordo owns several hundred acres of land located northeast of the present city boundary line. This land land has great potential for residential and commercial development.

The use of this land to construct runoff water retention basins would destroy much of this potential value.

Potential income from this land could run into millions of dollars.

All other means of runoff water control should be carefuoly considered before building these runoff water reservoirs.

Leon Beck

Leon Beck
1300 Dewey Lane
Alamogordo, N M 88310-5556
Phone 437-2606

Another factor to be considered is the danger of retaining a large amount of water above a populated area. Any sudden release of this water would be disastrous.

Observations onf Mountain Runoff Water from Dry Canyon on north to
and including Beaman Canyon on the south.

This watershed runs off generally from northeast to southwest

The watershed is divided just north of Beaman canyon by a high ridge
running from Beaman canyon to the west.

Dry canyon watershed is divided into two channels just west of
canyon's mouth.   The west channel goes southwest to Florida Ave,
then west to railroad, then south to an exit to Red Arroyo and west.
The east channel goes on a course paralell to the west channel
and reaches Scenic Drive and Florida Ave and then winds its way
southwest through developed land until it reaches Canal Street and the
canal west of intersection of Scenic Drive and Florida Ave.

The Beaman canyon area is divided into three drain areas. The
nothernmost drain is out of an unnamed canyon just north of Beaman
canyon and parallel to it. This is the northernmost drain area
which is south of high ridge coming out on the nothern side of
Beaman canyon. This area also flows to the southwest. The water
from this canyon crosses the city pipe line and comes out at Scenic
Drive just west of the Christ Community Church. Beaman canyon
flows southwest to the city water line over a 500 foot front
and reassembles just east of Christ Community Church, goes southwest
to Scenic Drive, along Scenic Drive, then diverted to the east and
then southwest where it goes under and over Scenic Drive and
continues on southwest in two medium large arroyos. I believe that
the water from Beaman and the unnamed arroyo to its north in the past
have flowed to the abandoned city reservoir. This flow has now
been altered by the placement of the city recreation area and goes
to the east of this area. The watershed on the southeast of Beaman
Canyon develops a considerable flow but joins Beaman Canyon water
just east of the Christ Community Church. This is the third drain area

This is geogrphy of the subject runoff area.

Now what to do about controlling flood water in this area. There are
many suggested solutions and each has its own merit. The Corps has
proposed a catch canal running east to west just north of Christ
Community Church. The City has proposed construction of a detention
basin suitable to catch runoff water from both Dry and Beaman Canyons.
The Corps plan would catch much of the runoff water provided Dry
Canyon water could be brought that far south to go into the channel.
I believe the city's plan for use of a detention basin would have
much merit if a separate detention basin were built for both Dry
and Beaman watershed. In order for the Beaman Canyon detention basin
to catch most of this water it would have to be built just east
of the Christ Community Chruch and would be very wide unless there is
much diversion of the unnamed cayon and Beaman canyon waters nearer
their mouth.
The Dry canyon detention basin would not have to be built if the
Dry Canyon water was diverted under Highway 82 into the large
arroyo field on land belonging to the State of New Mexico. The flow
of water out of the arroyo field could be stopped at the La Luz Road
(knowMy as North Florida Ave.)
                              Phone 437-2606
                              Alamogordo

Leon Beck, 1300 Dewey Lane,

Tulie Water Plan

Eddie Livingston

From: "jc tate" <tatejohn@nm.net>
To: <howard.shanks@nm.usda.gov>; <tombarb@lookingglass.net>; <elivingston@livingston-associates.com>
Sent: Sunday, January 21, 2001 6:47 PM
Subject: water

From: John Tate, CDR USN (Ret) Carrizozo
To: Mr. Howard Shanks
 Mr. Eddie Livingston
 Mr. Tom Springer

Subj: RC&D etc

I read with interest the "Water Planning for the Future" insert in the recent Lincoln County News. I take this conservation issue VERY seriously (I invite you to inspect my home for verification), and I think "business should be conducted in a businesslike manner." That is: economics can be the basis for all actions and self-interest IS the basis for economics; but valid self-interest can only be sought and achieved through balanced analysis of valid data.

Permit me to make a few comments regarding the data and issues presented in the insert. (My comments are ordered by subject location in the article.) (By the way, I don't believe the thoughts below are novel. Part of my motivation in listing some of them is to learn why they are not popular or feasible.)

1. Rain water is discussed quite freqently - but its local, artificial capture is not. Consider these numbers:

 a. Given an annual rainfall of 9 inches and a sample home's roof area of 1200 sq ft (30' x 40' or 20' x 60'), 900 cu ft (6732 gallons) of water is available to this dwelling's residents. Now, that equals 18.4 gallons/day. I suggest this is roughly 2/3s of a day's reasonable internal DOMESTIC water usage per person. (The addition of a garage or car port will bring us up to a whole person-day of water). Therefore I say, cistern incorporation into southwestern home designs ought not to be ignored.

 b. Given the same 9 inches of annual rainfall, what if the streets of town X were equipped with gutters and drains that fed not the sewer but a reservoir? Could this be an economically useful source? What if such a design were planned into all new towns or town extensions or sub-division sites?

2. At page 2 it is stated that "[l]arge bodies of saline
water resources underlie the basin...." (Two other assets
we enjoy are solar and wind power.) Subsequently micro-
filtration and reverse osmosis methods of desalination
are discussed. I suggest two additions to this scheme:
first, consider wind and solar power for pumping the
saline water to the surface and for powering its
purification. Second, I suggest considering "solar
stills" as a low volume alternative to filtering.
The Navy proved the functionality of solar stills
for use in at sea survival kits (water, water every-
where ...). They can be quite passive in design and
operation. Could this have a domestic (low volume)
application?

3. The water use chart at the bottom of page 3 may be
accurate; but if so, it demonstrates the vast improvements
in consumption possible by educating the public. But the
table is not uniformly or coherently labled: is it per day
per person? Is it daily for a family of X? In any case,
please consider the following:

a. My home is equipped with 1.6 gallon toilets. They
function well for liquid waste. However two flushes are
otherwise the norm. The six gallons indicated must be
for at most one person-day using a conventional toilet; it
could be for one person-day using a water-saving model;
it cannot reasonably be for more than one person.

b. 35 gallons for one person showering is preposerous!
It is true that I was schooled by the Navy in efficient shower-
ing, but I cannot imagine using even one-fifth the amount listed.
(For a simple counter-example you need only plug your tub before
showering; the water will at most be a few inches up; hardly
the level required for a bath (listed as 36 gallons).) Thus,
this must be for multiple daily showers, however extavagant.

c. I wash dishes (and pots and pans) by hand. I save that
waste water for plants (separate from grey water). For a family
of four, I use (and then re-use for plants) about four gallons a
day. Ten gallons/day ought to represent a family.

d. Brushing teeth: two gallons. This is patently absurd.
One can quite reasonably brush one's teeth with a cup of water.
2 gal = 256 fl oz; at 8 fl oz per cup that means 32 brushings.
A family of four @ four brushings per day (after each meal and
at bed) is 16 brushings. Thus, even at two cups per brushing we
achieve the 2 gallons listed; one gallon is more plausible for
a family of four.

1/30/01

e. Washing hands: two gallons? The same as teeth? I do not understand this figure in any context consistent with those above.

4. The data above for domestic consumption makes a strong case for several conservation techniques:

a. Grey water. A small garden, several trees, or a nominal patch of grass can easily be maintained by grey water. Also, most of the "contaminants" of typical grey water are nutrients for plants.

b. Composting toilets. Virtually no water is used and waste becomes fertilizer.

c. Constantly escalating water use fees. Most urban homes and businesses already have water meters. However the cost per unit is flat or broadly stepped. Where is the incremental motivation for conservation? I suggest the incentive to save would be magnified by the use of constantly varying, monotonically increasing, marginal rates for water. (With modern compute time esentially free, this is a trivial calculation issue.)

5. The caption with the photographs of an "area of Nogal" mentions the daily consumption of 35 gallons of water by a mature Juniper. This may not be "net" figure. Deforestation in certain areas, most notably Haiti, have had a significant impact on climate - specifically rain fall. It is quite possible that these "water guzzling" Junipers, through their cooling effect, in fact result in a net gain in water.

6. Xeriscaping could be integrated into zoning and subdivision planning. If I buy a house with a lawn, I'm going to want to keep it up; and I won't want to spend the money to convert to a xeriscape. I suggest the same is true for a home "equipped" with a xeriscape yard. (This is the west; we need to convince folks that converting your piece of it into England or Hawaii isn't wise ... rather, it's an unnatural act.)

7. Golf courses! (Dare we touch the sacred third rail?) Have you ever been to the Atacama desert in Chile? I have. they have golf courses there. The greens are fine sand, the fairways are course sand, the roughs are ROCKs! Oh, and the sand traps are sand traps.

Now, I admit that I've only touched domestic uses of water. Non-ranching agriculture and industry are not my areas of

expertise. Still, I'm prompted to ask:

Could not hydroponic green houses be made into virtual closed water systems yielding both abundant produce and zilch water consumption?

On a more conventional scheme, couldn't plastic be laid below plant beds to inhibit water loss and plastic sheets be laid along plant rows to inhibit evaporation?

Finally, I'm forced to ask if some of the arguments about "water consumption" aren't misleading. We live in a closed system (the earth & its atmosphere). Do we really "consume" water? Or do we move it from place to place in varying degrees of purity? We may pump the Rio Grande dry before it reaches El Paso (or the Rio Bonito before it reaches Hondo), but have we lessened the world's water? If I pump X gallons from the aquifer and then pump Y gallons of waste water back into the ground, how much have I consumed? (How long before my waste water is purified (100 ft?) and reaches the acquifer (1 year?)?)

For industry and agriculture, what if I instituted a system such that I was billed for (or allotted on my own land) X units of non-exchanged water? That is, for every gallon of pure water that I return to the local (vice global) system, I am not billed. I believe this scheme is now in use for certain applications.

Two thoughts in closing:

a. The southwest needs to recognize this problem is OUR problem, not the east's or Washington's. Therefore, this is one time the liberal city dwellers and the conservative ranchers had better sit down together and work together for a balanced, sensible resolution.

b. Mr. Shanks, you're listed as having a Carrizozo address. I'm sorry we've not met. But I invite you over any time for a cup of Navy coffee and a visit. (Of course, Messers Livingston and Springer are also invited when in the area.) I'm located 2 miles south of Carrizozo at the intersection of US 54 and county road A5 (the house with the WINDOWS).

Sincerely, /s/ John Tate

PS I've got good! water, straight from the pump ...
    thanks be to God.

1/30/01

TULAROSA BASIN REGIONAL WATER PLAN QUESTIONNAIRE

How do you think we should meet our future water demands?

Please rate the following; 1 being the highest priority 5 being the least.

_____ Conservation of existing supplies

_____ Treatment of saline ground water

_____ Improving our watersheds

_____ Controlling population growth

_____ Repair Bonito pipeline

_____ Other – Please list

What is the greatest concern you have regarding our water resources?

Please prioritize your concerns from the list, 1 being the greatest concern.

_____ Water quality

_____ Water right laws

_____ Water costs

_____ Import/export of water

_____ Growth/development

_____ Other

Please feel free to fill this out later and return to either of the following address

South Central Mountain RC&D Council
P.O. Box 457
Carrizozo, NM 88301

Livingston Associates, P.C.
500 Tenth St., Suite 300
Alamogordo, NM 88310

TULAROSA BASIN WATER PLANNING COMMITTEE

MEETING RECORD

DATE:

PLACE:

TBWPC MEMBERS PRESENT:

ORGANIZATION:

APPROXIMATE NUMBER OF ATTENDEES:

MAJOR COMMENTS AND RECOMMENDATIONS FROM ATTENDEES:

Comment Form
Tularosa Basin, Sacramento River Basin, Great Salt Basin Water Plan

Date _____   Place _____

Name _____   Representing _____

I want to comment about (please check one of the following):

☐ Conservation or Use of Water   ☐ Acquifier Recharge or Depletion

☐ Cost of Water   ☐ Surface Water

☐ Population / Growth   ☐ Ground Water

☐ Quality of Water   ☐ Effluent / Wastewater

☐ Rights / Regulations / Policies / Enforcement   ☐ Storage or Distribution of Water

☐ Other _____   ☐ Use of Technology to Enhance Water Supply

My comment is intended to:

☐ Provide information that may be useful in planning

☐ Suggest consideration of an alternative or an issue

☐ Strongly recommend an action or policy

_____

_____

_____

_____

_____

_____

_____

_____

Thank you for making the effort to comment.

Form 000128

100 Uses for $1.00 Worth of Water (1,000 Gallons)

1. Drink 8,000 glasses of water
2. Take 80 showers
3. Take 20 baths
4. Make 16,000 cups of coffee
5. Flush the toilet over 600 times
6. Wash hands 200 times
7. Wash over 140 loads of dishes
8. Wash over 20 loads of laundry
9. Wash your car 40 times
10. Make _____ plates of spaghetti
11. Make _____ bowls of frijoles
12. Water _____ house plants
13. Make _____ ice cubes

Water a backyard garden for a year. (100 sq ft 16 inches)

* contributed by Paul Burnett

Gloria Vaughn

Tularosa Basin Regional Water Plan

100 Uses for $1.00 Worth of Water (1,000 Gallons)

1. Drink 8,000 glasses of water
2. Take 80 showers
3. Take 20 baths
4. Make 16,000 cups of coffee
5. Flush the toilet over 600 times
6. Wash hands 200 times
7. Wash over 140 loads of dishes
8. Wash over 20 loads of laundry
9. Wash your car 40 times
10. Make _____ plates of spaghetti
11. Make _____ bowls of frijoles
12. Water _____ house plants
13. Make _____ ice cubes
14. Swimming Pools   Home - City - Base
15. Fish Ponds - Tanks
16. Road Construction = Gravel Pits -
17. Agriculture - Ranchers - Pistachios, Pecans, etc
18. Golf Course
19. Parks

WATER SUPPLY AND DEMAND SURVEY

Would you kindly fill out the survey shown below? We are finishing the Tularosa Regional Water Plan and would like to include the data in order to highlight the specific water issues that the individual communities face at this time. The information that you have at hand will probably be sufficient, so no extensive research is required. Estimated values would probably suffice. If you already have some documentation relating to your water issues, we would appreciate getting a copy.

Thanks

Tom Springer, Chairman
P.O. Box 1361
Cloudcroft, NM 88317
682-3040
tombarb@lookingglass.net

SURVEY

1. Current Population (Year 2000):_____

2. Estimated Population (Year 2040): _____

3. Water Rights:
   a. Community Surface Water (amount, points of diversion*): _____
   b. Community Supplemental Wells (points of diversion*): _____
   c. Community Production Wells (amounts, points of diversion*): _____
   d. Domestic Wells (number of wells and locations*): _____

4. Current Water Supply (from the above listed sources):
   a. Community Surface Water[amounts, quality (TDS value only)]: _____
   b. Community Supplemental Wells [amounts, quality (TDS value only)]: __
   c. Community Production Wells (amounts, quality [TDS value only)]: ___
   d. Domestic Wells [quality range (TDS values only)]: _____

5. Estimate of historical supply (amount that you might recall was available from the above sources during times of higher precipitation [by categories listed in 4a, 4b, 4c, and 4d]: _____

6. Current Water Demand (Year 2000): _____

7. Estimate of Water Demand (Year 2040): _____

* Please use the map supplied by mail to indicate the approximate points of diversion for surface water and/or wells.

Tularosa Basin, Sacramento River Basin and Great Salt Basin
40-Year Regional Water Plan
Small Water System Survey

1. Name of Water System:_____

2. Address:_____

3. Contact:_____

4. Phone:_____ Fax:_____

5. Number of residential meters:_____ Active:_____

6. Number of other meters:_____ Active:_____

7. Total residential water use in 1998:_____gallons

8. Total other water use in 1998:_____ gallons

9. Is your supply ground water? _____

10.   Gallons of groundwater pumped in 1998:_____

11.   Number of wells in system:_____

12.   Total ground water rights:_____ Acre-feet/yr

13.   Is your supply surface/spring water? _____

14.   Amount of surface water diverted in 1998:_____

15.   Number of surface water diversion points:_____

16.   Total surface water rights: _____ Acre-feet/yr

17.   Do you envision your system expanding in the future?_____

18.   How many additional meters do you estimate may be installed
in the next 5 years?_____ 10 years?_____
20 years? _____ 40 years?_____

19.   Are residents moving in or out? _____

20.   Is growth due to retirement, jobs, rural living or other? (circle)

Please complete form and return to:

Livingston Associates, P.C.
500 Tenth Street, Suite 300
Alamogordo, NM 88310
439-8588

OROGRANDE
PUBLIC HEARING

40,000 / Day

8-10 / Winter

Population - 62

42 Meters

Check 1990 water use

TIMBERON PUBLIC HEARING
3/28/96

SAC RIVER / CARRISA SPR USES:

* ## DOMESTIC CONSUMPTION
  - Pop. (P.O., Ph. Otero Co.) (<500)
  - Raw water storages $\pm$ 350

* ## RECREATIONAL
  - Fishing / camping / hiking / hunting
  - Trout ponds
  - Golfing
  - Swimming pool
  - Horseback riding
  - RV parks

* ## EMERGENCY
  - Hydro study (NMSU)
  - Fire fighting?

* ## COMMERCIAL
  - Tourism
  - RV parks
  - Laundromat (1)

* ## INDUSTRIAL
  - Fish hatchery

* ## BASE FLOW

PUBLIC MEETING

HIGH ROLLS
4-2-96

COMMENTS

- Is depletion an accurate description?

- Water rights issues / non-government involvement

- Well construction SEO reg's enforced?
- coming led strata / water
- not enforced

- Need detailed hydrologic study for Basin

- Conservation? no current plan

PUBLIC MEETING
TULAROSA BASIN WATER PLAN
ALAMOGORDO

COMMENTS

1. WATER <u>SUPPLY</u> ELEMENT OF STUDY? DEMAND LIMITED BY SUPPLY. SUSTAINABLE SUPPLY.

2. METHOD OF CHECKING DATA <u>PRIOR</u> TO ACCEPTANCE BY PUBLIC?

3. WATERSHED MANAGEMENT NEEDS TO BE ADDRESSED.

4. RETURN FLOW FIGURES ARE NOT ALL "REUSEABLE" DUE TO LOCATION OR RETURN AND QUALITY.

5. HAFB WATER USE WEBS DIVISION MUN/INDUS. ETC.

6. PLAN NEEDS TO BE UPDATED REGULARLY.

7. QUESTION POPULATION.
    - TOO LOW NOW.

NAU - FOREST VEGETATION
CONSUMPTION / SRP - CORONADO

5. How acct. for PWS and wells?

6. Is SEO going to meter Dom wells?

7. How project useage that requires a new permit?

TULAROSA/SACRAMENTO BASIN 40-YEAR WATER PLAN
FIRST ROUND PUBLIC HEARING COMMENTS
VILLAGE OF CORONA - NOVEMBER 28, 1995

1. Purchasing 2 old El Paso Gas water wells

2. Connecting Lines (2 miles)

3. Claunch - Pinto Studies

4. Watershed treatment needs to be investigated

5. No WW treatment plant

6. Population Projections? Tularosa Basin population drops more than Pecos.

7. Need more responsible county zoning.

TULAROSA/SACRAMENTO BASIN 40-YEAR WATER PLAN
FIRST ROUND PUBLIC HEARING COMMENTS
VILLAGE OF TIMBERON - DECEMBER 6, 1995

1. quality - good - all surface

2. problem - dollars needed for infrastructure

3. sleeping giant - will boom when road gets improved in 1997 - 2000.

4. road - 1997? maybe - highway dept. just out in summer.

5. unplatted areas - 2 sections, (52,000 + platted lots), (will need to go to county for subdivisions)

6. check with phone company/power company for last years growth rate.

7. flow rate - carrisa spring?
      some USGS monitoring

8. water storage for future use needed

9. carrisa springs source - good

10. Basil Smith study -
      North American Land Development - John Mobley

11. base flow in stream?

12. sacramento lake - recreation.

13. water rights. don't know how many have.

14. hydro power? May be able to generate power.

15. sac lake - fire fighting, recreation
      lake storage and seepage
      4 lakes in district need liners ($25,000 each)
      7 lakes potential - 45 ac-ft
      water storage 500,000 gallons

1. Population Projections? How Obtained? Accuracy?

2. Federal Water Rights? Are Feds taking water rights for themselves?

3. Beneficial Use policy <u>contradicts</u> conservation (by "use or lose") and planning for <u>maximum</u> needs. Have to use water anyway if your farms are fallow or under economic hardship.

4. Include precipitation data/weather patterns.

5. Obtain well drillers information - get USGS/SEO water level data.

6. Tularosa is on moratorium due to H2O shortage.

7. What about excess surface water not being used. Flood and storage of off season flows.

8. Water rights history and research.

TULAROSA/SACRAMENTO BASIN 40-YEAR WATER PLAN
FIRST ROUND PUBLIC HEARING COMMENTS
VILLAGE OF CARRIZOZO - DECEMBER 8, 1995

1. If Bonito line is abandoned will Nogal/Carrizozo still get their H2O?

2. Population decrease does not make sense.

3. Find out reasons for population decrease/increase 1990 - 1995 (retirement community).

4. Currently do not use sewerage effluent. Overflow goes to Valley of Fires Ranges. (From evaporating ponds)

5. Any conservation measures - No.

6. Golf course east pond leaks (would hold rain water storage)

7. 80-100 gpm water use (approx. 1 million gal./mo.)
   Summer run 2 wells - 75% of time

8. McBride well - east of town.
   Salty well - tried to plug off.

9. Superfund Site: Cyanide (gold leaching) was pumped into SAS system - EPA stopped (BOR oversite).

10. 20 - 30 miles of livestock piping put in each year.

11. Spring S.W. of Oscuro (Malapair Spring - Brackish) on WSMR -White Sands (Pupfish live in endanger species)

12. Water Level Decline?

1. 100 years age of pipeline 42 miles

    military - 60,000 gpd

    circle cross - 30,000 gpd

    usps -

2. leakage/age/freeze

3. city cooperation/general users

4. funding

5. groundwater - good quality/sand filter

    45,000 gpd I5-20 gpm 100,000 gallons storage (need more)

6. first 5 miles - worst - upper section

7. 100,000 gpd - rights use 40,000 gpd

8. juniper reservoir (lower) 6" good 4" above - encrusted

9. 3,000' replaced - $8,000 - $9,000, $2 - 3 million to replace

10. slow growth or no growth

11. 4 lane highway impact growth?

12. good source - 4 miles - range camp johnson water source

1. Question ownership of water and ability to transfer water.

2. Question population growth.

3. Lack of water may limit growth.

4. How can the influx of people be estimated.

5. Base projections on utility or telephone hook ups.

6. More conservation practices implemented.

7. Study possibility of desalinization.

8. Question population projection for Alamogordo.

9. Look at the impact of vegetative change (in watershed) on water yield (ie; removal of "high use" plants).

Public Comments

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2.2

PUBLIC COMMENT SUMMARY

Over the six year period of time since the first phase of the Tularosa Basin RWP began a large number of public comments have been received, both verbally at the meetings and by means of written responses to questionnaires and newspaper articles. In addition, there were extensive suggestions provided at the regular meetings by visitors. In order to be able to analyze such a large number of inputs without reading every written comment in detail, an attempt has been made to categorize the comments into a relative few number of topics. The results of this categorization are shown in Appendix 2.2 in the form of a small-print, four-page summary.

The first column of the Table indexes the comments by an index number which makes it easy to refer to a particular type of comment, key word, meeting place, or date.

The second column lists the type of comment made by the person who attended the meeting or wrote a letter or note. In general, the comment related to passing along information that the attendee was personally familiar with at the "grass roots" level, or consisted of an observation, a question, a suggestion, or probing into the purpose of the RWP. Some people were clearly advocating a particular slant to the RWP that might be of benefit to them or, at least, not harm their water situation.

The third column, probably the most valuable, contains one or more key words in the comment that was made. This key word can allow a sort to be performed in order to determine the most frequently cited areas of concern. For example, the topic of population or, especially, growth in population appears relatively often, as do comments on water supply, demand, and solutions to the shortages of water being experienced in the area.

Columns 4, 5, 6, 7 and 8 provide the date of the meeting if it was noted; the name and address of the person who made the comment, if it was made available; identifies whether the forum was a public hearing (meeting), a mail-in comment, or a response to a newspaper article; the number of people who were in attendance at the meeting; and, finally, the place of the meeting, respectively.

The 9th column lists the number of major comments that were provided at each meeting or in each letter or note. For example, about seven major comments were offered at the meeting in Corona as shown by Index Numbers 1 through 7.

Finally, the tenth column provides the highlights of the comments themselves. The latter information was used throughout the preparation of the RWP to the extent possible.

Index	Type of Comment	Key Words	Date	Name	Forum	No. Presen	Mtg. Locat.	Comment #	Comment
1	Information	Wells	11/28/1995	Unknown	Public Hearing	20	Corona	1	Purchasing 2 old El Paso Gas water wells.
2	Information	Lines	11/28/1995	Unknown	Public Hearing	20	Corona	2	Connecting Lines (2 miles)
3	Information	Studies	11/28/1995	Unknown	Public Hearing	20	Corona	3	Claunch - Pinto Studies
4	Suggestion	Treatment	11/28/1995	Unknown	Public Hearing	20	Corona	4	Watershed treatment needs to be investigated.
5	Information	Treatment, Wastewater	11/28/1995	Unknown	Public Hearing	20	Corona	5	No WW treatment plant
6	Probe	Population	11/28/1995	Unknown	Public Hearing	20	Corona	6	Population Projection? Tularosa Basin population drops more than Pecos.
7	Observation	Zoning	11/28/1995	Unknown	Public Hearing	20	Corona	7	Need more responsible county zoning.
8	Probe	Population	12/4/1995	Unknown	Public Hearing	14	Tularosa	1	Population Projections? How Obtained? Accuracy?
9	Probe	Rights	12/4/1995	Unknown	Public Hearing	14	Tularosa	2	Federal Water Rights? Are Feds taking water rights for themselves? Beneficial Use policy contradicts conservation (by "use or lose"") and planning for maximum needs. Have to use water anyway if your farms are fallow or under economic hardship.
10	Observation	Policy	12/4/1995	Unknown	Public Hearing	14	Tularosa	3	
11	Suggestion	Studies, Precipitation	12/4/1995	Unknown	Public Hearing	14	Tularosa	4	Include precipitation data/weather patterns.
12	Suggestion	Studies, Acquifer	12/4/1995	Unknown	Public Hearing	14	Tularosa	5	Obtain well drillers information - get USGS/SEO water level data
13	Information	Supply	12/4/1995	Unknown	Public Hearing	14	Tularosa	6	Tularosa is on moratorium due to water shortage.
14	Probe	Surface Water, Storage	12/4/1995	Unknown	Public Hearing	14	Tularosa	7	What about excess surface water not being used. Flood and storage of off-season flows.
15	Observation	Rights	12/4/1995	Unknown	Public Hearing	14	Tularosa	8	Water rights history and research.
16	Information	Surface Water, Storage	12/6/1995	Unknown	Public Hearing	28	Timberon	1	quality - good - all surface
17	Observation	Funding	12/6/1995	Unknown	Public Hearing	28	Timberon	2	problem - dollars needed for infrastructure
18	Observation	Population, Growth	12/6/1995	Unknown	Public Hearing	28	Timberon	3	sleeping giant - will boom when road gets improved in 1997 - 2000
19	Observation	Population	12/6/1995	Unknown	Public Hearing	28	Timberon	4	road - 1997? Maybe - highway dept. just out in summer.
20	Observation	Population, Zoning	12/6/1995	Unknown	Public Hearing	28	Timberon	5	unplatted areas - 2 sections (52,000+ lots) (will need to go to county for subdivisions)
21	Suggestion	Population	12/6/1995	Unknown	Public Hearing	28	Timberon	6	check with phone company/power company for last years growth rate.
22	Observation	Supply	12/6/1995	Unknown	Public Hearing	28	Timberon	7	flow rate - Carrisa Spring? Some USGS monitoring
23	Observation	Storage	12/6/1995	Unknown	Public Hearing	28	Timberon	8	water storage for future use needed
24	Observation	Supply, Quality	12/6/1995	Unknown	Public Hearing	28	Timberon	9	Carrisa Springs source - good
25	Information	Studies	12/6/1995	Unknown	Public Hearing	28	Timberon	10	Basil Smith study - North American Land Development - John Mobley
26	Question	Supply	12/6/1995	Unknown	Public Hearing	28	Timberon	11	base flow in stream?
27	Observation	Use	12/6/1995	Unknown	Public Hearing	28	Timberon	12	Sacramento Lake - recreation
28	Observation	Rights	12/6/1995	Unknown	Public Hearing	28	Timberon	13	water rights. Don't know how many have.
29	Probe	Use	12/6/1995	Unknown	Public Hearing	28	Timberon	14	hydro power? May be able to generate poweer. Sacramento Lake - fire fighting, recreation; lake storage and seepage; 4 lakes in district need liners ($25,000 each); 7 lakes
30	Information	Use, Problems	12/6/1995	Unknown	Public Hearing	28	Timberon	15	potential - 45 ac-ft; water storage 500,000 gallons
31	Question	Supply, Rights	12/8/1995	Unknown	Public Hearing	7	Carrizozo	1	If Bonito line is abandoned will Nogal/Carrizozo still get their water?
32	Observation	Population	12/8/1995	Unknown	Public Hearing	7	Carrizozo	2	Population decrease does not make sense.
33	Suggestion	Population	12/8/1995	Unknown	Public Hearing	7	Carrizozo	3	Find out reasons for population decrease/increase 1990 - 1995 (retirement community).
34	Information	Effluent, Reclamation	12/8/1995	Unknown	Public Hearing	7	Carrizozo	4	Currently do not use sewerage effluent. Over-flow goes to Valley of Fires Ranges (From evaporating ponds).
35	Observation	Conservation	12/8/1995	Unknown	Public Hearing	7	Carrizozo	5	Any conservation measures? No.
36	Information	Storage, Problems	12/8/1995	Unknown	Public Hearing	7	Carrizozo	6	Golf course east pond leaks (would hold rain water storage)
37	Information	Use	12/8/1995	Unknown	Public Hearing	7	Carrizozo	7	80-100 gpm water use (approx. 1 million ga./mo.); summer run 2 wells - 75 % of time.
38	Information	Wells, Problems	12/8/1995	Unknown	Public Hearing	7	Carrizozo	8	McBride well - east of town; salty well - tried to plug off.
39	Information	Pollution	12/8/1995	Unknown	Public Hearing	7	Carrizozo	9	Superfund Site: Cyanide (gold leaching) was pumped into SAS system - EPA stopped (BOR oversite).
40	Information	Lines	12/8/1995	Unknown	Public Hearing	7	Carrizozo	10	20-30 miles of livestock piping put in each year.
41	Information	Endangered species, Problems	12/8/1995	Unknown	Public Hearing	7	Carrizozo	11	Spring S.W. of Oscuro (Malapaii Spring - Brackish) on WSMR - White Sands (Pupfist live in endanger species)
42	Question	Supply	12/8/1995	Unknown	Public Hearing	7	Carrizozo	12	Water Level Decline?
43	Information	Lines	12/11/1995	Unknown	Public Hearing	19	Orogrande	1	100 years age of pipeline 42 miles; military - 60,000 gpd; Circle Cross - 30,000 gpd; usps - leakage/age/freeze
44	Information	Lines, Problems	12/11/1995	Unknown	Public Hearing	19	Orogrande	2	City cooperation / general users
45	Observation	General	12/11/1995	Unknown	Public Hearing	19	Orogrande	3	funding
46	Observation	Funding	12/11/1995	Unknown	Public Hearing	19	Orogrande	4	groundwater - good quality / sand filter; 45,000 gpd 15-20 gpm 100,000 gallons storage (need more)
47	Information	Storage, Quality	12/11/1995	Unknown	Public Hearing	19	Orogrande	5	first 5 miles - worst - upper section
48	Information	Lines, Problems	12/11/1995	Unknown	Public Hearing	19	Orogrande	6	100,000 gpd - rights use 40,000 gpd
49	Information	Rights	12/11/1995	Unknown	Public Hearing	19	Orogrande	7	juniper reservoir (lower) 6" good 4" above - encrusted
50	Information	Storage, Vegetation	12/11/1995	Unknown	Public Hearing	19	Orogrande	8	3,000' replaced - $8,000 - $9,000, $2 - 3 million to replace
51	Information	Lines, Cost	12/11/1995	Unknown	Public Hearing	19	Orogrande	9	Slow growth or no growth
52	Observation	Population, Growth	12/11/1995	Unknown	Public Hearing	19	Orogrande	10	4 lane highway impact growth?
53	Question	Population, Growth	12/11/1995	Unknown	Public Hearing	19	Orogrande	11	good source - 4 miles - range camp Johnson water source
54	Information	Supply	12/11/1995	Unknown	Public Hearing	19	Orogrande	12	Question ownership of water and ability to transfer water.
55	Probe	Rights	12/19/1995	Unknown	Public Hearing	12	Alamogordo	1	Question population growth
56	Probe	Population, Growth	12/19/1995	Unknown	Public Hearing	12	Alamogordo	2	Lack of water may limit growth
57	Observation	Population, Growth	12/19/1995	Unknown	Public Hearing	12	Alamogordo	3	How can the influx of people be estimated?
58	Question	Population, Growth	12/19/1995	Unknown	Public Hearing	12	Alamogordo	4	Base projections on utility or telephone hook ups.
59	Suggestion	Population	12/19/1995	Unknown	Public Hearing	12	Alamogordo	5	More conservation practices implemented.
60	Observation	Conservation	12/19/1995	Unknown	Public Hearing	12	Alamogordo	6	Study possibility of desalinization.
61	Suggestion	Desalinization, Technology	12/19/1995	Unknown	Public Hearing	12	Alamogordo	7	

Public Comments

ID	Type	Keywords	Date	Name	Method		Location	No.	Comment
62	Probe	Population, Growth	12/19/1995	Unknown	Public Hearing	12	Alamogordo	8	Question population projection for Alamogordo.
63	Suggestion	Studies, Vegetation	12/19/1995	Unknown	Public Hearing	12	Alamogordo	9	Look at the impact of vegetative change (in watershed) on water yield (ie; removal of "high use" plants).
64	Observation	Quality, Problems	??/??/96	Unknown	Public Hearing	??	Corona	1	Water quality is a problem
65	Information	Supply, Funding	??/??/96	Unknown	Public Hearing	??	Corona	2	The El Paso Natural Gas Co. wells are in the Tularosa Basin and can be used by Corona but to date money has been a factor. The wells are located 15 miles from the Village, but hook up can be obtained within two miles if money can be found to pay for the connection.
66	Suggestion	Studies, Agriculture	??/??/96	Unknown	Public Hearing	??	Corona	3	It was suggested that the Claunch-Pinto Study be used for the agriculture portion. It shows the results of controlling pinon-juniper and other brush species.
67	Information	Treatment, Wastewater	??/??/96	Unknown	Public Hearing	??	Corona	4	Corona has no wastewater treatment plant. The village is entirely on septic tank systems.
68	Information	Use	??/??/96	Unknown	Public Hearing	??	Corona	5	The (Corona) school system is the biggest user of water.
69	Probe	Population, Growth	??/??/96	Unknown	Public Hearing	??	Corona	6	Population projections are a key issue; there is a question whether University of New Mexico supplied accurate figures.
70	Observation	Policy, Growth	??/??/96	Unknown	Public Hearing	??	Corona	7	The new subdivision laws will regulate growth.
71	Observation	Conservation	??/??/96	Unknown	Public Hearing	??	Corona	8	Water conservation does not seem to be an issue in the Corona area.
72	Information	Lines, Funding	??/??/96	Unknown	Public Hearing	??	Corona	9	The (Corona) system is approximately 50 years old but improvements have been made through a CDBG grant in the past 15 years.
73	Summary	Newspaper, Growth	10/13/1995	Lisa Turner	Article	N/A	N/A	N/A	Alamogordo Daily News Headline: "Lack of water may one day stagnate growth."
74	Summary	Newspaper, Growth	3/15/96?	Lisa Turner	Article	N/A	N/A	N/A	Alamogordo Daily News Headline: "Objections made to water plan based on slow county growth"
75	Summary	Newspaper	May-96	N/A	Article	N/A	N/A	N/A	Timberon Newsletter Headline: "South Central Mountain RC&D Meeting"
76	Summary	Newspaper	Jan-96	N/A, Leslie Bond, 25	Article	N/A	N/A	N/A	Timberon Newsletter Headline: "Economic Development Planning Session Held"
77	Observation	Supply, Groundwater	??/??/??	Bookout, Tularosa, Leslie Bond, 25	Mail-In	N/A	N/A	1	Long term groundwater levels are the best most direct measure of net depletion in the basin.
78	Suggestion	Recharge	??/??/??	Bookout, Tularosa	Mail-In	N/A	N/A	2	Within your time and money constraints, please review and comment on the assumptions on "returns" to the system. My experience in Arizona is that there is virtually no groundwater recharge in basins except right at the mountain front. The demographics data presented at the public hearing in Alamogordo were not realistic. There is much greater growth than projected by UNM - It would be prudent to plan for a population of at least 100,000 by 2035. * If we fail to plan for continuing growth the basin will choke. The plan needs to focus on how to catch more of the water that's available and be sure the containment system is enlarged and kept in good condition to prevent leakage before the water can be used and then recycled to recharge the basin. *Note: The population growth rate of about 2% per year that we are now experiencing would, if it continues at the same level, result in doubling the population in 36 years. So there's a mathematical certainty that the population will hit 100,000 unless the present rate of growth slows. It could take 50 years to double, but it will happen some time in the 35 to 50year time frame.
79	Advocacy	Population, Growth	??/??/??	Paul Burnett, 1826 Lamar Circle, Alamogordo	Mail-In	N/A	N/A	.	
80	Advocacy	Population, Rights	12/30/1995	Harold C. Reynolds, 1817 College,	Mail-In	N/A	N/A	1	Mr. Livingston: Re your Water Study; Here are some facts and opinions about water in Alamo, Tularosa Basin, New Mexico and the USA: Facts from the State Engineer: 1. Alamogordo owns enough water rights for about 45,000 people.
81	Advocacy	Supply, Recharge	12/30/1995	Harold C. Reynolds, 1817 College,	Mail-In	N/A	N/A	2	2. Our underground water supply in the Tularosa Basin is shrinking everyday, because, for many years we have been pumping water out of the ground faster than it is being recharged. The same is true for most basins in New Mexico.
82	Advocacy	Surface Water, Rights, Supply	12/30/1995	Harold C. Reynolds, 1817 College,	Mail-In	N/A	N/A	3	3. Every drop of surface water in the state of New Mexico is overappropriated! There are more rights than supplies!
83	Advocacy	Aquifer, Supply, Cost	12/30/1995	Harold C. Reynolds, 1817 College,	Mail-In	N/A	N/A	4	Other facts: 1. The Ogalalla Aquifer, a great underground sea of water, has been pumped down to where many farmers can not afford to pump it any more!
84	Advocacy	Supply, Pollution	12/30/1995	Harold C. Reynolds, 1817 College,	Mail-In	N/A	N/A	5	2. Water supplies all over the USA are shrinking because of overuse and pollution!
85	Advocacy	Projects, Cost	12/30/1995	Harold C. Reynolds, 1817 College,	Mail-In	N/A	N/A	6	3. Pork Barrel Boondolges like the Central Arizona Project are too expensive to be constructed anywhere else! We can't balance the budget and fund boondoggles like this too!
86	Advocacy	Supply, Rainfall, Evaporation	12/30/1995	Harold C. Reynolds, 1817 College,	Mail-In	N/A	N/A	7	4. In Alamo: Ranfall 10". Evaporation 12 feet! Per year
87	Advocacy	Rights, Cost	12/30/1995	Harold C. Reynolds, 1817 College,	Mail-In	N/A	N/A	8	Opinions 1. Water rights are too expensive to buy, even if someone would sell them!
88	Advocacy	Desalinization, Cost, Technology	12/30/1995	Harold C. Reynolds, 1817 College,	Mail-In	N/A	N/A	9	2. Desalination will be too expensive for most of us! And only temporary!
89	Advocacy	Rights, Cost	12/30/1995	Harold C. Reynolds, 1817 College,	Mail-In	N/A	N/A	10	3. Long-term residents of Alamogordo have prior rights, senior rights, to their traditional amounts of water use at reasonable costs!
90	Advocacy	Conservation, Cost, Vegetation	12/30/1995	Harold C. Reynolds, 1817 College,	Mail-In	N/A	N/A	11	4. Greenery around residences is necessary because it reduces cooling costs and conserve energy! Energy conservation is an absolute necessity!

#	Type	Topic	Date	Name	Method		Location	No.	Comment
91	Advocacy	Use, Car washes	12/30/1995	College, Harold C. Reynolds, 1817	Mail-In	N/A	N/A	12	5. Commercial car washes are outrageous wasters of water and energy because washing cars is not a necessity, it is a luxury! Car washes must be phased out in a few years!
92	Advocacy	Rights, Export	12/30/1995	College, Harold C. Reynolds, 1817	Mail-In	N/A	N/A	13	6. Present residents of Alamo do not want their water taken from them so that it can be sold to strangers!
93	Advocacy	Cost	12/30/1995	College, Harold C. Reynolds, 1817	Mail-In	N/A	N/A	14	7. Taxpayers financial resources are shrinking every day! We can not pay for more water!
94	Advocacy	Growth, Supply	12/30/1995	College, Harold C. Reynolds, 1817	Mail-In	N/A	N/A	15	8. Perpetual growth is physically impossible because all of our natural resources are shrinking!
95	Advocacy	Growth, Reclamation, Pollution	12/30/1995	College, Harold C. Reynolds, 1817	Mail-In	N/A	N/A	16	9. Growth must stop! We do not want to drink our reclaimed sewage!
96	Advocacy	Technology	12/30/1995	College, Harold C. Reynolds, 1817	Mail-In	N/A	N/A	17	10. New technology may help us, but it would be foolish for us to gamble on that now! "Don't count your chickens until they hatch!"
97	Advocacy	Growth	12/30/1995	College, Harold C. Reynolds, 1817	Mail-In	N/A	N/A	18	11. The solution to our water problems: stop growth now!
98	Advocacy	Growth	12/30/1995	College,	Mail-In	N/A	N/A	19	I urge you to recommend in your report that the best solution to water problems, all over the arid southwest, is to stop growth now! We must recognize our limits! Water conservation is necessary merely to maintain the status quo!
99	Information	Use	3/26/1996	Unknown	Public Hearing	12	Orogrande	1	40,000 / Day
100	Information	Use	3/26/1996	Unknown	Public Hearing	12	Orogrande	2	8-10 / Winder
101	Information	Population	3/26/1996	Unknown	Public Hearing	12	Orogrande	3	Population - 62
102	Information	Meters	3/26/1996	Unknown	Public Hearing	12	Orogrande	4	42 meters
103	Suggestion	Use	3/26/1996	Unknown	Public Hearing	12	Orogrande	5	Check 1990 water use
104	Information	Use, Storage	3/28/1996	Unknown	Public Hearing	19	Timberon	1	Domestic Consumption: Pop (P.O., Ph. Otero Co.) (<500); Raw water storages +/-350
105	Information	Recreation	3/28/1996	Unknown	Public Hearing	19	Timberon	2	Recreational: Fishing / camping / hiking / hunting; Trout ponds; Golfing; Swimming pool; Horseback riding; RV parks
106	Information	Use, Studies, Fire fighting	3/28/1996	Unknown	Public Hearing	19	Timberon	3	Emergency: Hydro study (NMSU); Fire fighting?
107	Information	Use	3/28/1996	Unknown	Public Hearing	19	Timberon	4	Commercial: Tourism; RV parks; Laundromat (1)
108	Information	Use	3/28/1996	Unknown	Public Hearing	19	Timberon	5	Industrial: Fish Hatchery
109	Information	Flow	3/28/1996	Unknown	Public Hearing	19	Timberon	6	Base Flow:
110	Question	Depletion, Acquifer	4/2/1996	Unknown	Public Hearing	8	High Rolls	1	is depletion an accurate description
111	Observation	Rights	4/2/1996	Unknown	Public Hearing	8	High Rolls	2	Water rights issues / non-government involvement
112	Observation	Well, Regulations, Enforcement	4/2/1996	Unknown	Public Hearing	8	High Rolls	3	Well construction SEO reg's enforced?; coming lid strat / water, not enforced
113	Suggestion	Studies	4/2/1996	Unknown	Public Hearing	8	High Rolls	4	Need detailed hydrologic study for Basin
114	Observation	Conservation	4/2/1996	Unknown	Public Hearing	8	High Rolls	5	Conservation? No current plan
115	Observation	Supply, Demand	4/11/1996	Unknown	Public Hearing	19	Alamogordo	1	Water supply element of study? Demand limited by supply. Sustainable supply.
116	Probe	Validation	4/11/1996	Unknown	Public Hearing	19	Alamogordo	2	Method of checking data prior to acceptance by public?
117	Suggestion	Watershed	4/11/1996	Unknown	Public Hearing	19	Alamogordo	3	Watershed Management needs to be addressed
118	Observation	Recharge	4/11/1996	Unknown	Public Hearing	19	Alamogordo	4	Return flow figures are not all "reuseable" due to location or return and quality
119	Observation	Use	4/11/1996	Unknown	Public Hearing	19	Alamogordo	5	HAFB water use Webs Division Mun/Indus. Etc.
120	Suggestion	Updates	4/11/1996	Unknown	Public Hearing	19	Alamogordo	6	Plan needs to be updated regularly
121	Observation	Population	4/11/1996	Unknown	Public Hearing	19	Alamogordo	7	Question population - too low now
122	Suggestion	Conservation, Flow	1/23/2001 & 11/30/2000	Unknown	Public Hearing	??	Tularosa	1	Need to explore ways to more effectively utilize water in Tularosa creek that runs out in the desert, primarily in the winter months. Suggested a lined reservoir near existing Village reservoir or creating a man-made lake that would have wildlife and recreation benefits. This would require diverting water from the river to an off-site reservoir.
123	Suggestion	Cost, Reclamation, Storage	1/23/2001 & 11/30/2000	Unknown	Public Hearing	??	Tularosa	2	Comment from school superintendent that the school system was the biggest water user in Tularosa. It is expensive to water parks and ball fields with treated water. Suggested drilling wells for supplemental use or use effluent water from Village treatment plant.
124	Observation	Watershed	1/23/2001 & 11/30/2000	Unknown	Public Hearing	??	Tularosa	3	Comments regarding need to improve watersheds in the upper and lower regions.
125	Observation	Cooperation	1/23/2001 & 11/30/2000	Unknown	Public Hearing	??	Tularosa	4	Comment from Village trustee that the Ditch corporation and Village need to work with each other and not against each other to better utilize water in the creek.
126	Observation	ghts, Well locations, Desalination	1/23/2001 & 11/30/2000	Unknown	Public Hearing	??	Tularosa	5	Several comments regarding desalination and some concern that wells should be located outside immediate area of Tularosa so that existing wells would not be affected.
127	Observation	Cooperation, Desalination	1/23/2001	Unknown	Public Hearing	??	Tularosa	6	Comment that the communities in the region should all work together to utilize desalination water or fresh water piped from other areas (Salt Basin or Grapevine Canyon area).

No	Type	Topic	Date		Method		Location	#	Comment
128	Suggestion	Lines	11/30/2000 &	Unknown	Public Hearing	??	Tularosa	7	Bonito Pipeline repair is important and installing larger pipeline to accommodate future water supplies is necessary. Suggested getting bidders to include cost of larger pipeline (24-30") when submitting bids.
129	Observation	Importation, Well locations	1/23/2001 11/30/2000 &	Unknown	Public Hearing	??	Tularosa	8	Importation of water from other areas, I.e. Salt Basin, Grapevine Canyon, Carrizozo, is preferred over development of wells in the Tularosa /Alamogordo area.
130	Information	Funding	1/23/2001 11/30/2000 &	Unknown	Public Hearing	??	Tularosa	9	Village is upgrading their wastewater treatment plant and collection facilities through colonias grants.
131	Question	Studies	1/23/2001 11/30/2000 &	Unknown	Public Hearing	??	Tularosa	10	Questioned reliability of data on which we are basing our study
132	Observation	Storage, Surface water	1/23/2001 11/30/2000 &	Unknown	Public Hearing	??	Tularosa	11	Those who live on river are concerned about the impacts of diverting river to a reservoir. What are the impacts, legal and environmental?
133	Suggestion	Desalinization, Well locations	1/23/2001	Unknown	Public Hearing	??	Tularosa	12	Suggested moving desalination well field to the north of Tularosa to take advantage of elevation (pressure).
134	Information	Growth	12/5/2000	Unknown	Public Hearing	??	Carrizozo	1	Possible new industry in community (carbon recycling). Could use up to 20 million gallons per year.
135	Information	Growth	12/5/2000	Unknown	Public Hearing	??	Carrizozo	2	New jail will also increase water use in Carrizozo. County Commissioner, Bill Schwettman, concerned that demand figures do not reflect influx of tourism. Cited example in Ruidoso that on any given weekend the population swells to 30,000 plus. In response to Bill's comments it should be noted that the use figures are captured in each community, which includes motels, restaurants, etc.
136	Observation	Growth, Population	12/5/2000	Unknown	Public Hearing	??	Carrizozo	3	Carrizozo residents reiterated the dependence on Bonito Lake water and noted that the railroad has retained some water
137	Observation	Surface Water, Rights	12/5/2000	Unknown	Public Hearing	??	Carrizozo	4	rights that might be available for lease that could benefit Nogal and Carrizozo.
138	Observation	Rights	12/5/2000	Unknown	Public Hearing	??	Carrizozo	5	Comments regarding water rights and some interest in Alamogordo regarding water rights in the Carrizozo area that are not currently being used.
139	Information	Lines, Well locations, Funding	1/17/2001	Unknown	Public Hearing	??	Timberon	1	Gary Scott, General Manager, Timberon Water & Sanitation District stated that their main priorities were to install a water transmission line from the filtration plant to the main water storage tank and to drill another well to provide additional water for future growth. They will ask legislature for funding for the transmission line ($246,000) and will drill well using their own funds.
140	Observation	Storage, Surface water	1/17/2001	Unknown	Public Hearing	??	Timberon	2	Some residents thought more storage was needed (storage tanks). Gary indicated they have three lakes, which provide storage and fire protection. It was noted that the lakes were subject to evaporation but they had been treated with bentoite to reduce seepage.
141	Observation	Flow	1/17/2001	Unknown	Public Hearing	??	Timberon	3	Concerns were expressed about flows in Carrisa Spring, which is their main water source had diminnished from 250 gpm to 120 gpm and other water sources were needed.
142	Information	Aquifer, Storage, Flows	1/17/2001	Unknown	Public Hearing	??	Timberon	4	Discussed aquifer storage as a possible consideration for spring flows that were not being captured.
143	Observation	Cooperation, Problems, Rights	1/18/2001	Unknown	Public Hearing	??	Alamogordo	1	Concern from residents in La Luz, Laborcita Canyon area regarding Alamogordo's development of their springs, aquifer recharge, etc. having impacts to downstream users and effect on vegetation (riparian areas) along La Luz creek. A group of 60 or more residents met in the La Luz area prior to this meeting to plan on ways to stop more diversions of La Luz creek.
144	Observation	Growth, Problems	1/18/2001	Unknown	Public Hearing	??	Alamogordo	2	Concern over lack of County control over subdivision development in the La Luz area. Need county land use plan to protect rural communities around Alamogordo to preserve custom and culture of rural areas.
145	Observation	Conservation, Vegitation	1/18/2001	Unknown	Public Hearing	??	Alamogordo	3	A comment was made that Alamogordo was an "oasis in the desert", indicating that too much water was being used to water parks, playgrounds, etc. Need more use of native vegetation that requires limited water.
146	Observation	Meters, Flow	1/18/2001	Unknown	Public Hearing	??	Alamogordo	4	Comment that La Luz canyon needs to be metered to determine flow rates.
147	Observation	Vegitation	1/18/2001	Unknown	Public Hearing	??	Alamogordo	5	Need to control salt cedar that is spreading in riparian areas.
148	Observation	Watershed, Storage, Desalinatio	1/25/2001	Unknown	Public Hearing	??	Boles Acres	1	Supported the watershed restoration, flood water storage, desalination, aquifer recharge and conservation alternatives. They also agreed with the need to utilize Salt Basin water for New Mexico's needs.
149	Information	Lines, Supply	1/25/2001	Unknown	Public Hearing	??	Boles Acres	2	Indicated that their water system was in good shape. The water levels in their wells have not declined since they were drilled in the 50's.
150	Question	Costs	1/25/2001	Unknown	Public Hearing	??	Boles Acres	3	Would like more information related to costs of other alternatives.

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Analysis of Sacramento Watershed and Tularosa Basin Development

THE PROBLEM:

There is a growing water crisis in the Sacramento Mountains region today, due to three primary factors: drought, over-forestation, and unwise water use by humans. Precipitation is beyond our control. Therefore we should address the factors we can influence. Over-forestation uses up water because trees draw large amounts of water from the soil and transmit it to the atmosphere. Forest thinning is therefore necessary, but is not the primary subject here. Water use planning and implementation is an area where humans can have the greatest control, and where the greatest problems lie, and hence is the focus of this paper.

The interconnectedness of the watersheds within the Sacramento Mountains and of the underground aquifers in the Tularosa Basin require that any major water development or planning take this mutual dependence into account. Until now, there has been a tendency to analyze only the effect of water extraction on adjacent or downstream users and it is becoming apparent that this incomplete approach has resulted in severe damage to watersheds and upstream flows. Here, we discuss these issues.

BACKGROUND:

The population of the Tularosa basin is predominately located on its eastern side and the western slopes of the Sacramento Mountains. The mountains create a rather abrupt escarpment incised by numerous canyons. Some of these canyons have, or had, prior to diversion, perennial stream systems fed by springs that receive water from rainfall and snow pack arising in the mountains. The Tularosa Basin adjacent to the mountains is filled with at least 2,500 feet of alluvial deposits (gravel, clays, and sand) which act as the primary aquifer for moderately good quality water. In general, westward from the mountains, the concentration of dissolved solids increases steeply. The general flow of underground recharge for the basin fill is from northeast to southwest, and from the mountains to the east.

The mountain creeks contribute to recharge of the underground aquifers in the basin and in the canyons through fractures in rock formations along the creek beds. There is insignificant recharge through soils, because here they are relatively impermeable to heavy rainfall. The points of origin for the creeks are springs and seeps along the mountains. It is important to note that water in the mountains, valleys, and the basin are interconnected hydrostatically; you cannot affect one area without ultimately affecting another.

ADVERSE HUMAN INFLUENCES:

The courts recognized the La Luz/Fresnal watershed as a perennial stream system; however the City of Alamogordo has progressively diverted all natural spring flows into pipelines at their source; the previously perennial flow has been completely destroyed for a period of over eight months of the year and streams now only run at a fraction of their former flows (if at all) for the rest of the year in the La Luz/Fresnal and Alamo Canyon watersheds. The result is to cut off a key source of recharge of waters not only to the mountain aquifers but also to the basin's alluvial underground storage aquifers.

Eliminating the spring flows has also permanently damaged the ecosystem, resulting in the loss of wildlife and the riparian mountain flora. Without the support of flora along the streams, thunderstorms in the canyons cause severe erosion and the city of Alamogordo and adjacent areas will continue to be at risk from flood waters. It is estimated that in a single storm approximately 2500 acre-ft (over 814,628,519 gallons) of water is released from the La Luz-Fresnal canyons, which flows into the desert where it seeps into the soil or evaporates. The amount of fresh water from a single storm is close to the entire current annual production from the diverted springs. The La Luz/Fresnal area gets an average of four such storms per year.

The City's collection systems do not capture rainwater that flows down the canyons. This intermittently abundant rainwater is essentially wasted as it races down the canyons and out into the central basin and either evaporates, or seeps into the predominately brackish underground water storage areas. In spite of the intensity of flows, their brevity prohibits any significant recharge into the alluvial underground storage system. The City has sacrificed quantity for quality and low cost. By capturing water from the springs at a higher altitude, Alamogordo gains purer water with gravity flow and hence free delivery. Those who live locally pay the cost through a damaged watershed, failing wells, and a dehydrated and damaged geology and ecosystem.

Any reduction of fresh water recharge can result in the mineralization and "plugging up" of the dehydrated formations and wells, which will irreversably restructure the subterranean geology in unpredictable ways that are unlikely to be beneficial. Minerals naturally deposit out in such conditions: evidence of this may be seen in La Luz Canyon where numerous hard caliche deposits lie where streams once flowed. Dewatering can result in sinkholes which can damage homes, and be a hazard to man and livestock; sinkholes already exist in the La Luz canyon area near Calico Peak Rd. Further, the loss of hydrostatic pressure, which normally helps to support existing strata, will cause them to collapse, further compressing the formations and making them permanently less permeable. These are potential problems in the Tularosa Basin as well as in the canyons, especially near large well fields.

The City of Alamogordo is also taking a large volume of water out of the ancient alluvial storage system at the northeastern boundaries of the City through its use of wells. This pumping of groundwater is excessive because it removes more water than is being recharged, an action referred to as mining of water. Mining of water at this lower elevation must preferentially draw down the water table in the adjacent mountains, because the lowered pressure caused by the wells is compensated by inflow of water at higher hydrostatic pressure created by gravity acting upon the mountain aquifers (simply put, water runs downhill to fill a void, and "finds its own level"). This effect is evidenced by the large number of wells and springs that have dried up in the mountains. This draw-down will diminish the natural underground reserve currently used by

individual households wells and well-dependent municipal systems such as the Village of Cloudcroft and La Luz. This mining of water can also result in both the diffusion of salts into adjacent fresh water aquifers in the basin, and physical movement of the very brackish central basin water in an easterly direction, so potentially contaminating the basin fill along the mountain slopes, utilized by the City of Alamogordo and numerous domestic wells at the base of the Sacramento Escarpment.

Alamogordo also obtains and shares with Holloman AFB the water from Bonito Lake, fed by a large watershed near Ruidoso. This diversion likely affects other areas of the Sacramentos adversely.

PROPOSED RO SYSTEM & ITS CONSEQUENCES:
The City of Alamogordo is planning a Reverse Osmosis (RO) system designed to exploit easily removed water having low Total Dissolved Solids (TDS). The plan is to construct a well field within the shallow basin-fill area north of Tularosa and east of Highway 54. This RO system will mine vast quantities of water (in the order of 12 million gallons of water per day) and will inevitably draw down the water table throughout the mountains NE of Tularosa (White Mountain Wilderness and Mescalero Reservation) for the reasons just explained. The RO system will have an added effect of lowering the water table all along the basin fill aquifer that runs along the western base of the Sacramento Mountains. It is likely that the highly brackish water in the west of the basin will be drawn eastward into the fresher, shallow basin water table in the well field area. In effect, Alamogordo proposes to dewater the entire mountains and mountain front. Sooner or later, this will affect the cities of Carrizozo, Tularosa, Nogal, Mescalero, possibly Ruidoso and others, as well as isolated households and ranches. Although the City has claimed that the RO plant will hardly affect the water table, it is clear that the claim is based upon untested, and we believe, unrealistic assumptions.

The City of Alamogordo has proposed to make RO water available (at a high cost) to other local communities in need. However, it is evident from the foregoing information that Alamogordo will first create a water deficit, and then offer water for sale in the very areas from which it has removed the water: this plan is unconscionable.

Exploiting water sources to the north where the recharge and hydrostatic support for Tularosa and the city of Alamogordo is located (because these sources are at a slightly higher elevation) is a very damaging and shortsighted idea. Any new system must be designed to exploit the vast water resources to the west or south of the City of Alamogordo. Alamogordo prefers the North, partly because gravity ensures cheaper delivery.

ALTERNATE SOLUTIONS:
A recent study by Dr. Larry November suggests that large volume, low-salinity water can be found south and west of the city of Alamogordo. These "underground rivers" or interconnected areas of increased porosity and permeability (high transmissivity) must be investigated: they offer the highest probability of a long-term solution to Alamogordo's water needs, without creating harm elsewhere. These solutions may be more expensive than the current RO proposal, but only if the hidden costs of the current plan are ignored, including that of long term watershed and ecosystem damage. We have to stop thinking of water as an almost free resource just because it has been obtained without much apparent cost in the past (we are beginning to confront those IOUs now).

Retuning the diversion points in the La Luz-Fresnal watershed from the spring heads to points closer to the outlet into the basin will allow the recharge of already overstressed mountain aquifers.

Retention dams must be built in the canyons. Retention dams in the canyons would have many positive benefits to the natural ecosystem:
- Restoration of aquifers
- Erosion control
- Utilization as collection points for domestic water during flood only
- Flood protection for the city of Alamogordo and adjacent areas

Intelligent forest thinning must also be performed throughout the mountain areas. Thinning will allow more snow and rain to reach the forest floor and become part of the water cycle, and less water will be disseminated by trees. Forest thinning will also reduce catastrophic fires and the accompanying watershed destruction.

CONCLUSION:
The bottom line is we can't change drought: we can control forest & water use. We must plan on a regional basis and act wisely, starting right now!

Basic Geology of the Sacramento Mountains

Carrizozo

Ruidoso

Three Rivers

RO Site →

Bent

Mescalero

Tularosa

Cloudcroft

High Rolls

La Luz

Alamogordo

Carrizozo

December 13, 2001

**Sacramento Mountains
Watershed Restoration
Corporation**
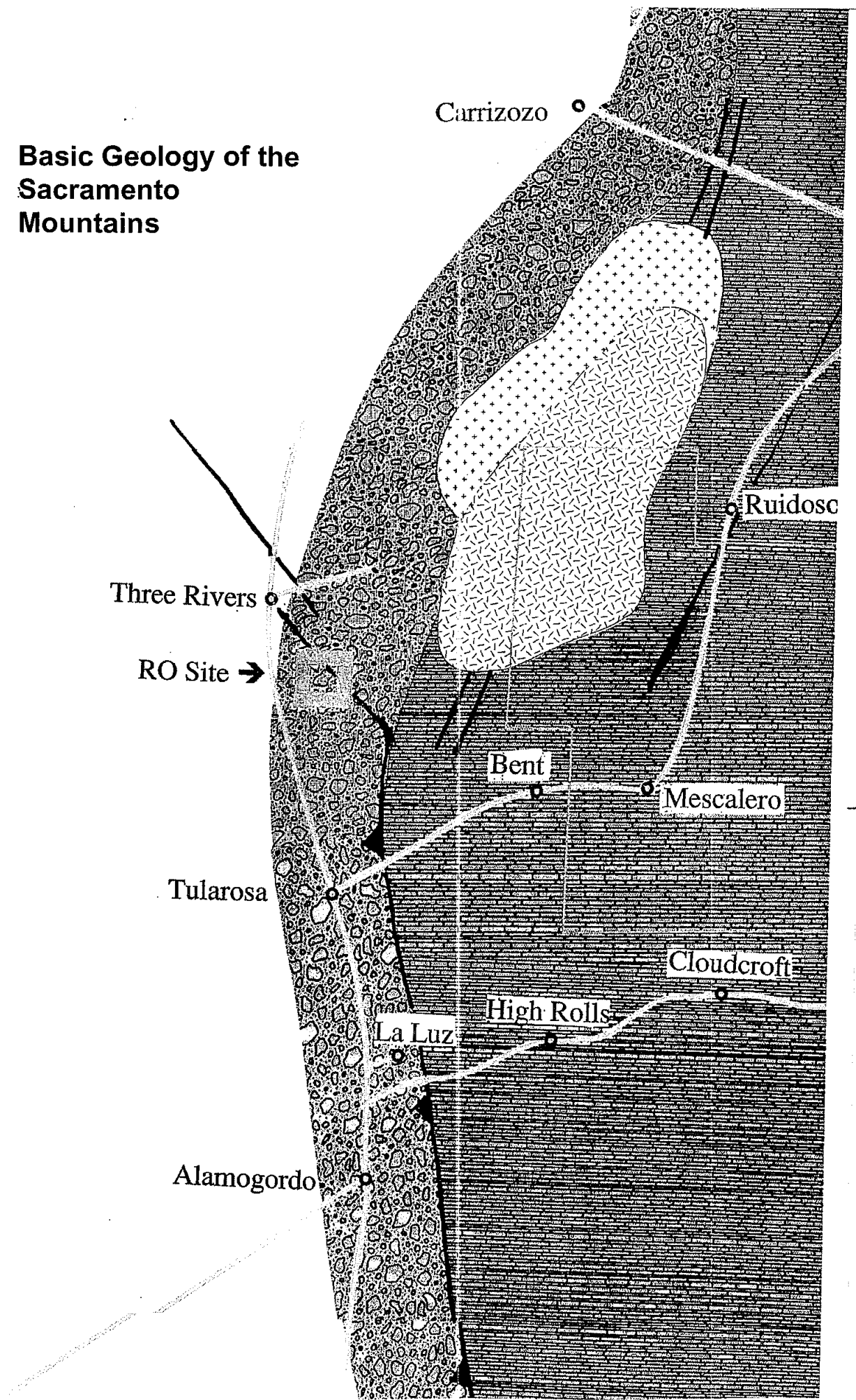
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The Sacramento Mountains Watershed Restoration Corporation (SMWRC) is a non-profit, 100% volunteer organization formed by a group of concerned citizens living in Otero County, New Mexico.

The SMWRC seeks to restore damaged watersheds in the Sacramento Mountains, as exemplified by the dried-up La Luz/Fresnal stream system, and by doing so protect residents' water interests and the water-dependent ecosystem. SMWRC supports related issues such as improved local forest management and maintenance of wildlife habitat. We are working within the political and legal framework of local, state, and federal agencies.

As president of the SMWRC, I have attended many of the Regional Water Planning Meetings. I have actively expressed concern for the ecosystems of the Sacramento Mountains and for the concerns of individual well owners throughout the county.

Since early 2001, the SMWRC has expressed to the committee the need to consider public welfare in its recommendations to the State Engineer's Office. The SMWRC supports the following definition of public welfare as drafted by Ms. Consuelo Bokum in her report "Implementing the Public Welfare Requirement in New Mexico's Water Code":

"Public welfare includes, but is not limited to, the following considerations:
(1) health and safety;
(2) economic consequences, including impacts on the existing economy and area of origin 151 of water rights, maintenance of traditional rural and agricultural economies, recreation, and external costs;
(3) encouragement of conservation and discouragement of waste or impractical or unreasonable uses of water;
(4) environmental and ecological consequences, including impacts on fish, wildlife and plants, ecologically critical areas, riparian ecosystems, wetlands, and watershed management;
(5) sustainability, sustained yield, groundwater recharge, and aquifer management;
(6) water quality;
(7) loss of alternative uses of water that might be made within a reasonable time if not precluded or hindered by the proposed application;
(8) opportunities for reuse of return flows;
(9) protection and enhancement of historic, cultural and natural resources, and aesthetic values;
(10) preservation of public and trust lands, water and open space;
(11) scientific study;
(12) whether high-quality water is being used when locally available low-quality water would suffice; and
(13) public welfare as defined in the regional and state plans or by elected officials in land use planning."

The definition is extensive but clearly reflects the need to begin considering non-monetary values as equal in importance. Long-term public welfare goals will mean greater returns to the economic investments made now.

The SMWRC contends that the past actions of the City of Alamogordo of diverting water from spring heads directly into their municipal water system violates the mandate to include public welfare as a criteria in permitting the right to use the publicly owned waters of the State of New Mexico. The environment and the residents depending on aquifers between the springheads and the City's municipal system have been denied the use of waters to which they are rightly entitled. The only justification for the City to move diversion points from the original dam at the mouth of the canyons into the Tularosa Basin was to reduce the cost of water purification. By moving upstream, the City reduced the overall amount of available water to them. Although this may make economic sense to the City, the public welfare concerns are totally ignored and the consequences could be a geologic disaster – the collapse of those aquifers below the springheads.

Public welfare would dictate a holistic approach that would include all plans and programs to develop and maintain watersheds. Forest management, flood control capture and aquifer replenishment, reclaimed water systems, desalination, ground water development, etc. could all be tied in together to offer the best and most appropriate method of water appropriation. Making qualitative assertions based upon quantitative analyses will deny the public welfare its due consideration.

Sincerely,

Rick Warnock
President

SUMMARY

We study a "leaky bucket" model for representing large aquifers. In a
leaky bucket, the static water level is determined by the balance of
water influx and outflux through the sides. If the influx of water
into the bucket is reduced, the water level must go down exposing a
smaller surface area and allowing a smaller outflux until a new lower
static water level is reached where the outflux balances the influx.
In the initial stages of pumping water out of a leaky bucket aquifer,
the water-table level should decline at a rate determined by the
total volume of the aquifer independent of the influx rate. Only
`after a settling time for the system, which is characteristically
hundreds or thousands of years for an aquifer miles across, does the
water table reach a new lower equilibrium level where the outflux
balances the influx minus the pumping rate. Thus we propose that the
gauging of extraction rates in large aquifers be based solely upon
the rate of water-table decline. From the size of the Boles
subbasin, we estimate that 20,000 acre feet can be extracted with
less than a 10 inch static-level decline per year. Acceptable rates
of decline that balance water need against well-owner impact must be
determined.

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1. BOLES SUBBASIN WELL-DATA ANALYSIS

The geological anomaly we call the Boles subbasin has been known
since stratigraphic maps were prepared in the early 1950's (see
overview by Garza and McLean 1977, US Department of the Interior
Report 561). A well-defined subbasin is delineated by a limestone
ridge located about 8-12 miles from the mountains running parallel
southward from just south of Alamo Canyon to Grapevine Canyon or
further south. The subbasin is fresh-water filled alluvial material
within about 3 miles of the mountains with 300-700 ppm total
dissolved solids with decreasing quality away moving west; it is
approximately rectangular in cross section with a 1200 foot average
depth and is at least 20 miles in length with a water density of
about 0.2. Roughly the basin contains a total of 10 million acre
feet of water of less than 1000 ppm, which represents a 1000 year
water supply for city of Alamogordo plus HAFB, which combined
currently use about 10,000 acre feet per year.

Water was extracted from the Boles subbasin in the HAFB well field at
an average rate of about 4000 acre feet per year from about 1960 to

1985. Unexpectedly large declines were reported in the mid 1980's (Morrison 1986), which led to a substantial curtailment of pumping. The report "Analysis of Ground-Water Data for Selected Wells near Holloman Air Force Base, NM 1950-95", (USGS 96-4116) by G. F. Huff replots the HAFB water-table data as well as data from USGS test wells that were operated in the same time frame. The new rendering plots individual well measurements rather than averages and leads to quite different conclusions about the water-table depletion.

A 30 foot root-mean-square (rms) noise is evident in the data in figures 5-11 in the Huff report (USGS 96-4116) with suggestions of long-term trends of comparable amplitude. The 30 foot rms noise in the pumping wells is consistent with the pumping draw down seen in the HAFB wells. Observers do not always follow consistent testing procedures, like waiting for a substantial recharge to occur following pumping to take measurements. The time for a substantial recharge after pumping may actually be months.

While substantial declines were reported in Morrison (1986), it is evident from Huff (1996) that the trend lines are not consistent from well to well even within a single field. In the B field, which was the best sampled, the water table levels for B2, B5, B37, and a USGS test well (17S.09E.25.343, identified here as B103), went up as much as 30 feet over the test period (except that B103 was only measured after 1986); B17 and B34 were constant or down a comparable amount, and the two B USGS test wells were down about 12 and 20 feet respectively (17S.10E.18.432A and 17S.10E.19.323A identified as B101 and B102). Since the long-term trends are not larger than the draw-down noise it appears that the HAFB data can only lend general guidance.

The consistent declines with smaller noise noted for the two USGS test wells B101 and B102 seem more indicative of a real effect. Those two wells show similar looking long-term behavior but with very different 12 foot and 20 foot declines over the period 1960-1985. Even though the test wells were not pumped, their proximity within 0.5 miles of pumping wells puts them in the cones of depression of the surrounding pumping wells. Cones of depression may range up to 10 miles for production outputs. The smaller noise seen in the test wells is consistent with what we might expect for an average over the sporadic operation of the HAFB B wells. The HAFB wells are turned on and off according to water demand or due to technical or preferential constraints on the operators. Draw down due to overlapping cones reflects mainly the rate of pumping, and should not be taken as indicative of declines in the static level for the greater reservoir. The rapid recovery in the water table level seen in B103 after the pumping stopped as shown in figure 10 of the Huff report (if the first data point is to be believed) suggests too that the declines seen in B101 and B102 were mainly proportional to the rate of extraction.

The greater decline seen in B102 was a little less than 1 foot per year during the first years of operation. Taken over the area of the aquifer a 1 foot decline amounts to a large loss of water. The Boles subbasin has an area of about 200 sq. miles or 128,000 acres, and would be depleted 1 foot with an extraction of 25,600 acre feet of water (accounting for a partial water filling for the sediment of 0.2). Extracting 4000 acre feet per year could only have produced a drop of 0.15 feet per year = 1.9 inches per year. Pumping 600 acre feet per year, which was approximately the yearly average for the B well field, would produce a 1 foot drop per year in a 3000 acre aquifer or an aquifer about 4 sq. mile in area, which is larger than the distributional spread of the B wells. A rate of 1 foot per year is about the initial declines seen in the B101 and B102 wells.

The declines seen in B101 and B102 might be taken to place certain constraints on the static water decrease in the outer aquifer. Certainly the smaller static-level decline of 12 feet seen in B101 gives an upper limit for what the static level decline in the outer overall aquifer could have been. Reportedly the water-table level in the Boles-Acres well, located a few miles miles to the south-west of the HAFB B field, could not have declined much during the test period. The electric pump in their well is located about 10 feet below the bottom of its cone of depression, and no depletion effects were ever seen though that well was operated throughout the period.

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2. ESTIMATING THE INFLUX

After a long period of pumping with a steady rate of static-level decline, a large aquifer will reach a new equilibrium. In that equilibrium an inner pumping "cone of depletion" forms surrounded by an outer aquifer with a new equilibrium static level.

As water is pumped from a well, new water enters from the sides of the cone of depletion at the horizontal transmissivity velocity for the sediment vh, giving an influx rate into the cone that equals the pumping rate in equilibrium

Fp = f Ac vh = f a pi r dp vh , (cone influx)

where f is the partial water filling factor, Ac is the vertically projected surface area of the cone, r is its radius, dp its depth, and a is a geometric factor that depends upon the shape of the cone; for a cylindrical cone with a flat bottom a=2, and for a triangular-shaped cone a=1.

Estimates for the size of the cone can be obtained in different ways. The initial rate of decline in the well field R(t=0) must balance the pumping rate as described in the section 1.2

Fp = f pi r^2 R(0) .

For the B well field for the period Fp = 600 acre feet per year, R(0)= 1 foot per year, f=0.2, to give Fp / R / f = 3000 acres, from which we obtain r = 1.2 miles. The total time to deplete the cone Tcone must be indicative too of its total volume

$$Fp \ Tcone = f \ pi \ r^2 \ dp \ .$$

Taking Fp=600 acre feet per year, dp=30 feet characteristic of the decrease seen in the pumping wells, f=0.2, and Tcone=20 years, which seems typical of the two USGS wells B101 and B102, gives similarly r=1 mile. Substituting r=1 mile back into Equation (cone influx) with dp = 30 feet and with a=1, we obtain vh = 215 feet per year. While this transmissivity velocity is much larger than estimates obtained using Darcy's rule from the contour gradient, it is in line with more sophisticated numerical models that allow for a distributed water influx (Huff, 2001 private communication).

The properties of the larger aquifer can be understood assuming it to be characterized by a uniform flow of velocity vh down a channel of width W and depth D. Then the total flux is

$$F = f \ W \ D \ vh \ .$$

For the Boles subbasin W=10 miles, D=1200 feet, f=0.2, and with vh=215 feet per year the total flux is F=62,500 acre feet per year.

Initially after pumping begins, the static level in the aquifer decreases to account for the water extracted, but after a settling time, which is a few times the crossing time for the aquifer, it reaches a new equilibrium having a decreased static level; the setting time can be defined

$$T = 3 \ W \ / \ vh \ .$$

Taking W=10 miles and vh = 215 feet per year, gives the approximate settling time T=750 years.

A "leaky bucket" model for the aquifer provides an estimate for the long-term equilibrium static-level decline. Water feeds into the top of a rectangular leaky bucket at an influx rate F, and spills out of the area of the sides the bucket everywhere uniformly. In equilibrium the outflux through the water-covered area of the bucket must balance the influx F. If some water is siphoned out of the top of the bucket too at the pumping rate Fp, then the water level in the bucket must go down exposing less of the bucket outer surface to the outflux. In equilibrium the total outflux Fo balances the net influx F-Fp, Fo=F-Fp. The depth of the water in the bucket is taken to be D without pumping, and Do=D-Dp with pumping from the surface. The rates are proportional to the depths F to D, Fo to Do, and Fp to Dp, so all of the quantities change in proportion

$F / D = Fp / Dp = Fo / Do$.

or

$Dp = D \, Fp / F$. (static decline)

Taking F=62,500 acre feet per year, D=1200 feet, and Fp=600 acre feet per year for the Boles well field, we obtain Dp=15 feet. A static decline of 15 feet seems consistent with the asymptotic decline seen in the USGS test well B101 although the 25 year test period is much shorter than the settling time required for the larger aquifer. Our implicit assumption that the horizontal transmissivity velocity is constant with depth seems consistent with the relative uniformity of composition for the alluvial fill.

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3. SUSTAINABLE PUMPING RATES

The volume of fresh water in the Boles subbasin is staggering by any estimate, and the settling time that it takes the system to reach a new equilibrium after sustained pumping is typically thousands of years. Thus the only real impact to well owners in this subbasin or in other larger aquifers is the yearly rate of static decline experienced with sustained pumping. The rate of influx only sets the long-term steady equilibrium level, which can not be reached in our lifetimes or in many future lifetimes.

The following table shows the initial rate of decline R(0) in inches per year for various pumping rates Fp in acre feet per year from Eq. (static decline), as well as the equilibrium static level decline Dp in feet for 3 influx rates, F=25,000, 50,000, and 75,000 acre feet per year. The scale for the whole Boles subbasin of 200 sq. miles is assumed, with a water filling factor f=0.2, and a depth of D=1200 feet.

Fp R(0) Dp(25,000) Dp(50,000) Dp(75,000)

4000 af/y 1.9 in/y 192 f 96 f 64 f
8000 af/y 3.8 in/y 384 f 192 f 128 f
12000 af/y 5.6 in/y 576 f 288 f 192 f
16000 af/y 7.5 in/y 768 f 384 f 256 f
20000 af/y 9.4 in/y 960 f 480 f 320 f

settling times = 3700 y 1800 y 1225 y

The settling times given in years on the chart are just a function of the transmissivity velocity and directly related to the influx. A static level decline of 50 feet might be considered acceptable over the lifetime of a well, say 100 years, or about 6 inches per year. It is important that estimates of declines in the static level be widely

publicized, so that new wells are drilled making adequate allowance
for the expected static level decline.

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4. BASIN FLOOD-WATER INFLUX ESTIMATES

We have made informal measurements over the years at 14 Fresnal
Canyon Road just below the junction of Fresnal and La Luz Canyons in
an approximately rectangular creek channel about 30 ft wide.
Typically within an hour after heavy rainfall in the upper canyons a
flood front passes moving at about 15 miles per hour with a violently
turbid silty flow following, which carries much debris and even large
rocks. Large floods range in depth from about 3-5 feet with a flow
rate of about 20 feet per second at that location. Typically the
depth increases over several hours to about 4-6 feet and then
subsides slowly thereafter returning to a normal flow after about 18
hours. An estimate for the average flux is F=30 feet width x 4.5
feet depth x 20 feet / second x 10 hours = 2250 acre feet. The
measurements are accurate only within about 30%.

Floods range enormously in size, duration, and number per year.
Taking four large floods as typical for Fresnal Canyon gives about
10,000 acre feet per year total flood volume. Fresnal Canyon is fed
by about 25 sq. miles of high ground with about 20 inches per year
rainfall giving about a total of 26,700 acre feet per year, so floods
account for about 35% of the total rainfall. Thus in the 75 square
mile source area for either the Fresnal/La Luz/Cottonwood bowl or for
the southern Sacramentos, Alamo to Escondido Canyons, we estimate a
total flood influx of about 30,000 acre feet per year.

Flood waters exiting the Fresnal/La La/Cottonwood bowl appear to
remain in a single channel until past Hwy 54 about 4 miles from the
mountains. After that the flow spreads into different channels and
may dump largely around the vicinity of the La Luz Gate to HAFB.
Flood waters are probably largely absorbed into the ground, as
evaporation rates are much less than ground absorption rates,
evaporation typically being a fraction of an inch per day off a
static surface whereas transmissivity velocities in dry ground are a
number of feet per day, and plant transporation rates are quite small
too. So that water should be absorbed somewhere, but the distribution
seems very uncertain. It is notable that well water quality appears
to IMPROVE going down from about 3000 ppm at Hwy 54 to about 1000 ppm
west to the La Luz gate of HAFB along Hwy 545. Flood waters from the
southern mountains appear to be mainly dumping into the area between
the mountains and Hwy 54 into the fresh water portion of the Boles
subbasin as no major stream beds cross the highway.

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5. CONTAMINANTS

Slight salinity increases of about 10% TDS were noted by Morrison

(1986), contrary to approximately constant levels shown in the USGS report (96-4116) within the noise levels, so the measurement remains uncertain. With a transmissivity rate of vh=215 feet per year, 25 years is required for horizontal migration over one mile. As presumably contaminants must be carried with the water, horizontal migration effects are probably not important with such long migration times. It may be that pumping causes vertical mixing in the aquifer with salinity increasing with depth. With extensive pumping salinity levels may increase and then level off after an equilibrium mixing level is reached.

The upper panels of figures 16-24 (USGS 96-4116) show significant increases in nitrate levels of about a factor of 2 over the 25 year measurement period. Fortunately the base levels of about 0.5 mg/l as N appear to be still somewhat below the range for natural nitrate in river water (standard= 0.76 mg/l as N), and still well below what is considered unacceptable for municipal use (10 mg/l as N). The one well SA1 seems anomalous showing currently about 2 mg/l as N and a factor 3 increase over the measurement period. That well is located at the mouth of San Andres canyon with no established structures in its vicinity, so it seems that the salinity increases seen can only be attributed to the small stream influx. Streams can accumulate large amounts of nitrates from plant matter along their coarse. Such large differences between wells suggests that nitrate mixing is small consistent with the timescales for horizontal migration.

Sanding of wells has been a problem in the HAFB B- D- and SA- fields. Whereas improper handling of sand can lead to deterioration of the pumps, clogging of water lines, and caving in of well holes, good technical solutions seem to be available for avoiding sand infiltration. Alamogordo's two large storage tanks at the base of Alamo Canyon might provide adequate control storage if new wells are drilled in the Boles subbasin.

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6. CONCLUSIONS

The volume of fresh water in large aquifer subbasins in the Tularosa Basin besides just in the Boles subbasin suggest that there are many possibilities for Alamogordo plus HAFB to obtain their current 10,000 acre feet per year or more without causing undue hardship to particular well owners. However allocation guidelines set by the NM State Engineer have led to an extreme imbalance in impact. Whereas no declines are reported in any of the large subbasin aquifers like the Boles subbasin, water-table declines of more than 50 feet per year are reported in the vicinity of the village of La Luz. Alamogordo is able to obtain only about 3,500 acre feet per year from the entire La Luz/ Fresnal watershed, which appears to be the main source that feeds the aquifers near the village of La Luz. Their diversions leave the streams dry with much adverse effect on wells in the canyons, on the environment, and for livestock grazing. At the

same time volumetric estimates indicate that 10,000 acre feet per year could be taken from the Boles subbasin without causing static level declines of more than 5 inches per year.

Flood influx estimates for the Boles subbasin and influxes from transmissivity velocity estimates of about 50,000 acre feet per year appear in general agreement. While such estimates are subject to large uncertainties, they also are really unimportant, as the influx only sets the equilibrium static level which is not reached for hundreds or thousands of years. With proper analysis especially around the pumping cones during times of high pumping much more accurate data could be obtained on the water influx and its distribution.

December 12, 2001

To: The Regional Water Planning Committee
            and
     LIVINGSTON ASSOCIATES, P.C.
     Consulting Engineers
     Alamogordo, New Mexico 88310

Reference the Draft of the 2000-2040 Regional Water Plan

        As a member of the Public Land Use Advisory Committee of Otero County, I am concerned that the Draft Regional Water Plan lacks adequate details on two important subjects that you have touched upon but have failed to adequately investigate and elaborate on for value in the final Draft. Retention ponds and aquifer recharge by injection have both immediate and long term benefits and problems associated to them.

The retention pond concept has been utilized throughout history along water flow paths and flood plains. They have been constructed to catch and restrict the uncontrolled water flows from large and small watershed areas to the benefit of aquifer and ground water recharge, agriculture, livestock and wildlife use, maintenance of riparian areas and flood control. With the seasonal flooding in this region, we need to utilize this method to control the excessive flows. Floods cause irreparable damage to property, both public and private. Groundwater recharge to aquifers is lost because the water runs out to the flats where it is wasted due to mixing with the large body of polluted water located there. This can be avoided by the construction of retention ponds at regular intervals from the upper reaches of the watershed drain areas to the lower reaches along the flow path. The long-term benefits from using retention ponds will be aquifer and ground water recharge, more water available for consumptive use by residents and wildlife, and minimal damage to life and property.

Bureaucracy has directly caused the deterioration of our forest and watershed areas because of past forest management practices. Most of the degradation has resulted because of lack of action or just plain neglect. The concept of aquifer recharge by injection wells sounds good on paper but I perceive serious problems that need be investigated before continuing otherwise, irreversible damage to the aquifers, water in storage and compression, collapse or migration of the subterranean materials in the area may be caused. Thorough investigation and adequate testing by verifiable and scientific means need to be made before considering the utilization of this method of water storage. Continuous testing at regular intervals during the term of this practice will also be needed to detect any impacts, immediate or long-range changes caused by the injection process.

Otherwise this practice can cause realignment, redistribution or disturbance and changes in the layers of materials in the vicinity adjacent to and in the aquifer below the surface creating damage of greater value and consequence than water storage achieved makes it worth.

The Armour Research Institute has reported dissolved solids content from 672mg/l to 1,700 mg/l and sulfate content from 112mg/l to 799 mg/l in the La Luz creek. Supposedly untreated or partially treated waters of poor quality injected into the proposed Aquifer Storage and Recovery system can irreversibly contaminate it. Irreversibly means forever in this situation. Regardless of the so-called treatment, the water injected can never be certified safe or the same as the aquifer waters. No one can guarantee that it will remain in the specific aquifer or basin thereby preventing contamination and damage to other inner connected aquifers or basins. This problem cannot be shrugged off without considering the legal consequence. Who stands for the liability and responsibility of this damage, the City, the plan developers, or no one? Are there scientific studies available to confirm that the water will be adequately retained in this specific aquifer and basin? Will the water migrate and not be retained in place for recovery? If the need is for additional storage why not construct additional safe surface reservoirs and leave the existing aquifer alone?

It is apparent to me that the Regional Water Planning Committee has failed to acknowledge and follow the guidelines as outlined in Title 16 U.S.C. Chapter 18, Watershed Preservation and Flood Prevention and Title 33 U.S.C. Chapter 15 Flood Control. Therefore, in my opinion, the final draft is not adequate much less complete.

Respectfully submitted

Floyd Hornback
PO Box 1586
Alamogordo, N.M. 88310
1-505-437-7116

December 14, 2001
3001 Fifteenth Street
Alamogordo, N. M. 88310

Reference: The Regional Water Plan

To Concerned Individuals and Organizations:

Light rains in the Sacramento Mountain Canyons work their way into the soil up in the Canyons. They find their way into the lower aquifer areas similar to the way that snow melt gently releases water to be absorbed. Heavy rains result in surface accumulations that exceed the capacity of the surface areas to absorb them and the runoff causes erosion and damage in it's paths. The potential recharge to ground water aquifers from these runoffs is lost. The water races down the west Side of the Sacramento Mountains in flood proportions and comes to rest mixing with the saline water in the center of the Tularosa Basin where it becomes unusable.

Light rain in the Alamo Canyon areas result in beneficial flows in the Alamo Springs collection and pipeline system. Recharge of area water wells, especially in the Boles Well Field area, also occurs. Heavy rain creates large runoff flows, which become a flood threat to the south side of the City of Alamogordo, the Golf Course and the Airport. These heavy flows do not produce beneficial recharge to the aquifer areas.

Development of involved canyon areas with a series of stair stepping retention ponds to hold the water and allow it to be absorbed at a slow rate, closer to that of snow melting, would create more beneficial aquifer recharge. This would also help in the management and reduction of the flood threat, damage, and erosion.

The 2007 North Diversion Ditch portion of the Alamogordo Flood Control Project relates to the Regional Water Plan because it is still in the planning stage. Consideration needs to be given to placing stair stepping retention ponds at various points coming down the canyons from the upper elevations of Dry, Mule and Beeman Canyons. They could be located and designed to allow the captured water to slowly seep into the aquifers the way snow melt does and to prevent water from collecting until it runs out of control and creates damage. The large cement diversion ditch (The North Diversion Channel) that the COE currently plans to construct does not accomplish aquifer recharge and the prevention of erosion damage, especially to the County properties in the North Diversion Channel's discharge path. The concentrated floodwaters that are to be diverted off of the city will be directed out onto County properties to destroy them. The City and COE will be evaluating a single large detention dam as a possible alternative to the North Diversion Channel in January 2001. It is to be located at the base of the mountains. The COE has indicated it will not be a justifiable alternative if it costs more than the North Diversion Channel. The COE stated that they will then have to revert to building the North Diversion Channel to collect and concentrate the City's floodwaters and divert them out on to destroy private property in the County.

If smaller stair stepped retention ponds are developed in the canyons beginning at higher elevations and coming on down the canyons as part of the watershed development on National Forest Property, they will negate the need for the massive North Diversion Channel. With cooperative effort and planning now, this can be integrated into the Forest Restoration and Watershed Restoration and Management efforts and the funding for the City's flood control project reduced and/or shared. The benefits of

increased groundwater in the aquifer will be realized as a bonus. This flood prevention effort is recommended as the best solution. It will reduce overall costs and prevent the destruction of County properties that will receive the forces of the diverted floodwaters.

The recommendation to integrate efforts for watershed improvement to minimize run off and accomplish flood control while improving the groundwater recharge is the way to go. Private property should not have to be destroyed to save money for a Flood Diversion Project. It is important to study and follow the procedures outlined in U.S. Code Title 33, Chapter 15 – Flood Control and Title 16, Chapter 18 - Watershed Protection and Flood Prevention. The North Diversion Channel portion of the Alamogordo Flood Control Project is currently in the study phase. Full cooperative consideration needs to be made by all agencies involved in the Forest and Watershed Restoration, the City of Alamogordo and the U. S. Army Corps of Engineers immediately. All future flood control projects should be engineered with consideration and efforts to improve our land and water resources. With cooperation, we can minimize damage to our ecosystem and accomplish all of the available benefits.

Construction of the North Diversion Channel (Ditch) of the Alamogordo Flood Control Project is scheduled in the year 2007. Data has been collected and considerations for options are to be discussed in January 2002. The government procedures for the U. S. Army Corps of Engineers (COE) provide for the participation of the Agriculture Department in the development and funding of flood control projects to protect our topsoil and environment by preventing flood damage and erosion. We need to request that the COE participate with the Agriculture Department and the other government agencies involved in our ongoing Forest and Watershed Restoration. Specifically the COE needs to reengineer the Alamogordo Flood Control Project to eliminate the $9.4 million dollar North Diversion Channel and develop stepping retention dams or ponds up and down the Dry, Mule and Beeman Canyons to accomplish flood prevention. By working with the Forest Service, the Agriculture Department and other government agencies and following existing government procedures to minimize erosion and surface destruction they can create beneficial recharge of the aquifers at the same time and accomplish the necessary flood prevention in a cooperative effort that is less expensive. Maximum benefit can only be realized if this approach is integrated into the ongoing Forest and Watershed Improvement and Maintenance efforts.

Since the Regional Planning Committee has not invited the COE to participate in the Regional Water Plan or any collaborative interdisciplinary effort, I will forward this request to the COE and ask that they meet with County Officials in January and consider the changes outlined to you and documented in this letter. It is my belief that it is essential to get all agencies to follow the NEPA Procedures and those outlined in U.S. Code Title 33, Chapter 15 - Flood Control and Title 16, Chapter 18 - Watershed Protection Flood Prevention and get involved with Forest and Watershed and Flood Prevention and Control, to help bring about maximum improvement and benefit to our watershed.

Monroe A. Curtis

Monroe A. Curtis
Chairman Otero County Planning Commission
(505) 437-3324

Watershed Preservation and Flood Prevention
12/13/01

U. S. Code Title 16, Chapter 18 - Watershed Preservation and Flood Prevention and U. S. Code Title 33, Chapter 15 - Flood Control.

Examination of the Declaration of Policies for these chapters makes it easy understand that we can apply the intent of Congress to our particular situation in regard to the watersheds surrounding us. It is also easy to see that the Corps of Engineers has been negligent in prosecuting Flood Control for Alamogordo (see attached synopsis).

The Interstate Stream Commission has the task to investigate and discover means to maintain, improve and manage our streams and watersheds to the end that we will realize improved water sources and reserves, thereby improving the quality of our environment.

If we implement the best available science and interdisplanary skills of capable entities and funding avenues, we can and will achieve these goals.

Now these particular Chapters provide for the means to make a functioning watershed. We desire to retain as much water as possible on the watershed in order to recharge the aquifer by every possible method. Most certainly we should utilize methods that are readily available to us. Title 16, Chapter 18 and Title 33, Chapter 15 provide us with immediate solutions.

With the Federal assistance we can drastically reduce the overall cost per acre-foot of water collected for recharge.

The total amount of runoff realized from the western slope of the Sacramento Mountain range is estimated to be about 86,000 afy. With the restoration of the Forest in progress, this amount will increase. We need to retard this runoff and utilize it to help recharge the aquifer. As a by-product of this action, we would be preserving the watershed and helping to maintain our ecosystem. It also decreases the amount of flood control measures required on the bottom of the watershed (Which is the intent of the aforementioned U. S. Codes).

Forest restoration is a proper management technique and is already in progress. This action of preserving our watershed will only improve our stance of being good stewards and proper managers of our ecosystems.

It is the future that we are planning for, let us be wise in our decisions today so as to preserve our future.

//Signed//
Ted W. Dyer
Vice President
New Mexico Research Institute

Alamogordo was built in a flood plain to utilize gravity to bring surface water to town lots for irrigation. Irrigation water distribution was rotated into the various sub units of the city ditch system. Only a single section of the ditch system had water delivery at any given time. The balance of the ditch system served to collect and drain rain (floodwater) from inside the city limits. Any water collected was then available for any resident to utilize for additional irrigation above and beyond the scheduled and controlled irrigation flows. What was not utilized was collected by the south ditch and diverted west under the railroad tracks to the old city dairy for irrigation of the alfalfa fields. The original flood control ditches at Indian Wells and south of Washington Street protected the city from flood flows from outside the original city limits.

The city diverted the irrigation water from the La Luz & Fresnal Canyons into a new potable water system at La Luz, New Mexico. This water was no longer available for irrigation. The city failed to keep the irrigation ditch system in place to serve a drainage function so the internal rain or floodwater was no longer collected, controlled and utilized. Waters from Dry and Beeman Canyons and the Tays Hocomb Ditch were still collected in the irrigation dam off of north Florida Street but were not productively utilized for any purpose.

Alamogordo expanded outside the early boundaries and looked to duplicate the original North and East (Indian Wells and Washington Street) perimeter Flood Control Ditches further out. Plans were conceived and presented to the citizens for approval, but were evaluated and voted down. This included the previous COE plan in 1988. The COE performed an Environmental Assessment for the entire area surrounding Alamogordo as part of the 1988 plan. That flood control plan was referred to as the "Big Ditch".

Once the Big Ditch was voted down in 1988, the City looked at improving the existing flow paths that were functioning to maximize their capability to drain the area. The floodwater from Dry and Beeman Canyons and the Tays-Holcomb Ditch which had previously been diverted and collected to be utilized for surface irrigation now created a flood hazard. These floodwaters had been collected in the irrigation dam down stream from the potable water filtration and treatment plant that had been built at La Luz so they could not be utilized. Later, the COE ordered the old irrigation dam breached to minimize the flood hazard that existed should the dam rupture. The floodwaters were then allowed to flow out of the breach to the south and fill the streets from curb to curb south into the Indian Wells Ditch. Dry canyon was diverted to the west above the dam site and later some was diverted to the south and into the Indian Wells Ditch. These flows from outside

the city entering the Indian Wells Ditch are what the sheriff photographed and is being used by the COE to visually demonstrate the need for flood control inside the old city. The Indian Wells Ditch has never overflowed into the old city since it was constructed in 1898.

The City contracted with an engineering firm, (Bohannan-Huston) to study and devise a flood control plan ditch for the north part of the city. Bohannan-Huston designed a scaled down north diversion channel similar to the "Big Ditch Plan" which had been rejected by the citizens and voted down. The city engineering department reviewed the existing Tays-Holcomb Ditch, the McKinley (Middle Ditch), and Marble Canyon (South Ditch) flow paths. They were to be left in place and cement lined. Although it was recognized that Alamo Canyon could flood the area south and west of the city it was excluded from the first go around of efforts to improve the existing ditches.

The city then looked for a source of grant money or some way to get funds to pay for improving the existing ditch system and the new Bohannan-Huston North Channel. Senator Domenici answered the request for assistance. He brought the COE back into the picture and proceeded to get funding. The COE looked over the City's plans for the several small ditches. Improvement to the existing Tays-Holcomb ditch was not considered economically justifiable and was excluded from federal funding. The City's plans for the South and Middle Channels and the Bohanan-Huston North Channel plan were justified for federal funding by the COE.

Realizing that they could not get a bond issue passed by the voters for the city's portion of the funding, the city commissioners proceeded to fund the city's portion with the gross receipt tax income. The project was spread over several years to allow for the matching funds to be collected. This allowed the City Commissioners to bypass the voters and accomplish the flood Control Project without the voter's evaluating the plan for approval.

Once in control, the COE failed to adhere to their own guidelines and charter as outlined by U.S. Code Title 33, Chapter15, (Flood Control). This chapter is extremely clear as to what shall be done when the Army Corps of Engineers is involved in a flood control measure. The COE admitted to using the old Environmental Assessment for the 1988 Project for the new 1998 Project. They had failed to perform an update and consider the impact the new plan would have on the private properties in the County. In 1998, the Project Manager Peter Doles stated, "I made a judgment call, and issued a Finding of No Significant Impact (FONSI) to be submitted without investigating or considering the (new plan) impact on private properties in the County". He was to go back and identify

properties that would be flooded in the County. He was to document his findings and recommend purchase of properties to be flooded and to report back to the City and impacted property owners. He was to outline possible changes to the North Diversion Channel part of the project (west side channeling in Section 14 & 23) or a detention dam to control flow volume to protect the private properties in the County from flooding. He was reassigned away from the project and did not keep his promises.

A critical and crucial part of the entire project rested on the ability of the COE and City to construe a Benefit to Cost ratio that would ensure funding approval through Congress. The statistics used were outlandishly fraudulent. The City of Alamogordo's existing flood channels (Indian Wells and Washington Ditches) were not entered into the computer programming at their existing capacity. They were depicted at an abnormal and extremely low capacity to exaggerate the flood threat that the computer program would generate to be encountered at Ninth Street and New York Avenue and Tenth Street and White Sands Boulevard. Thus they were able to falsely justify the funding for the North Channel of the project.

Considerations as outlined in U.S. Code Title 16, Chapter 18 Watershed Preservation and Flood Prevention were not made but should have been. The COE stated that they were restrained to the existing approved North Ditch Plan because of the funding had already been justified and approved.

The COE did not follow the guidelines of NEPA, and totally disregarded the Federal, State Laws, and the Local ordinances governing flood control, collection, concentration, and diversion of waters, consideration of the Human Element, and required involvement of other Agencies. Because of their disregard and violation of established laws and procedures, County properties are to be destroyed. If the COE had involved the Department of Agriculture as provided by law, the preservation of our properties and prevention of land erosion and considerations for improving the watershed could have resulted in improvements. This would have resulted in a win-win solution for the City and the County by overcoming existing problems instead of just justifying funding of a damaging and wasteful cement diversion ditch for a flood control plan.

The COE's non-compliance to NEPA procedures and requirements has caused a gross violation of civil rights of all of the property owners of the Red Arroyo and surrounding area. The property owners of the Red Arroyo area were in meeting after meeting with the COE representatives, as well as with the City of Alamogordo and the County Commissioners, voicing concerns and requesting recognition and corrective action. They also provided suggestions and alternative solutions to this fraudulently construed, improperly and illegally funded and poorly

designed project which were not entered into the record or evaluated as required in the NEPA procedures.

In the comment section of the Environmental Assessment, our detailed and documented inputs, requests for consideration, comments and data were excluded. This represents a flagrant violation of NEPA. We filed and served Administrative Notices to each of the COE project members, City Commissioners, and Otero County Commissioners outlining violations of Federal and State Laws, Executive Orders, City and County Ordinances. The COE's attitude has been that they will do as they please and destroy us in their wantonly cruel manner to implement the fraudulently justified flood control project.

We have had communications and correspondence with the aforementioned parties for over five years. In addition to these agencies, we have also communicated with Senator Domenici, Senator Bingaman, Representative Skeen, Governor Johnson, Lt. Governor Bradley, the N.M. State Engineer, the N.M. Attorney General, the N.M. Environmental Protection Agency, the U.S. Inspector General, the Secretary of the Army, the Director of Civil Works, and the Council on Environmental Quality, NEPA oversight, and their respective staff members.

Something is wrong when a flood control project collects and concentrates the city's floodwaters in a more dangerous and destructive mass than existed when it threatened the city and then spends millions of tax dollars to divert it out to destroy privately owned properties in the county. The North Channel of the Flood Control Project is designed to do just this. The diverted floodwater's destructive force is to be magnified by collection and concentration and then transferred out onto privately owned property. The COE states that they have a court case precedent that allows them to legally do this. A large detention dam has been discussed but may be too expensive to build. Several smaller detention ponds, which are cheaper to build, have not been considered.
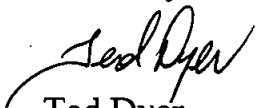
Failing to take the proper steps to achieve flood control and prevent erosion and damage to adjacent private properties is not what millions of taxpayer's dollars should be spent on. Destruction of private property is not what Flood Control is about. To do no damage to a neighbor in accomplishing flood control is well understood by the courts and the COE's procedures. Bullying weaker taxpayers with destruction using the government's financial and police strength in order to accomplish flood control for the city in this manner is not the "American Way". Falsifying facts and failing to follow proper procedures to get taxpayer's dollars to fund this project is unlawful and grossly unfair. The "American Way" is to work out a win-win solution to the problems we face or at the very least, to do no damage to innocent third parties.

Installation of several small catch basins or retention ponds at upper elevations in the canyons would benefit the water shed by providing recharge to the aquifer. The Department of Agriculture is required to be involved to help in the development of flood control projects for maximum benefit considering soil erosion and aquifer recharge. The County Planning participation and the Department of Agriculture have been bypassed. The entire western slope of the Sacramento Mountain Range is encountering flood run off. Large amounts of this water can be collected in retention ponds, which will result in improved watershed and aquifer recharge. This will also reduce the soil erosion presently encountered because of wasteful floodwater run off. This project should have been developed considering the big picture and accomplishing these worthy improvements to our environment. We do not need crude massive cement flood diversion ditches to generate destructive forces that cause increased erosion and destruction of our lands while wasting precious water. Retention Ponds would allow us to develop our watershed and bring more water into the aquifers for everyone's benefit.

The Otero County Commission admonished the COE in a meeting between the COE and County on April 3, 2000. The County Commission admonished the COE because they had not included the County in the planning of the flood control project. The County stated that this was a violation of the NEPA process. The COE admitted to being remiss and stated that the County would be included in the future. In September of 2000, the COE called for a planning meeting between the City and the residents of the Red Arroyo, and continued to exclude the County.

Because of this flagrant disregard for NEPA and other specific instances of disrespect of Federal, State, and Local Laws and Ordinances, we keep asking for the involvement of, and direct oversight of all responsible Agencies and Departments regarding the Alamogordo Flood Control Project and the illegal destruction of private properties in the County.

Sincerely

Ted Dyer
Vice President New Mexico Research Institute

Otero County has taken the lead in Forrest and Watershed Restoration. Flood Prevention and Control and Disaster Management are the responsibility of the County to protect the health and welfare of the citizens.

Watershed management is considered as the best option for water in this basin. Records clearly indicate a drought at the beginning of the 20th century. Alamogordo's stream flow records from the La Luz and Fresnal Creeks show that flows were almost twice as high then as now. Less annual precipitation then and more stream flow than now clearly shows that we presently have an unhealthy stream system.

Otero County is of the opinion that more emphasis should be put on improving watershed conditions to increase the yield of water. Best available science and data (ie: Garrett Study) indicates improving watershed conditions through watershed management will increase the yield and have positive benefits to all aspects of a healthy forest as well as positive social economic impact. The cost table should reflect that increasing water yield through proper forest and watershed management will benefit the forest holistically. The County believes the reference in the watershed enhancement section questioning the benefits to the watershed yield should be removed.

With Forrest and watershed restoration already underway, retention dams, ponds and meadows will be developed to prevent flooding due to the increased water yield, which will be realized. These flood prevention measures need to be in place and adequate to prevent erosion and damage. They need to be developed to maximize aquifer recharge to realize the benefits without creating flood damage and erosion as a result of the increased water yield.

All flood prevention and control projects and measures must be developed with County participation and approval. U.S. Code Title 16, Chapter 18 "Watershed Protection and Flood Prevention" and Title 33, Chapter 15 "Flood Control" requires collaborative interdisciplinary cooperation between all local, state and Federal Government Agencies. Considering the work being done on the Forrest and Watershed Restoration, critical attention and effort to flood prevention must occur simultaneously or sooner. Present runoff creates flood hazards for the areas surrounding the base of the watersheds. The increase to Forrest and watershed restoration requires restoration of meadows and open fields as surface water detention areas to reduce the runoff. Construction of retention ponds at different elevations to capture the runoff and accomplish flood and erosion prevention enhances our entire ecosystem and increase the volume of water recharged into the aquifers.

Concerning cloud seeding, planning, implementation and control procedures must be submitted to and approved by the County(s) to be impacted and to the appropriate government agencies. Flood prevention measures must be in place and adequate to prevent flood damage and erosion to properties.

The County believes this plan should recommend and address adequate monitoring of the Alamogordo City Desalination Plan to determine and evaluate cumulative effects on rural residents and agriculture water users.

Surface Water Rights

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5.1
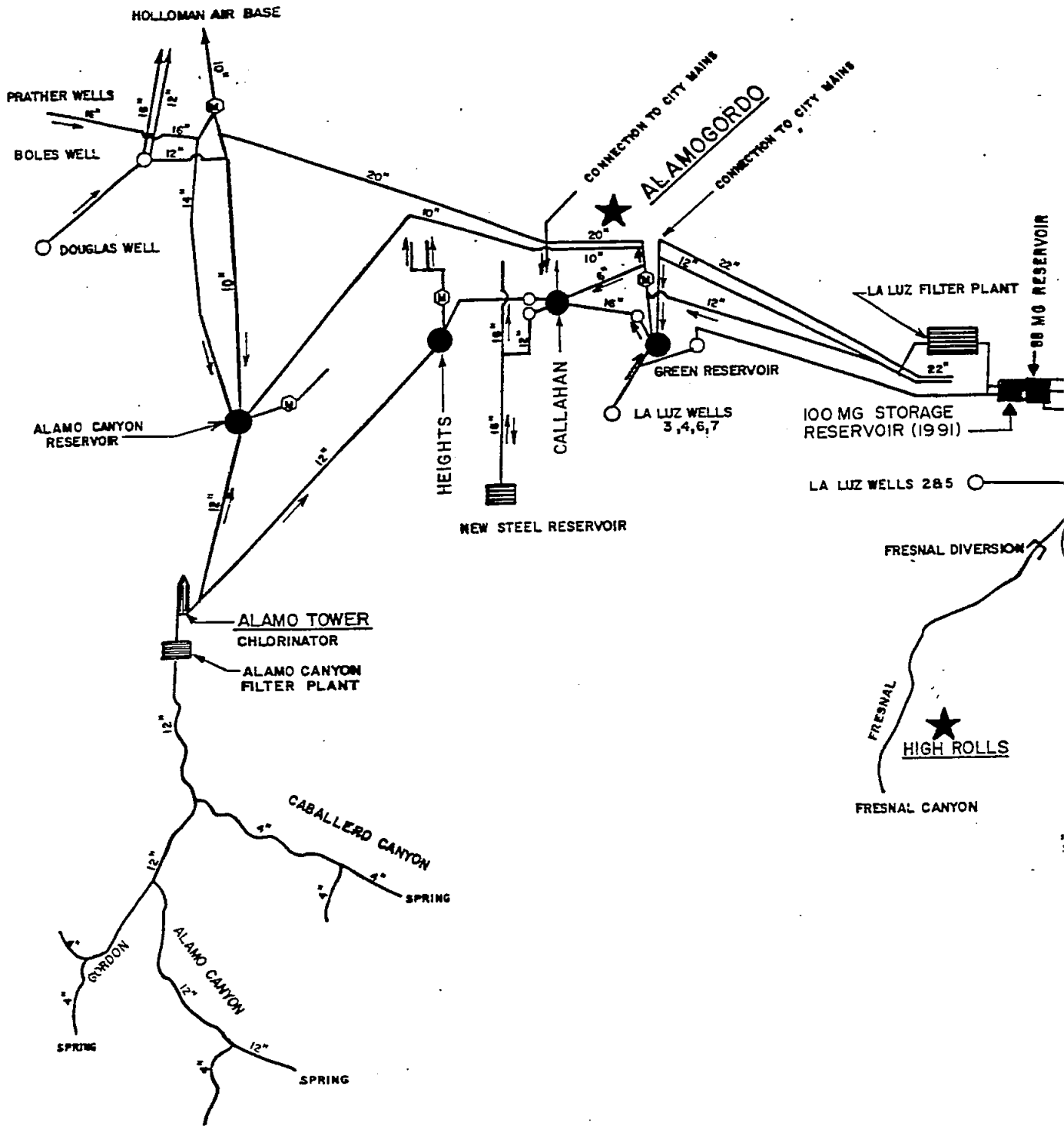
FIGURE ADAPTED FROM CITY OF ALAMOGORDO WATER MASTER PLAN,
GORDON HERKENHOFF and ASSOCIATES, INC.
ALBUQUERQUE, NM, MAY 1975
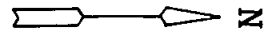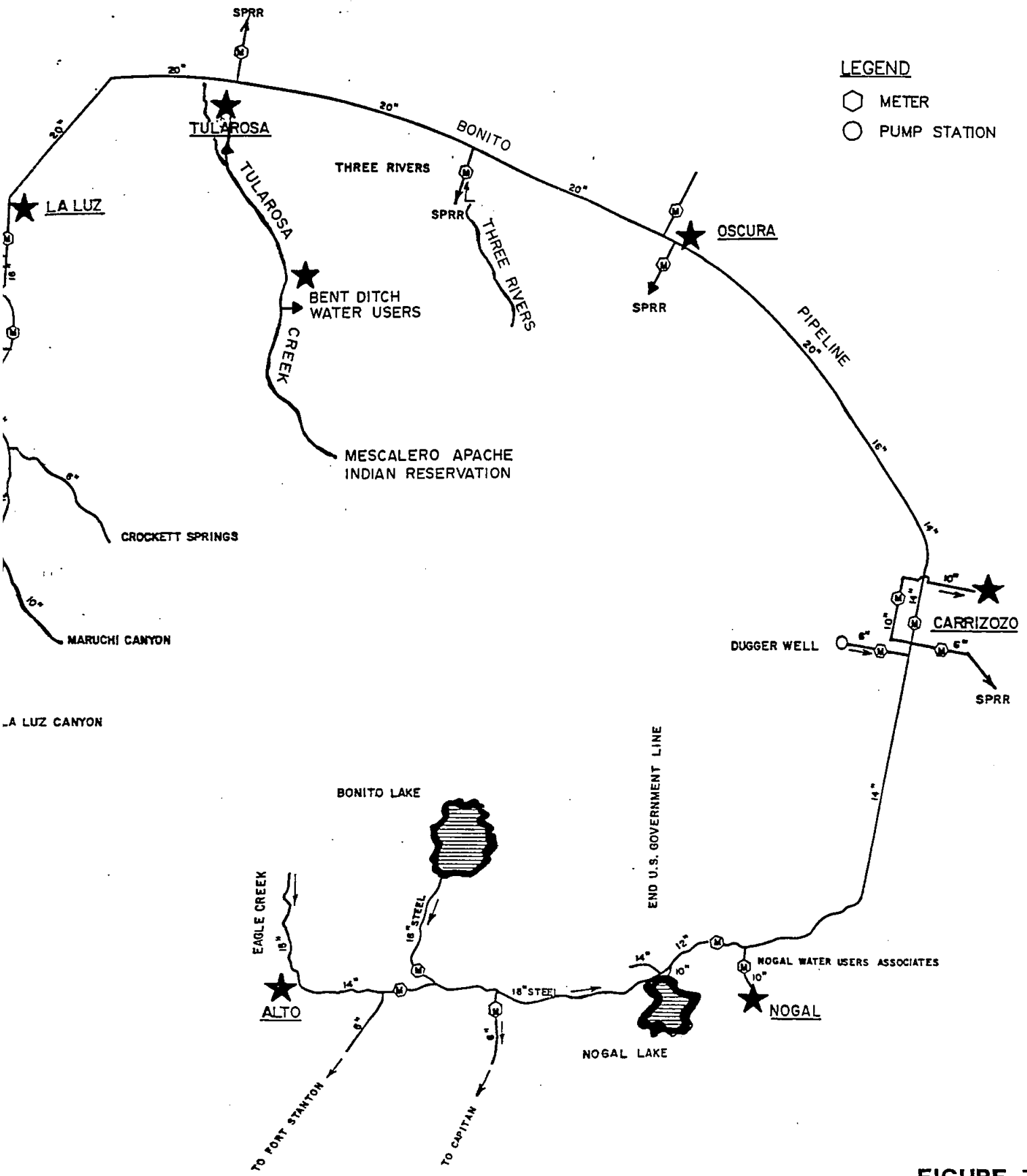
FIGURE 7

SURFACE WATER SOURCES AND USERS

TABLE 8 Surface Water Rights, La Luz-Fresnal Drainage (AFY) (SEO Compilation; Tolisano, 1986)			
File Number	Priority	La Luz	Fresnal
XII, 01121*	1866	combines on both: 11,563**	
013, 2245	1866		644.8
02808	1880		3
02584	1880	42	
01578	1881	3	
01579	1881	3	
III	1884	44.3	
IV	1884		41.1
V	1884		12
0919	1884	36	
01409	1884	40	
01118-01120*	1884	596.1	
01383, 01411, 01412	1884		58.8
01562*	1897	50.46	
VII	1901		463.5
V	1901		138
VIII	1901		527.1
IX	1901		165.5
01455, 01456*	1901		120.3
02549	1904		18
01418	1907	6	
02861	1907	9	
129	1908	318	
0181	1908	180	

TABLE 8 Surface Water Rights, La Luz-Fresnal Drainage (AFY) (SEO Compilation; Tolisano, 1986)			
File Number	Priority	La Luz	Fresnal
417	1910	588	
650	1912	165	
779	1913	120	
01438	1926	165	
2192-2194	1937		9
2624	1947	270	
2783	1953		3
2634	1954	422.3	
2869	1955		3
2886*	1956	65.54	
2959	1958	9	
3242	1970	47.4	
3663, 3680, 3681	1980		2.32
3829	1982	3	
02953	1983	3,183.1	2,209.4
TOTAL		12,147.7**	10,200.32**
* Indicates Alamogordo right			
** Combined water right amount of 11,563 afy evenly divided between La Luz and Fresnal to obtain totals, but in actuality, rights could be distributed between the two in any proportion.			

5.2 GROUNDWATER RIGHTS - "In 1931 the New Mexico Legislature enacted the groundwater code, which closely followed the surface water code and extended the state engineer's responsibility to include the administration of ground water within declared groundwater basins. The state engineer may declare a geographical area a groundwater basin when he determines that it has reasonably ascertainable boundaries". (Ref. 11)

Ground Water Rights

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5.2

FILE NUM	LAST NAME	FIRST NAME	WELL LOCATION	DESIGNATION	USE	WATER AMT	ACREAGE	INST	DRILL DATE
T-1313	WRIGHT * WIMBERLY		15S10E33	221	SUBDIV.	758 AF/YR			19860602
T-1341	RANKIN	DAVID	18S10E07	400	DOM,IRR,STK	246 AF/YR	80		
T-1656	BARHAM FAMILY	PARTNERSHIP	05S11E28	312	STK	3 AF/YR		PERM	EXPIRED
T-1657	BARHAM FAMILY	PARTNERSHIP	05S11E04	343	STK				EXPIRED
T-1672	WSMR		19S05E19	214	EXPL.			PERM	19880620
T-1678	DENNIS	ESTHER	17S09E26	321	DOM	3 AF/YR		PERM	EXPIRED
T-1691	BLACK HILLS RANCH		06S08E26	343	DOM	3 AF/YR		PERM	EXPIRED
T-1697	SCHLEGEL	WOODROW A.	05S10E03	310	DOM	3 AF/YR		PERM	EXPIRED
T-1745	WILSON	TREV	16S10E05	200	DOM	3 AF/YR		PERM	19881101
T-0304	SLOAN SUE CALLAHAN	EDITH JOYCE HELEN	03S09E25	340	STK	6 AF/YR		DECL	1978
T-0303	SLOAN SUE CALLAHAN	EDITH JOYCE HELEN	03S09E36	120	STK DOM	6 AF/YR		DECL	1925
T-0257	HARVEY INVESTMENT		03S10E01	LOT 3	STK DOM	11 AF/YR		DECL	1930
T-0260	HARVEY INVESTMENT		03S10E08	424	STK	3 AF/YR		DECL	1958
T-0256	HARVEY INVESTMENT		03S10E13	LOT 4	STK	6 AF/YR		DECL	1930
T-0259	HARVEY INVESTMENT		03S10E27	214	STK	5 AF/YR		DECL	1956
T-0261	HARVEY INVESTMENT		03S11E16	244	STK	5 AF/YR		DECL	1959
T-0918	HIGHTOWER	LAND & CATTLE CO.	03S11E25	414	STK	3 AF/YR		PERM	19840623

Rec ID	M	File Num	Last Name	First Name	Well Location	Use	Water Amt	Acreage	Inst	Drill Date
373		T-0291	Harvey Investment		04S08E10 323	stk	4 Af/Yr		decl	1926
370		T-0288-S	Harvey Investment		04S08E25 123	stk dom	10 Af/Yr		decl	1962
369		T-0288	Harvey Investment.		04S08E25 132	stk dom	10 Af/Yr		decl	1910
374		T-0292	Harvey Investment		04S08E29 333	stk	10 Af/Yr		decl	1970
331		T-0258	Harvey Investment		04S10E32 131	stk	6 Af/Yr		decl	1946
1965		T-1715	Langworthy	Vernon Jr.	04S11E26 224	dom	3 Af/Yr		perm	19880830
371		T-0289	Harvey Investment		05S07E02 122	stk	6 Af/Yr		decl	1932
383		T-0301	Gallacher Ranches		05S08E07 340		4 Af/Yr		decl	1958
382		T-0300	Gallacher Ranches		05S08E15 310	stk	4 Af/Yr		decl	1960
372		T-0290	Harvey Investment		05S09E03 234	stk	10 Af/Yr		decl	1971
380		T-0298	Gallacher Ranches		05S09E20 410	stk	4 Af/Yr		decl	1950
375		T-0293	Gallacher Ranches		05S09E25 340	stk dom	5 Af/Yr		decl	1940
384		T-0302	Gallacher Ranches		05S09E25 340	stk	5 Af/Yr		decl	1930
381		T-0299	Gallacher Ranches		05S09E34 340	stk	15 Af/Yr		decl	1920
796		T-0647	Knight	Thomas A.	05S10E07 122	stock	3 Af/Yr		perm	Expd
1149		T-0950	Knight	Thomas A.	05S10E07 122	stk	3 Af/Yr		perm	19850720
1454		T-1212	Bond	Dimmitt E.	05S10E27 111	irr	3 Af/Ac	147	decl	19610000
1455		T-1212-E	N.M.S.H.D.	Temporary	05S10E27 111	Const.	3 Af/Yr	supl	perm	Expd
1456		T-1212-S	Bond	Dimmitt E.	05S10E27 111	irr	supl	28	decl	19640000
1453		T-1211	Bond	Dimmitt E.	05S10E27 222	irr	3 Af/Ac		decl	19701000
343		T-0269	Harkey	Howard E.	05S11E07 113	stk dom	1 Af/Yr		decl	19740805
1767		T-1521	Harkey	E. I.	05S11E17 234	dom stk	3 Af/Yr	1	pmt	19870720
1457		T-1213	Wilson	Walton	05S11E25 4E½	dom stk	5 Af/Yr	1	decl	19440000
2092		T-1842	Harkey	Howard	05S12E32 243	dom stk	3 Af/Yr		perm	1940
378		T-0296	Black Hills Ranch		06S07E02 333	stk	3 Af/Yr		decl	1900 est.
1707		T-1459	Black Hills Ranch		06S08E18 430	dom/stk	3 Af/Yr		decl	1910
379		T-0297	Black Hills Ranch		06S08E19 300	stk	19 Af/Yr		decl	1932
376		T-0294	Black Hills Ranch		06S08E22 200	stk dom	8 Af/Yr		decl	expired
1665		T-1403	Black Hills Ranch		06S08E26 433	dom	3 Af/Yr		pmt	1945
377		T-0295	Black Hills Ranch		06S08E28 300	stk	8 Af/Yr		decl	1960
338		T-0264	Gallacher Ranches		06S10E03 430	stk	5 Af/Yr		decl	1960
340		T-0266	Gallacher Ranches		06S10E04 440	stk dom	4 Af/Yr		decl	1948
342		T-0268	Gallacher Ranches		06S10E05 340	stk	5 Af/Yr		decl	1952
339		T-0265	Gallacher Ranches		06S10E06 130	stk	5 Af/Yr		decl	19770704
2005		T-1755	Bar W Ranch		06S10E13 420	stk			decl	
919	X	T-0742	Christ	Com. Church	06S10E21 212	dom	3 Af/Yr		perm	19850430
341		T-0267	Gallacher Ranches		06S10E23 410	stk	5 Af/Yr		decl	1930
337		T-0263	Gallacher Ranches		06S10E35 110	stk	5 Af/Yr		decl	1950
1758		T-1513	Ballenger	K. L.	06S12E25 414	dom	3 Af/Yr	1	pmt	19870528
454		T-0373	Hawk	Ruth A.	06S12E36 100	dom	3 Af/Yr		perm	198307
577		T-0463	Crenshaw	Robert A.	06S12E36 111	irr dom	100 Af/Yr	5	decl	1980
1450		T-1208	U.S.F.S.	Lincoln	06S13E19 112	stk	1.1 Af/Yr		decl	Unknown

Rec ID	M	File Num	Last Name	First Name	Well Location	Use	Water Amt	Acreage	Inst	Drill Date
1436		T-1194	Ferro	Leonard	06S13E20 341	dom	3 Af/Yr		perm	19850800
1955		T-1705	Mixon	Merrill J.	06S13E20 344	dom	3 Af/Yr		perm	19880907
1137		T-0938	Heymann	Ivy	06S13E21 111	dom	3 Af/Yr		perm	19840713
400		T-0318	Pettigrew	David G.	06S13E21 430	dom	3 Af/Yr		perm	Expired
1336		T-1108	Becker	Ronald & Jennifer	06S13E30 233	dom	3 Af/Yr		perm	19850528
1832		T-1582	Siebert	Paul & Linda	06S13E30 242	irr dam	20 Af/Ac	2	decl	1980
391		T-0309	Bonner	Tom Cathy	06S13E30 440	dom	3 Af/Yr		perm	19820824
1014		T-0825	Journey	Ed M.	06S13E32 120	dom	3 Af/Yr		perm	19840314
438		T-0357	McKinley	Weldon	07S08E08 320	stk dom	13.55 Af/Yr		decl	1960
805		T-0654	Shrecengost	Margaret P.	07S09E19 230	irr	3 Af/Ac	5.6	decl	1925
806		T-0654-S	Shrecengost	Margaret P.	07S09E19 422	irr stk	supl	supl	decl	1925
803		T-0653	Shrecengost	Margaret P.	07S09E34 242	irr stk	3 Af/Ac	30	decl	1931
804		T-0653-S	Shrecengost	Margaret P.	07S09E34 242	irr	supl	supl	decl	1931
2008		T-1758	Bar W Ranch		07S10E11 440	dom Stk			decl	1900
1418		T-1176	Valley of Fires	State Park	07S10E20 430	drk & san	3 Af/Yr		perm	19850907
1731		T-1488	McBrayer	Mrs. A. J.	07S10E28 200	Dom, Stk	3 Af/Yr		decl	1920
1732		T-1489	McBrayer	Mrs. A. J.	07S10E28 200	Dom, Stk	3 Af/Yr		Decl	1955
1733		T-1490	McBrayer	Mrs. A. J.	07S10E28 200	Dom, Stk	3 Af/Yr		decl	1950
1174		T-0970	Hefker	Jack R. Sharon L.	07S10E28 413				decl	1950
1175		T-0970-S	Hefker	Jack R. Sharon L.	07S10E28 413				decl	
357		T-0276	Siddens	Edward H. Frances E.	07S10E29 222	irr			decl	195101
352		T-0274	Siddens	Edward H. Frances E.	07S10E29 411	irr			decl	195111
353		T-0274	Siddens	Edward H. Frances E.	07S10E29 411	irr	4 Af/Ac	65	perm	19840601
354		T-0274-S	Siddens	Edward H. Frances E.	07S10E29 411	irr	2 Af/Ac	65	decl	195205
355		T-0274-S-2	Siddens	Edward H. Frances E.	07S10E29 421	irr	4 Af/Ac	65	decl	195303
356		T-0275	Siddens	Edward H. Frances E.	07S10E29 421	stk	4 Af/Ac	91	decl	195407
358		T-0277	Siddens	Edward H. Frances E.	07S10E29 421	irr	2 Af/Yr		decl	195304
862		T-0693	Sunbelt Mining Co.		07S10E30 130	monitoring	test		perm	19830901
1173		T-0969	Hefker	Jack R. Sharon L.	07S10E34 120	irr	2 Af/Ac	5	decl	197008
392		T-0310	Garrett	Jack	07S10E35 310	dom	3 Af/Yr		perm	19830212
615		T-0492	Garrett	Jack	07S10E35 310	irr	3 Af/Yr	2	Expd	
2006		T-1756	Bar W Ranch		07S11E03 440	stk			decl	1930
1135		T-0936	Gallaway	W.M.	07S11E21 430	stk	3 Af/Yr		perm	19840629
1136		T-0937	Gallaway	W.M.	07S11E21 430	stk	3 Af/Yr		perm	expired
2007		T-1757	Bar W Ranch		07S11E29 130	stk			decl	1930
1449		T-1207	U.S.F.S.	Lincoln	07S12E31 222	stk	0.66 Af/Yr		decl	unknown
1122		T-0923	Cardin Cronin	Jewell V. Nancy A.	07S13E05 130	dom	3 Af/Yr		decl	19761129
694		T-0559	O Bar O Ranch		07S13E33 100	dom	3 Af/Yr		perm	19830514
807		T-0655	Shrecengost	Margaret P.	08S09E09 243	irr stk dom	3 Af/Ac	61	decl	1930
808		T-0655-S	Shrecengost	Margaret P.	08S09E09 243	irr stk dom	supl	supl	decl	1930
2009		T-1759	Bar W Ranch		08S09E14 320	stk			decl	1960
1141		T-0942	Hemphill	Robert E.	08S09E33 230	stk	3 Af/Yr		perm	19841010

Rec ID	M	File Num	Last Name	First Name	Well Location	Use	Water Amt	Acreage	Inst	Drill Date
1973		T-1723	SW Minerals &	Cimarron Mining	08S10E01 133	com mill	36.8 Af/Yr		decl	1981
2058		T-1808	Boykin	S. B.	08S10E01 312	dom	3 A/Yr		perm	19890519
1121		T-0922	Fields	Shelia E.	08S10E02 lot 3	dom	3 Af/Yr	6	perm	19840620
589		T-0473	Ortiz	Salvador	08S10E02 141	irr	5 Af/Ac		decl	196508
1116		T-0917	King	R.M. J. Fay	08S10E02 310	dom	3 Af/Yr		CLOW	pre-1977
1124		T-0925	Torres	Jovita H.	08S10E02 310	dom	3 Af/Yr		decl	1944
590		T-0473-S	Ortiz	Salvador	08S10E02 341	irr	5 Af/Ac	3	decl	198009
2079		T-1829	Boyce	Arnold or Dorotha	08S10E02 342	dom	3 Af/Ac		perm	196806
632		T-0506	Boyce	Arnold W.	08S10E02 344	irr	12 Af/Ac	21	decl	197507
633		T-0506-S	Boyce	Arnold W.	08S10E02 344	irr	12 Af/Ac	21	decl	197804
634		T-0506-S-2	Boyce	Arnold W.	08S10E02 344	irr	12 Af/Ac	21	decl	195307
824		T-0670	Harman	Roy W.	08S10E03 000	irr dom	2 Af/Yr	6	appl	1976
631		T-0505	Carrizozo Schools		08S10E03 143	irr dom	30 Af/Yr	2	decl	Expd
1131		T-0932	LaMay	W.D. Maxine	08S10E03 200	stk dom	3 Af/Ac		perm	1956
450		T-0369	Schlegel	Woodrow A.	08S10E03 310	irr dom	414 Af/Yr	40	decl	19801027
344		T-0270	Spencer	Dr. A.N.	08S10E04 310	irr dom	3 Af/Yr		decl	1976
1632		T-1369	Narvaez	Pete D	08S10E09 212	irr/dom/stk	3 Af/Ac	2.0	decl	1980
1264		T-1046	Vega	Fred B.	08S10E09 314	irr/dom/stk	3 Af/Ac	2.0	decl	1979
1265		T-1046-S	Vega	Fred B.	08S10E09 314	irr/dom	3 Af/Ac	17.0	decl	19850717
1311		T-1086	Hernandez	Albert & Elizabeth	08S10E09 333	dom	3 Af/Ac	1 Ac	CLOW	19840528
406		T-0325	Morales	Conception A.	08S10E09 420	dom	3 Af/Yr		perm	19830705
1068		T-0874	Boykin	S.B.	08S10E10 220	dom	3 Af/Yr		perm	Expd
801		T-0652	Sheehan	William F. Beatrice	08S10E10 310	dom	3 Af/Yr		CLOW	19830904
802		T-0652	Sheehan	William F. Beatrice	08S10E10 310	dom	3 Af/Yr	1	perm	19810824
866		T-0697	Stephens	Montie J.	08S10E11 100	stk dom	3 Af/Yr		perm	19830521
1441		T-1199	Baker	William & Helen	08S10E11 121	stk dom	3 Af/Yr		decl	1973
749		T-0604	Pafford	Joel W.	08S10E11 210	dom	3 Af/Yr		decl	195412
643		T-0513	Lindsay	Wesley B Margo E.	08S10E11 221	mun	400GPM		decl	1948
314		T-0247	Carrizozo	Town of	08S10E14 222	Irr, Mun	2500 Af/Yr	500	decl	19570521
1904		T-1654	Harkey	Jack N. & Christine	08S10E21 323	stk	3 Af/Yr		decl	19640000
1048		T-0857	Harkey	Jack N. Christine R.	08S10E21 410	stk	3 Af/Yr		decl	19530000
1465		T-1221	Stephenson	Ranch Inc.	08S10E22 240	stk	3 Af/Yr		decl	19590000
1466		T-1222	Stephenson	Ranch Inc.	08S10E23 300	stk	3 Af/Yr		decl	19460000
1467		T-1223	Stephenson	Ranch Inc.	08S10E25 300	stk	3 Af/Yr		decl	19460000
1468		T-1224	Stephenson	Ranch Inc.	08S10E31 400	stk	3 Af/Yr	200	decl	19460000
1469		T-1225	Stephenson	Ranch Inc.	08S10E32 400	irr	615 Af/Yr	10	decl	197003
328		T-0255	Crenshaw	Robert A.	08S11E02 420	irr	200 Af/Yr	310	decl	1979
574		T-0458	Crenshaw	Robert A.	08S11E02 424	irr fishpond	3 Af/Ac	8	decl	1979
576		T-0462	Crenshaw	Robert A.	08S11E02 424	irr	3 Af/Ac	11	decl	195604
325		T-0254	Sidwell	G.B.	08S11E06 440	irr	3 Af/Ac	34	decl	195609
326		T-0254-S	Sidwell	G.B.	08S11E06 440	irr	3 Af/Ac		decl	196901
327		T-0254-S-2	Sidwell	G.B.	08S11E06 440	irr	3 Af/Ac		decl	

Rec ID	M	File Num	Last Name	First Name	Well Location	Use	Water Amt	Acreage	Inst	Drill Date
409		T-0328	Kuhnel	Cecilia	08S11E09 423	stk dom	3 Af/Yr		perm	19820725
410		T-0329	Kuhnel	Cecilia	08S11E10 341	stk dom	3 Af/Yr		perm	19820722
411		T-0330	Kuhnel	Cecilia	08S11E10 440	stk dom	3 Af/Yr		perm	19820728
575		T-0459	Crenshaw	Robert A.	08S11E11 244	irr	500 Af/Yr	40	decl	197805
610		T-0490-S	Chavez	Paul M.	08S11E11 420	irr	3 Af/Yr	10	perm	19840112
608		T-0490	Chavez	Paul M.	08S11E11 421	irr	3 Af/Ac	80	decl	1975
609		T-0490-S-2	Chavez	Paul M.	08S11E11 421	irr stk	3 Af/Ac	80	decl	1975
611		T-1280	Wheeler	James & Doris	08S11E11 421	irr dom	280 Af/Yr	80	decl	1977
1540		T-0331	Aldridge	Stephen	08S11E12 120	stk dom	3 Af/Yr	40	perm	19730303
412		T-0332	Aldridge	Stephen	08S11E12 130	stk dom	3 Af/Yr		decl	19820802
413		T-0490-S-4	Chavez	Paul M.	08S11E12 131	irr	3.5 Af/Ac	80	decl	1977
613		T-0490-S-3	Osterberg/Guess	Geraldine/Don	08S11E12 311	dom/stk	3.5 Af/Ac	80	perm	1977
612		T-1101	Beatty	Rex T.	08S11E13 333	dom/stk	3 Af/Yr		perm	expired
1329		T-1065	Beatty	Adaline	08S11E13 341	dom	3 Af/Yr		perm	19850225
1285		T-0368	Davis	Edward and Barbara	08S11E13 400	dom	3 Af/Yr		perm	19821231
449		T-1720	Horton	Joe	08S11E13 444	dom	3 Af/Yr		perm	19880909
1970		T-1689	Gallaway	W.M.	08S11E14 430	stk	3 Af/Yr		perm	19880707
1939		T-1019	Gallaway	W.M.	08S11E29 400	stk	3 Af/Yr		perm	19841112
1238		T-1024	Gallaway	W.M.	08S11E29 400	stk	3 Af/Yr		pmt	19850828
1243		T-1378	Wilmeth	Robert D.	08S11E33 114	irr/dom/stk	3 Af/Ac	5.0	decl	19860919
1642		T-1072	LaMay	W.D. Maxine	08S12E11 342	irr stk dom	3 Af/Ac	7	decl	1977
1292		T-0931	Luna	Jimmie	08S12E12 123	irrl stk	3 Af/Ac		decl	pre-1982
1130		T-1571	O Bar O Ranch		08S12E13 113	irr stk	3 Af/Ac	16	decl	1972
1820		T-0561	Carpenter	Lamoyne Patsy	08S12E13 200	irr stk	supl	supl	decl	19830419
696		T-0957	Carpenter	Lamoyne Patsy	08S12E14 110	stk dom	3 Af/Yr		perm	197304
1158		T-0957-S	Slocum	Ferd	08S12E14 110	stk dom	3 Af/Yr		decl	197505
1159		T-0333	Slocum	Ferd	08S12E24 400	stk dom	3 Af/Yr		perm	19820720
414		T-0334	Slocum	Ferd	08S12E25 400	stk dom	3 Af/Yr		perm	19820622
415		T-0335	U.S.F.S.	Lincoln	08S12E36 200	stk	0.60 Af/Yr		perm	19820709
416		T-0336	U.S.F.S.	Lincoln	08S12E36 400	stk	0.25 Af/Yr		perm	19820714
417		T-1209	Slocum	Ferd	08S13E27 142	stk dom	3 Af/Yr		decl	unknown
1451		T-1210	Slocum	Ferd	08S13E28 144	stk dom	3 Af/Yr		decl	unknown
1452		T-0772	Slocum	Ferd	08S13E28 330	stk dom	200GPM		perm	19840120
957		T-0337	Eidson	Fern Sawyer	08S13E30 330	irr dom		60	perm	19820712
418		T-0252-S-2	Eidson	Fern Sawyer	08S13E30 400	irr dom		60	decl	1955
323		T-0252-S	Keehn	Viva A. Frank	08S13E32 340	irr	3 Af/Ac	40	decl	1955
322		T-0245	Keehn	Viva A. Frank	08S13E32 344	irr	3 Af/Ac	40	decl	195307
312		T-0246	McDonald	Ross	09S08E25 314	irr			decl	195308
313		T-0244	Drake	L.S.	09S08E25 322	irr			decl	195008
311		T-0242	Maynard	Jeffery J.	09S08E26 334	irr com dom		23	decl	19540220
309		T-0242			09S08E31 000	irr com dom		6.0	perm	19540220
769		T-0624			09S08E32 000	dom	3 Af/Yr		perm	19830716

Rec ID	M	File Num	Last Name	First Name	Well Location	Use	Water Amt	Acreage	Inst	Drill Date
1249		T-1031	Maynard Schmitz	Jeffery J. Medard	09S08E36 233	irr	3 Af/Ac	35	decl	19790pr
753		T-0608	Dobbs	G.O.	09S08E36 420	dom	3 Af/Yr		perm	19830609
1250		T-1031-S	Maynard Schmitz	Jeffery J. Medard	09S08E36 422	irr	3 Af/Ac	35	decl	1958 pre
1838		T-1588	Mountain Spr Ranch		09S09E09 134	dom	3 Af/Yr	1	pmt	19871010
1739		T-1495	Treasure/Rockhound R		09S09E10 333	dom	3 Af/Yr	1	pmt	19870507
1833		T-1583	Treasure Rockhound		09S09E10 340	dom stk com			appl	WITHDRAWN
1458		T-1214	Stephenson	Ranch Inc.	09S09E14 400	stk	3 Af/Yr		decl	19470000
1374		T-1142	Ferro	Leonard	09S09E21 431	dom/stk	3 Af/Yr		perm	EXPIRED
1459		T-1215	Stephenson	Ranch Inc.	09S09E25 400	dom stk	3 Af/Yr		decl	19500000
1581		T-1320-S-2	Lowe	Robert B.	09S09E31 242	irr	300 Af/Yr	60	pmt	19790930
1582		T-1320-S-3	Lowe	Robert B.	09S09E31 242	irr	300 Af/Yr	60	decl	19790130
1579		T-1320	Lowe	Robert B.	09S09E31 244	irr	300 Af/Yr	60	decl	19790620
1580		T-1320-S	Lowe	Robert B.	09S09E31 244	irr	300 Af/Yr	60	decl	19830106
441		T-0360	Cooper	James D.	09S09E32 210	stk dom	3 Af/Yr	3	perm	19571103
345		T-0271	Chick	Fred R.	09S09E32 221	irr stk dom	20 Af/Yr	60	decl	19791130
350		T-0273-S	Turner	W.J.	09S09E32 233	irr	180 Af/Yr	60	decl	19791201
351		T-0273-S-2	Turner	W.J.	09S09E32 244	irr	180 Af/Yr	3	decl	19780530
664		T-0532	Holden	Margaret K. Ford	09S09E32 340	irr	5 Af/Ac	3	decl	19810826
665		T-0532-S	Holden	Margaret K. Ford	09S09E32 340	irr	5 Af/Ac	3	decl	19800103
349		T-0273	Turner	W.J.	09S09E32 422	irr dom	180 Af/Yr	60	decl	19460000
1470		T-1226	Stephenson	Ranch Inc.	09S10E03 100	stk	3 Af/Yr		decl	19460000
1471		T-1227	Stephenson	Ranch Inc..	09S10E12 400	stk	3 Af/Yr		decl	19530000
1472		T-1228	Stephenson	Ranch Inc.	09S10E12 400	stk	3 Af/Yr		decl	19780000
1473		T-1229	Stephenson	Ranch Inc.	09S10E27 400	stk	3 Af/Yr		perm	19780000
770		T-0625	Runyan	Michael L.	09S11E24 Lot 5	dom	10GPM		decl	expired
324		T-0253	Eidson	Fern Sawyer	09S12E01 120	stk	3 Af/Yr		perm	1953
419		T-0338	Slocum	Ferd	09S12E01 300	stk dom	3 Af/Yr		perm	19820716
429		T-0348	Tommy White Supply		09S12E13 440	dom	3 Af/Yr		prmt	19821016
1023		T-0834	Temple	Suzanne	09S12E24 110	dom	3 Af/Yr	4.0	decl	19840405
316		T-0249	La May	L.R.	09S13E05 000	irr			decl	19540403
317		T-0250	La May	L.R.	09S13E05 000	irr dom			decl	1906
319		T-0251-S	Sitton	A.P. Josie	09S13E05 000	irr			decl	195606
320		T-0251-S-2	Sitton	A.P. Josie	09S13E05 000	irr	15GPM	8	perm	195607
424		T-0343	McDaniel	Cecil D.	09S13E05 000	stk dom	3 Af/Yr		decl	19830115
514		T-0412-S	Crouse	Urban	09S13E05 000	irr	2 Af/Ac	4.5	perm	1957
434		T-0353	Means	Henry I.	09S13E05 100	irr	3 Af/Yr		decl	19821101
513		T-0412	Crouse	Urban	09S13E05 100	irr	2 Af/Ac	4.5	perm	1957
672		T-0539	McDaniel	Carl C.	09S13E05 100	dom	3 Af/Yr		decl	19790219
733		T-0592	Peacock	Marvin Jr.	09S13E05 100	dom	3 Af/Yr		perm	19830505
1349		T-1121	Armendariz	Hortencia Cardiel	09S13E05 110	dom	3 Af/Yr		perm	19850612
1319		T-1092	Pieters	Ned	09S13E05 114	dom	3 Af/Yr	60	perm	19850422
321		T-0252	Eidson	Fern Sawyer	09S13E05 120	irr dom	3 Af/Yr		decl	1946

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1405		T-1163	Stearns	Robert J.	09S13E05 123	irr	4 Af/Ac	5	decl	19780315
315		T-0248	Skinner	Floy W.	09S13E05 132	irr dom	3 Af/Yr	2.75	decl	195507
432		T-0351	Brazie	Fred E.	09S13E05 300	dom	3 Af/Yr		perm	19821029
1675		T-1415	Sidwell	Vance	09S13E05 313	dom/stock	3 Af/Yr		pmt	19861111
404		T-0323	Cosper	A.L.	09S13E05 320	dom	3 Af/Yr		perm	19821029
402		T-0320	Johnson	Johnie L.	09S13E05 330	dom	3 Af/Yr		perm	19820913
1348		T-1120	Johnson	Mildred	09S13E05 330	dom	3 Af/Yr		perm	19860407
714		T-0575	Wells	C.R. Marjorie	09S13E05 340	dom	3 Af/Yr		perm	19830504
890		T-0720	Wells	Ray Marge	09S13E05 340	test dom	3 Af/Yr		perm	Expd
318		T-0251	Sitton	A.P. Josie	09S13E05 421	irr dom	30GPM	8	decl	194810
433		T-0352	Brazie	Ted	09S13E06 440	dom	3 Af/Yr		perm	19821030
998		T-0812	Martin	Walter	09S13E08 E½W½	dom	3 Af/Yr		perm	19840226
942		T-0761	Martin	Walter	09S13E08 000	dom	3 Af/Yr		perm	19840206
348		T-0272-S-2	Ealand	Frank A.	09S13E08 132	irr	3.5 Af/Ac	15.1	decl	19770930
347		T-0272-S	Ealand	Frank A.	09S13E08 134	irr	3.5 Af/Ac	15.1	decl	1956
346		T-0272	Ealand	Frank A.	09S13E08 141	irr	3.5 Af/Ac	15.1	decl	19751107
641		T-0511	Guck	Thomas E.	09S13E08 141	irr	1 Af/Ac	3	decl	1957
679		T-0546	Graves	Jerry J.	09S13E08 320	dom	3 Af/Yr		perm	19830511
941		T-0760	Bullard	C.W.	09S13E08 340	stk	3 Af/Yr		perm	19840523
1132	X	T-0933	Zumwalt	Perry	09S13E08 340	stk 2 houses	3 Af/Yr		perm	19840703
663		T-0531	Elbendary	Theresa	09S13E17 320	stk dom	3 Af/Yr		perm	19830218
895		T-0725	Elbendary	Theresa	09S13E17 320	irr stk dom	3 Af/Ac	9.94	appl	
1339		T-1111	Thorp	Richard	10S05E03 ¼½	dom	3 Af/Ac		perm	19850520
1827		T-1572	Bond	Johnnie	10S18 29E930	dom dom	3 Af/Ac	1	pmt	19871031
(839)		T-1589	Ferrara	Adam & Constance	10S04E13 440	irr dom	2 Af/Ac	5	decl	197704
823		T-0669	McKinley	Laura E.	10S05E16 300	stk	12GPM		decl	194008
817		T-0663	McKinley	Laura E.	10S05E16 300	stk	8GPM		decl	1939
818		T-0664	McKinley	Laura E.	10S05E16 300	stk	8GPM		decl	1939
819		T-0665	McKinley	Laura E.	10S05E16 300	stk	10GPM		decl	1939
820		T-0666	McKinley	Laura E.	10S06E34 100	stk	10GPM		decl	1939
1460		T-1216	Stephenson	Ranch Inc.	10S09E08 N½	stk	3 Af/Yr		decl	19810000
1461		T-1217	Stephenson	Ranch Inc.	10S09E10 400	stk	3 Af/Yr		decl	19520000
1462		T-1218	Stephenson	Ranch Inc.	10S09E13 200	stk	3 Af/Yr		decl	19530000
1800		T-1554	Three Rivers Cattle		10S09E13 213	stk	3 Af/Ac		decl	1952
2012		T-1762	Stephenson Ranch Inc		10S09E20 133	stk	3 Af/Yr		perm	19890302
1463		T-1219	Stephenson	Ranch Inc.	10S09E21 200	stk	3 Af/Yr		decl	19530000
1790		T-1544	Three Rivers Cattle		10S09E24 411	stk	3 Af/Ac		decl	1944
1464		T-1220	Stephenson	Ranch Inc.	10S09E30 S½	stk	3 Af/Yr		decl	19550000
1782		T-1536	Three Rivers Cattle		10S09E30 324	stk	3 Af/Ac		decl	1965
1784		T-1538	Three Rivers Cattle		10S09E33 434	stk	3 Af/Ac		decl	1975
1789		T-1543	Three Rivers Cattle		10S09E34 212	stk	3 Af/Ac		decl	1947
335		T-0262	Lincoln Natnl Forest	U.S.A.	10S10E02 131	stk	3 Af/Yr		decl	1950

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336		T-0262	U.S.A.	Lincoln Natnl Forest	10S10E02 131	stk	3 AF/Yr		decl	1950
1803		T-1557	Three Rivers Cattle		10S10E02 131	stk	3 AF/Ac		decl	1975
1802		T-1556	Three Rivers Cattle		10S10E04 440	stk & dom	3 AF/Ac		decl	1956
1474		T-1230	Stephenson	Ranch Inc.	10S10E05 220	stk	3 AF/Yr		decl	unknown
1801		T-1555	Three Rivers Cattle		10S10E05 222	stk	3 AF/Ac		decl	1965
1799		T-1553	Three Rivers Cattle		10S10E17 343	stk	3 AF/Ac		decl	1975
1797		T-1551	Three Rivers Cattle	Three Rivers Cattle	10S10E21 323	stk	3 AF/Ac		decl	1982
1796		T-1550	Three Rivers Cattle		10S10E29 342	stk	3 AF/Ac		decl	1916
1798		T-1552	Three Rivers Cattle		10S10E30 223	stk	3 AF/Ac		decl	1982
1795		T-1549	Three Rivers Cattle		10S10E32 244	stk	3 AF/Ac		decl	1955
1794		T-1548	Three Rivers Cattle		10S10E32 333	stk dom	3 AF/Ac		decl	1956
1550		T-1289	Moor	Lee & Beulah	10S10E34 422	dom	3 AF/Yr		pmt	19860321
1752		T-1508	LaMay	Fred	11E08E19 420	Irr	60 AF/Yr	15	decl	1958
1753		T-1508-S	LaMay	Fred	11E08E19 420	Irr	60 AF/Yr	15	decl	1958
1755		T-1510	LaMay	Fred	11E08E18 22	Irr	192 AF/Yr	48	decl	1954
1754		T-1509	LaMay	Fred	11E08E18 22	Irr	40 AF/Yr	10	decl	1960
1728		T-1485	Roberts	Connie	11E13E28 23	Irrl	148 AF/Yr	1	decl	1968
821		T-0667	McKinley	Laura E.	11S06E10 Lot 3	stk	10GPM		decl	1939
822		T-0668	McKinley	Laura E.	11S06E28 400	stk	4GPM		decl	1940
1783		T-1537	Three Rivers Cattle		11S09E11 144	stk	3 AF/Yr		Decl	1978
1785		T-1539	Three Rivers Cattle		11S09E22 421	stk	3 AF/Ac		decl	1952
554		T-0442Expl	Merrick	Walter	11S09E25 100	exploratory			perm	Expd
550		T-0442	Merrick	Walter	11S09E25 123	irr	3 AF/Ac	100	decl	1973
553		T-0442-S-3	Merrick	Walter	11S09E25 144	irr	3 AF/Ac	100	Expd	
545		T-0437	Merrick	Walter	11S09E25 410	test well	3 AF/Yr		Expd	19821217
551		T-0442-S	Merrick	Walter	11S09E25 412	irr	3 AF/Ac	100	decl	1981
552		T-0442-S-2	Merrick	Walter	11S09E25 412	irr	3 AF/Ac	100	decl	1981
1788		T-1542	Three Rivers Cattle		11S09½E11 111	stk	3 AF/Ac	3 AF/Ac	decl	1973
1791		T-1545	Three Rivers Cattle		11S09½E12 343	stk dom	3 AF/Yr		decl	unk
1202		T-0993-S-2	Permian Exploration	Corp.	11S09½E22 214	irr	193 AF/Yr	284.1	CLOW	19850104
1200		T-0993	Permian Exploration	Corp.	11S09½E22 321	irr	645 AF/Yr	302.5	decl	1951 pre
1201		T-0993-S	Permian Exploration	Corp.	11S09½E22 413	irr	645 AF/Yr	302.5	perm	
1203		T-0993-S-3	Permian Exploration	Corp.	11S09½E22 414	irr	B.U.	319.8	appl	19851031
1746		T-1502	USDI	Bureau Land Mgmt	11S09½E28 223	dom	72 AF/Yr	4	decl	19760523
1792		T-1546	Three Rivers Cattle		11S10E07 144	stk	3 AF/Ac		decl	1953
1793		T-1547	Three Rivers Cattle		11S10E07 144	stk	3 AF/Ac		decl	unk
1786		T-1540	Three Rivers Cattle		11S10E19 131	stk	3 AF/Ac		decl	1948
1787		T-1541	Three Rivers Cattle		11S10E29 133	stk	3 AF/Ac		decl	1975
1152		T-0953	Permian Exploration	Corp.	11S9½E13 244	irr	3.0 AF/Ac	76.8	decl	pre-1915
645		T-0515	W.S.M.R.		13S04E07 333	expl monitor	test		perm	Expd
683	X	T-0550	W.S.M.R.		13S04E11 332	mil			appr	19830523
684		T-0550-Exp	W.S.M.R.		13S04E11 332	exploration	3 AF/Yr		perm	19830523

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668		T-0535	W.S.M.R.		13S04E18 213	expl monitor	test		perm	
644		T-0514	W.S.M.R.		13S04E24 444	expl monitor	test		perm	Expd
685		T-0550-S	W.S.M.R.		13S04E24 444	mil	100 Af/Yr		appl	
767		T-0622	W.S.M.R.		13S05E21 143	expl monitor	test		perm	Expd
766		T-0621	W.S.M.R.		13S05E21 423	expl monitor	test		perm	Expd
765		T-0620	W.S.M.R.		13S05E22 334	expl monitor	test		perm	Expd
815		T-0661	W.S.M.R.		13S05E27 232	expl	test		perm	Expd
101		T-0071	Stover	F.C.	13S09E36 214	irr dom			decl	195709
35		T-0028	Stover	F.C.	13S09E36 233	irr		25	decl	195305
699		T-0564	Perry	Ralph Don	13S09E36 342	irr		40	decl	1958
2047		T-1797	Yates	Harvey E. Co.	13S09E36 424	irr	1100GPM	183.75	decl	1953
700		T-0564-S	Perry	Ralph Don	13S09E36 442	irr		1955	decl	1968
2004		T-1754	Davenport/Deluca	Ted/Eddie	13S10E33 414	dom	supl	supl	decl	
1066		T-0872	Hiles	James V.	13S11E14 440	stk	supl		perm	1954
1287		T-1067	Martinez	Esperidon M.	13S11E25 222	dom	3 Af/Yr		decl	19850305
1417		T-1175	Soohoo	Waldon W & Lil	13S11E26 134	dom	3 Af/Yr		perm	19850903
2017		T-1767	Fannell	Dan or Sherry	13S11E26 134	dom	3 Af/Yr		perm	19890119
1529		T-1270	Dyke	Dorothy S. Andrew	13S11E26 143	dom	3 Af/Yr		perm	19860110
1570		T-1311	Turner	Darrell	13S11E26 143	dom	3 Af/Yr		perm	expired
452		T-0371	Hiles	James V.	13S11E26 210	stk dom	3 Af/Yr		perm	19830126
717		T-0578	Hiles	James V.	13S11E26 210	construction	3 Af/Ac		perm	Expd
1065		T-0871	Hiles	James V.	13S11E26 210	irr	3 Af/Yr		decl	1965
1064		T-0870	Hiles	James V.	13S11E26 220	irr dom	3 Af/Ac	5	decl	pre-1963
1100		T-0905	Nelson	LeLand Rex	13S11E26 220	dom	3 Af/Yr		perm	19840613
112		T-0084	Mauer	William	13S11E26 230	irr	3 Af/Ac	40	decl	19560701
1142		T-0943	Lentz	Norbert M.	13S11E26 300	dom	3 Af/Yr		perm	19850603
113		T-0084-S	Mauer	William	13S11E26 310	irr	3 Af/Ac	40	decl	19570201
1647		T-1383	Trentman	Jerome J.	13S11E26 312	irr dom	10.5 Af/Yr	1.5	decl	19730000
1648		T-1383-S	Trentman	Jerome J.	13S11E26 312	dom irr	10.5 Af/Yr	1.5	decl	19800000
1780		T-1534	Seckler	Herbert & Lenore	13S11E26 313	dom stk irr	11 Af/Ac	1	Decl	1975
1639		T-1375	Larkey	Billy R.	13S11E26 322	dom	3 Af/Yr		pmt	19860808
1552		T-1291	Covington	Barrett and Patricia	13S11E26 331	dom	3 Af/Yr		pmt	19860325
1844		T-1594	James	Jimmy	13S11E27 110	dom	3 Af/Yr	1	perm	19871120
875		T-0706	Moran	Jan	13S11E27 140	dom	3 Af/Yr		Expd	
2037		T-1787	Mendez	Chris	13S11E27 142	dom stk	3 Af/Yr		perm	19890324
395		T-0313	Reinhardt	Joe Barbara	13S11E27 200	dom	3 Af/Yr		perm	19820924
116		T-0086	Davalos	Michael L.	13S11E27 311	irr dom		35	decl	1948
1657		T-1392	Sloan	E.B.	13S11E27 421	dom	3 Af/Yr		pmt	19860905
2083		T-1833	Sanders	Joe Ben	13S11E27 424	dom	3 Af/Yr		decl	
117		T-0086-S	Davalos	Michael L.	13S11E28 142	irr dom		35	decl	1952
884		T-0714	Gallegos	Jose J. Lisa	13S11E28 200	dom	3 Af/Yr		perm	19831012
1010		T-0822	Gallegos	Lisa Joe	13S11E28 220	irr stk dom	3 Af/Ac	3	decl	1970

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1011		T-0822-S	Gallegos	Lisa Joe	13S11E28 220	irg stk	3 AF/Ac	3	decl	198010
1730		T-1487	Seth	Joella	13S11E28 342	stk,mun,com	3 Af/Ac	15	decl	1968
118		T-0086-S-2	Davalos	Michael L.	13S11E28 422	irr	4 Af/Ac	25	dedl	197709
123		T-0090	Provencio	Marcial B.	13S11E28 433	irr	100 Af/Yr	21	decl	1957
124		T-0090	Provencio	Marcial B.	13S11E28 433	irr	100 Af/Yr	21	CLOW	19850513
125		T-0091	Provencio	Marcial B.	13S11E28 433	dom		12	decl	unknown
838		T-0684	Scraggs	Ronald E. D.J.	13S11E28 440	dom	3 Af/Yr		decl	197210
1685		T-1430	Kirk	Stanley	13S11E28 440	dom	3 Af/Yr		pmt	19870102
1946		T-1696	Stockmeyer	Juan	13S11E32 142	dom	3 Af/Yr		perm	19880707
1598		T-1336	Murphey	John	13S11E34 223	dom	3 Af/Yr		pmt	19860915
1848		T-1598	Callahan	Stephen	13S11E34 223	dom	3 Af/Yr	1	pmt	19871128
1861		T-1611	Bird	Travis	13S11E34 243	dom	3 Af/Yr	1	pmt	19871231
564		T-0450	Davis	Thomas D. Marjorie	13S11E34 244	irr	3 Af/Ac	9	decl	19820722
1035		T-0844	Brace	Johnnie E.	13S11E35 130	stk dom	3 Af/Yr		perm	19840525
944		T-0763	Mendez	Johnnie R. Pablo I C	13S11E35 133	irr dom	2 Af/Ac	11	decl	1958
1226		T-1009	Anderson	Norman S.	13S11E35 3 W½	dom	3 Af/Yr		CLOW	19850924
1227		T-1009-S	Anderson	Nancy S.	13S11E35 311	supl dom	3 Af/Yr		perm	19860108
1242		T-1023	Garcia Gonzales	Irene Geneva	13S11E35 340	dom	3 Af/Yr		decl	1980
756		T-0611	Hernandez	Paul Norvell	13S12E20 210	dom	3 Af/Ac		perm	19830630
642		T-0512	N.M.S.H.D.		13S12E23 240	construction	3 Af/Yr		Expd	Expd
591		T-0474	N.M.S.H.D.		13S13E05 311	construction	3 Af/Yr		perm	Expd
1679		T-1419	NMSHD		13S13E05 311	Constr	3 Af/Ac		pmt	expired
813	X	T-0659	W.S.M.R.		14S06E09 221	expl	test		perm	Expd
1628		T-1366	East	Stanley B	14S09E01 122	dom	3 Af/Yr		pmt	expired
56		T-0040	Johnson	J.C.	14S09E10 100	stk dom	100 head		decl	1914
179		T-0140	Owens	Harry C.	14S09E10 240	irr		40	decl	19711228
959		T-0774	McNiel	Charles A. Alice J.	14S09E10 314	irr stk dom	3 Af/Ac	10.0	decl	1969
735		T-0594	Holliday	Ira	14S09E10 320	irr	3 Af/Ac	90	decl	197407
736		T-0594-S	Holliday	Ira	14S09E10 320	irr	supl	supl	decl	197407
165		T-0128	White	Hurshel Carley C.	14S09E10 424	irr dom		40	decl	196610
1092		T-0897	Jones Jones Seth	David S. D.W. Jim W.	14S09E10 442	irr		20	decl	1962
953		T-0768-S-4	Spirnock	Andrew P. Martha R.	14S09E11 340	irr	6 Af/Ac	320	decl	1970
951		T-0768-S-2	Spirnock	Andrew P. Martha R.	14S09E11 410	irr	6 Af/Ac	320	decl	1970
996		T-0810	Spirnock	Andrew P. Martha R.	14S09E11 414	stk dom	3 Af/Yr		perm	19840309
950		T-0768-S	Spirnock	Andrew P. Martha R.	14S09E11 422	irr	6 Af/Ac	320	decl	1970
952		T-0768-S-3	Spirnock	Andrew P. Martha R.	14S09E11 430	irr	6 Af/Ac	320	decl	1970
949		T-0768	Spirnock	Andrew P. Martha R.	14S09E11 442	irr	6 Af/Ac	320	decl	1970
135		T-0100	Hust	George T.	14S09E12 314	irr	3 Af/Ac	80	decl	196002
789		T-0640	Wood	Joseph P. Jr.	14S09E12 444	irr	3 Af/Yr	80	decl	1980
119		T-0087	Mills	W.O.	14S09E13 311	irr dom	3 Af/Yr	90	decl	1954
1128		T-0929	Miller	Woodard C.	14S09E13 322	irr	3.1 Af/Ac	50	decl	1950
1724		T-1481	Potter	Thomas C	14S09E13 420	dom	3 Af/Yr		pmt	19870406

Rec ID	M	File Num	Last Name	First Name	Well Location	Use	Water Amt	Acreage	Inst	Drill Date
138		T-0102	Tucker	Roy E.	14S09E13 430	irr		20	decl	1959
139		T-0103	Gilliland	Jess	14S09E13 444	irr dom	3 Af/Yr	20	decl	1959
585		T-0469	Marsh	Robert J.	14S09E13 444	irr dom	3 Af/Yr	10	decl	198105
1528		T-1269	Carrell	Ralph D.	14S09E14 210	dom & stk	3 Af/Yr		perm	19860110
559		T-0447	Wood	Howard O.	14S09E14 221	irr	6 Af/Ac	60	decl	1966
144		T-0108	Wood	Howard O.	14S09E14 223	dom			decl	19600824
649		T-0517	Hinkle	Donald C. Edna Kay	14S09E15 113	stk dom	60 Af/Yr	20	decl	1974
166		T-0129	Nowell Gilliland	Foy B.P.	14S09E15 122	irr dom	5 Af/Ac	120	decl	1965
1338		T-1110	Gilliland	B.P. & Wilma	14S09E15 122	irr	3 Af/Yr		decl	expired
865		T-0696	Hyman	Edward D.	14S09E15 300	stk			perm	Expd
59		T-0042	Hyman	Edward D.	14S09E15 344	irr	3 Af/Ac	70	perm	
1274		T-1055	Dougherty	Lewellyn S.	14S09E15 400	irr	3 Af/Ac	30.0	decl	19491006
55		T-0039	Johnson	J.C.	14S09E21 240	stk dom			decl	19710916
1184		T-0979	Lewis	Ernest R. Eloise H.	14S09E22 134	irr stk	3 Af/Ac		decl	unknown
1185		T-0979-S	Lewis	Ernest R. Eloise H.	14S09E22 134	irr stk	supl		decl	1958
57		T-0041	Johnson	J.C.	14S09E22 144	irr dom			decl	198108
114		T-0085	Trammell	Allen K.	14S09E22 222	irr	4 Af/Ac	113	decl	1958
100		T-0070	Danley	W.H. Jr. W.H. sr.	14S09E22 232	irr		75	decl	1960
58		T-0041-A	Lewis	Ernest R. Eloise H.	14S09E22 400	irr	3 Af/Ac	30	decl	195610
2064		T-1814	Danley	Jim & Wanda	14S09E22 434	irr	3 Af/Yr		CO	197607
115		T-0085-S	Trammell	Allen K.	14S09E23 112	irr		113	perm	19890515
53		T-0037	Johnson Hall Danley	J.C. Grace M. Nettle	14S09E23 120	stk	200 head		decl	1955
1891		T-1641	Peterson	Walter V.	14S09E23 120	dom	3 Af/Yr		decl	1915
182		T-0143-S	Turner	Ed S.	14S09E23 130	irr	7 Af/Ac	1	pmt	19880402
809		T-0656	Turner	Ed S.	14S09E23 230	irr	7 Af/Ac	40	decl	1978
810		T-0656-S	Turner	Ed S.	14S09E23 230	irr	supl	40	decl	1971
1931		T-1681	Lewis	Donna K.	14S09E23 242	dom	3 Af/Yr	supl	perm	19880606
1898		T-1648	Kollars	Barbara	14S09E23 243	dom	3 Af/Yr		perm	19880419
24		T-0021	Cook	Will H.	14S09E23 411	irr	3 Af/Ac	supl	decl	unknown
1901		T-1651	McBride	Faith	14S09E23 433	dom	3 Af/Yr	140	perm	19880213
1902		T-1652	Gump	Earl	14S09E23 433	dom	3 Af/Yr		perm	19880211
1912		T-1662	Evans	Darel	14S09E23 433	dom	3 Af/Yr		perm	19880210
2034		T-1784	Morrison	Ronald B.	14S09E23 433	dom	# Af/Yr		perm	19890228
1903		T-1653	Free	Donald	14S09E23 434	dom	3 Af/Yr		perm	19880214
1913		T-1663	Montoya	Carlos	14S09E23 434	dom	3 Af/Yr		perm	19880212
1704		T-1704	Gonzales	David	14S09E23 434	dom	3 Af/Yr		perm	19880720
1954		T-1783	Munoz	Librado E.	14S09E23 434	dom	3 Af/Yr		perm	19890301
2033		T-1781	Ramsey	David L.	14S09E23 434	dom	# Af/Yr		perm	19890228
2031		T-1782	Salgado	Manuelita	14S09E23 443	dom	3 Af/Yr		perm	19890301
1908		T-1658	Nowell	Lonnie	14S09E23 443	Cond	3 Af/Yr		perm	19871113
1909		T-1659	Nowell	Lonnie	14S09E23 444	Cond	3 Af/Yr		perm	19871116
1910		T-1660	Nowell	Lonnie	14S09E23 444	Cond	3 Af/Yr		perm	19871117

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1911		T-1661	Nowell	Lonnie	14S09E23 444	Cond	6 Af/Yr		perm	19871118
1240		T-1021	Mendonca	Donald R. Gregory P.	14S09E24 112	dom	3 Af/Ac		decl	19820203
893		T-0723	Shores	Jack Barbara L.	14S09E24 120	irr dom	3.75 Af/Ac	14.0	decl	197305
583		T-0468	Hanawalt	Joseph	14S09E24 133	irr	3.75 Af/Ac	67.5	decl	1956
584		T-0468-S	Hanawalt	Joseph	14S09E24 141	irr		67.5	decl	197401
54		T-0038	Johnson Danley	J.C. Nettie J.	14S09E24 200	stk dom	100 head		decl	1916
1856		T-1606	Thornton	Cloyce	14S09E24 311	dom	3 Af/Yr	1	pmt	19871111
18		T-0015	Sutherland	Mrs. Eloise C.	14S09E24 322	irr	3 Af/Ac	41	decl	19530212
528		T-0421	Tave	Artis D.	14S09E25 110	irr	7 Af/Ac	2	decl	19790415
121		T-0089	Simpson	Dee W.	14S09E25 132	irr dom	3 Af/Yr	37	decl	1957
122		T-0089-S	Simpson	Dee W.	14S09E25 132	irr dom	3 Af/Ac	37	decl	1960
1520		T-1262	Bates	Paul D.	14S09E25 132	irr	3 Af/Ac	5	decl	19550000
140		T-0104	Tucker	Roy E.	14S09E25 222	irr dom		10	decl	1943
233		T-0187	Mendez	Tony Lorraine	14S09E25 224	dom	3 Af/Yr		decl	19750322
1371		T-1139	Larson	R.L.	14S09E25 242	dom	3 Af/Yr		perm	EXPIRED
64		T-0046	Murphy	Pat	14S09E25 322	irr	3 Af/Ac	80	decl	195303
65		T-0046-S	Murphy	Pat	14S09E25 342	irr		40	decl	195509
1129		T-0930	Miller	Woodard C.	14S09E26 110	irr	3.1 Af/Ac	10	decl	1972
1160		T-0958	Chavez	Robert Anthony	14S09E26 110	irr dom	3 Af/Yr		perm	19840820
33		T-0027	Hutto	Joseph L.	14S09E26 142	irr dom	3.5 Af/Ac	80	decl	19531130
34		T-0027-S	Hutto	Joseph L.	14S09E26 142	irr	3.5 Af/Ac	80	perm	Cancelled
197		T-0158	Owens	Harry	14S09E26 200	irr		60	decl	1973
973		T-0788	Cates	Jacky D.	14S09E26 220	dom			perm	Expd
160		T-0123	Tucker	Ivan	14S09E26 222	irr	3 Af/Yr	40	decl	196506
519		T-0415	Cates	Jacky D.	14S09E26 222	irr	7 Af/Ac	40	decl	1958
520		T-0415-S	Cates	Jacky D.	14S09E26 222	irr	7 Af/Ac	40	decl	1964
521		T-0415-S-2	Cates	Jacky D.	14S09E26 224	irr	7 Af/Ac	40	decl	1975
38		T-0029	Owens	Harry C.	14S09E26 240	irr	3 Af/Ac	80	decl	195906
36		T-0029-S	Owens	Harry C.	14S09E26 242	irr	3 Af/Ac	80	decl	195001
37		T-0029-S	Owens	Harry C.	14S09E26 242	irr	3 Af/Ac	80	decl	195608
39		T-0030	Ramsey	Jess	14S09E26 242	irr	3 Af/Ac	120	decl	195101
167		T-0130	Owens	Harry C.	14S09E26 242	irr		60	decl	196612
210		T-0169-A	Simpson	Jesse R.	14S09E26 400	irr	7 Af/Ac	60	decl	1974
1398		T-1158	Baca	Raymond A.	14S09E26 411	dom	3 Af/Yr		perm	19850828
1		T-0001	Case	L.R.	14S09E26 412	irr	3 Af/Ac	31	decl	195106
4		T-0004	Simpson	W.R.	14S09E26 412	irr	3 Af/Ac	29.0	decl	194904
212		T-0170	Simon	Ralph E. Jr.	14S09E26 412	irr	7 Af/Ac	19	decl	196801
90		T-0061	Ritch	William G. Mozelle T	14S09E26 422	irr	3 Af/Ac	40	decl	194801
91		T-0061-S	Ritch	William G. Mozelle T	14S09E26 422	irr	3 Af/Ac	40	decl	19540710
198		T-0159	Guy	Stanley A.	14S09E26 432	irr	20 Af/Ac	40	decl	197203
209		T-0169	Herrera	Andrew G.	14S09E26 441	irr		30	decl	unknown
5		T-0005	Simpson	Jesse	14S09E26 442	irr	3 Af/Ac	50	decl	194902

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211		T-0169-S	Herrera	Andrew G.	14S09E26 444	irr	7 Af/Ac	50	decl	1957
902		T-0730	Wilson	Clyde P.	14S09E27 230	irr	3 Af/Ac	40	decl	1962
96		T-0066	Roach	Valon W.	14S09E27 412	irr		80	decl	19560402
136		T-0101	Owens	Harry C.	14S09E27 422	irr	4 Af/Ac	80	decl	1954
137		T-0101-S	Owens	Harry C.	14S09E27 424	irr	4 Af/Ac	80	decl	196301
131		T-0097	Bookout	Deral L. Doris M.	14S09E34 122	irr		80	decl	1952-53
1535		T-1276	Barnes	John & Lynette	14S09E34 211	irr	225 Af/Yr	45	decl	19710900
1312		T-1087	Hicks	Ray E. & Dee A	14S09E34 221	irr		2.0	decl	1970
66		T-0047	Cooksey	James A.	14S09E34 422	irr		40	decl	195509
1738		T-1494-S	Maes	Lucio	14S09E35 11	irr stk	3 Af/Ac	20	decl	1979
657		T-0525	Bradburn	Earl D. Dollie	14S09E35 110	dom	126 Af/Yr		perm	19830225
1684		T-1426	Madrid	Amador R.	14S09E35 111	dom	3 Af/Yr		pmt	19861212
1737		T-1494	Maes	Lucio	14S09E35 113	irr stk	126 Af/Yr	20	decl	1979
1256		T-1038	Torres	Joe H.	14S09E35 12 N½	irr	3 Af/Yr	20	appl	19850327
1257		T-1038(D)	Torres	Joe H.	14S09E35 12 N½	stk	3 Af/Yr	5.0	perm	19850327
1263		T-1045	McSwane	Noble J.	14S09E35 121	dom/irr/com	3 Af/Ac		decl	unknown
1996		T-1746	Anderson	Roy or LaVerne	14S09E35 221	dom	3 Af/Yr	5.0	perm	19881110
855		T-0689	Miebach	William F.	14S09E35 230	irr stk dom	3 Af/Ac	30	decl	unknown
856		T-0689(D)	Miebach	William F.	14S09E35 230	dom	3 Af/Yr		perm	19790511
858		T-0689-S	Miebach	William F.	14S09E35 230	irr	3 Af/Ac	30	perm	19850316
857		T-0689-Enlgd	Miebach	William F.	14S09E35 232	irr	3 Af/Ac	20	appl	
1176		T-0971	Wright	Robert W. Sr.	14S09E35 240	irr	3 Af/Yr		perm	19841016
779		T-0634	Hayse	John M.	14S09E35 300	irr	6 Af/Ac	75	decl	1965
780		T-0634-S	Hayse	John M.	14S09E35 300	irr	supl	supl	decl	1968
781		T-0634-S-2	Hayse	John M.	14S09E35 300	irr	supl	supl	decl	197308
515		T-0413	Howell	Vida Rae	14S09E35 322	irr	3 Af/Ac	40	decl	unknown
516		T-0413-S	Howell	Vida Rae	14S09E35 322	irr	3 Af/Ac	40	decl	1973
88		T-0059	Ritch	Lessie M.	14S09E35 342	irr	3 Af/Ac	80	decl	195506
667		T-0534	Fifer	Robert B.	14S09E35 400	dom	3 Af/Yr		perm	19830211
670		T-0537	Albert	Dale E.	14S09E35 400	dom	3 Af/Yr		perm	19830305
673		T-0540	Adams	Peter Jr.	14S09E35 400	dom	3 Af/Yr		perm	19830305
693		T-0558	Campbell	John	14S09E35 400	dom	3 Af/Yr		perm	19830321
720		T-0581	Hyde	William A.	14S09E35 400	dom	3 Af/Yr		perm	19830426
721		T-0582	Queenan	Robert A.	14S09E35 400	dom	3 Af/Yr		perm	19830428
795		T-0646	Giersdorf	William A.	14S09E35 400	dom	3 Af/Yr		perm	19830631
797		T-0648	Tidwell	Fred L.	14S09E35 400	dom	3 Af/Yr		perm	Expd
816		T-0662	Frye	David	14S09E35 400	dom	3 Af/Yr		perm	19830527
1043		T-0852	Permenter	Charles E.	14S09E35 400	dom	3 Af/Yr		perm	19840530
1868		T-1618	Bass	Connie Jo	14S09E35 424	dom	3 Af/Yr	1	pmt	19880204
1621		T-1359	Markland	David	14S09E35 444	irr dom	28 Af/Yr		Decl	19810120
1952		T-1702	Germann	Rene or Deborah	14S09E35441	dom stk irr	46 Af/Yr	.5	decl	1979
82		T-0056	Freake	Ronald	14S09E36 112	irr	3 Af/Ac	20	decl	19850403

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83		T-0056-A	~~Lasater~~ *En Alogra*	~~Marvin~~ *Lucolludia*	14S09E36 112	irr	3 Af/Ac	~~80~~ 20	~~decl~~ *petow*	~~1954~~ *2-5-97*
75		T-0052	Lasater	Fred	14S09E36 120	irr	3 Af/Ac	80	decl	1954
76		T-0052-A	Reyes	Leo Karen	14S09E36 120	irr		10	decl	1954
77		T-0052-B	Reyes	Manuel Viola	14S09E36 120	irr		10	decl	1954
78		T-0052-B	Reyes	~~Manuel Viola~~	14S09E36 120	irr	3 Af/Ac	10	perm	19840901
1813		T-1567	Gallegos	Guadalupe	14S09E36 121	irr	3 Af/Yr	10	perm	19871208
1228		T-1010	Juul	Lila E.	14S09E36 143	irr	3 Af/Ac	1	pmt	1935
629		T-0504	Hanawalt	H.G.	14S09E36 212	irr	3.75 Af/Ac	80	decl	1955
628		T-0503	Harris	Charlie L.	14S09E36 221	irr	4 Af/Ac	100	decl	1958
630		T-0504-S	Hanawalt	H.G.	14S09E36 241	irr	3.75 Af/Ac	20	decl	1966
582		T-0467-S	Hanawalt	H.G. J.S.	14S09E36 322	irr	3.75 Af/Ac	100	decl	1953
581		T-0467	Hanawalt	H.G. J.S.	14S09E36 342	irr	3.75 Af/Ac	160	decl	1953
191		T-0152	McCracken	W.D.	14S10E06 322	irr	7 Af/Ac	160	decl	197108
2085		T-1835--	Baca	Carmen B.	14S10E11 444	irr	3 Af/Yr	40	perm	19880829
1977		T-1727	Hagan	Inez	14S10E12 111	dom	3 Af/Yr		perm	Expd
755		T-0610	Germany	James	14S10E12 231	dom	3 Af/Yr		perm	Expd
752		T-0607	James	Jim	14S10E12 310	dom	3 Af/Yr		perm	19890512
2067		T-1817	Germany	Jimmy	14S10E12 321	dom	3 Af/Yr		perm	1950
27		T-0024	Champion	R.D.	14S10E14 444	irr	5 Af/Ac	180	decl	
28		T-0024-A	Walker	Jerry C & Frances L	14S10E14 444	irr dom	24 Af/Yr±8	10	CO	19820326
640		T-0510	Marvin	Murphy M.	14S10E15 131	irr	3 Af/Yr	5.5	decl	
2056		T-1806	Murphy	Marvin	14S10E15 140	irr	3 Af/Yr		appl	19870814
1808		T-1562	Lopez	Mike & Virginia	14S10E15 231		3 Af/Yr	1	pmt	19880304
1874		T-1624	Schmidt	Mark	14S10E15 323	dom	3 Af/Yr	1	pmt	19880324
1880		T-1630	Turri	Pat & Anne	14S10E15 323	dom		1	pmt	19860122
1530		T-1271	Willingham	Robert A.	14S10E17 3211	dom	3 Af/Yr		perm	19870319
1714		T-1468	Talley	Samuel A	14S10E17 322	dom			pmt	unknown
799		T-0650	Thomas	Warren D. Mary F.	14S10E17 333	irr		20	decl	19860915
1646		T-1382	Gilliland	Joseph	14S10E17 334	irr	3 Af/Yr		pmt	1951
25		T-0022	Champion	R.D.	14S10E17 414	irr			decl	19720908
196		T-0157	Blackstone	Don C. Linda R.	14S10E18 120	irr	4 Af/Ac	160	decl	197207
195		T-0156	Tularosa Farms Inc.		14S10E18 220	irr	4 Af/Ac	160	decl	19870822
30		T-0024-B	Gilliland	Tommy or Tammy	14S10E18 313	irr	30 AF/Yr	5	CLOW	19820403
570		T-0454	Lock	William J.	14S10E18 313	irr	7 Af/Ac	5	decl	expired
1440		T-1198	Gilliland	Tommy & Tammy	14S10E18 313	irr	3 Af/Yr		perm	Expd
659		T-0527	Morton	John D.	14S10E18 314	dom	3 Af/Yr		perm	19841026
1229		T-1011	Lawrence	William	14S10E18 314	stk dom	3 Af/Yr		perm	19880318
1886		T-1636	Sanchez	Tony	14S10E18 314	dom	3 Af/Yr	1	pmt	19770330
240		T-0194	Horick	Donald V.	14S10E18 324	irr dom	7 Af/Ac	5	decl	19810608
533		T-0426	Hensley	Donald C.	14S10E18 324	irr dom	5 Af/Ac	10	decl	19711108
180		T-0141	Burleson	Ross N.	14S10E18 331	irr	5 Af/Ac	5	decl	19711221
181		T-0142	Parker	Fred L.	14S10E18 331	irr	5 Af/Ac	5	decl	

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986		T-0801	Deimler	William L. Sr.	14S10E18 334	irr dom	3 Af/Ac	5	decl	198010
189		T-0149	Day	James W.	14S10E18 342	irr	7 Af/Ac	10	decl	19720705
268		T-0212	Lloyd	James B. Julia C.	14S10E18 343	stk	3 Af/Yr		decl	1972
269		T-0213	Lloyd	James B. Julia C.	14S10E18 343	irr	3 Af/Ac	7	decl	197809
534		T-0427	Davis	Dean	14S10E18 344	irr	7 Af/Ac	5	decl	19720415
746		T-0601	Kelly	Larry Don	14S10E18 344	irr dom	3 Af/Yr		perm	19830608
1720		T-1477	Gomez	Raymond	14S10E18 414	dom	3 Af/Yr		pmt	19870530
26		T-0023	Champion	R.D.	14S10E18 424	irr			decl	1951
1279		T-1059	Davis	Dean	14S10E18 430	dom/stk	3 Af/Yr	160	decl	expired
1890		T-1640	Sainz	Albert	14S10E18 433	irr dom stk	31		perm	1976
841		T-0687	Smith	Sam H.	14S10E18 434	dom	3 Af/Yr	5	decl	1976
1573		T-1314	Flint	Joe	14S10E18 434	dom	3 Af/Yr		perm	19830810
272		T-0215	Richburg	F.F. Billie	14S10E18 4343	dom	3 Af/Yr		perm	19860507
1734		T-1491	Gomez	John	14S10E18 441	irr	3 Af/Yr	10	decl	1972
187		T-0148	Smith	Sam H.	14S10E18 442	irr	3 Af/Yr		Pmt	19870601
188		T-0148-A	Smith	Sam H.	14S10E18 443	irr	7 Af/Ac	20	decl	19720628
29		T-0024-B	Gilliland	Tommy or Tammy	14S10E18 443	irr dom	7 Af/Ac	20	decl	19720628
869		T-0700	Weehunt	Wesley Corine	14S10E18 444	irr	30 AF/yr	5	decl	1950
1683		T-1425	Weehunt	Darren	14S10E18 444	irr dom	3 Af/Yr	3	decl	19760922
141		T-0105	Beanblossom	Roy J.	14S10E18 444	dom	3 Af/Yr		pmt	19870104
1178		T-0973	Roadrunner Ranch		14S10E19 111	irr dom	3 Af/Yr	1	decl	1955
1219		T-1002	Cordova	Godfrey R. Pamela B.	14S10E19 130	irr dom		4	decl	197808
1492		T-1246	Deimler	William L.	14S10E19 130	dom	3 Af/Yr		perm	19841015
21		T-0018	Danley	Nettie J.	14S10E19 143	irr dom	4 Af/Ac	1.7	decl	19761200
31		T-0025	Champion	R.D.	14S10E19 144	irr	3 Af/Ac	94.25	decl	195101
1188		T-0982	Lewis	Ernest R. Eloise H.	14S10E19 234	irr		150	decl	1945
1189		T-0982-S	Lewis	Ernest R. Eloise H.	14S10E19 3(N½)	irr	3 AF/Ac	72	decl	196801
17		T-0014	Johnson	J.C.	14S10E19 3(N½)	irr	3 Af/Ac	72	decl	196805
904		T-0732	Mirabel	John J.	14S10E19 310	irr	3 Af/Ac	150	decl	195012
580		T-0466	Ortiz	Robert M.	14S10E19 340	stk irr dom	3 Af/Yr		perm	19831114
23		T-0020	Hust	George T.	14S10E19 342	irr	200GPM	10	appl	
588		T-0472	Swope	Rowena Dale	14S10E19 432	irr stock	2.5 Af/Ac	55	decl	1951
97		T-0067	McGuire	Dan M.	14S10E19 113	irr	3 Af/Ac	20	decl	19670512
237		T-0191	Fisher	George B. Mabel M.	14S10E20 120	irr	3 Af/Ac	20	decl	1956
896		T-0726	Yanaga	Harry Y.	14S10E20 120	dom	5 Af/Yr	18.5	decl	19770120
981		T-0796	Ellison	Leonard S. Linda	14S10E20 120	dom	3 Af/Yr		perm	19831107
85		T-0057-A	Bates	Leroy F.	14S10E20 144	dom	3 Af/Yr	35	perm	19840217
460		T-0378	Nosker	Hollis	14S10E20 220	dom	3 Af/Yr		decl	1951
555		T-0443	Martinez	Julian	14S10E20 221	irr dom	3 Af/Yr		perm	19820803
84		T-0057	Martinez	Julian	14S10E20 223	irr	3 Af/Ac	20	decl	19541231
730		T-0589	Perry	Lloyd C.	14S10E20 234	irr	3 Af/Ac	50	decl	19550205
86		T-0057-S	Martinez	Julian	14S10E20 244	irr	3 Af/Ac	69	decl	1967

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1153		T-0954	Reed	T.J.	14S10E20 300	dom	3 Af/Yr		perm	19841031
105		T-0077	Myers	Everette W.	14S10E20 421	irr		10	decl	19561108
234		T-0188	Wiesehan	John L. Paula E.	14S10E20 440	irr dom	5 Af/Ac	3	decl	197603
1516		T-1258	Wilson	J.O.	14S10E20 441		3 Af/Yr		perm	19851116
427		T-0346	Mellstrup	Richard E.	14S10E21 200	dom			decl	19810915
494		T-0394	Osburn	Larry G.	14S10E21 200	dom	3 Af/Yr		perm	19820827
498		T-0398	Palmer	Donn M. Jr.	14S10E21 200	dom	3 Af/Yr		C.O.	19820826
501		T-0401	Watson	Jerry	14S10E21 200	irr	7 Af/Ac	2	decl	19810415
524		T-0417	Mackewich	Frank A.	14S10E21 200	irr	7 Af/Ac	1	decl	19810215
525		T-0418	Hurt	Scott R.	14S10E21 200	irr	3 Af/Yr		decl	19800315
526		T-0419	Koontz	Julia I.	14S10E21 200	dom	7 Af/Ac		decl	19820415
527		T-0420	LaSure	Thomas E.	14S10E21 200	irr	3 Af/Yr	1	decl	19810201
529		T-0422	Taylor	James R.	14S10E21 200	dom	3 Af/Yr		decl	19820415
508		T-0407	Baker	Burley E. Jr.	14S10E21 213	irr	7 Af/Ac	2	decl	19790801
638		T-0509	Rice	Robert M.	14S10E21 220	irr dom	7 Af/Ac	3	decl	19790815
639		T-0509-S	Rice	Robert M.	14S10E21 220	irr	7 Af/Ac	3	decl	19820402
109		T-0081	Vandyke	Joe H.	14S10E21 330	dom	28 GPM		decl	195906
2046		T-1796	Stephen	R. Vern	14S10E21 421	irr	3 Af/Yr		perm	19890403
3		T-0003	Guillion	Jesse B.	14S10E29 122	irr	3 Af/Ac	57.00	decl	195212
596		T-0479	Carr	Wiley W.	14S10E29 122	irr dom	3 Af/Yr	22	decl	197205
1192		T-0985	Silva	Demesio S.	14S10E29 140	irr dom stk	3.5 Af/Ac	8	decl	19720328
2070		T-1820	Pase	Charles & Shirley	14S10E29 142	irr dom stk	16 Af/Yr	2	decl	1972
32		T-0026	Champion	R.D.	14S10E29 143	irr		25	decl	1945
1183		T-0978	Virden	Dan E.	14S10E29 24 E½	irr dom	3 Af/Ac	20.0	decl	197608
11		T-0010-S	Shaw	Herbert B.	14S10E29 310	irr	3 Af/Ac	70	perm	19860424
10		T-0010	Shaw	Herbert B.	14S10E29 312	irr	3 Af/Ac	70	decl	195102
104		T-0076	Gunter	Elinor Ann	14S10E29 322	irr	3 Af/Ac	70	decl	195501
103		T-0075	Wohlenberg	Joe	14S10E29 420	irr	3 Af/Ac	45	decl	19560210
16		T-0013-B	Walker	Ronald W.	14S10E30 000	irr stk dom	3 Af/Ac	32.465	decl	unknown
193		T-0154	Woods	David C.	14S10E30 100	irr	4 Af/Ac	1.5	decl	19730702
571		T-0455	Moller	Burchard K.	14S10E30 233	irr stk dom	5 Af/Ac	1.5	decl	19530415
15		T-0013-A	Walker	Nancy A.	14S10E30 300	irr	3 Af/Ac	29.000	perm	
617		T-0494	Bean	Billie M.	14S10E30 312	irr	3 Af/Ac	40	decl	1953
14		T-0013	Walker	James E.	14S10E30 322	irr	3 Af/Ac	18.352	decl	19520116
881		T-0711	Walker	Nancy A.	14S10E30 400	stk dom	3 Af/Yr		perm	Expd
6		T-0006	Apel	Fred	14S10E30 412	irr	3 Af/Ac	80	decl	195306
882		T-0712	Walker	Ronald W.	14S10E30 440	stk dom	3 Af/Yr		perm	Expd
1715		T-1470	Skaggs	Fred+	14S10E31 221	dom	3 Af/Yr		pmt	19870327
2		T-0002	Watson	Luther	14S10E31 322	irr	3 Af/Ac	40.0	decl	19491116
52		T-0036	Toncray	W.S.	14S10E31 444	irr	3 Af/Ac	70	decl	195308
1007		T-0820	Richards	Randy Louis	14S10E31 444	irr	3.5 Af/Ac	80	decl	1955
983		T-0798	Wilcox	Harry Jr.	14S10E32 110	irr dom	3 Af/Yr		perm	19830308

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61		T-0044	Toncray	Bessie	14S10E32 111	irr	3 Af/Ac	125	decl	1952
62		T-0044-S	Toncray	Bessie	14S10E32 121	irr	3 Af/Ac	125	decl	1951
556		T-0444	Goakes Wetterholm	Vernon L. Joy H.G.	14S10E32 440	irr	480 Af/Yr	160	appl	Expd
831		T-0677	Baca	Julio Bertha	14S11E02 S½S½	dom	3 Af/Yr		perm	
1958		T-1708	Salazar	Sammy and Robbin	14S11E02 123	dom	3 Af/Yr		perm	
9		T-0009	Klopfer	Charlie	14S11E02 131	irr	3 Af/Ac	13.3	decl	19510920
7		T-0007	Klopfer	Charlie	14S11E02 132	irr	3 Af/Ac	27.3	decl	19510905
648		T-0516-S-2	Taylor	John E. Joyce C.	14S11E02 132	irr	3 Af/Ac	57	decl	1959
8		T-0008	Klopfer	Charlie	14S11E02 134	irr	3 Af/Ac	13.3	decl	19510909
646		T-0516	Taylor	John E. Joyce C.	14S11E02 142	irr	3 Af/Yr	57	decl	1959
647		T-0516-S	Taylor	John E. Joyce C.	14S11E02 143	irr	3 Af/Ac	57	decl	1959
81		T-0055	Saenz	Alvino G.	14S11E02 400	irr dom	3 Af/Ac	4	decl	19551005
947		T-0766	Mendez	Johnnie R. Pablo I C	14S11E02 411	irr stk	2 Af/Ac	11	decl	1958
943		T-0762	Mendez	Johnnie R. Ester B.	14S11E02 414	irr dom	2 Af/Ac	10	decl	197605
1704		T-1456	Saenz	Frederick Manuel	14S11E02 432	dom	3 Af/Yr		decl	expired
1542		T-1282	Twin Forks Ranch,	Inc.	14S11E06 Lot 1	cond			perm	19860207
945		T-0764	Mendez	Johnnie R. Ester B.	14S11E06 140	stk	1 Af/Ac	2	decl	unknown
1988		T-1738	Young	Elizabeth	14S11E06 200	dom	3 Af/Yr		perm	19881017
2000		T-1750	Valdez	Irvin	14S11E06 200	dom	3 Af/Yr		perm	19881024
2060		T-1810	Bowling	William R.	14S11E06 323	dom	3 Af/Yr		perm	19890509
707		T-0571	Abeyta	Eddie L.	14S11E12 100	irr	3 Af/Ac	40	decl	1980
708		T-0571-S	Abeyta	Eddie L.	14S11E12 100	irr stk dom	supl	supl	decl	1980
709		T-0571-S-2	Abeyta	Eddie L.	14S11E12 100	irr	supl	supl	decl	1980
710		T-0571-S-3	Abeyta	Eddie L.	14S11E12 100	irr	supl	supl	perm	19830715
1809		T-1563	Young	Ira M.	14S11E16 143	stk	3 Af/Ac	1	pmt	19870812
900		T-0728	Logan	Mary Edith	14S11E16 331	stk dom	3 Af/Yr		CLOW	19831111
1543		T-1283	Virden	Marlin	14S11E18 221	dom & stk	3 Af/Yr		perm	19860227
1875		T-1625	Young	Ira M.	14S11E29 140	dom	3 Af/Ac		pmt	19880226
1024		T-0835	Havens	James G.	15S09E01 122	irr	3 Af/Ac	160	decl	pre-1962
1025		T-0835-S	Havens	James G.	15S09E01 122	irr	supl	supl	decl	pre-1962
1026		T-0835-S-2	Havens	James G.	15S09E01 124	irr	supl	supl	decl	pre-1962
22		T-0019	Lackey	James M.	15S09E01 222	irr	4 Af/Ac	140	decl	1948
60		T-0043	Ramsey	S.A.	15S09E01 420	irr	3 Af/Ac	80	decl	195503
737		T-0595	Holiday	Ira	15S09E02 110	irr dom	3 Af/Yr	80	decl	197409
1914		T-1664	Torres	Benjamin	15S09E02 112	dom	3 Af/Yr		perm	19880505
738		T-0595-S	Holiday	Ira	15S09E02 120	irr dom	supl	supl	decl	197409
739		T-0595-S-2	Holiday	Ira	15S09E02 120	irr dom	supl	supl	decl	197409
740		T-0595-S-3	Holiday	Ira	15S09E02 140	irr dom	supl	supl	decl	197409
273		T-0216	Curtis	John T. O. Grace	15S09E02 222	irr dom	5 Af/Ac	4	decl	19740629
1625		T-1363	Shinkle	Fred L.	15S09E02 231	stk,irr,dom	3.0	40.0	decl	1971
1073		T-0879	Ray	Walter S. Darel	15S09E02 240	irr	3 Af/Ac	20	decl	1975
1074		T-0879-S	Ray	Walter S. Darel	15S09E02 240	irr	supl	supl	perm	

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1759		T-1514	Utter	Fred	15S09E09 312	stk	3 Af/Yr	1	pmt	19880524
1402		T-1161-S	Gardner	Ridley & Sidnia	15S09E12 142	irr	supl	supl	decl	unknown
1401		T-1161	Gardner	Ridley & Sidnia	15S09E12 144	irr/dom	4 Af/Ac	53.0	decl	1965
297		T-0233	Burnett	Bernard B.	15S09E12 221	irr	4 Af/Ac	80	decl	19790216
1403		T-1161-S-2	Gardner	Ridley & Sidnia	15S09E12 233	irr	3 Af/Ac	13.0	appl	
1419		T-1177	Gardner	Ridley & Sidnia	15S09E12 233	irr	3 Af/Yr		perm	19850826
868		T-0699	Bremner	George H.	15S09E12 340	irr	5 AF/Ac	50	decl	198003
1944		T-1694	Julien	William & Linda	15S09E12 411	irr	3 AF/Yr		perm	19880711
223		T-0178-S-2	McArthur	Edward Margaret	15S09E12 422	irr	3 AF/Ac	40	decl	196006
224		T-0178-S-3	McArthur	Edward Margaret	15S09E12 422	irr	3.0 AF/Ac	40	decl	197403
225		T-0178-S-4	Lutz	James Edward	15S09E12 422	irr	3.5 AF/Ac	40	decl	19811125
222		T-0178-S	McArthur	Edward Margaret	15S09E12 442	irr	3 AF/Ac	320	decl	195112
298		T-0234	Ringler	James Edward	15S09E13 122	irr	5 Af/Ac	20	decl	19540710
614		T-0491	Smith	Mike Debbie	15S09E13 124	dom	3 Af/Yr		decl	198106
537		T-0430	Rowland	Lee	15S09E13 130	irr	3 Af/Ac	20	C.O.	
1696		T-1445	Tucker	Roy, Jr.	15S09E13 134	dom	3 Af/Yr		appl	19870210
1884		T-1634	Braziel	John W.	15S09E13 134	dom	3 Af/Ac	20	pmt	19880405
604		T-0486	Ward	Perry G. Janeta S.	15S09E13 141	irr	3 Af/Yr		pmt	198011
540		T-0432	Carmack	Louie E.	15S09E13 144	irr	3 Af/Ac	1	decl	1973
1992		T-1942	Baca	Esther	15S09E13 213	irr	7 Af/Ac	1	decl	19890321
2040		T-1790	Hull	Robert & Barbara	15S09E13 213	irr	3 Af/Yr	10	perm	19890403
1769		T-1523	Tucker	Roy, Jr.	15S09E13 224	irr	3 Af/Yr		perm	1950
1978		T-1728	Essary	Sandra C.	15S09E13 224	dom	120 Af/Yr		decl	19880826
1956		T-1706	Rich	William S.	15S09E13 224	irr	3 Af/Yr	40	perm	19880818
2016		T-0805	Petree	Dale or Cheryl	15S09E13 243	irr dom stk	206 Af/Yr		perm	1960
991		T-1766	Guthrie	Harold M.	15S09E13 244	irr dom	60 Af/Yr		decl	
2043		T-1793	Mills	Wanda	15S09E13 314	dom	3 Af/Yr	40	appl	19890323
1964		T-1714	Tucker	Roy Jr.	15S09E13 342	dom	3 Af/Yr	20	perm	19880819
1302		T-1081	Hernandez	Alejandro & Teresa	15S09E13 343	dom	3 Af/Yr		perm	expired
1893		T-1643	Bobowski	Maryanne	15S09E13 411W½	irr	3 Af/Ac		perm	19880407
1214		T-1001	Van Winkles	Farmers Market	15S09E13 421	irr	3 Af/Yr		pmt	1957 pre
1215		T-1001-S	Van Winkles	Farmers Market	15S09E24 200	irr	supl	1	decl	1957 pre
1216		T-1001-S-2	Van Winkles	Farmers Market	15S09E24 200	irr	supl	160	decl	1957 pre
1217		T-1001-S-3	Van Winkles	Farmers Market	15S09E24 200	irr	supl	supl	decl	1957 pre
1218		T-1001-S-4	Van Winkles	Farmers Market	15S09E24 200	irr	supl	supl	decl	1957 pre
1207		T-0997	Morris	Melvin	15S09E26 11E½	irr	3 Af/Ac	supl	perm	
1062		T-0868	Morris	Melvin	15S09E26 110	stk	3 Af/Yr	10	appl	19850308
2098		T-1338	Nabors	C. B.	15S09E26 132	dom	3 Af/Yr		perm	19860609
1438		T-1196	Rankin	David & Norman	15S10E03 3E¼E½	irr	3 Af/Ac	115	appl	
1900		T-1650	O-Daniel	Danny	15S10E03 314	dom	3 Af/Yr		perm	19880419
1781		T-1535	Brown	Richard	15S10E03 324	dom	3 Af/Yr	1	perm	19870727
1860		T-1610	Smith	Clifford	15S10E03 342	dom	3 Af/Yr	1	pmt	19871231

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1918		T-1668	Gross	Steven	15S10E03 342	multi-dom	3 Af/Yr		perm	19880511
1778	X	T-1532	Nichols,Baca,Wentzel		15S10E03 344	multi-dom	3 Af/Yr		perm	19870904
1634		T-1371	McKinney	Calvin & Carol	15S10E04 112	irr	33 Af/Yr	1	decl	19760000
1635	X	T-1371-S	McKinney	Calvin & Carol	15S10E04 112	dom irr	33 Af/Yr	6.5	decl	19770000
1305		T-1084	Carr, Jr.	Ashley H.	15S10E04 114S½	multi-dom	3 Af/Yr	6.5	perm	19850409
980		T-0795	Nitcher	Keith N.	15S10E04 121	dom	3 Af/Yr		perm	19840207
443		T-0362	Darcy	Lenna M.	15S10E04 124	dom	3 Af/Yr		perm	19830106
1745		T-1501	Wheeler	James R.	15S10E04 124	dom	3 Af/Yr		pmt	EXPIRED
1935		T-1685	Grubb	Carl or Nancy	15S10E04 131	dom	3 Af/Yr	1	perm	19880608
204		T-0164	Adamson	Jerry F.	15S10E04 133	dom	3 Af/Yr		decl	19740329
387		T-0305	Hieser	Michael W. Fern L.	15S10E04 141	irr	3 Af/Yr	9	perm	19821116
731		T-0590	Jones	Frank D.	15S10E04 142	dom	3 Af/Yr		perm	19830626
1277		T-1057	Salerno	Richard & Mary	15S10E04 144	dom	3 Af/Yr		perm	19720612
2003		T-1753	Fuller	Mike E.	15S10E04 312	irr	3 Af/Yr		perm	19881114
190		T-0150	Berg	Berthil V. Ruth L.	15S10E04 441	irr	9 Af/Ac	20	decl	1960
616		T-0493	Bean	Billie M.	15S10E05 100	irr	3 Af/Yr	10	perm	1959
963		T-0778	Farmer	James	15S10E05 100	dom	3 Af/Yr		decl	19840201
1735		T-1492	Robinson	Jon & Paula	15S10E05 231	dom	3 Af/Yr		perm	19870429
220		T-0177	Farmer	James E.	15S10E05 232	dom	3 Af/Yr		decl	1969
914		T-0737	Burgess	Raymond L. Jackie	15S10E05 232	irr dom	3 Af/Yr	5	perm	19831201
2048		T-1798	Rhodes	Jearl L.	15S10E05 233	stk dom	3 Af/Yr		perm	19890403
202		T-0162	Lee	Steven O.	15S10E05 322	irr	3 Af/Ac		decl	19730801
1960		T-1710	Brusuelas	Johnny F. and Diana	15S10E05 322	dom,stk,irr	173 Af/Yr	8.5	perm	19880812
1986		T-1736	Perez	Sergio & Marilyn	15S10E05 411	dom	3 Af/Yr		decl	1979
1125		T-0926	Griffin	Clarence	15S10E05 432	dom	3 Af/Yr	20	perm	19850709
826		T-0672	Pate	Harry S.	15S10E05 432	dom	3 Af/Yr		perm	expired
1845		T-1595	Manning	Michael or Sharon	15S10E06 114	irr	3 Af/Yr	1	pmt	19871104
1578		T-1319	Stanfill	James & Matilda	15S10E06 124	dom	3 Af/Yr	20	decl	1965
742		T-0597	Spurlin	Jerry R.	15S10E06 124	dom	3 Af/Yr		perm	19830608
1968		T-1718	Bailey	Debra	15S10E06 221	dom	3 Af/Yr		perm	19880810
2078		T-1828	Calles	Elias	15S10E06 222	dom,irr	3.0 Af/Ac		decl	1971
1592		T-1330	Carter	Clarence J. & Joy E.	15S10E06 223	dom,irr	103 Af/Yr	20	decl	1978
1623		T-1361	Trezise	Frank L & Shirley K	15S10E06 223	dom	3 Af/Yr		perm	19890602
2076		T-1826	Goforth	James H.	15S10E06 233	dom	3 Af/Yr	1	pmt	19870529
1751		T-1507	Robbins	Tom	15S10E06 233	cond	3 Af/Yr		pmt	19871109
1853		T-1603	Robbins	Tom	15S10E06 234	dom	3 Af/Yr		perm	Expd
388		T-0306	Reynolds	Harold C. Judith E.	15S10E06 234	stk	3 Af/Yr		perm	Expd
389		T-0307	Reynolds	Harold C. Judith E.	15S10E06 234	dom	3 Af/Yr		perm	Expd
860		T-0691	Reynolds	Harold C. Judith E.	15S10E06 234	stk	3 Af/Yr		perm	Expd
861		T-0692	Reynolds	Harold C. Judith E.	15S10E06 234	dom	3 Af/Yr		perm	Expd
1197		T-0990	Reynolds	Harold C. Judith E.	15S10E06 234	stk	3 Af/Yr		perm	19850806
1198		T-0991	Reynolds	Harold C. Judith E.	15S10E06 234	stk	3 Af/Yr		perm	

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1905		T-1655	Porter	Dave & Dee	15S10E06 240	dom	3 Af/Yr		perm	19880402
2090		T-1840	Porter	Wanda	15S10E06 240	dom	3 Af/Yr		perm	
51		T-0035	Rhodes	E.E.	15S10E06 312	irr	3 Af/Ac	40	decl	19510611
2038		T-1788	Weatherman	Robert L. or Ruth	15S10E06 411	irr stk	56 Af/Yr	10	decl	1973
1865		T-1615	Kamees	Sam	15S10E06 420	dom	3 Af/Yr	1	pmt	19880105
279		T-0221	Nowell	Richard D.	15S10E06 421	irr dom		7	decl	19791216
280		T-0222	Cinert	George N.	15S10E06 422	dom			decl	19760723
281		T-0223	Cinert	George N.	15S10E06 422	irr			decl	1970
840		T-0686	Werner	Mark S.	15S10E06 423	irr		11	decl	19820306
275		T-0218	Nowell	Alfred S.	15S10E06 424	irr dom	3 Af/Ac	21	decl	197912
276		T-0218-A	Bishop	Danny E. Nelda Ann	15S10E06 424	irr dom		2.25	decl	unknown
217		T-0174	Poindexter	D.W.	15S10E06 433	irr dom	3 Af/Ac	63	decl	19710901
200		T-0161	Lessentine	Richard	15S10E06 434	irr	3.25 Af/Ac	13	decl	19740215
201		T-0161-A	June	Richard W.	15S10E06 434	irr dog	3.25 Af/Ac	13	decl	197003
1220		T-1003	Perry	Elzy Sharon Y.	15S10E06 440	irr dog	3 Af/Ac	5	decl	198111
535		T-0428	Sidwell	Leroy E.	15S10E06 442	irr stk	3 Af/Ac	18	decl	19700306
1162		T-0960	Lewis	Kay Jernigan	15S10E06 444	dom	3 Af/Ac	15	decl	197109
1163		T-0960(D)	Lewis	Kay Jernigan	15S10E06 444	irr	3 Af/Yr		perm	expired
1641		T-1377	Martin	Waburn D.	15S10E07 232	irr	195 Af/Yr	32.5	decl	19750000
1298		T-1078	Edwards	Frank	15S10E07 234	irr	3 Af/Ac	53.0	decl	197303
1653		T-1388	Malone	Manuel & Carmen	15S10E07 242	irr dom	423 Af/Yr	70	decl	19490800
2020		T-1770	Blazer	William K.	15S10E07 311	dom	3 Af/Yr		perm	19890221
221		T-0178	McArthur	Edward Margaret	15S10E07 312	irr dom	3 Af/Ac	20	decl	19510905
2054		T-1804	Trujillo	Margaret G.	15S10E07 320	dom	3 Af/Yr		perm	19890415
517		T-0414	Howell	Darvyn	15S10E07 342	irr dom	3 Af/Yr	80	decl	1950
518		T-0414-S	Howell	Darvyn	15S10E07 342	irr	3 Af/Ac	80	decl	197502
946		T-0765	Mendez	Johnnie R. Ester B.	15S10E07 442	irr stk	3.5 Af/Ac	60	decl	1950
68		T-0049	Owens	Harry C.	15S10E08 140	irr	2 Af/Ac	116	decl	195512
244		T-0197	Hoppers	Robert G. Roxena J.	15S10E08 140	irr dom	303 Af/Yr	2	decl	197712
1659		T-1394	Malone	Benjamin & Aurelia	15S10E08 141	irr dom	3 Af/Yr		Decl	1954
1049		T-0858	Jones	John D.	15S10E08 3(N½)	stk dom	3 Af/Yr		perm	expired
1293		T-1073	Townsend	Ray & Loretta	15S10E08 342	irr/dom	3 Af/Ac		decl	19720911
143		T-0107	Wester	Ada V.	15S10E08 411	irr dom	3 Af/Ac	51	decl	19610320
120		T-0088	Wester	Ada V.	15S10E08 422	irr	3 Af/Yr	51	decl	19610320
1037		T-0846	Valle	Louis S. Beatrice M.	15S10E09 142	irr dom		20	decl	197412
497		T-0397	Smith	Guy L.	15S10E09 220	dom	3 Af/Yr		perm	19830708
1411		T-1169	Badaluco	Gerald A.	15S10E09 220	dom	3 Af/Yr		perm	19850822
1323		T-1096	Dodson	Billy	15S10E09 224	dom	3 Af/Yr		perm	19850429
130		T-0096	Wall	Arvel E.	15S10E09 233	irr	3 Af/Ac	51	decl	196107
1695		T-1444	Manzanares	Gary	15S10E09 240	dom	3 Af/Yr		pmt	19870404
1841		T-1591	Rodgers	Andrew	15S10E09 300	dom	3 Af/Yr	1	pmt	19871021
530		T-0423	Juul	John E. Lila E.	15S10E09 340	dom	3 Af/Yr		perm	Expd

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531		T-0424	Juul	John E. Lila E.	15S10E09 340	irr	10 Af/Yr	19	appl	19840124
962	X	T-0777	Conn	Charles E.	15S10E09 340	dom	3 Af/Yr		perm	19860221
1547		T-1287	Simmons	Gerald & Ron	15S10E09 341	mtl-com,stk	3.0 Af/Yr		pmt	Expd
1223		T-1006	Simmons	Gerald L.	15S10E09 341S½	stk dom	3 Af/Yr		perm	19850607
1345		T-1117	Abelt	August L.	15S10E09 342S½	dom	3 Af/Yr		perm	197208
194		T-0155	Bellows	Gorman L.	15S10E09 400	irr fishpond	1 Af/Ac	25	decl	expired
1304		T-1083	Scarlet	Lawrence	15S10E09 412	dom	3 Af/Yr		perm	19850322
597		T-0480	Wall	Arvel E.	15S10E09 421	irr dom stk	3 Af/Yr		CLOW	19720425
1878		T-1628	Stark	Alan	15S10E09 434	irr, dom	64.8	9.8	decl	1972
1574		T-1315	Cecil	Norman D. & Nelle M.	15S10E10 113	dom	103 Af/Yr	20	perm	19821213
408		T-0327	Taylor	Herbert J.	15S10E10 120	irr	3 Af/Yr		decl	1972
1974		T-1724	Melton	Everett	15S10E10 131	dom	90 Af/Yr	15	decl	1980
1975		T-1725	Melton	Everett	15S10E10 131	irr dom stk	3 Af/Yr	1	Decl	1980
1661		T-1396	Plotner	David E & Patricia J	15S10E10 133	irr dom stk	28 Af/Yr		decl	19720000
1493		T-1247	Suggs	Richard & Lisa	15S10E10 134	irr dom stk	63 Af/Yr	10	perm	Expd
926		T-0749	Quick	Ray	15S10E14 220	test well			decl	1975
1617		T-1355	Jordan	Oliver F.	15S10E16 NNSE¼	irr, dom	61.70 AF/Yr	11.74	decl	1971
703		T-0567	Songer	Dwight A.	15S10E16 120	irr	3.5 Af/Ac	10	pmt	19861211
1680		T-1422	Zaremba	Joseph C	15S10E16 122	dom	3 Af/Yr		perm	Expd
927		T-0750	Selph	Francis M. Natasha E	15S10E16 123	dom	3 Af/Yr		CO	19711004
507		T-0406	Johnson & Burrington	Howard W. & John D.	15S10E16 124	irr	30 Af/Yr	10	decl	197110
506		T-0405	Johnson	Howard W.	15S10E16 133	irr	3 Af/Ac	20	perm	19850510
1326		T-1098	Johnson	Howard W.	15S10E16 133	dom	3 Af/Yr		perm	19881128
1963		T-1713	Jordan	Oliver	15S10E16 134	irr dom	3 Af/Yr		decl	197303
2096		T-1846	Osterholt	Nancy M.	15S10E16 134	dom	63 Af/Yr	20	perm	Expd
1120		T-0921	Brady	Gail Milay	15S10E16 140	dom stk	3 Af/Yr		decl	19790100
1533		T-1274	Irwin	Martin & Leila	15S10E16 143	irr dom stk	? see decl	10	decl	19711110
203		T-0163	Morgan	J.P.	15S10E16 210	irr dom	3 Af/Yr	10	decl	197108
1167		T-0963	Skidmore	Melvin R.	15S10E16 210	irr dom	3 Af/Yr	1	perm	19890707
2087		T-1837	Coate	Robert	15S10E16 211	dom	3 Af/Yr		pmt	19870217
1686		T-1432	Johnson	Robben Dale	15S10E16 213	dom	28 Af/Yr		decl	1974
1605		T-1343	McClendon	M.H.	15S10E16 231	irr, dom	97 Af/Yr	5	decl	1976
1565		T-1306	Roche	Harold E.	15S10E16 233	irr dom mtl	40.07 AF/Yr	5	decl	1970
1616		T-1354	Lane	Robert D or Venita K	15S10E16 244	irr, dom	3 Af/Yr	5.4	perm	19840910
1170		T-0966	Scarpa	Vincent J.	15S10E16 310	dom	3 Af/Yr		perm	19850522
1576		T-1317	Vanderweert	Bernard	15S10E16 311	dom	3 Af/Yr		CLOW	197701
207		T-0167	McCloud	Donald	15S10E16 321	irr	3 Af/Yr	10	decl	1976
1186		T-0980	Selph	Francis M.	15S10E16 321	irr tot	4.6 Af/Ac	10	decl	19851116
1566		T-1307	Roche	Harold E.	15S10E16 322	irr dom mtl	97 Af/Yr	10	perm	1967
1382		T-1147	Descamps	George G.	15S10E16 324	dom			decl	197207
930		T-0753	Krug	George R.3 Cheryl L.	15S10E16 330	irr stk dom	18 Af/Yr	5.0	decl	
1096		T-0901	Black	Duane D. Betty L.	15S10E16 330	irr dom	3.5 Af/Ac	5.0	decl	

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1164		T-0961	Hutchens	Gerald Lois	15S10E16 330	irr dom	3 Af/Ac	2.5	decl	1970 pre
1822		T-1573	Koca	Joseph	15S10E16 334	irr dom stk	31 Af/Ac	5	decl	197103
879		T-0710	Virden	R.E.	15S10E16 341	irr dom	35 Af/Yr	8	decl	1970
880		T-0710-S	Virden	R.E.	15S10E16 341	supl	supl	supl	perm	19841215
798		T-0649	Reynolds	Oswald K.	15S10E16 400	dom	3 Af/Yr		perm	19870804
1805		T-1559	Starr	Thomas	15S10E16 413	dom	3 Af/Yr	1	decl	
569		T-0453-S	Johnson	David L.	15S10E16 420	irr	136 Af/Yr		perm	
1362		T-1130	Reynolds	Kenneth	15S10E16 431	dom/irr			decl	1972
1373		T-1141	Sisneros	Jose & Juanita	15S10E16 432	irr/dom	3 Af/Yr		decl	1969
2014		T-1764	Emmerling	Robert J.	15S10E16 441	dom	3 Af/Yr		perm	19891215
568		T-0453	Johnson	David L.	15S10E16 442	irr	8 Af/Ac	17	decl	19710728
1701		T-1452	Albertin	Dennis E	15S10E17 143	irr/dom	3 Af/Yr		pmt	19870216
1706		T-1458	Braziel	Tom	15S10E17 143	dom/cond	0		pmt	19870220
1288		T-1068	Hampton	Claude & Dorothy	15S10E17 244	irr/dom	5 Af/Ac		decl	unknown
745		T-0600	Bremner	George H.	15S10E17 330	irr	5 Af/Ac	20	decl	197904
509		T-0408	Stough	Lowell	15S10E17 331	irr	3 Af/Yr	7	decl	197707
462		T-0380	Vigil	Ralph D.	15S10E18 100	stk	3 Af/Yr		perm	19820830
586		T-0470	Pickard	Robert	15S10E18 200	irr dom	8 Af/Ac	20	decl	1970
236		T-0190	Thornton	Gene	15S10E18 333	irr stk dom	3 Af/Ac	5	decl	1961
619		T-0496	Atkins	Wyatt	15S10E18 424	irr	3 Af/Yr	20	decl	1976
768		T-0623	Estrada	Gonzalo	15S10E18 442	dom			decl	19820707
1664		T-1402	Haden	Jeff	15S10E18 444	dom	3 Af/Yr		decl	19861010
987		T-0802	Carrillo	Doroteo N.	15S10E19 314	irr	3 Af/Ac	5.0	decl	19790316
988		T-0802-S	Carrillo	Doroteo N.	15S10E19 314	irr	supl	supl	decl	19820327
777		T-0632	Gomez	Trinidad R.	15S10E20 130	dom	supl	supl	perm	Expd
1850		T-1600	Layher	John E.	15S10E20 212	dom	3 Af/Yr	1	pmt	19871106
1248		T-1030	Dove	John M.	15S10E20 22 E½	dom	3 Af/Yr		perm	19841206
1863		T-1613	Myers	W. C.	15S10E20 220	dom	3 Af/Yr	1	pmt	19880322
1633		T-1370	Roth	James & Mary	15S10E20 221	dom	3 Af/Yr		pmt	19860728
1777		T-1531	Burke	Linda Jo	15S10E20 222	irr	3 Af/Yr	1	perm	19870705
971		T-0786	Rivera	Patricia	15S10E20 240	irr	3 Af/Ac		perm	197806
1554		T-1293	Calkins	J.S. or Dorothy	15S10E20 244	irr mult-dom	242 Af/Yr	10.4	decl	19790900-
267		T-0211-S	McGinn	Thomas M. Shirley H.	15S10E20 440	dom	10 Af/Ac	44.6	decl	19801119
1021		T-0832	Skaggs	David Lee Leila Jean	15S10E21 1(S½)	dom	3 Af/Yr		perm	19840407
656		T-0524	Bechtel	Rodney Paula	15S10E21 100	dom	3 Af/Yr		perm	19830215
1379		T-1144-A	Skaggs	David L. & Leila J.	15S10E21 130	irr	3 Af/Ac	4	CLOW	19840407
1377		T-1144	Rivera	Patricia	15S10E21 133	dom	3 Af/Yr	3.5	CO	19851120
1378		T-1144-A	Skaggs	David L. & Leila J.	15S10E21 133	irr		3.5	CO	19851218
1376			Strawbridge	Bennie & Hazel	15S10E21 134	irr/dom	52.5 Af/Yr		decl	197706
1446		T-1204	Kluting	William & Patricia	15S10E21 144	irr dom stk	43 Af/Yr	7.0	decl	19700100
2039		T-1789	Rardin	Tommy	15S10E21 233	dom	3 Af/Yr	10	perm	19890708
266		T-0211	McGinn	Thomas M. Shirley H.	15S10E21 332	irr dom	10 Af/Ac	44.6	decl	19791027

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2084		T-1834	Satathite	Louann	15S10E21 411	dom	3 Af/Yr		perm	19890706
701	X	T-0565	Stevens	Ben	15S10E21 420	dom	3 Af/Yr		perm	19830428
1619		T-1357	Williamson/Miller	R.C.&Tonya/Don & Ern	15S10E21 422	irr	843 Af/Yr		Decl	1944
578		T-0464	Polson	Henry B. Shirley	15S10E21 442	irr dom	63 Af/Yr	20	decl	1969
579		T-0464	Polson	Henry B. Shirley	15S10E21 442	irr	3 Af/Ac	20	perm	19840909
1591		T-1329	Comey	Steve	15S10E21 443	dom	3 Af/Yr		Pmt	19860522
458		T-0376	Mayo	James C.	15S10E21 444	irr com dom	15 Af/Yr	2	decl	197511
1140		T-0941	Crimmins	Dennis Nell	15S10E22 140	dom	3 Af/Yr		perm	19840820
1359		T-1128	Ragen	Ryan	15S10E22 142	irr,dom	60 AF	20	decl	1978
1360		T-1128-S	Ragen	Ryan	15S10E22 142	irr,dom	60 AF	20	pmt	19860207
1607		T-1345	Martin	Don	15S10E22 143	dom	3 Af/Yr		perm	19860731
1608		T-1346	Crimmins	Dennis C.	15S10E22 143	cond			perm	19861021
1587		T-1325	Gallegos	Chris & Burline	15S10E22 243	dom	3 Af/Yr		pmt	19860615
1688		T-1435	Bowen	James A	15S10E22 320	dom	3 Af/Yr		pmt	19870126
1876		T-1626	Carroll	Arch & Rosemary	15S10E22 324	irr	?	20	decl	19740319
1105		T-0909	Baird	Monteine M.	15S10E22 340	stk dom	3 Af/Yr		perm	19840618
1593		T-1331	Sandefur	William D.	15S10E22 413	irr, dom	53 Af/Yr	10	decl	1947
704		T-0568	Satathite	Kenneth	15S10E22 430	irr	3 Af/Yr		perm	19830504
1206		T-0996	Baird	Monteine M.	15S10E22 430	irr	3 Af/Ac	49	appl	
2086		T-1836	Jackson	J. P.	15S10E22 432	dom	3 Af/Yr		perm	19890707
565		T-0451	La Luz	Water Consumer Assoc	15S10E25 000	mun dom	22.7 Af/Yr		decl	unknown
566		T-0451-S	La Luz	Water Consumer Assoc	15S10E25 000	mun dom	22.7 Af/Yr		decl	1960
674		T-0541	U.S.G.S.	U.S. Dept. Interior	15S10E25 243	expl monitor	test		perm	19830307
675		T-0542	U.S.G.S.	U.S. Dept. Interior	15S10E25 243	expl monitor	test		perm	19830311
232		T-0186	Dodson	George C.	15S10E25 313	irr dom	3 Af/Yr	5	decl	19720812
567		T-0452	Gordon	Sidney Paul	15S10E25 322	irr	3 Af/Ac	2.3	decl	19680214
1275		T-1056	La Luz	Lakeside (DLL) Subd.	15S10E25 400	mun	194 Af/Yr		decl	19720500
1276		T-1056-S	La Luz	Lakeside (DLL) Subd.	15S10E25 400	mun	194 Af/Yr		decl	19801100
892		T-0722	Rollins	Robert W.	15S10E25 420	dom	3 Af/Yr		decl	19840112
1831		T-1581	McBride	George	15S10E26 113	dom	3 Af/Yr	1	pmt	19871117
1072		T-0878	Mese	Marjorie	15S10E26 130	dom	3 Af/Yr		perm	expired
129		T-0095	Bortfeld	Charles A. Rose R.	15S10E26 222	irr	4 Af/Ac	2.5	perm	19601029
1098		T-0903	Patneaude	Pierre J. & Cherrie	15S10E26 3(N½)	irr & dom	3 Af/Yr		appl	19840605
394		T-0312	Lewis	Cordelia	15S10E26 300	stk com	3 Af/Yr		perm	
145		T-0109	Herndon	E.T.	15S10E26 310	irr	10.5 Af/Ac	3	decl	196303
142		T-0106	Gentry	David M.	15S10E26 311	dom	3 Af/Yr	1	decl	196304
99		T-0069	Gutierrez	Jaun J. Aurelia	15S10E26 421	com			decl	19561207
960		T-0775	Coble	Beverly	15S10E26 430	irr		1	decl	19780701
456		T-0375	Mayo Muncy	James C. L.E.	15S10E27 120	com ind dom	3 Af/Yr		decl	1973
457	X	T-0375	Mayo Muncy	James C. L.E.	15S10E27 120	com sani dom	100 Af/Yr		perm	19831231
2041		T-1791	Zamora	Arthur	15S10E27 133	com	100 Af/Yr		perm	19890320
1645		T-1381	Leslie	Wayne N.	15S10E27 212	dom	3 Af/Yr		pmt	expired

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2013		T-1763	Leslie	Wayne	15S10E27 212	dom	3 Af/Yr		perm	19890013
2019		T-1769	Oliver	John A.	15S10E27 212	dom	3 Af/Yr		perm	19890109
2071		T-1821	Callovette	Nancy	15S10E27 223	dom	3 Af/Yr		perm	19890612
1545		T-1285	Nunn	Richard	15S10E27 224	dom,stk	3.0 Af/Yr		pmt	19860613
465		T-0383	Chavez	Carlos C.	15S10E27 330	dom	3 Af/Yr		perm	19820908
265		T-0210	Schweers	George R.	15S10E28 111	irr dom	10 Af/Ac	15	decl	19791109
199		T-0160	Widner	Harvey E.	15S10E28 114	irr dom	10 Af/Ac	40	decl	197205
264		T-0209	Schweers	George R.	15S10E28 114	irr dom	10 Af/Ac	5	decl	197205
778		T-0633	Duncan	Charles & Elizabeth	15S10E28 121	irr dom	3.75 Af/Ac	5	decl	197205
1583		T-1321	Schweers	George & Marianne	15S10E28 123	irr, nursery	25 Af/Yr	5.0	decl	prior 1974
1390		T-1151	Chestnut	Milton & Elaine	15S10E28 134	irr/stk/dom	18 Af/Yr		decl	1973
1391		T-1151-S	Chestnut	Milton & Elaine	15S10E28 134	irr/stk/dom	supl	supl	perm	
711		T-0572	McNew	John C. Cloma	15S10E28 144	irr dom			decl	1973
1877		T-1627	Cordoza	Delfina	15S10E28 144	dom	3 Af/Ac	7	decl	1973
1888		T-1638	Brown	Roy E.	15S10E28 212	dom	3 Af/Yr	1	pmt	19880219
1091		T-0896	Brown	Robert D. Gearoldine	15S10E28 220	dom	3 Af/Yr	1	pmt	19880603
573		T-0457	Brown	Harvey E. Darlene	15S10E28 221	irr	3 Af/Ac	4	decl	1974
241		T-0195	Schotter	Henry C.	15S10E28 323	irr dom	3 Af/Yr	9	decl	196907
1571		T-1312	Weathers	Patrick & Linda	15S10E28 323	irr	8 Af/Ac	4.5	decl	19760820
1029		T-0838	Strong	Jack	15S10E28 330	irr	24 Af/Yr	4.77	decl	198203
263		T-0208	Meyer	Edward J.	15S10E28 334	irr	3 Af/Yr	5	decl	19780728
239		T-0193	Throckmorton	Louis Sally	15S10E28 340	irr	3 Af/Ac	5	decl	197103
1094		T-0899	Burks	Brian A.	15S10E28 340	irr dom	4 Af/Ac	5	decl	197403
242		T-0195-S	Schotter	Henry C.	15S10E28 342	mobhomes dom	3 Af/Yr		perm	Expd
1408		T-1166	Wofford	Dave	15S10E28 442	irr	8 Af/Ac	5	decl	19760820
1334		T-1106	Saulsberry	Clara	15S10E29 130	irr & dom	63 Af/Yr	12	decl	19770000
12		T-0011	Cadwallader	J.F.	15S10E29 211	irr/dom	3 Af/Ac	40.0	decl	1920
1272		T-1053	Carrel	L.W. (Boe)	15S10E29 220	irr	3 Af/Ac	80	decl	195204
163		T-0126	Cunningham	Lowell M.	15S10E29 224	dom/stk	3 Af/Yr		perm	19850221
698		T-0563	Carter	Daniel L.	15S10E29 231	irr	3.5 Af/Ac		decl	19560204
1609		T-1347	Price	Irene	15S10E29 243	dom	3 Af/Yr	120	perm	19830503
70		T-0050-S	Owens	Harry C.	15S10E30 200	dom	3 Af/Yr		perm	19860611
1775		T-1529	Odum	William	15S10E30 211	irr			decl	195604
69		T-0050	Owens	Harry C.	15S10E30 242	dom	3 Af/Yr	1	pmt	EXPIRED
168		T-0131	Hinkle	Leon E.	15S10E30 242	irr		72	decl	1951
169		T-0131-S	Hinkle	Leon E.	15S10E30 242	irr		72	decl	unknown
170		T-0131-S-2	Hinkle	Leon E.	15S10E30 242	irr		72	decl	unknown
1681		T-1423	Fambrough	John	15S10E31 413	irr		72	decl	unknown
1897		T-1647	Griffin	Wayne or Jane	15S10E31 422	dom	3 Af/Yr		pmt	19861210
1558		T-1297	Comaille	Leo B.	15S10E31 424	dom	3 Af/Yr	1	pmt	19880411
835		T-0681	Pickard	Frank J.	15S10E32 200	dom	3 Af/Yr		perm	19860326
885		T-0715	Beebe	Donald Wayne	15S10E32 200	dom	3.6 Af/Yr		decl	197311

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2082		T-1832	Barney	Ashbel & Belva	15S10E32 241	dom	3 Af/Yr		perm	19890703
1003		T-0816	Ewett	Ted W. Esther L.	15S10E32 320	stk dom	3 Af/Yr		perm	19840228
1604		T-1342	McClendon	M.H.	15S10E32 323	irr, dom	33 Af/Yr		decl	1976
1650		T-1385	Gillen	Jeffrey	15S10E32 323	dom	3 Af/Yr	5.864	decl	1976
1549		T-1288	Garren	Otis & Mozelle	15S10E32 330	dom irr	40.5 Af/Yr		pmt	19870605
1548		T-1288-S	Garren	Otis & Mozelle	15S10E32 331	dom irr	40.5 Af/Yr	7.5	pmt	19870210
459		T-0377	Muncy	Luke E. Jane L.	15S10E32 344	irr dom	3 Af/Yr	7.5	decl	19730000
1420		T-1178	Clever	Joseph & Margaret	15S10E32 431	irr & dom	66.2 Af/Yr	15	decl	1972
1526		T-1267	Pollat	Max	15S10E32 432	irr,stk,dom	18 Af/Yr	15.8	decl	19720000
1102		T-0907	Holiman	Patricia	15S10E32 440	irr stk dom	4 Af/Ac	3.985	decl	1978
1103		T-0907-S	Holiman	Patricia	15S10E32 440	irr stk dom	supl	20	decl	197205
697		T-0562	Shultz	Michael A.	15S10E33 130	dom		supl	decl	197305
1077		T-0882	Ellerd	Tully	15S10E33 130	stk dom	3 Af/Yr		decl	19830315
1654		T-1389	Guthrie	Harold	15S10E33 132	dom	3 Af/Yr		perm	19840517
436		T-0355	Keelin	Alvie S.	15S10E33 140	stk dom	3 Af/Yr		perm	19860902
106		T-0078	Bowlin's Inc.		15S10E33 210	irr	3 Af/Yr		pmt	19830203
448		T-0367	Montoya	Rosalie A.	15S10E33 222	dom	3 Af/Ac	8	perm	195611
1717		T-1474	Staples	Donald L	15S10E33 231	dom	3 Af/Yr		decl	Expd
2072		T-1822	Scarpa	Vincent J.	15S10E33 231	dom	3 Af/Yr		perm	19870406
1972		T-1722	Neal	James Jr.	15S10E33 232	dom	3 Af/Yr		pmt	19890615
1953		T-1703	Shipley	Mike and Connie	15S10E33 233	dom	3 Af/Yr		perm	19880817
1971		T-1721	Padilla	Andrew	15S10E33 234	dom	3 Af/Yr		perm	19880719
1108		T-0912	Evans	Richard F. Linda M.	15S10E33 330	dom	3 Af/Yr		perm	19880515
174		T-0135	Wade	Robert Quincy	15S10E33 333	irr dom	120 Af/Yr	10	perm	19840712
1327		T-1099	Martinez	Raul	15S10E33 34 S½	dom	3 Af/Yr		perm	19680405
2050		T-1800	Martinez	Andy	15S10E33 340	dom	3 Af/Yr		decl	19850705
1612	X	T-1350	Mendoza	Angel	15S10E33 343	dr & san	3 Af/Yr		perm	19890414
1109		T-0913	Ikard-Newsom		15S10E33 420	dom	3 Af/Yr		perm	19860619
1194		T-0987	Eaton	Rodney	15S10E33 430	dom	3 Af/Yr		perm	19840613
1705		T-1456	Eaton	Mark	15S10E33 441	dom	3 Af/Yr		perm	19841103
1712		T-1466	Geron	Jack	15S10E33 441	dom	3 Af/Yr		perm	19870318
1774	X	T-1528	Rio Bonito Trading		15S10E33 441	M-dom	3 Af/Yr	1	pmt	19870321
1917		T-1667	Haynie	Tom	15S10E33 441	Dom	3 Af/Yr		pmt	19870917
1989		T-1739	Simmons	James	15S10E33 441	dom	3 Af/Yr		perm	19880516
1614		T-1352	Danley	Connie H. Constr	15S10E33 441	dom	3 Af/Yr		perm	19880922
1212		T-0999	Dugan	C.J.	15S10E34 213	Com & Dom	385 Af/Yr		Decl	1956
1213		T-1000	Dugan	C.J.	15S10E34 320	irr	3 Af/Ac	40	decl	1976
110		T-0082	Yaker	H.L. Sophie M.	15S10E34 430	irr	3 Af/Ac	60	decl	1974
1577		T-1318	Marsh	Thomas F & Gladys K	15S10E35 100	dom	3 Af/Yr		decl	
496		T-0396	Sanchez	Lalie L.	15S10E35 131	dom irr	103 Af/Yr	20	decl	19591015
830		T-0676	Sanchez	Lalie L.	15S10E35 241	dom	3 Af/Yr		perm	1979
43		T-0032-S-2	Alamogordo	City of	15S10E36 111	mun	500 GPM		decl	1956

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47		T-0032-S-6	Alamogordo	City of	15S10E36 111	mun dom ind	645 Af/Yr		decl	1965
44		T-0032-S-3	Alamogordo	City of	15S10E36 134	mun	375 GPM		decl	1957
94		T-0063-S	Nichols	Wilson W.	15S11E13 330	irr	30 Af/Yr	12	decl	19590305
93		T-0063	Nichols	Wilson W.	15S11E13 331	irr	30 Af/Yr	12	decl	195601
178		T-0139	Wilson	W.C. I.Lucille	15S11E14 320	irr dom	30 Af/Ac	10	decl	196910
2053		T-1803	Simpson	Dee W.	15S11E14 320	dom	3 Af/Yr		perm	19851007
1423		T-1181	Nowell	Ronald Dean	15S11E14 330	dom	3 Af/Yr		perm	19860903
1655		T-1390	Ham	Donald & Teresa	15S11E14 333	dom	3 Af/Yr		pmt	
455		T-0374	Burns	Robert T.	15S11E14 400	stk dom	3 Af/Yr		perm	Expd
503		T-0403	Vandergriff	Patrick	15S11E15 300	stk dom	3 Af/Yr		CLOW	19820720
504		T-0403	Vandergriff	Patrick	15S11E15 300	dom	3 Af/Yr		perm	19820720
1027		T-0836	Glissmann	Terry	15S11E15 300	dom	3 Af/Yr		perm	19840515
1280		T-1060	Burton	D.L.	15S11E15 324	dom	3 Af/Yr		perm	19850404
1282		T-1062	Palmer	Bob J.	15S11E15 324	dom	3 Af/Yr		perm	19850405
1283		T-1063	Savage	Harry	15S11E15 324	dom	3 Af/Yr		perm	19850405
1541		T-1281	Sword	David G.	15S11E15 324	dom	3 Af/Yr		perm	19860211
258		T-0206	Koffman	Marion C.	15S11E15 331	irr dom	2 Af/Ac	3.5	decl	19780828
192		T-0153	Rethmel	Robert C.	15S11E15 340	irr dom	3 Af/Yr	2	decl	197211
1262		T-1044	Hobson	William C.	15S11E15 423	dom	3 Af/Yr		perm	19850216
1827		T-1577	Holmes	R. B.	15S11E15 441	dom	3 Af/Yr		pmt	19880314
218		T-0175	Sanders	Robert C.	15S11E15 443	irr dom	2 Af/Ac	1	decl	19730129
1104		T-0908	Taylor	Don	15S11E16 220	dom	3 Af/Yr	5	perm	19850320
2036		T-1786	Walker	Raymond	15S11E20 133	dom	3 Af/Yr		perm	19890225
2081		T-1831	Walker	Raymond	15S11E20 140	cond			perm	
2080			Schwander	Thomas	15S11E20 143	dom	3 Af/Yr		perm	
680		T-0547	Holder	Jerry	15S11E21 000	stk dom	3 Af/Yr		perm	19830503
1347		T-1119	Daugherty	Larry D.	15S11E21 140	dom	3 Af/Yr		perm	19851025
1261		T-1043	Cummings	James	15S11E21 141	dom	3 Af/Yr		perm	19850312
2075		T-1825	Stevenson	James M.	15S11E21 143	dom	3 Af/Yr		perm	
1602		T-1340	Meents	J. K.	15S11E21 144	dom	3 Af/Yr		pmt	19860612
1522		T-1264	Frary	Mable M.	15S11E21 222	irr	5 Af/Ac	2	decl	19710000
205		T-0165	Coil	Johnnie G.	15S11E21 243	irr	3 Af/Yr	15	decl	1959
1127		T-0928	Richardson	Robert William	15S11E21 322	dom	3 Af/Yr		perm	19840629
1344		T-1116	Ortega	Ruben	15S11E21 322	dom	3 Af/Yr		perm	19851028
1078		T-0883	Reiser	Albert	15S11E21 324	dom	3 Af/Yr		perm	19840504
688		T-0553	Kolb Oliver	Arnold Flo G.B. Theo	15S11E21 331	dom	3 Af/Yr		perm	19830401
1088		T-0893	Hood	Kathy L.	15S11E21 340	dom	3 Af/Yr		perm	19840627
1883		T-1633	Eaton	Rodney & Kerry	15S11E21 342	dom	3 Af/Yr		perm	19880321
1340		T-1112	Turri	Tim	15S11E21 344	dom	3 Af/Yr	1	pmt	19850528
1106		T-0910	Belknap	Dennis	15S11E21 410	dom	3 Af/Yr		perm	19840706
1169		T-0965	Garreck	Bernard F.	15S11E21 411	dom	3 Af/Yr		perm	19840927
1699		T-1450	Hardwick	Ted S	15S11E21 411	dom	3 Af/Yr		pmt	19870227

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466		T-0384	Deming	William N. Geraldine	15S11E22 110	dom	3 Af/Yr		perm	19820816
1537		T-1278	Haltmar	James A.	15S11E22 110	irr	3 Af/Ac	6	pmt	19860603
1538		T-1278-S	Haltmar	James A.	15S11E22 110	irr dom	6 Af/Ac	6	pmt	19730800
652		T-0520	Zimmerle	Klad W. L.S.	15S11E22 114	dom	3 Af/Yr		decl	19730318
1814		T-1568	Valdez	Alex & Tammy	15S11E22 114	dom	3 Af/Yr		perm	19870807
1709		T-1461	Chavez	Robert O	15S11E22 124	dom	3 Af/Yr		pmt	19870305
1936		T-1686	Duncan	David	15S11E22 130	dom	3 Af/Yr		pmt	19880602
671		T-0538	Bonnell	Bessie B.	15S11E22 131	irr dom	3 Af/Yr	1	perm	19830228
249		T-0200-S	Rolling Hills	Water Users Assoc.	15S11E22 222	Stk dom	15GPM		decl	1973
250		T-0200-S-2	Rolling Hills	Water Users Assoc.	15S11E22 223	stk dom	5GPM	5	decl	1973
1985		T-1735	Hayward	Samuel	15S11E22 311	dom	3 Af/Yr		decl	19851023
1444		T-1202	Baker	Jim D.	15S11E22 33E½	stk dom	3 Af/Yr		perm	1973
248		T-0200	Rolling Hills	Water Users Assoc.	15S11E23 220	irr	12GPM		decl	195901
111		T-0083	Schmill	C. Glenn	15S11E23 34 E½	irr stk dom	60 Af/Yr	20	decl	1960
1204		T-0994	Narveson	Larry A. Susan D.	15S11E23 340	irr	4 Af/Ac	8	decl	19870527
1830		T-1580	Dembrowsky	Constance	15S11E23 344	dom	3 Af/Ac	14	perm	
1744		T-1500	Schneider	David A.	15S11E23 431	irr ind dom	69.7 Af/Yr	12	decl	19800212
259		T-0207	Flinn	Glenn S. Grace	15S11E23 431	irr ind dom	50.2 Af/Yr	12	decl	19800212
260		T-0207-S	Flinn	Glenn S. Grace	15S11E23 431	irr ind dom	16.2 Af/Yr	12	decl	19800212
261		T-0207-S-2	Flinn	Glenn S. Grace	15S11E23 431	irr ind dom	76.2 Af/Yr	1	decl	19800212
262		T-0207-S-3	Flinn	Glenn S.	15S11E28 211	dom	3 Af/Yr	1	clow	
1894		T-1644	Runge	William	15S11E29 100	dom	3 Af/Yr		perm	19880301
1085		T-0890	Agnew	Colvin	15S11E29 120	dom	3 Af/Yr		perm	19840714
958		T-0773	Rowland	Jim	15S11E29 200	stk dom	3 Af/Yr		perm	19840207
690		T-0555	Raub	Pat	15S11E29 200	dom	3 Af/Yr		perm	19830329
691		T-0556	Wade	Weldon O.	15S11E29 200	dom	3 Af/Yr		perm	19830331
1123		T-0924	Myers	John C.	15S11E29 212	dom	3 Af/Yr		pmt	19840718
1596		T-1334	Agnew	Glenn C.	15S11E29 213	dom	3 Af/Yr		perm	19860528
1281		T-1061	Reed	William W. Jr.	15S11E29 214	dom	3 Af/Yr	1	perm	19850318
1959		T-1709	Jones	Durward W.	15S11E29 221	dom	3 Af/Yr		pmt	19880808
1546		T-1286	Lee	Steve	15S11E29 221	dom	3 Af/Yr		pmt	expired
1597		T-1335	Agnew	Stuart H	15S11E29 224	dom	3 Af/Yr		pmt	19860602
1847		T-1597	Daub	Betty	15S11E29 232	dom	3 Af/Yr		perm	19871026
1575		T-1316	Maulsby	Mary	15S11E29 232	dom	3 Af/Yr		pmt	86,05-27
1584		T-1322	Soderlund	Bruce R.	15S11E29 232	dom	3 Af/Yr		perm	19860526
1396		T-1156	Tooke	James W.	15S11E29 233	dom	3 Ac/Yr		perm	19860116
1842		T-1592	Blankenship	Rodney & Elizabeth	15S11E29 233	dom	3 Af/Yr		pmt	19880325
1666		T-1404	Van Patten Anderson	Alvord	15S11E29 234	dom	3 Af/Yr	1	pmt	19870107
2044		T-1794	Myers	John C.	15S11E29 340	dom	3 Af/Yr		perm	19890404
2074		T-1824	Wetherold	Mark L.	15S11E29 340	dom	3 Af/Yr		perm	19890607
175		T-0136	Graham	Ray A.	15S11E30 444	irr dom	3 Af/Yr	6	decl	197005
1557		T-1296	Lessentine	Rick	15S11E31 222	dom	3 Af/Yr		perm	19860412

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859		T-0690	Thomas	Vernon H.	15S11E32 320	dom	3 Af/Yr		perm	19830812
1252		T-1034	Shyne	C. Michael	15S11E32 324	dom	3 Af/Yr		perm	19850131
1266		T-1047	Tyson	Denise Ann	15S11E32 432	dom	3 Af/Yr		perm	expired
1251		T-1033	Swiger & Humig	Sandra L & Stevens M	15S11E32 433	dom	3 Af/Yr		perm	19850327
837		T-0683	Thomson	Jack Eugene	15S11E32 440	dom	3 Af/Yr		perm	19830902
1253		T-1035	Shyne	C. Michael	15S11E32 441	dom	3 Af/Yr		perm	expired
1254		T-1036	Shyne	C. Michael	15S11E32 441	dom	3 Af/Yr		perm	expired
1618		T-1356	Bearden	Dan	15S11E32 441	dom	3 Af/Yr		perm	198203
812		T-0658	Nueva	Donna	15S11E32 441	Irr Dom	21.69 Af/Yr		Decl	198203
445		T-0364	Gallegos	Christopher L.	15S11E35 330	dom	3 Af/Yr		decl	unknown
1234		T-1016	Stanfill	Jimmy H.	15S12E33 122	dom	3 Af/Yr		perm	Expd
1210	X	T-0998-A	Alexander Moulding	Mill Co., New Mexico	16S06E26 000	dom, comm	33 Af/Yr		perm	19841117
1627		T-1365	Smith	George T	16S09E01	dom	33 Af/Yr		CO	19860703
1208		T-0998	Dugan	C.J.	16S09E01 112	dom	3 Af/Yr		pmt	19860710
1209		T-0998-A	Sunbelt Molding		16S09E01 220	com dom	199 Af/Yr	44	decl	1961
1211		T-0998-S	Dugan	C.J.	16S09E01 220	com	33 Af/Yr		C.O.	19850128
966	X	T-0781	Barker	Alfred S.	16S09E01 400	com dom	199 Af/Yr	44	decl	1973
997		T-0811	Kidwell	Harland K. Mary Lou	16S09E01 400	dom	3 Af/Yr		perm	19840121
155	X	T-0119	DOL-TOR Inc.	Tumbleweed Restauran	16S09E01 410	dom	3 Af/Yr		perm	19840323
1268		T-1049	Clements (pump co.)	Wayne K.	16S09E01 410	dom com	15 Af/Yr	1.5	decl	19610716
1606		T-1344	NM Drilling, Inc.		16S09E01 410	com	5 Af/Yr		decl	1974
1991	Q	T-1741	Valati Real Estate	Company	16S09E01 413	drl opt, dom	117 Af/Yr	1.8	decl	1969
1556		T-1295	Fuller	Loyd	16S09E01 423	drnk & san	3 Af/Yr		decl	19881012
1837	X	T-1587	Wood	Hollis & Robbie	16S09E01 424	dom	3 Af/Yr		perm	19860310
1363		T-1131	Freeman	Frederick L.	16S09E01 424	dom	106 Af/Yr	1	perm	19871001
1241		T-1022	Bickle	Joe	16S09E01 433	com	3 Af/Yr		pmt	197305
811		T-0657	Mahaffey	Willis O. Jr.	16S09E01 440	stk dom	3 Af/Yr		decl	expired
1205		T-0995	Sanchez	Elmon	16S09E02 100	stk dom	63 Af/Yr	20	perm	19840521
784		T-0637	Wildman	Ronald E.	16S09E03 144	irr dom			perm	19850220
785		T-0637-S	Wildman	Ronald E.	16S09E03 320	stk dom			appl	1966
650		T-0518	Arnold	John C.	16S09E03 320	stk dom			decl	197704
2025		T-1775	Martin	Harold O.	16S09E03 324	stk dom			decl	19830216
1601		T-1339	Ganow	R. P.	16S09E03 324	dom irr	3 Af/Yr		perm	197309
562		T-0448-S-2	Maupin	Wadell	16S09E03 341	irr, dom	15 Af/Yr	5	decl	1950
560		T-0448	Maupin	Wadell	16S09E03 422	irr	28 Af/Yr	5	decl	197402
561		T-0448-S	Maupin	Wadell	16S09E03 424	irr	8 Af/Ac	80	decl	194903
759		T-0614	Vann	Adrian D.	16S09E03 442	irr	8 Af/Ac	80	decl	1966
184		T-0145	Harvey Investment		16S09E04 230	stk	8 Af/Yr		decl	19830718
1480		T-1235 (D)	Bolsvert	Janet A.	16S09E05 232	dom	3 Af/Yr		perm	1947
1479		T-1235	Bolsvert	Janet A.	16S09E09 224	irr dom	6 Af/Yr		decl	19860414
1409		T-1167	Wofford	Dave	16S09E09 424	dom	28 Af/Yr	5	perm	19470000
442		T-0361	Bennett	John	16S09E12 200	stk dom	3 Af/Yr		perm	19850823

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676	T-0543		Alton	Harold W.	16S09E12 200	dom	3 Af/Yr		perm	19830305
682	T-0549		Calkins	J.S.	16S09E12 200	dom	3 Af/Yr		perm	19830331
1610	T-1348	X	Bishop	Nelda	16S09E12 244	dom	3 Af/Yr			expired
1862	T-1612		Lunt	Howard	16S09E12 422	drk sanl	3 Af/Ac	1	pmt	19880109
1892	T-1642		Dyer	Ted W.	16S09E13 110	dom	3 Af/Yr	1	pmt	19880404
894	T-0724		Mainz	Siegbert R. Carmen M	16S09E13 112	irr	3 AF/Ac	10	decl	1978
1998	T-1748	Q	Alamo West Fire Dept		16S09E13 143	drnk & san	3 Af/Yr		perm	19880128
1743	T-1499		Borunda	Benjamin C.	16S09E13 233	dom	3 Af/Yr		pmt	EXPIRED
977	T-0792	X	Hernandez	J.T.	16S09E13 300	drnk & san	3 Af/Yr	1	perm	19840127
1067	T-0873		Consolidated	Bottling Co.	16S09E13 312	dom	3 Af/Yr		perm	19840428
1172	T-0968		Steinhoff	Riner F.	16S09E13 320	dom	3 Af/Yr		perm	19840908
50	T-0034		Steinhoff	Ernst A.	16S09E13 322	irr dom	5 Af/Ac	45	perm	19500510
1624	T-1362		Dungan MDWCA		16S09E13 334	dom fire pro	34 Af/Yr		decl	1956
446	T-0365		Gomez	Sam	16S09E13 340	dom	3 Af/Yr		Decl	
2077	T-1827		Rios	Arturo or Maria E.	16S09E13 341	dom	3 Af/Yr		perm	19830107
1425	T-1183		Worrel	Bobby L.	16S09E13 410	dom	3 Af/Yr		perm	19851018
1923	T-1673		Worrell	Bobby and Theda	16S09E13 412	irr dom stk	81 Af/Yr	25	perm	19780708
557	T-0445		Coston	Harry	16S09E13 433	irr	3 Af/Yr	5	decl	197808
1477	T-1233		Worrell	Lynn D.	16S09E13 442	dom	3 Af/Yr		decl	19851102
1834	T-1584		Poston	Joe	16S09E13 444	dom	3 Af/Yr	1	perm	EXPIRED
1835	T-1585		Loya	Antonio	16S09E13 444	dom	3 Af/Yr	1	pmt	19880212
2015	T-1765		Cady	Stanton	16S09E14 440	dom	3 Af/Yr		pmt	19890530
185	T-0146		Harvey Investment		16S09E17 424	stk dom	10 Af/Yr		perm	1958
532	T-0425		Anderson Curtis	James E. Monroe A.	16S09E23 123	irr	3 Af/Ac	80	decl	198106
1054	T-0863		Woolley	Richard L.	16S09E23 212	dom	3 Af/Yr		decl	19791006
2018	T-1768		Collins/Petree	Nancy/Cheryl	16S09E23 234	dom stk irr	106 Af/Yr	20	decl	19820422
219	T-0176		Garcia	Robert S.	16S09E23 241	irr	140 Af/Yr	5	decl	196903
235	T-0189		Cano	Ted Jr.	16S09E23 243	irr	3 Af/Yr	5	decl	196903
1762	T-1517		Young	Curtis or Teresa	16S09E23 331	dom	3 Af/Yr	1	decl	19870611
750	T-0605		Sutton	Leslie D.	16S09E23 332	dom	3 Af/Yr		pmt	19830601
681	T-0548		Norman	Edward E.	16S09E23 334	stk dom	3 Af/Yr		perm	Expd
999	T-0813		Norman	Edward E.	16S09E23 334	stk dom	3 Af/Yr		perm	Expd
1515	T-1257		Wilcox	F.N. & Maurine	16S09E24 100	dom	3 Af/Yr		perm	19851107
1061	T-0867		Beane	Floyd F.	16S09E24 110	dom	3 Af/Yr		perm	19840827
1002	T-0815		Corbin	Gerald R.	16S09E24 210	dom	3 Af/Yr		perm	19840402
760	T-0615		Abram	Paul Alfred	16S09E24 212	stk dom	3 Af/Yr		perm	19840629
1381	T-1146		Summers	Edward	16S09E24 220	dom	3 Af/Yr		perm	1967
243	T-0196		Hilton	James P. Ellen L.	16S09E24 232	multi-dom	58 Af/Yr		decl	197407
1881	T-1631		Martinez	Ruben	16S09E24 234	stk dom	3 Af/Yr		pmt	19880318
2063	T-1813		Gallegos	Carlos	16S09E24 240	dom	3 Af/Yr	1	perm	19890509
732	T-0591		Comprary	Ray V.	16S09E24 240	dom	3 Af/Yr		perm	19830606
444	T-0363		Dewolf	Mary E.	16S09E24 242	dom	3 Af/Yr		perm	19830203

Rec ID	File Num	M	Last Name	First Name	Well Location	Use	Water Amt	Acreage	Inst	Drill Date
1710	T-1464		Jones	Royce	16S09E24 242	dom	3 Af/Yr		pmt	19880217
1521	T-1263		Roberts	Russell	16S09E24 243	dom	3 Af/Yr		perm	19860815
715	T-0576		Cox	James Margie	16S09E24 420	dom	3 Af/Yr		perm	19830630
1038	T-0847		George	R.L.	16S09E24 431	irr	3 Af/Ac	10	decl	19760915
786	T-0639		McDonald	Clifton Barbara	16S09E25 120	irr	3 Af/Ac	30.44	decl	1948
787	T-0639-S		McDonald	Clifton Barbara	16S09E25 120	irr	supl	supl	decl	1948
912	T-0735		Zink	L.W. Barbara J.	16S09E25 121	irr	3 Af/Ac	7.4	decl	197404
40	T-0031		Blanchard	William H. Gordon L.	16S09E25 122	irr	2.5 Af/Ac	31	decl	1945
1315	T-1090		Hash	Wilma	16S09E25 122	irr	3 Af/Ac	7.5	decl	1944
1316	T-1090-S		Hash	Wilma	16S09E25 122	irr	supl	supl	decl	1948
1317	T-1090-S-2		Hash	Wilma	16S09E25 122	irr	supl	supl	decl	19800715
255	T-0205		Duvall	Jackie E. Mary S.	16S09E25 130	irr dom	5 Af/Ac	2	decl	1966
256	T-0205-S		Duvall	Jackie E. Mary S.	16S09E25 133	irr dom	5 Af/Ac	2	decl	198206
257	T-0205-S-2		Duvall	Jackie E. Mary S.	16S09E25 133	irr dom	5 Af/Ac	1	decl	198206
1702	T-1453		Duvall	Jackie or Mary J	16S09E25 133	dom	3 Af/Yr		decl	19871017
238	T-0192		Milburn	Walter W. Jr.	16S09E25 134	irr dom	3 Af/Yr		pmt	1967
788	T-0639-S-2		McDonald	Clifton Barbara	16S09E25 210	irr	supl	5	decl	1978
772	T-0627		Morgan Morrell	B. Darrell Rufus	16S09E25 211	dom	3 Af/Yr	supl	decl	Expd
773	T-0628		Morgan Morrell	B. Darrell Rufus	16S09E25 211	irr	45 Af/Yr		perm	198012
274	T-0217		Lucero	Orlando Jr.	16S09E25 220	irr dom	3 Af/Yr	15	appl	196908
251	T-0201		Wagner	Jackson M. Jr.	16S09E25 220	dom		1	decl	19890501
2010	T-1760		Ford	William & Kayoko	16S09E25 310	irr dom	3 Af/Yr	4.9	decl	Expd
790	T-0641		Austin	Fred C.	16S09E25 313	dom	3 Af/Yr		perm	19830729
791	T-0642		Austin	Roy J.	16S09E25 320	dom	3 Af/Yr		perm	194906
73	T-0051-S		Stallberg &	Stallberg	16S09E25 320	irr	supp	supp	perm	19840511
1076	T-0881		Lewis	Paul	16S09E25 332	dom	3 Af/Yr		decl	19870530
1740	T-1496		Brady	Willie S	16S09E26 000	dom	3 Af/Yr		perm	19860525
1748	T-1504		Watt	Wayne W.	16S09E26 111	stk dom	3 Af/Yr	1	pmt	19871117
1854	T-1604		Estrada	Marc	16S09E26 211	dom	3 Af/Yr	1	pmt	19871116
1855	T-1605		Estrada	Robert	16S09E26 211	dom	3 Af/Yr	1	pmt	19871121
1851	T-1601		Chacon	Nick	16S09E26 211	dom	3 Af/Yr	1	pmt	19871121
1747	T-1503		Dudley	John R.	16S09E26 212	dom	3 Af/Yr	1	pmt	19870525
969	T-0784		Stone	Roy Rosa	16S09E26 213	stk dom	3 Af/Yr		pmt	19830312
970	T-0785		Stone	Ray Rosa	16S09E26 214	dom	3 Af/Yr		perm	197702
1291	T-1071		Mobbs	John P.	16S09E26 214	irr	5.0 Af/Ac	10	decl	19850320
1126	T-0927		Mobbs	John P.	16S09E26 228½	dom	3 Af/Yr		perm	19840622
1519	T-1261		Woods	Mary Lorene	16S09E26 220	test well	test		perm	19860107
1478	T-1234		Martin	Johnny & Peggy	16S09E26 223	dom	3 Af/Yr		perm	19851023
651	T-0519		Kilby	Kenneth R.	16S09E26 224	dom	3 Af/Yr		perm	19830209
1012	T-0823		Tave	Julious	16S09E26 232	dom	3 Af/Yr		perm	197804
1294	T-1074		Wolfe	Wendell	16S09E26 241	irr dom	3 Af/Yr	1.5	decl	1975
1514	T-1256		Plumb	Robert T.	16S09E26 241	dom	3 Af/Yr		perm	19851105

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1337		T-1109	Carabajal	Paul	16S09E26 243	dom	3 Af/Yr		perm	19850520
1691		T-1440	Winder	William	16S09E26 243	dom	3 Af/Yr		pmt	19870205
1889		T-1639	Brewer	Billy E.	16S09E26 243	dom	3 Af/Yr		pmt	19880325
1539		T-1279	Moss	Roland	16S09E26 244E½	dom	3 Af/Yr	1	perm	19860315
1448		T-1206	Spaethe	Larry A.	16S09E26 322	dom	3 Af/Yr		perm	19851002
1032		T-0841	Barron	Tommie	16S09E26 324	stk dom	3 Af/Yr		perm	19840526
1020		T-0831	Molinar	Joe F.	16S09E26 400	dom	3 Af/Yr		perm	Expd
491		T-0391	Burrola	Guillermo	16S09E26 410	dom	3 Af/Yr		perm	Expd
277		T-0219	Eldridge	I.E.	16S09E26 411	irr dom	3 Af/Yr		perm	19810615
1643		T-1379	Pershing	Ethel	16S09E26 414	dom	5 Af/Yr	1	decl	19860814
891		T-0721	Hillabush	Duane E.	16S09E26 420	dom	3 Af/Yr		pmt	19831027
1637		T-1373	Salas	Alfonso H.	16S09E26 421	test	test		Expd	19860801
1671		T-1410	Wolfe	Lyle	16S09E26 421	dom	3 Af/Yr		pmt	19861105
1836		T-1586	Aragon	Larry	16S09E26 421	dom	3 Af/Yr		pmt	19880304
925		T-0748	Price	Charles D. Mary M.	16S09E26 423	dom	3 Af/Yr	1	perm	19831218
1864		T-1614	Schuremann & Torian	Juanemia Earl Thomas	16S09E26 423	dom	3 Af/Yr		pmt	19871202
1997		T-1747	Shureman/Torian	Juanemia&Earl/Thomas	16S09E26 423	dom	3 Af/Yr	1	perm	19**!@!1
1749		T-1505	Ashe	David	16S09E26 424	dom	3 Af/Yr	1	pmt	19870619
74		T-0051-S-2	Stallberg &	Stallberg	16S09E26 444	irr	3 Af/Yr	1	perm	1962
1689		T-1436	Swinson	Frank	16S09E262122	irr	supp	supp	pmt	19870310
215		T-0172	Arias	William R.	16S09E27 211	dom	3 Af/Yr		decl	1972
666		T-0533	Arias	William R.	16S09E27 211	irr	7 AF/Ac	10	pmt	197908
964		T-0779	McDougal	Ralph H. Jane	16S09E27 212	irr dom	6 AF/Ac	5	decl	197508
967		T-0782	McDougal	Ralph H. Jane	16S09E27 212	irr dom	3 Af/Yr	2.5	decl	19831025
968		T-0783	McDougal	Ralph H. Jane	16S09E27 212	dom	3 Af/Yr		decl	19831020
206		T-0166	Wolfe	Timothy C.	16S09E27 213	dom	3 Af/Yr		perm	19740325
989		T-0803	Makinson	Lawrence B. Julia	16S09E27 213	irr dom	3 Af/Yr	5	perm	1977
1630		T-1368	Anglin	Gerald E	16S09E27 213	irr stk dom	3 Af/Yr	8	decl	19730600
1631		T-1368-S	Anglin	Gerald E	16S09E27 222	irr dom	3 Af/Yr	10	decl	19780600
903		T-0731	Foster	Marguerite	16S09E27 222	irr	3 Af/Yr	10	decl	197807
961		T-0776	Armijo	Orlando Lourdes	16S09E27 223	irr stk dom	3 AF/Ac	5	decl	19830903
965		T-0780	Armijo	Orlando Lourdes	16S09E27 223	dom	4 GPM	7	Expd	19840716
1005		T-0818	Foster	Richard P Marguerite	16S09E27 223	irr stk dom	3 AF/Ac		decl	Expd
430		T-0349	Foster	Richard P.	16S09E27 224	stk dom	3 Af/Yr	5	perm	1958
186		T-0147	Harvey Investment		16S09E28 443	stk	6 Af/Yr		perm	Expd
231		T-0184	Rees	James E.	16S09E35 121	irr	140 AF/Yr	3.5	decl	1971
227		T-0180	Alexander	Thomas H.	16S09E35 130	dom	3 Af/Yr	3	decl	1968
228		T-0181	Jones	Paul W.	16S09E35 130	dom	3 Af/Yr	3	decl	1966
230		T-0183	Rees	James E.	16S09E35 131	dom	3 Af/Yr	3	decl	1966
1611		T-1349	Jones	Maye A.	16S09E35 131	dom	3 Af/Yr	3	perm	19860716
229		T-0182	Jones	Paul W.	16S09E35 132	irr	3.5 AF/Ac	8	decl	1971
226		T-0179	Alexander	Thomas H.	16S09E35 133	irr	3.5 AF/Ac	3	decl	197510

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71		T-0051	Lee	Don T.	16S09E35 220	irr	3 Af/Ac	80	decl	19480210
397		T-0315	Price	Charles D. Mary M.	16S09E35 220	dom	3 Af/Yr		decl	19830425
1553		T-1292	Stage	Marilyn E.	16S09E35 221	dom	3 Af/Yr		pmt	19860714
72		T-0051	Stallberg & Sidle	Dennis H.	16S09E35 222	irr	6 Af/Ac	260	decl	194802
920	X	T-0743	Fosseen	Tom	16S09E35 400	com stk dom	3 Af/Yr		perm	19831206
490		T-0390	Fosseen	Tom	16S09E35 440	dom	3 Af/Yr		decl	198201
754		T-0609	Schaeffer	Jean B.	16S09E35 440	dom	3 Af/Yr		perm	19830603
757	X	T-0612	Day	Johnny J.	16S09E35 440	dom	3 Af/Yr		perm	19830601
871	X	T-0702	Polson and Grady Ltd	a partnership	16S09E35 440	dom	3 Af/Yr		perm	19830914
939	X	T-0758	Grady	Kenneth R.	16S09E35 440	2 households	3 Af/Yr		perm	19840116
1237	X	T-1018	Schaeffer	Jean B.	16S09E35 440	com dom	3 Af/Yr	5	perm	19850103
718		T-0579	Fosseen	Tom	16S09E35 442	com dom	3 Af/Yr	5	decl	19820108
719		T-0580	Lopez	Lillian	16S09E35 442	dom	3 Af/Yr		decl	19820108
1507		T-1254	Alamogordo	City of	16S10E01 Lt.3	mun ind dom	sup1		perm	19851109
469		T-0387	Alamogordo	City of	16S10E04 140	mun ind dom	22405 Af/Yr		appl	
470		T-0387-S	Alamogordo	City of	16S10E04 230	mun ind dom	sup1		appl	
1313		T-1088	Montoya	Francisco & Dolores	16S10E05 Lt 14	dom	3 Af/Yr		decl	19860121
1638		T-1374	Stone	Floyd	16S10E05 1 1t2	dom	3 Af/Yr		perm	19860830
467		T-0385	Heller	Charles	16S10E05 100	dom	3 Af/Yr		perm	19820819
686		T-0551	Norrell	Eddie	16S10E05 100	dom	3 Af/Yr		perm	19830429
883		T-0713	Brock	Jack	16S10E05 100	dom	3 Af/Yr		perm	19831102
208		T-0168	Carrell	Ray D.	16S10E05 110	irr	3 Af/Ac	2	decl	19740623
98		T-0068	Saulnier	Madeline A. Edward J	16S10E05 121	com			decl	19561008
1407		T-1165	Wofford	Dave	16S10E05 124	irr & dom	28 Af/Yr	5	decl	19650000
471		T-0387-S-02	Alamogordo	City of	16S10E05 140	mun ind dom	sup1		appl	
538		T-0431	Pittman	Mike	16S10E05 144	irr	400GPM	30	decl	19801201
539		T-0431	Round Place Inc.	Mike Pittman	16S10E05 144	irr	400GPM	30	decl	19801201
1725		T-1482	Rowland	Jim	16S10E05 21t18	dom	3 Af/Yr		pmt	19870521
46		T-0032-S-5	Alamogordo	City of	16S10E05 200	mun dom ind	1050 Af/Yr		decl	1964
1115		T-0916(D)	Bogard	Michael D. Melanie J	16S10E05 200	dom	3 Af/Yr		decl	19840611
782		T-0635	Harris	Donald Leroy	16S10E05 210	dom	3 Af/Yr		perm	Expd
1113		T-0915-916-T	Paz	Alfredo Ramon	16S10E05 220	water slide	4.8 Af/Yr		perm	Existing
1114	X	T-0916	Paz	Alfredo Ramon	16S10E05 220	water slide	4.8 Af/Yr		perm	Existing
45		T-0032-S-4	Alamogordo	City of	16S10E05 230	mun	515 GPM		perm	1957
472		T-0387-S-03	Alamogordo	City of	16S10E05 230	mun ind dom	sup1		appl	
932		T-0755	Buckner	John G.	16S10E05 231	dom	3 Af/Yr		appl	19840110
1039		T-0848	Cookson	Charlie Jr.	16S10E05 3(S½)	dom	3 Af/Yr		perm	19840404
435		T-0354	Veenpere	Juri Carmen H.	16S10E05 300	dom	3 Af/Yr		perm	Expd
437		T-0356	Lynch	James T.	16S10E05 300	dom	3 Af/Yr		perm	19830110
734		T-0593	Herrell	Tommie C.	16S10E05 300	dom	3 Af/Yr		perm	19830527
762		T-0617	Leslie	Earl R.	16S10E05 300	dom	3 Af/Yr		perm	19830614
775		T-0630	Carner	Loyd E. Amonda J.E.	16S10E05 300	irr dom	3 Af/Ac	3	decl	19830608

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776		T-0631	Davis	Cora	16S10E05 300	dom	3 Af/Yr		perm	19830711
783		T-0636	Tyler	Drue A.	16S10E05 300	dom	3 Af/Yr		perm	19840220
1063		T-0869	Veenpere	Juri Carmen H.	16S10E05 300	dom	3 Af/Yr		perm	Expd
425		T-0344	Schofield	Harry J.	16S10E05 310	stk dom	3 Af/Yr		perm	Expd
426		T-0345	Bloom	Mary Lou	16S10E05 310	stk dom	3 Af/Yr		perm	Expd
499		T-0399	Bloom	Mary Lou	16S10E05 310	irr	3 Af/Ac		appl	
500		T-0400	Schofield	Harry	16S10E05 310	irr	3 Af/Ac		appl	
2061		T-1811	Allen	Don	16S10E05 312	dom	3 Af/Yr	20	perm	19890424
689		T-0554	Lane	Jesse V.	16S10E05 330	stk dom	3 Af/Yr	.20	perm	19830418
1652		T-1387	Malone	Manuel M & Carmen V	16S10E05 331	irr dom	9.18 Af/Yr		Decl	19800805
1375		T-1143	Josselyn	Larry	16S10E05 332	dom	3 Af/Yr		perm	19851209
431		T-0350	Day	Johnny J.	16S10E05 333	dom	3 Af/Yr		perm	19821206
95		T-0065	Goebel	Nora Wiseman	16S10E05 334	irr	3 Af/Yr		decl	19561029
156		T-0120	Madison	James A. Lois A.	16S10E05 334	irr dom	17 Af/Ac	40	decl	19650604
1046		T-0855	Schludecker	Otto A.	16S10E05 340	dom	3 Af/Yr	4	perm	Expd
1882		T-1632	Harris	James D.	16S10E05 341	dom	3 Af/Yr		perm	19880318
1676		T-1416	Wilson	Trev	16S10E05 342	dom	3 Af/Yr		perm	expired
393		T-0311	Herrell	Charles	16S10E05 344	dom	3 Af/Yr	1	pmt	19820910
1568		T-1309	Harrington	Ted	16S10E05 400	dom	3 Af/Yr		perm	19860428
473		T-0387-S-04	Alamogordo	City of	16S10E05 410	mun ind dom	supl		perm	
48		T-0032-S-7	Alamogordo	City of	16S10E05 420	mun dom ind	3226 Af/Yr		appl	1965
49		T-0032-S-8	Alamogordo	City of	16S10E05 420	mun dom ind	1291 Af/Yr		decl	1971
1694		T-1443	Bonnell	Charles	16S10E05 440	dom	3 Af/Yr		decl	19870130
1156	x	T-0956	Alamogordo Racquet	House & Fitness Ctr.	16S10E06 lot 8	dr and san	3 Af/Yr		pmt	19850712
1157		T-0956-S	Alamogordo Racquet	House & Fitness Ctr.	16S10E06 lot 8	dr and san	3 Af/Yr		perm	19850718
1239		T-1020	Rardin	Ronny	16S10E06 lot12	dom	3 Af/Yr		perm	19841210
1324		T-1097	Alamo Heights	W.U.A.	16S10E06 Lt.10	mun	242 Af/Yr		appl	1968
1325		T-1097-S	Ward	Alton J.	16S10E06 Lt.11	mun	supl		decl	1978
702		T-0566	Alexander	Bud	16S10E06 000	irr dom	3 Af/Yr		decl	
874		T-0705	Melendrez	Joe G.	16S10E06 000	dom	3 Af/Yr		perm	19840704
1081		T-0886	Walker	Carl	16S10E06 000	dom	3 Af/Yr	1.5	perm	no well
1658		T-1393	Rardin	Ronny	16S10E06 100	dom	3 Af/Yr		perm	19840430
510		T-0409	Melendrez	Mariano	16S10E06 110	irr	3 Af/Ac		pmt	19870121
979		T-0794	Northrip	Oran Perry	16S10E06 200	stk dom	3 Af/Yr		appl	Expd
1690		T-1437	Bearden	Dan	16S10E06 213	dom	3 Af/Yr	3	perm	19840321
794		T-0645	Alexander	Bud	16S10E06 240	stk dom	3 Af/Yr		pmt	expired
1139		T-0940	Alexander	Bud	16S10E06 240	stk dom	3 Af/Yr		perm	Expd
2001		T-1751	Stringfield	Susan & Mike	16S10E06 300	dom	3 Af/Yr		perm	expired
1437		T-1195	Norton	Ike	16S10E06 4/lt7	dom	3 Af/Yr		perm	19881101
1932		T-1682	Gonzales	Alberto	16S10E06 400	dom	3 Af/Yr		perm	19850911
1994		T-1744	Melendrez	Bob	16S10E06 400	dom	3 Af/Yr		perm	19880826
705		T-0569	Frazier	William G. Rosalyn Y	16S10E06 420	irr	3 Af/Yr	10	appl	19890710

Rec ID	M	File Num	Last Name	First Name	Well Location	Use	Water Amt	Acreage	Inst	Drill Date
706		T-0570	Frazier	William G. Rosalyn Y	16S10E06 420	stk dom	3 Af/Yr		perm	19831115
744		T-0599	Black	Billy D.	16S10E06 420	dom	3 Af/Yr		perm	19830614
270		T-0214	Alexander	Ruby Ruth	16S10E06 423	irr stk dom	4 Af/Ac		decl	19801215
271		T-0214-S	Alexander	Ruby Ruth	16S10E06 423	irr	5 Af/Ac	10	decl	19810402
931		T-0754	Braziel	Tom	16S10E07 000	dom	3 Af/Yr	10	perm	Expd
1022		T-0833	Rizzo	George P	16S10E08 1(N½)	dom	3 Af/Yr		C.O.	19840314
916		T-0739	Gray	T.W.	16S10E08 111	irr dom	(see file)		CO	198104
1034		T-0843	Pearce	W.G. Jr.	16S10E08 111	dom	3 Af/Yr	0.97	perm	198104
161		T-0124	Wagner	James D. Barbara E.	16S10E08 113	irr dom			decl	19840405
162		T-0125	Wagner	James D. Barbara E.	16S10E08 113	irr		3	decl	19560731
1051		T-0860	Norton	Ike	16S10E08 121	irr stk		7	decl	19560915
716		T-0577	Smith	Robert Janet	16S10E08 220	stk dom	3 Af/Ac	4	pmt	19690403
1069		T-0875	Smith	Robert M. Janet	16S10E08 220	stk dom	3 Af/Yr		perm	expired
1045		T-0854	Harrison	Berni	16S10E08 420	dom	3 Af/Yr		perm	Expd
1284		T-1064	Durrett	Charles	16S10E09 213	dom	3 Af/Yr		perm	Expd
1148		T-0949	Burke	Barry L.	16S10E15 340	dom	3 Af/Yr		perm	expired
1245		T-1025-S	Canyon Hills Area	Water Users Assoc.	16S10E15 343	irr dom	supl		perm	19850122
1290		T-1070	Kalina	Daniel	16S10E15 343	dom	3 Af/Yr		perm	19851220
1244	X	T-1025	Canyon Hills Area	Water Users Assoc.	16S10E15 344	irr dom	44.36 Af/Yr		decl	19850328
1267		T-1048	Hunsaker	John C.	16S10E15 430	dom	3 Af/Yr		decl	19580601
102		T-0072	Jensen	Frank Procter Natali	16S10E17 111	com	53.8 Af/Yr		perm	19850223
159		T-0122	Daugherty	Aubrey L. Stella	16S10E17 113	irr	3 Af/Ac		decl	19560503
1590		T-1328	Higgins	Tommy	16S10E17 431	yd irr	3.0 Af/Yr	5	decl	195606
624		T-0501	N.M. School	Visually Handicapped	16S10E18 231	irr	3 Af/Ac		perm	expired
625		T-0501-S	N.M. School	Visually Handicapped	16S10E18 231	irr dom	3 Af/Ac	32	decl	19361118
626		T-0501-S-2	N.M. School	Visually Handicapped	16S10E18 231	irr dom	3 Af/Yr	32	decl	19810226
502		T-0402	Holcomb	Roy	16S10E18 320	dom	3 Af/Yr	32	decl	19810226
92		T-0062	Wilcoxson	Fred W. Mazie M.	16S10E18 414	dom	6 Af/Yr		perm	19820806
872		T-0703	Julian	Martha	16S10E19 210	dom	3 Af/Yr		decl	19550822
2065		T-1815	Vawn	Lelain or July	16S10E19 224	dom	3 Af/Yr		perm	Expd
492		T-0392	Hernandez	Rudy	16S10E19 410	dom	3 Af/Yr		perm	19820827
1858		T-1608	Medeiros	Frank	16S10E22 120	dom	3 Af/Yr		perm	19880102
403	X	T-0321	Weber	Marvin E.	16S10E28 120	stk dom	3 Af/Yr	1	pmt	19821027
1028		T-0837	Henry	Patrick L. Sr.	16S10E28 210	stk dom	3 Af/Yr		perm	19840405
1351		T-1123	Green	John & Toots	16S10E28 313	dom	3 Af/Yr		perm	19850614
692		T-0557	Lowe	Elwood L.	16S10E28 340	dom	3 Af/Yr		perm	19831111
1247		T-1029	Anderson	W.L.	16S10E29 110	dom	3 Af/Yr		perm	19841204
1070		T-0876	Buttram	Jack Reva	16S10E29 120	dom	3 Af/Yr		perm	19840425
176		T-0137	Welman	Billy G. Alice M.	16S10E29 223	irr dom	3 Af/Yr		perm	
20		T-0017	McMurry	Kathryn M.	16S10E29 332	irr dom	150000GPM	0.72	decl	195701
1333		T-1105	Saulsberry	Clara	16S10E30 332	irr dom		5.5	decl	1933
1111		T-0915	Paz	Alfredo Ramon	16S10E30 428	irr	3 Af/Ac	45.0	decl	pre1976

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1112		T-0915 (D)	Paz	Alfredo	16S10E30 422	dom	3 Af/Yr		perm	Expd
401	X	T-0319	Tays	Patrick D.	16S10E31 442	dom	3 Af/Yr		perm	19860317
1555		T-1294	Int'l Church of the	Foursquare Gospel	16S10E31 442	drnk,sant	3.0 Af/Yr		perm	1974
1736		T-1493	Fox	B. J. and Marguerite	16S10E31 443	Irrl	30 Af/Yr	3	decl	19870303
1700		T-1451	Martens	Clarence	16S10E31 444	dom	3 Af/Yr		pmt	19880129
1872		T-1622	Puddington	Patricia	16S10E31 444	dom	3 Af/Yr	1	pmt	1924
972		T-0787	Duncan	Bill Ramona	16S10E32 122	irr dom	3.5 Af/Ac	24.1	decl	1931
19		T-0016	McMurry	Kathryn M.	16S10E32 123	irr		42	decl	197304
1224		T-1007	Nelson	Concrete Company	16S10E32 130	com irr	101 Af/Yr		decl	1963
1400		T-1160	Roche	Joseph Jr.	16S10E32 222	dom/irr		1.0	decl	
464		T-0382	Bremner	George	16S10E32 240	dom	3 Af/Yr		decl	
1764		T-1519	Burge	Dale	16S10E32 241	dom	3 Af/Yr		perm	19830609
1779		T-1533	Granados/Misquez	Ernesto/Helen	16S10E32 241	dom	3 Af/Yr	1	pmt	19870612
536		T-0429	Grabman	Edward G. Elsie J.	16S10E32 440	irr	3 Af/Ac	1	perm	19871787
1352		T-1124	Grabman	Edward G.	16S10E32 444	dom	3 Af/Yr	3	appl	
1260		T-1042	Davis	William I	16S10E33 110	dom	3 Af/Yr		perm	19850703
1320		T-1093	Wilson	Edgar A.	16S10E33 110	dom	3 Af/Yr		perm	19850111
1613		T-1351	Danley	Connie H	16S10E33 112	Irr, Dom	15 Af/Yr		perm	19850507
876		T-0707	Miller	John S.	16S10E33 122	dom	3 Af/Yr		Decl	19720412
476		T-0387-S-07	Alamogordo	City of	16S10E33 210	mun ind dom	sup1		perm	19840727
474		T-0387-S-05	Alamogordo	City of	16S10E33 220	mun ind dom	sup1		appl	
475		T-0387-S-06	Alamogordo	City of	16S10E33 220	mun ind dom	sup1		appl	
477		T-0387-S-08	Alamogordo	City of	16S10E33 240	mun ind dom	sup1		appl	
478		T-0387-S-09	Alamogordo	City of	16S10E33 240	mun ind dom	sup1		appl	
463	X	T-0381	Sandoval	Joe L.H.	16S10E33 330	dom	3 Af/Yr		perm	19820723
479		T-0387-S-10	Alamogordo	City of	16S10E33 420	mun ind dom	sup1		appl	
480		T-0387-S-11	Alamogordo	City of	16S10E33 420	mun ind dom	sup1		appl	
481		T-0387-S-12	Alamogordo	City of	16S10E34 330	mun ind dom	sup1		appl	
482		T-0387-S-13	Alamogordo	City of	16S10E34 340	mun ind dom	sup1		appl	
483		T-0387-S-14	Alamogordo	City of	16S10E34 340	mun ind dom	sup1		appl	
484		T-0387-S-15	Alamogordo	City of	16S10E34 430	mun ind dom	sup1		appl	
485		T-0387-S-16	Alamogordo	City of	16S10E34 430	mun ind dom	sup1		appl	
486		T-0387-S-17	Alamogordo	City of	16S10E34 440	mun ind dom	sup1		appl	
487		T-0387-S-18	Alamogordo	City of	16S10E34 ▮▮▮	mun ind dom	sup1		appl	
(976)		T-1726	Simpson	T. Delaine	16S11E01 300	dom	3 Af/Yr		perm	19890308
2099		T-1848	Pineywoods Estates	Water Assoc.	16S11E03 300	Sub	51 Af/Yr		decl	19751030
172		T-0133	Bonnell	Gerald D. Carolyn S.	16S11E03 320	dom	25GPM		decl	196611
1232		T-1014	Rupp	Ira Jr.	16S11E03 321	dom	3 Af/Yr		perm	19850120
1649		T-1384	Helm	Bill	16S11E03 410	dom	3 Af/Yr		pmt	Expired
1182		T-0977	Virden	Dan E.	16S11E03 420	dom	3 Af/Yr		CLOW	pre-1957
607		T-0489	Freeman	James E.	16S11E03 420	dom	3 Af/Ac		decl	1940
839		T-0685	Cornett	Laurence D.	16S11E03 420	irr dom	3 Af/Ac	2	decl	195904

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1082		T-0887	Pase	Charles P.	16S11E04 lot 6	dom	3 Af/Yr		perm	Expd
1083		T-0888	Pase	Charles P.	16S11E04 lot16	stk	3 Af/Yr		perm	19850112
1286		T-1066	Elliott	Russell	16S11E04 L11/4	dom	3 Af/Yr		C.O.	19850313
1328		T-1100	Wood	Jim	16S11E04 L21/4	dom	3 Af/Yr		perm	19850516
421		T-0340	Rouault	Jacques A.	16S11E04 100	dom	3 Af/Yr		perm	19821008
1150		T-0951	Le Page	Lester C.	16S11E04 100	dom	3 Af/Yr		perm	19840905
1059		T-0865-S-2	Henry	Warren A. Sr.	16S11E04 130	mbl home dom	supl		decl	198205
2023		T-1773	Jost	Richard	16S11E04 200	dom	3 Af/Yr		perm	19890120
1221		T-1004	Farrar	Walter B. Jr. Marian	16S11E04 240	dom	3 Af/Yr		perm	Expd
729		T-0588	Wiborg	Phillip H. Jr.	16S11E04 324	stk dom	3 Af/Yr		perm	19830726
1823		T-1574	Caswell	Leonard & Carol	16S11E04 400	irr, dom	39 Af/Ac	6	decl	1932
1824		T-1574-S	Caswell	Leonard & Carol	16S11E04 400	irr, dom	21 Af/Ac	6	decl	1955
398		T-0316	Crawford	Vernon	16S11E04 412	dom	3 Af/Yr		perm	19820830
1668		T-1407	Bonnell	Kenneth C	16S11E04 412	dom	3 Af/Yr		perm	19861204
1231		T-1013	Ogle	Albert N. & Virginia	16S11E04 420	dom	3 Af/Yr		pmt	Expd
1095		T-0900	Campau	Susan	16S11E05 lot11	stk dom	3 Af/Yr		perm	19851213
1246		T-1028	Vann	Gary	16S11E05 lot12	dom	3 Af/Yr		perm	19850213
67		T-0048	Woody	Montford H. sr.w	16S11E05 000	dom com	30 Af/Ac		decl	19550716
761		T-0616	Beckvold	Robert	16S11E05 000	dom	3 Af/Yr		perm	19830623
832		T-0678	Bash	Ella Jean	16S11E05 000	dom	3 Af/Yr		perm	Expd
1181		T-0976	Buttram	Terry	16S11E05 000	dom	3 Af/Yr		perm	19841001
420		T-0339	Faigle	Mary E.	16S11E05 100	dom	3 Af/Yr		perm	197310
1101		T-0906	Price	John M.	16S11E05 100	dom			decl	19840605
1810		T-1564	Indian Mtn Lodge		16S11E05 100	cond	3 Af/Yr		perm	19871105
2030		T-1780	Weir	Russell J.	16S11E05 100	dom	0 Af/Yr	1	pmt	19890412
2011		T-1761	Grady	Michael	16S11E05 112	dom	3 Af/Yr		perm	19890102
423		T-0342	Howes	James R.	16S11E05 130	dom	3 Af/Yr		perm	19850702
1057		T-0865	Henry	Warren A. Sr.	16S11E05 130	mbl home dom	15.0 Af/Yr		pmtA	195608
1171		T-0967	Anderson	Boyd R.	16S11E05 130	dom	3 Af/Yr		pera	19840908
13		T-0012	Forehand	Herbert and Ruby	16S11E05 144	irr com dom		5.5	decl	19490801
89		T-0060	Rankin	Norman A.	16S11E05 231	dom			decl	195607
63		T-0045	Lewis	John O.	16S11E05 233	dom com		1 to 3	decl	195506
87		T-0058	Hudman	B. Vernon	16S11E05 242	dom	3 Af/Yr		decl	19560820
2022		T-1772	Comstock	Wallace	16S11E05 244	dom	1.25 Af/Ac	2	perm	19890309
127		T-0093	Fisher	William T.	16S11E05 31t22	irr dom	3 Af/Ac		decl	195711
1727		T-1484	Davis	Charles G	16S11E05 300	dom	1 Af/Yr		pmt	19870515
177		T-0138	Friesen	Richard L. M.Renetta	16S11E05 300	dom	3 Af/Ac	1	decl	196403
1811		T-1565	Indian Mtn Lodge		16S11E05 300	con	3 Af/Yr		pmt	EXPIRED
2069		T-1819	Bohne	Ralph	16S11E05 310	irr dom	3 Af/Yr	5	perm	19890615
505		T-0404	Friesen	M.R. R.E. J.K.	16S11E05 320	dom stk	3 Af/Yr		appl	19850311
751		T-0606	Jenson	Rick	16S11E05 320	test well	test		CLOW	
1004		T-0817	Fosseen	Tom					perm	Expd

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302		T-0236-S-2	Indian Lodge Mt.		16S11E05 321	com dom	9 Af/Yr		decl	198112
1560		T-1299	McGrath	Michael	16S11E05 321	dom	3 Af/Yr		perm	19860509
763		T-0618	Nelson	Norman	16S11E05 322	dom	3 Af/Yr		perm	19830713
764		T-0619	Seek	Sammy W.	16S11E05 322	dom	3 Af/Yr		perm	19830716
300		T-0236	Indian Lodge Mt.		16S11E05 323	com dom	9 Af/Yr		decl	unknown
301		T-0236-S	Indian Lodge Mt.		16S11E05 323	com dom	9 Af/Yr		decl	198112
1314		T-1089	Peters	Harry & Sarah	16S11E05 323	dom	3 Af/Yr		perm	19851220
1335		T-1107	Gilbreath	David	16S11E05 323	dom	3 Af/Yr		perm	expired
1620		T-1358	Weir	Russ	16S11E05 324	dom	3 Af/Yr		pmt	19860723
79		T-0053	Wilson	H.A.	16S11E05 333	dom	3 Af/Yr		decl	195508
1040		T-0849	Tantzen		16S11E05 400	dom	3 Af/Yr		perm	19840330
134		T-0098-S	Walker	Mrs. R.G.	16S11E05 412	irr dom	3 Af/Yr	2	decl	19601015
713		T-0574	Hodgkinson	Cecil J.	16S11E05 412	dom	3 Af/Yr		perm	19830421
1383		T-1148	Harwell	Randell L.	16S11E05 413	dom	3 Af/Yr		perm	19850807
2021		T-1771	Weir	Mark	16S11E05 413	dom	3 Af/Yr		perm	19840214
955		T-0770	Fosseen	Russell J.	16S11E05 420	dom	3 Af/Yr		perm	195608
1058		T-0865-S	Henry	Warren A. Sr.	16S11E05 420	mbl home dom	supl		decl	196005
128		T-0094	Fisher	William T.	16S11E05 422	irr dom	1.25 Af/Ac	4	decl	19840409
1015		T-0826	Fosseen	Tom	16S11E05 430	test well	test		Expd	Expd
1016		T-0827	Fosseen	Tom	16S11E05 430	test well	test		perm	19870429
132		T-0098	Walker	Cecil J.	16S11E05 434	irr dom	3 Af/Yr	2.25	clow	19581008
133		T-0098	Walker	Cecil J.	16S11E05 434	irr dom	3 Af/Yr	2.25	decl	19830110
447		T-0366	Katz	Gary	16S11E06 000	dom	3 Af/Yr		perm	1960
246		T-0198-S	Sharp	Laurence E.	16S11E10 322	dom	0.5 Af/Yr		decl	1918
695		T-0560	Y.M.C.A. of El Paso		16S11E11 200	dom	3 Af/Yr		decl	1915
245		T-0198	Sharp	Laurence E.	16S11E11 441	dom	9.67 Af/Yr	6	decl	19861112
1674		T-1414	Moore	Bobby L	16S11E15 131	dom	3 Af/Yr		pmt	19880725
1940		T-1690	Wood	Jim	16S12E04 300	Expl			perm	19861111
1670		T-1409	Six	William H	[redacted]	dom	3 Af/Yr		pat	193508
282		T-0224	White Sands Ranch		17S08E36 333				decl	195607
80		T-0054	Walcott	Charles	17S09E01 342	irr dom	3 Af/Yr	10	decl	1964
1569		T-1310	DeLong	Jim H. & Gerladine	17S09E01 424	dom, irr	63 Af/Yr	10	decl	pre-1956
1019		T-0830	Robertson	William	17S09E02 3(E½)	dom	3 Af/Yr		C.O.	pre-1978
1161		T-0959	Maki	George Alma	17S09E02 340	dom			decl	19821025
428		T-0347	Robertson	John	17S09E08 440	dom	3 Af/Yr		perm	19841026
1177		T-0972	Green	Leon	17S09E09 222	stk dom	3 Af/Yr		perm	
2091	Q	T-1841	Falin	Larry H.	17S09E10 214	drnk & san	3 Af/Yr		perm	
1852		T-1602	Hall	Greg	17S09E10 242	dom	3 Af/Yr	1	pmt	19880612
1041		T-0850	Bonnell	James	17S09E11 200	dom	3 Af/Yr		perm	19840425
1713		T-1467	Weblemoe	Roy H	17S09E11 221	dom	3 Af/Yr		pmt	19870327
305		T-0238	Winebarger	Charles	17S09E11 244	irr	1 Af/Ac	1	decl	19800318
618		T-0495	Holland	Gary R.	17S09E12 111	irr com dom	3 Af/Yr	2	decl	1973

NO ONE

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654		T-0522	Cumings	Tom	17S09E12 111	irr	3 Af/Ac	2	decl	19830119
1053		T-0862	Weaver	J.F. Betty J.	17S09E12 130	dom	3 Af/Ac		perm	expired
306		T-0239	Weaver	James F.	17S09E12 133	irr	1 Af/Ac	1	decl	19810601
863		T-0694	Prulett	Henry Betty	17S09E12 400	dom	3 Af/Yr		perm	19830830
1870		T-1620	Abbott	Joyce	17S09E12 413	dom	3 Af/Yr	1	pmt	19880225
1527		T-1268	Marquardt	John	17S09E12 441	dom	3 Af/Yr		perm	19860325
1222		T-1005	Nardecchia	Anthony C. Jr.	17S09E13 100	dom	3 Af/Yr		perm	19841115
1948		T-1698	Flanary	Gary or Shirley	17S09E13 111	dom	3 Af/Yr		perm	19880726
1673		T-1413	Coker	Robert E	17S09E13 112	dom	3 Af/Yr		pmt	19861215
1942		T-1692	Simpson	John E., Jr.	17S09E13 113	dom	3 Af/Yr		perm	19880713
1990		T-1740	Lowrimore	Mike	17S09E13 113	dom	3 Af/Yr		perm	19881208
2052		T-1802	Corbett	David E.	17S09E13 113	dom	3 Af/Yr		perm	19790417
1341		T-1113	Misquez	E.N.	17S09E13 121	dom	3 Af/Yr		perm	19850607
605		T-0487	Creel	George H.	17S09E13 122	irr	3 Af/Ac	2.5	decl	1976
1943		T-1693	Goodwin	Gewin & Jeanette	17S09E13 131	dom	3 Af/Yr		perm	19880716
1300		T-1080	Wareing	John & Elizabeth	17S09E13 132	irr/dom	6 Af/Ac	2.5	decl	1978
1301		T-1080-Enlgd	Wareing	John & Elizabeth	17S09E13 132	irr	3 Af/Ac	5.0	appl	
1980		T-1730	Fussell	Thomas	17S09E13 132	dom	3 Af/Yr		perm	19880824
1551		T-1290	Walker	Dale	17S09E13 133	dom	3 Af/Yr		pmt	19860304
1599		T-1337	Gallegos	Mike	17S09E13 134	dom	3 Af/Yr		pmt	19860620
1187		T-0981	Hays	Wilbur L.	17S09E13 14 E½	irr		2.44	decl	197606
1615		T-1353	Forsythe	Lynn	17S09E13 141	dom	3 Af/Yr		perm	19860626
1773		T-1527	Mitchell	Steven J.	17S09E13 141	dom	3 Af/Yr	1	pmt	19870822
598		T-0481	Clendenen	W. Warren	17S09E13 210	stk don	3 Af/Yr	1	decl	19820611
1050		T-0859	Black	Ray	17S09E13 3(N½)	dom	3 Af/Yr		perm	19840502
678		T-0545	Johnson	Roy	17S09E13 300	dom	3 Af/Yr		C.O.	19830304
1006		T-0819	Sokol	Joseph Rosemary	17S09E13 300	stk dom	3 Af/Yr		perm	19841022
917		T-0740	Hays	Robert L.	17S09E13 310	dom	3 Af/Yr		perm	198312
1080		T-0885	Tri-H Construction		17S09E13 310	dom	3 Af/Yr		perm	19840509
1195		T-0988(1)	Goss	James	17S09E13 310	dom	3 Af/Yr		perm	19840917
1225		T-1008	Dimitrov	George V.	17S09E13 310	dom	3 Af/Yr		perm	19841121
1295		T-1075	Kinnecome	Bruce	17S09E13 312	dom	3 Af/Yr		perm	expired
1672		T-1411	Taylor	Debra	17S09E13 312	dom	3 Af/Yr		pmt	19870915
2066		T-1816	Kowalzyk	Tadd	17S09E13 312	dom	3 Af/Yr		perm	19890509
1698		T-1449	Brubaker	John, Jr.	17S09E13 313	dom	3 Af/Yr		pmt	19880811
1299		T-1079	Valdovinos	Micaela	17S09E13 314	dom	3 Af/Yr		perm	19850329
453		T-0372	Pace	Perry Dean	17S09E13 320	dom	3 Af/Yr		perm	19830124
800		T-0651	Hillabush	Duane E.	17S09E13 320	dom	3 Af/Yr		perm	19850509
748		T-0603	Hess	Michael L.	17S09E13 323	dom	3 Af/Yr		perm	19830603
1322		T-1095	Stegall	Emory K. & Ruth T.	17S09E13 323	dom	3 Af/Yr		perm	expired
1669		T-1408	Salas	Ted & Winnie Mea	17S09E13 323	dom	3 Af/Yr		pmt	19861020
1656		T-1391	Krupovage	Dan C.	17S09E13 331	dom	3 Af/Yr		pmt	19860925

Rec ID	M	File Num	Last Name	First Name	Well Location	Use	Water Amt	Acreage	Inst	Drill Date
1843		T-1593	Medina	Tony R.	17S09E13 331	dom	3 Af/Yr	1	pmt	19871019
1561		T-1300	Matherly	Gerald	17S09E13 334	dom	3 Af/Yr		pmt	19860428
422		T-0341	Kane	Leo	17S09E13 340	dom	3 Af/Yr		perm	19830108
1951		T-1701	Taylor	Dennis & Johanna	17S09E13 342	dom	3 Af/Yr		perm	19880726
601		T-0484	Clendenen	W. Warren	17S09E13 400	irr	1080 Af/Yr		perm	19820726
523		T-0416	Sandifer	Gove H.	17S09E13 422	irr dom	3 Af/Yr	30.414	decl	19820618
522		T-0416	Sandifer	Gove H.	17S09E13 442	irr	3 Af/Yr	10	decl	19820630
1536		T-1277	Alamogordo, City of		17S09E16 432	monitor		30	appl	19820618
1230		T-1012	Roadrunner Trap Club	C/O Sid Anderson	17S09E18 210	dr & san	3 Af/Yr		perm	19860429
1873		T-1623	Coburn	Terrence	17S09E18 342	dom	3 Af/Yr		perm	19841101
1589		T-1327	Gardner	Joe	17S09E18 411	sanitary	3.0 Af/Yr	1	pmt	19880410
1772		T-1526	Gopeland	Enterprises, Inc.	17S09E18 421	drnk/sanl	3 Af/Yr		perm	19860519
173		T-0134	Burrows	Darrell R.	17S09E24 111	irr com ind	240 Af/Yr	1	pmt	19880106
741		T-0596	Harvey	William H.Jr. Paula	17S09E24 112	irr dom	3 Af/Yr	10	decl	19680216
1595		T-1333	Weatherly	Leo A.	17S09E24 113	irr, dom	28 Af/Yr	4.85	decl	1970
985		T-0800	Rains	Robert O. Opal A.	17S09E24 121	irr dom	5 Af/Ac	5	decl	196806
1920		T-1670	Pace	Perry	17S09E24 123	irr stk dom	15 Af/Yr	5	decl	197110
214		T-0171-S	Soards	Karl	17S09E24 131	irr	5 Af/Ac	3	decl	1972
468		T-0386	Soards	Karl	17S09E24 131	dom	5 Af/Ac	5	perm	19820831
1594		T-1332	Weatherly	Leo. A.	17S09E24 132	irr	3 Af/Yr		perm	Expd
940		T-0759	Green	Raymond F.	17S09E24 133	irr dom	65 Af/Ac	13	Decl	1972
877		T-0708	Newton	C.E. Dena	17S09E24 134	irr dom	5 Af/Ac	10	decl	1969
213		T-0171	Soards	Karl	17S09E24 141	irr dom	5 Af/Ac	6.8	decl	1972
1677		T-1417	Naugle	Warren	17S09E24 141		9 Af/Ac	5	decl	196807
687		T-0552	Price	Kathy	17S09E24 200	dom	3 Af/Yr		pmt	19861210
1042		T-0851	Price	Kathy	17S09E24 200	dom	3 Af/Yr		perm	Expd
1559		T-1298	Yarbrough	Jimmy	17S09E24 212	dom	3 Af/Yr		perm	
1957		T-1707	Yarbrough	Jimmy or Joy	17S09E24 212	Irr	15 Af/Yr	5	pat	19860319
1763		T-1518	Joyner	Lloyd	17S09E24 213	dom	3 Af/Yr	1	appl	19870722
1350		T-1122	Hardwick	Ted	17S09E24 214	irr	3 Af/Ac	10	pmt	1979
599		T-0482	Clendenen	W. Warren	17S09E24 220	irr	15 Af/Ac	5	decl	19760612
600		T-0483	Clendenen	W. Warren	17S09E24 220	irr	3 Af/Ac	6.38	decl	19820609
1564		T-1304	Grandell	Eric A.	17S09E24 221	irr dom	25.50 Af/Yr	5.5	decl	late 1978
1494		T-1248	Renfro	Harry & Daphne	17S09E24 222	irr	16.5 Af/Yr	5.5	decl	19650000
1495		T-1248-S	Renfro	Harry & Daphne	17S09E24 222	irr dom	19.5 Af/Yr	5.5	decl	19770600
928		T-0751	Matherly	Gene	17S09E24 240	dom	3 Af/Yr		perm	19831221
993		T-0807	Eddy	John	17S09E24 240	dom	3 Af/Yr		perm	19840214
1297		T-1077	Emmer	Donald H.	17S09E24 242	irr			decl	108104
1846		T-1596	Prickett	Gordon M.	17S09E24 244	dom	3 Af/Yr	1	pat	19871022
1075		T-0880	Nixon	James R.	17S09E24 300	dom	3 Af/Yr		C.O.	19840504
1008		T-0821	Thomas	Harold L. Vivian J.	17S09E24 312	irr dom	6 Af/Ac	1.25	decl	19820530
1009		T-0821	Heljeson	Meredith H & Helen A	17S09E24 312	irr dom	9 Af/Yr	8	CO	19860701

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1165		T-0962	Williams	Bradley J.	17S09E24 312	dom	3 Af/Yr		perm	19840901
1166		T-0962-S	Williams	Bradley J.	17S09E24 312	dom	3 Af/Yr		perm	19860701
147		T-0111	Carter	Henry G.	17S09E24 330	irr	5 Af/Ac	18	decl	196211
915		T-0738	French	James W.	17S09E24 330	dom	3 Af/Yr		perm	198312
216		T-0173	Sandoval	Richard Henry Lenora	17S09E24 332	irr dom	6 Af/Ac	5	decl	1968
150		T-0114	Carter	Douglas M.	17S09E24 334	irr	4 Af/Ac	20	decl	196312
171		T-0132-A	Ellis	Pansy Fern MacKrain	17S09E24 334	irr stk	5 Af/Ac	10	decl	unknown
1168		T-0964	Gibson	Calvin L. Betty J.	17S09E25 1(W½)	dom	3 Af/Yr		decl	1975
834		T-0680	Gatton	Harry Catherine	17S09E25 100	dom	3 Af/Yr		perm	19830810
1036		T-0845	Robinson	Glen R.	17S09E25 100	dom	3 Af/Yr		perm	19840505
1395		T-1155	Ashe	Michael Cecilia	17S09E25 113	dom	3 Af/Yr		perm	19850811
1079		T-0884	Spidell	Norman M. Irmgard F.	17S09E25 120	dom	3 Af/Yr		perm	19840529
1086		T-0891	Gonzalez	Alesia	17S09E25 120	dom	3 Af/Yr		perm	19840524
1033		T-0842	Norris	Francis C. Edna	17S09E25 130	dom	3 Af/Yr		perm	19840324
1107		T-0911	Brackeen	Jim	17S09E25 130	dom	3 Af/Yr		perm	19840808
1413		T-1171	Garcia	Andy	17S09E25 131	dom	3 Af/Yr		perm	19950824
2049		T-1799	Gibson	David L. or Lori	17S09E25 132	dom	3 Af/Yr		perm	
1372		T-1140	Munsey & Dunivan		17S09E25 133	mun	93 Af/Yr		decl	prior 71
728		T-0587	Williams	Kenneth C.	17S09E25 310	dom	3 Af/Yr		perm	19830514
623		T-0500	Scroggins	Earl Connie	17S09E26 100	irr dom	3 Af/Yr	0.25	decl	1960
1424		T-1182	Loftis	Leon & Sue	17S09E26 122	dom	3 Af/Yr		perm	19851218
1397		T-1157	Gascoigne	Joe	17S09E26 223	dom	3 Af/Yr		perm	19851107
1716		T-1471	Loftis	Sue Ellen	17S09E26 223	dom	3 Af/Yr		pmt	19870405
1309		T-1085-S-3	Boles	Edwin	17S09E26 224	mun	194 Af/Yr		decl	1981
1442		T-1200	Odell	Jeff	17S09E26 224	dom	3 Af/Yr		decl	19851206
1887		T-1637	Ruecroft	Richard	17S09E26 224	dom	3 Af/Yr		perm	19800323
2095		T-1845	Cooper	Claudie & Virgie	17S09E26 233	dom	3 Af/Yr	1	pmt	
164		T-0127	Leftwich	Regal H.	17S09E26 242	irr	4 Af/Ac	1	perm	1965
627		T-0502	Wade	Billy D.	17S09E26 242	irr	3 Af/Ac	2	decl	1967
1562		T-1302	Abbott	Leon	17S09E26 244	dom	3 Af/Yr		decl	19860425
622		T-0499	Scroggins	Earl Connie	17S09E26 244	irr dom	3 Af/Ac		perm	1960
151		T-0115	Pearson	Genevieve B.	17S09E26 300	irr stk dom	3 Af/Yr	0.25	decl	196108
1308		T-1085-S-2	Boles	Edwin	17S09E26 311	mun	14.7 Af/Yr	5	decl	1965
1399		T-1159	Veater	Lucille G.	17S09E26 321	mun	242 Af/Yr		decl	expired
2097		T-1847	Munoz	Oscar Lopez	17S09E26 321	dom	3 Af/Yr		perm	
399		T-0317	Misquez	Ben	17S09E26 321	irr	3 Af/Yr		perm	1962
1629		T-1367	Liston	Michael J	17S09E26 322	dom	3 Af/Yr		decl	
1742		T-1498	Williams	Robert T., Jr.	17S09E26 322	dom	3 Af/Yr		pmt	expired
2094		T-1844	King	Gordon & Helen	17S09E26 322	dom	3 Af/Yr	1	pmt	19860625
390		T-0308	Arana	Alfred B.	17S09E26 324	dom	3 Af/Yr		perm	
572		T-0456	Arana	Alfred B.	17S09E26 330	stk dom	3 Af/Yr	7	perm	19830505
1258		T-1040	Crain	Johnny	17S09E26 330	irr	3 Af/Yr		appl	19850207

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1534		T-1275	Bochantin	Kenneth C.	17S09E26 330	dom	3 Af/yr		perm	19860320
1443		T-1201	Wimmer	David & Janis	17S09E26 334	dom	3 Af/Yr		perm	19851029
157		T-0121	Baca	Davis Garcia	17S09E26 340	irr	5 Af/Ac	20	decl	196308
158		T-0121-S	Baca	Davis Garcia	17S09E26 340	irr	3 Af/Ac	16	perm	19860912
148		T-0112	Buie	Marvin E.	17S09E26 341	irr dom	4 Af/Ac	60	decl	19630826
1760		T-1515	Hunsucker	Vernon L.	17S09E26 343	dom	3 Af/Yr	1	pmt	19870607
948		T-0767	Skinner	David L. Madalyn J.	17S09E26 344	dom	3 Af/Yr		perm	19840125
146		T-0110	Ellis	Pansey Fern Mackrain	17S09E26 411	irr dom	3 Af/Yr	1	decl	196306
153		T-0117	Davenport	Jack and Ruby	17S09E26 411	irr dom	6 Af/Ac	1	decl	196406
1084		T-0889	Rose	Kenneth W. Meline C.	17S09E26 411	TrailerCourt		0.93	perm	Expd
1950		T-1700	McDaniel	Bill and B.J.	17S09E26 411	dom	3 Af/Yr		perm	19880720
149		T-0113	Beard	Roy W.	17S09E26 413	irr dom	3 Af/Yr	1	decl	19631216
126		T-0092	Butts	William H. Francis A	17S09E26 420	dom			decl	196108
152		T-0116	Misquez	Ruben G.	17S09E26 421	irr dom	5 Af/Ac	0.75	decl	196310
621		T-0498	Scroggins	Earl Connie	17S09E26 421	irr dom	3 Af/Yr	2	decl	1961
1306		T-1085	Boles	Edwin	17S09E26 422	mun	242 Af/Yr		decl	195610
154		T-0118	Martell	Delore	17S09E26 423	dom	0.5 Af/Yr	1	decl	19630615
1307		T-1085-S	Boles	Edwin	17S09E26 424	mun	944 Af/Yr		decl	1959
183		T-0144	Lasiter	Clifford A.	17S09E26 430	irr	3 Af/Ac	1	decl	19720420
1134		T-0935	Turner	Cecil	17S09E26 430	irr	3 Af/Ac	4.5	decl	1976 pre
1310		T-1085-S-4	Boles	Edwin	17S09E26 441	mun	218 Af/Yr		decl	1981
493		T-0393	Misquez	Pomposo	17S09E26 440	dom	3 Af/Yr		perm	19830111
1525		T-1266	Lashley	Joe J. & Averil N.	17S09E26 440	dom	3 Af/Yr		perm	19851227
889		T-0719	Marsh	Homer D.	17S09E26 443	dom	3 Af/Yr		perm	19831108
1849		T-1599	Melton	Barbara	17S09E26 444	dom	3 Af/Yr	1	pmt	19871110
1687		T-1433	Jund	George J	17S09E35 112	dom	3 Af/Yr		pmt	19870120
878		T-0709	Nail	Joseph W. Rose M.	17S09E35 122	irr stk dom	3 Af/Ac	3.67	decl	19790320
1031		T-0840	Barker	Dwight L. Lois	17S09E35 210	dom	3 Af/Yr		perm	19840321
1475		T-1231	Amigos de	Los Ninos	17S09E35 210	drk & san	3 Af/Yr		perm	19851220
1476		T-1232	Whelan	Billy	17S09E35 210	dom	3 Af/Yr		perm	19851227
41		T-0032	Alamogordo	City of	17S09E35 224	mun	1000 GPM		perm	1954
635		T-0507	Walker	W.L. S.M. L.H.	17S09E35 242	irr	3 Af/Ac	20	decl	1954
283		T-0225	White Sands Ranch		17S09E35 333	stk dom	10 Af/Yr		decl	197406
637		T-0508	Walker	W.L. S.M. L.H.	17S09E35 334	stk dom	5-10GPM		decl	1945
42		T-0032-S	Alamogordo	City of	17S09E35 444	mun	700 GPM		decl	1954
636		T-0507-S	Walker	W.L. S.M. L.H.	17S09E35 444	irr	3 Af/Ac	20	decl	1954
1001		T-0814	Alamogordo	City of	17S10E06 122	irr golfcors	3.5 Af/Ac	200	decl	1951
1000		T-0814	Alamogordo	City of	17S10E06 132	irr golfcors	700 Af/Yr	200	decl	1950
2029		T-1779	Wolfe	Timothy C.	17S10E07 131	dom	3 Af/Yr		perm	19890302
1756		T-1511	Hardwick	Ted	17S10E07 132	dom	3 Af/Yr		pmt	19870523
2042		T-1792	Slate	Claud & Carol	17S10E07 132	dom	3 Af/Yr	1	perm	19890508
1071		T-0877	Bednorz	Don Sharon	17S10E07 140	dom	3 Af/Yr		perm	19840529

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1859		T-1609	Boss	Richard	17S10E07 143	dom	3 Af/Yr	1	pmt	19871217
662		T-0530	Sanford	William L.	17S10E07 231	dom	3 Af/Yr		perm	19830207
870		T-0701	Broyles	Glenn Vicki	17S10E07 231	dom	3 Af/Yr		perm	19860421
1962		T-1712	George	Gerald W.	17S10E07 233	dom	3 Af/Yr		perm	
653		T-0521	Rees	John H.	17S10E07 234	irr	4 Af/Ac	5	decl	19790823
906		T-0734	Alamogordo	City of	17S10E17 100	mun ind dom	6MGD		appl	
907		T-0734-S	Glidden	City of	17S10E17 100	mun ind dom	supl		appl	
1869		T-1619		Bill	17S10E17 133	dom	3 Af/Yr	1	pmt	
1999		T-1749	Johnson	Gary W.	17S10E17 134	dom	3 Af/Yr		perm	19881221
1445		T-1203	Hooser	Mike	17S10E17 140	dom	3 Af/Yr		perm	19861029
1826		T-1576	Zambrowski	Norma Jean	17S10E17 143	dom	3 Af/Yr	1	pmt	19871123
909		T-0734-S-3	Alamogordo	City of	17S10E17 310	mun ind dom	supl		appl	
1966		T-1716	Nicholson	Kenneth	17S10E17 312	dom	3 Af/Yr		perm	19880825
1439		T-1197	Daugherty	Louise & Clyde	17S10E17 313	dom	3 Af/Yr		perm	19851028
1919		T-1669	Houghtaling	Cameron	17S10E17 313	dom	3 Af/Yr		perm	19880516
1967		T-1717	Hitchcock	Joseph	17S10E17 314	dom	3 Af/Yr		perm	19880901
908		T-0734-S-2	Alamogordo	City of	17S10E17 320	mun ind dom	supl		appl	
1871		T-1621	Trimble	Joe	17S10E17 324	dom	3 Af/Yr	1	pmt	19880211
911		T-0734-S-5	Alamogordo	City of	17S10E17 330	mun ind dom	supl		appl	
1370		T-1138	Chavez	Donald	17S10E17 331	dom	3 Af/Yr		perm	19850626
1410		T-1168	Krzenski	Jules	17S10E17 331	dom	3 Af/Yr		perm	19850822
1518		T-1260	Dukeshar	William	17S10E17 331	dom	3 Af/Yr		perm	19851210
1342		T-1114	Cruz	Anastacio	17S10E17 333	dom	3 Af/Yr		perm	19850723
1343		T-1115	Phillip	Bentley	17S10E17 333	dom	3 Af/Yr		perm	19850611
1361		T-1129	Braziel	Tom	17S10E17 333	dom	3 Af/Yr		perm	19850719
1491		T-1245	Carpenter	Donald E.	17S10E17 333	dom	3 Af/Yr		perm	19851016
1503		T-1250	Braziel	Tom	17S10E17 333	conditional	3 Af/Yr		perm	19851209
1771		T-1525	Braziel	Tom	17S10E17 333	cond	0 Af/Yr	1	pmt	19870625
1927		T-1677	Weis	J. R., Jr.	17S10E17 333	dom	3 Af/Yr		perm	19880613
1394		T-1154	Araiza J.F.	Garcia Yolanda	17S10E17 334	dom	3 Af/Yr		perm	19851021
910		T-0734-S-4	Alamogordo	City of	17S10E17 340	mun ind dom	supl		appl	
1979		T-1729	Leyva	Arthur and Annette	17S10E17 340	dom	3 Af/Yr		perm	19880906
1867		T-1617	Bice	Mark	17S10E17 341	dom	3 Af/Yr	1	pmt	19880122
2002		T-1752	Histed	John	17S10E17 341	dom	3 Af/Yr		perm	19881121
1567		T-1308	Marshall	Robert and Susan	17S10E17 342	dom	3 Af/Yr		perm	19860508
2059		T-1809	Koch	John M.	17S10E17 342	dom	3 Af/Yr		perm	
1934		T-1684	Swoveland	Phillip D.	17S10E17 343	dom	3 Af/Yr		perm	19880622
1768		T-1522	Fritsch	Glen W.	17S10E17 344	dom	3 Af/Yr	1	pmt	19881020
1924		T-1674	Fritze	Daniel	17S10E17 344	dom	3 Af/Yr		perm	19880620
1926		T-1676	Knowlton	Charles	17S10E17 344	dom	3 Af/Yr		perm	19880627
1938		T-1688	Clarke	Rick A.	17S10E17 344	dom	3 Af/Yr		perm	19880629
1949		T-1699	Bean	Larry	17S10E17 344	dom	3 Af/Yr		perm	19881024

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1269		T-1050	Meraz	Gary	17S10E17 400	dom	3 Af/Yr			19850424
918		T-0741	Haverporth	Bruce Pat	17S10E18 Lot 5	dom	3 Af/Yr		perm	19831126
1099		T-0904	Markley	Kenneth E.	17S10E18 100	dom	3 Af/Yr		perm	19840625
1191		T-0984	McCray	John D. Mary Ann	17S10E18 110	irr stk dom	3 Af/Ac	6.58	perm	197811
1708		T-1460	Dooley	Frank	17S10E18 112	dom	3 Af/Yr		decl	19870410
2028		T-1778	Tekell	Robert E.	17S10E18 114	dom	3 Af/Yr		pmt	19890127
723		T-0584	Beck	Robert L.	17S10E18 120	irr dom	3 Af/Yr		perm	unknown
724		T-0585	Hartman	Charles H.	17S10E18 120	irr dom	3 Af/Yr		decl	197708
1915		T-1665	Hockman	Lennie L.	17S10E18 121	dom			decl	19880529
308		T-0241	Olsen	David E. Anita	17S10E18 124	irr stk dom	3 Af/Yr	5	perm	197802
929		T-0752	Allen	Charles	17S10E18 124	dom	3 Af/Yr	5	decl	197711
1866		T-1616	Tavares	Bob	17S10E18 124	dom	3 Af/Ac		decl	19880118
660		T-0528	Reed	Lewis T. Melda	17S10E18 130	irr	3 Af/Yr	5	perm	19840225
661		T-0529	Reed	Lewis T. Melda D.	17S10E18 130	irr dom	3 Af/Yr	2.5	appl	
726		T-0586-S	Hartman	Charles H.	17S10E18 130	irr dom	3 Af/Ac	1	appl	19810520
727		T-0586EnlgdS	Hartman	Charles H.	17S10E18 130	irr	5 Af/Ac	5	appl	19791210
278		T-0220	Posey	Leaden Norene	17S10E18 132	irr dom	5 Af/Ac	10	decl	197907
299		T-0235	Mott	Darrell R.	17S10E18 132	irr dom	2 Af/Yr	5	decl	19850301
725		T-0586	Hartman	Charles H.	17S10E18 132	irr	0.75 Af/Ac		decl	19810427
1271		T-1052	Blansett	John	17S10E18 132	irr dom	6.0 Af/Ac	5	perm	197902
1331		T-1103	White	Carolyn S.	17S10E18 133	dom	3 Af/Yr	2.5	decl	unknown
1332		T-1104	White	William	17S10E18 133	irr	3 Af/Ac	5	decl	19860605
1259		T-1041	Wride	Charles R.	17S10E18 133	irr	3 Af/Ac		perm	19790525
1563		T-1303	James	Rex	17S10E18 140	irr	3 Af/Ac		decl	Expd
307		T-0240	Rose	Donald D. Helen J.	17S10E18 142E½	dom	3 Af/Yr	5.0	decl	19860321
461		T-0379	Rose	Donald Helen	17S10E18 143	irr dom	3 Af/Yr		pmt	19840523
1321		T-1094	Chapman	G. W.	17S10E18 143	stk dom	3 Af/Yr	5	decl	19841227
1093		T-0898	Posey	Rollah P.	17S10E18 143	dom	3 Af/Yr		perm	198102
1110		T-0914	Stephens	Robert W.	17S10E18 2(S½)	dom	3 Af/Yr		perm	19791220
620		T-0497	Austin	John A. Louise M.	17S10E18 210	dom	3 Af/Yr		perm	19770411
303		T-0237	Stewart	Lee R.	17S10E18 211	irr dom	3 Af/Yr		perm	197805
304		T-0237-S	Stewart	Lee R.	17S10E18 212	irr	1.5 Af/Ac	1	decl	19870515
1196		T-0989	Felten	Donald J.	17S10E18 212	irr dom	1.5 Af/Ac	5	decl	19880415
1697		T-1446	Otero County		17S10E18 214	irr dom	3 Af/Ac	5	decl	19880414
1895		T-1645	Cotton	Karla	17S10E18 223	dnk/sanl	3 Af/Ac		decl	197805
1896		T-1646	Butler	James	17S10E18 224	dom	3 Af/Yr		pmt	19870515
677		T-0544	Cooper	Eldon E.	17S10E18 224	dom	3 Af/Yr	1	pmt	19880415
1055		T-0864	Ramsey	Malcolm M.	17S10E18 240	dom	3 Af/Yr	1	pmt	19880414
1056		T-0864-Enld	Ramsey	Malcolm M.	17S10E18 240	dom	3 Af/Yr		perm	19830315
1404		T-1162	Hooser	Clinton	17S10E18 240	irr	3 Af/Yr		appl	19840521
2045		T-1795	Dandois	Paul	17S10E18 243	irr	3 Af/Ac	5	appl	
1916		T-1666	Lambert	Billy R.	17S10E18 243	dom	3 Af/Yr	5.0	appl	
					17S10E18 311	dom	3 Af/Yr		perm	19890328
						dom	3 Af/Yr		perm	19880624

Rec ID	M	File Num	Last Name	First Name	Well Location	Use	Water Amt	Acreage	Inst	Drill Date
1993		T-1743	Keelin	John & Margaret	17S10E18 313	dom	3 Af/Yr		perm	19881031
1750		T-1506	Walter	David	17S10E18 322	dom	3 Af/Yr		pmt	19870616
974		T-0789	Jones	Richard C. Janet	17S10E18 410	dom	3 Af/Yr	1	perm	19840926
1776		T-1530	Abercrombie	Dan C.	17S10E18 413	irr	4 Af/Ac		perm	19880411
836		T-0682	Swinford	James Keith	17S10E18 420	dom	3 Af/Yr	8	perm	19831001
995		T-0809	Simon	George W.	17S10E18 420	dom	3 Af/Yr		perm	19830602
1505		T-1252	Mowell	James D.	17S10E18 423	dom	3 Af/Yr		perm	19851106
1504		T-1251	Hooser	Clinton D.	17S10E18 443	dom	3 Af/Yr		perm	19851114
1937		T-1687	Buehler	Edward and Carole	17S10E18 444	dom	3 Af/Yr		perm	19880615
1412		T-1170	Mueller	Donald R.	17S10E30 124	dom	3 Af/Yr		perm	19850820
1318		T-1091	Barr	John & Lorraine	17S10E30 142	irr	3 Af/Ac	7.0	decl	1970
1879		T-1629	Brunson	Perry	17S10E30 233	dom	3 Af/Yr	1	pmt	19880325
1289		T-1069	Boyes	Richard & Sharon	17S10E30 241	dom	3 Af/Yr		perm	19850402
1981		T-1731	Babin	Richard G.	17S10E30 244	dom	3 Af/Yr		perm	19880914
1509		T-1255-S	Douglass	Betty Dare	17S10E31 411	mun	supl		decl	1961
1511		T-1255-S-4	Douglass	Betty Dare	17S10E31 412	mun	supl		decl	1962
937		T-0756-S-4	Holloman A.F.B.	U.S.A.F.	17S10E31 422	mun	supl		decl	19660401
1512		T-1255-S-5	Douglass	Betty Dare	17S10E31 432	mun	supl		decl	1962
1513		T-1255-S-5	Douglass	Betty Dare	17S10E31 442	mun	supl		decl	1962
1510		T-1255-S-2	Douglass	Betty Dare	17S10E31 444	mun	supl		decl	1962
934		T-0756-S	Holloman A.F.B.	U.S.A.F.	17S10E32 111	mun	supl		decl	1963
933	X	T-0756	Holloman A.F.B.	U.S.A.F.	17S10E32 113	mun	3629 Af/Yr		CLOW	1962
935		T-0756-S-2	Holloman A.F.B.	U.S.A.F.	17S10E32 124	mun	supl		decl	19680621
936		T-0756-S-3	Holloman A.F.B.	U.S.A.F.	17S10E32 144	mun	supl		decl	19680621
1987		T-1737	Bell Ranch	Joint Venture	17S11E09 132	expl	3 Af/Yr		perm	19880927
758		T-0613	W.S.M.R.		18S04E12 444	expl monitor	test		perm	Expd
284		T-0226	White Sands Ranch		18S08E10 332				decl	1970
285		T-0227	White Sands Ranch		18S08E10 332				decl	1970
286		T-0228	White Sands Ranch		18S08E12 113	stk	5 Af/Yr		decl	1936
287		T-0228-S	White Sands Ranch		18S08E12 113	stk	5 Af/Yr		decl	1937
2055		T-1805	Chavez	Albert & Patsy	18S09E01 000	irr	30 Af/Yr	10	appl	19860701
1622		T-1360	Barnes	Michael	18S09E01 100	dom	3 Af/Yr		perm	19821111
407		T-0326	Foreman	Alan R.	18S09E01 130	dom	3 Af/Yr		perm	19870717
1806		T-1560	Moberly	Gene	18S09E01 132	dom	3 Af/Yr		pmt	19870717
1807		T-1561	Westerbur	Donald E.	18S09E01 141	dom	3 Af/Yr	1	pmt	19820812
489		T-0389	Livingston	Gerald Sharon	18S09E01 300	dom	3 Af/Yr	1	perm	19830118
655		T-0523	Baker	Robert	18S09E01 300	dom	3 Af/Yr		perm	19870317
1711		T-1465	Jorgensen	Hans, Jr.	18S09E01 311	dom	3 Af/Yr		pmt	19800606
1933		T-1683	Bingle	Patrick T.	18S09E01 312	dom	3 Af/Yr		perm	198002
867		T-0698	Hanway	Lawrence	18S09E01 320	irr dom		10	decl	19880606
1667		T-1405	Turner	Paul	18S09E01 322	dom	3 Ac/Yr		pmt	19861017
1804		T-1558	Morales	Manuel & Lucy	18S09E01 333	dom stk irr	106 Af/Ac	20	decl	1958

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905		T-0733	Smith	Boyd W. M.D. (doctor)	18S09E01 400	dom	3 Af/Yr		perm	19831029
1693		T-1442	Gochenour	Elaina	18S09E01 400	dom	3 Af/Yr		pmt	19870115
405		T-0324	Milford	Buddy R.	18S09E01 413	dom	3 Af/Yr		perm	19830206
1885		T-1635	Griffin	Fred C.	18S09E01 433	dom	3 Af/Yr	1	pmt	19880401
975		T-0790	Rains	Opal A.	18S09E02 430	stk dom	3 Af/Yr		perm	19840224
833		T-0679	Chavez	Eulogio M.	18S09E11 200	dom	3 Af/Yr		perm	19830808
984		T-0799	Rains	Opal A.	18S09E11 213	irr stk	5 Af/Ac	43	decl	1964
1506		T-1253	Harper	Jimmy W.	18S09E11 230	dom	3 Af/Yr		perm	19851107
1825		T-1575	Houck	Jeffery	18S09E11 242	dom	3 Af/Yr	1	pmt	19870918
107		T-0079	Overstreet	S. Thomas	18S09E11 322	irr	3 Af/Yr	160	decl	19590412
1190		T-0983	Przekota	Eduard J.	18S09E11 420	dom	3 Af/Yr		perm	19840914
792		T-0643	Blevins	Larry P.	18S09E11 440	irr	3 Af/Yr		pmt	19831024
1270		T-1051	Anderson	George	18S09E11 442	dom	3 Af/Yr		perm	19850225
976		T-0791	Gutierrez	Antonio R.	18S09E12 000	dom	3 Af/Yr		perm	198203
990		T-0804	Walker George	Raymond Wayne	18S09E12 121	dom	3 Af/Yr		perm	19560628
1815		T-1569	Woods	William O.	18S09E12 121	dom	3 Af/Yr		perm	19870908
2088		T-1838	Woods	Fred or Teresa	18S09E12 140	com	1387 Af/Yr		decl	19890705
495		T-0395	Riley	Patrick O. Michelle	18S09E12 144	dom	3 Af/Yr	1	decl	19830613
2062		T-1812	Wilson	William	18S09E12 210	dom	3 Af/Yr		pmt	19890502
440		T-0359	Kimmel	Walter C.	18S09E12 210	dom	3 Af/Yr		perm	Expd
1089		T-0894	Johnson	George M. Blanche	18S09E12 210	stk dom	3 Af/Yr		perm	197905
1090		T-0895	Johnson	George M. Blanche	18S09E12 222	irr dom	3 Af/Yr		perm	19861115
1523		T-1265	Henderson	Kenneth	18S09E12 222	irr dom	3 Af/Ac		decl	197803
1524		T-1265(D)	Henderson	Kenneth	18S09E12 331	irr dom	3 Af/Ac	5	appl	
606		T-0488	Barraza	Cruz L.	18S09E12 332	irr	3 Af/Ac	2	appl	
592		T-0475	Roush	Melvin Joanna	18S09E12 332	dom	3 Af/Ac	20	decl	198004
1406		T-1164	Monrreal	Santos	18S09E12 341	irr dom	3 Af/Yr	3	perm	19860112
1392		T-1152	Lujan	Juanita	18S09E12 344	irr dom	3 Af/Yr	2.5	decl	19850726
1729		T-1486	Williams	Nancy	18S09E12 411	dom	3 Af/Yr		decl	19870425
291		T-0230-S-2	White Sands Ranch		18S09E12 411	dom	3 Af/Yr		perm	197408
292		T-0230-S-3	White Sands Ranch		18S09E12 422	irr	3 Af/Yr		decl	197504
290		T-0230-S	White Sands Ranch		18S09E12 431	irr	3 Af/Yr		decl	197207
294		T-0230-S-5	Oliver	Henry J. Bonnie J.	18S09E12 432	irr	7.3 Af/Ac	80	perm	198003
288		T-0229	Oliver	Henry J. Bonnie J.	18S09E12 433	irr	7.3 Af/Ac	80	pmt	196908
293		T-0230-S-4	Oliver	Henry J. Bonnie J.	18S09E12 441	irr	7.3 Af/Ac	75	decl	197903
289		T-0230	Oliver	Henry J. Bonnie J.	18S09E13 000	stk dom	6 Af/Ac	0.34	decl	1972
954		T-0769	Babcock	Lawrence	18S09E13 133	irr	7.3 Af/Ac	75	decl	19840121
886		T-0716	Ament	Gregory K.	18S09E13 141	irr	7.3 Af/Ac	75	decl	19831007
1273		T-1054	Worthing	Ruel W. & Diana G.	18S09E13 142	dom	3 Af/Yr		decl	19850220
1586		T-1324	Ruiz	Francisco & Marion	18S09E13 142	dom	3 Af/Yr		perm	19860501
1663		T-1398	Papson	Stephen & Patricia	18S09E13 221	dom	3 Af/Yr		perm	19861016
1278		T-1058	Fuller	Jesse	18S09E13 221	irr	3 Af/Ac	40.0	decl	1965

Rec ID	M	File Num	Last Name	First Name	Well Location	Use	Water Amt	Acreage	Inst	Drill Date
1682		T-1424	Wong	Pamela R	18S09E13 241	dom	3 Af/Yr		pmt+	19861216
722		T-0583	Tallman	Estella M. Peter A.	18S09E13 310	dom	3 Af/Yr		perm	19830728
938		T-0757	Williams	Ray	18S09E13 314	irr dom	3 Af/Ac		decl	198105
1765		T-1520	Grisak	John R.	18S09E13 331	irr dom com	540 Af/Yr	3.0	decl	1972
1766		T-1520-S	Grisak	John R.	18S09E13 331	irr dom com	436	10.58	decl	1972
2051		T-1801	Miller	William H.	18S09E13 332	dom	3 Af/Yr	10.58	decl	1972
2057		T-1807	Miller	William H.	18S09E13 332	irr dom	33 Af/Yr		perm	19890417
774		T-0629	Johnson	Earl	18S09E13 333	irr	7 Af/Ac	5	decl	1972
2024		T-1774	Collins & Kizziar	J.I. & Billie,Mickey	18S09E13 333	irr dom stk	18 Af/Yr	10	decl	1975
771		T-0626	Williams	Ray V. Rose A.	18S09E13 340	dom	3 Af/Yr	4	decl	1972
1193		T-0986	Brennan	Cynthia	18S09E13 340	dom	3 Af/Yr		perm	19830609
587		T-0471	Riley	Jessie L.	18S09E13 442	irr dom	4 Af/Ac	4	perm	19841020
2093		T-1843	Stonge	Delmar	18S09E13 443	irr	15 Af/Yr	5	decl	19771117
1384		T-1149	Ward	C.A.W.	18S09E13 444	irr	48 Af/Ac		decl	1975
439		T-0358	Blevins	Larry P.	18S09E14 110	stk dom	3 Af/Yr		perm	1975
108		T-0080	Overstreet	S. Thomas	18S09E14 120	irr	3 Af/Ac		perm	Expd
658		T-0526	Harper	Ivan	18S09E14 220	dom	3 Af/Yr	160	decl	19590510
793		T-0644	Van Dewerker	Donald B.	18S09E14 220	dom	3 Af/Yr		perm	19830224
396		T-0314	Rice	Steven J.	18S09E14 321	dom	3 Af/Yr		perm	19831027
1921		T-1671	Feldbusch	Russel	18S09E14 424	dom	3 Af/Yr		decl	197610
1385		T-1150	Ward	Alton J.	18S09E14 432	irr/mun	43.5 Af/Ac		perm	19880616
1386		T-1150-S	Ward	Alton J.	18S09E14 432	irr/mun	43.5 Af/Yr	51.6	decl	1976
1722		T-1479	Montgomery	Nancy	18S09E23 144	dom	3 Af/Yr		decl	1976
1387		T-1150-S-2	Ward	Alton J.	18S09E23 212	irr/mun	supl	supl	pmt	19870414
1388		T-1150-S-3	Ward	Alton J.	18S09E23 212	irr/mun	supl	supl	decl	1976
1380		T-1145	Peterson	Stan F.	18S09E23 214	irr/dom	18 Af/Yr		decl	19741119
1389		T-1150-S-4	Ward	Alton J.	18S09E23 214	irr/mun	supl	supl	decl	1976
743		T-0598	Sidman Farmer	Vale E. Kathleen C.	18S09E23 221	dom	3 Af/Yr		decl	19840605
747		T-0602	Benham	Jaun	18S09E23 221	dom	3 Af/Yr		CLOW	19830523
1013		T-0824	Patterson	Karl	18S09E23 223	dom	3 Af/Yr		perm	19830407
1945		T-1695	Weis	Gerard M.	18S09E23 223	dom stk	3 Af/Yr		perm	19880701
1393		T-1153	Mantz	Ronald & Nerissa	18S09E23 412	irr/dom/stk	33. Af/Ac	10.0	decl	19800908
1770		T-1524	Holt	James R.	18S09E23 422	irr dom com			decl	1963
1662		T-1397	Hayman	Robert & Debbie	18S09E23 423	dom	3 Af/Yr		pmt	19861010
1296		T-1076	Sorum	Harvey L.	18S09E23 423S½	dom	3 Af/Yr		perm	19850408
1640		T-1376	Konvolingka	Ray	18S09E24 111	dom	3 Af/Yr		pmt	19870710
1929		T-1679	Sweetapple	Debra L.	18S09E24 113	irr dom stk	31 Af/Yr	5	decl	197512
1151		T-0952	Malone	Lamoyne	18S09E24 120	dom	3 Af/Yr		perm	19840917
1925		T-1675	Ebare	Gerald	18S09E24 122	dom	3 Af/Yr		perm	19880517
1899		T-1649	Najar	Pedro	18S09E24 124	dom	3 Af/Yr		perm	19880512
1660		T-1395	Clements	Alex & Iris	18S09E24 134	dom	3 Af/Yr		pmt	expired
1532		T-1273	C.A.W.	Inc.	18S09E24 221	irr	48 Af/Yr	10	decl	19750000

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1421		T-1179	Hewitt	Richard Arthur	18S09E24 222	irr	6 Af/Ac	9	Decl	19740000
1531		T-1272	C.A.W.	Inc.	18S09E24 224	irr	48 Af/Yr	10	decl	19750000
1154		T-0955	Salomon	Terry G.	18S09E24 244	irr stk dom	3 Af/Ac	3	appl	19840810
1155		T-0955-Enlgd	Salomon	Terry G.	18S09E24 244	irr		3	appl	
1346		T-1118	Anderson	Mi Kim	18S09E24 300	dom			perm	19850717
1482		T-1236	Ward	Alton J.	18S09E26 120	irr dom	3 Af/Yr	105.75	appl	
1353		T-1125	Ward	Alton J.	18S09E26 222	mun	5 Af/Ac		decl	1975
1356		T-1125-S-3	Ward	Alton J.	18S09E26 224	mun	97 Af/Yr		decl	1975
1357		T-1125-S-4	Ward	Alton J.	18S09E26 232	mun	supl		decl	1975
1354		T-1125-S	Ward	Alton J.	18S09E26 244	mun	supl		decl	1975
1358		T-1125-S-5	Ward	Alton J.	18S09E26 412	mun	supl		decl	1975
1355		T-1125-S-2	Ward	Alton J.	18S09E26 422	mun	supl		decl	1975
1490		T-1244	Ward	Alton J.	18S09E35 120	irr dom	5 Af/Ac	39.642	appl	
1488		T-1242	Ward	Alton J.	18S09E35 130	irr dom	5 Af/Ac	39.642	appl	
1489		T-1243	Ward	Alton J.	18S09E35 130	irr dom	5 Af/Ac	39.642	appl	
1486		T-1240	Ward	Alton J.	18S09E35 330	irr dom	5 Af/Ac	39.642	appl	
1487		T-1241	Ward	Alton J.	18S09E35 330	irr dom	5 Af/Ac	39.642	appl	
2035		T-1785	Bays	Mrs. Raymond L. Sr.	18S10E06 200	irr dom stk			decl	
1508		T-1255	Douglass	Betty Dare	18S10E06 442	mun	2281 Af/Yr		decl	1968
1017		T-0828	Fosseen	Tom	18S10E07 111	test well	test		Expd	1959
1018		T-0829	Fosseen	Tom	18S10E07 111	test well	test		perm	19840507
295		T-0231	White Sands Ranch		18S10E07 112	stk dom		20	decl	197604
1585		T-1323	Lermayer	Ralph M.	18S10E07 121	dom, stk	3.0 Af/Yr		pmt	19860510
1588		T-1326	Green	Marvin C.	18S10E07 211	irr dom	53 Af/Yr	10	decl	1965
2073	o	T-1823	Waste Management	of Alamogordo	18S10E17 322	drnk & san	3 Af/Yr		perm	19890524
712		T-0573	Reding	Robert I.	18S10E18 100	dom	3 Af/Yr		perm	19830414
1644		T-1380	Walker	Jesse	18S10E18 134	dom	3 Af/Yr		pmt	expired
1969		T-1719	Moore	Pauline N.	18S10E18 142	dom	3 Af/Yr		perm	19880803
1626		T-1364	Booth	Gordon J.	18S10E18 144	dom	3 Af/Yr		pmt	19860717
1692		T-1441	Williams	Ray V	18S10E18 144	dom	3 Af/Yr		pmt	19870113
897		T-0727	Bowers	Alvin L.	18S10E18 210	irr dom	3 Af/Ac	1.0	pmt	197709
898		T-0727-S	Bowers	Alvin L.	18S10E18 210	irr dom	3 Af/Ac	3.0	decl	
899		T-0727-S	Bowers	Alvin L.	18S10E18 210	irr dom	3 Af/Ac	3.0	perm	
982		T-0797	Poitra	Albert C.	18S10E18 210	dom	3 Af/Yr		CLOW	
1517		T-1259	Mantz, Jr.	William	18S10E18 211	dom	3 Af/Yr		perm	19840609
994		T-0808	Atkins	George R. Joanna L.	18S10E18 220	dom	3 Af/Yr		perm	19851207
1133	X	T-0934	Shaffer	Donald E.	18S10E18 224	dom	3 Af/Yr		perm	Expd
1651		T-1386	Baun Corp.	The	18S10E21 312	drk/san	3 Af/Yr		perm	renewed
1857		T-1607	Hewitt	Arthur & Laverne	18S10E24 221	dom irr com	3 Af/Ac	9.56	pmt	19860819
1496		T-1249	Cross & Whyte	John & Karen	18S10E29 314	irr	1422 Af/Yr	280	decl	1976
1497		T-1249-S	Cross & Whyte	John & Karen	18S10E29 323	irr	supl	supl	decl	19770000
1502		T-1249-S-6	Cross & Whyte	John & Karen	18S10E29 344	irr	supl	supl	decl	19790000

Rec ID	M	File Num	Last Name	First Name	Well Location	Use	Water Amt	Acreage	Inst	Drill Date
1498		T-1249-S-2	Cross & Whyte	John & Karen	18S10E29 414	irr	supl	supl	decl	19750000
1499		T-1249-S-3	Cross & Whyte	John & Karen	18S10E29 424	irr	supl	supl	decl	19750000
1501		T-1249-S-5	Cross & Whyte	John & Karen	18S10E29 433	irr	supl	supl	decl	19750000
1500		T-1249-S-4	Cross & Whyte	John & Karen	18S10E29 444	irr	supl	supl	decl	19750000
1119		T-0920	Hill	Virginia	18S10E30 330	irr	supl	supl	decl	19750000
1236		T-1017-S	St. Anthony	Orthodox Church	18S10E30 422	irr dom stk	3 Af/Ac	40	decl	1977
1235		T-1017	St. Anthony	Orthodox Church	18S10E30 423	irr dom stk	supl	supl	C.O.	197310
602		T-0485	Hutchinson	Robert J. Carolyn N.	18S10E30 443	dom	123 Af/Yr	40	C.O.	197910
603		T-0485-S	Hutchinson	Robert J. Carolyn N.	18S10E30 443	irr	150GPM	39	decl	19820506
1483		T-1237	Ward	Alton J.	18S10E31 110	irr dom	5 Af/Ac	37.29	decl	19820420
1484		T-1238	Ward	Alton J.	18S10E31 120	irr dom	5 Af/Ac	39.07	appl	
1426		T-1184	C.A.W.	Ward	18S10E31 130	irr & dom	5 Af/Ac	37.29	appl	
1427		T-1185	C.A.W.	Ward	18S10E31 140	irr & dom	73 Af/Yr	39.07	appl	
1365		T-1133	Ward	Alton J.	18S10E31 212	irr/dom	24 Af/Yr	39.07	appl	1977
1366		T-1134	Ward	Alton J.	18S10E31 222	irr/dom	73 Af/Yr	38.45	decl	1925
1367		T-1135	Ward	Alton J.	18S10E31 222	irr/dom	24 Af/Yr	38.45	decl	1977
1368		T-1136	Ward	Alton J.	18S10E31 222	irr/dom	5 Af/Ac	38.45	decl	1920
1428		T-1186	C.A.W.	Ward	18S10E31 230	irr & dom	5 Af/Ac	39.07	decl	
1422		T-1180	Ward	Alton J.	18S10E31 240	irr & dom	5 Af/Ac	38.45	appl	
1431		T-1189	C.A.W.	Ward	18S10E31 310	irr & dom	5 Af/Ac	37.29	appl	
1430		T-1188	C.A.W.	Ward	18S10E31 320	irr dom	5 Af/Ac	39.07	appl	
1432		T-1190	C.A.W.	Ward	18S10E31 330	irr dom	73 Af/Yr	37.30	appl	
1433		T-1191	C.A.W.	Ward	18S10E31 340	irr dom	5 Af/Ac	39.07	appl	
1369		T-1137	Ward	Alton J.	18S10E31 342	irr dom	5 Af/Ac	39.07	appl	
1429		T-1187	C.A.W.	Ward	18S10E31 410	irr/dom	5 Af/Ac	39.07	decl	1977
1434		T-1192	C.A.W.	Ward	18S10E31 430	irr & dom	5 Af/Ac	39.07	appl	
1435		T-1193	C.A.W.	Ward	18S10E31 440	irr dom	5 Af/Ac	39.07	appl	
541		T-0433	Barker	James H. Jane N.	18S10E32 121	irr dom	3.5 Af/Ac	10	decl	
544		T-0436	Barker	James H. Jane N.	18S10E32 122	irr	35 Af/Yr	10	appl	19820506
542		T-0434	Barker	James H. Jane N.	18S10E32 123	irr	35 Af/Yr	10	appl	
543		T-0435	Barker	James H. Jane N.	18S10E32 124	irr	35 Af/Yr	10	appl	
1485		T-1239	Ward	Alton J.	18S10E32 130	irr	5 Af/Ac	10	appl	
1544		T-1284	Dennis	Walter	18S10E32 222	irr dom	53Af/Yr	38.46	appl	
1414		T-1172	Ward	Alton J.	18S10E32 233	irr	73 Af/Yr	40	decl	19750000
1721		T-1478	Maanum	Pam	18S10E32 310	irr & dom	3 Af/Yr	40	decl	19770000
1364		T-1132	Sullivan	Jesse	18S10E32 311	dom	3 Af/Yr		decl	1981
1719		T-1476	Braziel	Tom	18S10E32 32	dom	0		pmt	19870402
1118		T-0919	Butler	Frank J. Jr. Olga I.	18S10E32 320	Cond	3 Af/Yr		decl	19840615
1703		T-1455-Expl	Braziel	Tom	18S10E32 320	dom	3 Af/Yr		pmt	19870214
1718		T-1475	Braziel	Tom	18S10E32 320	Expl	0		perm	19870401
1052		T-0861	Walker	Raymond E.	18S10E32 330	Cond	test		pmt	19840502
956		T-0771	Roberts	J.C.	18S10E32 340	test well	3 Af/Yr		perm	19840117

Rec ID	M	File Num	Last Name	First Name	Well Location	Use	Water Amt	Acreage	Inst	Drill Date
1726		T-1483	Roberts	Connie	18S10E32 340	irr	3 Af/Yr	40	Appl	19770000
1415		T-1173	Ward	Alton J.	18S10E32 411	irr & dom	73 Af/Yr	40	decl	198103
1030		T-0839	Van Winkle	Larry Teresa	18S10E32 420	irr dom	4 Af/Ac		decl	19770000
1447		T-1205	Moore	Fay F.	18S10E32 422	irr dom	5 Af/Ac	40	decl	19770000
825		T-0671	W.S.M.R.		19S04E24 243	test well	test		decl	
1817		T-1570-S	WSMR		19S05E17 331	military	1191 Af/Ac		perm	196310
1818		T-1570-S-2			19S05E17 331	military	422 Af/Ac		decl	196311
1816		T-1570	WSMR		19S05E17 333	military	1341 Af/Ac		decl	196305
1819		T-1570-S-3	WSMR		19S05E17 413	military	1341 Af/Ac		decl	196702
296		T-0232	White Sands Ranch		19S08E10 112	stk			decl	1935
1678		T-1418	Burton	Robert and Rachel	19S09E01 22	dom	3 Af/Yr		pmt	19861215
451		T-0370	Whites Lone Star	Mobile Homes	19S09E02 400	dom	3 Af/Yr		perm	19830113
1636		T-1372	Reid	J. Carlene	19S09E09 234	dom	3 Af/Yr		pmt	expired
1060		T-0866	Gabrel	Burl	19S10E05 120	dom	3 Af/Yr		perm	19840521
873		T-0704	Kruczek	Tom	19S10E06 220	stk dom	3 Af/Yr		perm	19831011
1044		T-0853	Kruczek	Thomas J.	19S10E06 220	dom	3 Af/Yr		perm	19840409
828		T-0674	W.S.M.R.		20S06E09 243	data collect	test		perm	Expd
1087	X	T-0892	W.S.M.R.	U.S. Army	21S04E14 114	drk & sant	3 Af/Yr		perm	19840522
1982		T-1732	W.S.M.R.		21S04E21 231	stk	3 Af/Yr		perm	?
814		T-0660	W.S.M.R.		21S05E32 331	expl monitor	test		decl	Expd
887		T-0717	W.S.M.R.		21S05E36 211	expl monitor	test		perm	Expd
1741		T-1497-E	W.S.M.R.		21S07E36 433	Expl			perm	19870803
851		T-0688-S-09	W.S.M.R.		22S04E12 214	mun mil dom	supl		pmt	196501
852		T-0688-S-10	W.S.M.R.		22S04E12 414	mun mil dom	supl		decl	196507
850		T-0688-S-08	W.S.M.R.		22S04E12 434	mun mil dom	supl		decl	196405
848		T-0688-S-06	W.S.M.R.		22S04E13 231	mun mil dom	supl		decl	196008
843		T-0688-S	W.S.M.R.		22S04E13 311	mun mil dom	supl		decl	195108
845		T-0688-S-03	W.S.M.R.		22S04E13 411	mun mil dom	supl		decl	195312
846		T-0688-S-04	W.S.M.R.		22S04E13 424	mun mil dom	supl		decl	19831118
847		T-0688-S-05	W.S.M.R.		22S04E13 432	mun mil dom	supl		CLOW	195409
978	X	T-0793	W.S.M.R.	U.S. Army	22S04E15 332	mun mil dom	3 Af/Yr		decl	19840223
924		T-0747	W.S.M.R.		22S04E15 333	data monitor			perm	Expd
365		T-0284	San Augustine Ranch		22S04E16 110	stk	3 Af/Yr		perm	1940
923		T-0746	W.S.M.R.		22S04E16 243	data monitor			decl	Expd
364		T-0283	San Augustine Ranch		22S04E16 330	stk	3 Af/Yr		perm	1948
511		T-0410	B.L.M.		22S04E16 410		0.1 Af/Yr		decl	19820912
512		T-0411	B.L.M.		22S04E16 410	public drink	5 Af/Yr		perm	Expd
853		T-0688-S-11	W.S.M.R.		22S04E19 323	mun mil dom	supl		perm	197607
360		T-0279	San Augustine Ranch		22S04E20 130	stk	3 Af/Yr		decl	1930
366		T-0285	San Augustine Ranch		22S04E21 140	stk	3 Af/Yr		decl	1950
363		T-0282	San Augustine Ranch		22S04E22 200	stk	3 Af/Yr		decl	1938
367		T-0286	San Augustine Ranch		22S04E22 200.	dom	3 Af/Yr		decl	1942

Rec ID	M	File Num	Last Name	First Name	Well Location	Use	Water Amt	Acreage	Inst	Drill Date
368		T-0287	San Augustine Ranch		22S04E22 200	dom	3 Af/Yr		decl	1960
361		T-0280	San Augustine Ranch		22S04E22 240	stk	3 Af/Yr		decl	1920
362		T-0281	San Augustine Ranch		22S04E22 240	stk	3 Af/Yr		decl	1918
844	X	T-0688-S-02	W.S.M.R.		22S04E23 214	mun mil dom	supl		decl	195201
842		T-0688	W.S.M.R.		22S04E24 112	mun mil dom	38130 Af/Yr		decl	195005
669		T-0536	W.S.M.R.		22S04E24 144	exploration	test		perm	1983118
849		T-0688-S-07	W.S.M.R.		22S04E24 212	mun mil dom	supl		decl	196307
558		T-0446	W.S.M.R.		22S04E24 244	expl monitor	test		perm	Expd
593		T-0476	W.S.M.R.		22S04E25 333	expl monitor	test		perm	
595		T-0478	W.S.M.R.		22S04E25 333	expl monitor	test		perm	
359		T-0278	San Augustine Ranch		22S04E29 110	stk	3 Af/Yr		decl	1938
854		T-0688-S-12	W.S.M.R.		22S05E19 323	mun mil dom	supl		decl	197608
921		T-0744	W.S.M.R.		22S05E19 433	data monitor	test		perm	Expd
888		T-0718	W.S.M.R.		22S05E22 112	expl monitor	test		perm	Expd
1179		T-0974	W.S.M.R.	U.S. Army	22S05E28 142	test obs.	test		perm	Expd
992		T-0806	W.S.M.R.		22S05E28 233	test mon	test		perm	Expd
1180		T-0975	W.S.M.R.	U.S. Army	22S05E28 322	test obs.	test		perm	Expd
549		T-0441	W.S.M.R.		22S05E30 122	expl monitor	test		perm	Expd
922		T-0745	W.S.M.R.		22S05E30 123	data monitor	test		perm	Expd
827		T-0673	W.S.M.R.		22S06E16 213	monitor	test		perm	Expd
829		T-0675	W.S.M.R.		22S06E16 213	monitor data	test		perm	Expd
1723		T-1480	Braziel	Tom	22S08E23 133	Cond	0		pmt	EXPIRED
1930		T-1680	Perry	Larry	22S09E23 142	dom	3 Af/Yr		perm	19880818
548		T-0440	W.S.M.R.		23S05E05 144	expl monitor	test		perm	Expd
1143		T-0944	Army Deptartment of	Fort Bliss Texas	23S05E08 210	military dom	1075 Af/Yr		appl	
1983		T-1733	W.S.M.R.		23S05E08 412	Expl	test		perm	19881212
546		T-0438	W.S.M.R.		23S05E08 423	expl monitor	test		perm	Expd
1144		T-0945	Army Deptartment of	Fort Bliss Texas	23S05E09 210	military dom	1075 Af/Yr		appl	
1145		T-0946	Army Department of	Fort Bliss Texas	23S05E09 440	military dom	1075 Af/Yr		appl	
547		T-0439	W.S.M.R.		23S05E15 332	expl monitor	test		perm	Expd
1146		T-0947	Army Deptartment of	Fort Bliss Texas	23S05E15 430	military dom	1075 Af/Yr		appl	
1147		T-0948	Army Deptartment of	Fort Bliss Texas	23S05E16 110	military dom	1075 Af/Yr		appl	
1984		T-1734	W.S.M.R.		23S05E16 321	Expl	test		perm	19880921
1761		T-1516-E	W.S.M.R.		23S05E16 341	Expl	3 Af/Yr	1	pmt	19871103
594		T-0477	W.S.M.R.		23S05E31 111	expl monitor	test		perm	
1233		T-1015	Ortega Construction	Company Inc.	23S09E14 300	construction	3 Af/Yr		perm	19841129
310		T-0243-S	El Paso Natural Gas		25S12E22 444	ind dom	test	1	decl	19531015
1840		T-1590	Fernandez	Eliseo E.	26S05E29 411	dom	3 Af/Yr		pmt	EXPIRED
1138	X	T-0939	Peck	Reigh (M.D.)	26S06E20 2(N½)	dr & san	3 Af/Yr		perm	19850809

FILE NUM	LAST NAME	FIRST NAME	WELL LOCATION	DESIGNATION	USE	WATER AMT	ACREAGE	INST	DRILL DATE
T-1856	FRITZ	NORBERT	06S09E01	SW1/4 NE1/2	IRR	3 AF/YR	200	DECL	1952
T-1857	MCGRATH	MICHAEL F.	16S01E05	321	DOM	3 AF/YR		PERM	1989
T-1858	BAKER	ROY	15S11E20	133	DOM	3 AF/YR		PERM	1989
T-1859	IMMACULATE CONCEPTION CHURCH	IGNACIO ENRIQUEZ	16S10E29	NE1/4 NW1/4	DOM	4.24 ACRES FOR CEMETARY		PERM	1989
T-1860	RATKA	IRENE	18S09E13	432	DOM / WANTS 12.72 AF/YR TO IRRIGATE	3 AF/YR			
T-1861	BIRD	JOE B., FRANCES E.	14S09E35	S1/2 NW1/4 NE1/4	DOM	3 AF/YR		PERM	1989
T-1862	POLSTON	KENNETH	15S10E16	SE1/4 SW1/4 NE1/4	DOM	3 AF/YR		PERM	
T-1863	REID	JANET L.	15S10E33	SW1/4 SW1/4 NE1/4	IRR,STK,DOM	25 AF/YR	5	DECL	1975
T-1865	RILEY	MICHAEL	18S09E13	NW1/4 SW1/4 SE1/4	DOM	3 AF/YR		PERM	
T-1866	USGS		22S06E16	SW1/4 SW1/4 NE1/4	DOM	3 AF/YR		APPL.	
T-1867	BRANDON	DONNA	15S09E13	432		3 AF/YR		EXPL. WELL PERM	
T-1868	FRANCIS	EDWARD, ANDREA	16S09E03	144	DOM	3 AF/YR		PERM	1989
T-1869	ERBES	JAMES R.	16S09E26	422	DOM	3 AF/YR		PERM	1989
T-1870	BOYCE	ARNOLD W., DOROTHA	08S10E02	342	DOM	3 AF/YR		PERM	1989
T-1871	STAGGS	JOE, SHIRLEY	17S10E17	324	DOM	3 AF/YR		PERM	1989
T-1872	CAIN	BEN, JANE	14S09E26	SW1/4 NE1/4 NE1/4	DOM	3 AF/YR		PERM	1989
T-1873	SILVA	TRANQUILINO	08S13E10	142	DOM, IRR	6 AF/YR	38	DECL	1975
T-1874	BURCH	RONALD	16S11E05	.3 OF LOT 4	STOCK	3 AF/YR		PERM	1989
T-1875	CHAMBERLAND	JOHNNY B.	14S09E35	211	DOM	3 AF/YR		PERM	1989
T-1876	TAYLOR	GREGORY	17S09E13	313	DOM,STK	3 AF/YR		PERM	1989
T-1877	PASE	CHARLES, SHIRLEY	16S11E04	SW 1/4 LOT 16	DOM	3 AF/YR		PERM	1989
T-1878	HANEY	PAUL	16S11E05	SW1/4 SE1/4 LOT 15	DOM	3 AF/YR		PERM	1989
T-1879	RUPP	IRA	16S11E05	300	COND	3 AF/YR		PERM	
T-1880	ZIMMERMAN	EMANUAL, IRENE	13S11E32	132	DOM	3 AF/YR		PERM	1989
T-1881	WOODS	WILLIAM, VICKI	18S09E12	121	DOM	3 AF/YR		PERM	1989
T-1882	WALKER	HAL	17S09E35	332	DOM, STK	3 AF/YR		PERM	
T-1883	LEE	GEORGE E., TEOFILA L.	18S09E14	N1/2 SW1/4 NE1/4	DOM	3 AF/YR		PERM	1989
T-1884	KELLETT	NOEL	08S10E03	NW1/4 SE1/4 NW1/4	DOM	3 AF/YR		PERM	1989
T-1885	HOLCOMB	ROY E.	18S09E02	222	DOM, STK	3 AF/YR		PERM	
T-1886	BRADLEY	JACK	17S10E07	132	DOM	3 AF/YR		PERM	1989
T-1887	CHESSER	DEE W.	15S11E29	213	DOM	3 AF/YR		PERM	1989
T-1888	GREEN	MARVIN & NILADINE	18S10E07	314	DOM	3 AF/YR		PERM	1990
T-1889	CHELF	ROY C.	15S10E16	311	DOM	3 AF/YR		PERM	1989
T-1890	WHITE	JESSE L.	18S09E12	SW1/4 NW1/4 NW1/4	DOM	3 AF/YR		PERM	1989
T-1891	SHARPE	KEITH L. BEVERLY A.	09S13E05	SW1/4 SW1/4 NW1/4	DOM	3 AF/YR	3	DECLARATION	
T-1892	QUICK	RAY	15S10E13	SE1/4 SW1/4 NW1/4	STK	3 AF/YR		PERMIT	1974

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T-1893	COMPANY	RAY & NORMA	16S10E05	231	DOM	3 AF/YR		PERMIT	1990
T-1894	RAMBO	WILLIAM D.	15S11E23	321	DOM	3 AF/YR		PERMIT	1990
T-1891	SHARPE	KEITH L. BEVERLY A.	09S13E05	133		3 AF/YR		WELL RECORD	1989
T-1895	GARMAN	MARY C.	08S10E04	SW1/4 SE1/4 NW1/4	STK	3 AF/YR	3	DECLARATION	1956
T-1896	GARMAN	MARY C.	08S10E04	NW1/4 NW1/4 SW1/4	DOM, STK	3 AF/YR	5	DECLARATION	1956
T-1897	TESTA	MIKE C.	15S10E29	NW1/4 NW1/4 NE1/4	DOM	3 AF/YR		PERMIT	
T-1898	BROWN	JOHN S.	16S10E33	432	DOM	3 AF/YR		PERMIT	1990
T-1899	HAWK	DAVID	16S11E05	SW1/4 NW1/4 LOT 23	DOM	3 AF/YR		PERMIT	
T-1900	GEORGE	GERALD WAYNE	13S10E31	331	STK	3 AF/YR		PERMIT	1990
T-1901	AMERICAN LODE CORP.		19S12E13	SW1/4 NW1/4	MINE, DOM	1050 AF/YR		DECL	1887-1902
T-1901-S	AMERICAN LODE CORP.		19S12E13	SW1/4 NW1/4	MINE	100 AF/YR		DECL	1902
T-1902	HERRELL	TOMMIE	15S10E35	NW1/4 SW1/4 SW1/4 NW1/4	CONDITIONAL	3 AF/YR		PERMIT	
T-1903	HERRELL	TOMMIE	15S10E35	NE1/4 SW 1/4 SW 1/4 NW 1/4	CONDITIONAL	3 AF/YR		PERMIT	
T-1904	HERRELL	TOMMIE	15S10E35	NW1/4 SE1/4 SW1/4 NW1/4	CONDITIONAL	3 AF/YR		PERMIT	
T-1905	HERRELL	TOMMIE	15S10E35	NE1/4 SE1/4 SW1/4 NW1/4	CONDITIONAL	3 AF/YR		PERMIT	
T-1906	HERRELL	TOMMIE	15S10E35	1333	CONDITIONAL	3 AF/YR		PERMIT	1990
T-1907	HERRELL	TOMMIE	15S10E35	1334	CONDITIONAL	3 AF/YR		PERMIT	1990
T-1908	HERRELL	TOMMIE	15S10E35	SW1/4 SE1/4 SW1/4 NW1/4	CONDITIONAL	3 AF/YR		PERMIT	
T-1909	MCCLENDON	M. H. OR EDNA	15S10E35	SE1/4 SE1/4 SW1/4 NW1/4	CONDITIONAL	3 AF/YR		PERMIT	
T-1910	JW JONES CONSTRUCTION CO.		06S08E35	111	CONSTRUCTION	3 AF/YR		PERMIT	1990
T-1911	BAILEY	DAVID	14S09E34	NE1/4 NE1/4 NE1/4	DOM	3 AF/YR		PERMIT	1990
T-1912	WORRELL	BETTY J.	16S09E13	440	DOM	3 AF/YR		PERMIT	1990
T-1913	HOBBS	DONALD	06S11E05	341	DOM	3 AF/YR		PERMIT	1990
T-1914	DANLEY	DWANE OF EFFIE	15S10E32	424	DOM	3 AF/YR		PERMIT	1990
T-1915	ANDERSON	KENNETH	17S10E17	143	DOM	3 AF/YR		PERMIT	1990
T-1916	DUGGAR	GREG M.	09S12E12	114	DOM, STK	3 AF/YR		PERMIT	1990
T-1917	DUGGAR	GREG M.	09S12E01	NW1/4 NW1/4 NE1/4	STK	3 AF/YR		PERMIT	1989
T-1918	DUGGAR	GREG M.	08S12E35	LOT 4	DOM, STK	3 AF/YR	3	DECLARATION	1982
T-1919	DUGGAR	GREG M.	08S12E35	LOT 3	STK	3 AF/YR	3	DECLARATION	1977
T-1920							3	DECLARATION	1977
					COMBINED WITH SURFACE WATER RIGHT - 4386				
T-1921	BRAZIEL	JOHN W.	15S11E21	NE1/4 SW1/4 NW1/4	DOM	3 AF/YR		PERMIT	
T-1922	DRYDEN	JAMES	16S09E26	SW1/4 NE1/4 SE1/4	DOM	3 AF/YR		PERMIT	
T-1923	TALLY	WILL	16S10E06	SW1/4 LOT 8	DOM	3 AF/YR		PERMIT	
T-1924	MACIAS	JOSE L. & JAN MARIE	16S09E26	42	DOM	3 AF/YR		PERMIT	1990
T-1925	TAUL	RAY L.	18S10E24	122	DOM	3 AF/YR		PERMIT	1990
T-1926	RUPP	IRA	16S11E05	2	CONDITIONAL	3 AF/YR		PERMIT	1990
T-1927	CARTER	LINDA F.	15S10E20	214	DOM	3 AF/YR		PERMIT	1990

FILE NUM	LAST NAME	FIRST NAME	WELL LOCATION	DESIGNATION	USE	WATER AMT	ACREAGE	INST	DRILL DATE
T-1928	BOUMA	JOSEPH	17S10E07	132	DOM	3 AF/YR		PERMIT	1990
T-1929	DARR	LYNN	14S10E12	223	DOM	3 AF/YR		PERMIT	1990
T-1930	STEPHENSON'S RANCH INC.		09S09E24	222	STK	3 AF/YR		PERMIT	1990
T-1931	KETCHAM	BRIAN	17S10E17	143	DOM	3 AF/YR		PERMIT	1990
T-1932	PITSCH	WILLIAM I.	18S09E13	413	DOM	3 AF/YR		PERMIT	1990
T-1933	NUNLEY	ROY L.	12S10E21	422	STK	3 AF/YR		PERMIT	1990
T-1934	HUBER	HAROLD	18S09E24	122	DOM	3 AF/YR		PERMIT	1990
T-1935	LUJAN	JOSE	15S10E33	343	DOM	3 AF/YR		PERMIT	1990
T-1936	BRAZIEL	TOM	17S10E17	243	CONDITIONAL	3 AF/YR		PERMIT	1990
T-1937	HAYSE	JOHN	14S09E35	3424	DOM	3 AF/YR		PERMIT	1990
T-1938	JOHNSON	DALE	15S10E16	2131	DOM	3 AF/YR		PERMIT	1990
T-1943	PENN	LAMONT	15S12E32	NW1/4 SE1/4 SW1/4	IRR,DOM,STK	10 AF/YR	14 AC	DECL	1981
T-1944	KIMMELL	WALTER	18S09E13	434	DOM	3 AF/YR		PERMIT	1990
T-1945	BURGESS	ANTHONY J. & RUTH A.	18S09E13	442	DOM	3 AF/YR		PERMIT	1990
T-1946	GILLIGAN	TEX	15S10E05	232	DOM	3 AF/YR		PERMIT	1990
T-1947	GALLEGOS	CHRISTOPHER	15S10E33	122	DOM	3 AF/YR		PERMIT	1990
T-1948	EAST	CHARLES R.	16S11E04	SE1/4 LOT 21	DOM	3 AF/YR		PERMIT	1990
T-1949	BEHLING	DARRELL	16S10E06	3	DOM	3 AF/YR		PERMIT	
T-1951	HELDT	JAMES R.	08S10E03	244	DOM	3 AF/YR		PERMIT	1990
T-1953	CHILDRESS	ROBERT & TAMMY	16S09E25	112	DOM	3 AF/YR		PERMIT	1990
T-1955	CHILDRESS	ROBERT & TAMMY	16S09E25	NE1/4 NW1/4 NW1/4	DOM	3 AF/YR		PERMIT	1990
T-1956	JACKSON	JD & JOHNNIE	15S10E22	SW1/4 SE1/4	STK	3 AF/YR		PERMIT	
T-1958	BOLINE	DORRIS	14S09E35	131	DOM, AG	3 AF/YR	13	DECLARATION	
T-1959	GORDON	JOHN S.	15S11E20	141	DOM	3 AF/YR		PERMIT	1990
T-1960	SAENZ	RAYMOND W.	15S10E22	231	DOM	3 AF/YR		PERMIT	1990
T-1963	TURBULL	G. BRIAN	14S09E26	W1/2 SW1/4 NE1/4 NW1/4	DOM	3 AF/YR		PERMIT	1990
T-1966	HIGGINS	TOMMY A.	16S10E17	NW1/4 SW1/4 SE1/4	DOM	3 AF/YR		PERMIT	
T-1967	HAM	DON	15S11E14	SW1/4 SE1/4 SW1/4	DOM	3 AF/YR		PERMIT	
T-1968	MAYER	RICHARD	15S11E29	SW1/4 NW1/4 NE1/4	DOM	3 AF/YR		PERMIT	
T-1969	BERRY	LARRY F.	18S09E26	NE1/4 NW1/4 NE1/4	DOM	3 AF/YR		PERMIT	
T-1970	MARTINEZ	JULIAN D.	14S11E17	SE1/4 SE1/4	DOM, STK	3 AF/YR		PERMIT	
T-1971	FELDBUSCH	NICHOLAS	18S10E18	NE1/4 NE1/4 SW1/4 NE1/4	DOM	3 AF/YR		PERMIT	
T-1972	MILLER	SCOTT A.	15S10E33	NE1/4 SW1/4 SE1/4	DOM	3 AF/YR		PERMIT	
T-1974	HOOD	ROBERT & THERESA	18S09E01	SE1/4 NW1/4 NW1/4	DOM	3 AF/YR		PERMIT	
T-1975	FOSTER	JOHN F.	15S10E22	N1/2 NW1/4 SE1/4	DOM	3 AF/YR		PERMIT	
T-1976	BERGER	DR. LEN	13S11E34	SE1/4 SE1/4 NE1/4	DOM	3 AF/YR		PERMIT	
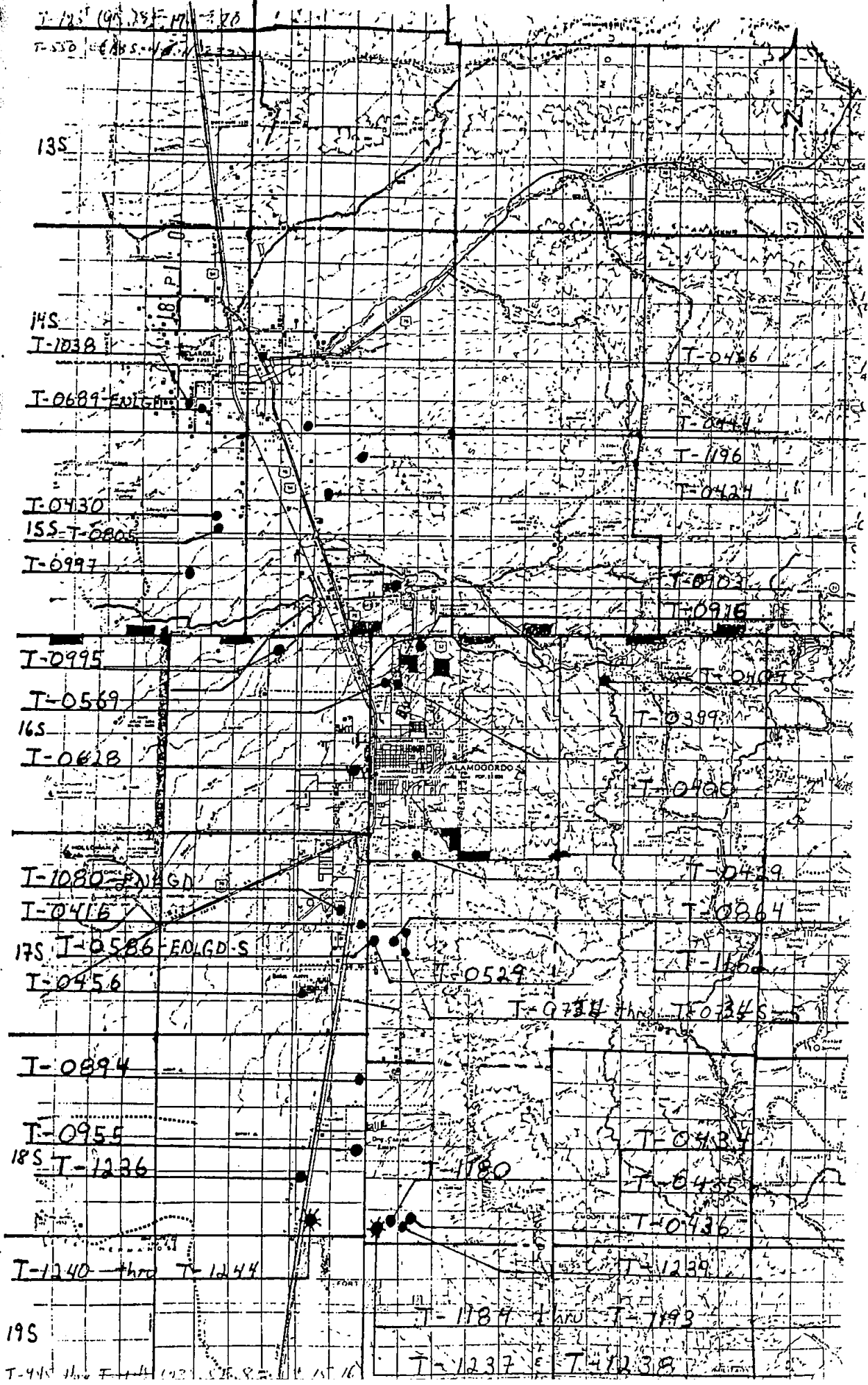
APPLICATION STATUS SHEET

DISTRICT 4, LAS CRUCES
BASIN: **TULAROSA**

DATE: June 1, 1990

APPLICANT	FILE NO.	PROPOSAL	DATE APPLIC. FILED	DATE NOTICE ISSUED	DATE AFFIDAVIT FILED	STATUS
Michael Riley	T-1864	Change Location of Well	9/06/89	10/23/89	1/24/90	Recommendation to Santa Fe 1/30/90
Michael Riley	T-471 into T-1864	Change Location of Well	10/18/89	10/23/89	11/28/89	Recommendation to Santa Fe 1/30/90
Donald A. Weber	T-1523 into T-321	Change Location of Well, Place and Purpose of Use	12/06/89	12/08/89	1/05/90	Protested
Harvey E. Yates Co.	T-1797-S-7	Change Location of Well	2/13/90	2/16/90	3/26/90	Pending receipt of documentation from applicant
Greg M. Duggar	T-1920	To Appropriate	2/20/90	3/01/90	3/30/90	Pending district office action
Zivadin Babich	T-959	To Appropriate	3/15/90	3/15/90	4/11/90	Pending disposition of prior filed applications
White Sands Missile Range	T-1570	Supplemental	3/21/90	5/03/90		Pending receipt of affidavit of publication
Henry B. and Shirley Polson	T-464	Cancellation of Permit				Recommendation to Santa Fe to cancel
Richard and Tonya Richardson	T-1357	Change Location of Well	5/23/90	5/24/90		Pending receipt of affidavit of publication
Eileen M. Serna	T-1961	To Appropriate	5/29/90			Pending issuance of notice for publication

APPLICATION STATUS SHEET

APPLICANT	FILE NO.	PROPOSAL	DATE APPLIC. FILED	DATE NOTICE ISSUED	DATE AFFIDAVIT FILED	STATUS
neth Henderson	T-1265	To Appropriate	12/11/85	12/16/85	2/28/86	Pending disposition of prior filed applications
vid Rankin	T-1341	To Appropriate	6/04/86	6/13/86	7/09/86	Pending disposition of prior filed applications
ck Hills Ranch	T-294	Change Location of Well	10/08/86	10/21/86	12/01/86	Protested
S. Army, Holloman AFB	T-1255	Change Location of Well	12/22/86	12/30/86	1/29/87	12/30/86 issued emergency authorization; protested 2/2/87
nie K. Roberts	T-1483	To Appropriate	4/08/87	4/14/87	5/08/87	Pending disposition of prior filed applications
C. Abercrombie	T-1530	To Appropriate	6/29/87	7/08/87	8/03/87	Protested
ton Chestnut	T-1151-S	Cancellation of Permit				Transmitted to Santa Fe 11/10/87
liam Danley	T-1000-C	Continue with Pre-Basin Intent	7/08/88	9/26/88	10/20/88	Denied 1/19/90; Hearing requested
my and Joy Yarbrough	T-1707	To Appropriate	8/04/88	8/17/88	9/12/88	Pending disposition of prior filed applications
ert and Patsy Chavez	T-1805	To Appropriate	4/19/89	4/28/89	6/02/89	Pending disposition of prior filed applications
vin Murphy	T-1806	To Appropriate	4/19/89	4/27/89	5/30/89	Pending disposition of prior filed applications
and Simpson	T-1284	To Appropriate	8/11/89	8/17/89	9/11/89	Pending disposition of prior filed applications
aculate Conception Catholic Church	T-1859	To Appropriate	8/28/89	9/08/89	9/29/89	Pending disposition of prior filed applications

APPLICATION STATUS SHEET

DATE: June 1, 1990

APPLICANT	FILE NO.	PROPOSAL	DATE APPLIC. FILED	DATE NOTICE ISSUED	DATE AFFIDAVIT FILED	STATUS
H. Torres	T-1038	To Appropriate	12/12/84	12/14/84	1/29/85	Pending disposition of prior filed applications
iam F. Miebach	T-689-Enlgd	To Appropriate	1/30/85	2/06/85	3/04/85	Pending disposition of prior filed applications
Wareing	T-1080-Enlgd	To Appropriate	3/29/85	4/01/85	6/26/85	Pending disposition of prior filed applications
olmn M. Ramsey	T-864	To Appropriate	4/15/85	4/18/85	5/29/85	Protested 5/17/85
y Salomon	T-955	To Appropriate	6/25/85	7/01/85	8/29/85	Pending disposition of prior filed applications
ton D. Hooser	T-1162	To Appropriate	7/31/85	8/05/85	9/09/85	Protested 8/28/85
a J. Ward	T-1180	To Appropriate	8/21/85	8/26/85	10/09/85	Pending disposition of prior filed applications
a J. Ward	T-1184 thru T-1193	To Appropriate	8/28/85	9/05/85	11/04/85	Pending disposition of prior filed applications
re Jan Patneaude	T-903	To Appropriate	8/28/85	9/11/85	10/09/85	Pending disposition of prior filed applications
n Sanchez	T-995	To Appropriate	8/28/85	9/05/85	10/09/85	Pending disposition of prior filed applications
N. Rankin	T-1196	To Appropriate	9/04/85	9/10/85	10/09/85	Pending disposition of prior filed applications
a J. Ward	T-1236 thru T-1244	To Appropriate	10/09/85	10/11/85	-- 12/02/85	Pending disposition of prior filed applications

APPLICATION STATUS SHEET

DATE: June 1, 1990

TRICT 4, LAS CRUCES
IN: **TULAROSA**

APPLICANT	FILE NO.	PROPOSAL	DATE APPLIC. FILED	DATE NOTICE ISSUED	DATE AFFIDAVIT FILED	STATUS
y of Alamogordo	T-734 thru T-734-S-5	To Appropriate	11/03/83	11/07/83	12/27/83	Protested; pending disposition of prior filed applications
old M. Guthrie	T-805	To Appropriate	2/03/84	2/09/84	3/14/84	Pending disposition of prior filed applications
es V. Hiles	3917(T) (T-371/T-578)	Temporary Change Point of Diversion & Place & Purpose of Use	4/18/84	9/06/84	11/05/84	Sent to Santa Fe 11/05/84 (NOTE: apparently should be changed to declaration number); applicant filed claim of right 11/06/85
rge or Blanche Johnson	T-894	To Appropriate	5/16/84	5/18/84	6/25/84	Pending disposition of prior filed applications
redo Ramon Paz	T-916	To Appropriate	6/06/84	6/22/84	7/23/84	Pending disposition of prior filed applications
t. of the Army/Ft. Bliss	T-944 thru T-948	To Appropriate	7/12/84	7/23/84 & 2/25/85	8/10/84 4/01/85	Protested; pending disposition of prior filed applications
vin Morris	T-997	To Appropriate	8/31/84	10/05/84	12/10/84	Pending disposition of prior filed applications
teine M. Baird	T-996 & 03411	Change Partial Point of Diversion/Surface	10/01/84	10/01/84	11/05/84	Protested (NOTE: Previous file No. 3936 changed to declaration number 03411 3/09/90); original original refiled 3/04/87
teine M. Baird	T-996	Application to Supplement and Appropriate	9/12/84	3/20/87	5/08/87	Pending disposition of prior filed applications

APPLICANT	FILE NO.	PROPOSAL	DATE APPLIC. FILED	DATE NOTICE ISSUED	DATE AFFIDAVIT FILED	STATUS
y Lou Bloom	T-399	To Appropriate	7/28/82	8/05/82	9/02/82	Recommendation to Santa Fe 9/07/88
ry J. Schoefield	T-400	To Appropriate	7/28/82	8/05/82	9/02/82	Recommendation to Santa Fe 9/07/88
e H. Sandifer	T-416	To Appropriate	8/09/82	8/19/82	9/16/82	Letter to applicant 5/03/90
n & Lila Juul	T-424	To Appropriate	8/09/82	10/18/82	11/17/82	Recommendation to Santa Fe 5/25/89
ard & Elsie J. Grabman	T-429	To Appropriate	8/16/82	8/30/82	9/28/82	Recommendation to Santa Fe 5/10/89
H. Rowland	T-430	To Appropriate	8/25/82	9/02/82	10/05/82	Recommendation to Santa Fe 6/12/89
es H. & Jane N. Barker	T-434, T-435 & T-436	To Appropriate	9/01/82	9/02/82	10/05/82	Recommendation to Santa Fe 5/02/89
non Goakes & Joy G. & C. Wetterholm	T-444	To Appropriate	9/10/82	10/19/82	11/23/82	Recommendation to Santa Fe 5/08/89
red B. Arana	T-456	To Appropriate	10/06/82	10/08/82	11/03/82	Recommendation to Santa Fe 5/16/89
ert M. Ortiz	T-466	To Appropriate	10/14/82	10/18/82	11/26/82	Recommendation to Santa Fe 6/12/89
vis T. & Melda Reed	T-529	To Appropriate	1/12/83	2/08/83	3/29/83	Recommendation to Santa Fe 6/07/89
G. & Rosalyn Frazier	T-569	To Appropriate	4/20/83	4/21/83	5/23/83	Recommendation to Santa Fe 7/13/89
rles H. Hartman	T-586-Enldg	To Enlarge/To Appropriate	4/27/83	5/05/83	6/01/83	Letter to applicant 8/17/89
Darrell Morgan & Rufus crell	T-628	To Appropriate	6/08/83	6/15/83	7/20/83	Recommendation to Santa Fe 6/27/89
eresa Elbendary	T-725	To Appropriate	10/12/83	10/21/83	11/28/83	Protested; pending disposition of prior filed applications

APPLICATION STATUS SHEET

DATE: June 1, 1990

APPLICANT	FILE NO.	PROPOSAL	DATE APPLIC. FILED	DATE NOTICE ISSUED	DATE AFFIDAVIT FILED	STATUS
a Mathews	HU-79	To Appropriate	12/24/80	2/27/81	5/06/81	Protested; hearing requested
i D. Merrill	HU-91	To Appropriate	3/14/83	3/14/83	5/09/83	Pending disposition of prior failed application; temporary permit HU-91(T) issued 5/24/83
ot. of Army/Ft. Bliss	HU-106 thru HU-130	To Appropriate	7/12/84	7/13/84	8/10/84	Protested
ot. of Army/Ft. Bliss	HU-107 thru HU-110, HU-112 thru HU-117	Amended Appropriations		2/25/85	4/01/85	Protested
pt. of Army/Ft. Bliss	HU-119 thru HU-126, HU-128	Amended Appropriations		2/25/85	4/01/85	Protested
æ Section Water Company	HU-153, HU-153-S, HU-153-S-2	To Appropriate	1/22/85	1/24/85	2/15/85	Protested 2/20/85
š Maintenance Co., Inc.	HU-93-S	Supplemental Well	2/19/85	3/06/85 & 3/27/85	4/16/85	Transmitted to Santa Fe 5/06/86 for action
G Maintenance Co., Inc.	HU-156 & S	To Appropriate	3/06/85	3/27/85	5/14/85	Protested 5/23/85
ate Land Office	HU-159 thru HU-193	To Appropriate	7/19/85	8/26/85	10/08/85	Protested

Water Rights Information, NMOSE Administrative Area, Memo from OSE to SMWCC

APPENDIX

5.3

Figure 3.
Alamagordo - Tularosa
Administrative Area
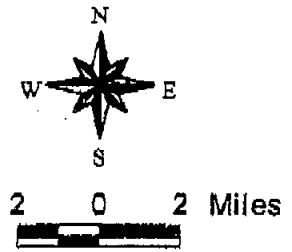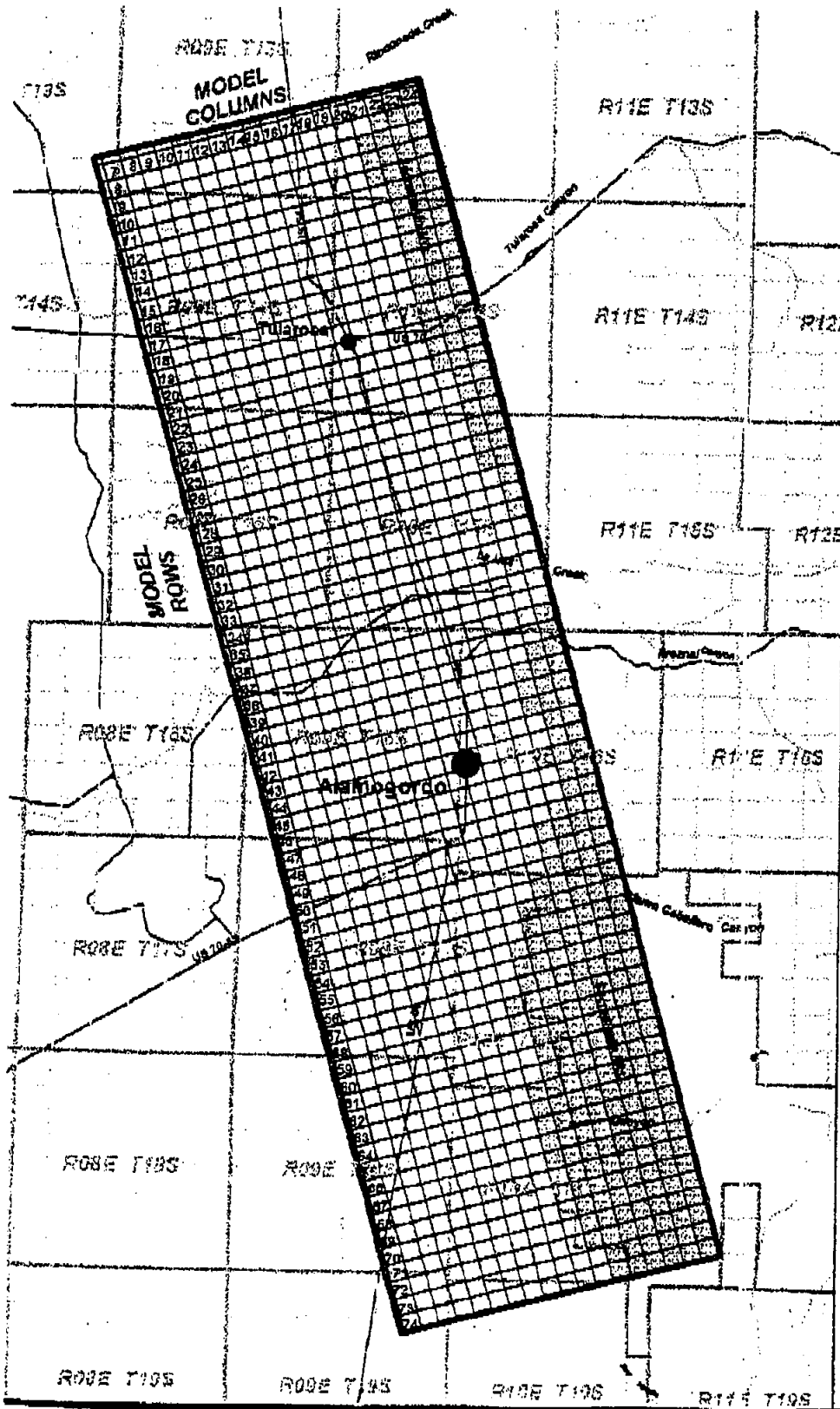
8.7. Adequacy and Reliability of System

A water supply system is considered to be fully adequate if it can deliver the required fire flows to all points in the distribution system with usage at the maximum daily rate. When the delivery is also possible with the most critical limiting component out of service for a specified length of time, depending on the type of component, the system is considered to be reliable (American Water Works Association, 1989, p. 32).

Distribution system components are often taken out of service for maintenance. In addition, system components fail on occasion. For this reason, utilities should construct their distribution systems with loops, backup pumps, backup power supplies, and storage tanks so that if any component fails or is out of service the effect on the availability of water is minimized.

9. WATER RIGHT REQUIREMENTS AND LIMITATIONS

9.1. Doctrine of Prior Appropriation

In New Mexico, water resources are administered under the Doctrine of Prior Appropriation. A person who takes water and applies it to beneficial use is an appropriator; and the taking of the water constitutes the appropriation, which includes a priority date. This priority entitles the appropriator to receive a full appropriation before those with junior, or more recent water rights receive their appropriations.

9.2. Owning a Water Right

All natural waters in streams and watercourses, or underground, belong to the public and are subject to appropriation. An appropriation water right, like equipment or furniture, is considered property and can be separated from the land and transferred to another location subject to statutory requirements. The appropriator "owns" only the right to use the water and not the "corpus," or body of water itself. Beneficial use is the basis, the measure and the limit of the right and priority in time gives the better right. All beneficial uses are considered equal regardless of the value resulting from the use. Municipalities, county governments, and certain other political subdivisions of the state may condemn water rights for public purposes provided that this action is approved by the court and original owners are reasonably compensated.

9.3. Obtaining a Water Right

To obtain a right, an application must be filed with the State Engineer for a permit to appropriate water. The applicant must specify the source of water, purpose and place of use, point of diversion, and amount of water to be used. After the application is filed, the applicant presents all essential facts in a legal notice which is published in a newspaper circulated in the area where the water will

be appropriated, once a week for 3 consecutive weeks. Protests to the application must be filed with the State Engineer within 10 days of the last date of the published notice. If a protest is filed, a hearing may be required before the State Engineer before the application is acted upon. An application will be denied if unappropriated water is not available, if the new use will impair existing water rights, or would be contrary to the conservation of water in the state, or detrimental to the public welfare of the state. If the State Engineer concludes that unappropriated water is available and that other criteria are met, the application is approved and it becomes a permit to appropriate water. The permit states when construction should be completed and when the water will be applied to beneficial use. The completion deadline depends on the size and complexity of the project; and an additional period of time may be allowed for the application of water to beneficial use. When construction is completed, or at the construction deadline, the site is inspected, and a certificate of completion is issued provided that all requirements are met.

This procedure applies to all surface waters, but only to ground water in declared underground basins. When the State Engineer finds that the water of an underground source has reasonably ascertainable boundaries, he can assume jurisdiction over the appropriation and use of such water by declaring the basin. Within a declared underground water basin, no well may be drilled without a permit and drilling may be done only by a well driller licensed by the State Engineer Office. The State Engineer declares and extends basins to protect prior appropriations, to guarantee the water's beneficial use and to ensure the orderly development of the resource. A basin may be declared without prior notice, however, after declaring the basin, a public hearing is required on the declaration within a specified time. The State Engineer has no jurisdiction outside declared underground basins, except to prevent waste. Declaring a basin has no effect on water rights initiated before the declaration date. After that date, however, those wanting a water right or wanting to drill additional wells to fulfill an existing right must apply to the State Engineer for a permit. If the water in a basin has been fully appropriated, no new water rights can be issued. The important effect of declaring an underground basin is that applicants bear the burden of proof to show that unappropriated water is available and that the appropriation will not impair existing surface or groundwater rights, would not be contrary to the conservation of water in the state, or detrimental to the public welfare of the state. Water right owners outside the underground basin boundaries are protected by the appropriation doctrine. If they believe their water right may be impaired, they have recourse to the courts, not the State Engineer.

Applications to appropriate small amounts of underground water for individual domestic use, livestock watering, public works projects such as the construction of highways, and mineral exploration, are exempt from normal administrative procedures which require the advertisement of the application and public hearings, except where there are judicial constraints imposed by state or federal courts. The diversion from a well permitted for any of these purposes is limited to a maximum of 3 acre-feet in any year.

9.4. Quantifying a Water Right

The amount allocated to a new right depends on reasonable need and water availability. For community water systems that will be supplied by groundwater, consideration should be given to economic constraints, maintenance requirements, and limitations of aquifer performance, that may effect the feasibility of pumping a well continuously for extended periods of time. It may also be prudent to provide a margin of safety in the determination of the sustainable yield which allows for some diminishment in well yield over time. Therefore, as a matter of practicality, the diversion right for some community water systems may be taken as a percentage of the production capacity of the existing well, provided that this value does not exceed the amount of water specified in the water right application.

9.5. Changing Ownership

If the seller of a parcel of land has water rights that the buyer expects to obtain with the property, the buyer should require that the water right be conveyed in the property deed and that all documents related to the water right be conveyed to the buyer. Under a 1996 state law, the buyer must file a change of ownership form in the State Engineer Office and then at the county clerk's office in the county where the water right is located. Those who inherit or purchase water rights must also complete and file a change of ownership form.

9.6. Separating a Right from the Land

Although the right to water is conveyed with the sale of irrigated land, unless reserved in the deed, a water right can be sold separately from the land and applied to a new use in another area provided that the transfer will not impair other rights in the move-to location, would not be contrary to the conservation of water in the state, or detrimental to the public welfare of the state.

9.7. Changing the Place or Purpose of Use

A water right transfer does not always mean a new owner. A transfer can mean that the owner wants to change the use of the water, the amount of the allocation, or the location of a well under a recognized right. Changes in place and purpose of use or changing the location of a well require filing an application with the State Engineer and proof that the change will not impair existing rights, would not be contrary to the conservation of water in the state, or detrimental to the public welfare of the state.

tularosa 40 yr.

THOMAS C. TURNEY
STATE ENGINEER

STATE OF NEW MEXICO
STATE ENGINEER OFFICE

December 3, 2001

received
12-5-01

Mr. Eddie Livingston
Livingston & Associates
500 Tenth Street
Alamogordo, NM 88310

RE: Groundwater modeling scenarios in the Boles Well Field area

Dear Mr. Livingston,

I have applied the Tularosa Groundwater Model, developed by Tom Morrison (1989) to the two scenarios that Mr. Springer requested in his email dated November 4, 2001. Three different runs were made. Run 1 utilized the locations that he referred to in his email dated November 2, 2001 (17S.10E.18.432 and 17S.10E.19.323) with 4,000 ac-ft/annum spread equally through six cells in that general area. Mr. Springer mentioned Boles Well Field so I modeled 4,000 ac-ft/annum spread equally through six cell in the area where our data shows existing wells (slightly west of the locations provided), this was Run 2. In the last model run I applied 10,000 ac-ft/annum spread equally through 12 cells, encompassing the area referenced and the location of the existing Boles Well Field. The time period for all model runs is 40 years. The following paragraphs explain the process I followed and summarize the resulting data enclosed.

Run 1
Locations provided by Mr. Springer were cross-referenced with the groundwater model grid to determine which cells to use. A 4,000 ac-ft/annum withdrawal rate was spread equally (79,560 cubic-feet/day per cell as the required units for the ground water model) through the following six cells; R56:C14, R56:C15, R56:C16, R57:C14, R57:C15, and R57:C16. The model was run for a 40-year period and results show a drawdown in these cells of 117 to 187 feet (figure 1). Figure 2 shows that when the drawdowns are added to the total drawdown effects of approved applications to date, the total drawdown would be anywhere from 188 to 260 feet in these cells. Not only are there dramatic effects in the cell location, but throughout the general area. Drawdown is more than what would be allowed under the Tularosa Underground Water Basin Administrative Criteria for the Alamogordo-Tularosa Area (Turney, 1997).

Run 2
I again used the 4,000 ac-ft/annum withdrawal through six cells (79,560 cubic-feet/day per cell), however, the location of the six cells in this run are in the area where our data shows the existing Boles Wellfield; R55:C11, R55:C12, R56:C11, R56:C12, R57:C11, and R57:C12. The model

was run for a 40-year period and results show a drawdown in these cells of 84 to 92 feet (figure 3). Figure 4 shows that when the drawdowns are added to the total drawdown effects of approved applications to date, the total drawdown would be anywhere from 148 to 160 feet in these cells. Drawdown effects are not as dramatic in this area as in the previous location. It seems that effects lessen as pumping withdrawal is moved west. They are still however, more than what would be allowed under the Tularosa Underground Water Basin Administrative Criteria for the Alamogordo-Tularosa Area (Turney, 1997).
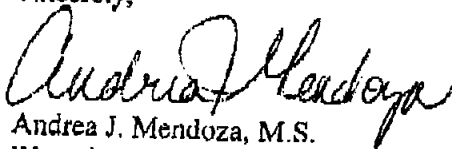
Run 3

In this scenario I applied 10,000 ac-ft/annum withdrawal through twelve cells (198,900 cubic-feet/day per cell). Cell locations encompass the general area you referenced and the location of the existing Boles Well Field; R55:C11, R55:C12, R56:C11, R56:C12, R57:C11, R57:C12, R56:C13, R56:C14, R56:C15, R57:C13, R57:C14, and R57:C15. The model was run for a 40-year period and results show a drawdown in these cells of 368 to 472 feet (figure 5). Figure 6 shows that when the drawdowns are added to the total drawdown effects of approved applications to date, the total drawdown would be anywhere from 429 to 542 feet in these cells. The extent of the area affected from this hypothetical situation is of course much greater.

I have not reviewed the paper prepared by Larry November that you referred to or the analysis done by Rick Huff, however, based on the Tularosa Groundwater Model, developed by Tom Morrison (1989) and the data I used it seems that these withdrawals would cause significant drawdown, not to mention water quality issues. Freshwater thickness in this area ranges from 0 to approximately 1000 feet with the greater freshwater thickness to the east (Turney, 1997). In many of these cells more than half if not all the freshwater could possibly be effected.

I hope this information helps you with your presentation. If you have any questions or need further information, please call me.

Sincerely,

Andrea J. Mendoza, M.S.
Water Resource Master

Low Yield Derivation Climatic Data

A P P E N D I X

6.1

DERIVATION OF "LOW VALUE" OF 65,609 AFY FOR YIELD FOR EASTERN TULAROSA SUB-BASIN

The estimated sustainable yield of water for the Eastern Tularosa Basin is 129,349 AFY, as shown in Table 6-25. This amount of yield is based upon long-term averages for total precipitation in the Sacramento Mountains, particularly as determined at the Cloudcroft weather station. As noted in Section 6.1.2 and 6.1.3, precipitation, which is comprised of rainfall and snowfall, tends to be very variable, not only in the eastern sub-basin but throughout the planning area. Precipitation, as measured at the Cloudcroft weather station, shows an average of about 26.5 inches per year over a time period of about 100 years (91 years of actual data, since some years are missing). The standard deviation of this data set is about 6.7 inches (~ 25%), a value that is rather large.

Although many people feel that we are in a drought period, it is found by analyzing the precipitation data further that, even though a linear regression fit over the recent time period from 1990 to 2001, inclusive, shows a negative slope (a general decline), the precipitation for every year [except two, 1995 (25.17 inches), and 1999 (21.12 inches)] has been above the long-term average. However, a marked decline in spring and stream flow has occurred over the eastern sub-basin and the Salt Basin within the last few years in particular. This fact may indicate that snowfall in the form of snow pack (even though snowfall contributes only about 30% of the total precipitation, when snowfall is converted to wet water at about 10%) may be a more important parameter in determining yield and recharge; consequently, the yield value of 109,349 AFY can be expected to be on the high side for near-to-mid-term planning.

An analysis of the snowfall data for the Cloudcroft weather station shows that snowfall in the Sacramento Mountains is even more variable than rainfall. The long-term average (from 1914 to the present) is 83.7 inches [*]. The snowfall data set has a standard deviation of 38 inches, a value that is much larger than that for precipitation. Furthermore, the linear regression fit shows a negative slope of – 2.24 inches per year between 1990 and 2001, inclusive, and the average annual snowfall over that time period is only 67.8 inches, a value that indicates a reduction by about 20% relative to the long-term average. Only three times in the last twelve years has snowfall exceeded the long-term average of 83.7 inches; consequently, a somewhat lower value for sustainable yield might be more appropriate for planning purposes, particularly in view of the substantial downward trend in the amount of snowfall that has been observed over the last decade.

The approached that has been used in this planning document for estimating a reasonable lower yield for the eastern sub-basin has been to analyze the average snowfall over five-year time periods, beginning (somewhat arbitrarily) in the year 1950. The following results are obtained:

YEAR FROM/TO, INCLUSIVE	AVERAGE, INCHES
1950 THROUGH 1954	51.2
1955 THROUGH 1959	83.3
1960 THROUGH 1964	88.7
1965 THROUGH 1969	76.9
1970 THROUGH 1974	N.A.
1975 THROUGH 1979	N.A.
1980 THROUGH 1984	109.6
1985 THROUGH 1989	80.9
1990 THROUGH 1994	78.2
1995 THROUGH 1999	60.4

The lowest five year interval for average snowfall is 51.2 inches per year for 1950 to 1959, inclusive. This value is a 38.8% reduction relative to the long-term average of 83.7 inches. If, in fact, the long-term average were actually 90 inches per year, the 51.2-inch value would indicate a 43.1% reduction. A reasonable reduction by a factor of 40% has therefore been assumed to generate the "low yield" line in Figure ? on Page ?

* Snowfall data were reviewed for the Cloudcroft Weather Stations 291931 (from year 1987 to year 2000) and 291927 (from the year 1914 to the year 1987) in order to develop some indication as to the range of deviation of five-year averages relative to the long-term average. The data were obtained from the New Mexico Climate Summary which can be accessed at http://www.wrcc.dri.edu/summary/climsmnm. Although Chamber of Commerce tourist brochures state that the 100-year average snowfall for the Cloudcroft area is 90 inches per year, data were not available from the above source to substantiate that value.

Tularosa Basin Regional Water Plan

Precipitation in Cloudcroft, NM
1900 - 1999

Linear Regression Trend Line
y = 0.0698x + 22.639
$R^2 = 0.0886$

Maximum   48.10
Average   26.16
Median   25.81
Minimum   11.00
Std Deviation 6.70

Precipitation - Inches

Livingston Associates, P.C.
Consulting Engineers
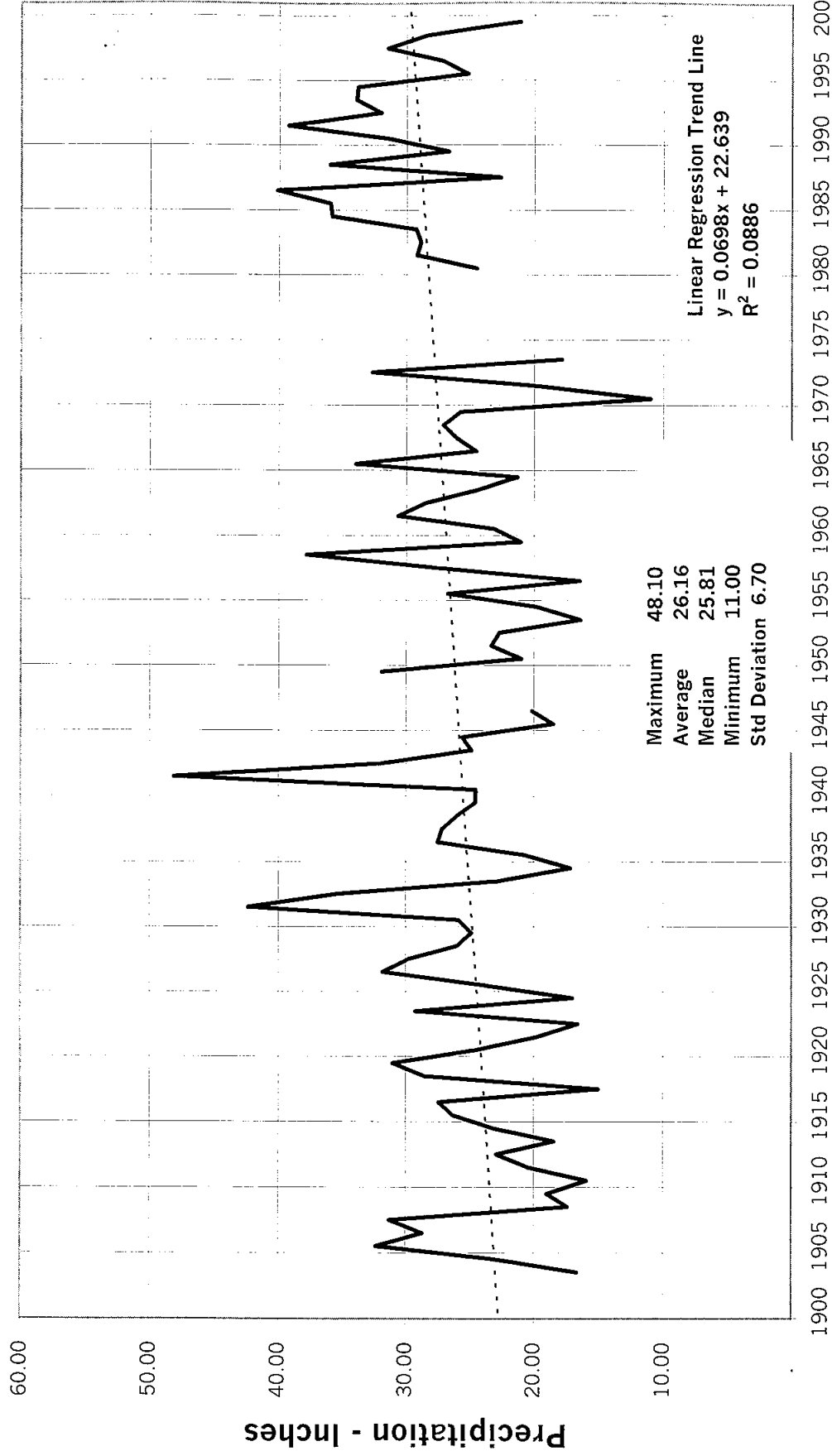
Precipitation in Cloudcroft, NM 1980 - 1999

$y = -0.1391x + 32.089$
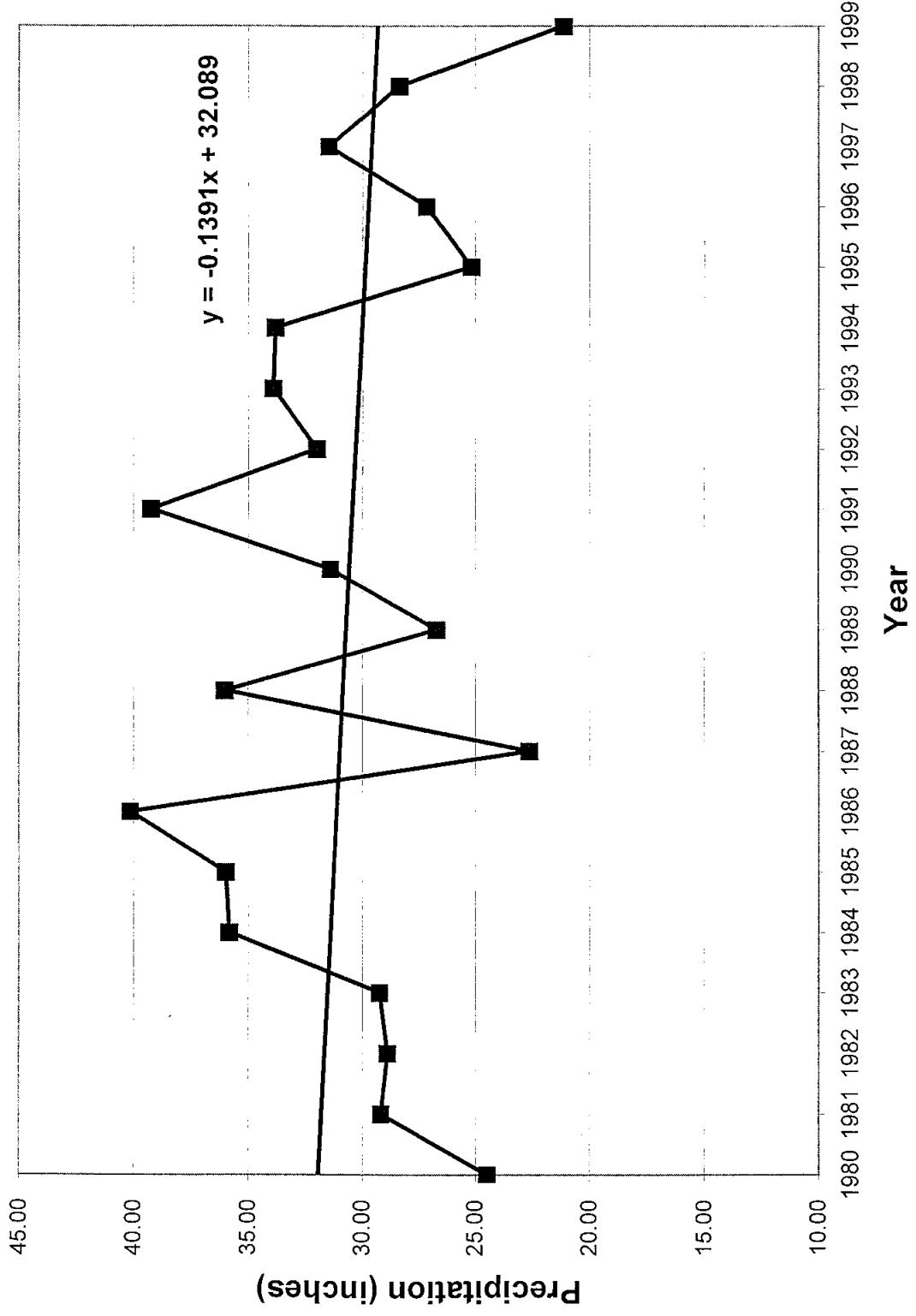
Precipitation in Cloudcroft, NM
1991 - 1999

$y = -1.5828x + 38.158$

Livingston Associates, P.C.
Consulting Engineers
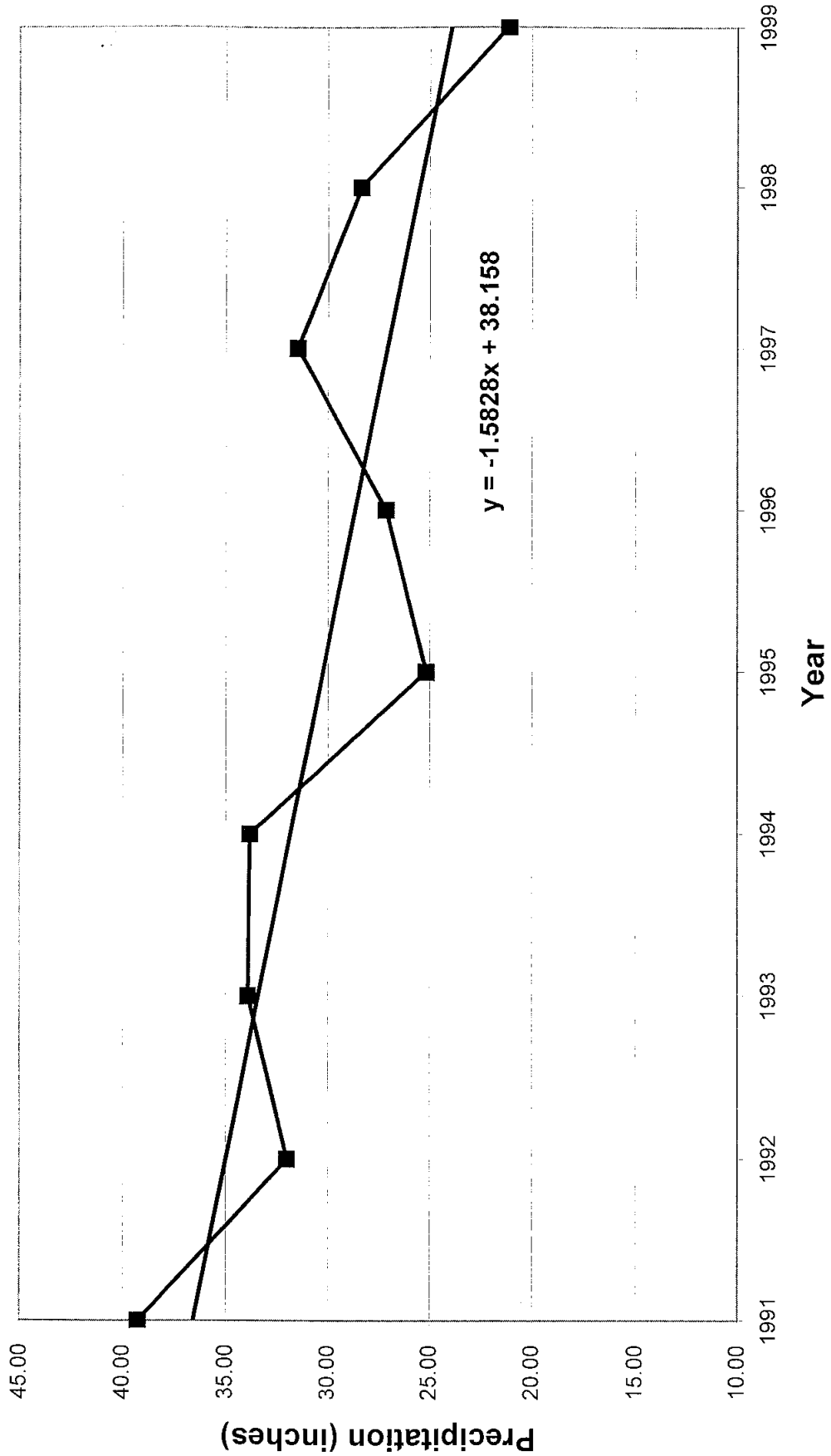
Precipitation in Alamogordo, NM
1990-1998

$y = -0.5593x + 15.131$

Year

Precipitation (inches)
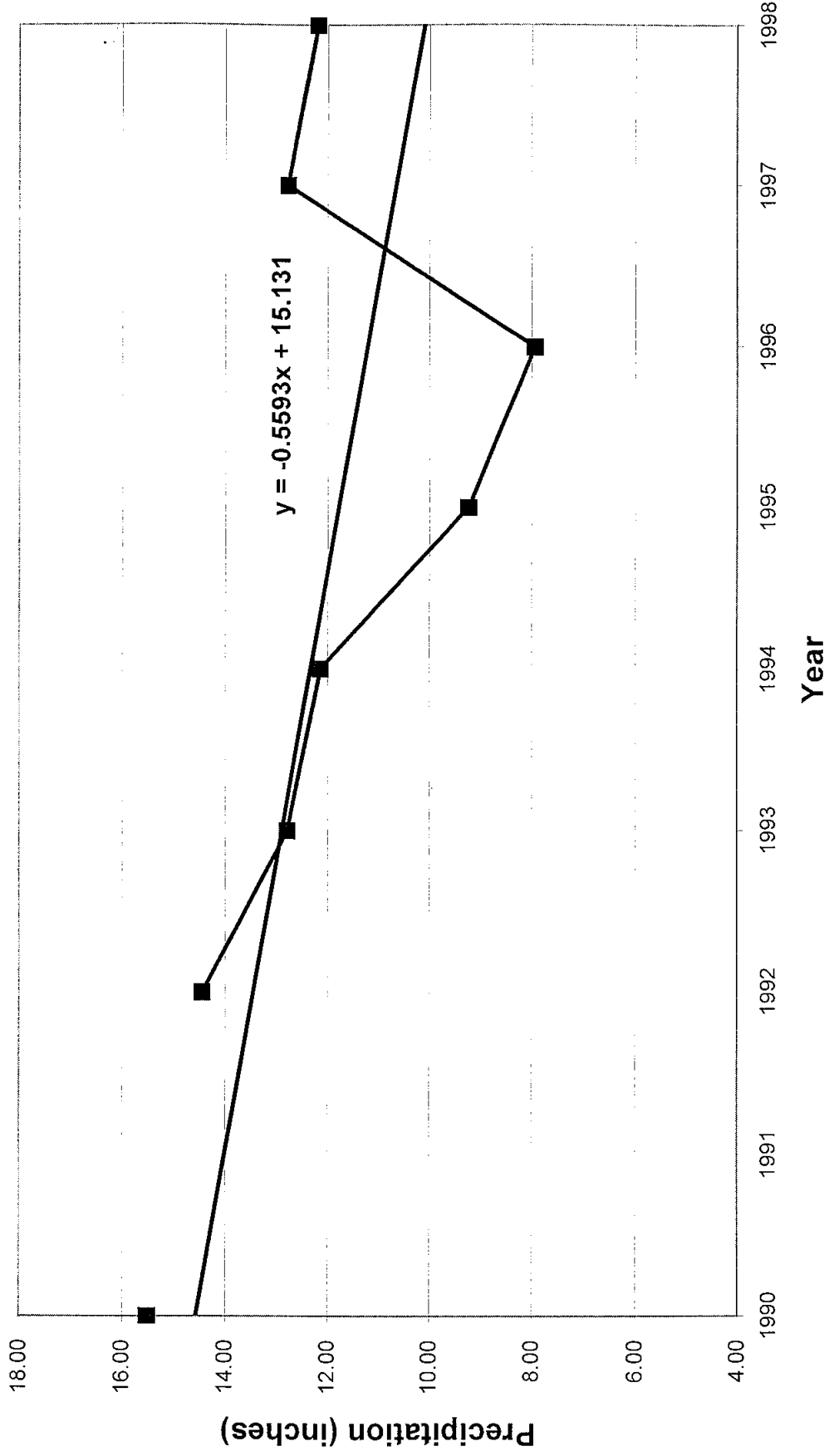
Precipitation in Alamogordo, NM
1900 - 1999

Maximum	20.89
Average	12.29
Median	11.84
Minimum	3.83
Std Deviation	3.62

$y = 0.0769x + 6.292$
$R^2 = 0.0862$

Data obtained from files of KPSA radio and the Alamogordo Daily News. Plots are for years having data for all 12 months.

Precipitation - Inches

Livingston Associates, P.C.
Consulting Engineers
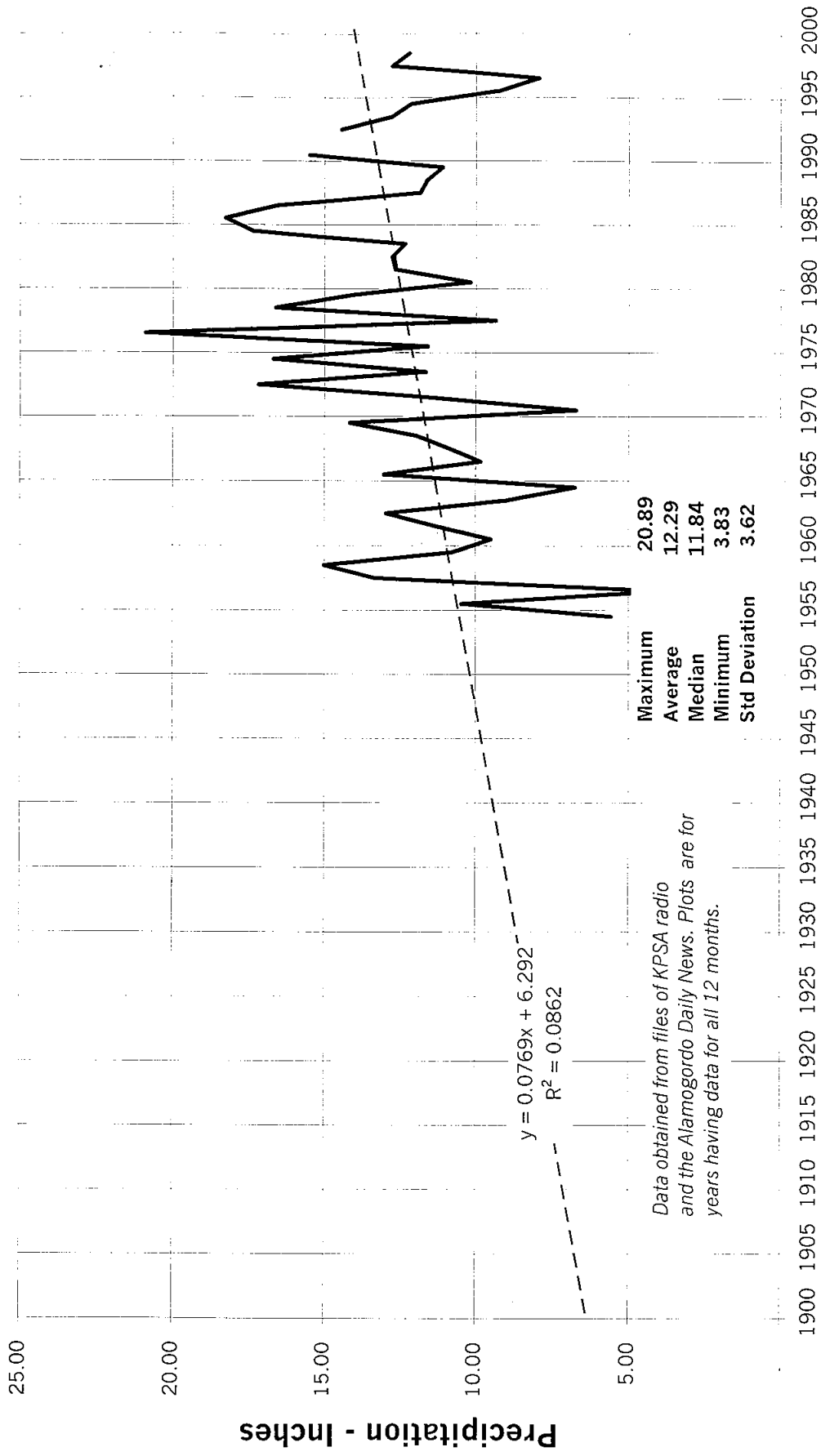
**Precipitation in Alamogordo, NM
1980 - 1998**

$y = -0.1452x + 14.31$

Precipitation (inches)

Year

Livingston Associates, P.C.
Consulting Engineers
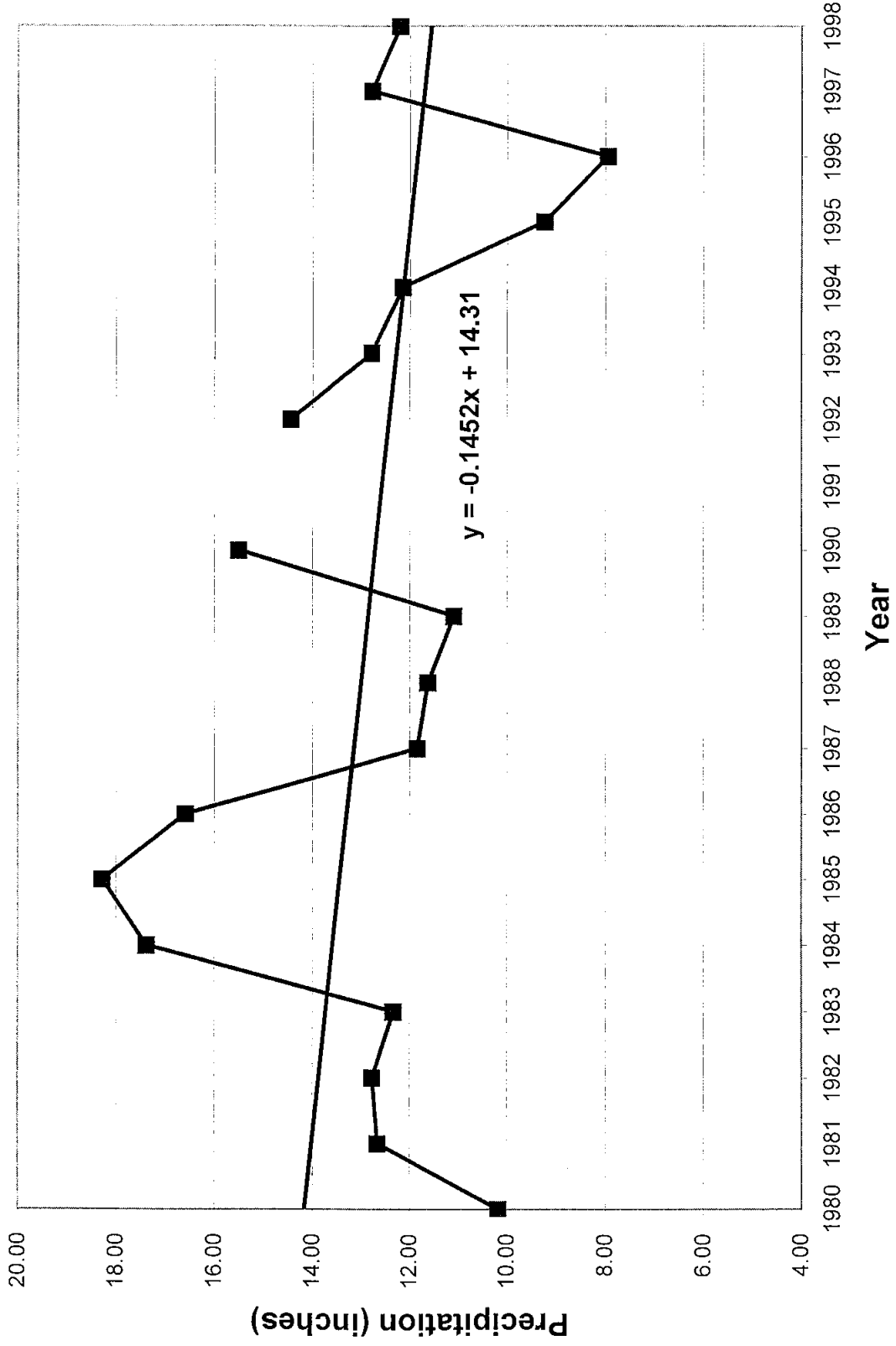
Name	Station No.	Latitude	Longitude	Elevation feet	Average Annual Precipitaion inches	Maximum	Minimum	Period of Record	Number of Years
Alamogordo	290199	32.52 N	105.57 W	4349.0	11.70	21.87 (1941)	4.85 (1952)	1914-1998	53
Tularosa	299165	33.04 N	106.02 W	4429.0	10.10	23.65 (1941)	3.88 (1934)	1914-1998	53
Carrizozo	291515	33.38 N	105.53 W	5403.5	12.66	28.12 (1941)	5.00 (1945)	1914-1998	60
Mountain Park	295960	32.57 N	105.49 W	6778.1	19.98	39.92 (1941)	9.89 (1952)	1914-1998	59
White Sands Natl Mon	299686	32.47 N	106.11 W	3994.1	9.00	20.89 (1941)	2.80 (1956)	1939-1998	55
Orogrande 1N	296435	32.23 N	106.06 W	4181.0	10.14	20.85 (1984)	2.93 (1934)	1914-1998	66
Ancho	290394	33.56 N	105.45 W	6123.4	13.51	34.40 (1941)	6.51 (1924)	1914-1971	52
Corona	292093	34.15 N	105.35 W	6682.2	14.76	36.11 (1941)	5.81 (1917)	1914-1977	53
Corona 11 SSW	292096	34.06 N	105.41 W	6498.3	13.90	16.64 (1979)	11.25 (1982)	1977-1992	6
Cloudcroft	291927	32.57 N	105.44 W	8657.9	27.04	48.10 (1941)	16.60 (1922)	1914-1987	44
Cloudcroft 2	291931	32.57 N	105.44 W	8704.8	31.69	39.24 (1991)	25.17 (1995)	1987-1998	10
Mescalero	295657	33.09 N	105.47 W	6714.2	19.28	35.19 (1941)	9.56 (1947)	1914-1978	38
Ruidoso 2 NNE	297649	33.20 N	105.41 W	6758.1	21.90	34.81 (1965)	12.27 (1970)	1942-1998	43
Fort Stanton	293288	33.30 N	105.31 W	6222.5	13.47	25.63 (1941)	6.06 (1945)	1914-1974	42
Bingham 2 NE	290983	33.55 N	106.21 W	5549.4	10.26	17.23 (1941)	2.84 (1956)	1939-1998	45
Duran	292665	34.28 N	105.24 W	6283.5	17.12	31.72 (1941)	10.24 (1952)	1931-1952	5
Gallinas	293408	34.09 N	105.39 W	6642.3	15.97	35.98 (1941)	8.02 (1934)	1931-1946	13
Capitan	291440	33.32 N	105.36 W	6463.2	16.44	30.74 (1941)	8.00 (1963)	1931-1998	56

ALAMOGORDO, NEW MEXICO

4350 ft

(4344.0)

Monthly Total Precipitation (inches)

2402.0° ALAMO Filter = 4720
4722.9

File last updated on Jul 19, 1998

*** Note *** Provisional Data *** After Year/Month 199804

32°53'N / 105°57'W

a = 1 day missing, b = 2 days missing, c = 3 days, ..etc..,

z = 26 or more days missing, A = Accumulations present

Long-term means based on columns; thus, the monthly row may not

sum (or average) to the long-term annual value.

MAXIMUM ALLOWABLE NUMBER OF MISSING DAYS : 5

Individual Months not used for annual or monthly statistics if more than 5 days are missing.

Individual Years not used for annual statistics if any month in that year has more than 5 days missing.

YEAR(S)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
1914	0.00	0.22	0.55	0.38	1.50	3.45	4.05	2.03	0.50	1.49	0.81	2.81	17.79
1915	0.53	0.90	1.89 b	2.22	0.02	0.00	1.60	0.79	3.08	0.00	0.00	0.87	11.90
1916	0.59	0.13	1.11	0.35	1.08	0.00	0.47	1.61	0.95	2.37	0.00	0.35	9.01
1917	0.53	0.00	0.00	0.00	0.60	0.60	0.20	3.49	0.10	0.00	0.00	0.00	5.52
1918	0.82	0.25	0.22	0.00	0.00	0.91	0.58	1.20	0.08	2.97	1.60	0.00	8.63
1919	0.02	0.09	2.32	1.87	0.27	1.76	2.81	1.14	3.30	0.69	0.90	0.44	15.61
1920	1.19	1.23	0.24	0.00	0.51	1.89	1.62	2.42	0.61	0.83	0.00	0.00	10.54
1921	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1922	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1923	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1924	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1925	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1926	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1927	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1928	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1929	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1930	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1931	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1932	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1933	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1934	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1935	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1936	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1937	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1938	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1939	0.82	0.00	0.55	0.24	0.16	0.09	1.07	1.91	2.54	1.35	0.43	0.67	9.83
1940	0.38	0.78	0.00	0.10	1.60 a	1.25	1.20 a	0.22	0.27	0.45	0.94	0.30	7.49
1941	1.13	1.18	1.34	1.29	3.03	0.36	1.26	1.96	6.94	2.63	0.14	0.61	21.87
1942	0.16	0.36	0.00	2.13	0.00	0.97	0.43	3.42 a	1.48	0.00 z	0.00	2.33	11.28
1943	0.18	0.00	0.00	0.00	0.23	2.56	0.54	0.88	0.36	0.08	1.12	1.93	7.88
1944	1.13	0.82	0.32	0.06	0.40	1.08	1.24	2.37	0.99	0.10	0.99	0.52	10.02
1945	0.62	0.00	0.08	0.00	0.00	0.05	2.96	1.96	0.15	1.48	0.00	0.35	7.65
1946	1.33	0.00	0.10	0.04	0.50	0.38	2.52	1.25	1.55	0.33	1.56	0.28	9.84

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1947	1.35	0.20	0.47 a	0.00	0.11	0.19	1.63	1.56	0.26	0.35	0.84	0.58	7.54
1948	1.07	0.74	0.12	0.10 s	1.88	1.02	0.89 g	2.10	0.09	1.07	0.15	0.95	9.19
1949	2.61	0.78	0.00	1.31	0.10	0.99	1.52	1.02	2.52 g	1.63	0.00 l	0.66 b	10.62
1950	0.00	0.10	0.00	0.00	0.00 h	0.64	3.87	0.36	2.42	1.05	0.00	0.00	8.44
1951	1.09	0.10 i	0.69	0.66	0.05	0.00	0.56	1.74	0.00	0.60 f	0.22	0.22 d	5.23
1952	0.30	0.28	0.65	0.61	0.11 a	0.88	0.61	0.17	0.17	0.00	0.27	0.80 d	4.85
1953	0.00	0.89	0.36 a	0.81 v	0.17	2.44	2.81	1.33	0.56	0.93	0.03	0.12 d	9.64
1954	0.09	0.04	0.10 a	0.04 c	0.53	0.30	2.18	1.83	1.23	0.09	0.00	0.00	6.43
1955	1.40	0.00 g	0.57	0.00	0.06	0.19	5.40	0.20	1.56	1.08	0.00	0.00	10.46
1956	0.00	0.45	0.00	0.00 z	0.00 e	0.43	0.86	0.08	0.23	0.69	0.00	0.19	2.93
1957	0.44	1.22	0.64 g	0.37	0.00 z	0.00	0.96	3.52 b	0.93	3.25	0.84	0.00	11.53
1958	0.89	0.45	3.02	0.58	0.44	1.07	1.12	2.70	3.09	1.50	0.39	0.00	15.25
1959	0.00	0.54	0.00	0.10	0.66	0.41	1.35	6.67	0.02	0.45	0.04	0.54	10.78
1960	1.41	0.30	0.14	0.00	0.66	0.98	2.27	0.55	0.74	0.79	0.09	1.54	9.47
1961	0.53	0.03	0.61	0.00	0.03	1.34	1.16	3.18	1.80	0.09	1.24	1.29	11.30
1962	1.29	0.49	0.19	0.21	0.00	0.29	4.53	0.79	2.85	1.04	0.44	0.84	12.96
1963	0.34	0.35	0.00	0.00 z	0.02	0.01	1.38	2.54	2.03	1.34	0.15	0.03	8.19
1964	0.15	0.43	0.42	0.17	0.11	0.00	0.99	1.32	2.85	0.02	0.00	0.28	6.74
1965	0.59	0.56	1.01	0.20	0.04	0.88	2.22	3.03	2.14	0.51	0.08	1.76	13.02
1966	0.96	0.48	0.02	0.33	0.28	2.19	2.55	1.51	1.18	0.01	0.15	0.10	9.76
1967	0.00	0.51	0.10	0.02	0.18	2.21	2.39	1.68	1.35	0.02	0.92	1.47	10.85
1968	0.89	0.99	1.73	0.04	0.22	0.09	3.26	2.90	0.01	0.19	1.20	0.43	11.95
1969	0.44	0.74	0.34	0.04	1.37	0.12	2.59	3.00	2.04	2.19	0.10	1.21	14.18
1970	0.09	0.40	0.74	0.03	0.56	0.53	1.09	1.00	0.23	0.87	0.00	0.34	5.88
1971	0.05	0.28	0.00	0.86	0.15	0.64	3.01	1.89	1.26	2.22	1.28	0.76	12.40
1972	0.80	0.07	0.00	0.00	0.00	1.32	1.69	5.73	2.50	0.00 z	0.42 a	0.83	13.36
1973	0.95	0.79	2.16	0.00	0.65	1.29	4.29	0.56	0.14	0.14	0.03	0.00	11.00
1974	0.94	0.14	0.22	0.05	0.00	0.85	4.22	1.22	2.39	5.66	0.28	0.76	16.73
1975	0.54	0.80	0.74	0.02	0.02	0.53	0.96	0.97	6.24	0.00	0.33	0.00	11.15
1976	0.12	0.16	0.04	0.55	2.36	0.47	6.36	0.52	3.64	1.25	0.81	0.00	16.28
1977	0.84	0.29	0.40	1.15	0.53	0.31	0.93	2.58	1.00	1.65	0.43	0.33	10.44
1978	1.30	1.15	0.33	0.07	1.19	1.38	1.07	0.00 z	1.80	2.19	2.91	0.00 z	13.39
1979	1.19	0.77	0.00	0.00 z	0.00 z	1.99	2.25	3.93	1.63	0.02	0.00	0.96	12.74
1980	0.88	0.79	0.15	0.07	0.56	0.15	0.29	3.74	3.29	0.14	0.10	0.09	10.25
1981	0.79	0.66	0.60	0.00	0.09	0.68	2.23	3.53	2.20	0.81	0.64	0.33	12.56
1982	1.20	0.29	0.00	0.00	0.66	0.41	1.25	2.26	4.01	0.00	0.33	2.36	12.77
1983	1.40	0.78	0.28	0.74	0.29	1.30	1.52	0.29	1.00	1.68	2.37	0.68	12.33
1984	0.15	0.00	0.05	0.18	0.73	1.87	1.62	4.13	0.22	3.27	2.12	3.01	17.35
1985	0.98	0.23	1.11	0.90	0.04	0.89	2.15	2.03	3.66	6.09	0.14	0.12	18.34
1986	0.00	0.72	0.68	0.00	0.68	1.70	2.44	2.28	1.63	1.15	3.40	1.91	16.59
1987	0.50	0.54	0.24	0.73	0.68	2.16	0.96	2.76	0.95	0.58	0.64	1.10	11.84
1988	0.62	1.18	0.20	0.31	0.06	1.38	1.62	4.44	0.68	0.43	0.01	0.73	11.66
1989	0.61	1.03	0.45	0.00	0.21	0.01	3.17	3.46	1.35	0.10	0.08	0.62	11.09
1990	1.07	0.52	1.12	0.94	0.53	0.15	2.78	2.35	3.53	0.76	0.63	0.73	15.11
1991	1.02	1.12	0.20	0.00	0.43	0.20	1.18	4.50	3.17	0.34	0.97	5.45	18.58
1992	1.98	0.21	1.13	0.88	3.56	0.44	2.15	1.17	0.51	0.70	0.10	1.61	14.44
1993	1.97	0.57	0.00	0.33	0.56	0.73	3.56 a	2.70	0.12	0.86	0.97	0.39	12.76
1994	0.50	0.17	0.87	0.44	1.85	0.25	2.45	0.93	1.13	0.90	1.22	1.43	12.14

1995	0.76	0.46	0.10	0.00	0.06	0.65	1.65	2.22	2.51	0.00	0.16	0.66	9.23
1996	0.40	0.10	0.00	0.06	0.00	2.72	0.80	0.73	2.48	0.57	0.08	0.00	7.94
1997	1.05 a	0.84	0.11	1.02	1.17	0.70	2.71	1.03	1.24 a	0.55	0.40	1.95	12.77
1998	0.45	1.00	1.15	0.00	0.00	0.41	0.55 m	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	3.01

Period of Record Statistics

MEAN	0.72	0.50	0.49	0.37	0.54	0.87	1.99	2.05	1.61	1.05	0.56	0.79	11.70
S.D.	0.54	0.37	0.63	0.53	0.73	0.79	1.27	1.36	1.44	1.22	0.72	0.94	3.66
SKEW	0.77	0.35	1.94	1.86	2.23	1.10	1.13	0.94	1.36	2.20	1.92	2.40	0.45
MAX	2.61	1.23	3.02	2.22	3.56	3.45	6.36	6.67	6.94	6.09	3.40	5.45	21.87
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.08	0.00	0.00	0.00	0.00	4.85
NO YRS	67	65	66	62	64	67	65	65	65	63	65	65	53

ALAMOGORDO, NEW MEXICO (290199)

Period of Record Monthly Climate Summary

Period of Record : 1/ 1/1914 to 4/30/1998

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	56.3	61.7	67.9	77.0	86.1	95.0	94.5	91.9	86.7	77.3	65.2	57.1	76.4
Average Min. Temperature (F)	28.6	32.6	37.9	45.2	53.6	62.6	65.9	64.2	58.0	47.1	35.3	28.9	46.7
Average Total Precipitation (in.)	0.72	0.48	0.49	0.37	0.54	0.86	1.96	2.04	1.62	1.03	0.55	0.79	11.45
Average Total SnowFall (in.)	1.8	0.8	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.2	4.5
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Western Regional Climate Center, Greg McCurdy, gmwrcc@dri.edu

ALAMOGORDO, NEW MEXICO

Period of Record General Climate Summary - Precipitation

	Precipitation											Total Snowfall		

	Mean	High	Year	Low	Year	1 Day Max.		>= 0.01 in.	>= 0.10 in.	>= 0.50 in.	>= 1.00 in.	Mean	High	Year
	in.	in.	-	in.	-	in.	dd/yyyy	# Days	# Days	# Days	# Days	in.	in.	-
January	0.72	2.61	49	0.00	14	1.03	26/1944	4	2	0	0	1.8	9.5	66
February	0.49	1.23	20	0.00	17	0.86	17/1957	3	2	0	0	0.7	4.8	88
March	0.49	3.02	58	0.00	17	1.16	06/1958	3	1	0	0	0.4	5.5	65
April	0.37	2.22	15	0.00	17	1.00	08/1919	2	1	0	0	0.1	3.5	83
May	0.54	3.56	92	0.00	18	1.23	11/1941	3	1	0	0	0.0	0.0	48
June	0.87	3.45	14	0.00	15	2.01	17/1953	4	2	0	0	0.0	0.0	48
July	1.97	6.36	76	0.20	17	1.80	23/1954	8	5	1	0	0.0	0.0	48
August	2.05	6.67	59	0.08	56	2.51	27/1959	8	5	1	0	0.0	0.0	48
September	1.63	6.94	41	0.00	51	2.60	22/1941	6	4	1	0	0.0	0.0	48
October	1.04	6.09	85	0.00	15	1.80	11/1985	4	2	1	0	0.0	1.5	91
November	0.56	3.40	86	0.00	15	1.34	02/1986	3	1	0	0	0.2	6.0	76
December	0.79	5.45	91	0.00	17	2.32	18/1991	4	2	0	0	1.2	10.0	60
Annual	11.54	21.87	41	4.85	52	2.60	19410922	50	29	7	2	4.4	18.3	60
Winter	2.00	7.64	92	0.11	19	2.32	19911218	10	6	1	0	3.8	14.7	88
Spring	1.40	5.66	41	0.00	50	1.23	19410511	7	4	1	0	0.4	5.5	65
Summer	4.90	9.53	14	1.37	56	2.51	19590827	20	11	3	1	0.0	0.0	48
Fall	3.23	9.89	85	0.10	17	2.60	19410922	12	8	2	1	0.2	6.0	76

Station:(290199) ALAMOGORDO
From Year=1914 To Year=1998

For monthly and annual means, thresholds, and sums:
Months with 10 or more missing days are not considered
Years with 1 or more missing months are not considered

Western Regional Climate Center, Greg McCurdy, gmwrcc@dri.edu

TULAROSA, NEW MEXICO 454c ft

Monthly Total Precipitation (inches)

File last updated on Jul 19, 1998
*** Note *** Provisional Data *** After Year/Month 199804
a = 1 day missing, b = 2 days missing, c = 3 days, ..etc..,
z = 26 or more days missing, A = Accumulations present
Long-term means based on columns; thus, the monthly row may not
sum (or average) to the long-term annual value.
MAXIMUM ALLOWABLE NUMBER OF MISSING DAYS : 5
Individual Months not used for annual or monthly statistics if more than 5 days are missing.
Individual Years not used for annual statistics if any month in that year has more than 5 days missing.

YEAR(S)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
1914	0.00 z	0.00 z	0.00 z	0.62	1.05	3.09	3.16	1.87	0.25	1.62	0.00	2.49	14.15
1915	0.19	2.40	1.59	2.84	0.00	0.00	1.01	1.08	1.99	0.00	0.00	0.74	11.84
1916	1.30	0.09	0.00 z	0.00 z	0.48	0.00 z	0.67	1.19	0.70	0.00 z	0.10	0.12	4.65
1917	0.25	0.10	0.00	0.00	1.00	0.00	0.05	3.72	0.15	0.00	0.30	0.00	5.57
1918	0.79	0.00	0.10	0.00	0.00	0.75	1.53	1.58	0.00	1.39	1.13	1.23	8.50
1919	0.00	0.16	1.79	1.15	0.10	1.32	2.01	0.64	4.39	0.75	1.17	0.10	13.58
1920	0.88	0.38	0.55	0.00 z	0.47	3.23	0.50	0.68	0.55	0.90	0.00	0.00	8.14
1921	0.35	0.05	0.40	0.00	0.15	1.77	2.29	1.58	1.02	0.00	0.00	0.57	8.18
1922	0.48	0.00	0.20 a	0.91	0.26	0.74	0.96	0.39	0.80	0.46	0.50	0.36	6.06
1923	0.41	1.41	0.40	0.70	0.00	0.00	1.42	3.18 a	0.10	0.59	1.75	0.65	10.61
1924	0.35	0.08	0.61 a	0.22	0.48	0.05	2.64	0.30	0.16	0.22	0.25	0.23	5.59
1925	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1926	0.61	0.00	2.54	0.42 a	1.80	0.57	0.00 z	0.17	4.65	1.64	0.00 z	1.50	13.90
1927	0.00	0.16	0.07	0.00	0.00	0.64	1.40	2.52	1.54	0.00	0.00	0.41	6.74
1928	0.00	0.58	0.00	0.00	3.40	0.00	1.10	0.10	0.04	0.60	1.18	0.00	7.00
1929	0.00	0.60	0.00 z	0.00	0.00 z	0.00	2.05	2.64	1.01	0.84	0.69	0.04	7.87
1930	0.80	0.06	0.00	0.00	0.56	0.21	1.14	0.72	0.01	0.94	0.93	0.35	5.72
1931	0.27	1.73	0.10	1.23	0.10	0.23	2.78	3.28	1.68	0.46	1.58	0.55	13.99
1932	1.10	0.74	0.84	0.31	0.77	0.55	0.75	3.38	1.22 a	1.14	0.00	1.50	12.30
1933	0.20	0.00 z	0.40	0.30	0.30	2.89	2.87 a	0.97	0.82	0.20	0.75	0.00	9.70
1934	0.00	0.02	0.95	0.00	0.28	0.43	0.15	0.22	0.15	0.28	1.00	0.40 a	3.88
1935	0.55	0.60	0.30	0.30	0.56	0.01	0.00 z	1.30	0.00 z	0.00 z	0.30	0.40	4.32
1936	1.94	0.22	0.00	0.85	1.10	0.16	1.24	1.32	5.52	0.40	0.52	1.13	14.40
1937	0.00	0.68	0.49	0.00	1.62	0.02	1.93	1.00	1.03	0.87	0.00	0.13	7.77
1938	1.21	1.24 a	0.26	0.01	0.11	1.66	1.78	0.95	4.78	0.33	0.38	1.30	14.01
1939	0.91	0.04	0.00 z	0.00	0.00	0.10	1.63	0.90	2.86	0.95	0.42	0.42	8.23
1940	0.00	1.05	0.00	0.22	1.62 a	0.46	0.50	1.22	0.95	0.04	1.11 a	0.55	7.72
1941	1.70	0.80	1.00	0.75	1.46	0.59	1.28	2.50	9.82	2.53	0.20	1.02	23.65
1942	0.00	0.74	0.37	1.39	0.00	0.20	0.50	2.36	2.05	1.00	0.00	1.09	9.70
1943	0.12	0.00	0.00	0.00	0.00 z	4.00	0.28	0.85	1.13	0.00	1.54	2.28	10.20
1944	0.19	0.00 z	0.00 z	0.00 z	0.00	0.33	1.54	0.79	1.04	0.00	0.20	0.00 z	4.09
1945	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1946	0.00 z	0.00 z	0.00 z	0.20	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.30	0.51	1.01

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1947	0.85	0.12	0.40	0.00	0.14	0.11	0.86 a	1.91	0.69	0.20	0.93	0.95	7.16
1948	0.16	1.28	0.04	0.01	0.28	1.31	1.10	0.87	0.36	0.78	0.00	1.18 a	7.37
1949	1.82	1.04	0.00	1.22	0.21	1.21	1.24	1.29	1.91	1.83	0.07	0.90	12.74
1950	0.04	0.17	0.00	0.03	0.01	1.29	4.62	0.70	2.41	0.44	0.00	0.00	9.71
1951	0.94	0.59	1.26	0.56	0.07	0.00	0.53	2.08	0.02	1.33	0.31	0.57	8.26
1952	0.36	0.59	0.61	0.86	0.27	1.21	1.57	1.73	1.16	0.00	0.48	0.35	9.19
1953	0.00	0.55	0.65	1.63	0.32	0.96	2.04	1.10	1.83	0.59	0.01	0.05	9.73
1954	0.09	0.00	0.04	0.21	0.75	0.00	0.00	2.15	1.26	0.00	0.00	0.00	4.50
1955	0.67	0.04	0.70	0.12	0.00	0.00	3.51	3.79	0.15	0.00 d	0.00	0.00	8.98
1956	0.00	0.25	0.00	0.00	0.02	0.00	0.50	0.84	1.10	2.52	0.00	0.13	5.36
1957	0.00 z	1.18	1.12	0.25	0.25	0.28	2.00	2.43	0.31	2.80	0.67	0.00	11.29
1958	1.05	0.21	2.59	0.57 a	0.34	1.80	0.73	3.06	3.42	1.50	0.50	0.00	15.77
1959	0.05	0.36	0.00	0.03	0.61	0.13 b	1.59 a	2.10	0.04	0.54	0.01	0.00 z	5.46
1960	1.43	0.49	0.03	0.00 z	1.51	0.00 z	2.39	0.00 z	0.28	0.00 z	0.04	1.04	7.21
1961	0.72	0.00 z	0.26	0.00	0.11	0.00 e	0.95	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	2.04
1962	0.00 z	0.31	0.00	0.22	0.00 z	0.76	2.59 a	0.00	2.54	1.44	0.21 a	0.37	8.44
1963	0.17	0.27	0.00 z	0.00 z	0.00 z	0.87	0.72	1.80 a	0.00 z	0.69	0.22	0.20	4.94
1964	0.28	0.12	0.26	0.11	0.75	0.00	0.73	0.48	2.16	0.00	0.02	0.31	5.22
1965	0.56	0.44	0.81	0.52	0.26	0.18	1.05	1.84	1.90	0.58	0.03 b	1.88	10.05
1966	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	2.10	1.07	1.98	0.58	0.09	0.10	0.04	5.96
1967	0.00	0.45	0.00	0.03	0.23	1.15	1.64	0.00 z	0.00 z	0.00 z	0.00 z	1.12	4.62
1968	0.53	0.69	1.61	0.02	0.11	0.15	3.01	2.15	0.00 z	0.00 z	0.89 j	0.00	8.27
1969	0.00	0.65	0.43	0.00	0.00 z	0.21	2.23	1.41	2.02	1.86	0.05	1.00 b	9.86
1970	0.03	0.57	0.77	0.01	0.11	0.74	1.49	0.56	0.22	0.96	0.00	0.27	5.73
1971	0.13	0.26	0.00	0.66	0.00	0.57	4.84	1.61	0.95	2.52	1.28	0.96	13.78
1972	0.07	0.01	0.00	0.00	0.00	0.12	0.00 z	2.94 o	1.37	4.25	0.40	0.45	6.67
1973	0.73	1.33	0.00 z	0.05	1.19	0.56	2.80	1.07	0.79	0.00	0.01	0.00	8.53
1974	0.55	0.00	0.15	0.00	0.15	0.18	2.25	1.91	0.93 f	3.70	0.49	0.87	10.25
1975	0.50	0.68	1.09	0.00	0.55	0.00	3.17	0.73	3.53	0.10	0.00	0.21	10.56
1976	0.01	0.90	0.09	0.48	2.01	1.25	2.57	0.89	0.28	0.49	0.99	0.00	9.96
1977	0.92	0.20	0.00 z	0.62	0.30	0.27	2.69	1.29	0.63	0.00	0.75	0.00	7.67
1978	1.08	0.74	0.51	0.00	1.26	1.85	0.65	1.56	0.84	2.28	2.62	1.09	14.48
1979	0.00 z	0.42	0.00	0.02	1.41	0.56	1.65	2.93	0.00 z	0.00 z	0.00 z	0.00 z	6.99
1980	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1981	0.00 z	0.00 z	0.18	0.18	0.17	0.41	1.63	2.51	0.71	0.46	0.37	0.21	6.83
1982	0.29	0.22	0.04	0.03	0.14	0.06	1.44 c	1.07	2.84	0.00	0.46	1.53	8.12
1983	1.13	0.78	0.21	0.62	0.21	0.13	2.04 a	1.73 e	2.06	1.53	1.69	0.55	12.68
1984	0.07	0.00	0.00	0.17	1.36	2.53	1.89	3.28	0.23	2.67	1.37 j	3.44	15.64
1985	1.01	0.34	0.48	1.05	0.06	0.68	1.84	3.42	2.94	4.88	0.12 a	0.10	16.92
1986	0.02	0.49	0.60	0.02	0.50	2.87	2.66	2.85	1.12	2.50	2.76	1.85	18.24
1987	0.28	0.75	0.30	0.21	0.82	1.27	0.59	1.99	0.44	0.39	0.78	0.77	8.59
1988	0.29	0.97	0.09	0.45	0.08	1.07 a	3.89	3.83	1.49	0.16	0.27	0.99 a	13.58
1989	0.57	0.79	0.18	0.00	0.26	0.00	0.84	2.44	1.46	0.16	0.11	0.59	7.40
1990	0.90	0.70	0.99	0.54	0.57	0.06	1.57	2.20	2.19 a	0.81	0.69	0.72	11.94
1991	0.37	1.07	0.11	0.25	0.24	0.57	2.22	3.35 a	1.96	0.57	0.73	4.17	15.61
1992	1.45	0.27	1.29	1.28	2.40 a	0.27	1.18	1.13	0.63	0.53	0.12	1.91	12.46
1993	1.64	0.63	0.04	0.22	0.45	0.57	0.85	3.62	0.07	0.80	0.68	0.24	9.81
1994	0.22	0.01	0.38	0.01	1.37	0.18	1.05	1.07	0.46	0.85	1.11	1.52	8.23

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1995	0.66	0.25	0.24	0.00	0.03	0.89	0.71	0.99	2.22	0.00	0.13	0.52	6.64
1996	0.39 a	0.11	0.00	0.04	0.00	1.59	0.70	0.82	2.96	0.73	0.20 a	0.00	7.54
1997	0.25	0.61	0.23	1.06	1.36 a	0.43	0.73	2.09	2.09	0.79	0.37	2.03	12.04
1998	0.02	0.89	1.11	0.00 a	0.00 z	0.41 z	38.29 v	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	2.02

Period of Record Statistics

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
MEAN	0.51	0.50	0.46	0.35	0.55	0.74	1.61	1.68	1.49	0.92	0.49	0.72	10.10
S.D.	0.50	0.46	0.57	0.50	0.66	0.88	1.00	1.00	1.58	1.04	0.59	0.80	3.94
SKEW	1.01	1.35	1.85	2.23	1.80	1.68	0.94	0.48	2.52	1.72	1.74	1.89	0.92
MAX	1.94	2.40	2.59	2.84	3.40	4.00	4.84	3.83	9.82	4.88	2.76	4.17	23.65
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.88
NO YRS	75	75	72	76	74	78	77	76	73	73	75	77	53

TULAROSA, NEW MEXICO

iod of Record General Climate Summary - Precipitation

Station:(299165) TULAROSA												
From Year=1914 To Year=1998												
Precipitation										Total Snowfall		
High	Year	Low	Year	1 Day Max.		>= 0.01 in.	>= 0.10 in.	>= 0.50 in.	>= 1.00 in.	Mean	High	Year
in.	-	in.	-	in.	dd/yyyy	# Days	# Days	# Days	# Days	in.	in.	-
1.94	36	0.00	19	1.00	11/1941	2	1	0	0	0.7	7.5	58
2.40	15	0.00	18	1.00	19/1915	3	2	0	0	0.4	5.0	89
2.59	58	0.00	17	1.44	06/1958	2	1	0	0	0.0	1.5	65
2.84	15	0.00	17	1.20	23/1953	2	1	0	0	0.0	0.0	48
3.40	28	0.00	15	1.30	31/1960	3	2	0	0	0.0	0.0	48
4.00	43	0.00	15	2.00	27/1943	3	2	0	0	0.0	0.0	48
4.84	71	0.00	54	1.77	11/1950	7	4	1	0	0.0	0.0	48
3.83	88	0.00	62	2.51	29/1932	7	4	1	0	0.0	0.0	48
9.82	41	0.00	18	4.75	28/1941	5	3	1	0	0.0	0.0	48
4.88	85	0.00	15	2.29	20/1972	3	2	1	0	0.0	0.0	48
2.76	86	0.00	14	1.25	02/1986	2	1	0	0	0.3	9.5	76
4.17	91	0.00	17	1.30	10/1943	3	2	0	0	0.6	7.8	60
23.65	41	3.88	34	4.75	19410928	42	26	6	1	2.0	9.5	76
5.89	92	0.02	34	1.30	19431210	8	5	1	0	1.7	7.5	58
4.97	92	0.00	72	1.44	19580306	7	4	1	0	0.0	1.5	65
8.79	88	0.80	34	2.51	19320829	17	10	2	0	0.0	0.0	48
12.55	41	0.15	55	4.75	19410928	10	6	2	0	0.3	9.5	76

For monthly and annual means, thresholds, and sums:
Months with 10 or more missing days are not considered
Years with 1 or more missing months are not considered

'limate Center, Greg McCurdy, gmwrcc@dri.edu

)v	Dec	Annual
.9	56.5	75.8
.9	29.0	45.4
i1	0.71	9.99
.3	0.6	2.0
0	0	0

CARRIZOZO, NEW MEXICO 5420 (1

Monthly Total Precipitation (inches)

File last updated on Jul 19, 1998
*** Note *** Provisional Data *** After Year/Month 199804
a = 1 day missing, b = 2 days missing, c = 3 days, ..etc..,
z = 26 or more days missing, A = Accumulations present
Long-term means based on columns; thus, the monthly row may not
sum (or average) to the long-term annual value.
MAXIMUM ALLOWABLE NUMBER OF MISSING DAYS : 5
Individual Months not used for annual or monthly statistics if more than 5 days are missing.
Individual Years not used for annual statistics if any month in that year has more than 5 days missing.

YEAR(S)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
1914	0.00	0.50	0.25	0.00 z	1.25	0.25	3.77	1.20	0.50	1.00	0.30	2.06	11.08
1915	0.25	1.31	1.11	2.40	0.30	0.01	3.57	1.15	2.13	0.16	0.08	0.19	12.66
1916	1.59	0.00	0.42	0.93	0.17	0.50	0.39	0.51	0.00	1.98	0.00	0.57	7.06
1917	0.53	0.03	0.00	0.00	0.00 z	0.06	0.46	0.00 z	0.00	0.00	0.16	0.00	1.24
1918	0.70	0.30	0.22	0.00	0.00	0.05	2.89	2.02	0.00	3.47	0.59	1.21	11.45
1919	0.00	0.11	0.97	1.53	0.59	1.59	1.30	0.83	0.68	0.10	0.00 z	0.38	8.08
1920	0.44	0.70	0.40	0.00	0.32	1.23	0.81	0.06	2.05	1.52	0.00	0.00 z	7.53
1921	0.50	0.00	1.31	0.00	0.20	1.39	5.63	2.14	1.24	0.18	0.00	0.00	12.59
1922	0.53	0.00	0.00	0.31	0.15	0.00 z	0.86	1.76	0.21	0.00 z	1.21	0.27	5.30
1923	0.41	1.44	0.85	0.80	0.00 z	0.00	1.33	3.01	0.00 z	0.63	2.65	4.07	15.19
1924	0.05	0.00	0.52	0.36	0.00	0.35	2.53	0.11	0.33	0.00 z	0.00 z	0.56	4.81
1925	0.27	0.00	0.30	0.02	1.01	0.58	2.17	2.08	0.54	0.97	0.16	0.27	8.37
1926	1.04	0.00	2.86	0.49	2.59	0.00 z	2.96	0.77	0.00 z	1.41	0.00	3.40	15.52
1927	0.00 z	0.03	0.42	0.37	0.00	1.36	4.02	3.98	2.12	0.29	0.00	0.00 z	12.59
1928	0.00	1.76	0.46	0.79	2.96	0.00	1.42	6.83	1.07	3.43	0.94	0.58	20.24
1929	0.00 z	1.02	0.75	0.00 z	2.52	0.00 z	7.26	0.00 z	0.84	0.75	0.96	0.00	14.10
1930	1.04	0.72	0.00 z	0.10	0.00 z	0.64	3.58	3.68	0.36	0.92	1.56	0.00 z	12.60
1931	0.00 z	0.00 z	0.00 z	4.87	0.32	0.00 z	0.00 z	4.15	0.00 z	4.02	1.67	0.00 z	15.03
1932	1.31	0.00 z	2.72	0.12	1.96	2.29	0.00 z	5.81	4.04	0.00 z	0.00 z	1.67	19.92
1933	0.44	0.00 z	0.37	1.46	0.00 z	4.08	0.00 z	2.69	0.00 z	1.51	0.55	0.00 z	11.10
1934	0.00 z	0.00 z	0.74	0.45	0.00 z	0.04	1.52	1.62	0.00 z	0.02	1.65	0.82	6.86
1935	0.97	0.58	0.41	0.00	2.05	3.98	2.69	7.93	0.00 z	0.40	0.00 z	0.97	19.98
1936	2.90	0.00 z	0.71	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	3.61
1937	0.00 z	0.00 z	0.78	0.36	1.73	1.02	0.43	1.38	1.33	1.02	0.02	0.64	8.71
1938	0.85	0.61	0.35	0.17	0.01	1.83	3.86	0.73	3.12	0.18	0.14	1.06	12.91
1939	0.86	0.10	0.93	0.76	0.04	0.35	2.50	2.14	2.15	0.90	0.66	0.24	11.63
1940	0.31	1.25	0.09	0.01	1.99	1.46	1.17	1.15	0.37	0.16	0.82	0.41	9.19
1941	2.04	0.98	1.62	0.57	2.35	1.21	2.51	2.43	9.69	2.79	0.97	0.96	28.12
1942	0.02	0.77	0.07	2.16	0.00	0.38	1.86	0.00 z	1.65	0.67	0.00	0.00 z	7.58
1943	0.28	0.00 z	0.00 z	0.00 z	0.00 z	2.11	1.73	0.06	0.87	0.81	0.41	1.43	7.70
1944	1.20	0.50	0.04	0.48	0.38	0.09	1.63	2.95	1.39	0.00	1.05	0.99	10.70
1945	0.63	0.02	0.76	0.44	0.00	0.01	1.83	0.45	0.31	0.26	0.00	0.29	5.00
1946	0.79	0.08	0.30	0.67	0.42	0.69	1.45	1.51	1.35	0.99	0.50	0.72	9.47

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1947	0.21	0.13	0.16	0.05	0.51	0.17	1.20	1.30	0.06	0.55	1.22	0.82	6.38
1948	0.27	1.34	0.21	0.29	1.52	1.23	0.79	0.83	0.38	0.55	0.36	0.89	8.66
1949	1.36	1.25	0.53	0.95	0.47	1.05	3.79	1.75	2.22	1.22	0.00	0.90	15.49
1950	0.05	0.21	0.00	0.35	0.00	1.21	3.42	1.76	2.23	0.19	0.00	0.00	9.42
1951	0.72	0.64	0.85	0.56	0.31	0.10	2.11	2.70	0.30	1.34	0.53	0.52	10.68
1952	0.20	0.17	0.68	0.79	0.16	1.09	1.13	2.29	2.12	0.00	0.65	0.76	10.04
1953	0.07	0.72	2.08	0.57	0.60	0.58	3.21	1.34	1.06	0.45	0.83	0.33	11.84
1954	0.26	0.03	0.61	0.18	2.01	1.01	1.65	1.89	2.90	1.61	0.00	0.34	12.49
1955	1.11	0.04	0.32	0.09	0.24	0.46	1.98	2.04	1.18	0.59	0.00	0.21	8.26
1956	0.30	0.54	0.00	0.06	0.14	0.67	2.15	2.50	0.04	0.83	0.00	0.00	7.23
1957	0.36	1.62	1.76	0.62	0.39	0.11	2.07	2.67	0.24	2.34	1.21	0.20	13.59
1958	0.49	0.32	2.75	1.30	1.37	3.22	4.00	1.30	4.50	1.45	0.95	0.20	21.85
1959	0.13	0.32	0.06	0.50	0.68	1.50	2.79	3.54	0.14	1.16	0.10	1.25	12.17
1960	1.68	0.27	0.08	0.00	1.36	1.97	3.77	0.86	1.53	1.03	0.07	0.62	13.24
1961	0.43	0.08	1.02	0.45	0.44	1.10	0.95	3.94	3.21	0.83	1.17	1.32	14.94
1962	0.94	0.26	0.22	0.73	0.02	0.47	5.37	0.71	4.02	1.32	1.40	1.09	16.55
1963	0.16	0.34	0.20	0.56	0.07	0.21	0.78	5.02	2.06	0.36	0.40	0.22	10.38
1964	0.13	0.26	0.44	0.29	0.95	0.38	1.25	1.05	1.42	0.00	0.05	0.34	6.56
1965	0.45	0.35	0.53	0.43	0.85	0.79	2.17	2.39	6.26	0.46	0.30	1.46	16.44
1966	0.69	0.89	0.07	0.01	0.09	2.34	1.38	5.21	1.22	0.33	0.30	0.25	12.78
1967	0.00	0.44	0.25	0.04	0.01	2.01	1.57	4.56	2.27	0.00	0.42	0.92	12.49
1968	0.71	1.16	1.09	0.18	0.30	0.62	3.19	2.36	0.61	1.03	1.00	0.82	13.07
1969	0.27	0.77	0.67	0.31	1.35	0.18	3.37	3.13	2.17	1.24	0.05	1.00	14.51
1970	0.00	0.19	0.47 c	0.12	0.12	0.78	2.05	0.00 z	0.18	1.59	0.12	0.75	6.37
1971	0.12	0.29	0.00	0.45	0.00	0.34	2.85	2.70	1.77	2.21	2.02	1.71	14.46
1972	0.76	0.35	0.03	0.00	0.55	1.01	0.00 z	4.72	2.87	3.68	1.31	1.22	16.50
1973	0.71	0.46	1.75 a	0.00	1.24	0.69	3.13	0.95	0.00 z	0.00	0.11	0.00	9.04
1974	0.60	0.42	0.58	0.00	0.14	0.19	2.04	3.21	1.91	4.16	0.40	1.14	14.79
1975	0.51	1.21	1.16	0.07	0.00	0.11	2.79	2.53	1.47	0.00	1.27	0.25	11.37
1976	0.00	0.60	0.10	0.71	1.98	0.80	2.07	1.26	3.26	0.04	0.20	0.00	11.02
1977	1.06	0.71	0.19	1.47	0.47	0.09	1.37	4.84	1.16	0.12	0.40	0.20	12.08
1978	2.81	1.02	0.75	0.05	1.17	0.42	0.40	0.00	0.74	2.20	3.08	1.48	14.12
1979	1.79	0.84	0.11	0.07	1.41	1.02	2.86	2.83	1.48	0.47	0.21	0.89	13.98
1980	0.67	0.54	0.38	0.62	0.37	0.60	0.93	3.17	3.19	0.05	0.09	0.68	11.29
1981	0.13	0.26	1.34	0.19	0.62	0.84	1.99	3.72	0.73	0.74	0.57	0.10	11.23
1982	0.91	0.11	0.22	0.00	0.45	0.14	1.71	1.25	2.18	0.38	0.34	0.57	8.26
1983	0.92	0.59	1.35	0.36	0.54	0.35	1.86	0.48	0.64	1.79	1.91	0.32	11.11
1984	0.19	0.03	0.02	0.28	0.94	2.13	0.98	3.23	0.50	2.59	1.23	1.80	13.92
1985	1.84	0.44	1.01	0.93	0.14	0.17	1.26	0.84	2.13	4.84	0.48	0.13	14.21
1986	0.16	1.21	1.23	0.15	0.97	2.51	2.33	2.47	1.99	4.09	1.83	0.95	19.89
1987	0.21	0.90	0.08	0.53	1.34	1.21	0.53	3.80	0.63	0.47	0.83	0.65	11.18
1988	0.23	0.21	0.15	0.81	0.56	1.16 a	1.41 a	3.89	1.89	0.00	0.00	0.60	10.91
1989	0.58	0.74	0.36 a	0.00	0.71	0.60	3.62	3.36	0.87	0.00	0.00	0.16	11.00
1990	0.13	1.51	1.17	0.89	0.78	0.19	2.92	1.69 a	3.26	0.73	1.44	1.84	16.55
1991	0.70 b	0.96	0.31	0.00	0.05	0.26	6.33	2.98 c	1.25	0.60	1.51 c	2.62	17.57
1992	1.50	0.41 a	1.24	1.56	3.45	0.84 a	1.10	3.06	0.53	1.12 a	0.30	1.03	16.14
1993	1.44	0.96	0.26	0.00	0.31	1.59	3.52	4.05 b	0.29	1.47 a	0.73	0.40	15.02
1994	0.53	0.21	0.81	0.05	1.72 a	1.30	1.86	1.64	1.16	0.73	1.75	2.98 a	14.74

CARRIZOZO, NEW MEXICO (291515)

Period of Record Monthly Climate Summary

Period of Record : 1/ 1/1914 to 4/30/1998

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	51.3	56.3	63.0	71.9	81.2	90.4	91.1	88.4	82.9	73.3	60.5	52.3	71.9
Average Min. Temperature (F)	22.0	25.5	30.8	38.3	47.0	55.9	60.5	58.9	52.1	40.6	28.7	22.4	40.3
Average Total Precipitation (in.)	0.64	0.54	0.65	0.52	0.76	0.93	2.27	2.36	1.64	1.06	0.65	0.81	12.84
Average Total SnowFall (in.)	2.5	1.9	1.0	0.6	0.0	0.0	0.0	0.0	0.0	0.1	0.9	2.0	8.9
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Western Regional Climate Center, Greg McCurdy, gmwrcc@dri.edu

CARRIZOZO, NEW MEXICO

Period of Record General Climate Summary - Precipitation

Station:(291515) CARRIZOZO																
From Year=1914 To Year=1998																
	Precipitation												Total Snowfall			
	Mean	High	Year	Low	Year	1 Day Max.		>=0.01 in.	>=0.10 in.	>=0.50 in.	>=1.00 in.	Mean	High	Year	
	in.	in.	-	in.	-	in.	dd/yyyy	# Days	# Days	# Days	# Days	in.	in.	-	
January	0.65	2.90	36	0.00	14	1.28	12/1941	4	2	0	0	2.5	12.0	66
February	0.55	1.76	28	0.00	16	1.09	02/1940	3	2	0	0	1.9	15.7	86
March	0.66	2.86	26	0.00	17	1.11	26/1926	4	2	0	0	1.0	11.2	75
April	0.53	4.87	31	0.00	17	1.16	17/1931	3	2	0	0	0.6	10.0	49
May	0.77	3.45	92	0.00	18	1.60	18/1954	4	2	0	0	0.0	0.0	48
June	0.94	4.08	33	0.00	23	1.25	27/1996	5	3	0	0	0.0	0.0	48
July	2.29	7.26	29	0.39	16	2.50	02/1991	9	6	1	0	0.0	0.0	48
August	2.37	7.93	35	0.00	78	2.37	13/1977	9	6	1	0	0.0	0.0	48
September	1.66	9.69	41	0.00	16	3.70	03/1965	6	4	1	0	0.0	0.0	48
October	1.07	4.84	85	0.00	17	2.55	02/1986	4	2	1	0	0.1	4.0	91
November	0.65	3.08	78	0.00	16	1.20	02/1923	3	2	0	0	0.9	9.0	72
December	0.82	4.07	23	0.00	17	1.46	05/1994	3	2	0	0	2.0	10.6	59
Annual	12.95	28.12	41	5.00	45	3.70	19650903	57	34	7	1	8.8	25.2	48
Winter	2.02	4.53	92	0.53	22	1.46	19941205	10	6	1	0	6.3	22.4	60
Spring	1.95	6.25	92	0.17	66	1.60	19540518	10	6	1	0	1.6	12.5	83
Summer	5.60	14.60	35	0.82	78	2.50	19910702	23	14	3	1	0.0	0.0	48
Fall	3.37	13.45	41	0.16	17	3.70	19650903	13	8	2	0	1.0	9.0	72

For monthly and annual means, thresholds, and sums:
Months with 10 or more missing days are not considered
Years with 1 or more missing months are not considered

Western Regional Climate Center, Greg McCurdy, gmwrcc@dri.edu

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1995	0.82	0.28 a	0.50	0.33	0.00	1.07	0.90	0.88 b	2.38	0.00	0.25	0.26	7.67
1996	0.61	0.60	0.15	0.00 z	0.00	2.28	2.18	2.01 a	5.00	1.22	0.37	0.00	14.42
1997	1.17	1.09	0.60 c	1.98 a	2.25 c	1.62	3.45	1.52 b	1.94	0.51	0.81 a	1.90 a	18.84
1998	0.12	0.72 a	2.25 a	0.03 a	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	3.12

Period of Record Statistics

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
MEAN	0.65	0.55	0.66	0.52	0.77	0.94	2.29	2.37	1.66	1.07	0.65	0.82	12.66
S.D.	0.61	0.45	0.65	0.72	0.82	0.87	1.35	1.57	1.57	1.12	0.67	0.79	4.04
SKEW	1.54	0.71	1.59	3.36	1.22	1.48	1.19	0.98	2.30	1.55	1.23	1.82	1.05
MAX	2.90	1.76	2.86	4.87	3.45	4.08	7.26	7.93	9.69	4.84	3.08	4.07	28.12
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.00	5.00
NO YRS	80	78	82	80	77	79	79	79	76	80	79	77	60

MOUNTAIN PARK, NEW MEXICO   6790 ft

Monthly Total Precipitation (inches)

File last updated on Jul 19, 1998
*** Note *** Provisional Data *** After Year/Month 199804
a = 1 day missing, b = 2 days missing, c = 3 days, ..etc..,
z = 26 or more days missing, A = Accumulations present
Long-term means based on columns; thus, the monthly row may not
sum (or average) to the long-term annual value.
MAXIMUM ALLOWABLE NUMBER OF MISSING DAYS : 5
Individual Months not used for annual or monthly statistics if more than 5 days are missing.
Individual Years not used for annual statistics if any month in that year has more than 5 days missing.

YEAR(S)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
1914	0.69	0.47	0.60	0.16	0.70	3.40	8.22	3.21	2.92	3.17	0.93	4.23	28.70
1915	2.33	1.97	2.62	3.84	0.05	0.00	2.39	1.90	4.38	0.10	0.25	1.36	21.19
1916	3.26	0.15	1.30	0.69	0.31	0.00	1.46	3.45	1.65	4.25	0.20	0.96 a	17.68
1917	1.58	0.40	0.00	0.17	1.60	0.26	5.90	4.87	1.44	0.00	0.25	0.00	16.47
1918	2.48	0.86	1.27	0.04	0.00	1.55	4.29	3.71	0.62	4.48	1.98	1.96	23.24
1919	0.05	0.54	2.30	2.38	0.65	1.48	4.39	2.86	5.26	1.02	2.45	0.46	23.84
1920	0.88	1.39	1.51	0.22	0.69	4.88	2.27	2.49	0.00 z	1.71	0.02	0.27	16.33
1921	0.33	0.20	1.01	0.04	1.08	2.51	5.02	6.61	3.29	0.35	0.30	0.56	21.30
1922	2.71	0.09	0.34	1.22	1.01	0.67	1.96	1.84	0.79	2.03	1.26	0.32	14.24
1923	1.16	1.90	1.59	0.97	0.52	0.58	2.18	6.87	1.85	0.41	2.49	4.25	24.77
1924	0.00 z	0.00 z	0.00 z	0.00 z	0.49	0.00	3.89	0.00 z	0.00 z	0.00 z	0.00 z	0.44	4.82
1925	0.80	0.72	0.00	0.00	1.45	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	2.97
1926	0.00	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1927	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1928	0.00 z	0.00 z	0.00 z	0.05	2.76	0.00	0.84	3.65	0.42	4.01	0.00 z	0.80	12.53
1929	0.07	0.47	0.55	0.00 z	2.42	0.00 z	4.32	3.95	0.00 z	0.00 z	0.00 z	0.00 z	11.78
1930	0.00 z	0.00 z	0.00 z	0.00 z	0.00	0.00 z	0.00 z	0.00	0.00 z	0.00 z	0.00 z	0.00	0.00
1931	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.90	1.52	1.50	3.92
1932	0.00 z	1.25	0.00 z	0.25	0.37	0.50	2.50	5.12	0.72	1.27	0.02	0.67	12.67
1933	0.85	0.85	0.48	0.00	0.20	6.91	4.38	2.84	1.00	0.08	1.50	0.00	19.09
1934	0.00	0.00	0.35	0.00	0.00 z	0.61	0.03	0.90	0.00 z	0.46	0.67	0.00 z	3.02
1935	0.00 z	0.64	0.62	0.08	0.54	0.62	1.85	4.34	3.42	0.00	1.58	0.68	14.37
1936	2.49	0.12	0.05	0.14	2.44	0.00 z	2.79	3.06	5.50	0.77	0.50	1.05	18.91
1937	0.02	1.82	0.00 z	0.00	1.57	0.00 z	1.48	0.00 z	0.96	2.42	0.06	1.39	9.72
1938	1.17	3.00 a	1.00	0.36	0.42	2.85	0.00 z	1.71	5.48	0.31	1.03	1.52	18.85
1939	1.74	0.00 z	1.42	0.33	0.00	0.00 z	4.02	2.31	2.94	2.70	0.86	0.73	17.05
1940	0.24	1.15	0.26	0.15	3.61	1.12	0.83	1.85	1.45	1.05	1.37	1.03	14.11
1941	3.32	2.70	2.36	2.40	3.19	0.00 z	5.44	5.45	9.26	4.61	0.62	0.57	39.92
1942	0.55	0.36	0.43	2.78	0.00	0.76	3.36	5.86	4.21	1.93	0.00	3.15	23.39
1943	0.08	0.00	0.54	0.00	0.31	1.87	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	2.80
1944	0.00 z	0.00 z	0.28	0.55	0.20	0.50	3.78	2.09	0.91	0.29	1.59	1.07	11.26
1945	0.63	0.00 z	0.19	0.00	0.00	0.00	2.33	0.00 z	0.29	1.36	0.00	0.46	5.26
1946	1.86	0.00	1.15	0.22	0.65	0.00	4.50	2.12	1.91	0.96	0.39	0.68	14.44

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1947	0.65	0.30	0.23	0.00	0.05	0.30	2.62	3.50	0.57	0.66	1.37	1.60	11.85
1948	0.04	2.11	0.50	0.43	0.88	1.77	2.40	5.13	0.25	1.75	0.66	2.65	18.57
1949	3.34	1.70	0.41	1.00	0.02	1.60	2.33	3.24	3.01	1.51	0.00	2.19	20.35
1950	0.50	0.20	0.05	0.00	0.00	3.00	4.30	0.73	2.67	1.54	0.00	0.00	12.99
1951	1.43	0.96	2.60	1.42	0.25	0.00	2.69	2.61	0.46	2.60	0.80	0.95	16.77
1952	0.27	0.76	1.31	1.09	0.00	3.11	1.70	0.27	0.25	0.00	0.69	0.44	9.89
1953	0.05	1.10	2.10	1.42	0.40	1.87	5.56	2.41	0.10	1.44	0.00	0.67 a	17.12
1954	0.25	0.10	0.77	0.00	1.40	0.24	2.94	6.05	1.22	1.62	0.00	0.00	14.59
1955	1.50	0.00	1.86	0.00	0.58	0.35	9.76	2.38	0.97	1.60	0.05	0.00	19.05
1956	0.50	0.75	0.00	0.00	0.00	1.69	2.36	3.58	0.00 a	1.19	0.00	0.30	10.37
1957	0.90	2.38	2.50	0.25	0.00	0.00 a	3.36	5.45	0.15	4.40	1.54	0.00	20.93
1958	2.39	1.45	4.91	0.96	1.57	1.40	3.16	1.84	4.51	2.69	0.45	0.10	25.43
1959	0.00	1.20	0.00	0.15	0.48	0.65	3.39	5.85	0.00	0.46	0.00	1.05	13.23
1960	4.80	0.35	0.00	0.00	1.16	1.25	7.17	4.22	1.42	0.93	0.00	2.07	23.37
1961	1.70	0.20	2.40	0.00	0.00	3.30	5.46	2.88	3.90	0.00	1.71	4.50	26.05
1962	2.01	0.65	0.25	0.45	0.00	0.00	8.94	1.85	3.41	1.17	0.87	1.25	20.85
1963	1.52	1.27	0.00	0.68	0.57	0.64	2.38	5.97	2.07	1.30	0.63	0.25	17.28
1964	0.33	0.72	0.87	0.40	0.73	0.24	2.96	0.85	3.39	0.00	0.00	0.00 z	10.49
1965	2.60	2.02	1.10	0.52	0.00 z	0.00 z	2.90	4.39	3.64	0.00 z	0.31	4.26	21.74
1966	0.98	1.58	0.70	0.49	0.45	3.85	2.10	5.23	1.29	0.00	1.02	0.50	18.19
1967	0.00	0.86	0.18	0.00	0.00	1.54	3.73	5.07	2.51	0.00	0.97	2.30	17.16
1968	0.89	1.19	1.45	0.00	0.00 z	0.00 z	3.51	3.71	0.42	0.45	1.80	0.98	14.40
1969	1.68	1.47	0.45 v	0.00	1.43	0.00	1.76	6.01 a	6.43	1.25	0.24	1.68	21.95
1970	0.18	0.30	1.61	0.03	0.41	1.28	2.46	1.56	0.98	0.69 a	0.00	0.77	10.27
1971	0.06	0.61	0.00	1.23	0.11	0.74	3.81	5.59	1.00	4.18	2.20	1.11	20.64
1972	1.44	0.21	0.00	0.00	0.12	2.53	3.74	5.83	4.28	5.47	1.16	1.37	26.15
1973	1.83	0.56	2.51	0.03	0.74	1.91	4.42	1.69	0.41	0.08	0.34	0.04	14.56
1974	2.75	0.62	0.50	0.04	0.00	0.56	5.00	5.22	5.15	5.56	0.80	0.78	26.98
1975	1.08	1.12	0.99	0.08	0.41	0.00 z	4.52	2.44	3.99	0.04	1.09	0.54	16.30
1976	0.41	1.56	0.28	1.34	3.16	0.71	6.50	1.96	4.30	1.66	0.41	0.00	22.29
1977	1.10	0.97	0.15	2.11	0.55	0.63	4.23	2.63	1.62	1.72	0.80	0.64	17.15
1978	2.88	2.16	1.94	0.31	1.66	1.89	2.06	4.62	2.05	1.65	4.32	3.65	29.19
1979	1.74	2.31	0.57	0.02	1.80	1.61	2.39	5.81	1.78	0.36	0.16	1.44	19.99
1980	1.48	1.64	0.47	0.31	1.56	0.61	1.78	3.47	5.41	0.07	0.16	0.36	17.32
1981	0.79	1.54	1.64	0.36	0.30	2.11	2.19	5.30	1.93	1.49	1.66	0.57	19.88
1982	1.92	1.19	0.03 b	0.02	1.02	1.15	3.00	3.82	5.79	0.09	0.62	2.87	21.52
1983	1.21	1.79	1.40	1.07	0.55	0.70	2.38	2.71 b	4.26	2.68	3.47	1.62	23.84
1984	0.16	0.00	0.11	0.55	3.36	3.18	3.08	6.09	0.64	4.55	2.32	5.06 d	29.10
1985	1.49	1.11	2.07	1.24	0.18	1.92	2.28	6.38	4.86	6.11	0.58	0.22	28.44
1986	0.05	1.60	1.82	0.10	0.95	1.58	2.49	5.08	2.12	2.24	3.60	3.06	24.69
1987	0.59	1.41	1.42	0.73	2.89	1.76	0.66	3.09	3.00	1.31	1.78	0.37	19.01
1988	1.57	0.44 a	0.51	1.89	0.29	1.33	4.44	6.74	1.17	0.19	0.70	1.89	21.16
1989	0.32	1.05	0.80	0.00	0.36	0.14	5.11	4.26	1.59	0.16	0.12	1.01	14.92
1990	0.64	2.04	1.75	1.25	1.16	0.23	4.88 a	3.50	4.08	0.88	1.73	1.74	23.88
1991	0.79	2.31	1.11	0.00	0.43	0.85	5.12	6.92	2.68	1.22	1.42	3.61	26.46
1992	2.44	0.47 a	1.28	1.06	4.72	0.66	2.53	1.40	0.96	0.80	0.48	2.87	19.67
1993	3.01	1.85	0.55	0.50	1.51	1.21	1.69	6.07	0.18	2.95	1.20	0.53	21.25
1994	0.07	0.67 a	1.51	0.36	1.40	1.90	2.21 a	0.51	2.42	1.94	3.30	3.27	19.56

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1995	2.60 a	1.51 b	0.80	0.29	0.14	0.44	4.38	6.74 a	3.86	0.00	0.69	0.81	22.26
1996	0.64	0.56	0.00	0.00	0.00	3.82 a	2.66	3.56 a	3.62	1.45	0.59	0.00	16.90
1997	1.63	2.01	0.65	1.53	1.93	1.96	3.23 a	2.79	3.29	2.30 a	0.84 a	2.88	25.04
1998	0.27	2.29	1.47	0.03	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	4.06

Period of Record Statistics

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
MEAN	1.20	1.06	0.98	0.54	0.88	1.34	3.44	3.71	2.44	1.57	0.94	1.31	19.98
S.D.	1.04	0.75	0.90	0.75	1.01	1.30	1.79	1.82	1.89	1.51	0.94	1.26	4.91
SKEW	0.90	0.44	1.39	2.01	1.61	1.65	1.18	0.02	0.87	1.20	1.42	1.21	-0.08
MAX	4.80	3.00	4.91	3.84	4.72	6.91	9.76	6.92	9.26	6.11	4.32	5.06	29.19
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	9.89
NO YRS	77	76	76	79	78	71	77	76	74	76	76	77	59

WHITE SANDS NATL MON, NEW MEXICO

Monthly Total Precipitation (inches)   *4000 ft*

File last updated on Jul 19, 1998
*** Note *** Provisional Data *** After Year/Month 199804
a = 1 day missing, b = 2 days missing, c = 3 days, ..etc..,
z = 26 or more days missing, A = Accumulations present
Long-term means based on columns; thus, the monthly row may not
sum (or average) to the long-term annual value.
MAXIMUM ALLOWABLE NUMBER OF MISSING DAYS : 5
Individual Months not used for annual or monthly statistics if more than 5 days are missing.
Individual Years not used for annual statistics if any month in that year has more than 5 days missing.

YEAR(S)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
1939	0.75	0.05	0.42	0.31	0.11	0.00 z	0.97	0.42	1.35 a	0.94	0.72	0.45	6.49
1940	0.28	0.48	0.08	0.31	1.51	0.85	0.77	1.02	0.20	0.25	0.75	0.16	6.66
1941	1.20	0.62	1.25	1.54	1.23	0.01	0.70	2.10	9.68	1.76	0.11	0.69	20.89
1942	0.41	0.25	0.02	2.39	0.05	0.00	0.49	1.32	1.26	1.17	0.00	1.13	8.49
1943	0.02	0.00	0.00	0.00	0.60	1.58	0.50	0.03	0.56	0.08	0.90	1.93	6.20
1944	0.68	0.71	0.10	0.04	0.17	0.36	2.15	1.14	0.64	0.22	0.71	0.85	7.77
1945	0.08	0.00	0.02	0.00	0.00	0.04	0.93	2.68	0.07	0.45	0.00	0.20	4.47
1946	0.75	0.00	0.00	0.00	0.40	1.04	0.76	0.90	1.85	0.25	0.00 z	0.20	6.15
1947	1.20	0.00	0.31	0.00	0.04	0.41	1.89	1.30	0.00	0.00	0.56	0.68	6.39
1948	0.50 g	0.93	0.05	0.00	0.84	1.08	0.37	3.06	0.10	1.39	0.00	1.08	8.90
1949	2.05	0.51	0.00	0.43	0.24	1.03	1.85	1.42	2.94	1.26	0.00	0.24	11.97
1950	0.00	0.04 c	0.01	0.00	0.00	0.49	2.29	0.69	1.67	1.15	0.00	0.00	6.34
1951	0.34	0.64	0.23 a	0.55	0.00	0.00	0.00	0.70	0.08	0.59	0.03	0.46	3.62
1952	0.00	0.57	0.16	0.47	0.21	0.69	1.17 b	0.51	0.21	0.00	0.20	0.31	4.50
1953	0.00	0.64	0.21	0.43	0.05	0.20	1.94	0.50	0.13	0.70	0.00	0.18	4.98
1954	0.03	0.00	0.00	0.03	0.55	0.41	0.71	2.15	0.97	0.58	0.00	0.00	5.43
1955	0.85	0.00	0.48	0.02	0.09	0.32	3.32	0.83	0.72	0.65	0.00	0.00	7.28
1956	0.02	0.21	0.00	0.02	0.00	0.13	0.40	1.50	0.00	0.35	0.00	0.17	2.80
1957	0.26	0.53	0.45	0.31	0.10	0.09	2.97	1.59	0.38	2.39	0.81	0.00	9.88
1958	1.55	0.35	2.65	0.34	0.22	0.54	1.19	1.72	2.34	2.37	0.13	0.00	13.40
1959	0.00	0.36	0.00	0.08	0.51	0.17	0.43	1.84	0.00	0.33	0.00	0.24	3.96
1960	0.56	0.08	0.37	0.00	0.29	1.04	2.84	0.93	0.54	1.01	0.05	2.26	9.97
1961	0.78	0.02	0.55	0.00	0.05	0.49	1.78	0.69	1.39	0.00	1.18	0.64	7.57
1962	0.54 a	0.40	0.00	0.39	0.00	0.31	4.13	0.21	2.18	0.63	0.42	0.78	9.99
1963	0.02	0.18	0.00	0.01	0.00	0.54	1.28	1.15	1.77	1.03	0.04	0.00	6.02
1964	0.00	0.31	0.50	0.07	0.20	0.06	1.45	1.18	0.89	0.00	0.00	0.30	4.96
1965	0.37	0.28	0.36	0.33	0.25	0.35	1.00	1.38	2.95	0.38	0.15	0.94	8.74
1966	0.44	0.26	0.00	0.56	0.11	3.43	1.61	2.17	0.63	0.10	0.04	0.04	9.39
1967	0.00	0.28	0.19	0.00	0.05	1.29	0.81	1.98	0.76	0.00	0.69	1.01	7.06
1968	0.53	0.57	1.06	0.05	0.26	0.06	1.36	2.16	0.03	0.24	1.03	0.21	7.56
1969	0.34	0.20	0.21	0.00	0.35	1.29	2.91	2.18	0.78	1.20	0.10	0.90	10.46
1970	0.01	0.38	0.31	0.05	0.24	0.25	2.26	1.22	0.16	0.50	0.00	0.37	5.75
1971	0.02	0.02	0.00	0.27	0.00	0.28	1.73	2.54	0.36	1.53	0.87	0.66	8.28

Year													
1972	0.49	0.00	0.00	0.00	0.09	1.95	1.01	0.98	2.37	3.63	0.57	0.58	11.67
1973	0.39	1.61	1.06	0.00	0.38	0.92	1.24	0.86	0.04	0.19	0.00	0.00	6.69
1974	0.54	0.00	0.16	0.55	0.11	0.03	2.32	1.76	1.66	2.99	0.23	1.06	11.41
1975	0.60	0.35	0.07	0.00	0.07	0.01	2.56	0.42	1.46	0.17	0.24	0.18	6.13
1976	0.08	0.64	0.00	0.47	0.45	0.45	1.56	0.54	1.92	1.31	0.70	0.00	8.12
1977	0.53	0.08	0.45	0.71	0.49	1.73	1.59	0.97	0.04	0.95	0.00	0.26	7.80
1978	0.80	0.62	0.23	0.02	0.92	0.82	0.08	1.76	0.34	2.03	2.71	0.84	11.17
1979	0.71	0.32	0.00	0.00	1.11	0.48	0.56	4.54	0.56	0.00	0.02	1.08	9.38
1980	1.05	0.31	0.03	0.41	0.74	0.02	0.11	2.49	4.68	0.54	0.40	0.07	10.85
1981	1.08	0.19	0.22	0.10	0.68	0.24	1.24	3.39	1.00	0.57	0.43	0.15	9.29
1982	0.34	0.05	0.00	0.00	0.46	0.05	0.85	1.29	4.36	0.02	0.61	1.96	9.99
1983	1.11	0.48	0.05	1.16	0.00	0.27	1.36	1.17	0.64	1.55	1.78	0.29	9.86
1984	0.31	0.00	0.32	0.00	0.86	3.82	1.58	2.94	0.24	2.03	1.13	2.77	16.00
1985	1.26	0.42	0.34	0.82	0.50	0.85	1.82	2.69	1.42	4.13	0.05	0.05	14.35
1986	0.02	0.57	0.35	0.01	0.37	1.48	1.05	1.74	1.80	0.97	3.02	1.59	12.97
1987	0.21	0.73	0.60	0.09	0.81	1.95	0.58	3.63	0.56	0.26	0.60	1.76 a	11.78
1988	0.22	1.37	0.10	0.08	0.18	1.24	1.44	9.78	0.93	0.23	0.00	1.22	16.79
1989	0.24	0.75	0.45	0.00	0.48	0.00	1.97	1.76	2.11	0.00	0.12	0.44	8.32
1990	0.73	0.16	0.73	0.75	0.21	0.47	2.08	1.91	2.03	1.39	0.54	0.54	11.54
1991	0.00 z	0.51	0.53	0.00	0.58	0.12	1.73	2.04	2.24	0.52	0.38	3.88	12.53
1992	1.90	0.26	0.50	1.05	3.25	1.46	2.62	1.53	1.18	0.23	0.03	1.58	15.59
1993	1.58	0.29	0.10	0.67	0.06	0.86	1.01	2.51	0.00 a	0.94	0.71	0.63	9.36
1994	0.27	0.00	0.17	0.27	0.75	0.02	1.09	0.65	0.20	0.54	0.77	0.99 a	5.72
1995	0.77	0.56	0.08	0.00	0.00	0.80	1.58	1.52	2.88	0.00	0.06	0.15	8.40
1996	0.45	0.06	0.00	0.31	0.00	1.75	1.93	3.37	1.86	0.29	0.14	0.00	10.16
1997	0.97	0.45	0.28	0.59	0.85	1.11	2.28	1.04	1.24	0.58	0.21	1.37	10.97
1998	0.18	0.36	0.51	0.02	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	1.07

Period of Record Statistics

MEAN	0.53	0.35	0.29	0.28	0.39	0.72	1.46	1.74	1.28	0.84	0.43	0.69	9.00
S.D.	0.50	0.33	0.42	0.43	0.51	0.78	0.85	1.41	1.54	0.90	0.61	0.76	3.55
SKEW	1.10	1.45	3.40	2.59	3.22	1.91	0.65	3.36	3.12	1.70	2.45	1.86	0.88
MAX	2.05	1.61	2.65	2.39	3.25	3.82	4.13	9.78	9.68	4.13	3.02	3.88	20.89
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	2.80
NO YRS	58	60	60	60	59	58	59	59	59	59	58	59	55

WHITE SANDS NATL MON, NEW MEXICO (299686)

Period of Record Monthly Climate Summary

Period of Record : 1/ 1/1939 to 4/30/1998

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	56.9	63.1	70.4	79.2	88.0	96.8	97.1	94.4	89.0	79.1	66.0	56.9	78.1
Average Min. Temperature (F)	22.3	25.6	31.4	39.3	48.3	58.2	63.8	61.5	54.0	40.9	28.0	21.9	41.3
Average Total Precipitation (in.)	0.53	0.34	0.28	0.28	0.39	0.71	1.45	1.72	1.27	0.83	0.42	0.68	8.90
Average Total SnowFall (in.)	1.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	1.1	3.0
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Western Regional Climate Center, Greg McCurdy, gmwrcc@dri.edu

WHITE SANDS NATL MON, NEW MEXICO

Period of Record General Climate Summary - Precipitation

	Station:(299686) WHITE SANDS NATL MON													
	From Year=1939 To Year=1998											Total Snowfall		
	Precipitation											Total Snowfall		
	Mean	High	Year	Low	Year	1 Day Max.		>= 0.01 in.	>= 0.10 in.	>= 0.50 in.	>= 1.00 in.	Mean	High	Year
	in.	in.	-	in.	-	in.	dd/yyyy	# Days	# Days	# Days	# Days	in.	in.	-
January	0.53	2.05	49	0.00	50	0.77	22/1980	3	2	0	0	1.0	9.0	85
February	0.35	1.61	73	0.00	43	1.21	05/1988	3	1	0	0	0.4	4.3	56
March	0.29	2.65	58	0.00	43	1.55	06/1958	2	1	0	0	0.1	1.5	55
April	0.29	2.39	42	0.00	43	1.11	07/1942	1	1	0	0	0.0	0.0	48
May	0.39	3.25	92	0.00	45	1.10	22/1940	2	1	0	0	0.0	0.0	48
June	0.72	3.82	84	0.00	42	1.64	02/1984	3	2	0	0	0.0	0.0	48
July	1.46	4.13	62	0.00	51	1.61	25/1957	6	4	1	0	0.0	0.0	48
August	1.74	9.78	88	0.03	43	2.25	08/1988	7	4	1	0	0.0	0.0	48
September	1.28	9.68	41	0.00	47	3.83	21/1941	5	3	1	0	0.0	0.0	48
October	0.84	4.13	85	0.00	47	1.77	17/1985	3	2	0	0	0.1	1.1	91
November	0.43	3.02	86	0.00	42	1.31	03/1986	2	1	0	0	0.2	7.5	76
December	0.69	3.88	91	0.00	50	1.25	09/1960	3	2	0	0	1.1	17.5	87
Annual	9.00	20.89	41	2.80	56	3.83	19410921	42	23	5	1	2.9	17.5	87
Winter	1.57	6.04	92	0.21	54	1.25	19601209	9	5	1	0	2.5	20.5	88
Spring	0.97	4.80	92	0.01	50	1.55	19580306	6	3	0	0	0.1	1.5	55
Summer	3.92	12.46	88	0.70	51	2.25	19880808	16	9	2	1	0.0	0.0	48
Fall	2.55	11.55	41	0.23	73	3.83	19410921	11	6	1	0	0.3	8.0	76

For monthly and annual means, thresholds, and sums:
Months with 10 or more missing days are not considered
Years with 1 or more missing months are not considered

Western Regional Climate Center, Greg McCurdy, gmwrcc@dri.edu

OROGRANDE 1 N, NEW MEXICO   *4190 ft*

Monthly Total Precipitation (inches)

File last updated on Jul 19, 1998
*** Note *** Provisional Data *** After Year/Month 199804
a = 1 day missing, b = 2 days missing, c = 3 days, ..etc..,
z = 26 or more days missing, A = Accumulations present
Long-term means based on columns; thus, the monthly row may not
sum (or average) to the long-term annual value.
MAXIMUM ALLOWABLE NUMBER OF MISSING DAYS : 5
Individual Months not used for annual or monthly statistics if more than 5 days are missing.
Individual Years not used for annual statistics if any month in that year has more than 5 days missing.

YEAR(S)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
1914	0.00	0.21	0.05	0.40	1.53	2.47	2.58	2.10	0.76	1.23	1.09	3.80	16.22
1915	0.74	0.70	2.20	1.16	0.02	0.00	4.22 b	1.00	2.53	0.04	0.00	0.44	13.05
1916	0.74	0.00	0.53	0.04	0.51	0.00	1.11	3.33	0.08	1.58	0.39	0.00	8.31
1917	0.16	0.00	0.25	0.00	0.00 z	0.00	0.86	0.00 z	0.00 z	0.00	0.00	0.00	1.27
1918	0.09	0.00	0.00 z	0.00 z	0.00	1.92	0.85	0.66	0.80	0.80	0.43	0.19	5.74
1919	0.06	0.00	0.77	0.98	0.20	0.85	1.45	1.30	3.73	0.99 a	0.25	0.23	10.81
1920	0.49	0.69	0.40	0.00	0.00 z	2.72	0.40	1.21	0.15	1.40	0.04	0.00	7.50
1921	0.00	0.22	0.00	0.00	0.10	1.18	1.15	0.80	1.44	0.34	0.30	0.35	5.88
1922	0.65	0.00	0.00	0.25	0.55	0.22	1.16	0.83	0.90	0.93	0.25	0.11	5.85
1923	0.00 z	1.45	0.94	1.02	0.00	0.20	0.00 z	1.97 a	0.52	0.41	0.57	0.88	7.96
1924	0.24	0.00	0.47	0.25	0.00	0.00	0.70	0.79	0.95	0.29	0.08	0.00	3.77
1925	0.29	0.13	0.00	0.00	0.65	0.15	3.55	2.15	0.95	1.85	0.00	0.55	10.27
1926	0.92	0.00	2.28	0.15	2.11	0.00	5.23 a	0.00 z	2.84	1.31	0.00	1.26 b	16.10
1927	0.00	0.32	0.80 a	0.00	0.00	1.51	0.16	3.70	2.20	0.00	0.00	0.58	9.27
1928	0.00	0.95	0.00	0.05	1.31	0.00	0.41	3.77	0.60	0.70	0.70	0.40	8.89
1929	0.00	0.72	0.85	0.05	1.31	0.00	2.10	3.37	0.10	3.53	0.88	0.25	13.16
1930	0.45	0.00	0.00	0.68	0.25	0.22	1.47	0.75	0.00	1.01	1.00	0.55	6.38
1931	1.25 a	1.04	0.10	1.79	0.12	0.00	3.10	4.15	0.65	0.30	1.60	0.68	14.78
1932	0.57	0.40	0.00 z	0.00	0.60	0.30	2.10	1.40 a	2.90	0.90	0.00	0.30	9.47
1933	0.60	0.50	0.00	0.10	0.00 z	2.36	2.75	1.10	0.20	0.40	0.15	0.00	8.16
1934	0.08	0.00	0.06	0.00	0.07	0.00	0.07	1.87	0.00	0.33	0.10	0.35	2.93
1935	0.20	0.44	0.00	0.00	0.22	1.70	0.71	4.03	1.01	0.40	0.85	0.93	10.49
1936	0.47	0.30	0.00	0.10	1.70	0.10	1.10	0.88	3.64 a	0.40	0.60	0.75	10.04
1937	0.00	0.70	0.85	0.00	1.68	1.00	0.15	1.98	1.55	1.00	0.00	0.52	9.43
1938	1.80	0.46	0.33	0.00	0.08	1.44	0.57	0.68	3.29	0.42	0.02	0.15	9.24
1939	1.04	0.02	0.53	1.40	0.02	0.11	0.94	0.00 z	2.00	1.20	0.75	0.40	8.41
1940	0.67	1.40	0.00	0.00	0.60	0.94	2.01	0.88	1.27	1.52	0.83	0.22	10.34
1941	0.47	0.39	1.19	1.24	1.92	1.70	1.30	1.35	6.55 a	2.05	0.00	0.27	18.43
1942	0.00	0.43	0.31	1.92	0.00	0.00	1.33	1.68	1.21	1.94	0.00	1.20	10.02
1943	0.00	0.00	0.35	0.00	0.82	3.95	1.40	1.35	0.70	0.00	0.80	1.35	10.72
1944	0.93	0.75	0.08	0.00	1.19	0.29	1.90	2.00	1.14	0.74	0.44	0.54	10.00
1945	0.29	0.22	0.00	0.00	0.00	0.02	0.33	1.23	0.18	2.30	0.00	0.18	4.75
1946	0.91	0.00	0.00	0.00	0.14	1.87	0.69	1.43	2.22	1.08	0.12	0.65	9.11

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
1947	0.45 a	0.00	0.22	0.06	0.44	0.75	0.29	1.95	0.02	1.49	0.70	0.77	7.14
1948	0.32	0.87	0.00	0.03	1.03	1.49	0.46	2.45	0.52	0.37	0.09	0.83	8.46
1949	1.57	0.55	0.00	0.39	0.32	0.45	1.84	0.59	2.59	1.17	0.00	0.68	10.15
1950	0.16	0.28	0.00	0.00	0.00	0.70	3.81	0.48	0.94	0.93	0.00	0.00	7.30
1951	0.16	0.44	0.38	0.46	0.12	0.14	0.77	0.63	0.21	0.45	0.02	0.41	4.19
1952	0.05	0.53	0.17	1.07	0.33	1.65	1.79	1.76	0.36	0.09	0.66	0.55	9.01
1953	0.00	0.35	1.29	0.79	0.00	0.94	0.57	1.19	0.00	0.88	0.00 a	0.00	6.01
1954	0.04	0.00	0.00	0.25	0.17	0.43	0.53	2.67	0.52	0.57	0.00	0.05	5.23
1955	0.72	0.00	0.15	0.00	0.00	0.12	7.19	0.40	0.70	2.09	0.00	0.00	11.37
1956	0.00	0.46	0.00	0.00	0.00	0.20	0.34	2.03	0.00	0.26	0.00	0.00	3.29
1957	0.70	0.95	0.45	0.00	0.00	0.00	1.13	1.97	0.00	2.15 a	0.72	0.00	8.07
1958	0.87	0.20	1.65	0.00 x	0.55	0.78	1.45	1.85	2.98 a	0.90	0.00 d	0.00	11.23
1959	0.00	0.00	0.00	0.00	0.61	0.58	0.21	2.05	0.00	0.50	0.00	0.42	4.37
1960	0.80	0.00	0.00	0.00 z	0.00	1.07	5.00	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	6.87
1961	0.40 y	0.05	0.40	0.00	0.00	0.64	0.38	1.44	1.22	0.34	1.52	0.56	6.55
1962	0.83	0.76	0.04	0.54	0.00	0.33	4.05	0.03	5.94	0.77	0.33	0.39	14.01
1963	0.24	0.36	0.00	0.00	0.04	0.26	0.76	3.19	2.67	1.30	0.58	0.00	9.40
1964	0.13	0.23	0.56	0.00	0.88	0.11	0.93	1.52	0.53	0.10	0.00	0.52	5.51
1965	0.20	0.34	0.17	0.16	0.30	1.67	0.93	2.33	1.17	0.24	0.11	0.83	8.45
1966	0.51	0.26	0.11	1.27	0.11	6.05	0.51	1.94	0.63	0.00	0.17	0.17	11.73
1967	0.00	0.11	0.00	0.02	0.11	3.67	0.11	3.81	1.97	0.15	0.40	1.11	11.46
1968	0.56	0.70	1.15	0.04	0.00	0.04	2.06	4.27	0.04	0.34	1.03	0.36	10.59
1969	0.12	0.13	0.07	0.00	0.71	0.23	2.91	2.58	0.67	1.13	0.14	0.94	9.63
1970	0.00	0.00	0.17	0.00	0.12	0.55	3.94	0.96	1.50	0.43	0.00	0.11	7.78
1971	0.02	0.00	0.00	0.79	0.00	0.24	2.16	2.62	0.30	0.00 c	0.00 d	0.00 b	6.13
1972	1.00	0.00	0.00	0.00	0.00	0.97	1.41	0.00 z	5.64	0.00 z	0.00 z	0.00	9.02
1973	1.44	0.56	0.49	0.00	0.32	0.81	2.88	0.00 z	0.00	0.00	0.05	0.00	6.55
1974	0.00	0.00	0.06	0.00	0.10	0.08	6.48	1.40	0.03 u	0.00 z	0.00 z	0.59	8.71
1975	0.45	0.40	0.23	0.00	0.79	0.00	1.48	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	3.35
1976	0.00 z	0.00 z	0.00 z	0.43	1.24	0.41	1.75	0.35	0.92	1.37	0.90	0.00	7.37
1977	0.59	0.10	0.22	0.73	0.05	0.34	2.36	1.70	0.33	1.44 c	0.08	0.25	8.19
1978	0.67	0.34	0.10	0.01	1.80	1.22	0.24	2.54	3.69	3.20	2.20	0.67	16.68
1979	1.21	0.47	0.00	0.03	1.74	0.24	2.20	2.83	1.01	0.00	0.01	0.93	10.67
1980	0.66	0.92	0.21	0.22	0.56	0.00	0.35	1.91	5.26	0.89	0.14	0.00	11.12
1981	0.33	0.21	0.36	0.68	0.57	0.45	2.16	3.51	1.68	1.00	0.43	0.06	11.44
1982	0.35	0.16	0.00	0.04	0.41	0.13	0.77	0.54	2.76	2.89	0.75	2.88	11.68
1983	0.11	0.46	0.27	1.01	0.03	1.28	1.27	1.27	0.89	3.54	0.84	0.16	11.13
1984	0.75	0.00	0.00	0.00	1.31	4.72	1.08	6.38	0.48	3.10	0.87	2.16	20.85
1985	1.13	0.34	0.65 n	0.42	0.08	0.83	0.82	2.75	3.45	3.45	0.05	0.07	13.39
1986	0.05	0.35	0.33	0.00	0.26	2.08	2.91	2.45	0.87	0.78	2.77	2.31	15.16
1987	0.30	0.23	0.09	0.09	0.62	3.22	1.97	3.44	0.67	0.15	0.63	1.56	12.97
1988	0.31	0.30	0.00	0.32	2.15	0.08	3.88	4.41	1.83	0.28	0.12	0.95	14.63
1989	0.30	0.69	0.40	0.00	1.03	0.12	1.66	3.40	0.67	0.00	0.00	0.87	9.14
1990	0.75	0.15	0.60	0.70	0.42	0.01	1.17	2.20	4.70	0.85	1.02	0.31	12.88
1991	0.56	0.60	0.00	0.00	0.45	0.55	3.22	5.71	3.68	0.40	0.83	4.14 b	20.14
1992	1.25 e	0.06	0.58 z	0.93 a	2.04	3.00	0.25	1.46	1.72	0.27	0.00	1.05	12.03
1993	1.66	0.61 b	0.00	0.00	0.41	0.10	1.90	3.17	0.10	0.27	0.58	0.63	9.43
1994	0.13 a	0.38	0.27	0.32	0.92	0.09	2.67	2.58	1.01	0.77	0.79	1.10	11.03

Year													
1995	0.76	0.69	0.26	0.00	0.00	5.57	1.46	0.87	2.80	0.00	0.00	0.29	12.70
1996	0.49	0.13	0.00	0.15	0.00	2.57	3.31	1.95	3.97	0.05	0.00	0.00	12.62
1997	0.41 a	0.28	0.20	0.58	0.80 b	0.89	5.01	0.85	1.13	1.18 e	0.80	3.08	15.21
1998	0.04	0.78	0.62	0.09 d	0.00 z	41.00 z	155.20 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	1.53

Period of Record Statistics

MEAN	0.47	0.35	0.31	0.30	0.51	0.95	1.77	2.03	1.52	0.92	0.41	0.62	10.14
S.D.	0.44	0.33	0.46	0.45	0.60	1.27	1.49	1.25	1.53	0.89	0.52	0.81	3.81
SKEW	0.98	1.03	2.38	1.70	1.23	2.05	1.42	1.03	1.36	1.38	1.93	2.48	0.50
MAX	1.80	1.45	2.28	1.92	2.15	6.05	7.19	6.38	6.55	3.54	2.77	4.14	20.85
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.03	0.00	0.00	0.00	0.00	2.93
NO YRS	82	84	80	82	81	84	83	77	80	80	80	82	66

ANCHO, NEW MEXICO

6120 ft

Monthly Total Precipitation (inches)

File last updated on Jul 19, 1998
*** Note *** Provisional Data *** After Year/Month 194712
a = 1 day missing, b = 2 days missing, c = 3 days, ..etc..,
z = 26 or more days missing, A = Accumulations present
Long-term means based on columns; thus, the monthly row may not
sum (or average) to the long-term annual value.
MAXIMUM ALLOWABLE NUMBER OF MISSING DAYS : 5
Individual Months not used for annual or monthly statistics if more than 5 days are missing.
Individual Years not used for annual statistics if any month in that year has more than 5 days missing.

YEAR(S)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
1914	0.04	0.32 a	0.00	0.10	1.58	0.92	3.80	2.65	0.06	1.80	0.00	1.81	13.08
1915	0.33 a	0.54	1.31	0.87 a	0.00	0.25	1.95	0.02	1.98	1.21	0.15	1.05	9.66
1916	2.80	0.00	0.75	1.60	0.34	0.00	2.57	2.18	0.65	2.73	0.15	0.38	14.15
1917	0.82	0.31	0.08	0.10	0.55	0.50	1.85	2.63	1.92	0.00	0.30	0.00	9.06
1918	0.90 a	0.34	0.29	0.00	0.02	0.24	1.65	0.00 z	0.00	2.88	1.87	0.00 z	8.19
1919	0.00	0.39	0.86	1.95	2.27	2.63	1.37	2.16	1.96	0.31	1.26	0.40	15.56
1920	0.82	1.37	0.75	0.12	1.55	1.77	2.87	2.48	0.87	1.55	0.00	0.30	14.45
1921	0.40	0.10	0.55 a	0.04 a	0.78	3.25	6.21	1.37	0.15	0.00	0.00	0.00	12.85
1922	0.30	0.35	0.40 a	0.92	0.55	1.69	1.49	0.95	1.23	0.00	0.42	0.80	9.10
1923	0.35	1.96	0.50	1.05	0.25	0.00	2.70	2.63	2.27	1.25	2.93	3.39	19.28
1924	0.05	0.30	0.62	0.60	0.00	0.30	1.83	0.67	0.00	0.00	0.37	1.77	6.51
1925	0.35	0.00	0.00	0.05	0.92	1.37	5.78	0.81	0.32	0.78	0.00	0.53	10.91
1926	0.83 a	0.19	2.40	0.60	0.95	0.35	1.45	2.92	2.45	1.51	0.05	2.25	15.95
1927	0.15	0.45	0.00	0.24	0.00	1.68	0.92	1.93	2.13	0.00	0.00	1.03	8.53
1928	0.00	1.18 a	0.00	0.57	2.15	0.00	2.15	4.22	0.33	2.57	0.64	0.24	14.05
1929	0.33	0.85	0.34	0.00	1.02	0.67	6.80	2.20	1.00	0.73	0.14	0.00	14.08
1930	0.92	0.00	1.13	0.00	0.41	0.85	2.43	2.35	0.00	0.72	0.64	0.56	10.01
1931	1.07	0.82	1.46	3.45	0.60	0.30	3.00	3.10	0.88	0.30	0.83	1.19	17.00
1932	0.98	0.56	0.88	0.09	0.42	0.33	2.61	1.98 a	2.34	0.00 z	0.00	0.64	10.83
1933	0.18	0.87	0.00	0.96	1.40	1.92	0.45	1.84	0.73	0.12	0.80	0.00	9.27
1934	0.04	0.24	0.41	0.30	0.38	0.00	0.50	2.85	0.67	0.36	1.96	1.20	8.91
1935	1.08	0.34	0.34	0.15	2.44	0.57	0.50	5.46	1.53	0.18	1.07	0.75	14.41
1936	1.00	0.85	0.26	0.72	0.58	1.32	2.07	1.09	2.64	0.20	0.15	1.17	12.05
1937	0.40	1.60	1.35	0.50	1.43	3.80	0.89	1.20	1.81	1.30	0.00	0.88	15.16
1938	1.64	0.59 a	0.45	0.00	0.00	2.23	1.75	0.00	4.19	0.60	0.20	1.36	13.01
1939	1.10	0.48	0.55	1.28	0.32	1.07	4.20	1.35	3.44	4.06	1.38	0.78	20.01
1940	0.53	2.10	0.20	0.40	2.72	0.77	2.78	1.02	0.40	0.28	1.42	1.25	13.87
1941	1.60	1.33	1.62	0.60	6.35	2.05	2.89	2.60	10.41	2.95	1.45	0.55	34.40
1942	0.10	1.15	0.90	5.20	0.32	1.62	1.88	3.74	2.51	0.76	0.00	2.38	20.56
1943	0.40	0.00	0.90	0.46	2.20	0.96	1.82	1.96	0.63	0.64	0.60	2.40	12.97
1944	1.95	0.71	0.20	0.80	0.30	0.34	3.15	1.55	0.69	1.05	0.91	1.65	13.30
1945	1.51	0.25	2.07	0.55	0.00	0.04	1.26	2.67	0.86	0.32	0.00	0.35	9.88
1946	3.60	0.25	0.91	0.23	0.40	0.53	1.54	2.07	1.14	1.67	1.00	0.82	14.16

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1947	1.45	0.20	0.37	0.65	0.55	0.45	0.25	1.30	0.00	0.30	1.26	1.15	7.93
1948	1.20	2.35	1.60	0.26	1.83	1.64	0.42	2.73	1.15 a	0.44	0.18	1.20	15.00
1949	1.78	1.19	0.80	1.95	0.30	1.37 a	1.36	2.10	2.72	0.85	0.11	1.47	16.00
1950	0.00 z	0.40	0.32	0.44	0.00	1.86	4.70	0.80	3.11	0.67	0.00	0.00	12.30
1951	1.70	0.16	2.41	0.69	0.60	0.00	1.42	3.07	0.08 a	1.10	0.45	0.72	12.40
1952	0.37	0.59	1.48	1.02	0.21	1.95	2.28	1.80	1.96	0.00	0.86	1.85	14.37
1953	0.10	0.92	2.30	0.72	1.23 a	0.64	1.75 a	1.85	0.46	0.35	0.68	1.25	12.25
1954	0.50	0.00	0.67	0.00	1.86	0.49	1.72	1.89 a	1.89	1.51	0.00	0.53	11.06
1955	0.48 a	0.05	0.23	0.23	0.49	0.67	3.04	3.69	0.74	0.58	0.10	0.56	10.86
1956	0.87	1.77	0.00	0.20	0.24	0.90	2.56	0.84	0.00	0.83 a	0.00	0.08	8.29
1957	0.25 a	1.31	1.48	0.73	0.59	0.18	1.58	2.82	0.34	2.37 a	1.60	0.40	13.65
1958	0.88	0.32	3.54	1.88	0.83	1.25	1.95	2.08	4.32	0.75	0.52	0.70	19.02
1959	0.00 a	0.52	0.00	0.54	1.18	2.56	3.29	3.09 f	0.00 z	0.00 z	0.00 z	1.56	9.65
1960	1.43	0.24	0.10	0.00	1.07	2.24	3.69	1.30	0.79	1.12	0.06	0.77	12.81
1961	0.65	0.12	1.23	0.67	0.28	2.39	1.62	3.55	2.75	0.55	1.19	2.88	17.88
1962	0.67	0.15	0.08	0.62	0.00	1.43	4.01	1.30	3.67	0.99	1.09	0.55	14.56
1963	0.19	0.41	0.16	0.46	0.07	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	1.29
1964	0.00 z	0.00 z	0.00 z	1.03	3.05	0.06	1.51	3.88	1.06	0.00	0.12	0.63	11.34
1965	0.41	0.63	0.21	0.55	1.23	0.54	5.06	1.70	2.20	0.44	0.10	1.37	14.44
1966	0.66	0.44	0.02	0.09	0.19	1.34	2.44	2.20	0.84	0.43	0.81	0.48	9.94
1967	0.00	0.84	0.39	0.12	0.11	2.83	2.48	3.95	1.13	0.00	0.54	1.99	14.38
1968	0.79	0.58	2.01	0.23	0.58	0.53	1.99	2.70	0.00	0.91	1.66	0.90	12.88
1969	0.24	0.68	0.89	0.40	2.03	0.28	2.77	2.97	2.54	1.80	0.06	1.55	16.21
1970	0.00	0.23	1.26	0.00	0.33	1.55	2.98	1.35	0.10	0.75	0.07	0.59	9.21
1971	0.43	0.24	0.02	0.43	0.00	0.45	1.95	2.61	1.35	2.22	1.39	2.11	13.20

Period of Record Statistics

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
MEAN	0.74	0.62	0.77	0.66	0.90	1.09	2.38	2.17	1.52	0.94	0.60	1.02	13.51
S.D.	0.71	0.56	0.77	0.87	1.07	0.91	1.39	1.06	1.66	0.90	0.66	0.76	4.36
SKEW	1.69	1.32	1.33	3.23	2.65	0.86	1.19	0.45	2.93	1.36	1.21	0.93	2.12
MAX	3.60	2.35	3.54	5.20	6.35	3.80	6.80	5.46	10.41	4.06	2.93	3.39	34.40
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	6.51
NO YRS	56	57	57	58	58	57	57	55	56	55	56	56	52

ANCHO, NEW MEXICO (290394)

Period of Record Monthly Climate Summary

Period of Record : 1/ 1/1914 to 12/31/1971

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	47.7	52.9	59.2	68.5	77.8	86.1	87.4	84.9	79.8	70.0	58.2	48.6	68.5
Average Min. Temperature (F)	19.6	23.7	27.6	35.0	43.0	51.8	56.8	54.6	48.0	37.5	27.4	21.7	37.3
Average Total Precipitation (in.)	0.73	0.61	0.76	0.65	0.89	1.07	2.36	2.17	1.51	0.93	0.59	1.01	13.26
Average Total SnowFall (in.)	4.7	3.7	4.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0	1.2	6.3	21.8
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	1	0

Western Regional Climate Center, Greg McCurdy, gmwrcc@dri.edu

ANCHO, NEW MEXICO

Period of Record General Climate Summary - Precipitation

	Station:(290394) ANCHO													
	From Year=1914 To Year=1971													
	Precipitation											Total Snowfall		
	Mean	High	Year	Low	Year	1 Day Max.		>= 0.01 in.	>= 0.10 in.	>= 0.50 in.	>= 1.00 in.	Mean	High	Year
	in.	in.	-	in.	-	in.	dd/yyyy	# Days	# Days	# Days	# Days	in.	in.	-
January	0.74	3.60	46	0.00	19	1.00	26/1944	3	2	0	0	4.6	16.0	48
February	0.62	2.35	48	0.00	16	1.12	16/1937	3	2	0	0	3.7	19.5	56
March	0.77	3.54	58	0.00	14	1.02	30/1945	3	3	0	0	4.6	27.5	58
April	0.66	5.20	42	0.00	18	1.45	23/1942	3	2	0	0	1.3	21.0	49
May	0.90	6.35	41	0.00	15	2.75	01/1941	3	2	1	0	0.0	0.0	48
June	1.09	3.80	37	0.00	16	3.25	26/1937	4	3	1	0	0.0	0.0	48
July	2.38	6.80	29	0.25	47	3.25	08/1929	8	6	1	0	0.0	0.0	48
August	2.18	5.46	35	0.00	38	3.50	07/1964	7	6	1	0	0.0	0.0	48
September	1.52	10.41	41	0.00	18	2.90	22/1941	4	3	1	0	0.0	0.0	48
October	0.94	4.06	39	0.00	17	2.21	07/1939	3	3	1	0	0.0	0.0	48
November	0.60	2.93	23	0.00	14	1.05	02/1923	2	2	0	0	1.2	14.5	61
December	1.02	3.39	23	0.00	17	1.55	10/1923	4	3	1	0	6.3	19.0	59
Annual	13.43	34.40	41	6.51	24	3.50	19640807	48	37	8	1	21.6	61.5	61
Winter	2.38	5.06	44	0.28	34	1.55	19231210	10	8	1	0	14.5	35.0	60
Spring	2.33	8.57	41	0.24	27	2.75	19410501	9	7	1	0	5.9	34.0	58
Summer	5.65	10.83	21	2.00	47	3.50	19640807	18	14	3	1	0.0	0.0	48
Fall	3.07	14.81	41	0.15	21	2.90	19410922	10	8	2	0	1.2	14.5	61

For monthly and annual means, thresholds, and sums:
Months with 10 or more missing days are not considered
Years with 1 or more missing months are not considered

Western Regional Climate Center, Greg McCurdy, gmwrcc@dri.edu

CORONA, NEW MEXICO

6600 ft

Monthly Total Precipitation (inches)

File last updated on Jul 19, 1998
*** Note *** Provisional Data *** After Year/Month 194712
a = 1 day missing, b = 2 days missing, c = 3 days, ..etc..,
z = 26 or more days missing, A = Accumulations present
Long-term means based on columns; thus, the monthly row may not
sum (or average) to the long-term annual value.
MAXIMUM ALLOWABLE NUMBER OF MISSING DAYS : 5
Individual Months not used for annual or monthly statistics if more than 5 days are missing.
Individual Years not used for annual statistics if any month in that year has more than 5 days missing.

YEAR(S)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
1914	0.15 a	0.28 a	0.11 a	1.30 a	1.21	2.41	5.28 a	5.56 a	0.00	2.23	0.00	0.82	19.35
1915	0.81 b	0.89 b	1.69	2.00 c	0.94 a	0.66	4.35 b	3.35	1.50 a	0.00 z	0.00	1.07	17.26
1916	0.67	0.00	0.62	1.69 a	0.40	0.00	1.10	2.20	0.00	2.70	0.42	0.22	10.02
1917	0.60	0.83	0.30	0.20	0.92	0.00	0.10	2.20	0.55	0.00	0.11	0.00	5.81
1918	1.23	0.45	0.04	0.00	0.15	0.00 z	2.66	1.25	0.35	2.05	1.21	1.32	10.71
1919	0.19	0.29	1.12	3.22	1.10	3.14 a	1.38	0.87	2.56	0.40	0.77	0.18	15.22
1920	0.81	0.91	0.76	0.87	4.00	2.80	1.24	2.04	1.60	0.11	0.00	0.02	15.16
1921	0.61	0.15	0.73	0.30	0.97	2.79	5.56	1.03	0.21	0.07	0.00	0.30	12.72
1922	0.32	0.37	0.72	0.69	0.43	0.83	1.99	1.58	1.44	0.18	0.60	0.00	9.15
1923	0.51	1.39	0.17	0.45	0.00	0.32	1.50	2.44	0.35	1.80	2.02	2.12	13.07
1924	0.00	0.33	1.40	0.90	0.52	0.76	1.61	2.28	0.15	0.40	0.30	0.61	9.26
1925	0.42	0.00	0.00	0.00	1.43	0.68	3.80	2.09	3.32 a	0.89	0.05	0.51	13.19
1926	1.69	0.15	2.97	1.02	1.35	0.10 a	2.84 a	3.32	3.47	1.27	0.00	3.21	21.39
1927	0.00	0.50	0.10	0.48	0.40	2.26	4.57	1.17	2.14	0.00	0.00	0.36	11.98
1928	0.00	1.48	0.17	1.16	0.00 z	0.00	0.66	3.58	0.00	2.28 a	0.60	1.07	11.00
1929	0.48	1.93	1.70	0.00	3.55	0.00	4.39	4.19	1.53	1.28	0.50	0.00	19.55
1930	1.04	0.12	1.96 a	0.91	0.45	2.77	1.86	1.57	0.09	2.23	1.26	1.31	15.57
1931	0.91 a	3.47	2.20	3.24	0.88	0.86	0.00 z	3.12	4.80	1.77	1.35	2.23	24.83
1932	3.00	0.94	1.93	0.18	2.03	1.23	4.11	2.79	3.18	1.84	0.00	1.71	22.94
1933	1.19	0.93	0.00	1.04	1.01	2.00	1.40	2.15	1.67	0.75	1.34	0.08	13.56
1934	0.52	0.00	0.57	0.92	1.51	0.57	0.97	6.12	0.14	0.67	2.14 a	0.49	14.62
1935	0.00	1.21	0.53 a	0.17	3.63	1.31	1.28	2.83	1.27	0.43	0.95	0.71	14.32
1936	1.45	0.35	0.00	1.65	1.80	0.15	1.15	1.05	3.05 a	0.25	0.00	1.53	12.43
1937	0.75	1.46	2.41	1.85 a	3.43	2.98	5.52	0.71	1.71	1.33	0.00 z	0.00 z	22.15
1938	1.18	0.75	0.50	0.05	0.00	0.77	3.12	0.00	4.43	0.16	0.65	0.00	11.61
1939	1.18	1.43	0.46	1.92	0.62	0.18	2.56 a	4.31	3.05	0.79	0.50	0.30	17.30
1940	0.10	2.45 a	0.81	0.33	1.77	1.12	1.11	3.35	0.99	0.37	0.00	0.10	12.50
1941	1.05	0.70	3.30	1.13	5.91	5.40	3.00	3.30	9.08	2.43	0.65	0.16	36.11
1942	0.00	0.59	0.15	5.81 a	0.00	1.76	1.08	6.54	3.28	1.01	0.00	2.77	22.99
1943	0.00	0.00	0.42	0.35	1.79	2.87	1.67	1.00	0.00	0.00	0.87	0.73	9.70
1944	2.02	0.28	0.14	0.94	0.53	0.48	3.45	1.45	0.78	1.75	0.50	1.20	13.52
1945	0.93	0.17	0.37	0.56	0.58	0.00	3.68	3.26	1.24	0.45	0.00	0.40	11.64
1946	2.35	0.70	1.15	0.24	0.25	0.33	2.71	5.23	3.08	1.70	1.85	0.00	19.59

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1947	0.00	0.00	0.16	0.57	1.00	1.15	0.46	1.95	0.00	0.83	0.20	1.25	7.57
1948	2.00	2.65	2.00	0.00	2.05	0.55	1.58	2.33	1.47	0.40	0.20	0.26	15.49
1949	0.82	0.30	0.42	1.95 a	0.60	1.13	2.61	2.35	1.81	0.50	0.10	0.44	13.03
1950	0.03	0.18	0.00	0.30	0.59	1.24	5.53 b	0.05	1.45	0.25	0.00	0.05	9.67
1951	0.86	0.00 d	0.38	0.74	0.16	0.00	1.28	3.16	0.10	0.58	0.29	0.43	7.98
1952	0.19	0.14	0.94	1.21	0.28	0.93	2.16	3.85	1.47	0.00	0.81	1.13	13.11
1953	0.30	1.04	1.04	0.32	1.14	0.99	2.14	2.99	0.24	0.62	0.48	0.32	11.62
1954	0.66	0.00	0.15	0.16	1.94	0.88	1.61	1.96	3.85	2.67	0.10	0.61	14.59
1955	0.15	0.10	0.30	0.10	0.93	0.28	5.10	2.57 a	0.93	1.00	0.03	0.51	12.00
1956	0.53	1.10	0.05	0.18	0.63	1.90	2.97	1.30	0.00	1.21	0.00	0.01	9.88
1957	0.46	0.84	1.10	1.47	1.15	0.85	1.51	3.49	0.95	3.83	1.51	0.07	17.23
1958	1.07	1.00	2.72	1.88	0.46	1.80	3.20	1.61	4.81	1.87	0.73	0.82	21.97
1959	0.27	0.77	0.18	1.80	1.61	2.91	1.66	5.20	0.09	1.15	0.09	1.37	17.10
1960	0.85	0.38	0.14	0.00	0.64	1.80	4.09	3.34	1.23	2.03	0.22	1.20	15.92
1961	0.68	0.31	1.08	1.33	0.85	0.90	1.69	6.11	3.17	0.40	3.04	1.26	20.82
1962	0.55	0.08	0.80	0.58	0.00	2.01	5.18	1.31	3.10	0.77	0.41	0.63	15.42
1963	0.48	0.82	0.27	0.08	0.56	0.54	1.21	3.58	2.08	0.34	0.26	0.44	10.66
1964	0.17	1.57	0.59	0.44	1.80	0.29	3.42	1.14	1.86	0.00	0.42	0.11	11.81
1965	0.32	0.88	0.82	0.87	1.10	0.91	4.36	2.28	0.00 z	0.60	0.21	1.44	13.79
1966	0.46	0.63	0.10	0.00	0.19	3.47	1.38	7.68	0.96	0.09	0.30	1.26	16.52
1967	0.08	0.80	0.30	0.00	0.00	3.05	2.54	4.26	0.99	0.21	0.40	1.78	14.41
1968	0.00 z	0.00 a	1.20	0.00	0.21	0.38	4.63	1.84	0.05	1.21	0.69	0.76	10.97
1969	0.09	0.61	1.19	0.56	2.37	1.26	3.01	3.74	2.71	2.40	0.88	1.51	20.33
1970	0.02	0.38	1.42	0.05	0.99	1.62	2.37	2.29	0.25	0.90	0.13	0.26	10.68
1971	0.57	0.65	0.37	0.19	0.00	0.04	2.67	4.40	1.48	1.57	1.49	1.54	14.97
1972	0.41	0.22	0.04	0.00	0.70	1.99	3.96	3.79	3.09	3.66	0.72	0.76	19.34
1973	0.50	0.00 z	0.44	0.10 a	1.13	1.92	2.89	1.27	0.25	0.25	0.22	0.00	8.97
1974	0.50	0.59	0.12	0.10	0.73	0.00 z	2.22	4.17	4.84	3.54	0.00 z	0.00 z	16.81
1975	0.82 s	1.37	2.19	0.15	0.06	0.20	1.75	1.43	0.99	0.19	0.50	0.40	9.23
1976	0.10	0.70	1.60	0.47	2.53	0.99	1.96	2.32	3.89	0.50	0.53	0.50	16.09
1977	2.60	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	2.60

Period of Record Statistics

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
MEAN	0.68	0.70	0.82	0.81	1.13	1.27	2.63	2.79	1.76	1.08	0.55	0.76	14.76
S.D.	0.66	0.68	0.81	0.99	1.12	1.12	1.42	1.60	1.70	0.98	0.63	0.72	5.04
SKEW	1.55	1.73	1.21	2.55	1.95	1.15	0.51	0.81	1.56	1.01	1.72	1.21	1.48
MAX	3.00	3.47	3.30	5.81	5.91	5.40	5.56	7.68	9.08	3.83	3.04	3.21	36.11
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	5.81
NO YRS	62	62	63	63	62	61	62	63	62	62	61	61	53

CORONA 11 SSW, NEW MEXICO   *6500 ft*

Monthly Total Precipitation (inches)

File last updated on Jul 19, 1998
*** Note *** Provisional Data *** After Year/Month 000000
a = 1 day missing, b = 2 days missing, c = 3 days, ..etc..,
z = 26 or more days missing, A = Accumulations present
Long-term means based on columns; thus, the monthly row may not
sum (or average) to the long-term annual value.
MAXIMUM ALLOWABLE NUMBER OF MISSING DAYS : 5
Individual Months not used for annual or monthly statistics if more than 5 days are missing.
Individual Years not used for annual statistics if any month in that year has more than 5 days missing.

YEAR(S)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
1977	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.13	0.13
1978	0.99 b	1.93	1.38	0.00	1.48	0.00 z	0.95	3.64	0.93	0.00 z	2.15	1.68	15.13
1979	1.37 b	0.44	0.10	0.33	2.39	3.23	2.72	0.87	2.89	0.31	1.02 a	0.97	16.64
1980	0.63	0.84	0.27	1.12	0.41	0.08	1.71	2.46	4.05	0.10	0.32	0.33	12.32
1981	0.56	0.26	0.85	0.48	0.56	2.54	1.76	5.66	1.38	0.95	0.35	0.00	15.35
1982	0.83	0.28	0.58	0.08	0.37	0.17	3.36	1.45	2.27	0.12	1.16 d	0.58	11.25
1983	0.83	0.58	1.80	0.60 a	0.31	0.40	0.65	1.86	1.51	2.44	1.48	0.96 b	13.42
1984	0.27	0.07	0.74	0.28	0.00 m	2.89 c	1.30	3.56 k	0.62	2.43	0.68	1.90 c	11.18
1985	1.30	0.56	0.55 a	0.99	0.46	0.98	2.64	1.30 p	0.37	4.54	0.64	0.00 z	13.03
1986	0.06	1.41	0.86	0.09	1.47	1.75 i	0.44	1.58	1.14	2.78	2.65	2.95	15.43
1987	1.13 e	2.47	0.23	0.29 d	0.00 z	0.86 l	0.36	3.18	0.57 f	0.29	0.97	3.30 l	8.92
1988	0.70	0.91	0.00	0.20	0.48	1.44	3.80	2.98	2.30	0.00	0.52	1.07	14.40
1989	0.27	0.54	0.99	0.16	0.79	0.52	2.33 d	3.33 b	1.68 m	0.27	0.00	0.44	9.64
1990	0.57	0.89	1.12 b	0.86	0.70	0.24	3.07 d	2.03 b	2.43 i	0.66	1.08	1.63 b	12.85
1991	0.52	0.54	0.26	0.00	1.01	0.17	2.75 g	3.53 d	3.47 c	0.69	1.20 e	2.42	13.81
1992	1.28	0.44 b	0.63	0.44	5.76 b	0.95	2.93 h	1.57 e	0.72	0.00 z	0.00 z	0.00 z	11.79
Period of Record Statistics													
MEAN	0.75	0.81	0.69	0.39	1.25	1.13	1.93	2.63	1.80	1.20	1.02	1.16	13.90
S.D.	0.40	0.66	0.50	0.36	1.48	1.14	1.15	1.28	1.19	1.40	0.72	0.91	1.98
SKEW	0.02	1.38	0.61	0.82	2.39	0.84	0.08	0.84	0.59	1.20	0.87	0.54	0.04
MAX	1.37	2.47	1.80	1.12	5.76	3.23	3.80	5.66	4.05	4.54	2.65	2.95	16.64
MIN	0.06	0.07	0.00	0.00	0.31	0.08	0.36	0.87	0.37	0.00	0.00	0.00	11.25
NO YRS	15	15	15	15	13	12	13	13	12	13	14	13	6

CLOUDCROFT_____, NEW MEXICO

Monthly Total Precipitation (inches)   8310 ft

File last updated on Jul 19, 1998
*** Note *** Provisional Data *** After Year/Month 194709
a = 1 day missing, b = 2 days missing, c = 3 days, ..etc..,
z = 26 or more days missing, A = Accumulations present
Long-term means based on columns; thus, the monthly row may not
sum (or average) to the long-term annual value.
MAXIMUM ALLOWABLE NUMBER OF MISSING DAYS : 5
Individual Months not used for annual or monthly statistics if more than 5 days are missing.
Individual Years not used for annual statistics if any month in that year has more than 5 days missing.

YEAR(S)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
1914	0.55	0.72	1.15	0.38	0.64	0.60	8.02	3.56	0.89	1.46	0.65	3.13	21.75
1915	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1916	4.41	0.35	1.82	0.87	1.32	0.00	3.35	6.90	3.70	3.22	0.56	0.92	27.42
1917	0.00 z	2.00	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	2.00
1918	3.51	1.08	1.25	0.00	0.00	2.56	4.57	7.47	0.39	2.64 a	3.05	2.00 c	28.52
1919	0.30	0.00 z	0.00 z	2.74 a	0.51	4.65	5.63	2.69 a	6.99	0.65 a	2.14 b	0.41	26.71
1920	1.37	1.15 a	1.39 b	1.34	0.00 z	5.85 a	3.61	4.40	2.31 a	1.97	0.00	0.28	23.67
1921	0.21 a	0.87	0.87 a	0.00	0.95 a	1.70	5.65	0.00 z	3.76	0.00	0.21	0.63	14.85
1922	2.07 d	0.15	0.57 a	0.87 a	0.00	1.99	1.89	4.15	1.16	1.97 a	1.47 a	0.31 a	16.60
1923	1.15	2.52	1.51	0.75	1.20	0.41	5.90	7.21	1.33	0.00 z	0.00 z	3.58 c	25.56
1924	0.81 a	0.51 d	1.50 b	0.72	0.50	0.00 z	6.61	2.74 a	0.34	0.90	0.35 a	1.73 c	16.71
1925	0.91 a	0.95	0.00	0.00	1.66 a	1.22	7.34	5.32	3.37 b	2.81 a	0.28	0.43	24.29
1926	2.80 e	0.40	4.74 f	0.43 c	0.00 z	1.26	3.96	3.83	4.27	4.40 c	0.00 z	3.19 b	24.54
1927	0.10	1.11	3.19	0.36	0.00	1.51	9.52	8.69	4.18	0.00	0.00	0.00 z	28.66
1928	0.06	2.23	0.13	0.37	3.53	0.00	4.87	8.44	1.09	3.58	1.40	0.29	25.99
1929	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1930	1.62 a	0.44	1.05	0.58	3.98	0.97	4.95	5.03	1.68	1.64	2.86	1.01	25.81
1931	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1932	3.07	2.28	4.01	0.51	1.34	2.25	5.79	6.80 a	3.72	3.21	0.00	2.56	35.54
1933	3.04	2.69	0.48	0.52	2.15	3.61	3.56	3.33	1.10	1.32	0.89	0.05	22.74
1934	0.40	0.40	0.83	0.49	1.85	0.25	4.01	3.08	0.60	1.00	1.96	2.28	17.15
1935	1.61	2.48	1.31	0.29	1.50	1.31	1.88	6.12	2.20	0.00	1.45	0.53	20.68
1936	4.02 a	2.11	0.60 a	0.53	2.56	1.52	4.69	3.51	4.75 a	0.75	0.81	1.64	27.49
1937	0.55	2.46	3.35 y	0.35	2.16	4.55	2.46	3.42	3.38	2.14	0.20	2.12	23.79
1938	1.69	2.80 b	0.80	0.64	0.53	2.81	8.06	2.34	3.80	0.30	1.11	1.11	25.99
1939	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1940	1.22	2.55	0.42	0.33	2.52	1.71	5.90	2.68	2.28	2.07	1.32	1.51 a	24.51
1941	2.83	2.48	2.90	2.20	5.20	1.87	8.97	4.38	11.62 a	3.85	0.87	0.93	48.10
1942	0.69	1.85	1.12	3.49	0.00	0.62	4.37	8.84 c	4.39	3.06 b	0.00	3.46 c	31.89
1943	0.83	0.09	1.01	0.00	0.81	6.17	8.04	3.08	1.57	0.09	0.82	2.34	24.85
1944	2.98	1.61	0.60	1.10	0.48	1.18	7.41	4.12	2.52	0.00 z	1.86	0.00 z	23.86
1945	1.49	0.24	1.17	0.16	0.00	0.30	4.66	7.18	0.60	1.31	0.00	1.38	18.49
1946	5.24	0.62	2.74	0.73	1.45	1.52	6.52	2.40	2.72 a	0.00 z	0.98 g	1.23 a	25.17

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1947	1.26	0.63	0.72	0.42	1.21	0.57	2.45	5.05 a	1.06	0.00 z	0.00 z	0.00 z	13.37
1948	0.00 z	0.00 z	0.00 z	0.00 z	1.40	1.56	4.00	2.97	0.85	2.47	0.14	3.33	16.72
1949	3.69	1.57	0.53	1.46	0.22	4.16	7.12	6.30	3.27	1.59	0.13	1.83	31.87
1950	0.55	0.46	0.10	0.28	0.01	3.08	10.75 a	1.19	3.47	1.11	0.00	0.00	21.00
1951	1.42	0.92	2.56	1.09	0.18	0.15	7.73	3.43	0.35	2.53	1.11	1.84	23.31
1952	0.39	0.99 b	1.83	1.81	0.53	4.30	5.62	5.91	1.30	0.00 z	0.00 z	0.00 z	22.68
1953	0.00 z	2.35 s	1.53	2.23	0.05	2.54	3.77	2.58	0.02	0.95	0.59	2.15	16.41
1954	1.35	0.24	1.73	0.00	0.99	2.01	3.89	6.18	1.98	1.11	0.00	0.35	19.83
1955	2.37	0.55	3.82	0.00	0.81	0.44	10.48	5.29 a	0.55	2.06	0.16	0.22	26.75
1956	1.16	2.25	0.00	0.57	0.00	1.42	5.13 a	3.84	0.02	1.55	0.00	0.90	16.84
1957	1.50	2.74	3.51	1.01	0.56	0.40	3.02	7.02	0.41	4.72	2.40	0.34 a	27.63
1958	3.16	3.28	7.31	1.06	0.65	1.25	4.66	7.51	4.78	3.06	0.85	0.23	37.80
1959	0.04	1.31	0.10	0.05	0.32	1.53	8.84	6.90	0.05	0.64	0.06	1.22	21.06
1960	4.16	1.77	0.43	0.14	1.04	1.47	6.98	2.23	0.92	1.59	0.11	2.21	23.05
1961	1.69	0.10	2.75	0.03	0.50	4.23	6.44	4.10	2.77	0.25	2.68	5.10	30.64
1962	3.13	0.91	1.36	0.50	0.22	1.72	9.61	2.19	4.41	1.50	1.54	1.38	28.47
1963	2.07	1.37	0.04	0.59	0.24	0.78	5.49	9.23	1.96	1.59	0.68	0.40	24.44
1964	0.51	1.60	1.46	0.71	0.95	0.78	6.39	3.16	4.65	0.00	0.19	0.93	21.33
1965	1.74	2.90	2.09	0.82	0.51	2.56	5.70	6.88	3.39	1.08	0.53	5.73	33.93
1966	1.59	1.64	1.22	0.96	0.00	3.15	3.81	6.27	3.15	0.00	1.15	1.59	24.53
1967	0.00	1.45	0.28	0.08	0.02	2.65	2.64	7.95	4.67	0.02	1.01	5.26	26.03
1968	1.49	2.07	3.85	0.11	0.28	0.64	5.21	6.05	0.76	0.62	3.14	2.87	27.09
1969	1.44	1.66	1.56	0.00 a	2.56	0.29	4.21	7.13	5.22	1.40	0.00 z	0.00 z	25.47
1970	0.40	0.13	1.84	0.10	0.04	2.51	4.44	0.00 z	0.00 z	1.03	0.05	0.46	11.00
1971	0.00 z	2.00	0.00	1.54	0.27	2.94	4.23	0.00 z	2.26	4.44	0.16 b	2.12	19.96
1972	3.75	0.56	0.00	0.00	0.89	2.42	5.68	4.91	5.27	5.68	1.16	2.33	32.65
1973	2.30	1.06	5.07	0.00 z	0.00 z	1.56	5.00	2.40	0.34	0.14	0.00 z	0.00 z	17.87
1974	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1975	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1976	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1977	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1978	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1979	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.33	1.49	1.82
1980	2.45	1.73	0.86	0.82	1.61	0.62	4.20	3.88	7.00	0.57	0.49	0.26	24.49
1981	0.77	2.54	1.86	1.35	0.73	2.46	4.29	6.97	4.41	1.39	1.95	0.45	29.17
1982	3.84	1.54	0.11	0.19 a	1.72	1.50	5.11	4.02	5.15	0.40	1.15	4.13	28.86
1983	1.84	1.73	3.01	1.32	1.27	0.84	2.80	2.63	3.84	3.11	3.78	3.06	29.23
1984	0.25	0.24	0.47	0.59	2.26	3.73	2.78	10.94	0.49	5.35	2.22	6.50	35.82
1985	2.31	2.36	1.94	1.59	0.89	2.47	2.84	8.31	4.78	7.53	0.75	0.19	35.96
1986	0.37	1.76	2.60	0.30	2.26	6.72	4.18	8.54	2.30	2.79	5.17	3.14	40.13
1987	0.89	2.25	1.17	1.11	4.52	4.87	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	14.81

Period of Record Statistics

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
MEAN	1.72	1.43	1.53	0.71	1.11	2.04	5.35	5.15	2.73	1.87	1.03	1.77	27.04
S.D.	1.28	0.87	1.40	0.71	1.15	1.57	2.11	2.25	2.15	1.62	1.10	1.52	6.50
SKEW	0.71	0.10	1.67	1.66	1.59	1.06	0.66	0.38	1.28	1.21	1.51	1.16	0.87
MAX	5.24	3.28	7.31	3.49	5.20	6.72	10.75	10.94	11.62	7.53	5.17	6.50	48.10
MIN	0.00	0.09	0.00	0.00	0.00	0.00	1.88	1.19	0.02	0.00	0.00	0.00	16.60
NO YRS	60	61	59	61	60	62	62	59	61	57	56	57	44

CLOUDCROFT, NEW MEXICO

Monthly Total Precipitation (inches)　8710 ff

File last updated on Jul 19, 1998
*** Note *** Provisional Data *** After Year/Month 199804
a = 1 day missing, b = 2 days missing, c = 3 days, ..etc..,
z = 26 or more days missing, A = Accumulations present
Long-term means based on columns; thus, the monthly row may not
sum (or average) to the long-term annual value.
MAXIMUM ALLOWABLE NUMBER OF MISSING DAYS : 5
Individual Months not used for annual or monthly statistics if more than 5 days are missing.
Individual Years not used for annual statistics if any month in that year has more than 5 days missing.

YEAR(S)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
1987	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	3.07	1.15	1.64	1.95	7.81
1988	3.08	1.47	0.45	1.97	0.76	2.72	6.64	11.23	2.18	0.44	2.46	2.61	36.01
1989	0.71	1.15	1.23	0.00	0.40	0.10	8.88	9.30	3.28	0.59	0.14	0.93	26.71
1990	1.71	2.74	1.33	1.45	1.18	0.40	7.80	3.84	5.40	0.42	2.51	2.61	31.39
1991	1.43	4.08	4.31	0.00	0.41	4.88	7.68	5.42	3.09	1.40	1.76	4.78	39.24
1992	3.44	1.34	1.26	1.69	5.31	1.27	4.21	4.17	2.03	2.79	1.17	3.31	31.99
1993	2.45 a	2.59	1.33	0.64	1.67	1.71	6.09	10.37	0.51	3.96	1.73	0.86	33.91
1994	0.56	1.78	1.99	0.57	2.97	2.00	3.42	4.83	4.11	2.92	4.39	4.27	33.81
1995	2.49	1.98	1.05	0.34	0.24	2.11	3.99	5.92	4.80	0.00	1.01	1.24	25.17
1996	0.73	1.01	0.18	0.26	0.02	3.44	7.76	6.16	4.35	2.31	0.95	0.02	27.19
1997	4.05	2.66	1.05	2.59	2.60	1.90	5.27	1.79	2.23	1.69	0.86	4.77	31.46
1998	0.50	3.36	3.01	0.04	0.00 v	1.98 t	3.86 u	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	6.91

Period of Record Statistics

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
MEAN	1.92	2.20	1.56	0.87	1.56	2.05	6.17	6.30	3.19	1.61	1.69	2.49	31.69
S.D.	1.26	0.98	1.18	0.90	1.66	1.40	1.89	3.05	1.42	1.26	1.14	1.65	4.38
SKEW	0.31	0.52	1.26	0.70	1.22	0.56	-0.14	0.38	-0.19	0.46	1.10	0.12	0.06
MAX	4.05	4.08	4.31	2.59	5.31	4.88	8.88	11.23	5.40	3.96	4.39	4.78	39.24
MIN	0.50	1.01	0.18	0.00	0.02	0.10	3.42	1.79	0.51	0.00	0.14	0.02	25.17
NO YRS	11	11	11	11	10	10	10	10	11	11	11	11	10

MESCALERO, NEW MEXICO

Monthly Total Precipitation (inches)

File last updated on Jul 19, 1998
*** Note *** Provisional Data *** After Year/Month 194712
a = 1 day missing, b = 2 days missing, c = 3 days, ..etc..,
z = 26 or more days missing, A = Accumulations present
Long-term means based on columns; thus, the monthly row may not
sum (or average) to the long-term annual value.
MAXIMUM ALLOWABLE NUMBER OF MISSING DAYS : 5
Individual Months not used for annual or monthly statistics if more than 5 days are missing.
Individual Years not used for annual statistics if any month in that year has more than 5 days missing.

YEAR(S)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
1914	0.44	1.17	0.36	0.23	2.81	3.76	7.00	2.57	0.00 z	2.71	0.30	4.38	25.73
1915	2.11	1.60	1.33	2.60	0.08	0.00	6.52	1.39	3.09	0.20	0.29	0.37 a	19.58
1916	0.00 z	0.17	1.36 a	0.35	0.55	0.00	2.84 a	4.98	0.00 z	0.00 z	0.00 z	0.00 z	10.25
1917	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1918	0.00 z	0.00 z	0.00 z	0.05	0.33	0.90	4.48	3.36	0.51	3.28	1.88	1.77	16.56
1919	0.10	0.00 z	0.00 z	1.36	0.55	3.93	5.14	2.82	4.63	1.04	2.72	0.30 a	22.59
1920	0.43	0.80	0.10	0.50	0.53	2.66	1.97	2.15	0.90	1.97 b	0.00 z	0.24	12.25
1921	0.35	0.00 z	0.60	0.25	0.00 z	1.85	6.33	0.00 z	2.80	0.48	0.19	0.46	13.31
1922	1.73 a	0.01	0.26	0.63	0.52	1.37	1.62	4.37	1.49	1.54	0.00 z	0.00	13.54
1923	1.24	2.13	1.09	0.74	0.80	0.19	3.10	7.75	0.00 z	0.55	1.90 a	2.35 a	21.84
1924	0.32	0.00 z	0.96	0.00 z	1.26	0.37	4.86	2.20	0.27	0.25	0.04	0.30	10.83
1925	0.08	0.19	0.12	0.00	2.93	1.54	4.18 a	4.07 a	3.28	2.35	0.21	0.15	19.10
1926	0.93	0.26	2.84	0.55	1.05	0.50	1.91	1.52	1.38	1.95	0.20	1.61	14.70
1927	0.06	1.17	1.43	0.05	0.00	1.33	6.03	4.02	1.86	0.08	0.00	0.94	16.97
1928	0.05	1.40	0.12	0.00 z	2.91	0.00	2.13	0.00 z	1.14	3.30	1.57	0.50	13.12
1929	0.47	1.05	0.00 z	0.10	2.40	0.05	0.00 z	3.88	1.60	2.75	1.60	0.15	14.05
1930	0.78	0.80	0.96	0.70	1.77	2.00	5.46	3.67	0.98	0.00 z	2.05	1.05	20.22
1931	0.00 z	3.42	0.50	2.38	0.63	0.70	7.06	5.78	4.80	0.30	0.00 z	0.00 z	25.57
1932	0.00 z	1.16	1.04	0.30	0.00 z	0.62	1.54	4.70 a	1.92	1.89	0.00	2.18 a	15.35
1933	1.11	1.38	0.00 z	0.20	0.73	3.23	5.61	0.00 z	0.30	0.00 z	1.21	0.00	13.77
1934	0.00	0.13	0.48	0.20	0.90	0.00	2.66	2.95	0.65	0.31	2.22	0.77	11.27
1935	0.94	0.48	0.51	0.37	1.25	2.01	1.64	6.04	4.83	0.38	1.48	0.88	20.81
1936	2.62	0.63	0.60	1.00	2.27	0.59	3.34	3.70	4.24 a	1.02	0.70	2.15	22.86
1937	0.27	1.17	1.25	0.10	2.51	1.79	1.47	0.00 z	1.87	2.46	0.00 z	1.17	14.06
1938	1.12	2.02	0.87	0.75	0.05	1.72	4.60	0.00 z	3.29	0.13	0.89	1.70 a	17.14
1939	1.25	0.43	0.00 z	0.00 z	0.28	0.85	5.59	4.02	2.69	1.87	1.19	1.15	19.32
1940	0.74	2.46	0.18	0.32	2.36 a	1.49	4.56	5.69	2.02	0.55	1.52	2.69 a	24.58
1941	2.05	2.45	2.32	1.27	4.10	1.57	5.14	4.29	6.17 a	3.86 b	0.73	1.24	35.19
1942	0.47	1.06 a	0.33	3.60	0.00	0.97	2.60	9.50	2.66	2.56	0.00	3.01	26.76
1943	0.48	0.04	0.00 z	0.02	1.63	4.67	4.22	0.00 z	1.26	1.74	0.98	1.12	16.16
1944	1.27	1.48	0.30	0.69	0.78	0.21	3.81	4.25	2.11	0.34	1.78	1.21	18.23
1945	0.78	0.19	1.78	0.12	0.00	0.08	3.23	1.78	1.31	0.81	0.00	0.71	10.79
1946	0.96	0.02	1.33	0.41	0.65	1.81	4.26	3.11	2.57	1.09	0.59	0.45	17.25

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1947	0.24	0.22	0.13	0.13	0.57	0.36	1.08	3.35	0.52	0.46	1.13	1.37	9.56
1948	0.08	1.89	0.61	0.09	0.52	1.82	2.22	1.50 a	0.00 z	0.00 z	0.00 z	0.00 z	8.73
1949	0.00 z	0.00 z	0.00 z	0.00 z	0.04	0.33	3.70	3.18	2.92	1.95	0.10	0.00 z	12.22
1950	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	9.72	1.34 d	0.65 a	0.00 z	0.00	0.00	11.71
1951	0.30	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	2.94 m	1.81 r	0.00 z	0.00 z	0.00 z	0.00 z	0.30
1952	0.00 z	0.00 b	1.39	1.25	0.00	2.83	1.93	3.37	0.10	0.00	0.75	1.00	12.62
1953	0.00	1.37	0.78	1.44	0.25	0.94	4.87	0.79	0.83	1.12	0.26	0.45	13.10
1954	0.61	0.00	0.95	0.03	0.89	1.37	2.93	4.36	1.65	0.60	0.00	0.02	13.41
1955	2.15	0.24	1.80	0.14	0.66	0.31	5.94	4.49	1.51	1.53	0.07	0.35	19.19
1956	0.50	0.18	0.00	0.28	0.08	1.88	1.97	4.21	0.00	1.68	0.00	0.45	11.23
1957	1.47	1.85	1.56	0.65	0.74	0.57	4.51	6.30	0.90	3.97	2.08	0.14	24.74
1958	1.46	1.55	3.97	1.18	0.76	3.98	3.15	4.47	5.94	1.55	1.15	0.20	29.36
1959	0.03	1.70	0.06	0.04	1.10	1.37	2.57	5.59	0.00	0.82	0.00	1.61	14.89
1960	4.39	0.91	0.10	0.00	1.17	1.94	5.18	3.26	1.33	1.38	0.06	1.46	21.18
1961	1.01	0.09	1.92	0.01	0.65	3.70	4.37	2.68	5.34	0.10	2.39	0.00 z	22.26
1962	1.59	0.76	0.42	0.41	0.05	2.64	5.65	1.91	4.67	1.15	1.18	1.63	22.06
1963	0.83	0.72	0.02	0.56	0.31	0.20	3.09	7.92	3.98	0.77	0.63	0.33	19.36
1964	0.10	0.51	0.77	0.50	1.15	0.04	3.35	1.83	3.18	0.00	0.08	0.63	12.14
1965	1.95	1.78	1.56	1.64	0.83	2.42	3.20	6.16	3.68	0.96	0.52	5.28	29.98
1966	1.00	1.76	0.68	0.62	0.19	4.61	3.10	5.15	1.96	0.17	1.08	0.83	21.15
1967	0.00	0.88	0.17	0.15	0.10	1.69	2.82	3.85	1.93	0.01	0.98	2.46	15.04
1968	0.90	1.47	2.59	0.32	0.44	0.36	3.35	5.16	0.24	0.58	1.78	1.82	19.01
1969	1.38	1.20	0.90	0.08	1.52	0.34	2.61	4.64	3.00	1.18	0.16	1.69	18.70
1970	0.15	0.19	1.57	0.04	0.09	1.79	4.15	2.05	0.20	1.09	0.01	0.95	12.28
1971	0.05	0.72	0.00	0.85	0.23	0.53	5.96	4.26	1.35	4.73	2.32	1.41	22.41
1972	1.21	0.39	0.00	0.00	0.20	2.06	2.68	3.72	3.57	3.86	0.92	2.87	21.48
1973	1.33	1.17	1.96	0.00	1.01	2.20	4.07	2.60	1.21	0.08	0.49	0.05	16.17
1974	1.96	0.67	0.62	0.05	0.07	1.70	3.82	5.97	4.05	5.16	1.13	1.48	26.68
1975	1.15	1.18	1.38	0.30	0.39	0.15	4.26	3.60	4.12	0.05	1.68	1.22	19.48
1976	0.50	1.74	0.55	1.60	2.47	0.46	6.62	2.20	2.24	0.89	0.51	0.00	19.78
1977	1.65	0.88	0.17	2.12	2.16	1.36	4.51	5.95	1.14	1.85	0.00	0.36	22.15
1978	3.13	1.85	1.93	0.20	1.52	0.83	2.00	4.20	1.65	0.00 z	0.00 z	0.00 z	17.31

Period of Record Statistics

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
MEAN	0.95	1.00	0.94	0.60	0.95	1.41	3.94	3.94	2.21	1.39	0.85	1.14	19.28
S.D.	0.86	0.76	0.83	0.73	0.93	1.21	1.71	1.75	1.59	1.27	0.78	1.07	5.78
SKEW	1.48	0.67	1.25	2.02	1.29	0.94	0.69	0.69	0.66	1.12	0.58	1.63	0.50
MAX	4.39	3.42	3.97	3.60	4.10	4.67	9.72	9.50	6.17	5.16	2.72	5.28	35.19
MIN	0.00	0.00	0.00	0.00	0.00	0.00	1.08	0.79	0.00	0.00	0.00	0.00	9.56
NO YRS	57	57	55	58	60	62	62	57	59	57	56	57	38

RUIDOSO 2 NNE, NEW MEXICO 6840 ft

Monthly Total Precipitation (inches)

File last updated on Jul 19, 1998
*** Note *** Provisional Data *** After Year/Month 199804
a = 1 day missing, b = 2 days missing, c = 3 days, ..etc..,
z = 26 or more days missing, A = Accumulations present
Long-term means based on columns; thus, the monthly row may not
sum (or average) to the long-term annual value.
MAXIMUM ALLOWABLE NUMBER OF MISSING DAYS : 5
Individual Months not used for annual or monthly statistics if more than 5 days are missing.
Individual Years not used for annual statistics if any month in that year has more than 5 days missing.

YEAR(S)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
1942	0.44	1.65	0.40	3.49	0.05	2.28	4.30	7.37	1.89	2.73	0.00	3.35	27.95
1943	0.97	0.00	1.60	0.54	1.51	2.74	0.00 z	0.00 z	0.55	1.14	0.00 z	1.71	10.76
1944	1.86	0.64	0.24	0.77	0.80	3.75	2.67	3.94	2.67	0.43	1.57	1.34	20.68
1945	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.18	1.94	4.69	0.83	0.78	0.00	1.01	9.43
1946	2.01	0.24	1.54	0.24	0.47	2.17	5.97	7.27	2.92	0.64	0.53	0.81	24.81
1947	1.08	0.54	0.75	0.61	1.36	0.69	1.30	3.54	1.11	0.76	1.42	1.34	14.50
1948	0.58	2.61	1.82	0.37	1.94	3.66	5.58	1.12	0.92	1.48	0.02	2.59	22.69
1949	2.52	2.18	0.55	1.68	0.39	1.48	4.80	4.34	3.20	1.81	0.12	2.35	25.42
1950	0.74	0.37	0.04	0.08	0.10	2.24	10.86	2.41	4.69	0.32	0.00	0.00	21.85
1951	0.88	1.12	2.30	1.26	0.24 a	0.10	3.41	5.57	1.31	1.59	1.63	2.53	21.94
1952	0.77	1.01	3.60	1.52	0.20	1.82	3.74	4.27	1.95	0.00	1.44	1.23	21.55
1953	0.14	0.97	1.76	0.97 a	0.71	1.83	6.11	3.00	0.57	0.68	0.66	1.27	18.67
1954	0.74	0.12	1.64	0.13	2.42	0.67	2.99	5.11	3.86	1.73	0.01	0.55	19.97
1955	1.12	0.86	3.12	0.17	0.61	0.64	5.12	2.87	1.60	1.77	0.04	0.59	18.51
1956	0.43	2.06	0.00	0.26	0.57	1.78	4.43	3.28	0.56	1.05	0.00	0.29	14.71
1957	1.36	1.24	1.25	0.72	1.37	1.45	4.88	6.64	0.45	3.24	1.70	0.27	24.57
1958	1.41	1.95	4.58	1.09	1.35	2.46	3.56	1.94	5.15	1.41	1.22	0.39	26.51
1959	0.05	1.56	0.39	0.42	0.94	2.18	5.27	6.18	0.06	0.64	0.01	1.81	19.51
1960	2.75	0.81	0.17	0.02	0.69	1.88	4.33	1.15	0.59	1.29	0.15	1.90	15.73
1961	0.89	0.14	1.12	0.08	0.37	2.98	2.93	4.97	4.42	0.08	1.76	5.40	25.14
1962	1.62	0.26	1.04	0.33	0.28	1.98	7.22	1.31	5.46	1.12	1.11	1.50	23.23
1963	1.61	1.22	0.02	0.38	0.08	0.30	4.14	8.24	3.10	0.41	0.32	0.15	19.97
1964	0.36	1.67	0.88	0.33	1.20	0.00	4.34	1.55	5.80	0.44	0.14	0.71	17.42
1965	1.77	2.32	1.15	1.11	1.71	6.39	4.96	5.39	4.32	0.67	0.83	4.19	34.81
1966	1.19	1.27	0.54	1.29	0.25	3.33	1.16	4.35	0.97	0.05	1.16	0.95	16.51
1967	0.00	1.04	0.12	0.48	0.28	2.87	3.84	5.84	2.24	0.02	0.64	3.47	20.84
1968	0.96	1.85	1.86	0.27	0.50	1.85	4.29	2.14	0.95	0.78	1.39	1.85	18.69
1969	0.40	0.92	0.67	0.17	1.65	1.25	3.86	4.87	3.25	1.45	0.60	2.85	21.94
1970	0.50	0.42	2.05	0.04	0.00	2.06	2.62	2.08	0.33	1.47	0.05	0.65	12.27
1971	0.35	1.65	0.20	0.50	0.59	0.78	5.27	4.81	2.52	2.70	1.45	2.15	22.97
1972	0.55	0.55	0.00	0.00	0.00	4.35	4.38	5.07	4.97	4.63	0.68	1.45	26.63
1973	1.35	1.87	2.93	0.96	1.86	2.25	5.33	2.76	0.35	0.01	0.67	0.15	20.49
1974	1.97	1.30	0.60	0.00	0.10	0.58	3.01	3.88	4.50	6.49	0.70	1.15	24.28

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1975	0.00 z	0.00 z	4.46	0.80	0.80	0.70	4.42	0.00 z	2.78	0.30	1.55	0.46	16.27
1976	1.25	1.50	0.61	1.40	1.30	2.75	3.05	3.55	1.80	1.45	2.05	0.15	20.86
1977	2.20	1.51	0.55	2.97	0.40	1.25	2.87	5.55	1.50	1.40	0.00	0.35	20.55
1978	1.55	0.72	1.15	0.20	2.30	0.00 z	3.60	4.60	3.40	1.59	2.48	8.88	30.47
1979	2.44	1.22	0.43	0.50	1.82	2.97	3.02	2.73	1.64	0.00 z	1.08	1.13	18.98
1980	2.25	0.65	0.56	0.51	1.60	0.38	2.35	5.38	4.50	0.25	0.76	0.46	19.65
1981	1.25	0.97	0.00 z	0.00 z	0.90	2.15	4.02	4.64	2.76	1.41	1.27	0.00	19.37
1982	3.44	1.06	0.31	0.67	0.40	0.62	5.22	2.75	5.54	0.30	0.97	2.26	23.54
1983	1.28	1.28	1.17	2.01	0.44	0.33	2.33	1.60	2.50	2.79	1.01	1.16	17.90
1984	0.33	0.00	0.00	0.12	2.87	1.66	2.52	11.36	2.45	4.23	0.09	4.42	30.05
1985	2.07	1.87	2.07	1.08	0.47	2.55	1.73	2.32	2.49	6.98	0.50	0.13	24.26
1986	0.36	2.09	1.35 a	0.10	1.68	5.12	2.99	4.55	2.72	3.93	2.39	2.26	29.54
1987	0.91	2.53	0.70	0.74	1.84	1.11 t	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	6.72
1988	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1989	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1990	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1991	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1992	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1993	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	2.00	2.04	1.01	1.21	6.26
1994	0.31 a	0.99	1.69	0.22	2.55	0.73 b	2.89	3.97	2.66	0.54	2.94	2.61	22.10
1995	1.17 a	1.10	1.04	0.44	0.05	1.78	2.88	4.04	5.07	0.00	0.20	1.33	19.10
1996	1.73	0.52	0.15	0.20	0.04	5.16	5.97	4.48 a	3.14	1.59	0.56	0.01	23.55
1997	2.08	1.14	0.93	1.58	3.06	2.29	3.72	4.16 a	2.40	0.79	0.50	3.22 a	25.87
1998	0.19	0.98	2.21 a	0.06	0.00 e	27.00 d	2.16 n	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	30.44

Period of Record Statistics

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
MEAN	1.19	1.15	1.19	0.69	0.94	2.50	4.00	4.20	2.55	1.50	0.84	1.64	21.90
S.D.	0.79	0.67	1.10	0.73	0.83	3.83	1.66	1.99	1.60	1.55	0.74	1.62	4.40
SKEW	0.61	0.24	1.38	1.92	0.81	5.49	1.42	0.98	0.36	1.88	0.76	2.15	0.39
MAX	3.44	2.61	4.58	3.49	3.06	27.00	10.86	11.36	5.80	6.98	2.94	8.88	34.81
MIN	0.00	0.00	0.00	0.00	0.00	0.00	1.16	1.12	0.06	0.00	0.00	0.00	12.27
NO YRS	49	49	49	49	50	49	48	47	50	49	49	50	43

FORT STANTON, NEW MEXICO

Monthly Total Precipitation (inches)

6220 ft

File last updated on Jul 19, 1998
*** Note *** Provisional Data *** After Year/Month 194712
a = 1 day missing, b = 2 days missing, c = 3 days, ..etc..,
z = 26 or more days missing, A = Accumulations present
Long-term means based on columns; thus, the monthly row may not
sum (or average) to the long-term annual value.
MAXIMUM ALLOWABLE NUMBER OF MISSING DAYS : 5
Individual Months not used for annual or monthly statistics if more than 5 days are missing.
Individual Years not used for annual statistics if any month in that year has more than 5 days missing.

YEAR(S)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
1914	0.21	0.28	0.20	0.90	1.12	1.85	4.84	2.29	0.80	2.62	0.14	1.35	16.60
1915	0.60	1.33	2.13	3.93	0.87	0.20	5.30	1.65	3.05	0.50	0.00	1.21	20.77
1916	1.81	0.21	0.75	1.60	0.00	0.00	2.65	4.19	1.78	1.35	0.32	0.19	14.85
1917	0.49	0.56	0.31	0.08	0.74	0.48	1.59	4.38	0.81	0.00	0.35	0.00	9.79
1918	1.09	0.11	0.00	0.02	0.30	0.53	4.32	4.10	0.77	2.40	0.35	1.18	15.17
1919	0.23	0.05	2.40	2.17	0.00 z	3.44	4.17	1.15	6.12	0.30	0.88	0.16	21.07
1920	0.28	0.00 z	0.20	0.00 z	1.61	0.00 z	3.37	4.00	1.71	1.86	0.00	0.08	13.11
1921	0.22	0.00	0.65	0.45	3.17	3.02	6.47	0.00 z	1.82	0.19	0.09	0.06	16.14
1922	0.34	0.17	0.23	0.65	1.15	2.57	1.23	0.60	0.93	0.00	0.81	0.10	8.78
1923	0.46	1.25	0.45	1.35	0.15	0.48	3.27	2.37	0.94	1.40	1.58	1.29	14.99
1924	0.10	0.50	0.49	0.49	0.44	0.35	4.10	2.48	0.05	0.40	0.06	0.30	9.76
1925	0.10	0.03	0.02	0.04	2.91	0.46	5.16	4.59	2.34	0.95	0.00	0.28	16.88
1926	1.37	0.03	3.53	0.95	2.57	1.16	2.38	2.63	4.48	1.47	0.00 z	0.00 z	20.57
1927	0.12	0.38	0.25	0.00	0.00	1.49	3.53	3.57	2.92	0.00	0.00	0.00	12.26
1928	0.00	0.00 z	0.11	0.15	1.61	0.00	0.86	3.46	0.09	1.85	0.53 a	0.00 z	8.66
1929	0.41	1.14	0.43	0.00	2.33	0.32	4.30	1.70	2.48	0.00 z	0.31	0.00 z	13.42
1930	0.67	0.39	0.00 z	0.54	0.80	1.11	0.00 z	1.61	0.03	1.69	0.82	0.00 z	7.66
1931	0.00 z	1.96	0.00 z	2.21	0.00 z	1.18	1.83	2.27	4.18	0.53	0.48	0.00 z	14.64
1932	0.00 z	0.34	1.38	0.04	0.00 z	1.26	2.16	3.65	3.26	2.35	0.00	0.98	15.42
1933	0.18	0.76	0.02	0.51	0.47	2.41	1.21	1.32	1.40	0.28	0.58	0.00	9.14
1934	0.22	0.39	0.33	0.36	0.77	0.15	0.55	3.83	0.48	0.36	1.05	0.19	8.68
1935	0.15	0.25	0.11	0.64	1.92	1.29	1.03	4.05	2.91	0.05	0.75	0.59	13.74
1936	1.41	0.36	0.31	1.01	1.88	1.05	4.22	1.93	4.03	0.39	0.47	0.64	17.70
1937	0.03	1.26	1.75	0.25	4.19	1.25	1.06	2.89	3.27	0.72	0.18	0.06	16.91
1938	1.25	0.91	0.43	0.15	0.07	2.90	4.43	0.95	3.23	0.55	0.25	0.35	15.47
1939	1.30	0.51	0.89	0.66	1.15	2.30	2.35	1.27	2.89	0.58	0.37	0.37	14.64
1940	0.18	1.26	0.02	0.40	2.20	0.50	2.76	3.10	1.04	0.73	0.59	0.40	13.18
1941	1.08	0.93	3.00	2.09	3.61	1.42	3.43	1.37	6.79	1.47	0.44	0.00 z	25.63
1942	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1943	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.12	1.05	1.88	3.05
1944	4.08	0.35	0.12	0.10	0.40	0.45	2.19	2.66	3.09	0.90	1.06	0.77	16.17
1945	0.51	0.22	0.76	0.26	0.00	0.00	0.95	1.30	0.73	0.67	0.00	0.66	6.06
1946	1.15 a	0.08	0.58	0.14	0.86	0.86	2.16	2.87	2.97	0.20	0.52 a	0.37	12.76

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1947	0.95	0.13	0.47	0.67 a	1.20	0.42	0.99	1.85	0.34	0.63	0.88	0.75	9.28
1948	0.42	1.58	1.27	0.53	2.07	2.45	2.87	1.06	1.40	1.02	0.13	0.55	15.35
1949	0.93	0.15	0.28	1.24	0.22	1.50	4.05	2.32	3.09	1.59	0.09	1.45	16.91
1950	0.00	0.15	0.10	0.10	0.00	1.69	4.86	1.43	4.98	0.60	0.00	0.00	13.91
1951	0.68	0.50	0.93	0.97	0.27	0.23	1.53	3.75	0.00	0.98	0.13	0.73	10.70
1952	0.38	0.45	0.85	0.56	0.27	1.38	4.36	2.00	1.11	0.00	0.92	0.32	12.60
1953	0.29	1.00	0.23	0.25	1.01	1.05	0.00 z	4.42	0.10	0.18	0.13	0.70	9.36
1954	0.37	0.00	0.00	0.11	2.79	0.15	2.74	2.57	3.57	1.75	0.06	0.15	14.26
1955	0.34	0.00	0.69	1.86	0.27	0.77	4.94	2.08	2.56	0.84	0.00	0.14	14.49
1956	0.10	1.64	0.00	0.04 a	0.92	0.66	3.54	1.37	0.00	1.01	0.00	0.09	9.37
1957	0.56	0.56	1.10	0.24	0.73	0.05	6.09	5.40	0.14	3.02	0.73	0.03	18.65
1958	0.88	0.37	3.31	0.69	1.59	1.15	4.53	1.75	3.41	0.74	0.21	0.48	19.11
1959	0.08	0.32 a	0.12 a	0.65	1.41	2.12	3.78	5.60	0.00	0.59	0.00	0.95	15.62
1960	0.48	0.17	0.00	0.00	3.12	2.22	3.58	2.10	0.91	1.31	0.00	1.50	15.39
1961	0.59	0.06	0.20	0.00	0.73	1.17	2.05	3.71	3.11	0.00	0.29	0.22	12.13
1962	0.62	0.26	0.49	0.89	0.00	3.31	2.86	0.36	4.31	0.89	0.25	0.80	15.04
1963	0.39	0.58	0.00	0.00	0.00	0.00	2.54	2.70	2.39	0.15	0.08	0.04	8.87
1964	0.12	0.79	0.38	0.10	0.64	0.00	3.02	2.34	2.04	0.19	0.00	0.13	9.75
1965	0.00	0.65	0.21	0.39	0.90	2.23	3.13	3.67	3.18	0.20	0.00	0.81	15.37
1966	0.91	0.22	0.20	0.82	0.00	4.21	0.50	3.42	0.34	0.00	0.00	0.20	10.82
1967	0.00	0.30	0.00	0.00	0.00	2.26	2.07	5.00	0.60	0.00	0.15	0.90	11.28
1968	0.50	1.20	0.60	0.00	0.00	0.00	6.15	2.58	0.10	0.00	0.31	1.10	12.54
1969	0.00	0.90	0.50	0.10	1.90	0.00	3.10	2.85	1.10	1.60	0.00 z	0.00 z	12.05
1970	0.00 z	0.10 a	0.23	0.00	0.06	2.51	0.00 z	1.82	0.11	0.81	0.00	0.17	5.81
1971	0.21	0.53	0.00	0.05	0.00	0.00 z	2.60	3.89	0.76 a	1.92	0.00 z	0.00 z	9.96
1972	0.00 r	0.10	0.00	0.00	0.28	3.35	2.92 k	4.43	2.55	2.75 c	0.00 z	0.20 b	13.66
1973	0.00 z	0.00 z	0.00 z	0.00	1.07	0.00 z	0.00 z	1.57 m	1.14	0.00	0.23	0.00	2.44
1974	0.00 z	0.00 z	0.33	0.00	0.00	0.36	1.80	2.05	3.27	2.02	0.00	0.00 z	9.83

Period of Record Statistics

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
MEAN	0.56	0.52	0.61	0.56	1.05	1.25	3.07	2.71	2.00	0.88	0.33	0.51	13.47
S.D.	0.66	0.48	0.82	0.74	1.06	1.08	1.50	1.25	1.62	0.80	0.37	0.48	3.33
SKEW	3.16	1.13	2.17	2.29	1.07	0.76	0.25	0.33	0.70	0.87	1.21	0.94	-0.09
MAX	4.08	1.96	3.53	3.93	4.19	4.21	6.47	5.60	6.79	3.02	1.58	1.88	20.77
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.36	0.00	0.00	0.00	0.00	6.06
NO YRS	53	55	56	58	56	56	54	57	59	59	56	51	42

BINGHAM 2 NE, NEW MEXICO   5550 ft

Monthly Total Precipitation (inches)

File last updated on Jul 19, 1998
*** Note *** Provisional Data *** After Year/Month 199804
a = 1 day missing, b = 2 days missing, c = 3 days, ..etc..,
z = 26 or more days missing, A = Accumulations present
Long-term means based on columns; thus, the monthly row may not
sum (or average) to the long-term annual value.
MAXIMUM ALLOWABLE NUMBER OF MISSING DAYS : 5
Individual Months not used for annual or monthly statistics if more than 5 days are missing.
Individual Years not used for annual statistics if any month in that year has more than 5 days missing.

YEAR(S)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
1939	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.63	0.20	0.83
1940	0.10	1.00	0.26	0.23	0.61	0.59	2.37	1.02	0.53	0.52	0.36	0.16	7.75
1941	0.93	0.72	0.51	0.65	2.67	1.54	1.06	1.79	3.92	2.11	0.65	0.68	17.23
1942	0.00	0.27	0.82	1.32	0.00	0.01	2.68	2.49	3.16	1.58	0.00	0.68	13.01
1943	0.50	0.00	0.21	0.35	1.58	1.80	1.13	2.17	1.01	0.29	0.47	1.01	10.52
1944	1.05	0.11	0.00	0.70	0.53	0.18	2.47	2.22	1.17	0.85	1.25	0.67	11.20
1945	0.24	0.10	1.06	0.05	0.00	0.13	2.25	1.79	0.14	0.30	0.00	0.35	6.41
1946	0.82	0.00	0.30	0.48	0.00 z	0.26	1.15	1.13	1.24	1.22	0.41	0.06	7.07
1947	0.40	0.00	0.00	0.09	0.05	0.00	0.84	3.97	0.33	0.00	0.43	0.94	7.05
1948	0.17	1.14	0.10	0.10	1.16	0.71 l	0.38 b	2.53	0.57	0.96	0.00	0.24	7.35
1949	0.88 a	0.66	0.36	0.57	0.43	0.79	2.61	0.85	4.07	0.52	0.00	0.41 a	12.15
1950	0.01	0.00	0.03	0.15	0.06	0.31	2.18	2.20 a	1.37 a	0.46	0.00	0.00	6.77
1951	0.46	0.14	0.59	0.31	0.05	0.00	0.67	3.46	0.03	0.97	0.35	0.27	7.30
1952	0.15	0.31	0.47	0.50	0.14	0.75	1.22	1.70	1.81	0.00	0.98	0.66	8.69
1953	0.00	0.98	1.47	1.19	0.25	0.48	2.33 c	1.78	0.82	0.22	0.53	0.07	10.12
1954	0.28	0.07	0.40	0.03	0.50	0.57	0.76	4.19	1.35	2.43	0.00	0.03	10.61
1955	0.57	0.02	0.00	0.00	0.18	0.17	3.02	1.04	0.36	0.28	0.00	0.31	5.95
1956	0.14	0.08	0.00	0.00	0.02	0.05	0.51	0.81	0.10	1.11	0.02	0.00	2.84
1957	0.30	0.36	0.78	0.22	0.15	0.03	1.94	2.18	0.35	1.58	0.73	0.11	8.73
1958	0.21	0.02	2.07	0.67	0.11	0.34	1.13	1.95	2.01	1.89	0.32	0.13	10.85
1959	0.08	0.00	0.06	0.78	0.53	0.35	2.33	2.08	0.05	1.08	0.05	1.46	8.85
1960	0.65	0.00	0.00	0.00	0.48	1.68	0.76	0.65	0.47	1.56	0.11	0.84	7.20
1961	0.12	0.01	0.55	0.18	0.04	0.24	1.65	2.37	2.46	0.08	0.46	0.90	9.06
1962	0.35	0.12	0.52	0.59	0.00	0.82	4.16	0.08	1.69	1.44	0.57	0.63	10.97
1963	0.06	0.08	0.05	0.32	0.04	0.17	1.85	3.64	0.20	0.91	0.53	0.05	7.90
1964	0.02	0.13	0.28	0.33	0.37	0.03	1.81	0.83	1.85	0.00	0.12	0.15	5.92
1965	0.07	0.03	0.22	0.50	0.29	0.62	1.28	1.58	3.25	0.69	0.00	1.69	10.22
1966	0.37	0.27	0.00	0.00	0.50	2.98	2.13	2.05	0.77	0.40	0.01	0.15	9.63
1967	0.00	0.41	0.05	0.00	0.23	1.81	1.47	3.49	1.24	0.05	0.62	0.68	10.05
1968	0.41	0.95	1.13	0.30	0.48	0.01	2.30	1.26	0.17	0.89	0.93	0.43	9.26
1969	0.18	0.45	0.08	0.73	0.45	0.00	2.39	2.67	1.16	1.64	0.00	1.20	10.95
1970	0.00	0.18	0.51	0.06	0.00	0.29	4.32	0.67	0.02	0.82	0.00	0.31	7.18
1971	0.00	0.08	0.03	0.32	0.00	0.16	2.54	3.03	1.59	1.38	1.04	0.57	10.74

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1972	0.07	0.09	0.03	0.00	0.13	1.15	1.19	5.85	1.06	4.46	0.94	0.34	15.31
1973	0.78	0.53	1.02	0.04	0.94	0.49	1.65	2.40	0.14	0.17	0.07	0.00	8.23
1974	0.29	0.24	0.23	0.05	0.00	0.08	2.01	3.48	2.20	3.90	0.10	0.77	13.35
1975	0.45	0.41	0.83	0.04	0.12	0.21	3.58	0.87	2.51	0.00	0.94	0.25	10.21
1976	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1977	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1978	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1979	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1980	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1981	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1982	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	1.99 m	1.87	0.13	0.40	0.71	3.11
1983	1.25	0.62	1.57	0.42	0.62 a	0.88	0.73	0.86 f	3.25	2.14	0.83 b	0.51 a	12.82
1984	0.00	0.00	0.05	0.34	0.78	0.90	2.15	2.05 b	1.05	2.47 b	0.54 b	1.47	11.80
1985	0.75	0.24	0.70	1.55	0.09 a	0.89	1.57 d	2.07	2.70 d	4.12	0.72	0.10 f	15.40
1986	0.07	0.68 a	0.36 a	0.09	1.35 i	1.39 a	2.70	1.64 c	1.43	2.23	2.53	0.33	13.45
1987	1.07	1.20 b	0.17	0.08 b	0.73 d	1.02 a	2.07 c	3.60 c	0.93 a	0.30	0.33	1.26	12.76
1988	0.10	0.15 c	0.00	0.79 c	0.28	1.65 c	2.51 d	8.17	2.65	0.12	0.10	0.00	16.52
1989	0.53 a	0.11 a	0.09 a	0.00	0.47	0.00	5.96 a	1.90	1.24 a	1.50	0.00	0.25	12.05
1990	0.45	0.33	0.78	0.85	0.93	0.29	1.97 c	2.20 e	1.95 b	0.24	1.18	0.78 a	11.95
1991	0.19	0.05	0.00 a	0.00 a	1.02	0.25	4.12 e	2.74 b	2.98 a	0.35	1.31	1.92 b	14.93
1992	0.95 a	0.05	0.72	0.48 a	1.62	0.99	2.12 c	2.89 b	1.26	0.78	0.14	0.89	12.89
1993	0.28	0.60 c	0.20	0.18	0.00	2.10 c	1.45	4.10 d	0.89	1.84	0.52	0.00	12.16
1994	0.00	0.00 c	1.21	0.22	1.34 b	0.12	1.95	0.47 a	0.75	1.86	1.71	1.55	11.18
1995	0.68	0.52	0.40	0.23	0.00	0.59	1.28	2.12	1.16	0.00	0.38	0.22	7.58
1996	0.45 a	0.87	0.00	0.00	0.00	4.05	4.24 b	2.71 e	1.93	2.21	0.49 g	0.00	16.46
1997	0.36	1.20	0.00 d	1.61 b	0.63	0.99	3.15	1.17 c	4.74 b	0.53 b	0.23	0.86 d	15.47
1998	0.13	1.16	1.06	0.15	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	2.50

Period of Record Statistics

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
MEAN	0.35	0.34	0.43	0.36	0.44	0.70	2.08	2.28	1.46	1.11	0.47	0.54	10.26
S.D.	0.33	0.37	0.48	0.40	0.53	0.82	1.11	1.41	1.14	1.06	0.51	0.49	3.02
SKEW	0.92	1.05	1.34	1.49	2.01	2.00	1.12	1.70	0.89	1.34	1.66	0.97	0.18
MAX	1.25	1.20	2.07	1.61	2.67	4.05	5.96	8.17	4.74	4.46	2.53	1.92	17.23
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.08	0.02	0.00	0.00	0.00	2.84
NO YRS	52	52	52	52	49	50	51	50	52	52	52	52	45

CAPITAN, NEW MEXICO

Monthly Total Precipitation (inches)

File last updated on Jul 19, 1998
*** Note *** Provisional Data *** After Year/Month 199804
a = 1 day missing, b = 2 days missing, c = 3 days, ..etc..,
z = 26 or more days missing, A = Accumulations present
Long-term means based on columns; thus, the monthly row may not
sum (or average) to the long-term annual value.
MAXIMUM ALLOWABLE NUMBER OF MISSING DAYS : 5
Individual Months not used for annual or monthly statistics if more than 5 days are missing.
Individual Years not used for annual statistics if any month in that year has more than 5 days missing.

YEAR(S)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
1914	0.25	0.05	0.16	0.75 a	2.10	3.97	5.19	2.93	0.81	2.91	0.26	1.57	20.95
1915	0.71 b	1.99	1.69	3.43	1.51	0.00 z	1.87	2.82	1.92	0.35	0.00	1.60	17.89
1916	1.08	0.07	0.43	0.73	0.75	0.25	5.30	6.03	2.85	1.40	0.42	0.00 z	19.31
1917	0.78 a	0.00 z	0.01	0.00 z	0.00 z	0.82	1.24	4.50	1.23	0.02	0.03	0.00	8.63
1918	2.25	0.12	0.00 z	0.01	0.04	0.83	5.55	2.95	0.42	3.11	0.82	1.93	18.03
1919	0.08	0.05	2.56	2.18	2.01	2.30	2.95	3.34	5.54	0.48	0.59	0.16	22.24
1920	0.61	0.66	0.12	0.65 a	1.10	3.90 a	3.83	3.36	0.54	1.31 a	0.03	0.35	16.46
1921	0.34	0.03	0.74	0.18	2.14	2.07	4.63	3.34	2.14	0.04	0.02	0.26	15.93
1922	0.20	0.07	0.53	0.83	0.84	2.15	1.38	0.73	0.95	0.02	0.52	0.08	8.30
1923	0.79 a	2.04	0.97	0.75	0.26	0.99	1.83	3.19	0.48	1.13	1.62	0.00 z	14.05
1924	0.41	0.80	0.75	0.52	0.02	0.61	4.58	2.62	0.60	0.48	0.09	0.29	11.77
1925	0.30	0.57	0.00	0.03	2.44	0.82	5.51	3.01	1.06	0.92	0.00	0.96	15.62
1926	0.00 z	0.00	3.90	1.11	2.71	1.70	3.97 a	2.15	4.39 b	1.35	0.43	0.00 z	21.71
1927	0.00 z	0.13	0.14	0.03	0.00	1.74	3.39 a	3.62	2.59	0.00	0.00	0.00	11.64
1928	0.00 z	1.83	0.40	0.87 a	2.12	0.00 z	2.68	4.82	1.14	2.23	0.71	0.21	17.01
1929	0.32	1.54	0.48	0.00	2.32 a	0.18	5.97	2.65	1.51	1.06	1.09	0.00	17.12
1930	0.57	0.43	1.06 a	0.75	0.52	0.05	5.26	2.81	0.83	1.19	0.82	0.00 z	14.29
1931	1.33	0.00 z	1.94	2.63	0.79	0.67	1.41	4.94 b	3.55	1.47	0.54	3.12	22.39
1932	1.77	0.66	2.38	0.02	1.73	2.07	1.54	3.39	5.21	0.99	0.00	1.30	21.06
1933	0.18	1.37	0.21	1.74	0.94	2.21	1.06	2.19	2.50	0.30	0.47	0.59	13.76
1934	0.31	0.00	1.32	0.99	1.53	0.00	1.40	2.26	0.11	0.68	1.41	0.16	10.17
1935	0.08	0.68	0.51	0.32	2.48	2.52	1.99	4.05 b	3.90	0.00	1.04	0.20	17.77
1936	2.35	0.76	0.28	0.95	2.08	1.70	4.35	2.42	5.65	0.39	0.74	0.67	22.34
1937	0.26	1.19	2.17	0.30	4.59	2.28	1.29	2.16	4.77	1.74	0.30	0.82	21.87
1938	1.10	1.71 a	0.72	0.66	0.10	3.78 b	4.26	0.65	6.61 b	0.72	0.42	0.38	21.11
1939	1.25	2.09	2.15	1.23	0.96	0.85	3.00 a	0.90	3.51 a	0.53	0.00 z	0.00 z	16.47
1940	0.21	2.09	0.24	0.72	2.27	1.13	1.79	4.18 a	0.72	0.86	0.85	0.10	15.16
1941	1.91	0.71	3.06	1.59	2.62	2.12	2.10	2.72	10.71	2.50	0.20	0.50	30.74
1942	0.23	0.40	0.12	2.86	0.00	1.35	1.56	2.13	1.05	0.20	0.00	0.98	10.88
1943	0.00	0.00 z	0.00	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1944	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1945	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1946	1.60	0.14	0.68	0.06	0.85	0.84	1.98	1.02	1.98	0.21	0.55	0.35	10.26

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
1947	0.62 a	0.17	0.34	0.49	1.44	0.23	0.00 z	3.09	0.90	0.38	0.78	0.60	9.04
1948	0.23	1.64	0.96	0.57	1.35	3.64	1.41 b	0.96	1.13	1.00	0.24	0.68	13.81
1949	1.41	0.31	0.39	1.37	0.59	1.74	3.31	2.89	3.54	1.91	0.30	0.95	18.71
1950	0.00	0.20	0.06	0.15	0.13 a	2.32	5.45	1.31	4.14 a	0.34	0.02	0.00	14.12
1951	0.27	0.52	0.45	0.80	0.37	0.04	2.12	2.61	0.00	0.45	0.36	0.68	8.67
1952	0.25	0.41	0.32	1.08	0.31	0.95	2.69	3.71	1.41	0.00	0.76	0.56	12.45
1953	0.16	0.55	0.89	0.48	0.60	0.62	4.59	1.56	0.25	0.45	0.32	0.43	10.90
1954	0.26	0.00	0.21	0.25	2.90	0.52	2.87 a	2.73	2.68	0.78	0.10	0.09	13.39
1955	0.48	0.04	0.56	0.31	0.31	0.71	4.35	1.77	3.60	0.68	0.01	0.10	12.92
1956	0.24	1.03	0.00	0.07	0.42	2.40	2.27	1.68	0.03	0.83	0.05	0.10	9.12
1957	0.49	0.76	1.26	0.34	2.81	0.03	5.89	4.32	0.21	4.07	0.96	0.12	21.26
1958	1.25	0.54	3.07	1.21	1.40	1.34	1.96	1.10	3.72	0.53	0.41	0.63	17.16
1959	0.08	0.32	0.13	0.73	0.67	3.12	4.47	2.93	0.18	0.76	0.00	0.77	14.16
1960	0.58	0.34	0.05	0.00	1.19	2.32	2.77	0.54	0.85	1.37	0.06	1.33	11.40
1961	0.52	0.10	1.11	0.23	0.61	1.39	2.24	3.59	3.61	0.21	1.57	0.81	15.99
1962	0.59	0.22	0.80	0.60	0.04	2.69	4.34	1.31	4.08	1.08	0.71	0.31	16.77
1963	0.26	0.31	0.00	0.37	0.09	0.19	1.43	2.83	1.59	0.59	0.15	0.19	8.00
1964	0.21	0.76	0.35	0.00 z	1.27	0.02	3.60	3.31	2.31	0.02	0.14	0.13	12.12
1965	0.20	0.77	0.27	0.52	1.58	1.59	4.45	2.55	3.18	0.17	0.29	0.00 z	15.57
1966	0.63	0.10	0.24	1.01	0.19	2.11	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	4.28
1967	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1968	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1969	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1970	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1971	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1972	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1973	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1974	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1975	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00
1976	0.11	0.30	0.27	0.65	2.02	0.14	4.37	2.87	2.62	0.93	0.00 d	0.10	14.38
1977	1.50	0.40	0.30	3.15	0.33	0.71	3.47	4.13	0.79	0.53	0.19	0.00	15.50
1978	1.21	0.65	0.53	0.00	1.11	1.07	1.04	5.10	2.16	2.14	1.79	1.26	18.06
1979	0.67	0.65	0.00	0.32	2.32	3.24	2.07	4.46	1.45	0.28	0.50	0.95 a	16.91
1980	1.05	0.40	0.35	0.41	1.03	1.56	1.62	3.39	6.74	0.31	0.64	0.62	18.12
1981	0.36	0.07	0.25	0.30	1.84	2.71	4.00	4.04	2.74	0.96	0.45	0.00	17.72
1982	1.23	1.78	0.08	0.40	0.52	0.37	4.07	2.52	5.52	0.35	0.54	1.76	19.14
1983	0.80 a	1.14	1.50	1.49 h	1.06	0.40 a	1.49	0.83	2.84	3.49	3.10	0.45 a	17.10
1984	0.21	0.20	0.28	0.27	1.81	3.64	2.55	6.73	0.61	3.11	0.95 a	2.08	22.44
1985	0.80	0.35	0.66	1.29	0.65	1.67	0.78	4.26	2.88	4.22	0.31	0.08	17.95
1986	0.20	1.52	0.58	0.19	1.99	4.24	1.47 d	5.72	2.11	2.41	3.24	1.82	25.49
1987	1.50	2.68	0.44	1.16	2.75	1.82	2.59	4.82	0.39	0.14	0.49	1.42	20.20
1988	0.21	1.47	0.00	0.60	1.69	1.77	3.50	5.61	2.72	0.08	0.19	1.34	19.18
1989	0.14	1.01	0.85	0.02	0.68	0.26	2.01	5.72	1.08	0.17	0.00	0.46	12.40
1990	0.35	0.67	0.85	1.00	0.49	0.14	7.11	2.88	3.91	0.23	0.58	0.35	18.56
1991	0.54	0.69	0.66	0.00	0.71	0.81	5.57	4.10	2.11 b	0.45	1.73	3.04 a	20.41
1992	0.72 a	0.24	0.29	1.24	3.36 a	2.27	2.54	1.55 a	1.42	1.12 a	0.28 a	1.40 a	16.43
1993	0.88	0.82	0.47	0.23	1.93	0.98	2.67	4.66	2.15	1.11	0.53	0.61	17.04
1994	0.57	0.10 d	1.18	0.28	4.33	0.96	1.96	2.02	1.84 d	1.48	1.21	1.00	16.93

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
1995	0.33	0.21 a	0.37	0.05	0.05	2.32	1.68	3.54 b	3.66	0.00	0.00	0.11 a	12.32
1996	2.05	0.37	0.00 a	0.18	0.00	3.59 d	4.18	2.09	3.61	0.76	0.24	0.05 a	17.12
1997	2.21 a	0.95	0.28	1.53	2.07	2.35	1.69 a	4.55	2.49	0.86	0.39	2.51 a	21.88
1998	0.19	0.59	1.60	0.14 a	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	0.00 z	2.52

Period of Record Statistics

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
MEAN	0.67	0.68	0.73	0.73	1.31	1.56	3.08	3.07	2.43	0.98	0.55	0.71	16.44
S.D.	0.60	0.63	0.81	0.75	1.04	1.14	1.53	1.40	1.93	0.98	0.64	0.73	4.56
SKEW	1.22	1.16	1.87	1.79	0.84	0.54	0.52	0.29	1.44	1.57	2.28	1.44	0.35
MAX	2.35	2.68	3.90	3.43	4.59	4.24	7.11	6.73	10.71	4.22	3.24	3.12	30.74
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.54	0.00	0.00	0.00	0.00	8.00
NO YRS	71	71	73	70	71	70	70	71	71	71	70	65	56

Station __Alamogordo #1__   County __Otero__   Index No. __0200__

Latitude __32°56'__   Longitude __105°58'__   Elevation __4400 ft__

Precip	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	12	13	13	14	13	13	13	14	13	14	14	13	10
Mean	.71	.58	.48	.52	.17	.64	1.79	2.25	1.30	.71	.76	.68	11.15/ 10.59

Temp	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	8	8	8	8	8	8	9	9	9	9	9	9	8
Mean	44.3	45.7	53.0	59.9	67.6	77.9	79.8	78.2	71.9	60.4	50.6	42.1	60.4/ 61.0
PE	.90	1.11	2.29	3.74	6.07	8.75	9.32	8.03	55.3	3.18	1.56	.77	51.25
Surplus													.00
Deficit	.19	.53	1.81	3.22	5.90	8.11	7.53	5.78	4.23	2.47	.80	.09	40.66

Station __Alamogordo #1A__   County __Otero__   Index No. __0200__

Latitude __32°51'__   Longitude __105°57'__   Elevation __4250 ft__

Precip	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	2	1	1	1	1	1	1	1	1	1	1	1	1
Mean	.31	.00	.20	.12	.04	1.00	.99	4.05	.00	.70	1.10	.05	8.65/ 8.56

Temp	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	2	1	1	1	1	1	1	1	1	1	1	1	1
Mean	47.4	44.3	58.0	60.0	69.2	77.2	80.2	78.9	76.5	60.0	52.1	43.0	62.0/ 62.2
PE	1.09	1.01	2.88	3.75	6.35	8.58	9.35	8.18	6.39	3.11	1.70	.83	53.22
Surplus													.00
Deficit	.78	1.01	2.68	3.63	6.31	7.58	8.36	4.13	6.39	2.41	.60	.78	44.66

Station __White Oaks__   County __Lincoln__   Index No. _____

Latitude __33°45'__   Longitude __105°44'__   Elevation __6310 ft__

Precip	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	6	6	7	7	8	8	7	7	7	7	6	6	4
Mean	1.44	.85	1.03	1.56	.59	1.59	3.02	2.22	1.84	1.36	1.22	1.23	17.33/ 17.95

Temp	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	5	5	5	5	6	6	5	5	5	5	5	5	4
Mean	33.1	38.3	45.4	51.6	61.3	69.8	70.5	71.1	64.4	53.2	44.0	34.5	52.9/ 53.1
PE	.44	.68	1.53	2.60	4.82	6.81	7.03	6.48	4.26	2.34	1.09	.46	38.54
Surplus	1.00	.17									.13	.77	2.07
Deficit			.50	1.04	4.23	5.22	4.01	4.26	2.42	.98			22.66

◆◆

Station __White Oaks A__   County __Lincoln__   Index No. _____

Latitude __33°45'__   Longitude __105°38'__   Elevation __7000 ft__

Precip	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	4	4	4	3	4	4	4	4	4	4	4	4	3
Mean	.82	.71	.88	.96	.82	1.96	3.35	2.78	1.12	1.30	.54	.95	16.46/ 16.19

Temp

Years of record

Mean

PE

Surplus

Deficit

Station __Corona__   County __Lincoln__   Index No. __2093__

Latitude __34°15'__   Longitude __105°35'__   Elevation __6645 ft__

Precip	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	65	65	66	66	65	65	67	67	67	67	66	67	61
Mean	.70	.76	.79	.82	1.09	1.29	2.64	2.76	1.69	1.07	.55	.76	15.06/14.92

Temp	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	61	60	59	61	61	60	62	63	63	62	60	61	47
Mean	33.4	37.0	41.2	49.5	58.0	66.6	69.4	67.9	62.2	53.1	41.8	34.6	51.3/51.2
PE	.45	.62	1.18	2.33	4.20	6.14	6.79	5.79	3.91	2.29	.94	.46	35.10
Surplus	.25	.14										.30	.69
Deficit			.39	1.51	3.11	4.85	4.15	3.03	2.22	1.22	.39		20.87

Station __Coyote__   County __Lincoln__   Index No. _____

Latitude __33°49'__   Longitude __105°50'__   Elevation __5800 ft__

Precip	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	4	4	5	5	5	5	6	6	6	5	5	5	3
Mean	.23	.51	.44	.47	.38	1.65	1.81	2.48	.91	.62	.42	.89	11.59/10.81

Temp													
Years of record													
Mean													
PE													
Surplus													
Deficit													

Station __Alamogordo #1B__ County __Otero__ Index No. __0200__

Latitude __32°52'__ Longitude __105°56'__ Elevation __4600 ft__

Precip	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	32	32	33	32	32	32	32	32	32	31	32	32	30
Mean	.57	.57	.56	.50	.76	.75	1.79	2.05	1.98	1.24	.69	.70	12.34/ 12.16

Temp	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	28	30	31	31	29	31	30	30	30	28	29	30	22
Mean	41.6	46.6	52.7	59.9	69.0	78.0	79.2	77.3	72.2	62.2	49.4	42.5	60.8/ 60.9
PE	.77	1.16	2.27	3.74	6.33	8.84	9.15	7.78	5.61	3.41	1.47	.80	51.33
Surplus													.00
Deficit	.20	.59	1.71	3.24	5.57	8.09	7.36	5.73	3.63	2.17	.78	.10	39.17

Station __Alamogordo #2__ County __Otero__ Index No. __0199__

Latitude __32°53'__ Longitude __105°57'__ Elevation __4350 ft__

Precip	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	66	66	66	65	66	66	66	67	65	66	66	66	61
Mean	.59	.51	.50	.35	.44	.76	1.77	1.82	1.46	1.00	.48	.63	10.44/ 10.31

Temp	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	60	60	57	56	57	59	57	59	58	57	57	57	47
Mean	42.0	46.6	52.4	60.5	69.4	78.2	79.8	78.0	72.7	62.3	49.9	43.0	61.3/ 61.2
PE	.78	1.16	2.22	3.83	6.44	8.86	9.31	8.01	5.65	3.41	1.51	.83	52.01
Surplus													.00
Deficit	.19	.65	1.72	3.48	6.00	8.10	7.54	6.19	4.19	2.41	1.03	.20	41.70

Station __Capitan__   County __Lincoln__   Index No. __1440__

Latitude __33°33'__   Longitude __105°34'__   Elevation __6350 ft__

Precip	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	54	54	54	53	53	54	54	54	53	54	55	54	50
Mean	.63	.70	.79	.81	1.18	1.52	3.10	2.57	2.19	.87	.44	.67	16.11/ 15.47

Temp	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	15	14	13	13	15	15	16	16	16	16	17	15	13
Mean	30.3	35.0	40.2	48.0	57.0	65.4	67.7	65.7	59.6	50.3	38.1	32.7	56.7/ 49.2
PE	.41	.53	1.10	2.17	4.00	5.87	6.37	5.33	3.55	2.03	.73	.44	32.53
Surplus	.22	.17										.23	.62
Deficit			.31	1.36	2.82	4.35	3.27	2.76	1.36	1.16	.29		17.68

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Station __Carrizozo__   County __Lincoln__   Index No. __1515__

Latitude __33°39'__   Longitude __105°53'__   Elevation __5438 ft__

Precip	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	70	70	71	71	71	72	70	71	71	70	71	71	67
Mean	.55	.59	.66	.50	.67	.88	2.22	2.24	1.55	.94	.54	.71	11.82/ 12.05

Temp	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	65	65	66	66	66	66	64	64	64	64	65	65	58
Mean	37.2	41.7	46.9	54.9	63.8	72.9	75.7	73.7	67.6	57.1	44.8	37.1	54.2/ 56.1
PE	.55	.86	1.68	2.20	5.28	7.58	8.29	7.00	4.81	2.75	1.13	.54	42.67
Surplus	.00											.17	.17
Deficit	.00	.27	1.02	1.70	4.61	6.70	6.07	4.76	3.26	1.81	.59		30.79

Station __Alto_____ County __Lincoln_____ Index No. _____

Latitude __33°24'___ Longitude __105°41'___ Elevation ____7400 ft____

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Precip													
Years of record	4	4	5	3	5	5	5	4	5	5	6	5	1
Mean	1.31	.92	1.04	1.52	.87	1.44	5.03	3.55	2.22	1.54	1.60	.96	21.07/ 22.00
Temp													
Years of record	1	1	1	1	1	1	1	1	1	1	2	2	1
Mean	28.0	35.8	39.8	49.0	56.7	64.4	65.4	63.1	58.6	48.7	41.5	34.5	48.7/ 48.8
PE	.38	.54	1.06	2.26	3.98	5.63	5.86	4.87	3.39	1.86	.91	.46	31.20
Surplus	.93	.38									.69	.50	2.50
Deficit			.02	.74	3.11	4.19	.83	1.32	1.17	.32			11.70

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Station __Ancho_____ County __Lincoln_____ Index No. _0394_

Latitude __33°56'___ Longitude __105°45'__ Elevation ___6115 ft___

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Precip													
Years of record	59	61	61	62	61	61	61	61	61	60	61	62	55
Mean	.73	.60	.76	.66	.87	1.11	2.40	2.17	1.50	.90	.57	1.00	13.34/ 13.27
Temp													
Years of record	13	14	13	15	13	14	14	13	13	14	12	14	10
Mean	33.6	38.4	43.3	51.7	60.4	68.9	72.1	64.5	63.9	45.6	43.1	35.2	52.8/ 51.7
PE	.45	.68	1.37	2.61	4.62	6.65	7.35	5.11	4.17	1.54	1.01	.47	36.03
Surplus	.28										.53	.81	
Deficit		.08	.61	1.95	3.75	5.54	4.95	2.94	2.67	.64	.44		23.57

Station __Mountain Park__ County __Otero__ Index No. __5960__

Latitude __32°57'__ Longitude __105°51'__ Elevation __6780 ft__

Precip	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	58	58	59	60	61	57	60	59	58	58	57	58	52
Mean	1.21	.98	.99	.56	.68	1.34	3.39	3.57	2.20	1.50	.76	1.11	18.35/ 18.29

Temp	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	55	56	56	57	56	51	57	56	54	56	55	55	34
Mean	35.2	37.4	42.2	49.4	56.8	62.2	66.1	64.4	60.2	52.5	42.4	36.9	52.7/ 50.5
PE	.48	.63	1.27	2.32	3.97	5.15	5.99	5.08	3.63	2.23	.98	.53	32.26
Surplus	.73	.35										.58	1.66
Deficit			.28	1.76	3.29	3.81	2.60	1.51	1.43	.73	.22		15.63

Station __Newman__ County __Otero__ Index No. _____

Latitude __32°00'__ Longitude __106°19'__ Elevation __3989 ft__

Precip	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	24	24	24	23	23	23	24	24	23	24	24	24	22
Mean	.29	.35	.41	.39	.45	.74	1.85	1.53	1.32	.77	.47	.51	9.41/ 9.08

Temp													
Years of record													
Mean													
PE													
Surplus													
Deficit													

Latitude __32°55'__   Longitude __105°28'__   Elevation __6558 ft__

Precip	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	47	48	48	47	47	48	48	48	48	47	47	48	43
Mean	.66	.59	.67	.53	1.23	1.76	3.75	4.14	3.11	1.62	.52	.85	20.59/19.43

Temp	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	34	35	35	35	35	35	35	35	35	34	33	35	31
Mean	37.1	39.2	43.4	50.6	57.0	66.1	68.1	66.6	61.8	53.7	44.4	38.6	52.4/52.2
PE	.55	.71	1.37	2.46	3.99	5.98	6.39	5.52	3.88	2.40	1.10	.60	34.95
Surplus	.11											.25	.36
Deficit		.12	.70	1.93	2.76	4.22	2.64	1.38	.77	.78	.58		15.88

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Station __Mescalero__   County __Otero__   Index No. __5657__

Latitude __33°10'__   Longitude __105°48'__   Elevation __6785 ft__

Precip	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	57	57	57	57	61	62	63	60	59	59	61	60	48
Mean	.91	.98	.95	.59	.84	1.51	3.93	3.91	2.26	1.36	.88	1.23	19.24/19.35

Temp	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	58	57	56	57	60	60	62	60	57	60	59	59	45
Mean	33.7	36.7	41.6	49.0	55.6	64.2	67.6	64.1	60.6	52.0	40.9	34.7	50.2/50.1
PE	.45	.60	1.23	2.25	3.78	5.61	6.34	5.00	3.66	2.21	.88	.47	32.48
Surplus	.46	.38										.76	1.60
Deficit			.28	1.66	2.94	4.10	2.41	1.09	1.40	.85	.00	.00	14.73

Latitude   32°02'   Longitude   105°06'   Elevation   3800 ft

Precip	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	8	8	8	8	8	7	7	7	7	7	8	8	7
Mean	.48	.29	.40	.08	.45	.64	1.52	.79	.95	1.13	.24	.34	7.38/ 7.31

Temp	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	5	4	4	3	4	4	4	4	2	3	5	2	0
Mean	38.0	48.4	52.3	60.3	71.0	80.9	81.2	80.2	75.0	63.3	48.6	40.3	61.6/
PE	.59	1.25	2.22	3.81	6.71	9.57	9.60	8.44	6.07	3.57	1.43	.69	53.95
Surplus													.00
Deficit	.11	.96	1.82	3.73	6.26	8.93	8.08	7.65	5.12	2.44	1.19	.35	46.64

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Station   Cloud Country Lodge   County   Otero   Index No. 1933

Latitude 32°58'   Longitude   105°45'   Elevation   8827 ft

Precip	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	5	6	6	6	6	6	6	6	6	6	6	6	5
Mean	2.44	1.15	1.65	.41	.49	1.94	4.96	3.51	3.06	2.80	.77	1.24	25.83/ 24.42

Temp	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	5	6	6	5	5	6	6	4	5	6	6	6	4
Mean	31.0	32.8	38.8	43.8	53.0	60.9	61.0	59.1	55.4	47.1	38.1	32.8	46.2/ 46.2
PE	.42	.50	1.00	1.67	3.32	4.91	4.93	4.14	2.93	1.70	.73	.44	26.69
Surplus	2.02	.65	.65				.03		.13	1.10	.04	.80	5.42
Deficit				1.26	2.83	2.97		.63					7.69

Station   Tularosa #1   County   Otero   Index No. _____

Latitude   33°05'   Longitude   106°01'   Elevation   4514 ft

Precip	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	5	4	3	4	3	3	3	3	3	3	4	4	2
Mean	.19	.89	.71	.38	.03	.40	1.36	2.90	.55	.29	.21	.14	4.72/ 8.05

Temp

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record													
Mean													

PE

Surplus

Deficit

Station   White Sands National Monument   County   Otero   Index No. 9686

Latitude   32°47'   Longitude   106°11'   Elevation   3995 ft

Precip	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	36	36	36	36	36	36	35	36	36	36	35	36	34
Mean	.46	.33	.31	.27	.28	.61	1.57	1.38	1.21	.86	.31	.53	8.20/ 8.12

Temp

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	37	37	35	37	37	35	37	36	35	35	35	36	28
Mean	39.4	43.8	50.7	59.2	68.2	77.2	80.4	78.3	72.0	60.3	46.9	39.7	59.6/ 59.7
PE	.66	.98	2.04	3.65	6.19	8.58	9.46	8.04	5.54	3.17	1.29	.66	50.26
Surplus													.00
Deficit	.20	.65	1.73	3.38	5.91	7.97	7.89	6.66	4.33	2.31	.98	.13	42.14

242

			County	Otero			Index No.	
Latitude	33°19'		Longitude	106°05'		Elevation	4559 ft	

Precip	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	23	23	23	23	23	23	24	24	24	24	24	24	23
Mean	.40	.56	.59	.55	.60	.57	1.61	1.68	1.09	.84	.48	.61	9.74/ 9.58

Temp

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record													
Mean													
PE													
Surplus													
Deficit													

Station	Tularosa		County	Otero			Index No.	9165
Latitude	33°04'		Longitude	106°02'		Elevation	4443 ft	

Precip	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	64	62	61	62	64	65	66	64	63	64	65	65	59
Mean	.47	.49	.51	.39	.46	.69	1.58	1.61	1.50	.86	.40	.57	9.67/ 9.53

Temp

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	60	59	56	61	56	57	60	54	56	57	58	58	39
Mean	42.9	46.6	52.3	58.9	68.2	77.2	79.3	79.2	72.4	62.0	50.0	43.2	61.2/ 61.0
PE	.83	1.16	2.22	3.58	6.20	8.59	9.17	8.28	5.63	3.40	1.51	.83	51.40
Surplus													.00
Deficit	.36	.67	1.71	3.19	5.74	7.90	7.59	6.67	4.13	2.54	1.11	.26	41.87

Latitude 32°01' Longitude 105°09' County Otero Index No. _____
Elevation 3625 ft

Precip	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	3	4	4	4	4	4	4	4	4	3	3	3	1
Mean	.38	.14	.32	.33	.05	1.32	1.63	2.47	.55	1.00	1.01	.17	9.94/ 9.37

Temp	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	1	2	1	2	2	1	2	2	2	1	1	2	0
Mean	41.0	47.4	49.6	56.4	63.9	78.2	82.6	78.5	71.2	60.0	46.6	42.3	59.8 /
PE	.74	1.20	1.93	3.22	5.24	8.82	10.03	8.03	5.41	3.13	1.27	.80	49.82
Surplus													.00
Deficit	.36	1.06	1.61	2.89	5.19	7.50	8.40	5.56	4.86	2.13	.26	.63	40.45

Station Orogrande County Otero Index No. 6435
Latitude 32°23' Longitude 106°06' Elevation 4200 ft

Precip	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	68	68	67	67	66	68	69	66	67	67	67	67	64
Mean	.42	.38	.39	.30	.40	.89	1.70	1.79	1.32	.89	.38	.50	9.47/ 9.36

Temp	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Years of record	55	54	55	54	52	55	55	52	51	49	50	55	41
Mean	42.3	47.1	53.2	61.4	71.7	79.9	81.6	79.6	73.7	63.8	51.5	43.1	64.0/ 62.4
PE	.80	1.20	2.33	3.99	6.94	9.29	9.75	7.84	5.84	3.64	1.65	.83	54.10
Surplus													.00
Deficit	.38	.82	1.94	3.69	6.54	8.40	8.05	6.05	4.52	2.75	1.27	.33	44.74

CLOUDCROFT, NEW MEXICO

Period of Record General Climate Summary - Temperature

	Monthly Averages			Daily Extremes				Monthly Extremes				Max. Temp.	
Station:(291931) CLOUDCROFT													
From Year=1987 To Year=1998													
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32 F
	F	F	F	F	dd/yyyy	F	dd/yyyy	F	-	F	-	# Days	# Days
January	39.9	17.1	28.5	59	10/1990	-9	16/1992	31.2	96	23.9	92	0.0	4.7
February	43.1	21.0	32.1	59	25/1989	-3	02/1994	37.0	96	27.9	98	0.0	2.4
March	48.9	23.8	36.3	66	11/1989	4	02/1997	39.6	89	33.1	91	0.0	0.5
April	56.5	29.5	43.0	75	21/1989	11	01/1988	48.0	89	39.3	98	0.0	0.2
May	65.0	37.1	51.0	80	13/1996	20	03/1988	55.9	96	48.0	92	0.0	0.0
June	73.1	43.1	58.1	88	29/1998	28	01/1988	62.1	90	55.5	92	0.0	0.0
July	70.6	46.7	58.7	84	02/1989	38	22/1988	60.9	94	55.9	91	0.0	0.0
August	68.9	45.9	57.4	78	10/1992	36	09/1990	60.0	94	55.0	90	0.0	0.0
September	65.7	40.3	53.0	77	05/1995	26	27/1989	56.9	97	51.0	87	0.0	0.0
October	59.5	31.9	45.7	71	02/1993	5	22/1996	47.6	95	43.4	93	0.0	0.1
November	48.2	24.1	36.2	67	06/1994	-4	25/1992	39.8	95	30.4	92	0.0	1.3
December	41.3	18.5	29.9	61	03/1987	-8	26/1997	33.6	94	24.4	97	0.0	4.4
Annual	56.7	31.6	44.2	88	19980629	-9	19920116	45.8	96	42.7	92	0.0	13.5
Winter	41.5	18.9	30.2	61	19871203	-9	19920116	33.2	96	27.4	92	0.0	11.5
Spring	56.8	30.1	43.5	80	19960513	4	19970302	46.9	89	42.1	88	0.0	0.6
Summer	70.9	45.2	58.1	88	19980629	28	19880601	60.4	94	56.1	91	0.0	0.0
Fall	57.8	32.1	44.9	77	19950905	-4	19921125	47.1	95	43.5	93	0.0	1.4

Table updated on Oct 24, 1998
For monthly and annual means, thresholds, and sums:
Months with 10 or more missing days are not considered
Years with 1 or more missing months are not considered

Western Regional Climate Center, wrcc@dri.edu

CLOUDCROFT_____, NEW MEXICO

Period of Record General Climate Summary - Temperature

	Monthly Averages			Daily Extremes				Monthly Extremes				Max. Temp.	
Station:(291927) CLOUDCROFT_____													
From Year=1948 To Year=1987													
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32 F
	F	F	F	F	dd/yyyy	F	dd/yyyy	F	-	F	-	# Days	# Days
January	41.9	19.3	30.6	63	05/1956	-21	11/1962	37.6	86	24.5	49	0.0	3.4
February	43.2	20.1	31.6	63	25/1986	-10	07/1964	39.5	57	19.7	66	0.0	3.1
March	48.1	23.8	35.9	70	28/1953	-6	04/1953	45.6	72	29.2	69	0.0	1.3
April	57.1	30.8	43.9	74	22/1965	4	03/1956	48.7	72	37.7	83	0.0	0.2
May	65.3	37.5	51.4	84	31/1953	14	02/1967	56.1	84	47.0	65	0.0	0.0
June	73.4	45.1	59.3	89	26/1957	26	01/1964	66.8	80	53.8	64	0.0	0.0
July	73.2	47.6	60.4	89	04/1957	33	20/1964	64.8	51	56.7	64	0.0	0.0
August	71.3	46.5	58.9	83	08/1969	34	26/1966	63.1	48	55.7	67	0.0	0.0
September	67.6	42.3	54.9	83	05/1948	22	30/1965	60.2	51	49.3	64	0.0	0.0
October	59.1	33.8	46.5	76	05/1956	11	28/1970	54.6	50	40.2	70	0.0	0.1
November	49.5	24.6	37.1	70	09/1980	-7	23/1957	44.0	49	30.4	69	0.0	0.9
December	43.7	20.7	32.2	66	27/1980	-13	24/1953	40.5	80	25.6	67	0.0	3.0
Annual	57.8	32.7	45.2	89	19570626	-21	19620111	48.4	50	41.6	66	0.0	12.0
Winter	42.9	20.0	31.5	66	19801227	-21	19620111	36.6	81	25.2	66	0.0	9.5
Spring	56.8	30.7	43.7	84	19530531	-6	19530304	49.3	72	40.1	65	0.0	1.5
Summer	72.6	46.4	59.5	89	19570626	26	19640601	63.8	80	55.6	64	0.0	0.0
Fall	58.7	33.6	46.2	83	19480905	-7	19571123	51.1	50	42.9	57	0.0	1.0

Table updated on Oct 24, 1998
For monthly and annual means, thresholds, and sums:
Months with 10 or more missing days are not considered
Years with 1 or more missing months are not considered

Western Regional Climate Center, wrcc@dri.edu

MOUNTAIN PARK, NEW MEXICO

Period of Record General Climate Summary - Temperature

	Monthly Averages			Daily Extremes				Monthly Extremes				Max. Temp.	
Station:(295960) MOUNTAIN PARK													
From Year=1948 To Year=1998													
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32 F
	F	F	F	F	dd/yyyy	F	dd/yyyy	F	-	F	-	# Days	# Days
January	48.9	25.2	37.0	70	07/1969	-9	11/1962	42.4	65	28.6	49	0.0	1.2
February	52.0	27.1	39.6	78	05/1963	-4	01/1951	46.6	57	32.3	66	0.0	0.6
March	57.9	30.4	44.1	80	12/1989	6	04/1965	51.1	72	37.5	52	0.0	0.1
April	66.0	37.3	51.6	86	22/1965	13	08/1973	57.0	89	44.7	83	0.0	0.0
May	73.6	44.4	59.0	93	09/1996	23	05/1950	66.6	96	54.4	53	0.0	0.0
June	82.0	53.8	67.9	98	18/1970	35	03/1973	73.8	60	63.6	79	2.4	0.0
July	81.0	56.2	68.6	95	01/1968	42	01/1977	72.9	63	64.6	55	1.9	0.0
August	78.5	55.1	66.8	99	16/1969	34	12/1968	71.8	69	63.4	74	0.3	0.0
September	74.8	50.2	62.5	92	03/1970	28	22/1975	66.8	97	58.6	74	0.0	0.0
October	67.5	41.3	54.4	83	01/1997	17	22/1996	59.8	50	48.5	76	0.0	0.0
November	57.1	31.1	44.1	76	09/1980	0	28/1976	49.5	65	37.8	72	0.0	0.2
December	50.6	26.2	38.4	70	24/1964	-5	09/1978	44.2	80	33.4	74	0.0	0.6
Annual	65.8	39.9	52.8	99	19690816	-9	19620111	55.0	96	50.7	49	4.7	2.6
Winter	50.5	26.2	38.3	78	19630205	-9	19620111	42.0	57	34.7	49	0.0	2.3
Spring	65.9	37.4	51.6	93	19960509	6	19650304	55.9	89	47.4	73	0.0	0.1
Summer	80.5	55.0	67.8	99	19690816	34	19680812	70.8	69	64.7	55	4.6	0.0
Fall	66.5	40.8	53.7	92	19700903	0	19761128	56.5	63	49.7	76	0.0	0.2

Table updated on Oct 24, 1998
For monthly and annual means, thresholds, and sums:
Months with 10 or more missing days are not considered
Years with 1 or more missing months are not considered

Western Regional Climate Center, wrcc@dri.edu

MESCALERO, NEW MEXICO

Period of Record General Climate Summary - Temperature

	Monthly Averages			Daily Extremes				Monthly Extremes				Max. Temp.	
Station:(295657) MESCALERO													
From Year=1948 To Year=1978													
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32 F
	F	F	F	F	dd/yyyy	F	dd/yyyy	F	-	F	-	# Days	# Days
January	48.0	20.2	34.1	70	10/1953	-19	11/1962	40.1	56	27.9	64	0.0	1.7
February	50.8	22.4	36.6	71	12/1957	-8	07/1964	46.4	57	27.4	64	0.0	0.7
March	56.5	27.1	41.8	75	28/1953	-6	04/1965	47.5	72	36.5	69	0.0	0.1
April	65.5	33.1	49.3	84	22/1965	12	04/1977	54.1	54	44.1	73	0.0	0.0
May	73.4	39.5	56.5	88	27/1958	18	01/1967	60.3	56	53.1	53	0.0	0.0
June	81.7	47.5	64.6	95	29/1948	31	01/1964	67.6	56	61.7	65	1.9	0.0
July	81.2	52.5	66.8	95	15/1951	39	05/1948	69.2	69	64.0	76	1.2	0.0
August	79.5	51.2	65.3	93	21/1950	40	18/1972	68.2	52	62.2	71	0.2	0.0
September	75.3	46.1	60.7	87	04/1952	29	20/1971	63.7	54	57.9	68	0.0	0.0
October	66.9	36.7	51.8	82	10/1965	15	28/1970	54.6	54	46.8	76	0.0	0.0
November	57.0	27.1	42.0	80	01/1950	-6	29/1976	46.7	50	35.8	72	0.0	0.1
December	49.4	21.8	35.6	69	24/1964	-2	24/1953	40.4	55	31.8	53	0.0	0.7
Annual	65.4	35.4	50.4	95	19480629	-19	19620111	53.1	54	48.1	64	3.4	3.3
Winter	49.4	21.5	35.5	71	19570212	-19	19620111	40.7	57	29.2	64	0.0	3.0
Spring	65.1	33.2	49.2	88	19580527	-6	19650304	52.4	74	46.1	73	0.0	0.1
Summer	80.8	50.4	65.6	95	19480629	31	19640601	67.3	58	64.1	76	3.4	0.0
Fall	66.4	36.6	51.5	87	19520904	-6	19761129	54.4	54	47.7	76	0.0	0.1

Table updated on Oct 24, 1998
For monthly and annual means, thresholds, and sums:
Months with 10 or more missing days are not considered
Years with 1 or more missing months are not considered

Western Regional Climate Center, wrcc@dri.edu

CORONA 11 SSW, NEW MEXICO

Period of Record General Climate Summary - Temperature

	Monthly Averages			Daily Extremes				Monthly Extremes				Max. Temp.	
Station:(292096) CORONA 11 SSW													
From Year=1977 To Year=1992													
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32 F
	F	F	F	F	dd/yyyy	F	dd/yyyy	F	-	F	-	# Days	# Days
January	42.1	18.4	30.3	63	19/1986	-15	01/1979	36.2	86	24.9	79	0.0	5.1
February	47.8	20.8	34.4	72	25/1986	-10	01/1985	38.2	91	29.2	85	0.0	2.5
March	54.8	26.0	40.4	79	12/1989	-1	05/1989	45.7	89	37.5	87	0.0	0.3
April	63.6	32.2	47.9	84	21/1989	2	07/1983	52.5	89	40.5	83	0.0	0.3
May	69.8	40.4	55.1	89	16/1988	15	02/1978	60.0	89	51.5	83	0.0	0.1
June	80.5	49.8	65.1	97	22/1981	35	04/1982	70.6	90	62.2	79	3.6	0.0
July	81.8	54.1	68.0	96	05/1980	41	24/1984	72.0	80	65.4	91	2.2	0.0
August	79.2	53.5	66.4	94	02/1980	40	28/1992	67.6	85	65.4	79	0.4	0.0
September	73.6	47.7	60.6	88	05/1979	31	22/1983	63.8	83	58.0	78	0.0	0.0
October	64.8	36.3	50.5	82	07/1979	-2	31/1991	53.6	87	44.7	84	0.0	0.1
November	51.9	26.7	39.3	72	08/1980	5	16/1980	44.5	89	35.1	79	0.0	1.5
December	44.7	19.3	32.0	65	09/1981	-12	28/1983	38.1	80	26.7	82	0.0	3.9
Annual	62.9	35.4	49.2	97	19810622	-15	19790101	50.5	81	48.0	83	6.2	13.7
Winter	44.9	19.5	32.2	72	19860225	-15	19790101	36.2	86	29.1	79	0.0	11.5
Spring	62.7	32.9	47.8	89	19880516	-1	19890305	52.7	89	43.5	83	0.0	0.6
Summer	80.5	52.5	66.5	97	19810622	35	19820604	69.8	80	65.2	92	6.2	0.0
Fall	63.4	36.9	50.2	88	19790905	-2	19911031	52.4	90	47.6	84	0.0	1.6

Table updated on Oct 24, 1998
For monthly and annual means, thresholds, and sums:
Months with 10 or more missing days are not considered
Years with 1 or more missing months are not considered

Western Regional Climate Center, wrcc@dri.edu

CORONA, NEW MEXICO

Period of Record General Climate Summary - Temperature

	Station:(292093) CORONA												
	From Year=1931 To Year=1977												
	Monthly Averages			Daily Extremes				Monthly Extremes				Max. Temp.	
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32 F
	F	F	F	F	dd/yyyy	F	dd/yyyy	F	-	F	-	# Days	# Days
January	45.9	20.8	33.3	75	27/1942	-32	06/1971	40.8	53	23.5	63	0.0	2.7
February	49.8	23.2	36.5	77	18/1943	-16	07/1964	45.1	50	25.5	64	0.0	1.2
March	56.2	27.6	42.0	78	29/1943	-12	11/1948	51.1	67	34.1	69	0.0	0.5
April	64.6	34.5	49.5	88	30/1943	-1	08/1973	56.5	36	42.5	73	0.0	0.0
May	73.5	42.5	57.9	95	14/1943	15	01/1962	64.4	36	49.6	35	0.2	0.0
June	82.5	50.3	66.4	97	29/1960	31	05/1963	70.5	34	59.2	35	3.6	0.0
July	84.2	54.6	69.4	110	08/1944	38	19/1945	73.9	34	63.7	35	5.0	0.0
August	82.3	53.5	67.9	100	17/1941	35	04/1961	75.6	37	64.1	71	3.2	0.0
September	76.6	47.9	62.3	96	12/1949	21	22/1975	68.5	31	58.4	62	0.4	0.0
October	67.5	38.2	52.9	85	01/1941	13	19/1976	62.5	50	44.5	76	0.0	0.0
November	55.3	27.4	41.3	80	02/1945	-20	28/1976	51.6	45	34.4	57	0.0	0.6
December	47.7	21.6	34.5	72	04/1941	-10	13/1947	41.0	33	28.4	67	0.0	1.3
Annual	65.5	36.8	51.2	110	19440708	-32	19710106	54.3	34	48.8	64	12.3	6.5
Winter	47.8	21.9	34.8	77	19430218	-32	19710106	40.0	50	27.5	64	0.0	5.2
Spring	64.7	34.9	49.8	95	19430514	-12	19480311	56.9	36	45.8	73	0.2	0.5
Summer	83.0	52.8	67.9	110	19440708	31	19630605	72.4	34	63.8	35	11.8	0.0
Fall	66.5	37.8	52.2	96	19490912	-20	19761128	56.7	45	45.9	76	0.4	0.7

Table updated on Oct 24, 1998
For monthly and annual means, thresholds, and sums:
Months with 10 or more missing days are not considered
Years with 1 or more missing months are not considered

ANCHO, NEW MEXICO

Period of Record General Climate Summary - Temperature

	Monthly Averages			Daily Extremes				Monthly Extremes				Max. Temp.	
Station:(290394) ANCHO													
From Year=1948 To Year=1971													
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32 F
	F	F	F	F	dd/yyyy	F	dd/yyyy	F	-	F	-	# Days	# Days
January	47.5	19.8	33.6	70	23/1970	-17	11/1962	39.8	69	29.3	66	0.0	2.5
February	52.9	23.9	38.5	71	11/1962	-3	13/1963	45.7	57	32.9	66	0.0	0.8
March	59.5	27.1	43.3	80	27/1971	-1	04/1965	50.7	67	38.6	69	0.0	0.2
April	68.3	35.0	51.7	88	22/1965	17	03/1961	55.1	67	46.7	58	0.0	0.0
May	77.9	43.0	60.6	94	27/1958	22	01/1963	63.3	61	57.4	57	0.2	0.0
June	86.0	51.7	68.9	100	30/1960	32	02/1962	71.5	58	66.3	59	8.9	0.0
July	87.2	56.8	72.0	99	04/1957	35	07/1958	75.0	66	68.9	60	11.9	0.0
August	85.1	54.4	69.8	98	02/1960	40	22/1958	73.3	69	67.3	71	5.9	0.0
September	79.8	48.1	63.9	93	12/1956	32	30/1958	66.9	56	60.7	58	1.6	0.0
October	69.9	37.4	53.7	85	15/1956	15	28/1970	56.9	64	48.8	58	0.0	0.0
November	58.5	27.6	43.1	76	14/1962	4	20/1956	47.6	65	38.1	61	0.0	0.1
December	48.7	21.7	35.1	70	09/1958	-4	30/1958	39.3	70	29.9	60	0.0	1.1
Annual	68.4	37.2	52.9	100	19600630	-17	19620111	53.8	69	51.4	60	28.6	4.6
Winter	49.7	21.8	35.8	71	19620211	-17	19620111	39.3	57	32.5	61	0.0	4.3
Spring	68.5	35.0	51.9	94	19580527	-1	19650304	55.4	67	50.4	57	0.2	0.2
Summer	86.1	54.3	70.2	100	19600630	32	19620602	72.1	69	69.0	68	26.8	0.0
Fall	69.4	37.7	53.6	93	19560912	4	19561120	55.4	65	51.2	61	1.6	0.1

Table updated on Oct 24, 1998
For monthly and annual means, thresholds, and sums:
Months with 10 or more missing days are not considered
Years with 1 or more missing months are not considered

Western Regional Climate Center, wrcc@dri.edu

CARRIZOZO, NEW MEXICO

Period of Record General Climate Summary - Temperature

	Monthly Averages			Daily Extremes				Monthly Extremes				Max. Temp.	
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32 F
	F	F	F	F	dd/yyyy	F	dd/yyyy	F	-	F	-	# Days	# Days
January	51.4	22.1	36.7	73	11/1953	-18	05/1971	42.4	53	29.3	49	0.0	1.2
February	56.1	25.5	40.8	79	25/1989	-5	01/1951	48.5	57	30.7	64	0.0	0.5
March	62.9	30.9	46.9	87	11/1989	-7	04/1965	54.2	74	39.9	69	0.0	0.1
April	72.1	38.2	55.1	97	21/1989	15	03/1975	62.2	89	49.0	83	0.1	0.0
May	81.0	46.9	63.9	101	23/1989	24	02/1967	70.5	96	59.3	53	3.4	0.0
June	90.4	55.7	73.0	108	28/1994	36	10/1963	79.2	90	69.1	79	18.0	0.0
July	91.0	60.5	75.7	105	01/1989	46	04/1987	79.4	80	72.2	91	20.1	0.0
August	88.3	58.6	73.4	103	01/1972	43	29/1987	76.8	95	70.9	79	14.1	0.0
September	82.8	52.0	67.4	98	05/1948	32	30/1965	71.2	97	63.8	74	4.4	0.0
October	73.3	40.5	56.9	91	13/1989	12	31/1991	65.2	87	51.4	76	0.0	0.0
November	60.5	28.8	44.7	80	09/1973	-7	28/1976	49.1	65	38.5	48	0.0	0.1
December	52.3	22.4	37.4	74	04/1987	-15	09/1978	42.0	77	31.3	53	0.0	0.7
Annual	71.9	40.2	56.0	108	19940628	-18	19710105	58.2	89	54.0	79	60.2	2.7
Winter	53.3	23.3	38.3	79	19890225	-18	19710105	42.6	96	32.1	64	0.0	2.5
Spring	72.0	38.7	55.3	101	19890523	-7	19650304	61.5	89	51.7	87	3.5	0.1
Summer	89.9	58.3	74.1	108	19940628	36	19630610	77.6	94	71.2	87	52.2	0.0
Fall	72.2	40.4	56.3	98	19480905	-7	19761128	59.7	87	52.3	76	4.5	0.1

Station:(291515) CARRIZOZO

From Year=1948 To Year=1998

Table updated on Oct 24, 1998
For monthly and annual means, thresholds, and sums:
Months with 10 or more missing days are not considered
Years with 1 or more missing months are not considered

Western Regional Climate Center, wrcc@dri.edu

TULAROSA, NEW MEXICO

Period of Record General Climate Summary - Temperature

	Monthly Averages			Daily Extremes				Monthly Extremes				Max. Temp.	
Station:(299165) TULAROSA													
From Year=1948 To Year=1998													
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32 F
	F	F	F	F	dd/yyyy	F	dd/yyyy	F	-	F	-	# Days	# Days
January	56.4	28.5	42.5	87	25/1970	1	05/1971	49.0	56	37.4	49	0.0	0.3
February	61.1	32.1	46.6	81	26/1986	5	01/1951	55.6	57	39.8	64	0.0	0.1
March	68.0	36.9	52.4	90	27/1971	14	04/1965	58.0	74	46.2	65	0.0	0.0
April	76.4	43.6	60.0	95	21/1989	21	01/1988	65.0	48	53.1	83	0.6	0.0
May	84.5	51.9	68.2	103	27/1951	27	02/1988	73.7	96	64.3	57	7.1	0.0
June	93.5	60.3	76.9	110	22/1981	40	16/1965	81.1	94	72.8	79	22.4	0.0
July	93.8	63.9	78.8	108	09/1951	49	07/1987	82.8	51	75.2	76	24.4	0.0
August	91.7	62.5	77.1	104	01/1966	50	20/1965	81.2	62	73.0	90	22.3	0.0
September	86.3	56.3	71.3	100	05/1948	39	30/1988	75.2	55	67.6	87	9.7	0.0
October	76.5	46.3	61.4	93	01/1956	21	31/1991	68.6	50	56.6	70	0.5	0.0
November	64.6	34.8	50.0	84	04/1988	0	29/1976	55.6	66	44.7	72	0.0	0.1
December	56.6	29.0	42.7	77	26/1955	4	16/1987	49.7	55	37.6	60	0.0	0.2
Annual	75.8	45.5	60.7	110	19810622	0	19761129	63.3	56	58.7	88	87.1	0.7
Winter	58.0	29.9	43.9	87	19700125	1	19710105	48.0	56	40.8	64	0.0	0.6
Spring	76.3	44.1	60.2	103	19510527	14	19650304	63.8	89	56.7	83	7.7	0.0
Summer	93.0	62.2	77.6	110	19810622	40	19650616	80.9	94	74.4	88	69.1	0.0
Fall	75.8	45.8	60.9	100	19480905	0	19761129	64.7	50	57.7	57	10.2	0.1

Table updated on Oct 24, 1998
For monthly and annual means, thresholds, and sums:
Months with 10 or more missing days are not considered
Years with 1 or more missing months are not considered

Western Regional Climate Center, wrcc@dri.edu

ALAMOGORDO, NEW MEXICO

Period of Record General Climate Summary - Temperature

	Monthly Averages			Daily Extremes				Monthly Extremes				Max. Temp.	
Station:(290199) ALAMOGORDO													
From Year=1948 To Year=1998													
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32 F
	F	F	F	F	dd/yyyy	F	dd/yyyy	F	-	F	-	# Days	# Days
January	56.3	28.6	42.4	76	25/1952	-14	11/1962	49.5	52	36.9	49	0.0	0.4
February	61.5	32.6	47.0	81	25/1986	5	25/1960	55.8	57	38.3	64	0.0	0.1
March	67.9	37.9	53.0	89	27/1971	12	03/1965	59.7	74	47.4	62	0.0	0.0
April	77.1	45.2	61.2	97	22/1965	24	03/1975	67.0	89	54.9	83	0.8	0.0
May	86.2	53.7	69.9	104	27/1951	33	03/1953	75.8	96	64.7	53	10.3	0.0
June	95.1	62.6	78.9	110	22/1981	41	11/1975	84.1	90	75.6	92	25.4	0.0
July	94.5	65.9	80.2	110	08/1951	51	03/1955	85.4	51	76.1	76	24.9	0.0
August	92.0	64.3	78.1	106	07/1951	51	26/1953	84.0	52	74.4	71	21.9	0.0
September	86.8	58.1	72.4	102	04/1948	39	21/1965	78.7	54	68.4	91	11.4	0.0
October	77.4	47.1	62.3	94	05/1951	24	31/1993	69.1	50	57.7	76	0.7	0.0
November	65.2	35.2	50.2	84	17/1966	0	29/1976	54.9	65	44.8	48	0.0	0.0
December	57.1	28.8	43.0	75	14/1950	-1	24/1953	48.0	50	36.1	53	0.0	0.2
Annual	76.4	46.7	61.6	110	19510708	-14	19620111	64.2	50	60.2	55	95.4	0.8
Winter	58.3	30.0	44.1	81	19860225	-14	19620111	47.7	96	38.7	64	0.0	0.7
Spring	77.1	45.6	61.4	104	19510527	12	19650303	65.9	89	57.6	73	11.1	0.0
Summer	93.9	64.3	79.1	110	19510708	41	19750611	82.7	94	76.5	55	72.2	0.0
Fall	76.5	46.8	61.6	102	19480904	0	19761129	65.1	50	58.3	76	12.1	0.0

Table updated on Oct 24, 1998
For monthly and annual means, thresholds, and sums:
Months with 10 or more missing days are not considered
Years with 1 or more missing months are not considered

Western Regional Climate Center, wrcc@dri.edu

OROGRANDE 1 N, NEW MEXICO

Period of Record General Climate Summary - Temperature

	Monthly Averages			Daily Extremes				Monthly Extremes				Max. Temp.	
Station:(296435) OROGRANDE 1 N													
From Year=1948 To Year=1998													
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32 F
	F	F	F	F	dd/yyyy	F	dd/yyyy	F	-	F	-	# Days	# Days
January	57.3	26.9	42.0	78	31/1967	-13	11/1962	47.5	57	35.6	49	0.0	0.3
February	62.7	30.8	46.7	84	10/1957	2	02/1951	54.8	57	39.0	64	0.0	0.2
March	69.4	36.1	52.8	91	29/1967	11	04/1965	58.8	67	47.3	69	0.0	0.0
April	78.0	43.8	60.9	100	23/1965	22	01/1980	66.7	89	53.6	83	1.5	0.0
May	86.6	51.7	69.2	106	28/1951	31	02/1967	74.9	96	65.3	92	10.9	0.0
June	95.6	61.3	78.5	110	18/1960	44	11/1972	84.6	90	74.6	79	25.8	0.0
July	95.6	65.6	80.6	110	25/1963	50	23/1950	84.7	80	76.5	91	26.5	0.0
August	92.8	63.7	78.3	106	18/1969	52	07/1949	82.5	69	74.3	74	23.6	0.0
September	87.6	57.5	72.6	112	07/1948	40	23/1995	76.6	83	68.6	91	12.4	0.0
October	79.0	45.8	62.4	95	01/1953	21	22/1996	66.0	87	56.2	76	1.4	0.0
November	66.1	33.8	50.0	86	01/1950	3	29/1976	57.4	65	44.5	56	0.0	0.0
December	57.9	27.2	42.6	78	06/1958	1	24/1953	48.1	72	37.0	53	0.0	0.2
Annual	77.4	45.3	61.4	112	19480907	-13	19620111	63.2	94	59.6	79	102.0	0.8
Winter	59.3	28.3	43.8	84	19570210	-13	19620111	47.9	57	39.3	64	0.0	0.7
Spring	78.0	43.9	60.9	106	19510528	11	19650304	65.5	89	56.1	73	12.4	0.0
Summer	94.7	63.6	79.1	110	19600618	44	19720611	82.6	94	76.6	91	75.9	0.0
Fall	77.6	45.7	61.6	112	19480907	3	19761129	64.6	65	57.9	76	13.8	0.0

Table updated on Oct 24, 1998
For monthly and annual means, thresholds, and sums:
Months with 10 or more missing days are not considered
Years with 1 or more missing months are not considered

WHITE SANDS NATL MON, NEW MEXICO

Period of Record General Climate Summary - Temperature

	Monthly Averages			Daily Extremes				Monthly Extremes				Max. Temp.	
Station:(299686) WHITE SANDS NATL MON													
From Year=1948 To Year=1998													
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32 F
	F	F	F	F	dd/yyyy	F	dd/yyyy	F	-	F	-	# Days	# Days
January	56.9	22.2	39.6	77	26/1975	-25	11/1962	45.7	52	33.1	48	0.0	0.4
February	62.9	25.6	44.3	85	12/1957	-14	02/1951	52.9	57	34.5	64	0.0	0.1
March	70.4	31.2	50.8	89	26/1971	0	03/1971	55.9	67	46.0	62	0.0	0.0
April	79.3	39.3	59.3	97	22/1965	16	05/1974	65.6	51	54.2	98	1.5	0.0
May	88.0	48.3	68.1	104	27/1951	20	02/1967	73.1	51	63.4	53	13.2	0.0
June	96.8	58.2	77.5	111	22/1981	36	01/1988	82.8	90	73.3	92	26.3	0.0
July	97.0	63.8	80.4	110	08/1951	48	05/1956	85.7	51	77.1	91	28.2	0.0
August	94.4	61.4	77.9	106	01/1959	45	21/1956	81.9	52	74.1	90	25.7	0.0
September	89.0	54.0	71.4	103	04/1983	34	24/1975	75.5	54	68.5	91	15.2	0.0
October	79.0	40.8	59.9	95	13/1948	13	28/1970	65.0	50	55.0	76	1.5	0.0
November	65.8	27.9	46.9	85	01/1952	-12	29/1976	51.8	65	41.1	79	0.0	0.1
December	56.9	21.8	39.3	77	04/1958	-8	24/1953	43.9	77	32.0	60	0.0	0.3
Annual	78.0	41.2	59.6	111	19810622	-25	19620111	61.5	54	58.1	79	111.6	0.8
Winter	58.9	23.2	41.1	85	19570212	-25	19620111	44.9	57	34.6	64	0.0	0.8
Spring	79.2	39.6	59.4	104	19510527	0	19710303	62.6	89	56.7	75	14.7	0.0
Summer	96.1	61.1	78.6	111	19810622	36	19880601	82.1	94	76.3	91	80.3	0.0
Fall	78.0	40.9	59.4	103	19830904	-12	19761129	62.1	77	55.4	76	16.6	0.1

Table updated on Oct 24, 1998
For monthly and annual means, thresholds, and sums:
Months with 10 or more missing days are not considered
Years with 1 or more missing months are not considered

Western Regional Climate Center, wrcc@dri.edu

Alamogordo Profile

City of Alamogordo Profile

Alamogordo, county seat of Otero County, New Mexico, is the metropolitan center of the Tularosa Basin. The city is the commercial and governmental center for the county. Alamogordo is a thriving center of 30,000+ residents. The city's mild climate and pristine scenery offer its people an ambiance that enriches their quality of life. The Tularosa Basin is surrounded by the majestic Organ, San Andres and Sacramento Mountain ranges.

Alamogordo was founded in 1898 as a terminal for the railroad. The community's activities promoted the growth of logging, tourism and health-related enterprises. A national survey rated Alamogordo as one of the 50 healthiest places to live in the U.S. The basic beginnings are still in place—many of the early buildings are still occupied by businesses. Tourism-related activity and light manufacturing contribute to the economy. White Sands National Monument is a major attraction as are the International Space Hall of Fame and the Lincoln National Forest.

MILITARY

Holloman Air Force Base, the area's largest employer, is located near Alamogordo, and is the home of the F-117 Stealth Fighter Wing, the German Air Force in the U.S., and the High Speed Test Track. White Sands Missile Range, a U.S. Army installation near Alamogordo, is the second largest overland testing range in the world. As the birthplace of the U.S. rocket program in the 1940s, today White Sands Missile Range is the testing site for the reusable rocket and numerous Department of Defense research and evaluation programs. The City of Alamogordo is closely linked to both Holloman and White Sands, both of whom represent a combined impact of military-civilian annual payroll of more than $200 million and an economic impact of more than $450 million to the local economy.

CLIMATE

The Sacramento Mountain range is the southernmost tip of the Rocky Mountain chain within the boundary of the United States, and as such is not subject to the drastically cold temperatures of the upper ranges. The area's climate is more moderate than other desert areas because of its high elevation and proximity to the mountain range, which provides shelter from the wind's cold as well as cooling rain showers in summer's heat. With elevations ranging from 4,300 feet to 9,000 feet, the county has an ideal climate of warm days and cool nights. There are 350 days of sunshine each year. Winter days stay comfortable with temperatures in the 50s and 60s. The basin averages 15 inches of precipitation per year, and 315 days are precipitation-free. The months of July through August gets approximately six inches of moisture, while the mountain areas average 32 inches of precipitation and 92 inches of snow.

EDUCATION AND RELATED

- Alamogordo Public Schools
  Superintendent: Mary Scott
  1211 Hawaii Avenue • Alamogordo, New Mexico 88310
  505-439-3270
  Click here for APS Vision Statement, Mission Statement and Goals for the 1998-99 School Year.

- The Alamogordo Public Library

USGS Stream Flow Data

A P P E N D I X

6.2

Three Rivers at Three Rivers, New Mexico
Station No. 0848100
Peak Flow Above Base
1956 to 1977
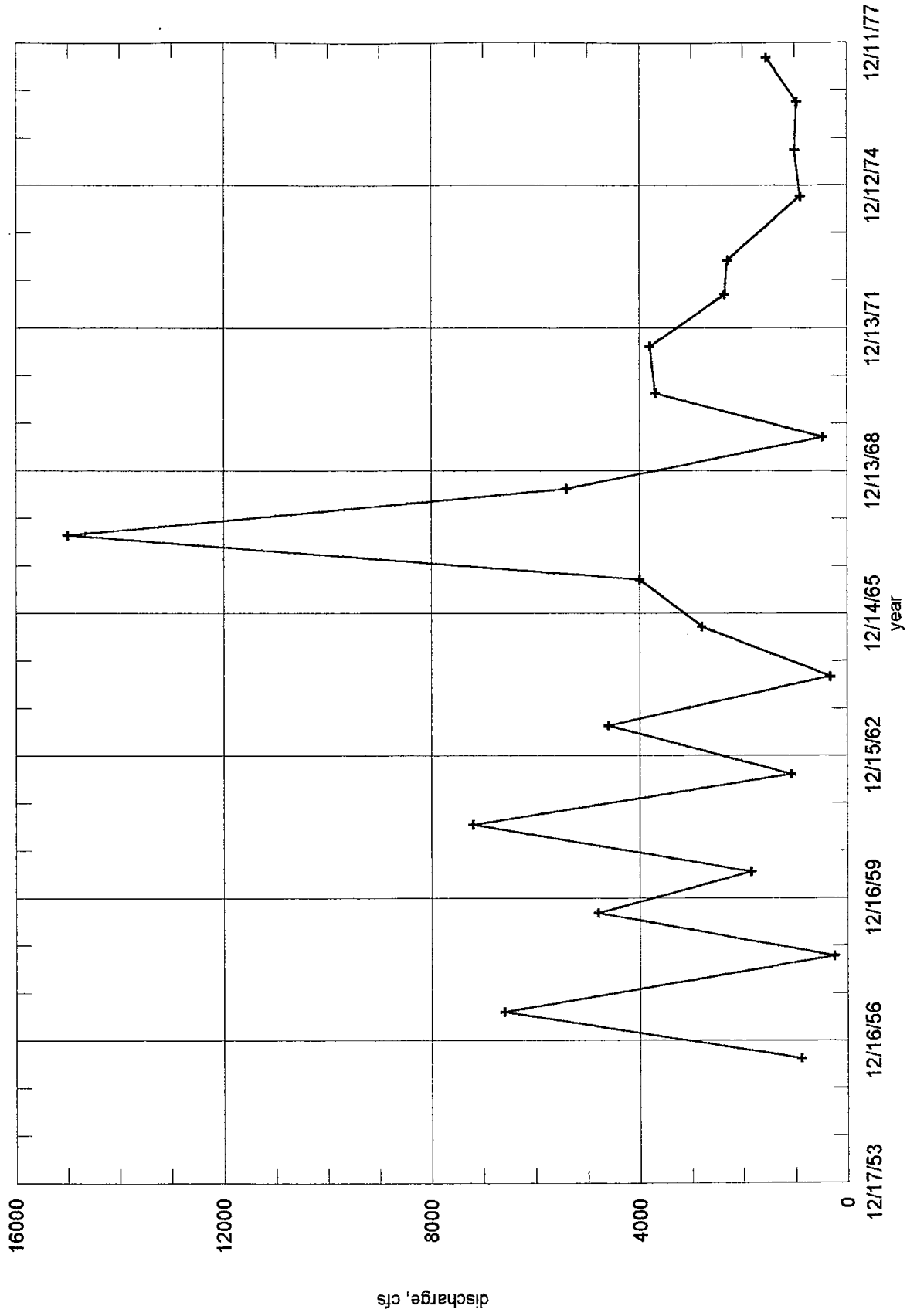
Rio Tularosa near Tularosa, New Mexico
Station No. 08482000
Daily Mean Discharge
1938 to 1947
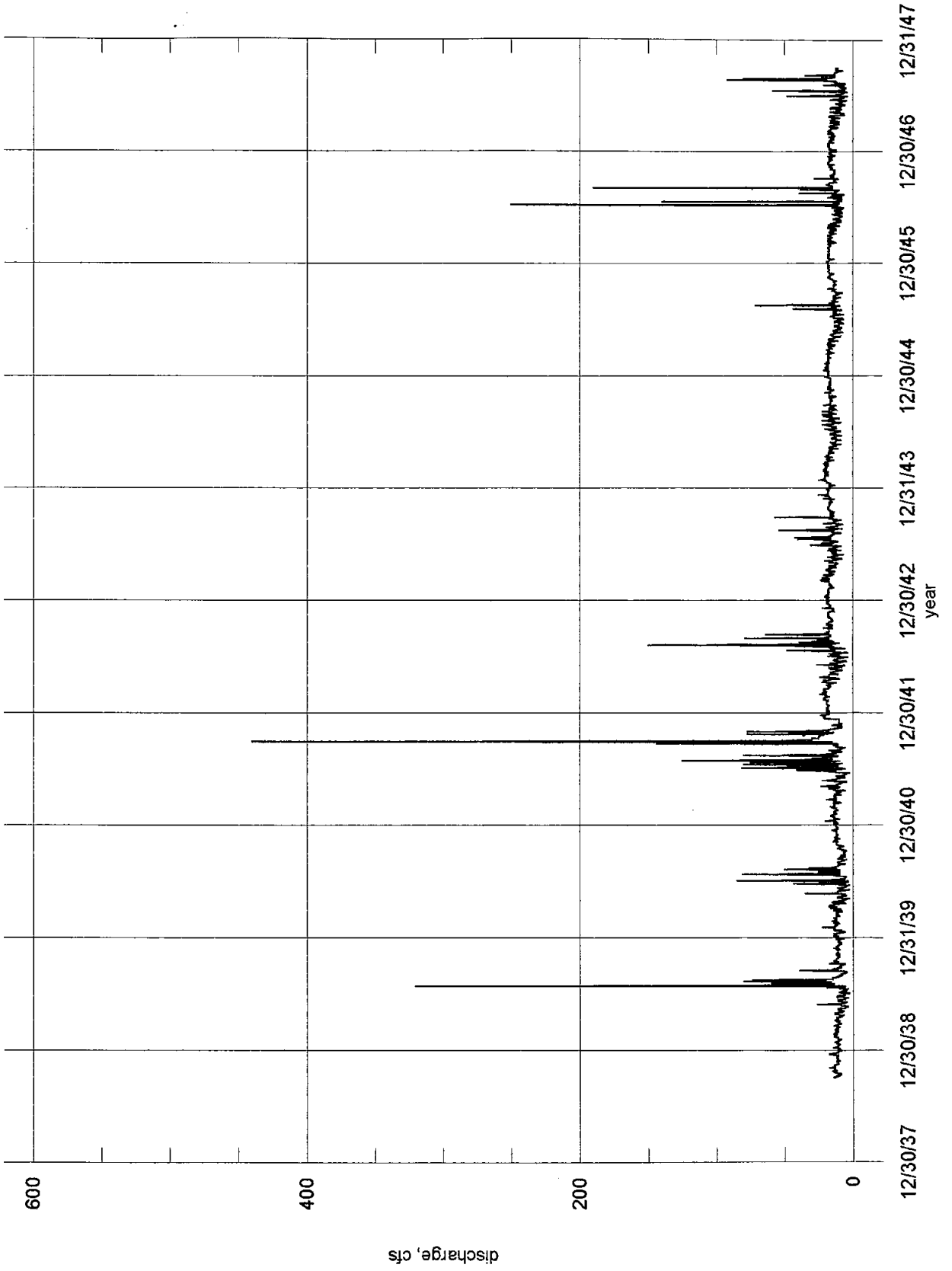
Tularosa Creek near Bent, New Mexico
Station No. 08481500
Daily Mean Discharge
1947 to 1996
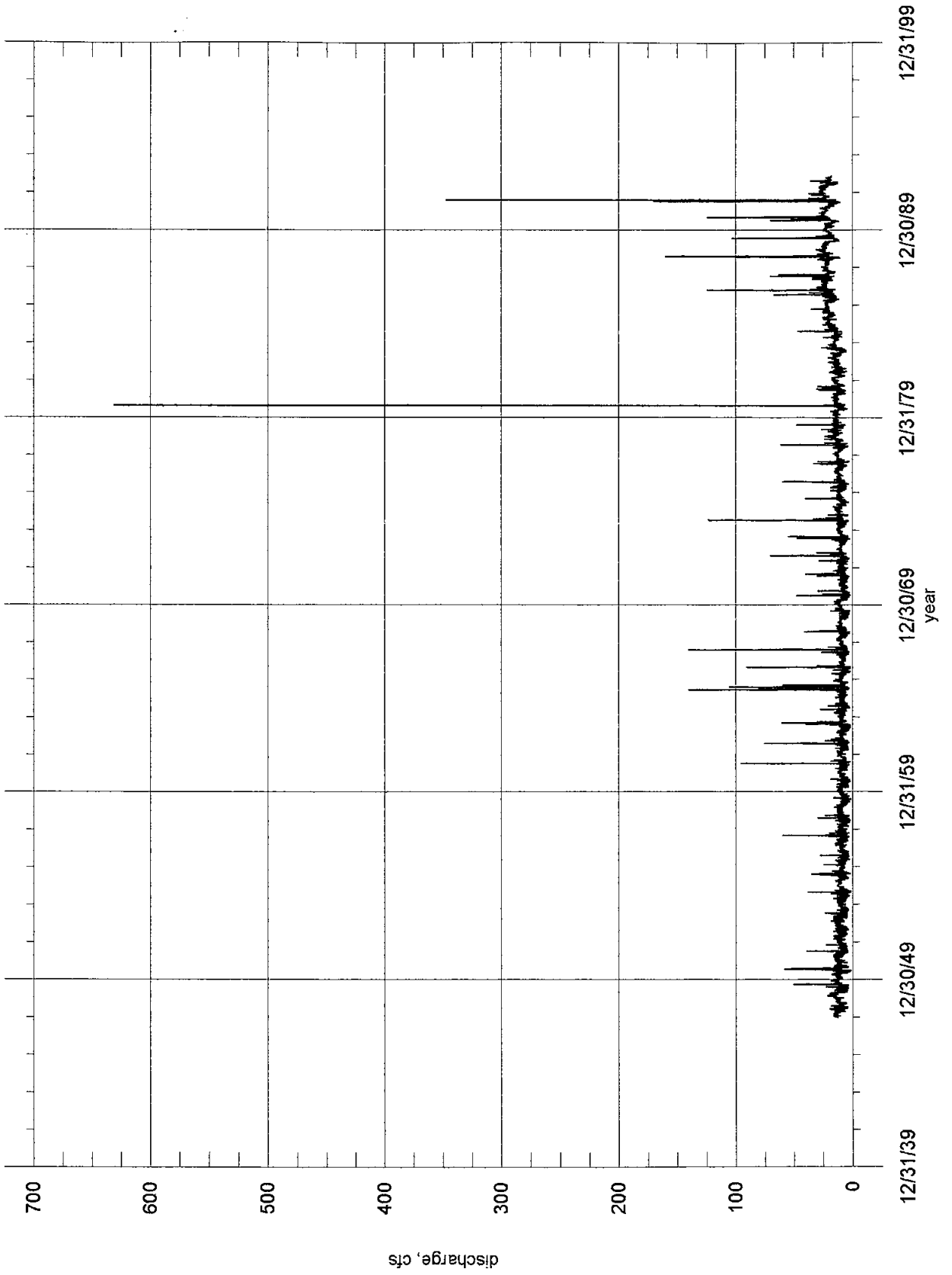
Tularosa Creek near Bent, New Mexico
Station No. 08481500
Peak Flow Above Base
1947 to 1996

Water Resources

Daily Streamflow for USA

USGS 08492900 SACRAMENTO R NEAR SUNSPOT, NM

Available data for this site | Surface-water: Daily streamflow ▼ | GO

Otero County, New Mexico
Hydrologic Unit Code 13050004
Latitude 32°42'50", Longitude 105°45'15"
NAD27

Output formats

Tab-separated data file

Graph

Reselect output format

USGS 08492900 SACRAMENTO R NEAR SUNSPOT, NM
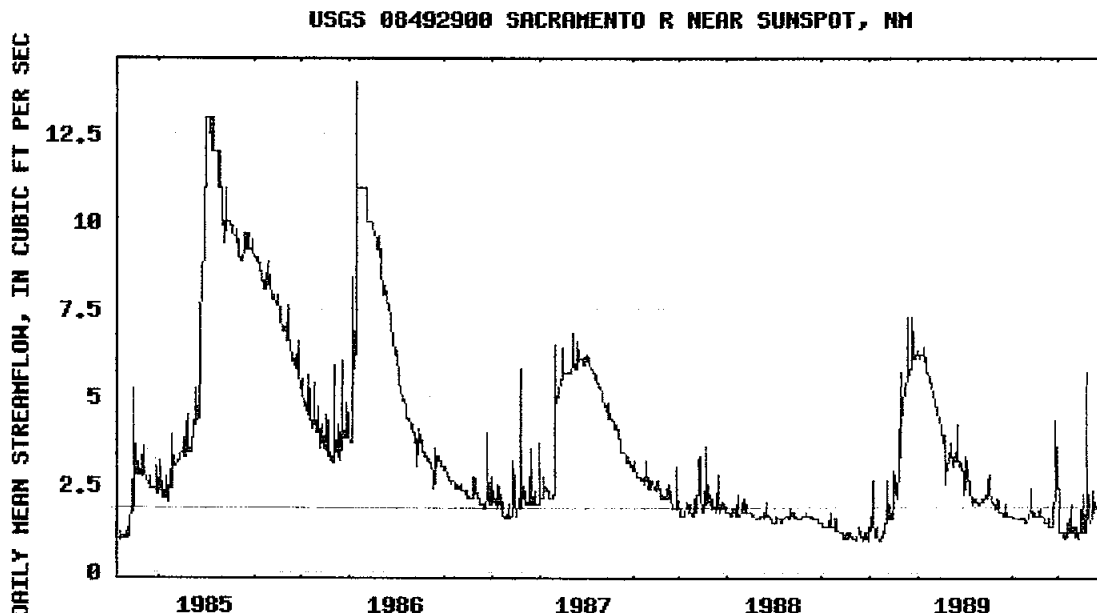
DATES: 07/10/1984 to 09/30/1989

EXPLANATION
—— DAILY MEAN STREAMFLOW   —— ESTIMATED STREAMFLOW

Download a presentation-quality graph

Water Resources   Data Category: Geographic Area:

Calendar Year Streamflow Statistics for USA

USGS 08492900 SACRAMENTO R NEAR SUNSPOT, NM

Available data for this site

Otero County, New Mexico
Hydrologic Unit Code 13050004
Latitude 32°42'50", Longitude 105°45'15" NAD27

1985	7.61
1986	3.19

— they are averages too. (handwritten)

Year	Annual mean streamflow, in ft^3/s
1987	2.64

Year	Annual mean streamflow, in ft^3/s
1988	2.52

Questions about data   h2oteam@usgs.gov
Feedback on this website   gs-w_support_nwisweb@usgs.gov
Surface Water data for USA: Calendar Year Streamflow Statistics
http://water.usgs.gov/nwis/annual/calendar_year?

Retrieved on 2001-09-28 12:22:35 EDT
Department of the Interior, U.S. Geological Survey
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0.97   0.91

SALT BASIN

08492900 SACRAMENTO RIVER NEAR SUNSPOT, NM

LOCATION.--Lat 32°42'50", long 105°45'15", in SW¼NE¼ sec.30, T.18 S., R.12 E., Otero County, Hydrologic Unit 13050004, on left abutment of concrete weir in Lincoln National Forest, 100 ft downstream from natural soda dam, 0.5 mi downstream from Hornbuckle Canyon, 3.2 mi downstream from Sacramento Lake, and 6.4 mi southeast of Sunspot.

DRAINAGE AREA.--12.8 mi².

PERIOD OF RECORD.--July 1984 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 7,830 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Diversions upstream from station for municipal water supply for village of Orogrande. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22 ft³/s, Aug. 14, 1984, gage height, 2.24 ft; minimum, 0.80 ft³/s, July 16, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9.7 ft³/s, Nov. 3, gage height, 1.77 ft; minimum, 1.3 ft³/s, July 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	2.2	5.7	6.1	5.2	4.1	3.0	2.9	2.2	1.8	2.1	1.9
2	3.7	4.1	5.7	6.2	5.1	4.2	3.0	2.6	2.1	1.9	1.8	1.9
3	2.3	6.5	5.7	6.0	5.1	4.1	2.9	2.5	2.1	1.7	1.7	1.8
4	2.1	5.3	5.7	6.1	5.0	4.1	3.0	2.4	2.1	1.6	1.7	2.0
5	2.1	4.8	5.7	6.2	4.9	4.1	3.2	2.5	2.1	1.6	1.7	2.1
6	2.1	5.0	5.9	6.1	4.8	4.0	3.0	2.6	2.1	1.6	2.2	1.9
7	2.1	5.0	6.8	6.1	4.7	4.0	2.9	2.4	2.4	1.6	2.2	1.8
8	2.1	5.0	6.4	6.1	4.7	3.8	2.9	2.4	2.4	1.6	2.9	1.8
9	2.1	5.0	6.0	5.9	4.8	3.8	2.8	2.4	2.2	1.6	3.2	1.8
10	2.5	5.1	5.9	5.8	4.7	3.6	2.7	2.6	2.1	1.6	3.3	1.8
11	2.7	5.1	5.8	5.8	4.7	3.5	2.7	2.6	2.3	1.6	2.7	1.7
12	2.5	5.2	5.9	5.8	4.6	3.4	2.7	2.6	2.5	1.7	2.4	1.7
13	2.4	5.4	5.9	5.8	4.6	3.4	2.7	2.5	2.1	1.8	2.0	1.8
14	2.3	5.4	5.9	5.8	4.8	3.4	2.7	2.4	2.3	1.8	1.9	2.8
15	2.3	5.4	5.8	5.8	4.4	3.4	2.7	2.4	2.1	2.0	1.8	2.0
16	2.3	5.5	6.1	5.8	4.7	3.4	2.7	2.4	2.0	2.0	1.7	1.8
17	2.3	5.5	6.6	5.8	4.6	3.4	2.6	2.3	1.9	1.8	1.7	1.8
18	2.3	5.6	6.2	5.5	4.5	3.4	2.6	2.4	1.9	1.7	1.7	1.9
19	2.3	6.4	6.1	5.7	4.5	3.4	2.7	2.6	1.8	1.8	2.3	1.8
20	2.4	5.7	6.0	5.6	4.4	3.3	2.6	2.5	1.8	1.7	1.8	1.7
21	2.3	5.7	6.1	5.6	4.3	3.1	2.6	2.4	1.8	1.9	1.7	1.7
22	2.2	5.7	6.1	5.6	4.3	3.2	2.6	2.4	1.8	1.8	2.1	1.8
23	2.1	5.7	6.1	5.5	4.4	3.1	2.6	2.6	1.8	1.9	2.0	1.9
24	2.1	5.7	6.1	5.4	4.3	3.2	2.7	2.5	1.8	1.9	3.6	1.8
25	2.1	5.7	6.1	5.4	4.2	3.2	2.7	2.3	1.8	1.7	2.5	2.0
26	2.1	5.7	5.9	5.4	4.3	3.3	2.6	2.2	2.0	1.7	2.1	1.9
27	2.1	5.7	5.9	5.4	4.1	3.2	2.5	2.1	3.0	1.7	2.1	1.8
28	2.1	5.7	6.1	5.3	4.1	3.0	2.6	2.1	2.1	1.7	2.0	1.9
29	2.1	5.7	6.0	5.3	---	3.0	2.8	2.1	2.0	1.6	2.5	1.9
30	2.1	5.7	5.9	5.3	---	3.2	3.2	2.1	2.2	1.6	2.0	1.8
31	2.2	---	6.0	5.3	---	3.2	---	2.2	---	1.6	1.9	---
TOTAL	70.3	160.2	186.1	177.5	128.8	108.5	83.0	75.0	62.4	53.4	67.3	56.5
MEAN	2.27	5.34	6.00	5.73	4.60	3.50	2.77	2.42	2.08	1.72	2.17	1.88
MAX	3.7	6.5	6.8	6.2	5.2	4.2	3.2	2.9	3.0	2.0	3.6	2.8
MIN	1.9	2.2	5.7	5.3	4.1	3.0	2.5	2.1	1.8	1.6	1.7	1.7
AC-FT	139	318	369	352	255	215	165	149	124	106	133	112

CAL YR 1986 TOTAL 1163.6 MEAN 3.19 MAX 6.8 MIN 1.5 AC-FT 2310
WTR YR 1987 TOTAL 1229.0 MEAN 3.37 MAX 6.8 MIN 1.6 AC-FT 2440

Tularosa Basin 40-Year Water-Supply Plan
Inventory of Springs

northern · eastern · western · salt

Name / Owner	Twn/Rng	Latitude	Longitude	Altitude feet	Flow Rate gpm	Date	Temperature F degrees	Specific Conductance microsiemens	Remarks
Deer Spring H. Bursum	T6S.R6E.20.412	334700	1062025		2.0	03/04/55	38	625	Soccoro County; chemical analysis of major ions available from USGS
Rabbit Spring H. Bursum	T6S.R6E.20.441	334646	1062018		4.0	03/04/55	42	570	Soccoro County; chemical analysis of major ions available from USGS
Council Spring H. Bursum	T6S.R6E.31.223	334533	1062125			03/02/55	45	650	Soccoro County; chemical analysis of major ions available from USGS
Dripping Springs A. Helm	T7S.R6E.29.414	334046	1062035		2.0	03/30/55	49	451	Soccoro County; chemical analysis of major ions available from USGS
Red Canyon Spring Alamogordo Bombing Range	T7S.R7E.15.442	334104	1061158	5,520	2.5	02/25/54 06/21/55	75	3,300 3,030	Soccoro County; spring issues from fractures; chemical analysis of major ions available from USGS
Carrizozo Spring	T7S.R10E.26.422	334009	1055159	5,390	50.0 100.0	1911 10/02/48		2,350 2,340	Lincoln County; chemical analysis available in McLean, 1970 and from USGS; topographic situation = arroyo
Lower Willow Spring George McDonald	T8S.R9E.29.113	333522	1060202	4,875	4.8	1911 05/18/55	60 62	3,340	Lincoln County; chemical analysis available in McLean, 1970 and from USGS; topographic situation = arroyo adjacent to Malpais
	T8S.R10E.11.313	333728	1055252	5,490	100.0	10/03/48		1,500	Lincoln County; chemical analysis available from USGS; topographic situation = arroyo; numerous springs marked on topographic sheet upstream from this location; directly south of the town of Carrizozo
Upper Coyote Spring	T8S.R10E.22.3			5,475	6.0	03/25/05	58		Lincoln County; chemical analysis available in McLean, 1970; topographic situation = canyon
Bull Gap Spring	T9S.R8E.23.442	333031	1060411	5,825	1.5	11/03/55		3,150	Lincoln County; chemical analysis available from USGS; topographic situation = canyon; large deposit of sulfate in area of seep
Phillips Springs Truman Spencer	T9S.R8E.34.143	332905	1060558	4,750	3.0	1911 05/31/55	64 68	6,290	Lincoln County; chemical analysis available from USGS and in McLean, 1970; topographic situation = arroyo; tank built over spring

Tularosa Basin 40-Year Water-Supply Plan
Inventory of Springs

salt
northern eastern western

Name / Owner	Twn/Rng	Latitude	Longitude	Altitude feet	Flow Rate gpm	Date	Temperature F degrees	Specific Conductance microsiemens	Remarks
Jakes Spring	T9S.R9E.10.343	333206	1055951	5,290	30.0	1911 08/23/55	63 63	1,920	Lincoln County; chemical analysis available from USGS and in McLean, 1970; topographic situation = hillside; improved spring
I Bar X Spring	T9S.R9E.10.343	332945	1055709	5,720	4.0-5.0	10/19/55	63	1,650	Lincoln County; chemical analysis available from USGS; topographic situation = constricted fan; improved spring
Milagro Spring	T9S.R9E.32.211	332922	1060135	5,265	15.0-20.0	1911 02/26/53 08/18/55		2,000 2,050	Lincoln County; chemical analysis available from USGS and in McLean, 1970;topographic situation = arroyo at end of hogback;unimproved spring
	T9S.R11E.34.41			8,025	10.0	08/09/77	55	590	Lincoln County; topographic situation = hillside
Nugget Spring	T9S.R12E.12.41	333215	1054358	6,800	1.0	04/16/57		2,340	Lincoln County; chemical analysis available from USGS; topographic situation = "dry gulch"; unimproved spring
Tunnel Spring	T9S.R12E.13.34	333109	1054418	7,200	2.0	04/16/57		1,600	Lincoln County; chemical analysis available from USGS; topographic situation = Nogal Canyon; unimproved spring
Mound Springs White Sands Proving Grounds	T10S.R6E.23.242	332535	1071705	4,350	3.0	06/02/55 08/06/57	61	4,850 5,050	Lincoln County; chemical analysis available from USGS; topographic situation = coalescing alluvial fans
Lincoln National Forest	T10S.R11E.2.341			7,650	1.0	08/09/77	54	1,000	Lincoln County; topographic situation = north wall, Bonito Creek; issues from prospect pit and is milky yellow
Lincoln National Forest	T10S.R12E.12.144			7,500	32.0	08/09/77	54	280	Lincoln County; chemical analysis in Davis and others, 1980; topographic situation = Rio Bonito valley; flows into Bonito Lake
Little Creek Spring Lincoln National Forest	T10S.R12E.24.431			7,990	0.4	08/09/77	57	370	Lincoln County; chemical analysis in Davis and others, 1980; topographic situation = head of canyon

Tularosa Basin 40-Year Water-Supply Plan
Inventory of Springs

northern   eastern   western   salt

Name / Owner	Twn/Rng	Latitude	Longitude	Altitude feet	Flow Rate gpm	Date	Temperature F degrees	Specific Conductance microsiemens	Remarks
Lincoln National Forest	T10S.R12E.25.14			7,990	54.0	08/09/77	59	180	Lincoln County; topographic situation = small tributary to Telephone Canyon
eastern									
T C Ryan	T11S.R9E.12.44	330222	1060145		2.0	02/29/56	59	1,120	Otero County; chemical analysis available from USGS; topographic situation = alluvial fan; seeps from gravel
Falls Ranch Spring	T11S.R9E.35.1	331926	1060330	4,700					Otero County; chemical analysis in McLean, 1970; topographic situation = Three Rivers drainage
T F Ryan	T11S.R9 1/2E.23.311	332058	1055900		450.0	11/06/57		1,720	Otero County; chemical analysis available from USGS; topographic situation = constricted alluvial fan
T F Ryan	T11S.R10E.6.231	332308	1055630	5,520	2.0	02/29/56	62	1,420	Otero County; chemical analysis available from USGS; topographic situation = constricted alluvial fan; seep
Chosa Spring California Institute of Technology	T13S.R9E.5.411	331250	1060616	4,300	5 est	03/25/69	64	2,520	Otero County; chemical analysis in McLean, 1970; Garza and McLean, 1977; topographic situation = arroyo at toe of alluvial fan
North Spring Town of Mescalero	T13S.R12E.27.21(3)	331140	1054548	6,650		10/18/60	55	1,060	Otero County; chemical analysis available from USGS; topographic situation = north fork, Tularosa Canyon
Sulphur Spring	T13S.R12E.27.4			6,900					Otero County;chemical analysis in McLean, 1970; topographic situatiom = hillside
Church Spring US Fish & Wildlife Service	T13S.R12E.27.411			6,600	550.0		52	1,000	Otero County; fracture control on spring flow; used by fish hatchery in Mescalero; road is settling over buried gathering gallery; other small springs in area; topographic situation = next to road cut

northern | eastern | western | salt

Name / Owner	Twn/Rng	Latitude	Longitude	Altitude feet	Flow Rate gpm	Date	Temperature F degrees	Specific Conductance microsiemens	Remarks
Barrell Spring Alamogordo Bombing Range	T14S.R8E.35.144	330146	1060940	4,120	50.0	06/21/57		1,580	Otero County; chemical analysis available from USGS;reported as 14S.8E.35.233; fault control on spring flow; sometimes referred to as Tula spring; topographic situation = Bolson at lower most toe of bajada
Tularosa Spring	T14S.R8E.35.233			4,120	est 25	1911 06/21/57 03/25/69	61	1,838 mg/l TDS 2,310 2,220	Garza & McLean, 1977
Lomitas Spring	T14S.R9E.3.333			4,320	5.0	04/18/69		2,602 mg/l (dissolved solids) - 1911	Otero County; chemical analysis available from USGS; topographic situation = Bajada; Garza & Mclean, 1977
	T14S.R9E.4.444	330719	1060457	4,300		03/25/69		2,550	Otero County, chemical analysis and trace element analysis available from USGS; topographic situation = Bajada
Village of Tularosa	T14S.R10E.15.3	330555	1055805			10/12/61	69	1,490	Otero County; chemical analysis available from USGS; topographic situation = Tularosa Canyon
Head Spring Mescalero Apache	T14S.R12E.12.221	330705	1054333	7,040	200.0	10/04/60	52	883	Otero County; chemical analysis available from USGS;supplied fish hatchery at Mescalero by pipeline in 1971; topographic situation = bottom of South Fork, Tularosa Canyon
Alamogordo Bombing Range	T15S.R8E.10.4								Otero County; chemical analysis in McLean, 1970; topographic situation = Bolson
Mesquite Springs	T15S.R9E.9.422			4,240				7,846 mg/l (dissolved solids) - 1911	Otero County; chemical analysis in McLean, 1970; Garza and McLean, 1977; topographic situation = arroyo in bajada

Tularosa Basin 40-Year Water-Supply Plan
Inventory of Springs

northern   eastern   western   salt

Name / Owner	Twn/Rng	Latitude	Longitude	Altitude feet	Flow Rate gpm	Date	Temperature F degrees	Specific Conductance microsiemens	Remarks
City of Alamogordo	T15S.R10E.25.2	325858	1055538			10/11/61	53	1,840	Otero County; chemical analysis available from USGS; collection point of water flow in aqueduct; flow represents composite of a number of springs and collection galleries in Fresnal Canyon; public water supply for Alamogordo topographic situation = canyon mouth
	T15S.R11E.11.143			6,400					Otero County; topographic situation = Laborcita Canyon; Garza & McLean, 1977
Maruchi Springs	T15S.R11E.24.124			6,650					Otero County; topographic situation = Maruci Canyon
La Luz Springs	T15S.R11E.25.2			6,900					Otero County; topographic situation = La Luz Canyon
Fresnal Canyon Springs Lincoln National Forest	T16S.R9E.7.1								Otero County; chemical analysis in McLean, 1970; topographic situation = edge of White Sands
Lincoln National Forest	T16S.R10E.1.1								Otero County; topographic situation = canyon
City of Alamogordo	T16S.R10E.33.4	325147	1055508			10/11/61			Otero County; chemical analysis available from USGS; collection point of water flow in aqueduct; flow represents composite of springs along Alamo and Caballero Canyons; topographic situation = canyon mouth
Wooten Spring Lincoln National Forest	T16S.R11E.2.								Otero County; chemical analysis in McLean, 1970
Lincoln National Forest (Caballero Canyon Springs)	T16S.R11E.28.								Otero County;chemical analysis in Garza and McLean, 1977

western

Tularosa Basin 40-Year Water-Supply Plan
Inventory of Springs

Name / Owner	Twn/Rng	Latitude	Longitude	Altitude feet	Flow Rate gpm	Date	Temperature F degrees	Specific Conductance microsiemens	Remarks
Madpass Spring White Sands	T12S.R7E.8.422	331715	1061833	4,125			66		Otero County; chemical analysis in McLean, 1970; topographic situation = swale, down-gradient of lava beds
Salt Spring White Sands National Monument	T17S.R8E.6.22			4,045				7,504 mg/l (dissolved solids) - 1911	Otero County; chemical analysis available in Hood, 1958; McLean, 1970; topographic situation = depression adjacent to sand body; Garza & McLean, 1977
Black Spring	T17S.R8E.28.3					1911		8,970 mg/l (dissolved solids)	Garza & McLean, 1977
Hart Spring G.A. Whitfield	T17S.R8E.28.312			4,050					Otero County; chemical analysis available in Hood, 1958; called Black Spring by McLean, 1970; topographic situation = slope of knoll in bolson
Bluey Spring	T11S.R4E.35.233	331918	1063440	6,000		08/31/60		1,820	Sierra County; topographic situation = canyon floor; formerly developed spring; (not in eastern part of basin)
Harrington Spring	T18S.R8E.17.412	324450	1060830	4,020	15.0	04/08/54	81	11,600	Otero County; chemical analysis available in Hood, 1958; topographic situation = playa
Spring	T18S.R8E.17.411			4,045					Otero County; chemical analysis available in McLean, 1970; topographic situation = playa; Garza & McLean, 1977
Spring	T12S.R4E.2.141	331840	1603449	6,060	1.0 1.0	07/11/55 08/31/60			Sierra County; chemical analysis available from USGS; topographic situation = headwater canyon; (not in eastern part of basin)
White Sands Proving Grounds	T19S.R5E.4.1			3,900		03/25/05		1,090	Dona Ana County; chemical analysis available in McClean, 1970; topographic situation = playa; (not in eastern part of basin)
Duke Spring USFS Jornada Experimental Range	T20S.R4E.17.432	323358	1063328	5,500	2.0	08/26/62	73	987	Dona Ana County; chemical analysis available from USGS; topographic situation = bottom of small canyon; (not in eastern part of basin)

Tularosa Basin 40-Year Water-Supply Plan
Inventory of Springs

Name / Owner	Twn/Rng	Latitude	Longitude	Altitude feet	Flow Rate gpm	Date	Temperature F degrees	Specific Conductance microsiemens	Remarks
Barney Spring White Sands Proving Ground	T21S.R4E.12.413	322934	1062915	4,970	1.0	06/11/60	70	913	Dona Ana County; chemical analysis available from USGS; topographic situation = arroyo on hillside; (not in eastern part of basin)
Globe Spring Fort Bliss Military Reserve	T22S.R4E.24.	322246	1062914		23.0	04/24/45		334	Dona Ana County; chemical analysis available from USGS; topographic situation = arroyo; (not in eastern part of basin)
Don Taylor	T17S.R10E.33.234	324657	1055458	4,650		03/29/54		1,280	Otero County; chemical analysis available from USGS; water piped to ranch house; topographic situation = near mouth of San Andreas Canyon
Alamo Canyon Springs Lincoln National Forest	T17S.R11E.7.2	325046	1055120	6,050	472.0	01/05/43 10/05/50 05/01/53		807 778 818	Otero County; chemical analysis available from USGS; developed springs supplying Alamogordo. topographic situation = Alamo Canyon bottom
Lincoln National Forest	T17S.R11E.11.23			7,950	147.5	05/26/77	41	475	Otero County; chemical analysis available IN Gross and others, 1980; headwater spring of the Rio Penasco; issues from a large marshy area; topographic situation = Rio Penasco Canyon
Lincoln National Forest	T17S.R11E.13.432				15.0	05/25/77	32	450	Otero County; topographic situation = Rio Penasco Canyon
Lincoln National Forest	T17S.R12E.12.443			8,250	63.2	05/25/77	34	500	Otero County; topographic situation = North wall, Rio Penasco Canyon
Lincoln National Forest	T17S.R12E.14.314			8,200	10.0	05/24/77	37	460	Otero County; topographic situation = South wall, Wills Canyon
Lincoln National Forest	T17S.R12E.14.422			8,175	0.5	05/24/77		490	Otero County; topographic situation = North wall, Wills Canyon
Lincoln National Forest	T17S.R12E.16.122			8,175	5.0	05/24/77	34	470	Otero County; topographic situation = South wall, Rio Penasco Canyon
Lincoln National Forest	T17S.R12E.16.431			8,700	2.0	05/24/77	34	455	Otero County; topographic situation = North wall, Wills Canyon

Tularosa Basin 40-Year Water-Supply Plan
Inventory of Springs

northern   eastern   western   salt

Name / Owner	Twn/Rng	Latitude	Longitude	Altitude feet	Flow Rate gpm	Date	Temperature F degrees	Specific Conductance microsiemens	Remarks
Lincoln National Forest	T17S.R12E.17.121			8,250	25.0	05/25/77	32	470	Otero County;four springs issuing from a marshy area in colluvium were combined for these measurements; one spring issues from a circular orifice in colluvium; topographic situation = Rio Penasco Canyon
Bluff Springs Lincoln National Forest	T17S.R12E.17.144			8,225	175.0	05/24/77	32	490	Otero County; chemical analysis available in Gross and others, 1980; two springs (10 yards apart) were combined for this measurement; topographic situation = South wall, Rio Penasco Canyon
Lincoln National Forest	T17S.R12E.20.444			8,475	93.6	05/24/77	32	470	Otero County; topographic situation = Wills Canyon
Lincoln National Forest	T17S.R12E.21.331			8,525	12.0	05/24/77	32	500	Otero County; topographic situation = Wills Canyon
Lincoln National Forest	T17S.R12E.26.223			8,525	9.5	05/27/77	34	540	Otero County; posted as "Masterson Springs" but 1/2 mile downstream from "Masterson Springs" on topographic map; topographic situation = Hay Canyon
Dog Canyon Spring Lincoln National Forest	T18S.R10E.15.113	324455	1055433			04/07/54	66	886	Otero County; chemical analysis available in Hood, 1958; topographic situation = Canyon wall at mouth of Dog Canyon
Southern Pacific Railroad	T18S.R11E.11.422			8,440	200.0	12/04/56	49		Otero County; water piped to Orogrande; topographic situation = Sacramento Canyon
Southern Pacific Railroad	T18S.R11E.12.313	324515	1054645	8,430	450.0	10/23/56	56	542	Otero County; chemical analysis available in Hood, 1958; topographic situation = junction of Thousand Mile and sacramento Canyons
US Army	T21S.R11E.4.324	323020	1054918		33.4	04/25/57	64	900	Otero County; chemical analysis available in Gross and others, 1980; topographic situation = hillside

Alamogordo's Surface Water Supply - Springs
(ASR Study and Daniel's Study)

Name / Owner	Twn/Rng	Altitude feet	Flow Rate gpm	Date	Temperature F degrees	Specific Conductance umhos/cm	TDS mg/l	Remarks
Fresnal Canyon - North Fork								
Snow-Smith Spring	see Daniel's report		279*	1982			554	*flow rate is a combined rate (Snow-Smith + Highway)
Highway Spring (C.M. Yard Spring)	see Daniel's report		*	1982				*flow rate is a combined rate (Snow-Smith + Highway)
Spring at Domestic Water Tank	see Daniel's report		125.0	1982				not captured in a spring box
Horst Spring	see Daniel's report		139.0	1982				domestic water users connected to spring
Robinson Spring and Lama Spring?	documented but unable to locate							
Haynes Canyon - Middle Fork								
Head Spring of Haynes Canyon (Haynes Canyon Spring)	see Daniel's report		556.0	1982			591	
Springs in Mountain Orchard Area	see Daniel's report		**					** significant flow but they are captured by landowners and unable to determine their volume
Karr Canyon - South Fork								
Head Springs in Karr Canyon	T16S.R11E.Sec.15.1		200.0	1982			544	none of the flow enters the Karr Canyon stream
Covered Spring	T16S.R11E.Sec.15.1		453.0	1982			544	
Boggs Spring	T16S.R11E.Sec.9.2		171.0	1982				covers a large area
La Luz Canyon								
Crockett Spring	see Daniel's report		est. 120 65	Sep-82			994	
Crockett Spring 2A	see ASR study			02/12/96		1635		
Crockett Spring 2B	see ASR study			02/12/96		1640		
Crockett Spring 2C	see ASR study			02/12/96		1657		
Crockett Spring 2D	see ASR study			02/12/96		1725		
Upper Maruchi Spring	see Daniel's report		est. 500 368	Sep-82				six springs in area
Upper Maruchi Spring	see ASR study			02/12/96		1107		
Lower Maruchi Spring	see Daniel's report		est. 908					spring area encompasses six acres, seven old spring boxes, numerous other springs, and vegetation - in 1982 grossly ineffective
Lower Maruchi Spring	see ASR study			02/12/96		1211		
Upper Springer Spring	see Daniel's report		est. 1055 530	Sep-82			1,302	two separate spring areas: (1) encompasses 29 acres, (2) encompasses ~3 acres
Upper Springer Spring	see ASR study			02/12/96		1630		
Middle Springer Spring	see ASR study			02/12/96		2110		
Lower Springer Spring	see Daniel's report		est. 195				1,050	comprised of ~4 acres, poor condition in 1982
Lower Springer Spring	see ASR study			02/12/96		2030		

Table of Water Quality Data for the Salt Basin

Location Number	Owner or Name	Date of Collection April 1956	Stratigraphic Unit	Temperature (F)	CHEMICAL CONSTITUENTS									DISSOLVED SOLIDS		HARDNESS AS CaCO3		Percent Sodium	Sodium Absorption Ratio (SAR)	Specific Conductance Micromhos at 25 deg. C	pH
					Calcium Ca	Magnesium Mg	Sodium and Potassium Na + K	Bicarbonate HCO3	Sulfate SO4	Chlor-ide Cl	Fluor-ide F	Nitrate NO3	Boron B	Parts per Million	Tons per Acre-foot	Calcium, Magnesium	Non-carbonate				
21.17.12.343	Sam Tanner	26	Alluvium	65	80	37	5.8	288	72	4	-	59	0.64	400	0.54	352	116	3	0.1	660	7.2
22.17.26.221	R.B. Tatman	25	Alluvium (?)	-	-		0.7	336	277	2	0.4	1.8	-	624	-	568	292	0	0	976	7.3
22.18.17.140	Doyle Pate	26	Alluvium	68	-	-	7.8	220	496	14	-	13	-	853	-	710	530	2	0.1	1200	7.2
23.18.29.110	Eldo Lewis	18	do.	69	-	-	3.4	226	435	17	0.7	29	-	802	-	680	495	1	0.1	1150	7.4
23.18.30.340	U.S. Air Force	18	Bone Spring limestone	-	220	95	6.2	222	698	19	1.1	18	0.29	1170	1.59	940	758	1	0.1	1530	7.2
24.18.36.410	Richard Lewis	20	Alluvium	64	-	-	27	156	1300	92	-	233	-	2444	-	1740	1610	3	0.3	2760	7.0
24.19.18.344	do.	18	do.	65	-	-	-	186	727	26	-	-	-	1251	-	980	828	-	-	1590	7.2
25.17.9.110	Howell Lewis	18	Bone Spring limestone	69	-	-	-	318	367	9	-	-	-	751	-	665	404	-	-	1100	7.1
25.18.8.242	do.	17	Alluvium	65	-	-	-	284	1820	65	-	-	-	2791	-	2200	1970	-	-	3100	6.9
25.18.24.441	Gene Lewis	17	do.	65	-	-	-	254	2020	275	-	-	-	3586	-	2500	2290	-	-	3880	6.9
25.18.25.240	J.D. Lewis	13	do.	-	-	-	-	158	719	70	-	-	-	1312	-	940	810	-	-	1650	7.2
25.18.26.111	Ed Prather	16	do.	61	556	264	65	202	2230	82	3.2	2.4	0.48	3300	4.49	2470	2310	5	0.6	3530	7.1
25.18.27.443	Dempson Lewis	12	Alluvium	68	244	177	22	270	1070	32	1.0	2.7	0.43	1680	2.28	1340	1120	3	0.3	2070	7.2
26.17.3.300	Mrs. K. Brownfield	11	Bone Spring limestone	68	-	-	-	291	533	14	-	-	-	975	-	820	582	-	-	1320	7.0
26.18.21.223	John Gailey	11	do.	71	198	77	4.4	272	547	15	1.1	4.1	0.24	981	1.33	810	588	1	0.1	1320	7.0
26.18.21.411	J.W. Hill	11	do.	72	-	-	-	268	563	25	-	-	-	1026	-	850	630	-	-	1370	7.1
26.18.28.113	Frank Gentry	12	do.	72	-	-	-	265	590	47	-	-	-	1128	-	890	673	-	-	1470	7.0
26.18.29.113	do.	11	do.	68	230	92	17	242	672	57	1.1	11	0.05	1200	1.63	952	754	4	0.2	1610	7.1
26.18.30.213	Gordon Parks	11	do.	68	-	-	-	207	751	60	-	-	-	1363	-	990	820	-	-	1700	7.0
do.		30*	do.	68	-	-	-	214	749	56	-	-	-	1363	-	1010	834	-	-	1700	7.1
26.18.30.321	Lendol Parker	11	do.	68	-	-	-	213	-	76	-	-	-	1465	-	1060	886	-	-	1800	7.1

Well Data

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LINCOLN - TB

Map #	DB File Nbr	Use	Diversion	WELL DATA REPORT 08/30/2000 (acre ft per annum) Owner	Well Number (quarters are biggest to smallest)	Tws	Rng	Sec	q	q	q	q	Start Date	Finish Date	Depth of Well (ft)	Depth to Water (ft)	Elevation (ft)	Water Surface Elevation (ft)
1	T 01964	STK	6	PETER M. CAMPBELL	T 01964	02S	10E	32	2	2	1	2	3/19/92	3/26/92	757	615	6300	5685
2	T 00257	STK	11	HARRAL RANCH	T 00257	03S	10E	1	1	1				12/31/29	612			
3	T 01965	STK	5	PETER M CAMPBELL	T 01965	03S	10E	5	1						5	558	6170	5612
4	T 00260	STK	3	HARRAL RANCH	T 00260	03S	10E	8	4	4	2	4		12/31/58	310			
5	T 00256	STK	6	HARRAL RANCH	T 00256	03S	10E	13						12/31/29	490			
6	T 00259	STK	5	HARRAL RANCH	T 00259	03S	10E	27	2	2	1	4		12/31/56	730			
7	T 00261	STK	5	HARRAL RANCH	T 00261	03S	11E	16	2	2	4	4		12/31/59	470			
8	T 00918	STK	3	HIGHTOWER LAND & CATTLE CO.	T 00918	03S	11E	25	4	4	1	4	6/22/84	6/23/84	294			
9	T 02179	DOM	3	BARD CATTLE COMPANY	T 02179	03S	11E	30	2	2	2	2		6/10/69	250	140	6200	6060
10	T 02178	STK	3	BARD CATTLE COMPANY	T 02178	03S	11E	31	1	1	4	1		7/11/44	690	90	6000	5910
11					T 01715 CLW	04S	113	26	2	2	2	4						
12	T 00291	STK	3	ONE HUNDRED RANCH, INC.	T 00291	04S	08E	10	3	3	1	3		12/31/26	900			
13	T 00288	STK	10	ONE HUNDRED RANCH, INC.	T 00288	04S	08E	25	1	1	4	2		12/31/10	585			
14					T 00288 S	04S	08E	25	1	1	4	1		12/31/62	585			
15	T 00292	STK	3	ONE HUNDRED RANCH, INC.	T 00292	04S	08E	29	3	3	3	1		12/31/70	510			
16	T 02176	STK	3	BARD CATTLE COMPANY	T 02176	04S	10E	10	2	2	4	3		8/1/29	150	90		
17	T 03578	DOM	3	SARA & L.Y. JACKSON REV. TRUS	T 03578	04S	10E	26	2	2	3	3			1360			
18	T 00258	STK	3	HIC LIQUIDATION TRUST	T 00258	04S	10E	31	2	2	4	2		12/31/46	840			
19	T 02174	STK	3	BARD CATTLE COMPANY	T 02174	04S	11E	4	4	4	4	2		7/19/78	180	145	5970	5825
20	T 02175	STK	3	BARD CATTLE COMPANY	T 02175	04S	11E	4	2	2	2	2		12/31/00	165	145	5970	5825
21	T 02123	DOM	3	GARY E. CALDWELL	T 02123	04S	11E	15	2	2	2	2		7/20/59	175	147	6100	5953
22	T 02124	DOM	3	GARY E. CALDWELL	T 02124	04S	11E	15	2	2	2	2		6/20/57	165	147	6100	5953
23	T 02173	STK	2	BARD CATTLE COMPANY	T 02173	04S	11E	17	4	4	3	4		8/28/61	300	290	5740	5450
24	T 02177	STK	3	BARD CATTLE COMPANY	T 02177	04S	11E	17	4	4	4	2		12/31/06	350	275	5740	5465
25	T 01715	DOM	3	VERNON JR. LANGWORTHY	T 01715	04S	11E	26	2	2	2	4	8/30/88	9/14/88	644	490	5740	5250
26	T 00289	STK	3	ONE HUNDRED RANCH, INC.	T 00289	05S	07E	2	1	1	2	4		12/31/32	1107			
27	T 00301	STK	4	GALLACHER RANCHES	T 00301	05S	08E	7	3	3	4		3/9/91	3/18/91	670	380	6430	6050
28	T 00300	STK	4	GALLACHER RANCHES	T 00300	05S	08E	15	3	3	1			12/31/60	500			
29	T 00290	STK	3	ONE HUNDRED RANCH, INC.	T 00290	05S	09E	3	2	2	3	4		12/31/71	884			
30	T 00298	STK	4	GALLACHER RANCHES	T 00298	05S	09E	20	4	4	1			12/31/50	714	690	5645	4955
31	T 00293	DOM	5	GALLACHER RANCHES	T 00293	05S	09E	25	3	3	4			12/31/40	200			
32	T 00302	STK	5	GALLACHER RANCHES	T 00302	05S	09E	25	3	3	4			12/31/30	200	100	5510	5410
33	T 00299	STK	15	GALLACHER RANCHES	T 00299	05S	09E	34	3	3	4			12/31/20	100	80	5460	5380
34	T 00647	STK	0	THOMAS A. KNIGHT	T 00647	05S	10E	7	1	1	2	2						
35	T 01211	IRR	84	E. DIMMITT BOND	T 01211	05S	10E	27	2	2	2	1		10/31/70	194	94	5645	5551
36	T 01212	IRR	441	BOND E. DIMMIT	T 01212	05S	10E	27	1	1	1	1		12/31/61	300	73	5610	5537
37					T 01212 S	05S	10E	27	1	1	1	1		12/31/64	246	76	5610	5534

Account	Use	Amt	Name	File	08S	10E					Date	Date				
				T 00473 S	08S	10E	2		4	1		9/30/80	144	35	5470	5435
T 00506 A	IRR	134	ARNOLD W. BOYCE	T 00506	08S	10E	2	3	4	4		6/30/68	130	75	5490	5415
T 00506				T 00506 S	08S	10E	2	3	4	4		7/31/75	130	50	5490	5440
T 00506 S				T 00506 S-2	08S	10E	2	3	4	4		4/30/78	135	50	5490	5440
T 00506 B	IRR	75.4	GREGORY ALLEN HANCOCK	T 00506	08S	10E	2	3	4	4		6/30/68	130	75	5490	5415
T 00506 S				T 00506 S	08S	10E	2	3	4	4		7/31/75	130	50	5490	5440
T 00506 S-2				T 00506 S-2	08S	10E	2	3	4	4		4/30/78	135	50	5490	5440
T 00506 C	IRR	34.4	GERALD & CAROLENE EMMONS	T 00506	08S	10E	2	3	4	4		6/30/68	130	75	5490	5415
T 00506 S				T 00506 S	08S	10E	2	3	4	4		7/31/75	130	50	5490	5440
T 00506 S-2				T 00506 S-2	08S	10E	2	3	4	4		4/30/78	135	50	5490	5440
T 00670	DOM	2	ROY W. HARMAN	T 00670	08S	10E	2	1	3	3	4/6/90	4/7/90	123	19	5425	5406
T 00917	DOM	3	R. M. AND J. FAY KING	T 00917	08S	10E	2	3	1		6/19/84	6/19/84	92	26	5435	5409
T 00922	DOM	3	SHEILA E. FIELDS	T 00922	08S	10E	2				6/20/84	6/20/84	192	25	5455	5430
T 00925	DOM	3	JOVITA H. TORRES	T 00925	08S	10E	2	3	1	1	6/19/84	6/21/84	92	23	5435	5412
T 01829	DOM	3	ARNOLD W. OR DOROTHA BOYCE	T 01829	08S	10E	2	3	4	2	6/26/89	7/30/89	242	38	5485	5447
T 01870	DOM	3	ARNOLD OR DOROTHA BOYCE	T 01870	08S	10E	2	3	4	2	12/5/89	12/7/89	150	65	5485	5420
T 02122	DOM	3	HAROLD DESJARDINS	T 02122	08S	10E	2	3	1	2		12/31/04	300			
T 02182	IRR	12	NICK SERNA	T 02182	08S	10E	2	4	3	1	4/6/92	4/25/92	300	48	5485	5437
T 02478	IRR	27	CARRIZOZO MUNICIPAL SCHOOLS	T 02478	08S	10E	2	1	3	1	9/20/93	9/20/93	120	25	5410	5385
T 02478 S				T 02478 S	08S	10E	2	1	3	1	1/2/94	1/9/94	120	25	5410	5385
T 02699	DOM	3	GERALD OR CAROLENE EMMONS	T 02699	08S	10E	2	3	4	2	3/19/96	3/19/96	200	37	5485	5448
T 03005	DOM	3	LORENZO & ANITA SAMBRANO	T 03005	08S	10E	2	3	1	3	8/26/98	8/27/98	180	28	5435	5407
T 03420	DOM	3	CHARLES R. GILMORE	T 03420	08S	10E	2	3	4	2	2/18/99	2/25/99	100	40	5485	5445
T 00369	DOM	0	WOODROW A. SCHLEGEL	T 00369	08S	10E	3	3	1	1			200			
T 00932	IRR	9	W.D. & MAXINE LAMAY	T 00932	08S	10E	3	2				12/31/76	300			
T 01697	DOM	0	WOODROW A. SCHLEGEL	T 01697	08S	10E	3	3								
T 01951	IRR	3	JAMES R. HELDT	T 01951	08S	10E	3	2	4	4	5/24/90	5/26/90	149	10	5410	5400
T 02387	IRR	0	FLORENCE F. RACHER	T 02387	08S	10E	3	4	4			12/31/74	100			
T 02457	DOM	3	JOE GLENN THORNTON	T 02457	08S	10E	3	3	1	3	10/21/93	10/22/93	120	80	5390	5310
T 03142	DOM	3	LEON & SHIRLEY ROUSSEAU	T 03142	08S	10E	3	2	4	4	5/8/97	5/8/97	190	25	5415	5390
T 03704	DOM	3	LLOYD V MOORE	T 03704	08S	10E	3	2	3	1	6/28/00	6/28/00	160	45	5385	5340
T 00270	IRR	414	FARM CREDIT BANK OF WICHITA	T 00270	08S	10E	4	3	1	1		12/31/56	50	15	5330	5315
T 01896	DOM	5	MARY C. GARMAN	T 01896	08S	10E	4	3	1	1		12/31/56	50	30	5330	5300
T 02771	DOM	3	JOHNSON S STEARNS	T 02771	08S	10E	4	4	2	1	3/14/96	3/14/96	62	38	5370	5332
T 03752	DOM	3	TODD W COOK	T 03752	08S	10E	4	2	4	1			100			
T 00325	DOM	3	CONCEPTION A. MORALES	T 00325	08S	10E	9	4	2		10/21/82	10/21/82	140	8	5405	5397
T 01046	IRR	6	FRED B. VEGA	T 01046	08S	10E	9	3	1			12/31/80	160	60	5335	5275
T 01369	DOM	3	PETE D. NARVAEZ	T 01369	08S	10E	9	2	1	2	10/27/80	10/27/80	155	140	5380	5240
T 02135	DOM	3	JOHN TATE	T 02135	08S	10E	9	2	3	1		12/31/73	110			
T 02959	DOM	3	JOHN C TATE	T 02959	08S	10E	9	2	3	4	6/21/96	6/24/96	110	40	5385	5345
T 02962	DOM	3	GILBERT J BARELA	T 02962	08S	10E	9	3	3	2	10/25/96	12/31/82	110	58	5350	5292
T 03238	DOM	3	CHRISTOPHER BARELA, J	T 03238	08S	10E	9	4	4	4	12/24/97	12/26/97	200	120	5415	5295

~~80~~					T 00970 S	07S	10E	28	4	1	3		12/31/50	50	24	5250	5226
~~81~~	T 02825	MUL	3	MICHAEL AND MELODY GAINES	T 00970	07S	10E	28	4	1	4		12/31/50	50	24	5250	5226
~~82~~	T 00274	IRR	364	NORMAN D. & NANCY B. DULEY	T 00274	07S	10E	29	4	1	1	5/31/84	11/30/51	100	24	5200	5176
~~83~~					T 00274 S	07S	10E	29	4	1	1		5/31/52	84	24	5200	5176
~~84~~					T 00274 S-2	07S	10E	29	4	2	1		3/31/53	85	24	5215	5191
~~85~~	T 00274 A	HWY		RIGHT OF WAY BUREAU N.M.S.H &T	T 00274	07S	10E	29	4	1	1	5/31/84	11/30/51	100	24	5215	5191
~~86~~	T 00275	STK	2	NORMAN D. & NANCY B. DULEY	T 00275	07S	10E	29	4	2	1		7/31/54	100	75	5215	5140
~~87~~	T 00276	IRR	0	FARM CREDIT BANK OF WICHITA	T 00276	07S	10E	29	2	2	2		6/30/51	90	45	5225	5180
~~88~~	T 00277	IRR	0	NORMAN D. & NANCY B. DULEY	T 00277	07S	10E	29	4	2	1		4/30/53	80	24	5215	5191
~~89~~	T 03352	DOM	3	ANTHONY SANCHEZ	T 03352	07S	10E	29	2	1	2	10/6/98	10/8/98	150	105	5210	5105
90	T 03585	STK	3	ANTHONY AND PATSY SANCHEZ	T 03585	07S	10E	29	2	1	2		12/31/44	90	80	5210	5130
91	T 00693	MON	3	INC. SUNBELT MINNG COMPANY	T 00693	07S	10E	30	1	3		8/20/83	9/1/83	409			
92	T 00969	IRR	10	JACK R. HEFKER	T 00969	07S	10E	34	1	4	4		8/31/70	100	19	5340	5321
~~93~~	T 00310	DOM	3	JACK GARRETT	T 00310	07S	10E	35	3	1		2/12/83	2/12/83	86	18	5370	5352
~~94~~	T 02245	DOM	3	CHARLEY STURGES	T 02245	07S	10E	35	3	3	4	6/4/92	6/20/92	250	35	5390	5355
95	T 02106	DOM	3	FRED H. AND HAZEL H. ENGLISH R	T 02106	07S	11E	1	1	1	3		12/31/00	165	70	6085	6015
96	T 01756	STK	3	BAR W RANCH	T 01756	07S	11E	2	3	3	1		12/31/10	305	117	6070	5953
97	T 02965	STK	3	INC BAR W RANCH	T 02965	07S	11E	2	3	3		9/16/96	9/17/96	305	117	6070	5953
98	T 00936	STK	3	W. M. GALLAWAY	T 00936	07S	11E	21	4	3		6/27/84	6/29/84	82	48	5625	5577
99	T 01757	STK	3	BAR W RANCH	T 01757	07S	11E	29	1	3	3		12/31/13	72	100	5530	5430
100	T 02533	DOM	3	WILLIAM S CHATFIELD	T 02533	07S	11E	29	4	3		5/5/94	5/8/94	136	37	5580	5543
101	T 03201	STK	3	PRESILIANO L. PINO	T 03201	07S	11E	34	2	1	4	1/20/98	1/25/98	90	42	5710	5668
102	T 01207	STK	0.66	UNITED STATES OF AMERICA	T 01207	07S	12E	31	2	2	2						
103	T 02086	STK	3	WITHER'S RANCH	T 02086	08S	07E	8	3	2			12/31/46	150	125	5380	5255
104	T 03538	STK	3	GRIDER, INC.	T 03538	08S	08E	2	3	3	3		12/31/59	1000	100	4905	4805
105	T 00655	IRR	183	MARGARET P. SHRECENGOST	T 00655	08S	09E	9	2				12/31/30	225			
106					T 00655 S	08S	09E	9	2	4	3		12/31/30	200			
107	T 01759	STK	3	BAR W. RANCH, INC.	T 01759	08S	09E	14	3	2	1		12/31/60	120	40	5045	5005
108	T 00942	STK	3	R. E. HEMPHILL	T 00942	08S	09E	33	2	3		10/5/84	10/10/84	223	136	5090	4954
~~109~~	T 01723	MIN	36.8	SW MINERALS CORP. AND	T 01723	08S	10E	1	1	3	3		12/31/81	120	100	5480	5380
~~110~~	T 01808	DOM	3	S. B. BOYKIN	T 01808	08S	10E	1	3	1	2	5/19/89	5/23/89	240	120	5505	5385
~~111~~	T 01962	IRR	938	TOWN OF CARRIZOZO	T 01962	08S	10E	1	4	2	4			150	80	5555	5475
~~112~~					T 01962 S	08S	10E	1	4	2	4			150	129	5555	5426
~~113~~					T 01962 S-2	08S	10E	1	4	2	4			150	109	5555	5446
~~114~~					T 01962 S-3	08S	10E	1	4	2	4			150	72	5555	5483
~~115~~	T 02158	EXP	0	BUREAU OF RECLAMATION	T 02158 EX-1	08S	10E	1	3	1		11/8/91	11/8/91	44	36	5505	5469
~~116~~					T 02158 EX-2	08S	10E	1	3	1		11/9/91	11/9/91	44	32	5505	5473
~~117~~					T 02158 EX-3	08S	10E	1	3	1		11/19/91	11/19/91	44	34	5505	5471
~~118~~					T 02158 EX-4	08S	10E	1	3	1		11/20/91	11/20/91	44	34	5505	5471
~~119~~					T 02158 EX-5	08S	10E	1	3	1		11/21/91	11/21/91	41	33	5505	5472
120	T 00056S2	IRR	12	ARNOLD W. BOYCE	T 00506 S2	08S	10E	2	3	4	4	4/1/78		135			
~~121~~	T 00473	IRR	30	SALVADOR ORTIZ	T 00473	08S	10E	2	3	4	1		8/31/65	150	35	5470	5435

#	ID	Use	Num	Name	ID	Twp	Rng	Sec				Date	Date				
38	T 00269	DOM	1	HOWARD E. HARKEY	T 00269	05S	11E	7	1	1	3		8/5/74	200	170	5740	5570
39	T 02225	STK	3	HOWARD HARKEY	T 02225	05S	11E	9	2	2	2		12/31/40	150	125	6040	5915
40	T 03650	SAN	3	LEVEL 3 COMMUNICATIONS	T 03650	05S	11E	18	2	2	2			400			
41	T 01213	DOM	5	WALTON WILSON	T 01213	05S	11E	25	4	2	3	1/1/44	12/31/44	67	50		
42	T 01656	STK	0	BARHAM FAMILY PARTNERSHIP	T 01656	05S	11E	28	3	1	2						
43	T 02149	DOM	3	REX WILSON	T 02149	05S	12E	27	1	4	2		12/31/1890	450	30		
44	T 02224	STK	3	HOWARD HARKEY	T 02224	05S	12E	31	2	3	1		12/31/26	160	50		
45	T 02230	STK	3	HOWARD HARKEY	T 02230	05S	12E	31	2	3	1			157	40		
46	T 01842	DOM	0	HOWARD HARKEY	T 01842	05S	12E	32	2	4	3						
47	T 00296	STK	3	BLACK HILLS RANCH	T 00296 REP	06S	07E	2	3	3	3	10/1/88	10/6/88	597	495		
48	T 01856	IRR	600	MARLIN C. FRETTEM	T 01856	06S	09E	1	2	2	3	7/12/89	7/19/89	205	122		
49	T 02231	DOM	3	H. GRANT OR CATHY J. KINZER	T 02231	06S	09E	31	1	4	4	5/19/92	6/19/92	768	498	5450	4952
50	T 02412	STK	3	GRANT OR CATHY KINZER	T 02412	06S	09E	33	1	4	1		12/31/52	1280			
51	T 00264	STK	5	GALLACHER RANCHES	T 00264	06S	10E	3	4	3			12/31/60	90	75	5500	5425
52	T 00266	DOM	4	GALLACHER RANCHES	T 00266	06S	10E	4	4	4			12/31/60	90	70	5500	5430
53	T 00268	STK	5	GALLACHER RANCHES	T 00268	06S	10E	5	3	4			12/31/48	90			
54	T 00265	STK	5	GALLACHER RANCHER	T 00265	06S	10E	6	1	3			12/31/52	160			
55	T 01755	STK	6	INC. BAR W. RANCH	T 01755	06S	10E	13	4	2	2		7/4/77	400	370	5640	5270
56	T 00267	STK	5	GALLACHER RANCHES	T 00267	06S	10E	23	4	1			12/31/30	200	130	5660	5530
57	T 02010	STK	3	MOUNTAIN STATES CONST., INC.	T 02010	06S	10E	30					12/31/60	792	494	5450	4956
58	T 00263	STK	5	GALLACHER RANCHES	T 00263	06S	10E	35	1	1			12/31/50	160	100	5460	5360
59	T 01657	STK	0	BARHAM FAMILY PARTNERSHIP	T 01657	06S	11E	4	3	4	3						
60	T 01913	DOM	3	DONALD HOBBS	T 01913	06S	11E	5	3	4	1	2/6/90	2/8/90	202	60	5790	5730
61	T 02128	STK	3	HOWARD HARKEY	T 02128	06S	11E	11	2	2	4	9/4/91	9/5/91	620			
62	T 03599	PUB	3	ABQ UNDERGROUND, INC.	T 03599	06S	11E	36	4	1	1						
63	T 02215	STK	3	NORBERT FRITZ	T 02215	07S	08E	12	1	3	2	4/6/92	12/31/30	400	380	5315	4935
64					T 02215 CLW	07S	08E	12	3	3	2	4/6/92	4/16/92	400	378	5315	4937
65	T 03507	STK	3	GRIDER, INC.	T 03507	07S	08E	34	3	2	1		12/31/49	800	750	4955	4205
66	T 02409	DOM	3	GRANT OR CATHY KINZER	T 02409	07S	09E	4	2	4	2		12/31/50	300			
67	T 02410	STK	3	GRANT OR CATHY KINZER	T 02410	07S	09E	8	3	4	4		12/31/40	280	265	5510	5245
68	T 02411	STK	3	GRANT OR KATHY KINZER	T 02411	07S	09E	12	2	4	1		12/31/13	300			
69	T 00654	IRR	16.8	MARGARET P. SHRECENGOST	T 00654	07S	09E	19	4	2	2		12/31/25	480			
70	T 00653	IRR	90	MARGARET P. SHRECENGOST	T 00653	07S	09E	34	2	4	2		12/31/31	250			
71	T 01758	DOM	0	BAR W. RANCH, INC.	T 01758	07S	10E	11	4	4	1		12/31/00	50	20	5480	5460
72	T 01981	STK	0	INC. BAR W RANCH	T 01981	07S	10E	14	2	3	1						
73	T 03586	STK	3	ANTHONY & PATSY SANCHEZ	T 03586	07S	10E	16	3	3	4		12/31/49				
74	T 01176	SAN	3	VALLEY OF FIRES ST. PARK	T 01176	07S	10E	20	4	3		8/26/85	9/7/85	255			
75	T 00970	MIN	112	MICHAEL G. & MELODY K. GAINE	T 00970	07S	10E	28	4	1	4		12/31/50	50	24	5265	5241
76					T 00970 S	07S	10E	28	4	1	3		12/31/50	50	24	5265	5241
77	T 01488	STK	3	BILLY F. WINKLER	T 01488	07S	10E	28	2			1/1/20	12/31/20	30			
78	T 01489	DOM	3	BILLY F. WINKLER	T 01489	07S	10E	28	2			1/1/55	12/31/55	75			
79	T 01490	DOM	3	BILLY F. WINKLER	T 01490	07S	10E	28	2			1/1/55	12/31/50	100			

SOCORRO-TB

WELL DATA REPORT 08/30/2000 (acre ft per annum)

(quarters are biggest to smallest)

Map #	DB File Nbr	Use	Diversion	Owner	Well Number	Tws	Rng	Sec	q	q	q	q	Start Date	Finish Date	Depth of Well	Depth to Water (ft)	Elevation (ft)	Water Surface Elevation (ft)
314	T 2379	STK	3	MAXWELL RANCH INC	T 02379	03S	08E	22	4	3				12/31/13	770	750	6110	5360
315	T 2380	STK	3	MAXWELL RANCH INC	T 02380	03S	08E	28	3	1			5/9/93	12/31/14	865	835	6130	5295
316					T 02380	03S	08E	28	3	1	0		5/9/93	6/2/93	850	810	6130	5320
317	T 304	STK	6	JOYCE SLOAN	T 00304	03S	09E	25	4	3	1			12/31/78	900	575	5940	5365
318	T 2500	STK	3	KNOLLENE MCDANIEL	T 02500	03S	09E	28	1	1	3			12/31/82	775	650	6105	5455
319	T 2499	DOM	3	KNOLLENE MCDANIEL	T 02499	03S	09E	29	2	2	4			12/31/75	231	165	6120	5955
320	T 2498	STK	3	KNOLLENE MCDANIEL	T 02498	03S	09E	33	3	3	2			12/31/75	325	320	6055	5735
321	T 303	STK	6	SUE SLOAN CALLAHAN	T 00303	03S	09E	36	1	2				12/31/24	770	595	5940	5345
322	T 2378	STK	3	MAXWELL RANCH INC	T 02378	04S	07E	1	2	3				12/31/51	870	850	6430	5580
323	T 2059	STK	3	100 RANCH	T 02059	04S	08E	25	1	4	1		3/20/91	4/2/91	610	560	6170	5610
324	T 296	STK	3	BLACK HILLS RANCH	T 00296	06S	07E	2	3	3	3		10/1/88	12/31/28	600	540	6365.14	5825
325	T 1459	DOM	3	BLACK HILLS RANCH	T 01459	06S	08E	18	4	3			11/20/86	11/22/86	160	70	5840.18	5770
326	T 297	STK	3	BLACK HILLS RANCH	T 00297	06S	08E	19	2	1				12/31/17	90	80	5840	5760
327	T 3079	PUB	0	CS MCCROSSAN CONSTR. INC.	T 03362	06S	08E	19	2	1	1		3/5/97	4/9/97	975	780	5905	5125
328					T 00294	06S	08E	22	1	2	4		11/2/92	11/6/92	860	800	5645	4845
329	T 2311	STK	3	BLACK HILLS RANCH	T 02311	06S	08E	22	1	4	2		11/9/92	11/10/92	400			
330	T 1691	STK	0	BLACK HILLS RANCH	T 01691	06S	08E	26	3	4	3							
331	T 295	STK	3	BLACK HILLS RANCH	T 00295	06S	08E	28	3	4	1			12/31/31	650	580	5510	4930
332	T 1910	PUB		J.W. JONES CONSTRUCTION CO.	T 01910	06S	08E	35	1	1	1		01/31/990	2/4/90	660			
333	T 357	STK	14	GRIDER, INC.	T 00357	07S	08E	8	3	2	2				700	300	5480	5180
334	T 2472	STK	8.3	GRIDER, INC.	T 02472	07S	08E	14	3	2	1			12/31/09	800	600	5185	4585

Salt and Sacramento Basin Wells

Map #	File #	Location	Owner	Total Depth (ft)	Yield (gpm)	Pumping Level (ft)	Water Level (ft)	Elevation (ft)	Water Level Elevation (ft)
335	19-29	21S.16E.2.43	Cauhape	1280	9	1230	1150.0	5620	4470
336	19-30	21S.17E.31.33	Cauhape	1035	9	980	950.0	4625	3675
337	19-13	23S.18E.29.111	Lewis	300	15	280		3775	
338	19-14	24S.18E.11.33	Lewis	180	15	150		3675	
339	19-38	19S.14E.34.443	Van Cleve Trust	1080	6	700	650.0	6400	5750
340	19-50	20S.15E.13.143	Lewis	1430	10	1400	1400.0	5940	4540
341	19-52	21S.16E.22.121	Runyan	2700	100	1411	1390.0	5330	3940
342	19-53	21S.16E.18.311	Runyan	1440	10	1400	1400.0	5100	3700
343	19-206	26S.13E.7.100	US Government	560	3	555	535.0	4940	4405
344	19-207	25S.11E.14.3	US Government	540	7	535	500.0	5075	4575
345	19-208	25S.13E.30.1	US Government	200	10	190	150.0	4800	4650
346	19-209	25S.13E.28.4	US Government	550	10	545	490.0	4940	4450
347	19-210	25S.13E.13.3	US Government	200	2	195	185.0	4815	4630
348	19-224	26S.14E.14.13	Jones	310	5	270	186.0	4750	4564
349	19-241	26S.14E.27.		317	5	304	300.0	4770	4470
350	19-228	25S.18E.27.111	Warren	300	650	110	40.0	3560	3520
351	19-232	26S.14E.20.341	Bennett	600	3	570	550.0	5120	4570
352	19-237	25S.15E.5.1	Jones	1000	20	650	600.0	4270	3670
353	19-280	26S.18E.21.112	Hunt Building Corp.	156	6000	92	78.0	3630	3552
354	19-304	24S.18E.29.413	John G. Schafer	200	400	131	110.0	3595	3485
355	19-305	24S.18E.29.413	John G. Schafer	235			110.0	3595	3485
356	19-306	24S.18E.29.424	John G. Schafer	100	10	180	110.0	3595	3485
357	19-307	24S.18E.11.442	John G. Schafer	180	14	180	110.0	3685	3575
358	19-308	24S.18E.29.414	John G. Schafer	200	20	180	110.0	3595	3485
359	19-309	24S.18E.20.144	John G. Schafer	350	3000	142	110.0	3625	3515
360	19-310	24S.18E.29.424	John G. Schafer	425	1100	148	110.0	3595	3485
361	19-293	23S.18E.15.112	George W. Rauch	600	600	350	225.0	3740	3515
362	19-294	23S.18E.2.222	George W. Rauch	500	300	300	300.0	3790	3490
363	19-295	23S.18E.36.443	George W. Rauch	500		450	450.0	3790	3340
364	19-296	24S.19E.18.243	George W. Rauch	450	3800	150	148.0	3700	3552
365	19-297	22S.18E.17.411	George W. Rauch	500	20	450	400.0	3775	3375
366	19-298	23S.18E.27.221	George W. Rauch	600	6	500	500.0	3740	3240
367	19-300	23S.18E.9.133	George W. Rauch	300	20	225	225.0	3775	3550
368		21S.17E.12.343	Sam Tanner	190			127.4	4460	4333
369		21S.17E.13.400	Sam Tanner	210			206.0	4480	4274
370		22S.17E.26.221	R.B. Tatman	610			400.0	3965	3565
371		22S.17E.36.222	R.B. Tatman	465			380.0	3900	3520
372		22S.18E.17.140	Doyle Pate	510			464.3	4100	3636
373		23S.17E.16.440	R.B. Tatman	785			520.0	4240	3720
374		23S.18E.9.233	Doyle Pate	210			203.8	3775	3571
375		23S.18E.23.311	Doyle Pate	230	22		167.2	3740	3573
376		23S.18E.30.340	Doyle Pate	300	12R		260.0	3850	3590
377		24S.17E.8.440	Howell Lewis	745	8R		620.0	4240	3620
378		24S.18E.1.432	Richard Lewis	200			170.0	3740	3570
379		24S.18E.11.334	Eldo Lewis	130			118.0	3675	3557
380		24S.18E.29.210	Mrs. J. Gardner	190			85.7	3640	3554
381		24S.18E.36.410	Richard Lewis	90			70.0	3660	3590
382		24S.19E.18.144	Richard Lewis	480	3500R		143.0	3705	3562

Salt and Sacramento Basin Wells

383		24S.19E.18.344	Richard Lewis	138	12R		117.0	3690	3573
384		25S.16E.10.244	Bryce Dugger				400+	4090	3690
385		25S.17E.9.110	Howell Lewis	450	12R		435.0	4105	3670
386		25S.18E.8.242	Howell Lewis	70			58.6	3660	3601
387		25S.18E.12.124	Ray Lewis	116			110.2	3660	3550
388		25S.18E.21.233	Gene Lewis		350R		68.8	3915	3846
389		25S.18E.21.441	Gene Lewis				51.2	3595	3544
390		25S.18E.24.111	C.C. Chavez	140	400R		42.4	3640	3598
391		25S.18E.24.122	C.C. Chavez	140	350R		60.0	3630	3570
392		25S.18E.25.230	J.D. Lewis	500	597R		55.4	3560	3505
393		25S.18E.25.240	J.D. Lewis	30			60.0	3595	3535
394		25S.18E.26.111	Ed Prather	140	840M		56.5	3550	3494
395		25S.18E.27.213	Dempson Lewis	165			41.3	3595	3554
396		25S.18E.27.443	Dempson Lewis	80			38.5	3560	3522
397		25S.18E.35.330	Dempson Lewis	30			19.9	3560	3540
398		26S.16E.13.320					200?	3850	3650
399		26S.17E.3.300	Mrs. K. Brownfield	315			275.0	3850	3575
400		26S.17E.21.333	Bryce Dugger	1100	475R		182.5	3705	3523
401		26S.17E.28.312	Bryce Dugger	875	475R		193.1	3725	3532
402		26S.18E.16.424	D.P. Lewis	100			49.0	3595	3546
403		26S.18E.21.223	John Gailey	105	2860M		36.2	3595	3559
404		26S.18E.21.331	Frank Gentry	544	1200R		35.5	3580	3545
405		26S.18E.21.411	J.W. Hill	426	2860M		27.0	3570	3543
406		26S.18E.27.242	Denman Lewis				18.0	3560	3542
407		26S.18E.28.113	Frank Gentry	394	3620M		31.5	3560	3529
408		26S.18E.29.111	Frank Gentry	600			54.0	3585	3531
409		26S.18E.29.113	Frank Gentry	333	2180M		52.8	3585	3532
410		26S.18E.29.113a	Frank Gentry	298	2610M		52.8	3585	3532
411		26S.18E.30.122	Ernest Shelton	386	2000R		89.1	3625	3536
412		26S.18E.30.213	Gordon Parks	250	1720M		63.5	3645	3582
413		26S.18E.30.321	Lendol Barker	445			59.1	3595	3536
414		26S.18E.32.111	Mrs. K. Brownfield	400	600R		32.3	3560	3528
415		26S.18E.32.122	Mrs. K. Brownfield	300	3000R		31.8	3560	3528
416		26S.18E.33.111	J.W. Hill	425	400R		26.1	3555	3529
417		26S.18E.33.133	J.W. Hill	435	1200R		27.5	3555	3528

Western Tularosa Basin - well used to construct hydrographs

Name	Location	Period of Record	Trend
Well 81	T26S.R07E.31.223	1954-1999	water level increase
Well 92	T25S.R06E.20.333	1964-1999	water level increase
Well 95	T24S.R05E.36.131	1994-1999	water level increase
Well 98	T22S.R06E.31.422	1972-1996	water level increase
Well 99	T21S.R06E.32.114	1972-1996	water level increase
Well 100	T22S.R06E.08.414	1961-1996	water level decrease
Well 102	T21S.R06E.17.314	1972-1996	water level increase
Well 103	T21S.R06E.02.142	1972-1996	slight water level decrease
Well 104	T20S.R06E.29.123	1972-1996	water level decrease
Well 105	T20S.R06E.11.234	1972-1996	water level decrease
Well 106	T19S.R06E.28.213	1993-1997	water level decrease
Well 107	T19S.R06E.28.212	1993-1997	water level decrease
Well 108	T19S.R06E.28.214	1994-1997	water level decrease
Well 109	T19S.R06E.28.221	1993-1997	water level decrease
Well 122	T19S.R06E.28.212	1994-1997	water level decrease
Well 139	T13S.R05E.27.421	1969-1996	water level increse
Well 140	T26S.R05E.33.244	1954-1996	water level decrease
Well 141	T26S.R05E.22.314	1976-1999	water level decrease
Well 142	T26S.R05E.21.213	1979-2000	water level decrease
Well 143	T26S.R05E.04.312	1964-1999	water level decrease
Well 144	T25S.R05E.31.334	1994-1999	water level decrease
Well 146	T25S.R04E.35.213	1953-1999	water level decrease
Well 147	T25S.R04E.16.333	1954-1999	water level decrease
Well 148	T25S.R05E.16.232	1985-1999	water level decrease
Well 150	T25S.R04E.10.334	1985-1999	water level decrease
Well 151	T25S.R04E.11.123	1979-1999	water level decrease
Well 152	T25S.R04E.12.121	1993-1999	none
Well 153	T22S.R05E.05.313	1989-1996	water level decrease
Well 154	T23S.R05E.34.132A	1995-1999	water level decrease
Well 155	T23S.R05E.27.142	1969-1999	water level decrease
Well 156	T23S.R05E.10.413	1989-1999	none
Well 157	T23S.R05E.05.321	1969-1996	water level increase
Well 158	T22S.R05E.31.424	1947-1996	water level decrease
Well 159	T23S.R05E.01.113	1972-1996	water level decrease
Well 160	T22S.R05E.33.244	1969-1996	water level decrease
Well 161	T22S.R05E.33.223	1973-1996	constant
Well 162	T22S.R05E.30.423	1972-1996	water level increase
Well 163	T22S.R05E.29.412	1966-1996	water level decrease
Well 164	T22S.R05E.26.312	1972-1996	water level decrease
Well 165	T22S.R05E.28.233	1972-1996	water level decrease
Well 166	T22S.R05E.28.234	1989-1996	water level decrease
Well 167	T22S.R05E.28.142C	1971-1996	water level decrease
Well 168	T22S.R05E.28.124	1971-1996	water level decrease
Well 169	T22S.R05E.30.122	1982-1996	water level increase
Well 170	T22S.R05E.19.323	1976-1996	none
Well 171	T22S.R04E.23.214	1952-1996	water level increase
Well 172	T22S.R05E.19.141	1976-1996	none
Well 173	T22S.R04E.24.212A	1963-1996	none
Well 174	T22S.R05E.20.111	1967-1996	water level decrease

Western Tularosa Basin - well used to construct hydrographs

Name	Location	Period of Record	Trend
Well 175	T22S.R05E.21.211	1972-1995	water level increase
Well 176	T22S.R04E.15.331	1984-2000	water level decrease
Well 177	T22S.R04E.14.133	1960-1996	water level increase
Well 178	T22S.R04E.14.134	1972-1996	water level decrease
Well 179	T22S.R05E.15.221	1968-1996	water level decrease
Well 180	T22S.R05E.16.111	1953-1996	water level decrease
Well 181	T22S.R05E.16.111A	1972-1996	water level decrease
Well 182	T22S.R04E.12.434	1964-1996	water level decrease
Well 183	T22S.R05E.08.334	1972-1996	water level decrease
Well 184	T22S.R04E.11.444	1972-1996	water level decrease
Well 185	T22S.R04E.11.344	1972-1996	water level increase
Well 186	T22S.R05E.07.342	1963-1996	water level decrease
Well 187	T22S.R04E.12.414	1964-1996	water level decrease
Well 188	T22S.R04E.11.224	1966-1996	water level decrease
Well 189	T22S.R05E.08.143	1972-1996	water level decrease
Well 190	T22S.R04E.12.214	1965-1996	water level decrease
Well 191	T22S.R05E.09.113	1972-1996	water level decrease
Well 192	T22S.R05E.09.113A	1972-1996	water level decrease
Well 193	T22S.R05E.07.242	1972-1996	water level decrease
Well 194	T22S.R04E.01.431	1966-1996	water level increase
Well 195	T22S.R04E.01.323	1972-1996	water level increase
Well 196	T22S.R05E.03.221	1972-1996	water level decrease
Well 197	T21S.R05E.33.242	1972-1996	water level decrease
Well 198	T21S.R05E.32.222	1967-1996	water level decrease
Well 199	T21S.R05E.34.213	1972-1996	water level decrease
Well 200	T21S.R05E.27.113	1972-1996	water level decrease
Well 201	T21S.R05E.20.344	1967-1996	water level decrease
Well 202	T21S.R05E.23.134	1972-1996	water level decrease
Well 203	T21S.R05E.17.424	1960-1996	water level decrease
Well 204	T21S.R04E.14.114	1989-1995	water level decrease
Well 205	T21S.R05E.02.341	1972-1996	water level decrease
Well 206	T21S.R05E.01.224	1972-1996	water level decrease
Well 207	T20S.R05E.34.133	1967-1996	slight water level increase
Well 208	T20S.R05E.23.213	1967-1996	water level increase
Well 209	T19S.R05E.19.413	1967-1996	water level decrease
Well 210	T19S.R05E.17.333	1963-1996	water level increase
Well 211	T19S.R05E.17.334	1963-1996	none
Well 212	T19S.R05E.17.331	1963-1996	water level increase
Well 213	T17S.R04E.02.211	1967-1996	water level increase

Eastern Tularosa Basin - well used to construct hydrographs

Name	Location	Period of Record	Trend
Well 1	T11S.R09E.22.244	1957-1960	water level increase
Well 2	T11S.R09E.22.400	1976-1991	slight water level increase
Well 3	T11S.R09E.34.400	1976-1996	water level increase
Well 4	T13S.R09E.20.234	1955-1962	water level decrease
Well 5	T13S.R09E.34.430	1953-1976	water level decrease
Well 6	T14S.R09E.12.220	1952-1986	water level decrease
Well 7	T14S.R09E.15.344	1956-1991	none
Well 8	T14S.R09E.22.222	1960-1984	water level decrease
Well 9	T14S.R09E.23.112	1955-1991	none
Well 10	T14S.R09E.25.140	1954-1975	water level decrease
Well 11	T14S.R09E.26.422	1956-1996	water level increase
Well 12	T14S.R09E.28.121	1952-1983	water level decrease
Well 13	T14S.R09E.35.342	1956-1996	none
Well 14	T14S.R09E.36.112	1955-1984	water level decrease
Well 15	T14S.R10E.18.424	1952-1972	water level decrease
Well 16	T14S.R10E.19.130	1952-1977	water level decrease
Well 17	T14S.R10E.20.221	1955-1984	none
Well 18	T14S.R10E.29.312	1952-1984	water level decrease
Well 19	T14S.R10E.30.123	1958-1981	slight water level increase
Well 20	T14S.R10E.31.144	1952-1998	none
Well 21	T15S.R09E.01.122	1952-1983	water level decrease
Well 22	T15S.R09E.12.4221	1976-1984	water level increase
Well 23	T15S.R09E.24.242	1952-1956	water level decrease
Well 24	T15S.R09E.24.242	1952-1981	water level increase
Well 25	T15S.R10E.06.312	1952-1969	water level decrease
Well 26	T15S.R10E.07.412	1952-1959	water level decrease
Well 27	T15S.R10E.29.100	1955-1981	none
Well 28	T15S.R10E.30.344	1952-1962	water level decrease
Well 29	T15S.R10E.32.314	1976-1996	water level increase
Well 30	T16S.R09E.03.422	1952-1981	none
Well 31	T16S.R09E.06.212	1955-1962	water level decrease
Well 32	T16S.R09E.08.222	1952-1964	water level decrease
Well 33	T16S.R09E.13.320	1952-1983	water level decrease
Well 34	T16S.R09E.25.431	1976-1996	water level increase
Well 35	T16S.R09E.26.341	1952-1967	water level increase
Well 36	T16S.R09E.35.1311	1976-1996	water level decrease
Well 37	T17S.R08E.13.113A	1960-1967	slight water level decrease
Well 38	T17S.R09E.02.331	1954-1962	water level decrease
Well 39	T17S.R09E.12.422	1954-1975	water level decrease
Well 40	T17S.R09E.24.343 B-34	1955-1988	water level decrease
Well 41	T17S.R09E.25.343	1984-1998	water level increase
Well 42	T17S.R09E.26.313	1976-1991	water level decrease
Well 43	T17S.R10E.06.114	1952-1986	water level decrease
Well 44	T17S.R10E.06.12	1954-1991	water level decrease
Well 45	T17S.R10E.18.432A	1954-1986	water level decrease
Well 46	T17S.R10E.19.321A	1954-1972	water level decrease
Well 47	T17S.R10E.19.323A	1954-1986	water level decrease
Well 48	T18S.R09E.11.144	1976-1996	water level decrease
Well 49	T18S.R09E.12.4111	1976-1996	water level decrease

Eastern Tularosa Basin - well used to construct hydrographs

Name	Location	Period of Record	Trend
Well 50	T18S.R09E.12.422	1976-1996	none
Well 51	T18S.R09E.23.414	1976-1991	water level decrease
Well 52	T18S.R09E.24.213	1976-1996	water level decrease
Well 53	T18S.R09E.26.214	1976-1996	water level decrease
Well 54	T18S.R09E.36.2222	1976-1991	water level decrease
Well 55	T18S.R10E.18.224	1954-1996	water level decrease
Well 101	T21S.R08E.26.142	1989-1996	water level decrease
Well 113	T16S.R09E.35.133	1976-1996	water level decrease
Well 114	T16S.R09E.35.132	1976-1996	none
Well 115	T16S.R09E.25.442	1976-1996	water level increase
Well 118	T14S.R09E.25.342	1956-1996	water level increase
Well 119	T14S.R09E.26.222	1976-1996	water level increase
Well 120	T11S.R10E.06.431	1957-1996	slight water level increase
Well 121	T11S.R10E.07.234	1956-1996	slight water level increase

Northern Tularosa Basin - wells used to construct hydrographs

Name	Location	Period of Record	Trend
Well 65	T09S.R08E.35.141	1976-1996	water level increase
Well 69	T08S.R09E.34.333	1957-1996	water level increase
Well 73	T08S.R10E.09.122A	1976-1996	slight water level increase
Well 74	T08S.R11E.06.431	1959-1996	slight water level increase
Well 75	T08S.R10E.03.134	1976-1996	water level increase
Well 76	T08S.R10E.04.123	1976-1996	water level increase
Well 77	T06S.R10E.06.111	1976-1996	slight water level decrease
Well 78	T05S.R10E.27.221	1976-1996	water level decrease
Well 79	T05S.R10E.27.112	1976-1996	water level decrease

Salt Basin - wells used to construct hydrographs

Name	Location	Period of Record	Trend
Well 80	T26S.R18E.33.133	1956-2000	water level decrease
Well 82	T26S.R18E.30.312	1955-2000	water level decrease
Well 83	T26S.R18E.29.113	1956-2000	water level decrease
Well 84	T26S.R18E.30.122	1956-2000	water level decrease
Well 85	T26S.R18E.19.433	1978-2000	water level increase
Well 86	T26S.R18E.21.411	1978-2000	water level decrease
Well 87	T26S.R18E.21.331	1956-2000	water level decrease
Well 88	T26S.R18E.19.424	1978-2000	water level increase
Well 89	T26S.R18E.21.223	1978-1995	slight water level increase
Well 90	T25S.R18E.25.232	1956-2000	water level decrease
Well 91	T25S.R18E.26.111	1956-2000	water level decrease
Well 93	T25S.R18E.24.122	1978-2000	water level decrease
Well 94	T24S.R18E.36.324	1978-2000	water level decrease
Well 96	T23S.R18E.30.340	1980-2000	water level increase
Well 97	T23S.R18E.22.244	1978-2000	none

Selected Well Hydrographs

A P P E N D I X

6.4

City of Alamogordo
La Luz Well Field
Well 2
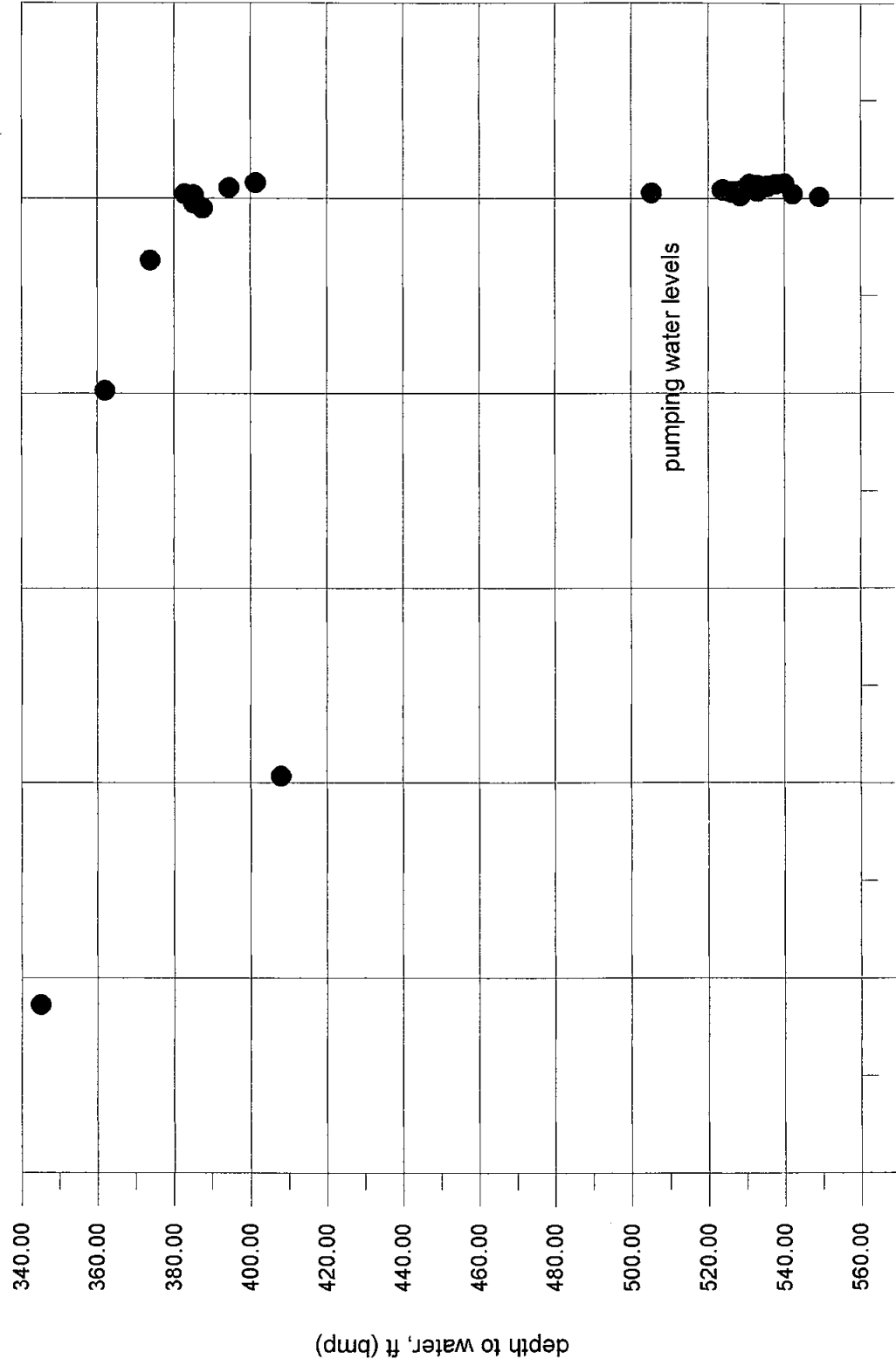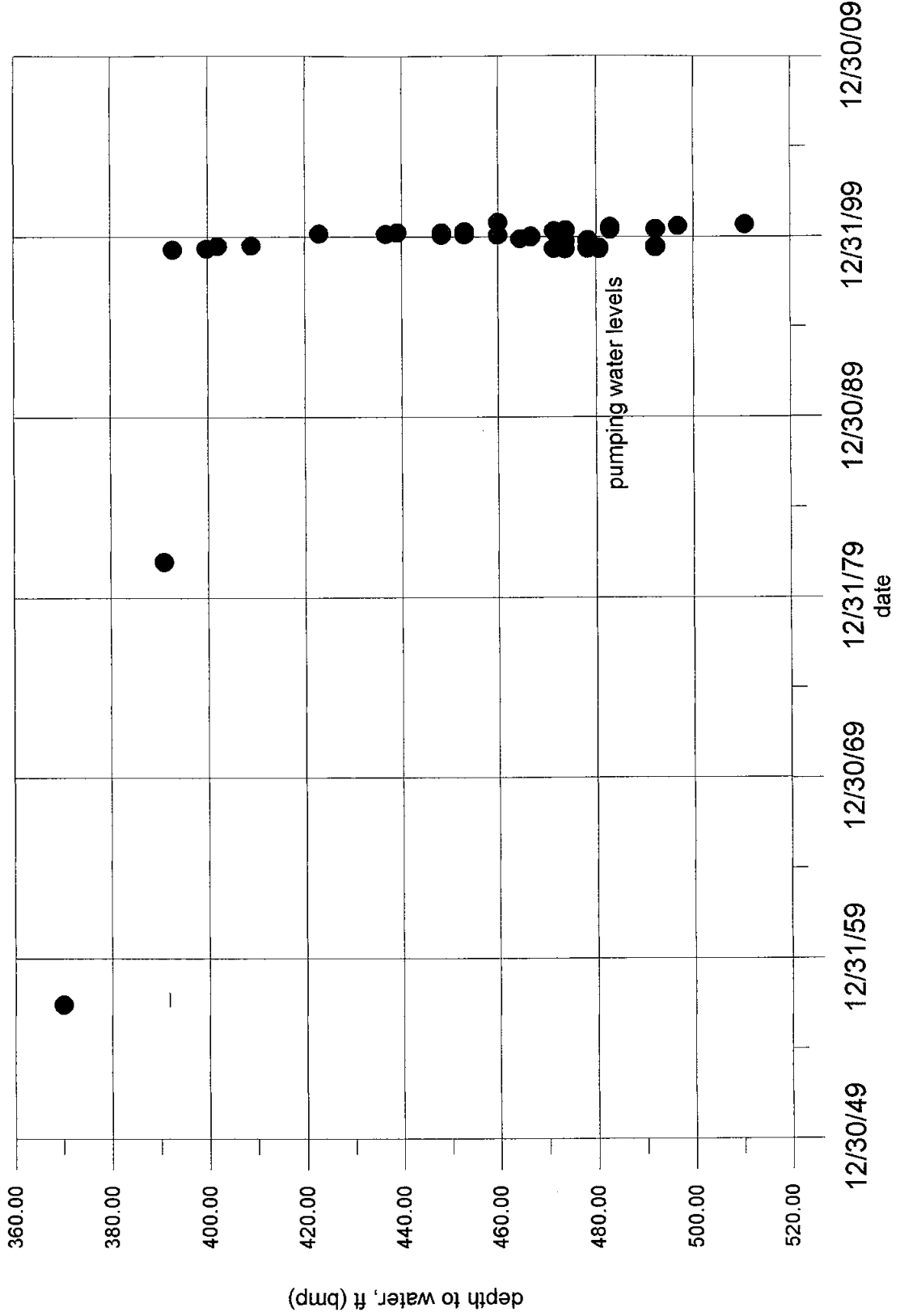
depth to water, ft (bmp)

pumping water levels

date

JOHN SHOMAKER & ASSOCIATES, INC.

City of Alamogordo
La Luz Well Field
Well 3

pumping water levels

depth to water, ft (bmp)

date

JOHN SHOMAKER & ASSOCIATES, INC.

City of Alamogordo
La Luz Well Field
Well 4

pumping water levels

depth to water, ft (bmp)

date

JOHN SHOMAKER & ASSOCIATES, INC.

City of Alamogordo
La Luz Well Field
Well 5

JOHN SHOMAKER & ASSOCIATES, INC.

City of Alamogordo
La Luz Well Field
Well 6

depth to water, ft (bmp)

date

pumping water levels

JOHN SHOMAKER & ASSOCIATES, INC.

City of Alamogordo
La Luz Well Field
Well 7

depth to water, ft (bmp)

pumping water levels

date

City of Alamogordo
La Luz Well Field
Well 8

pumping water levels

depth to water, ft (bmp)

380.00
400.00
420.00
440.00
460.00
480.00
500.00
520.00
540.00
560.00
580.00
600.00

5/14/00
6/13/00
7/13/00
8/12/00
date
9/11/00
10/11/00
11/10/00
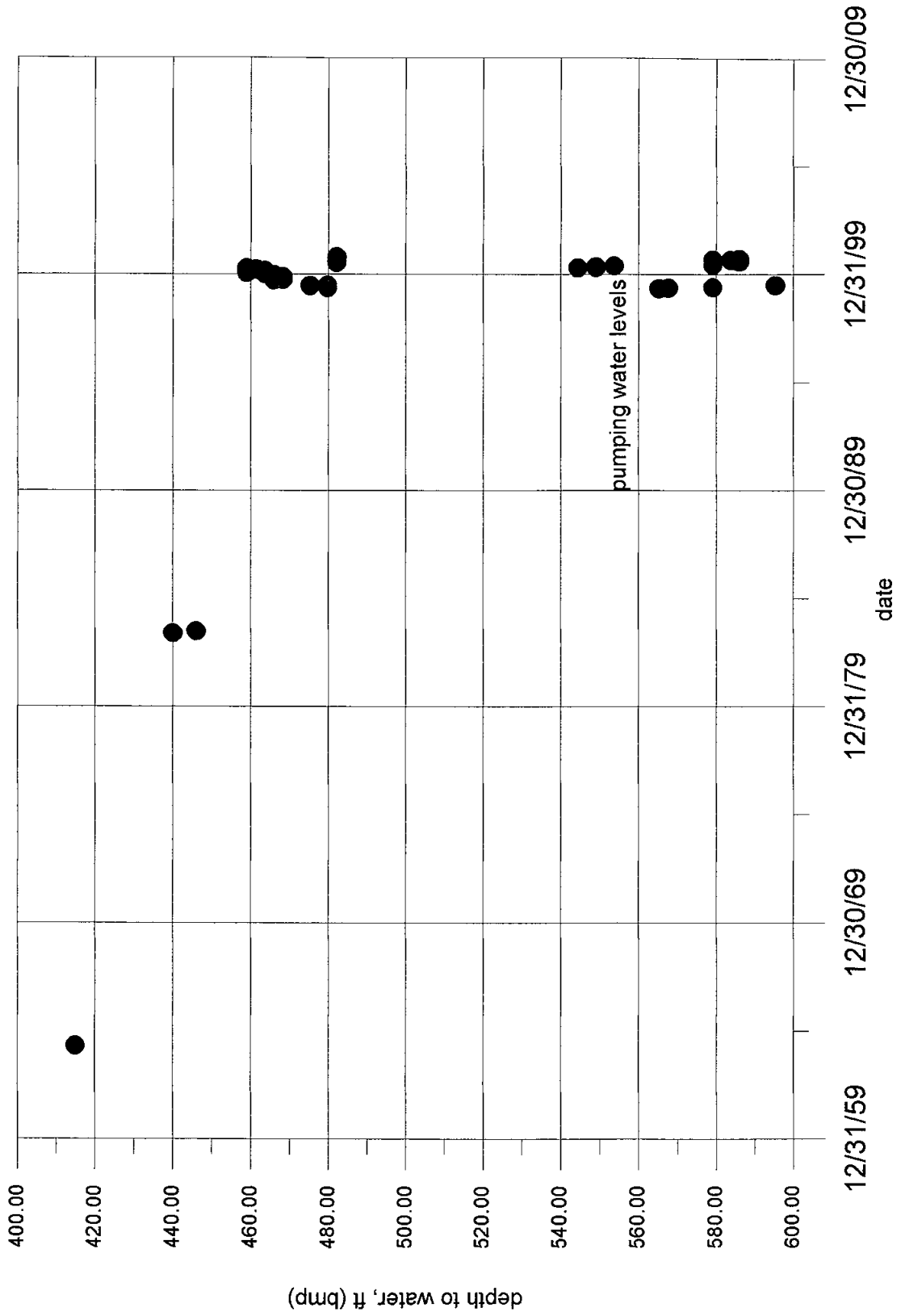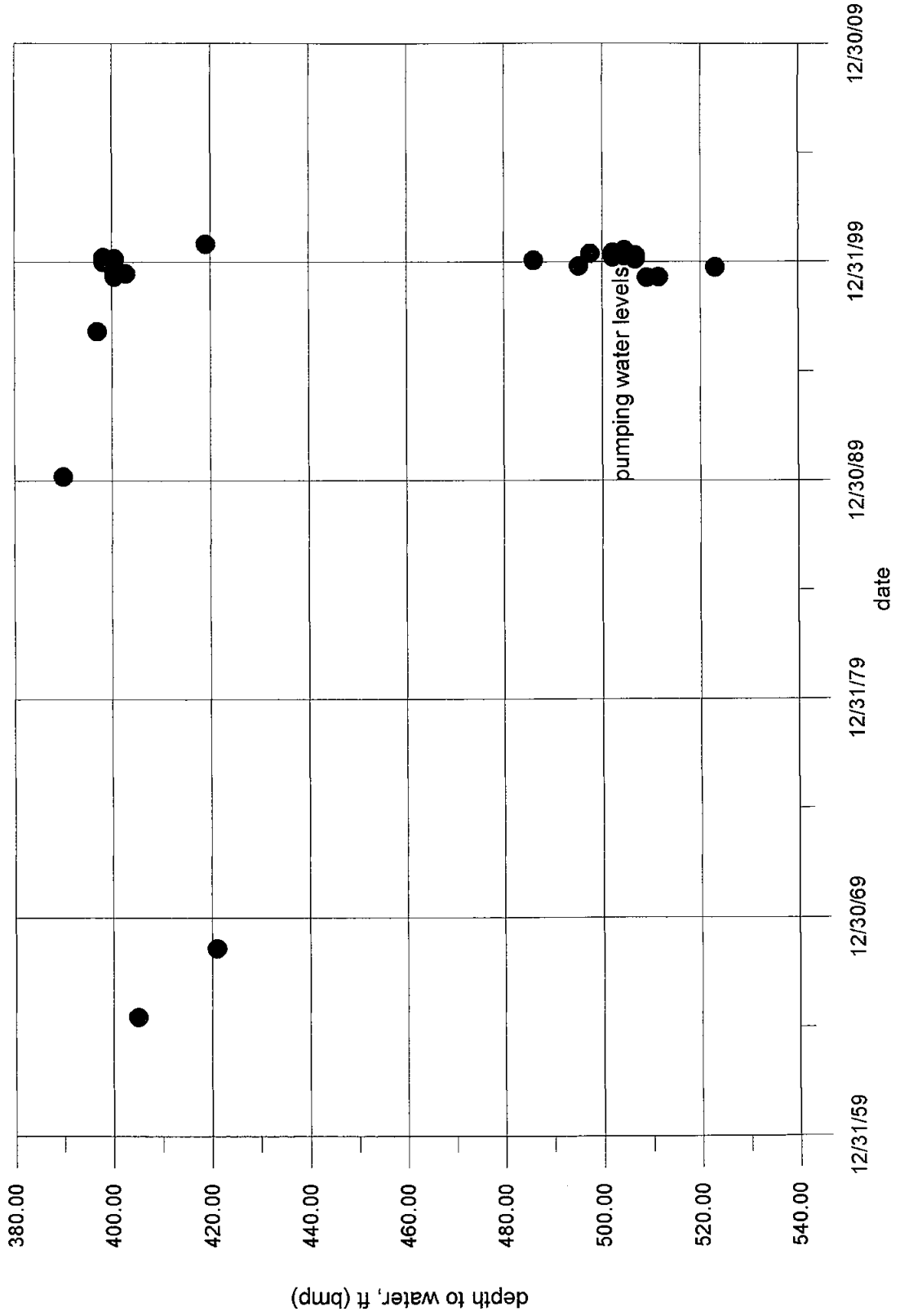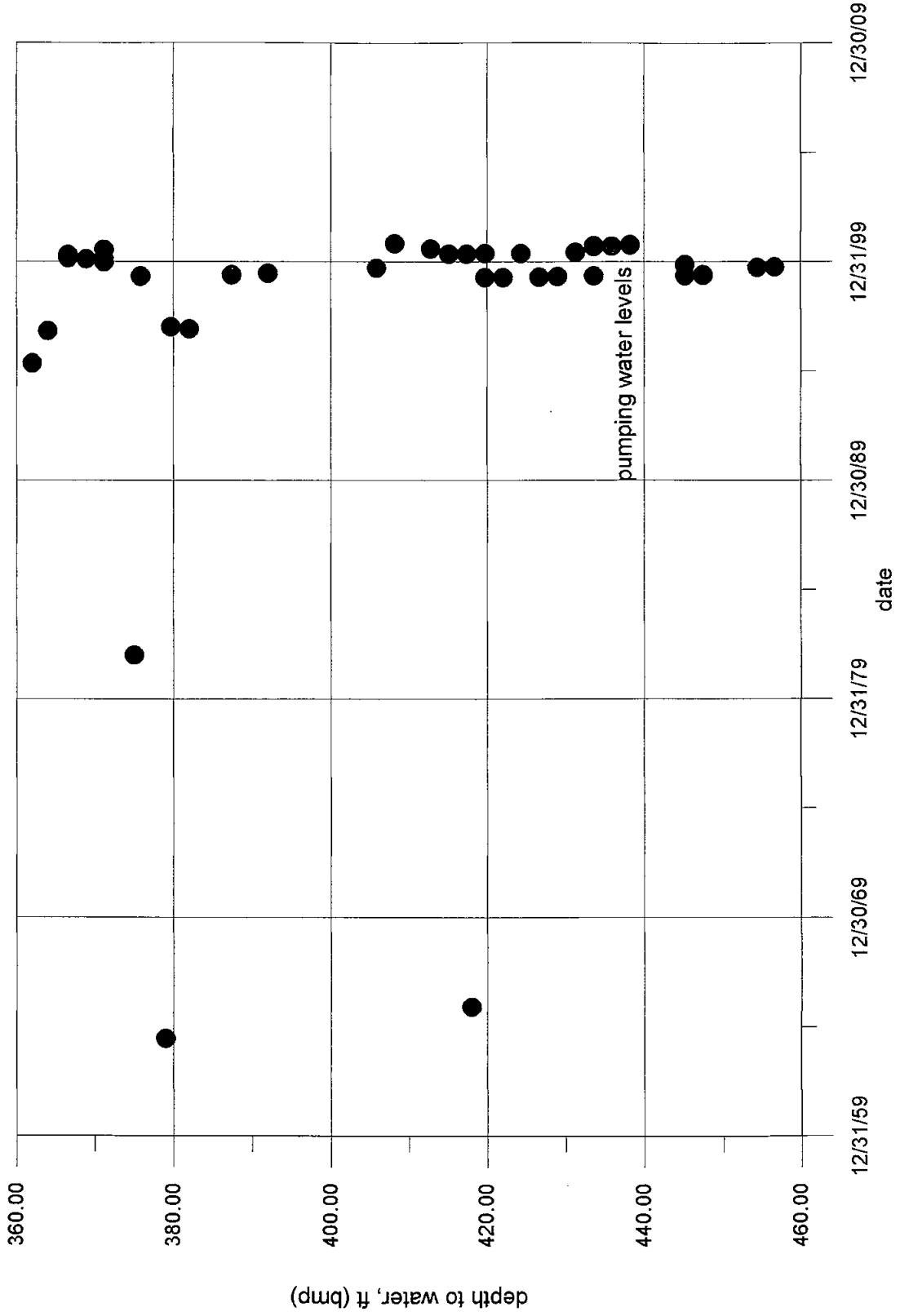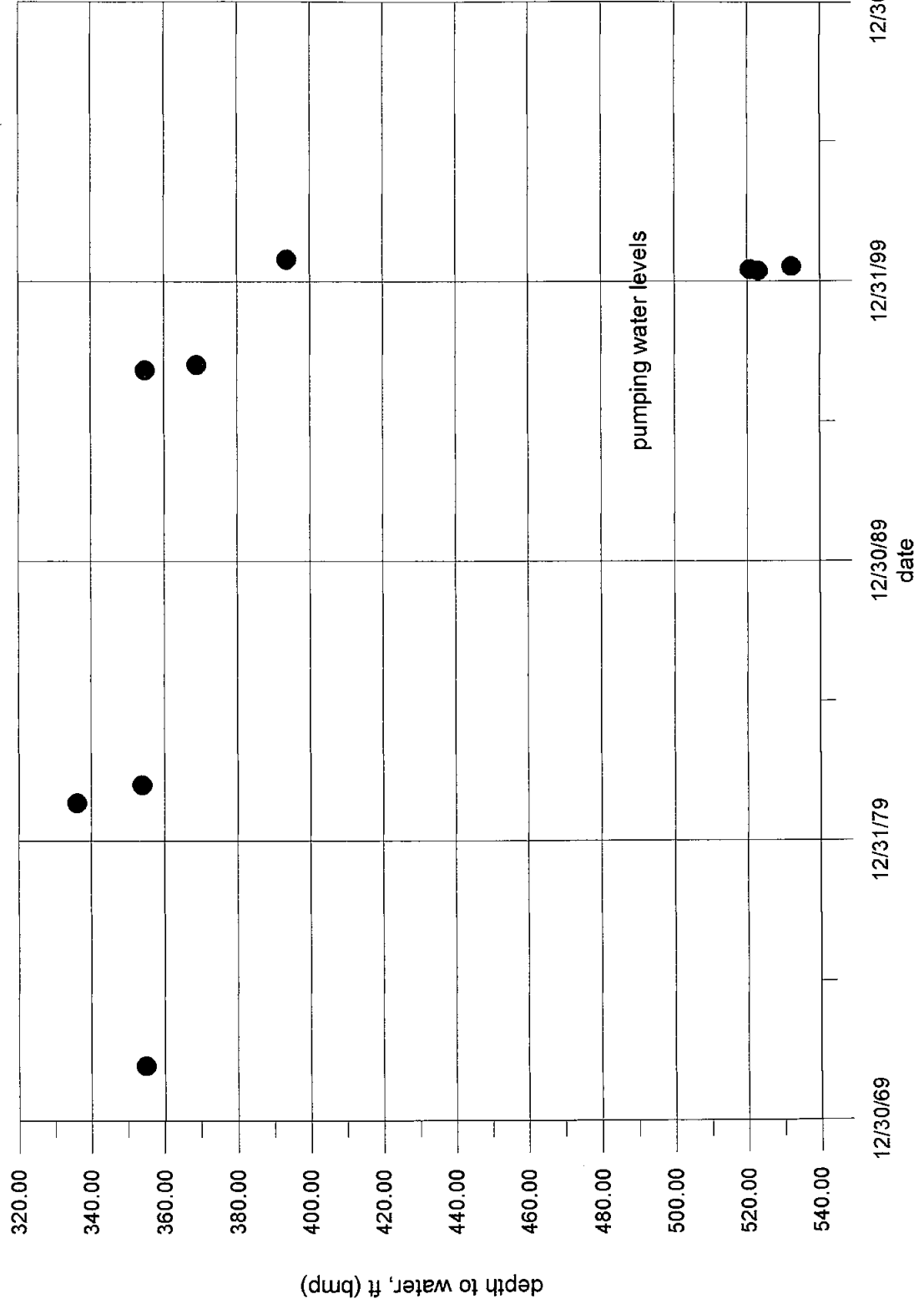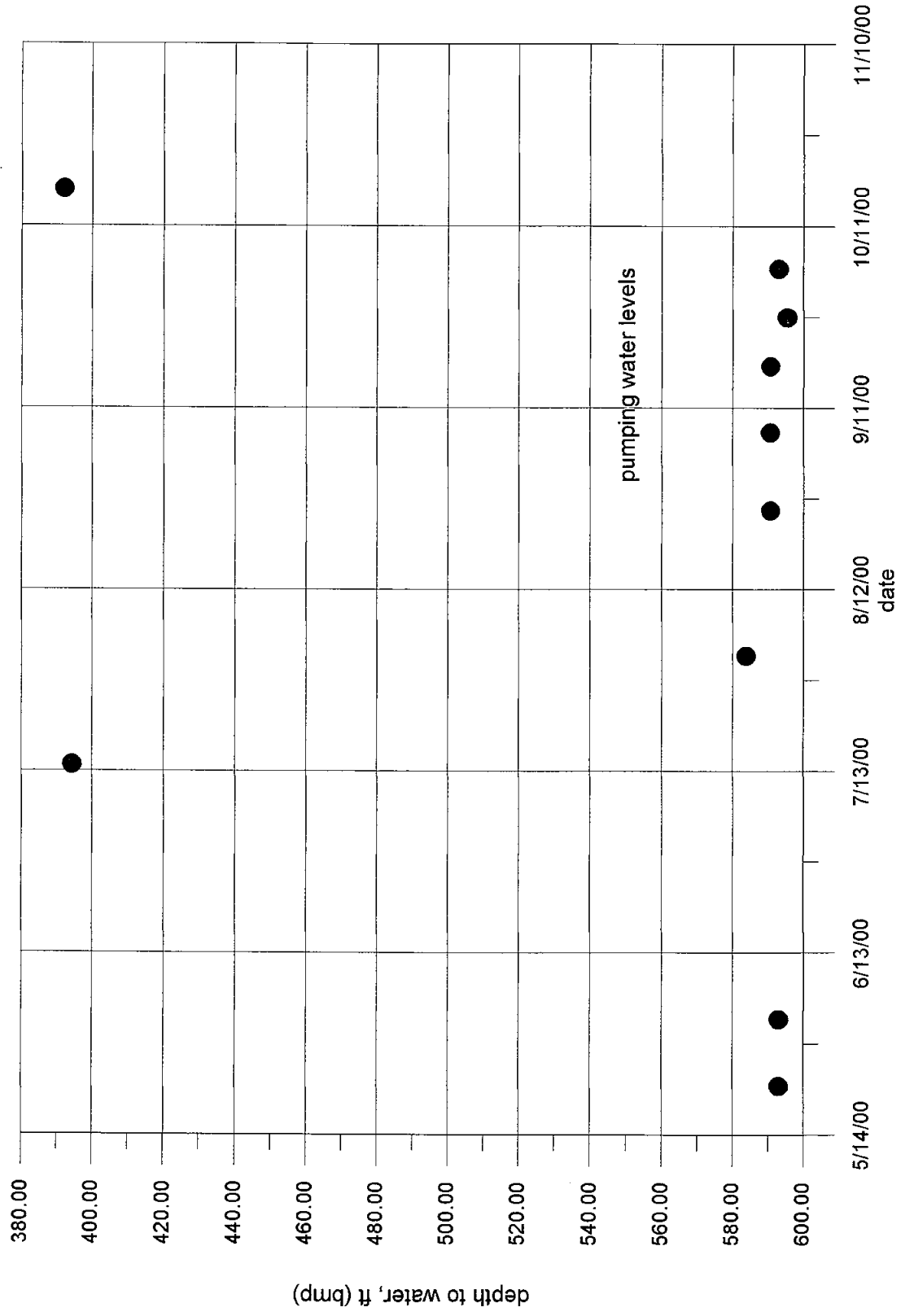
Northern Tularosa Basin
Hydrograph of Well 65
T09S.R08E.35.141

JOHN SHOMAKER AND ASSOCIATES, INC.
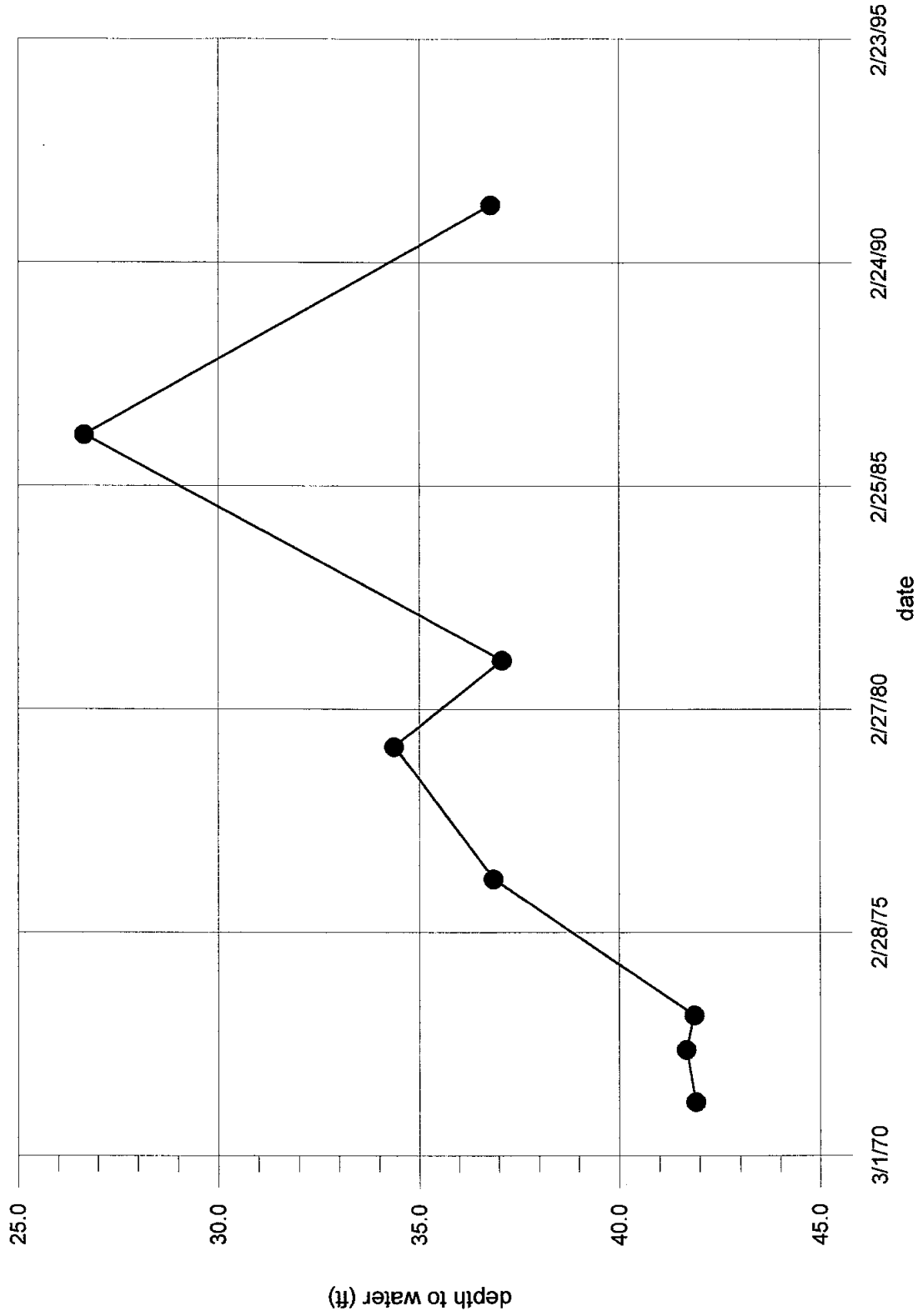
Northern Tularosa Basin
Hydrograph of Well 69
T08S.R09E.34.333

depth to water (ft)

date
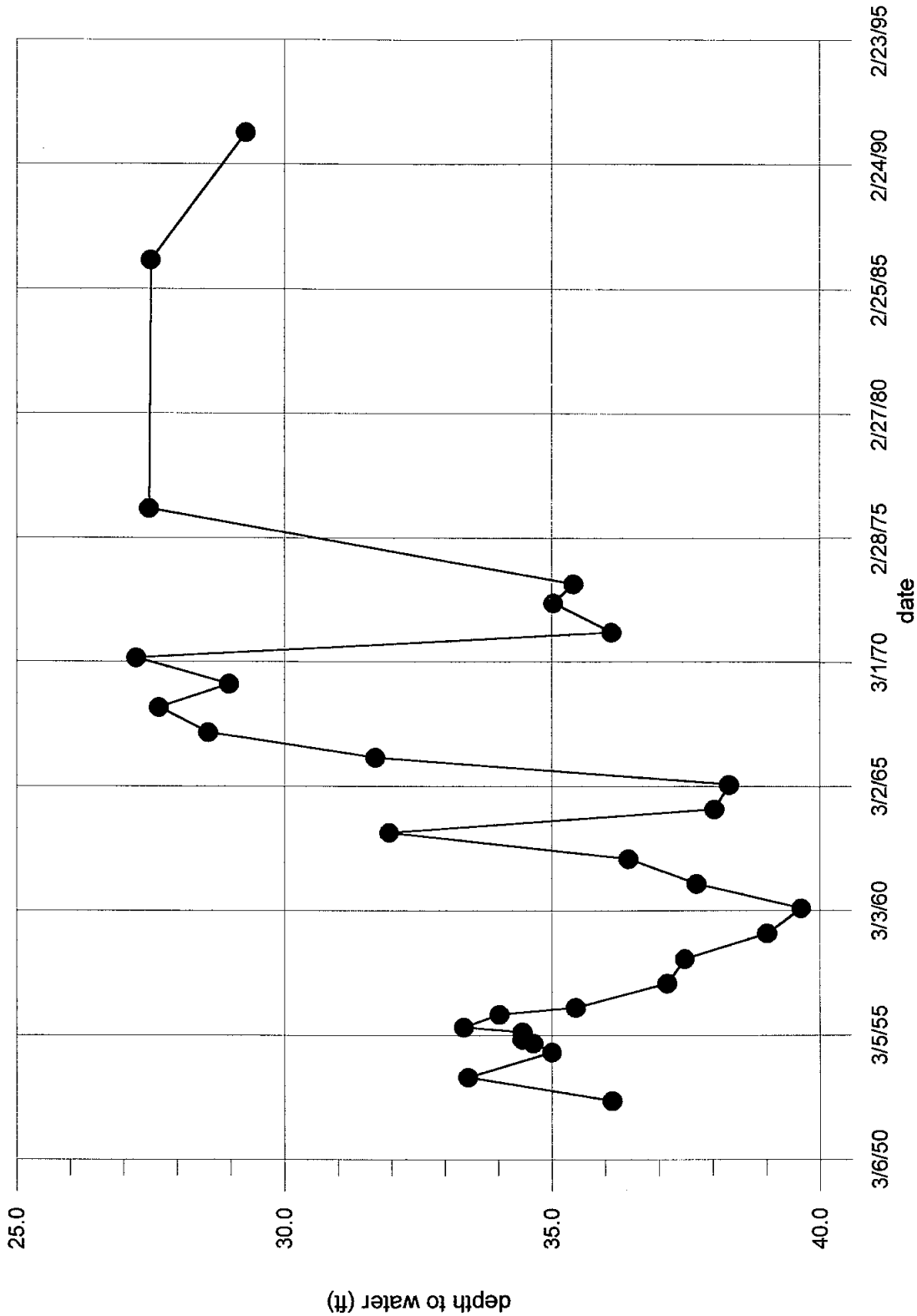
Northern Tularosa Basin
Hydrograph of Well 73
T08S.R10E.09.122A

JOHN SHOMAKER AND ASSOCIATES, INC.
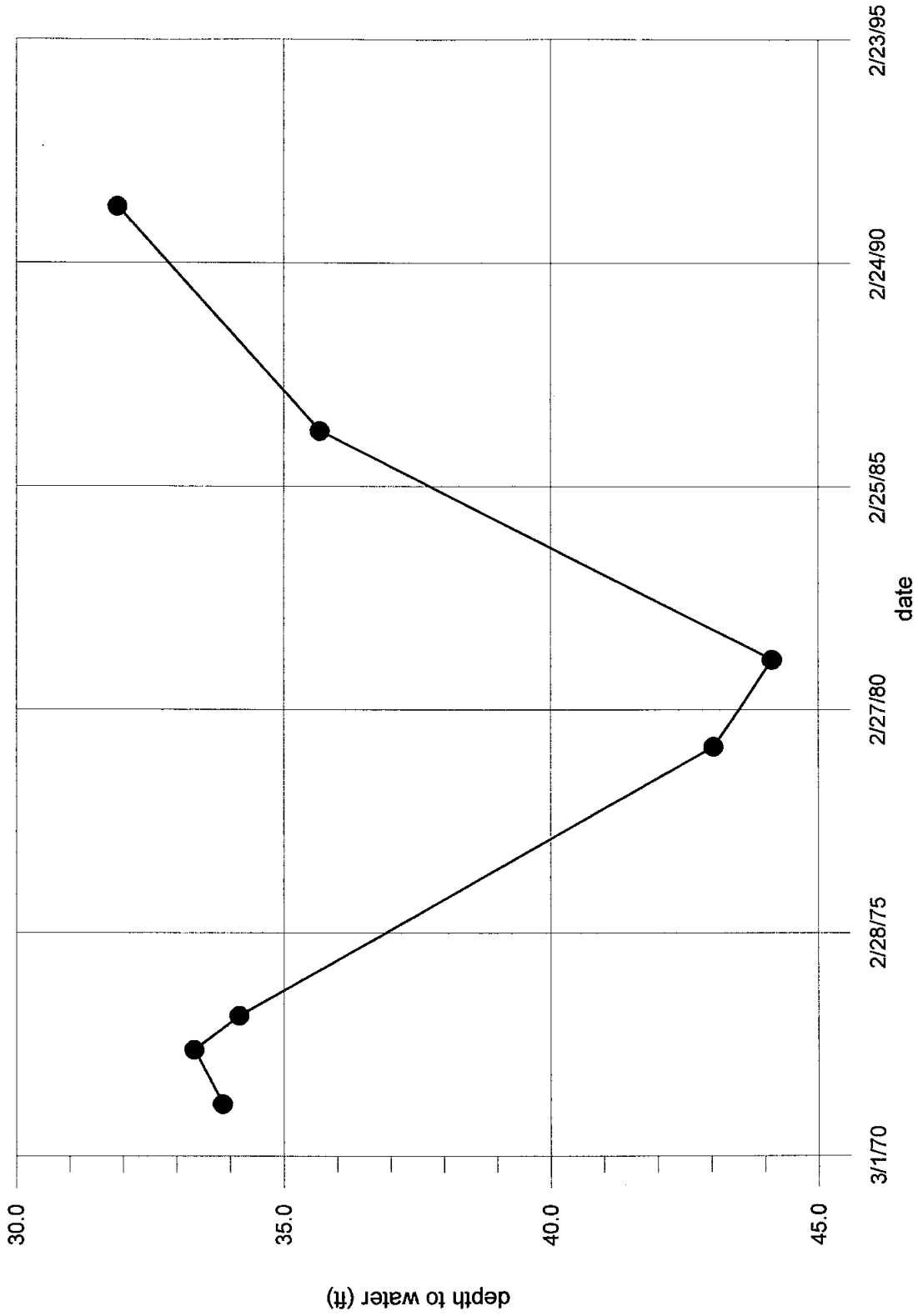
Northern Tularosa Basin
Hydrograph of Well 74
T08S.R11E.06.431
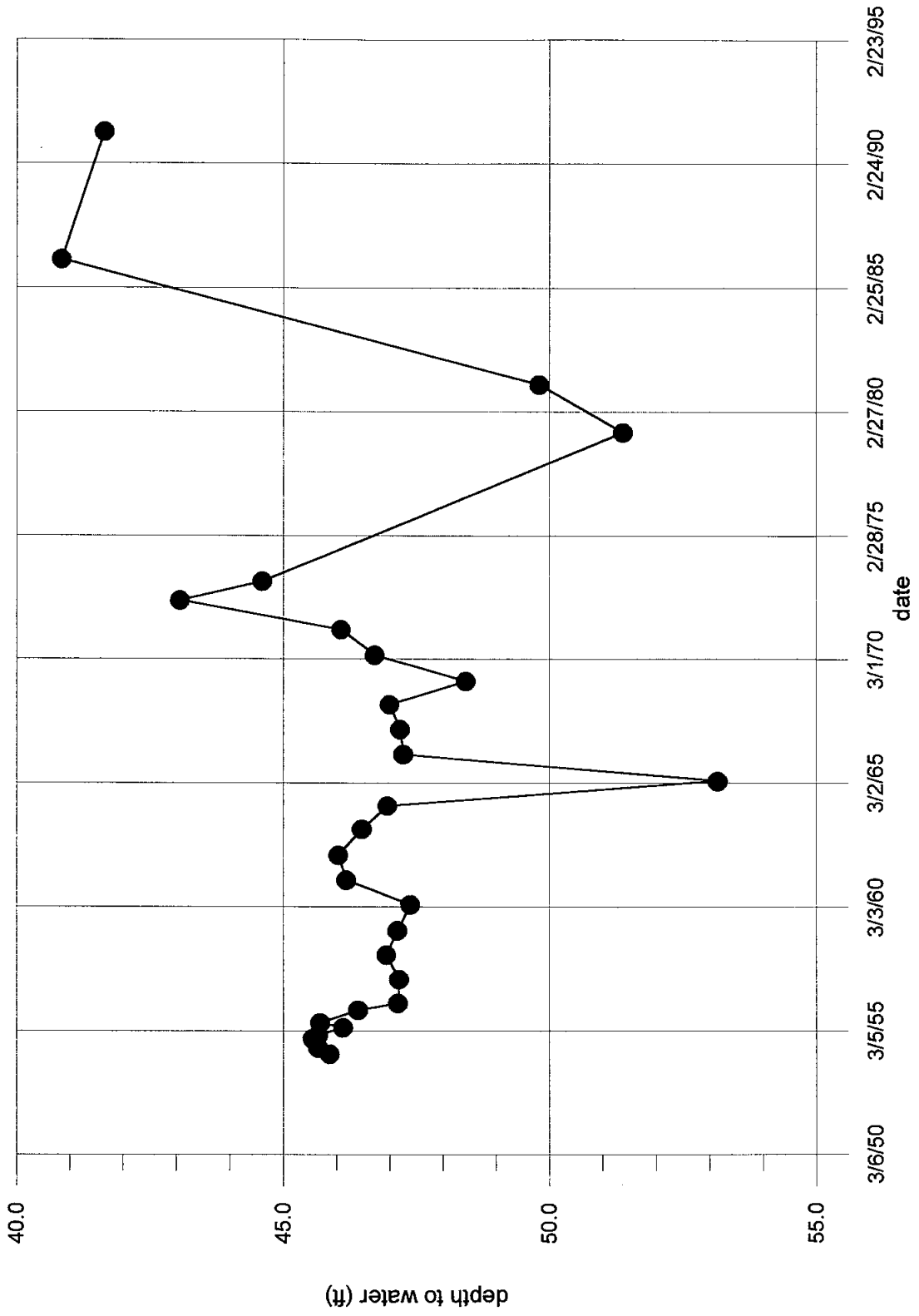
Northern Tularosa Basin
Hydrograph of Well 75
T08S.R10E.03.134

JOHN SHOMAKER AND ASSOCIATES, INC.
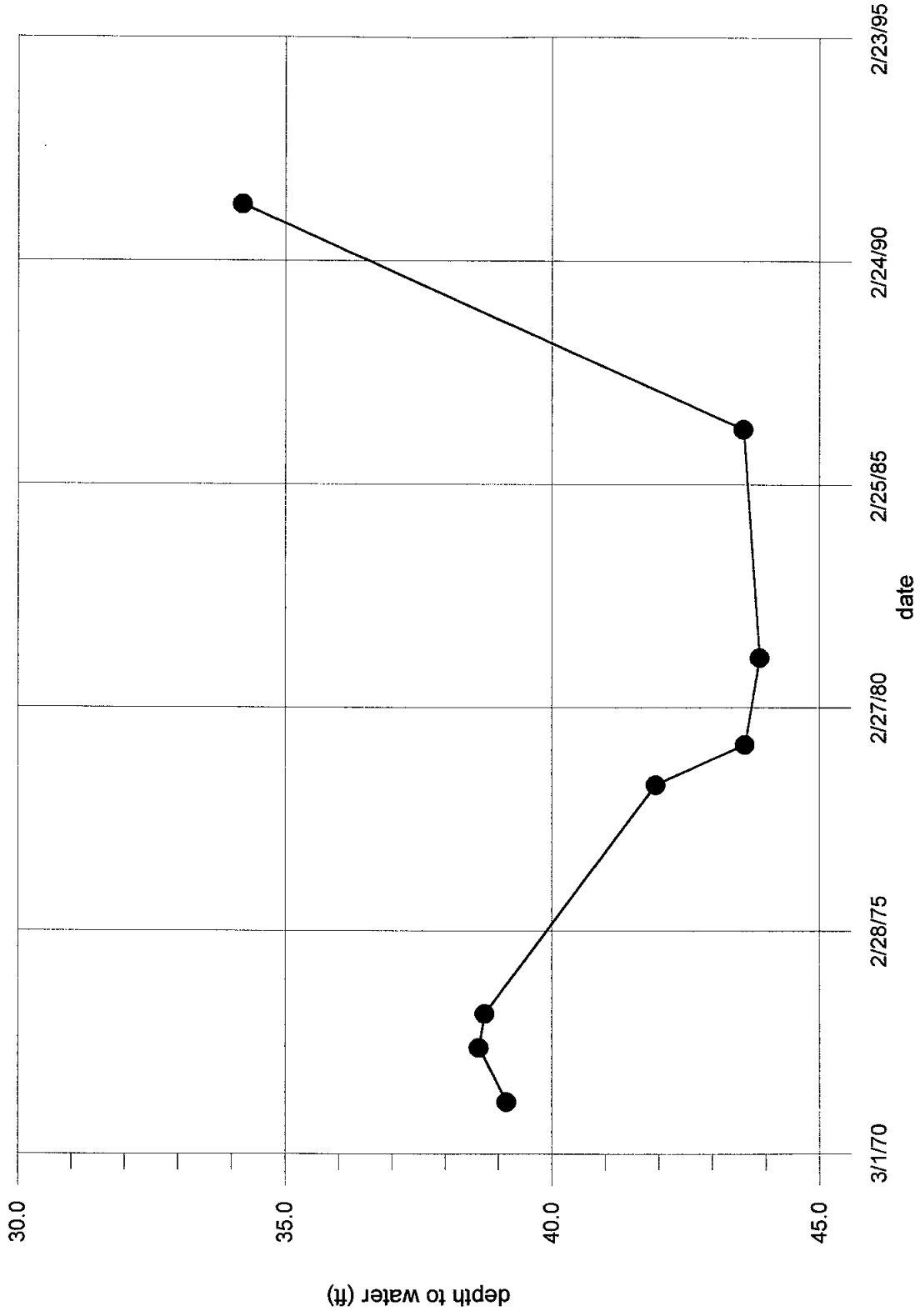
Northern Tularosa Basin
Hydrograph of Well 76
T08S.R10E.04.123

depth to water (ft)

date

JOHN SHOMAKER AND ASSOCIATES, INC.
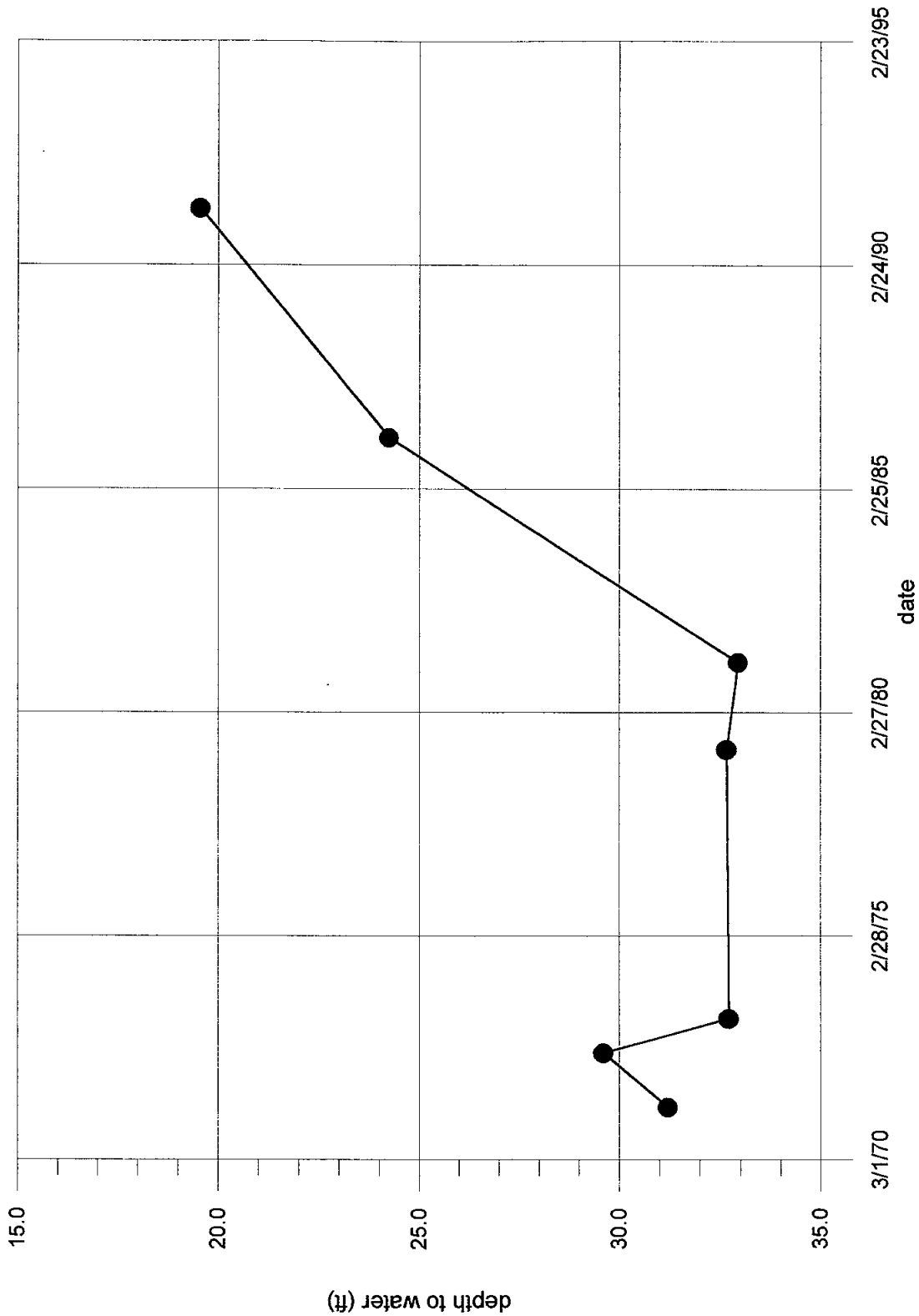
Northern Tularosa Basin
Hydrograph of Well 77
T06S.R10E.06.111

JOHN SHOMAKER AND ASSOCIATES, INC.
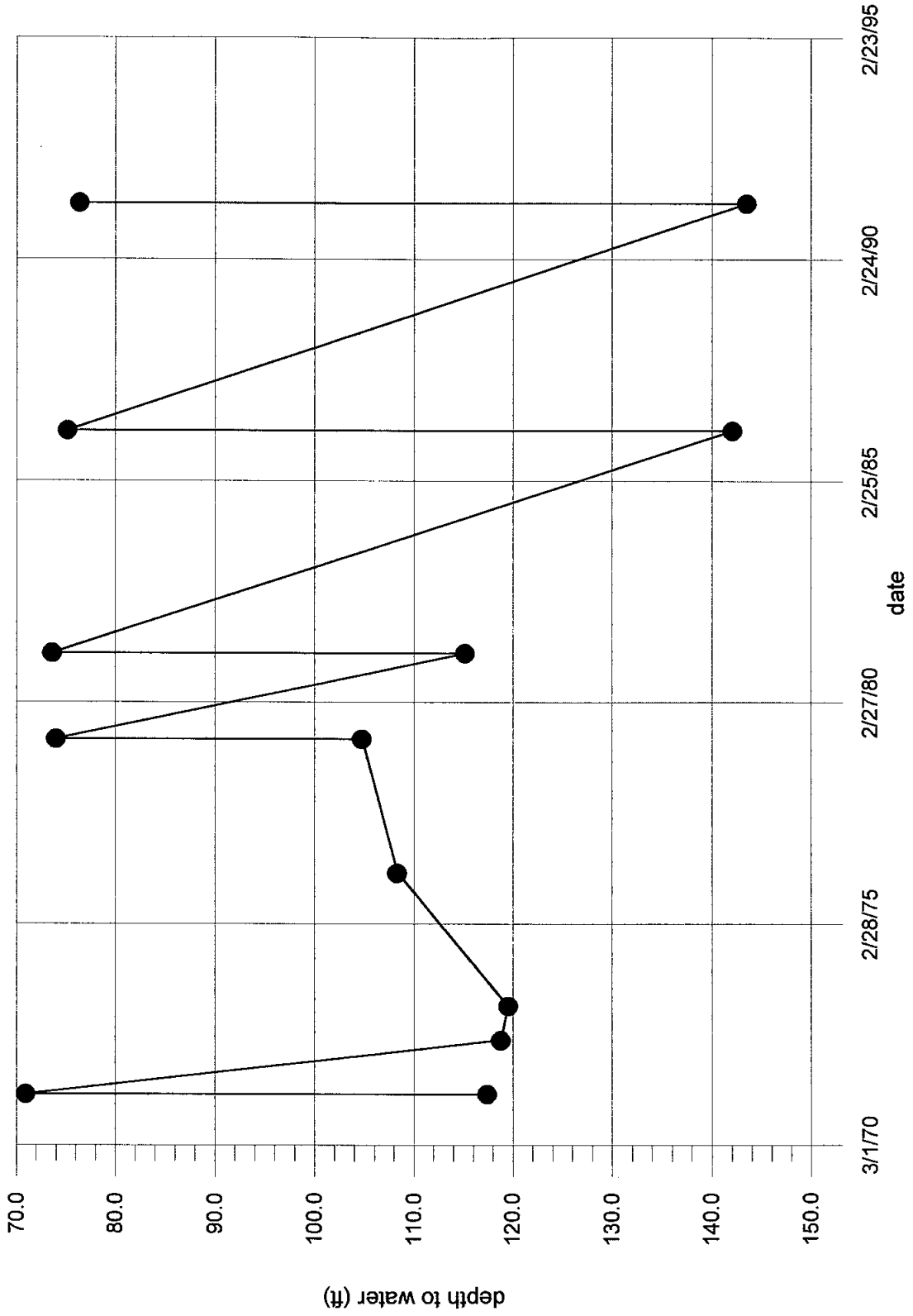
Northern Tularosa Basin
Hydrograph of Well 78
T05S.R10E.27.221

depth to water (ft)

date

85.0   90.0   95.0   100.0

3/1/70   2/28/75   2/27/80   2/25/85   2/24/90   2/23/95
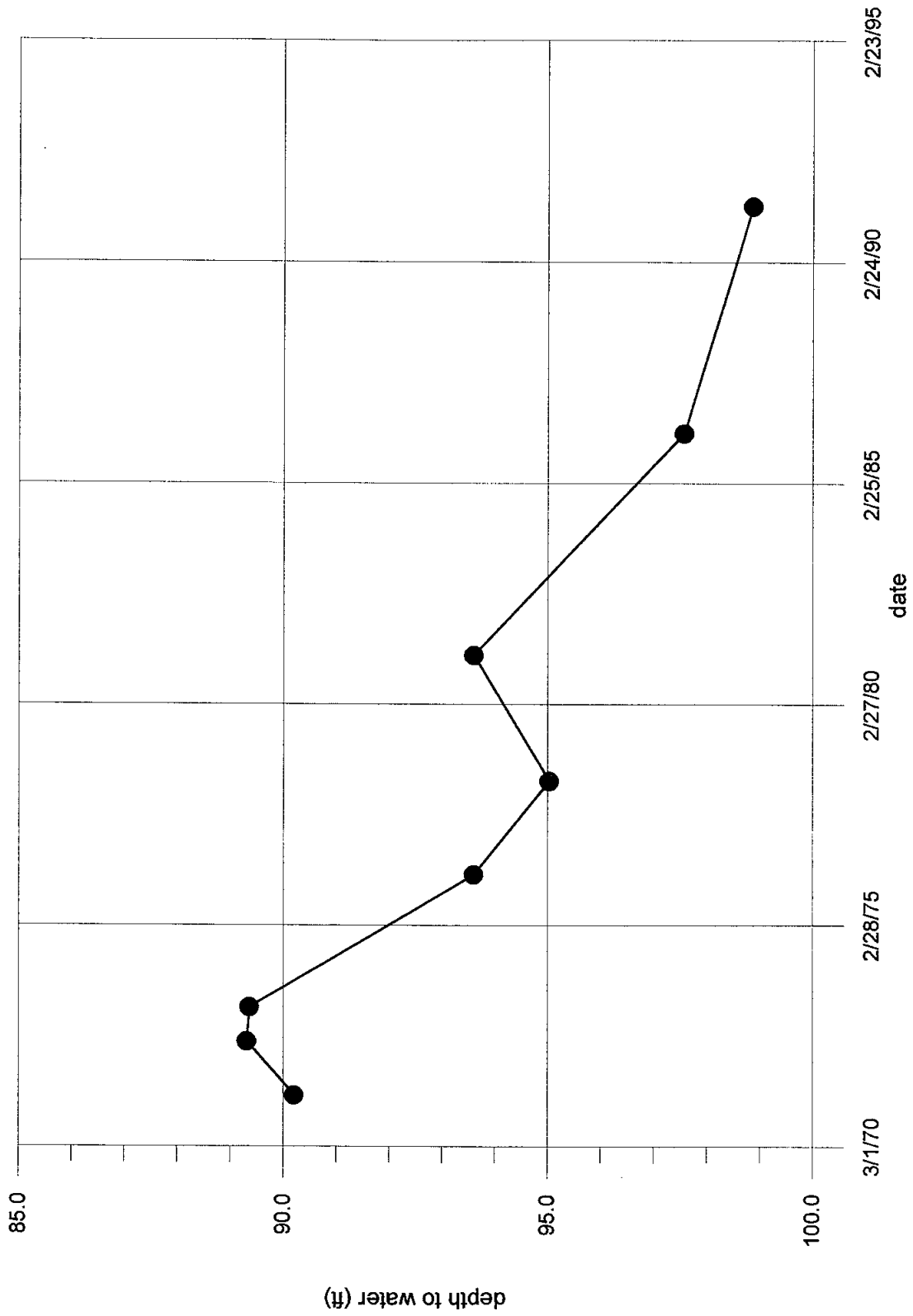
Northern Tularosa Basin
Hydrograph of Well 79
T05S.R10E.27.112
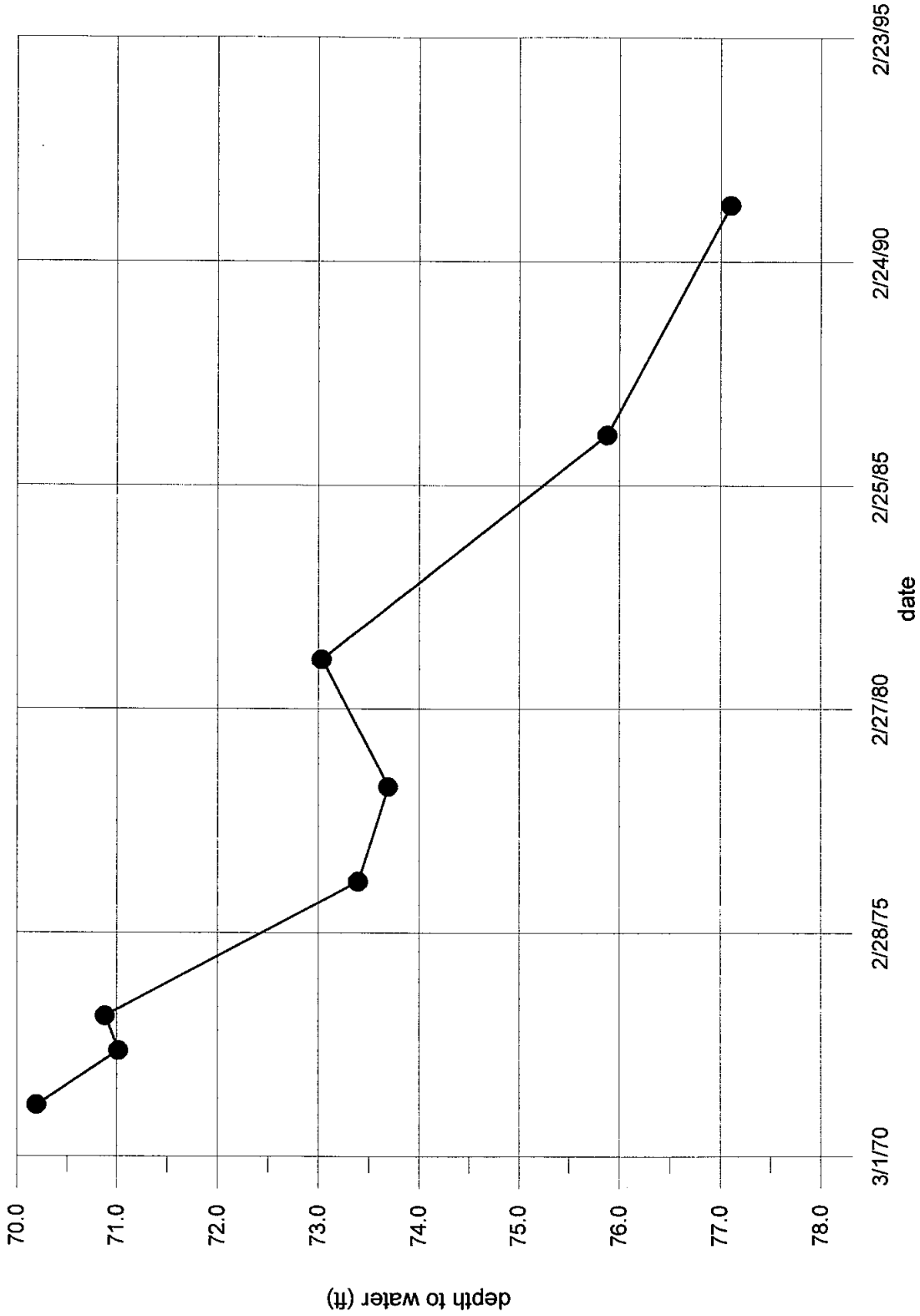
Western Tularosa Basin
Hydrograph for Well 81
T26S.R07E.31.223

depth to water (ft)

date
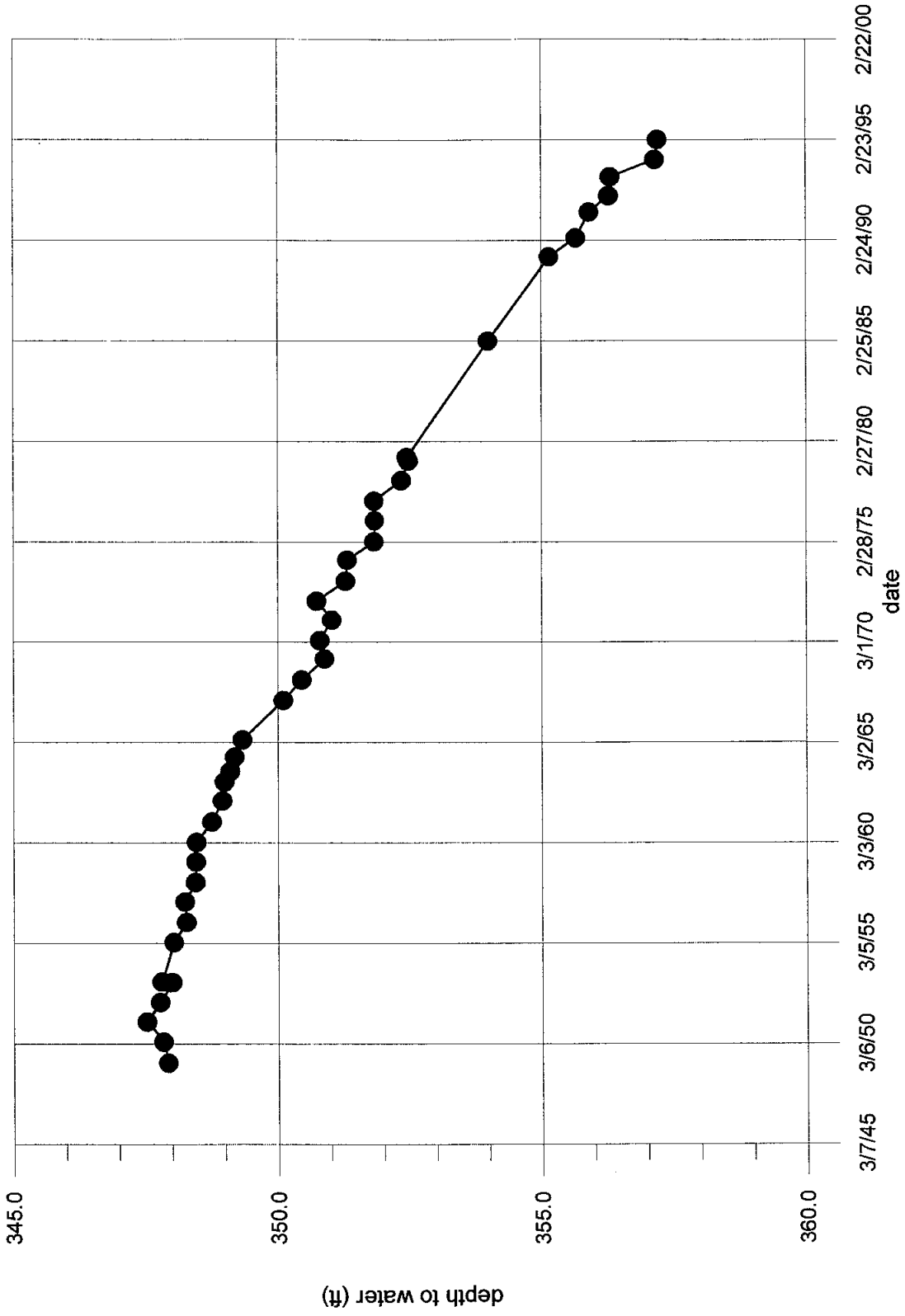
Western Tularosa Basin
Hydrograph for Well 92
T25S.R06E.20.333

depth to water (ft)

date
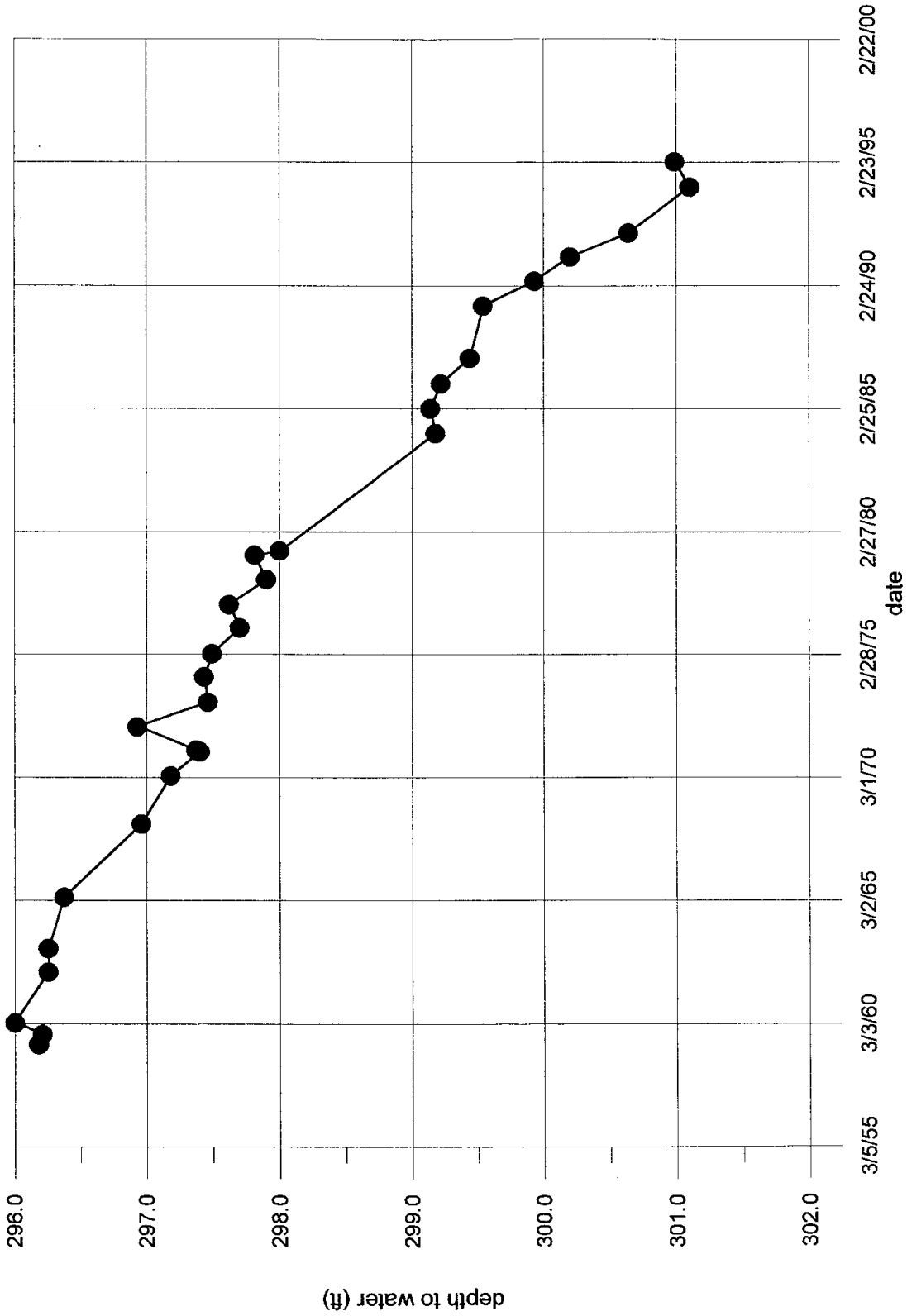
Western Tularosa Basin
Hydrograph for Well 95
T24S.R05E.36.131

depth to water (ft)

date

221.0
222.0
223.0

3/19/89
3/19/90
3/20/91
3/19/92
3/19/93
3/19/94
3/20/95
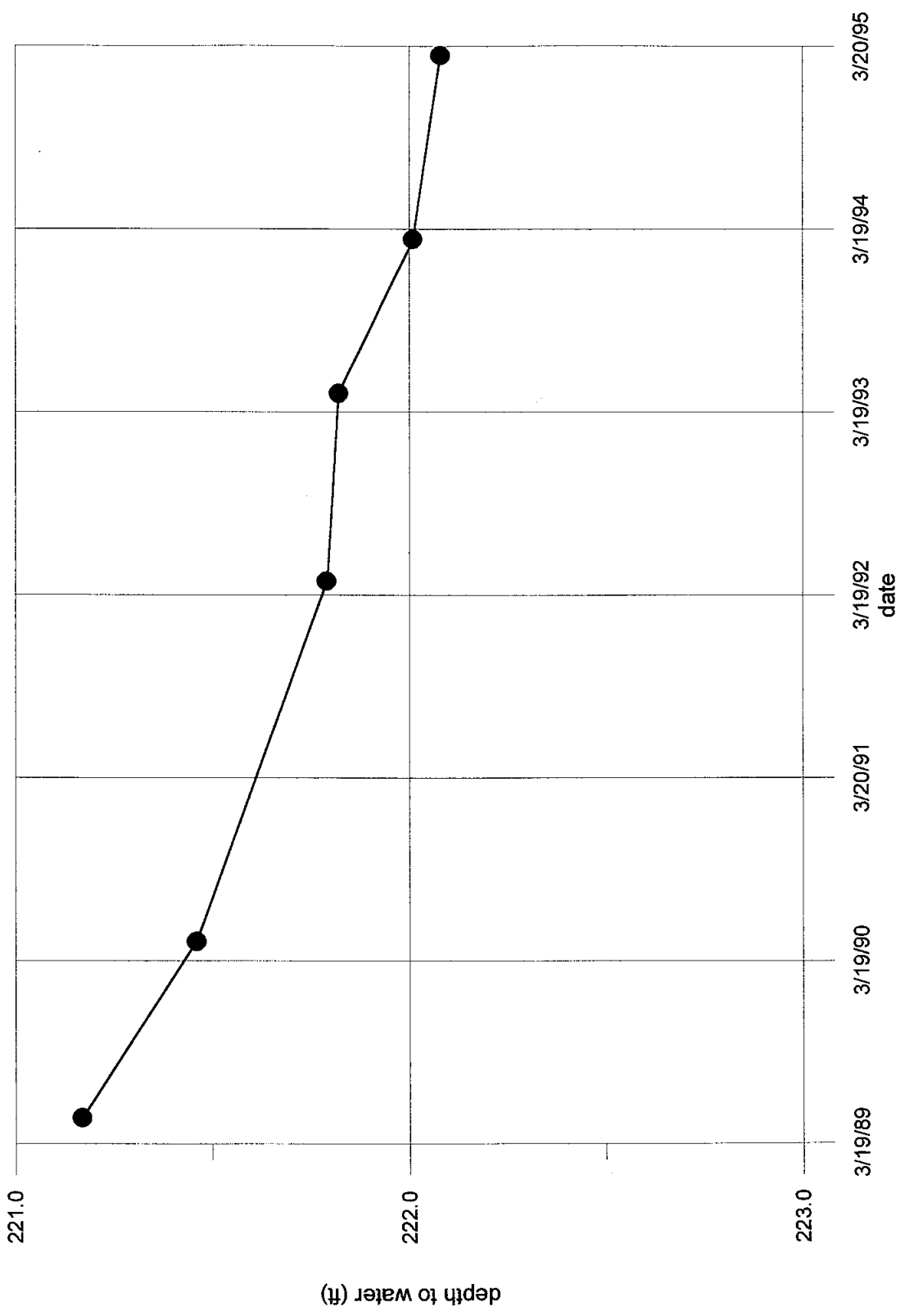
Western Tularosa Basin
Hydrograph for Well 98
T22S.R06E.31.422

depth to water (ft)

203.0

204.0

205.0

3/2/65   3/1/70   2/28/75   2/27/80   2/25/85   2/24/90   2/23/95

date
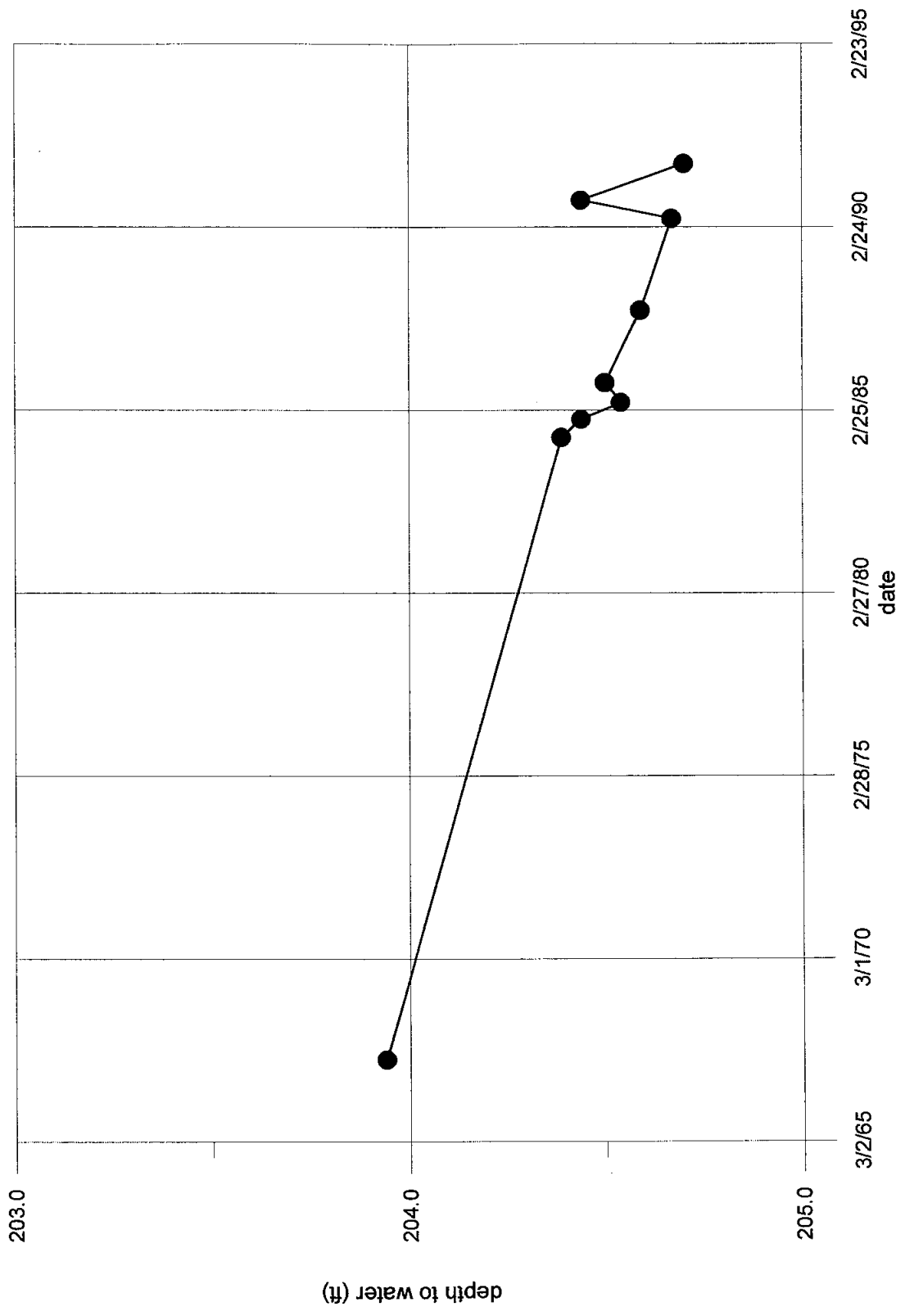
Western Tularosa Basin
Hydrograph for Well 99
T21S.R06E.32.114

depth to water (ft)

date

139.0   140.0   141.0   142.0

3/2/65   3/1/70   2/28/75   2/27/80   2/25/85   2/24/90   2/23/95
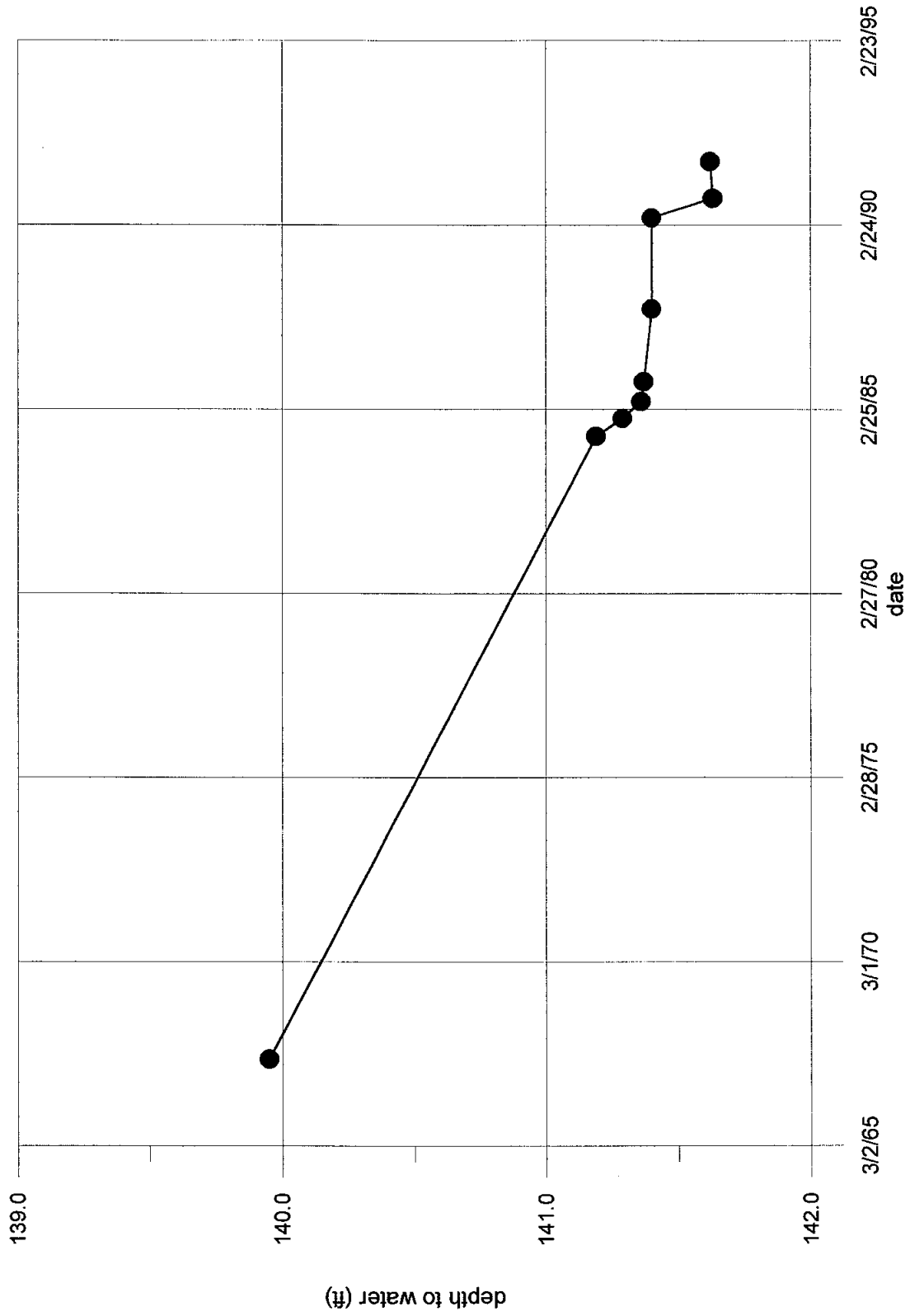
Western Tularosa Basin
Hydrograph for Well 100
T22S.R06E.08.414

depth to water (ft)

date
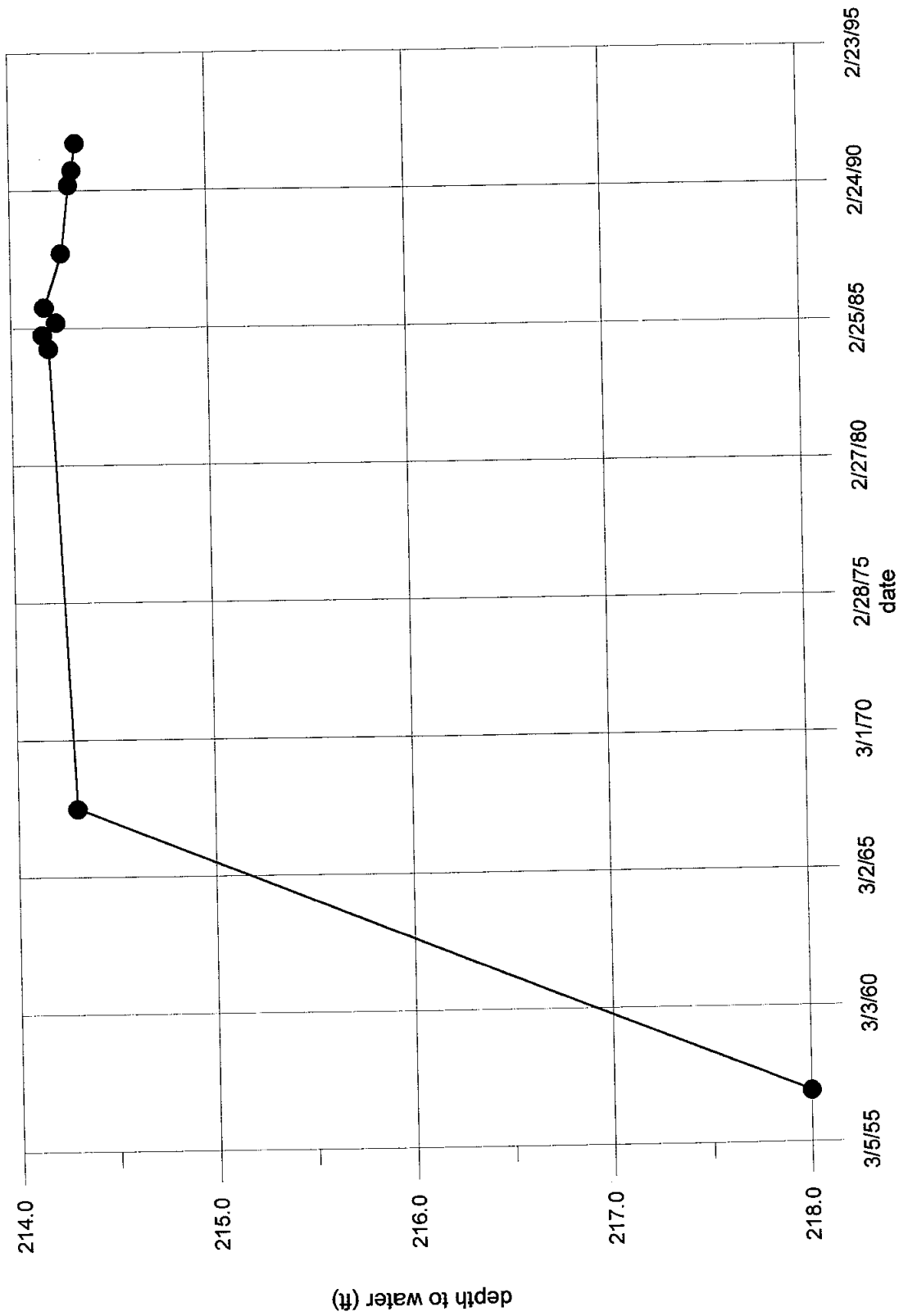
Western Tularosa Basin
Hydrograph of Well 102
T21S.R06E.17.314

depth to water (ft)

115.0
120.0
125.0
130.0
135.0

3/2/65
3/1/70
2/28/75
2/27/80
2/25/85
2/24/90
2/23/95

date
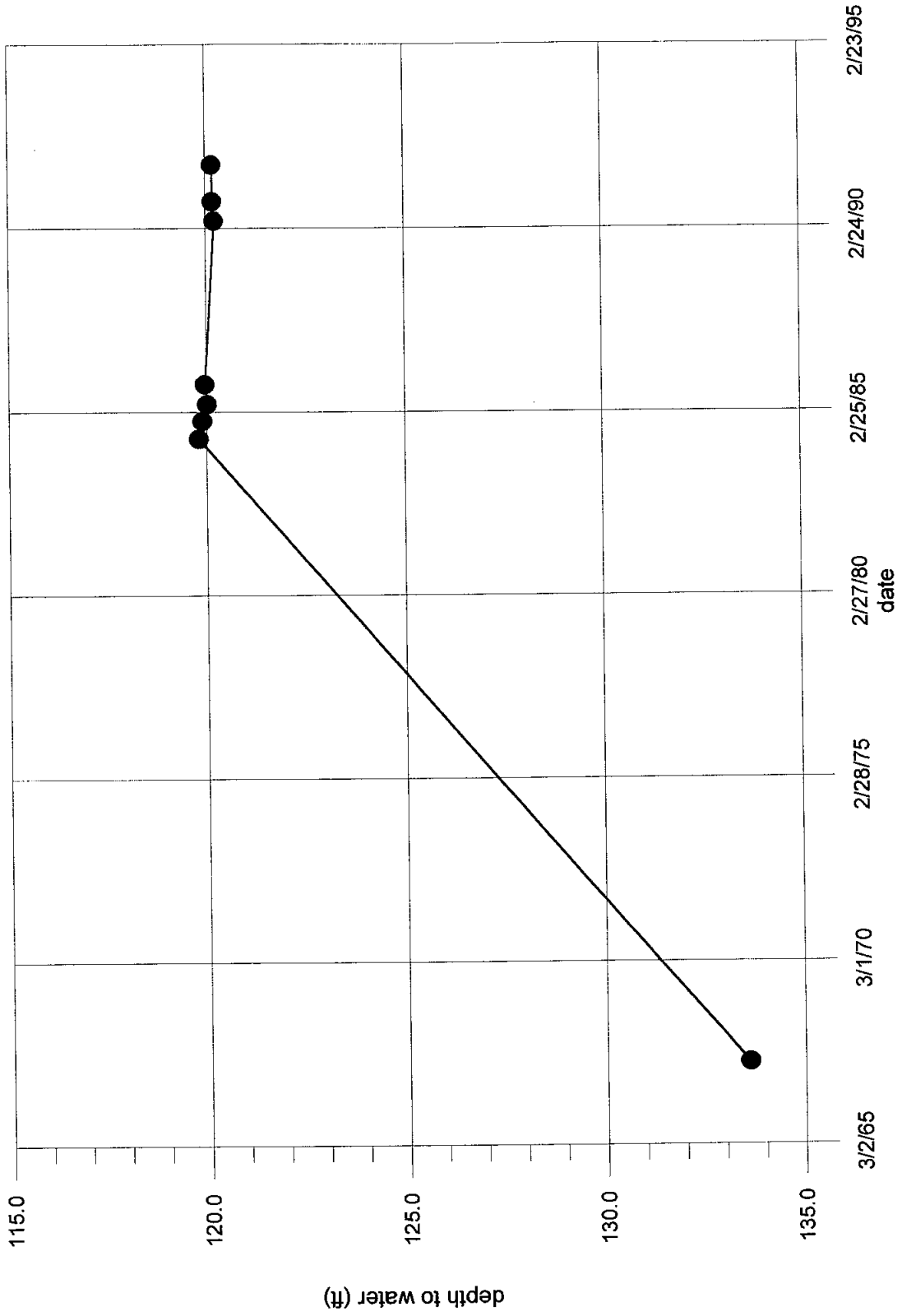
Western Tularosa Basin
Hydrograph of Well 103
T21S.R06E.02.142

depth to water (ft)

156.0

157.0

3/2/65   3/1/70   2/28/75   2/27/80   2/25/85   2/24/90   2/23/95
date
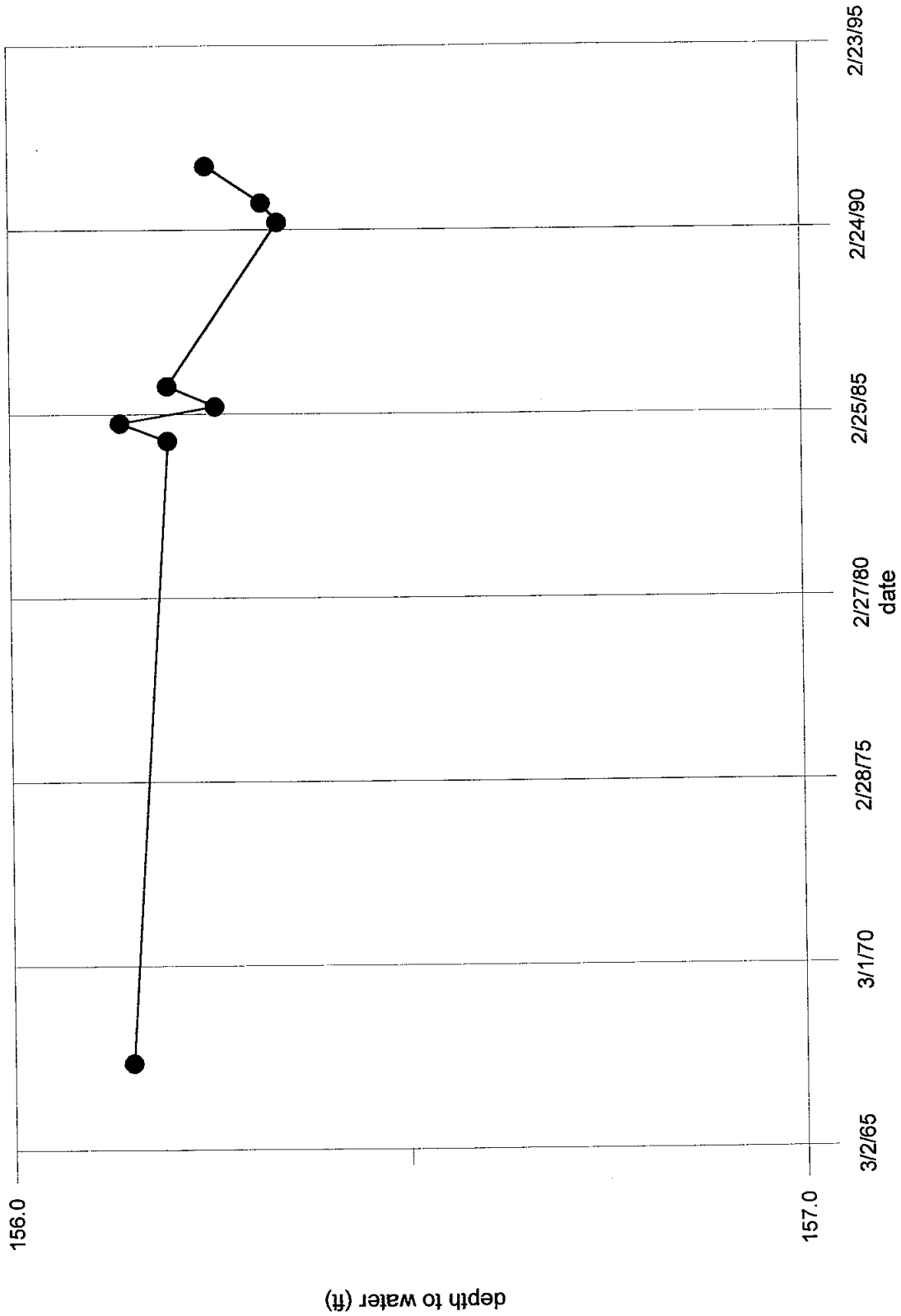
Western Tularosa Basin
Hydrograph of Well 104
T20S.R06E.29.123

depth to water (ft)

date
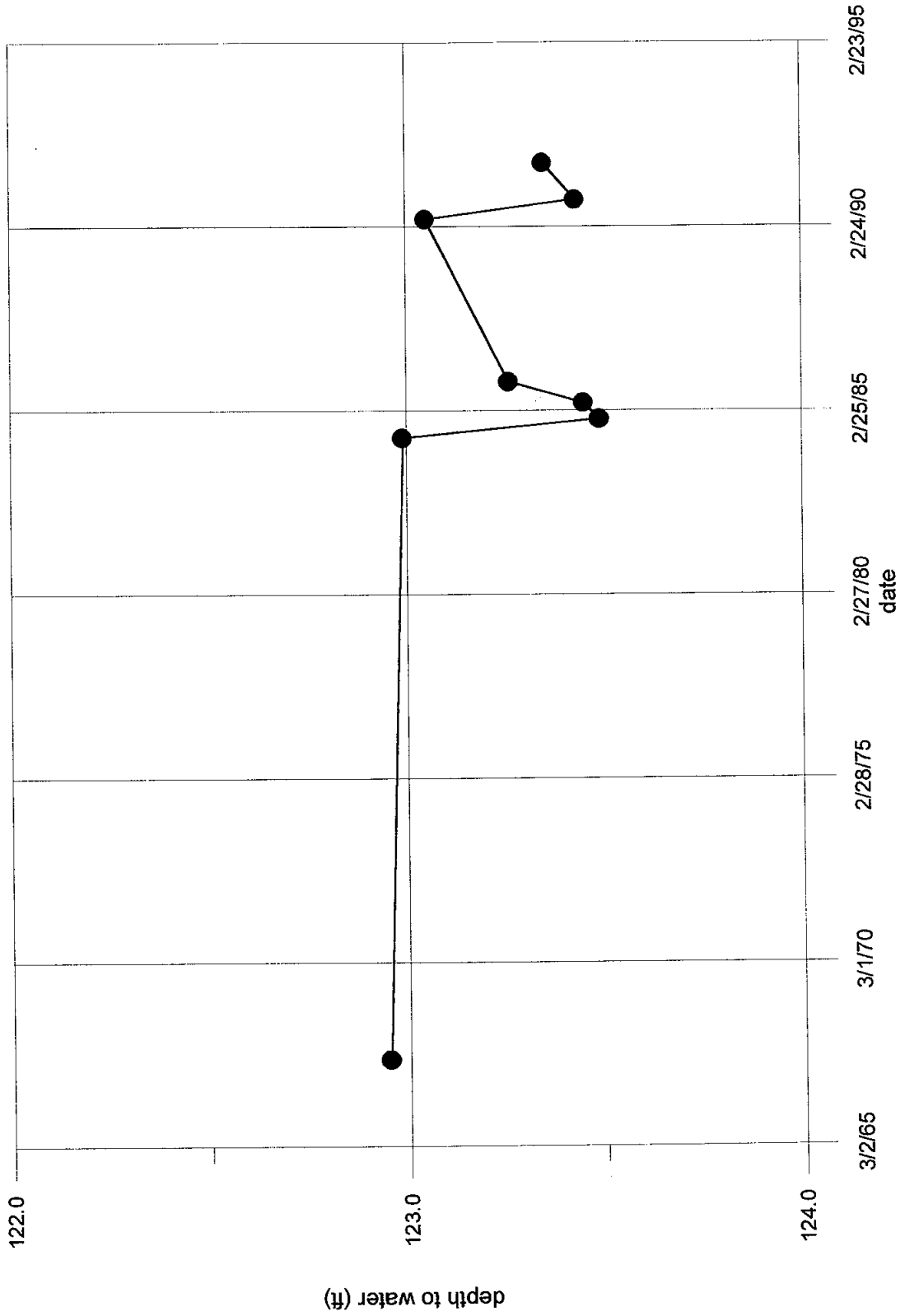
Western Tularosa Basin
Hydrograph of Well 105
T20S.R06E.11.234

depth to water (ft)

129.0

130.0

3/2/65   3/1/70   2/28/75   2/27/80   2/25/85   2/24/90   2/23/95
date

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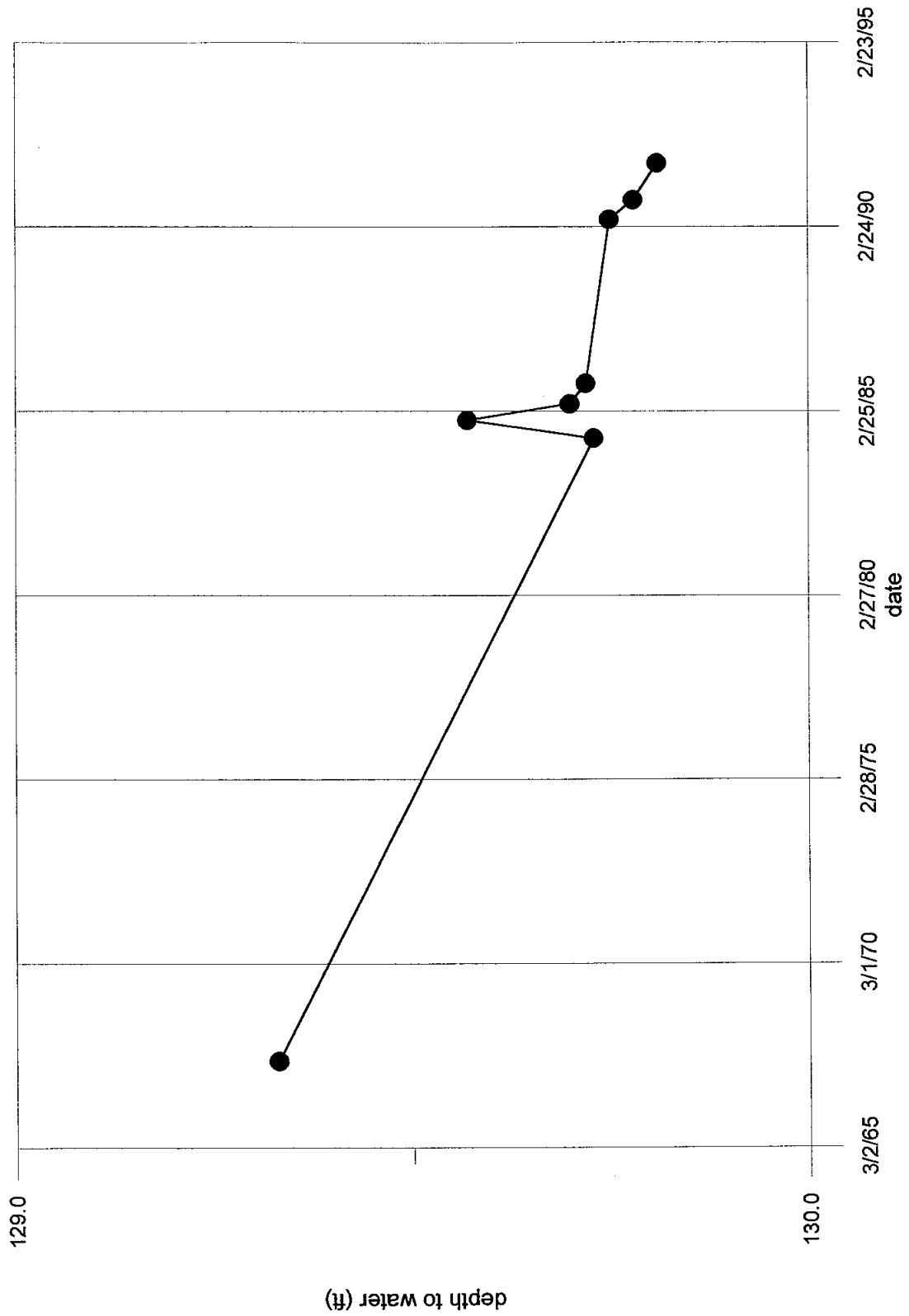
Western Tularosa Basin
Hydrograph of Well 106
T19S.R06E.28.213

depth to water (ft)

date
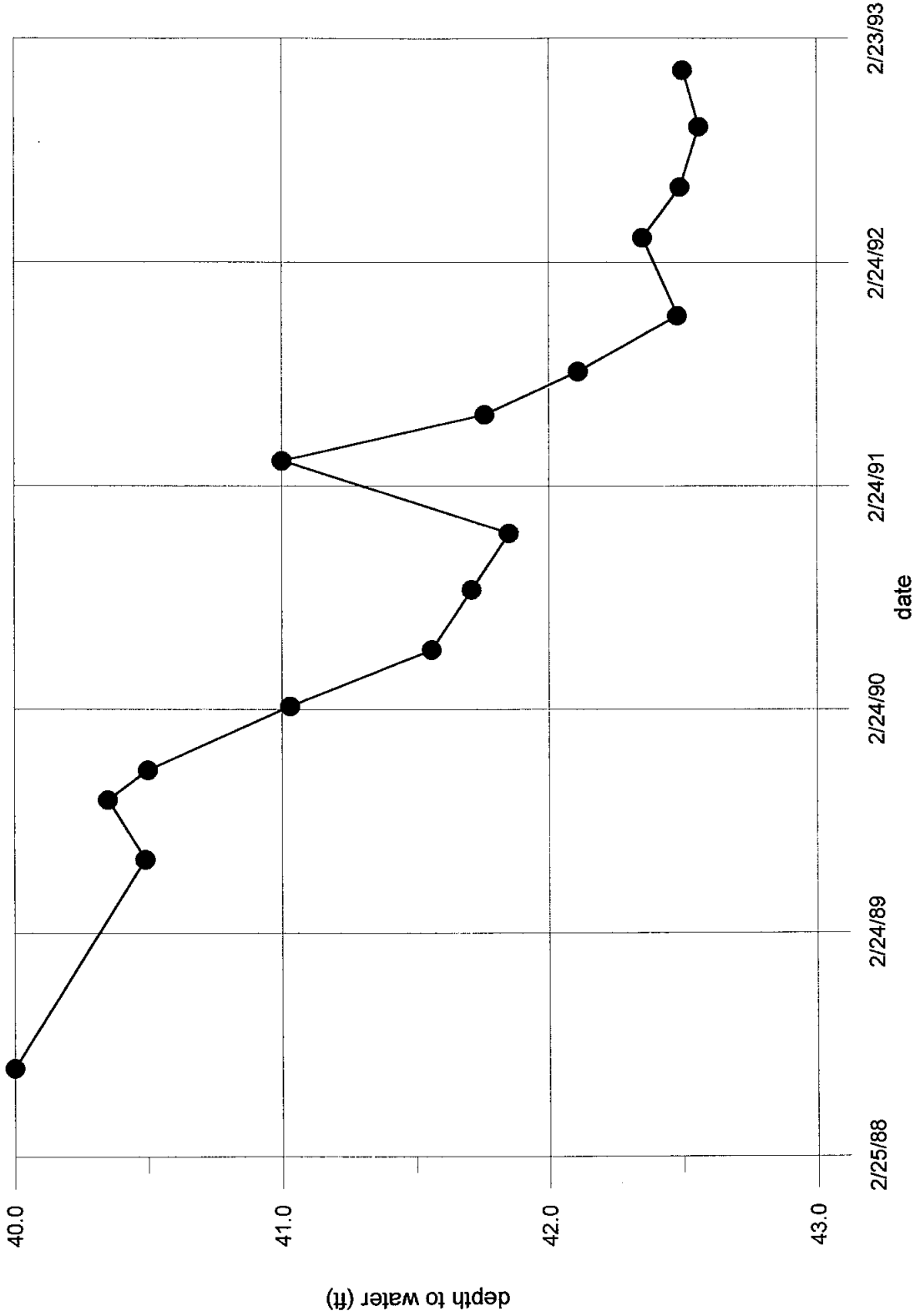
Western Tularosa Basin
Hydrograph of Well 107
T19S.R06E.28.212
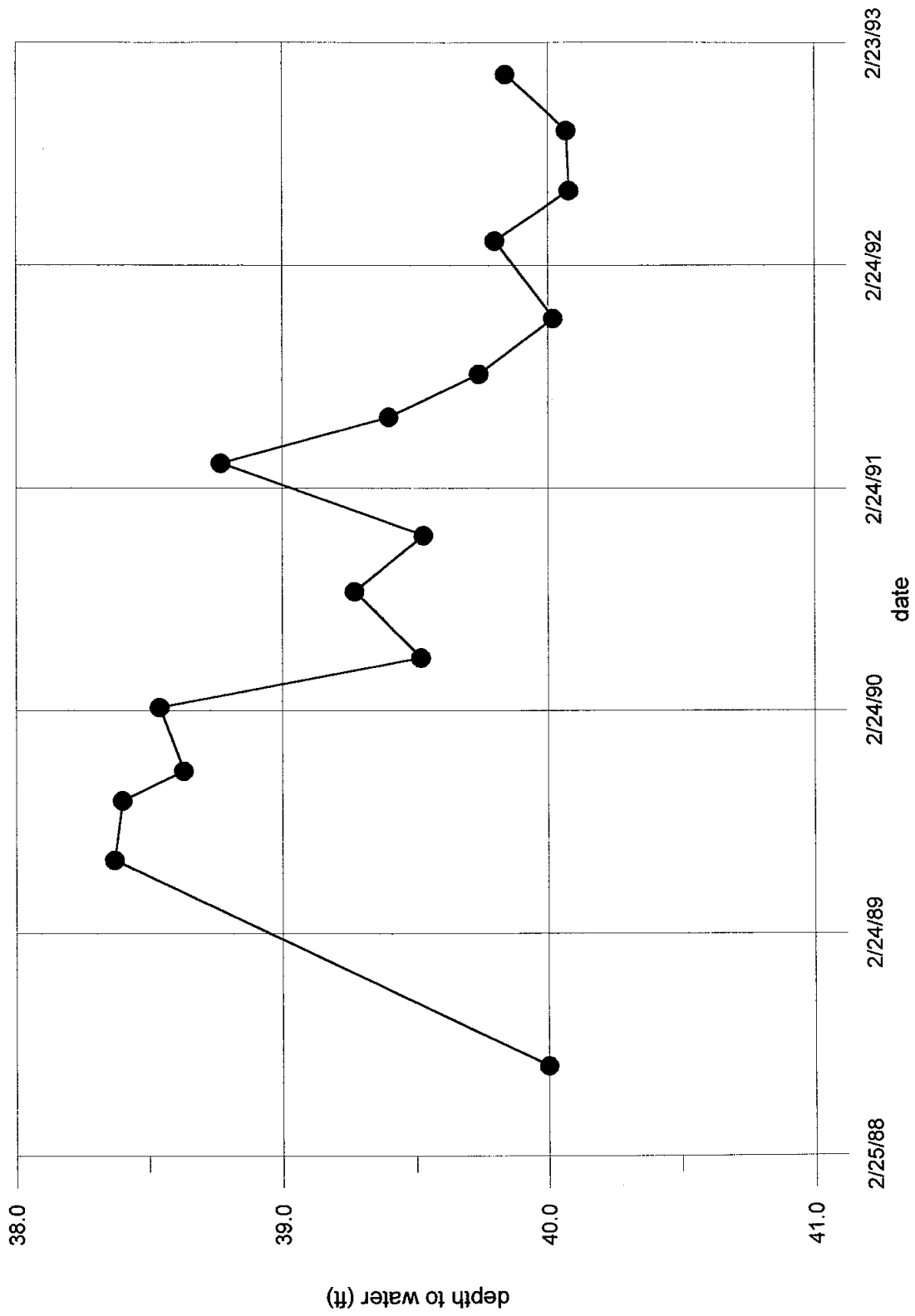
Western Tularosa Basin
Hydrograph of Well 108
T19S.R06E.28.214

depth to water (ft)

37.0
38.0
39.0
40.0
41.0

2/24/89
2/24/90
2/24/91
2/24/92
2/23/93

date
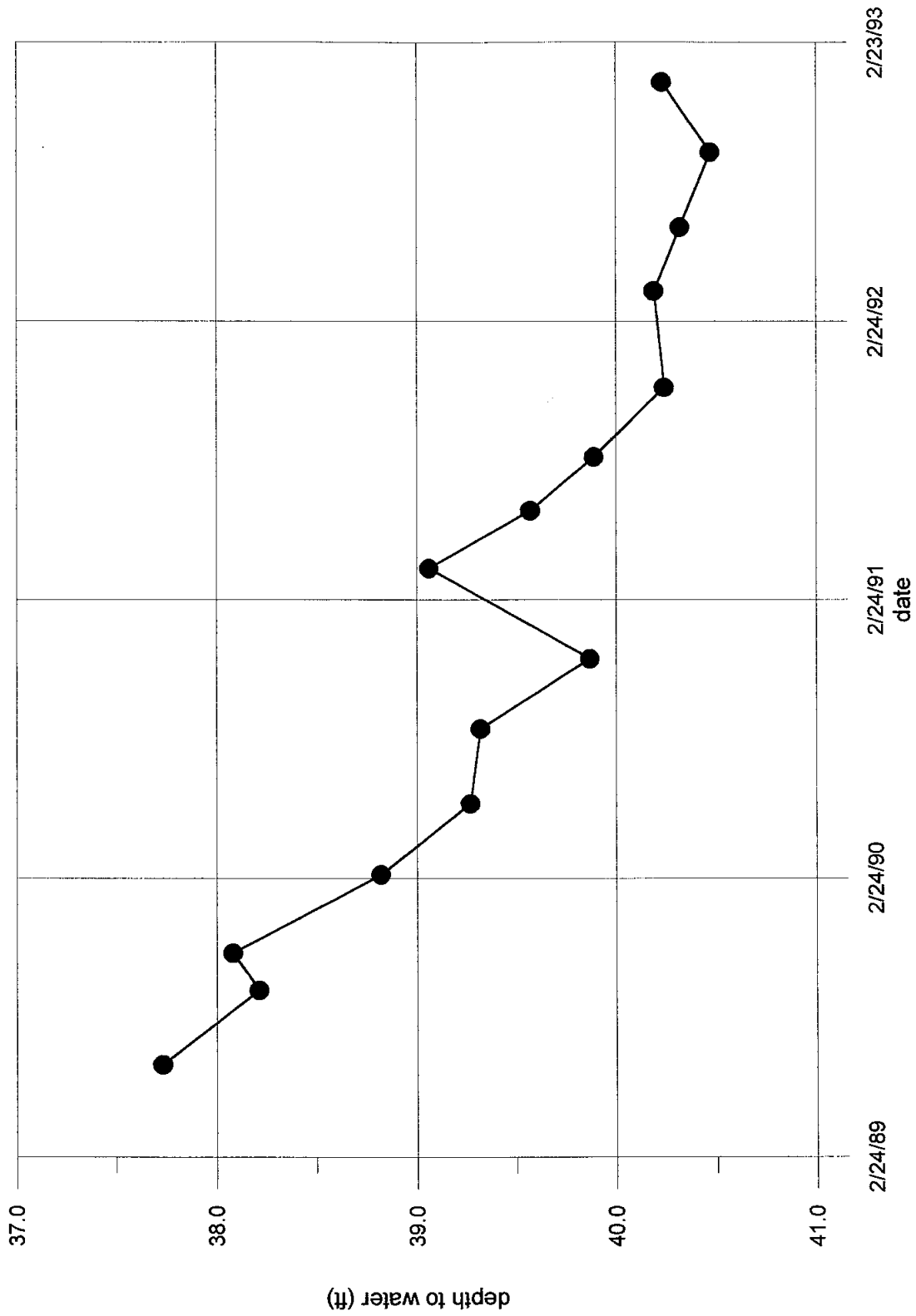
Western Tularosa Basin
Hydrograph of Well 109
T19S.R06E.28.221

depth to water (ft)

date

JOHN SHOMAKER AND ASSOCIATES, INC.
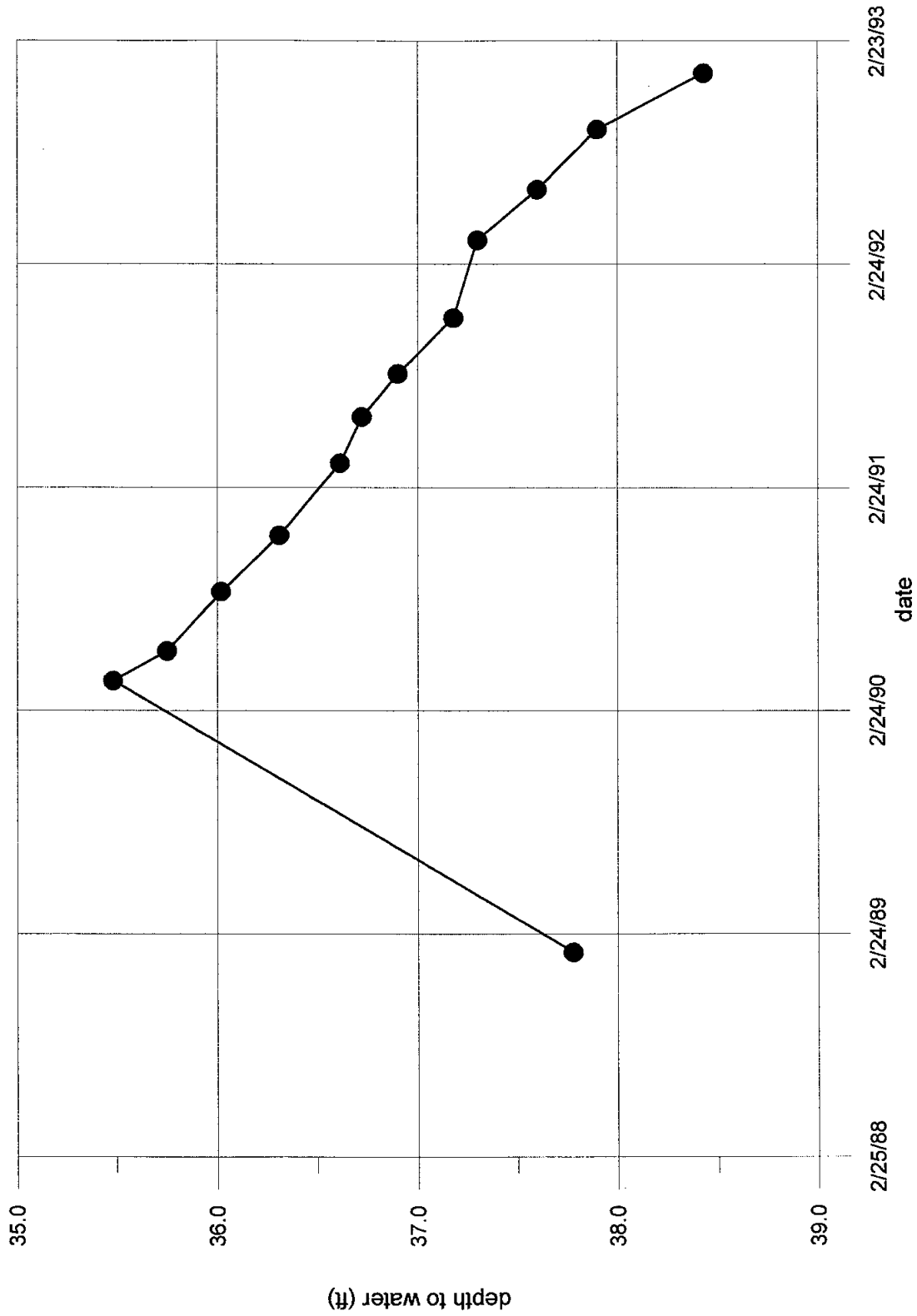
Western Tularosa Basin
Hydrograph of Well 122
T19S.R06E.28.212

depth to water (ft)

39.0 40.0 41.0 42.0 43.0

2/24/89   2/24/90   2/24/91   2/24/92   2/23/93
date

JOHN SHOMAKER AND ASSOCIATES, INC.
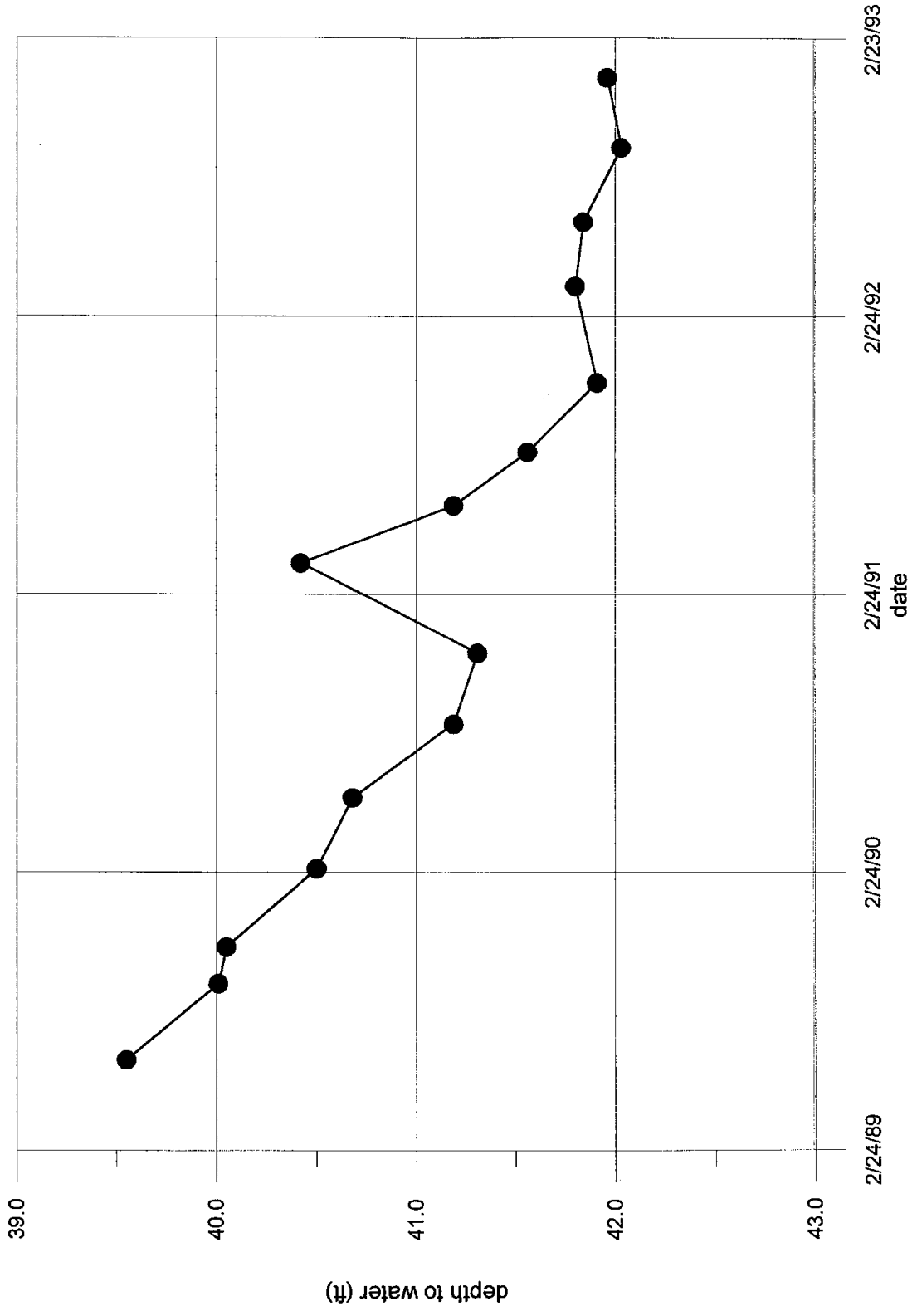
Western Tularosa Basin
Hydrograph of Well 139
T13S.R05E.27.421

depth to water (ft)

date
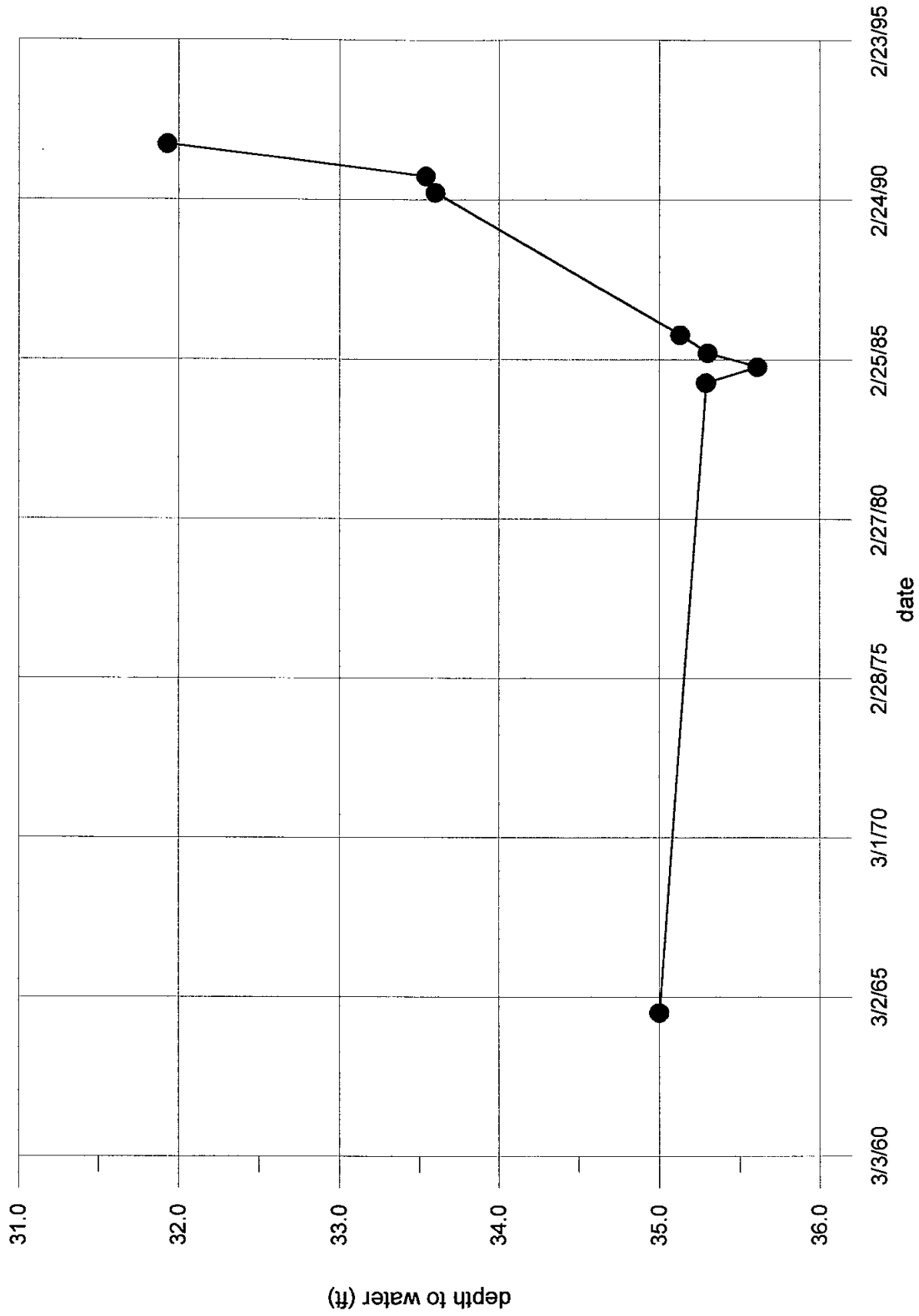
Western Tularosa Basin
Hydrograph of Well 140
T26S.R05E.33.244

JOHN SHOMAKER AND ASSOCIATES, INC.
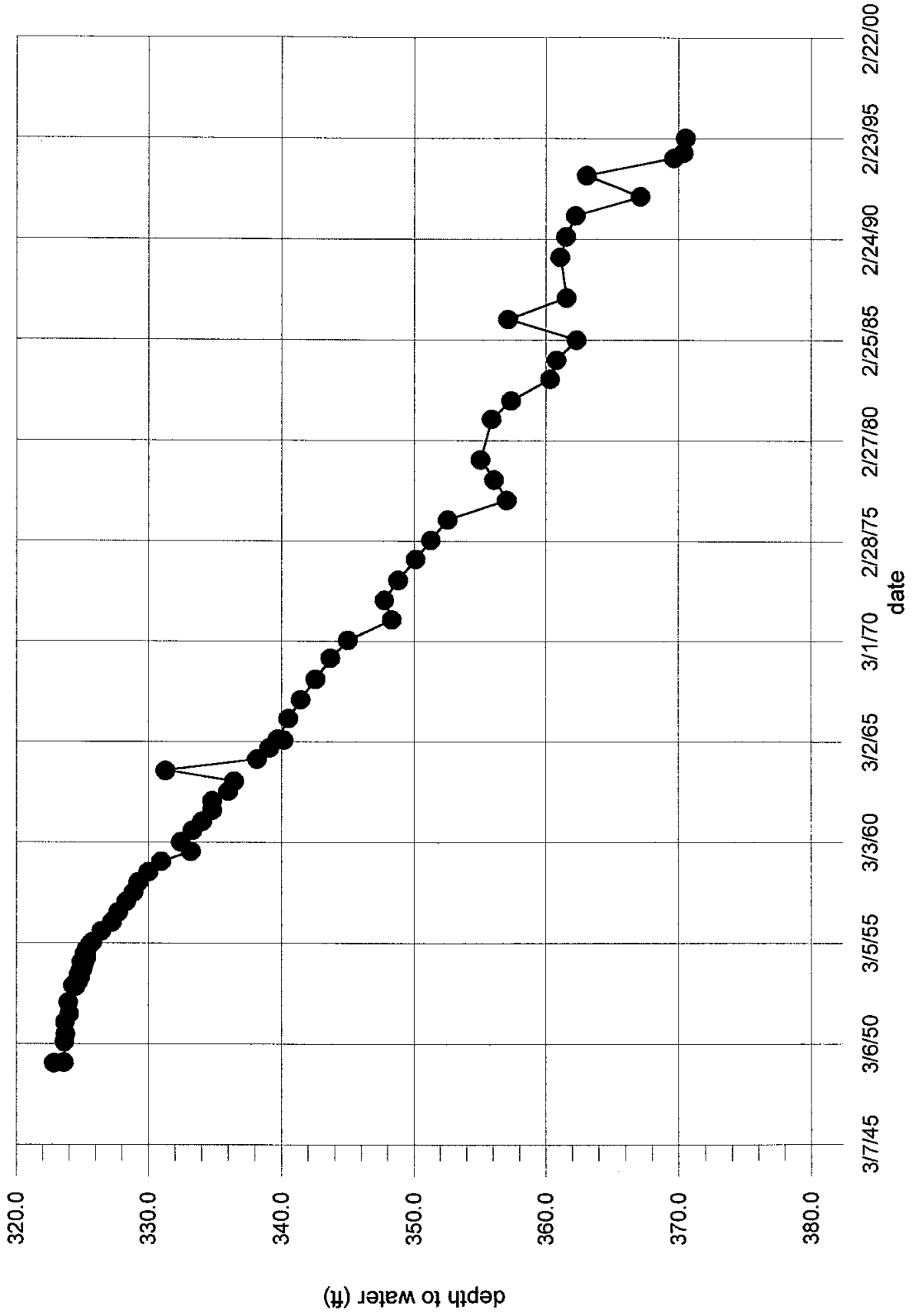
Western Tularosa Basin
Hydrograph of Well 141
T26S.R05E.22.314

depth to water (ft)
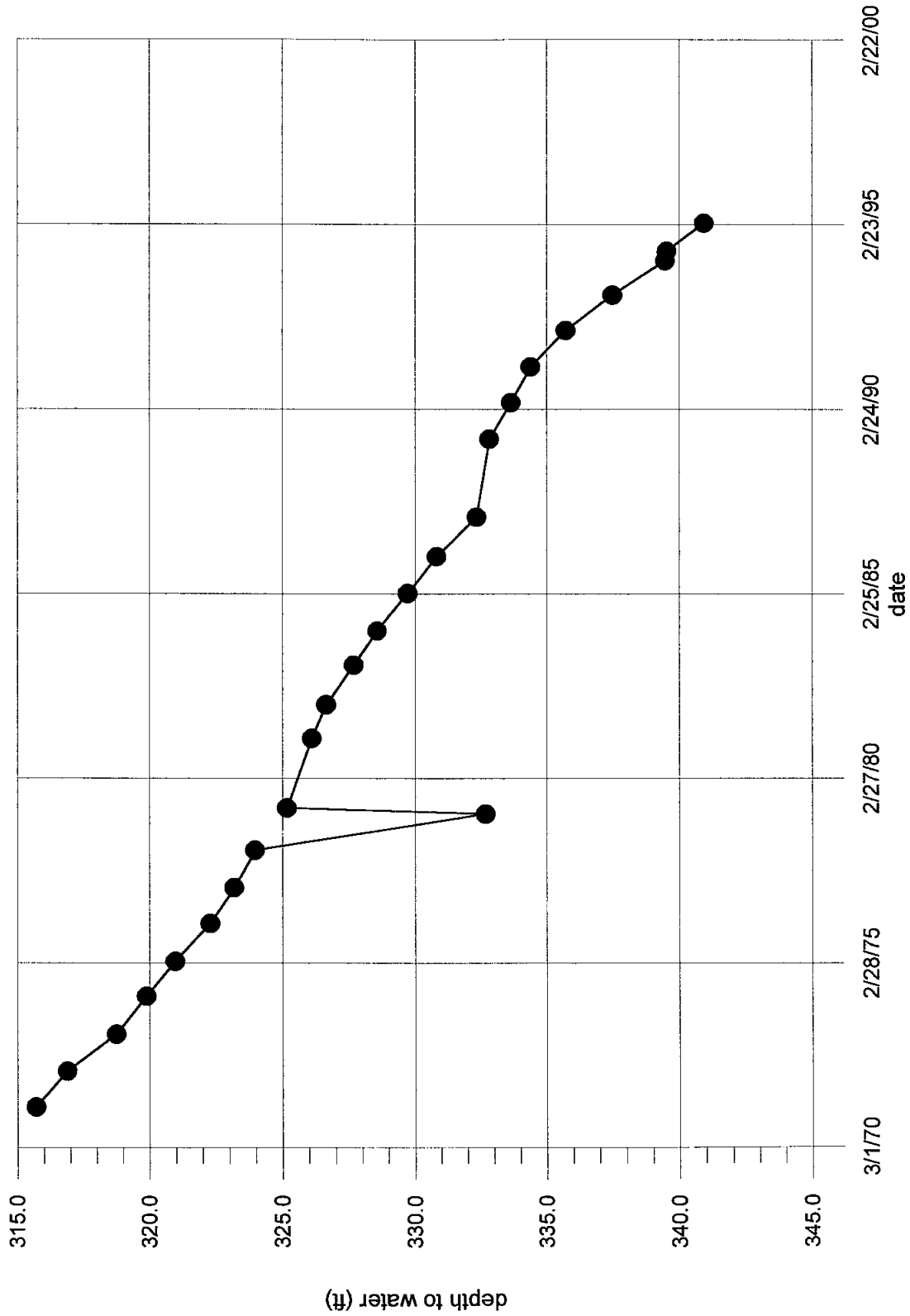
Western Tularosa Basin
Hydrograph of Well 142
T26S.R05E.21.213

depth to water (ft)

date
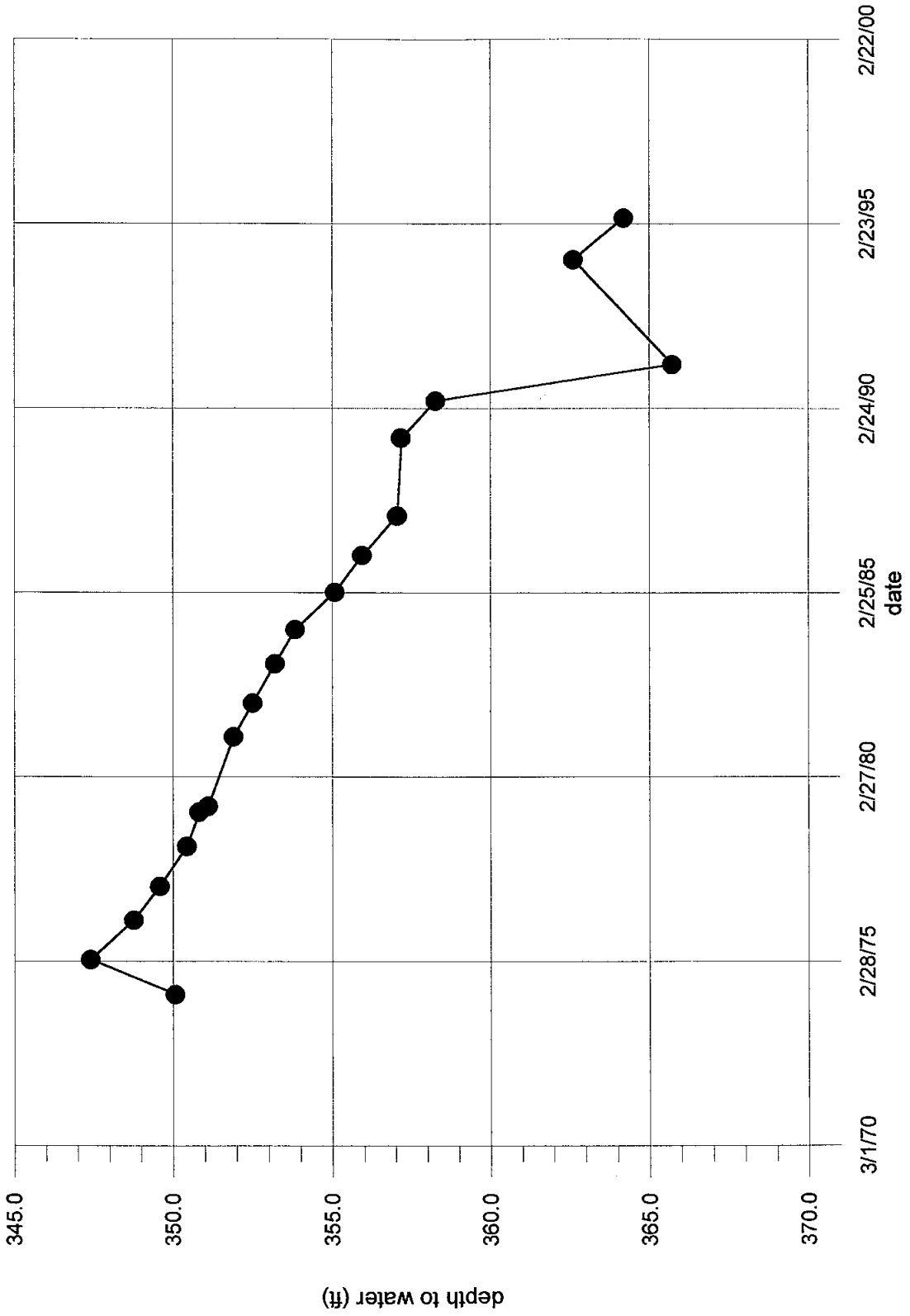
Western Tularosa Basin
Hydrograph of Well 143
T26S.R05E.04.312

depth to water (ft)

date
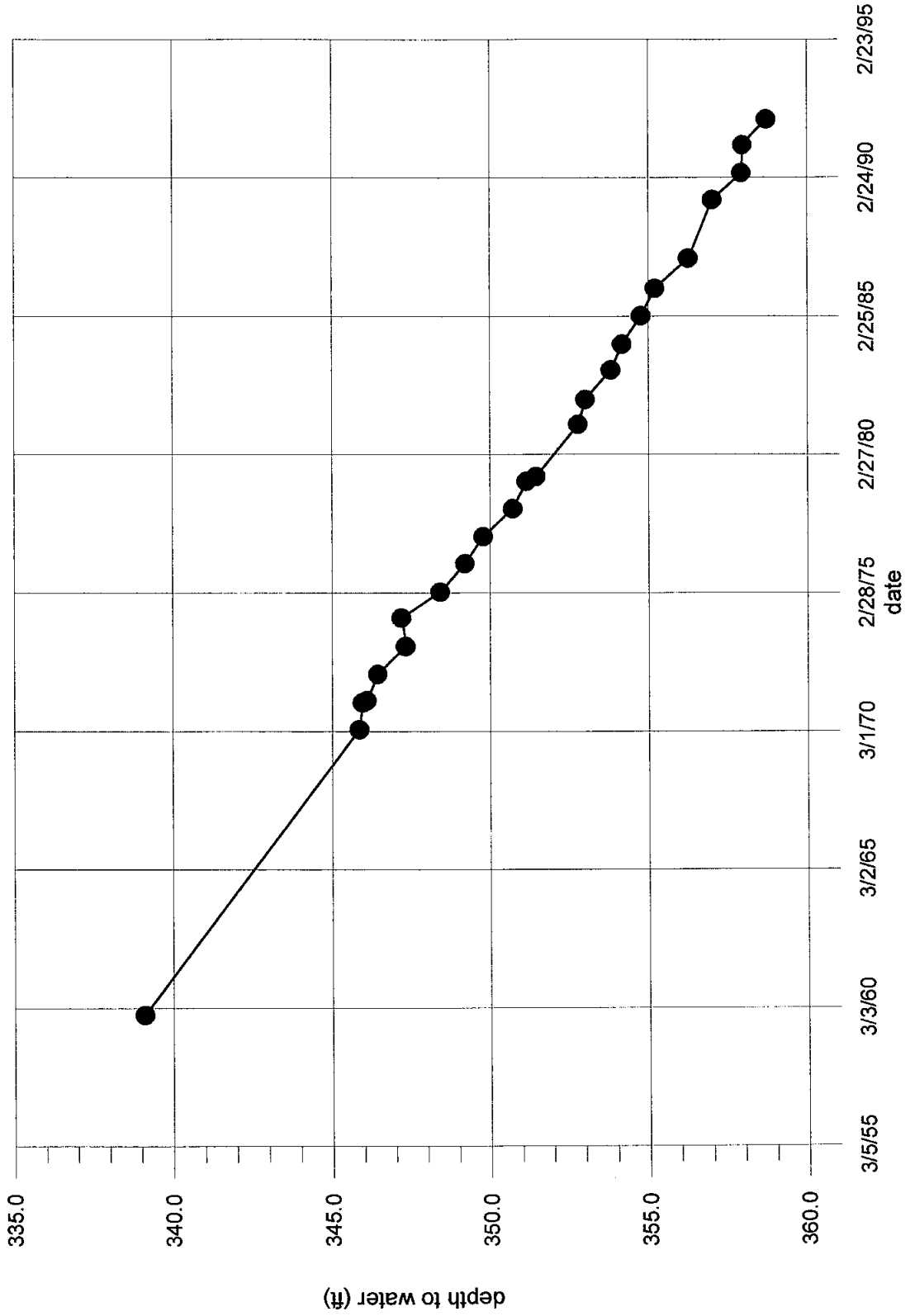
Western Tularosa Basin
Hydrograph of Well 144
T25S.R05E.31.334

depth to water (ft)

date
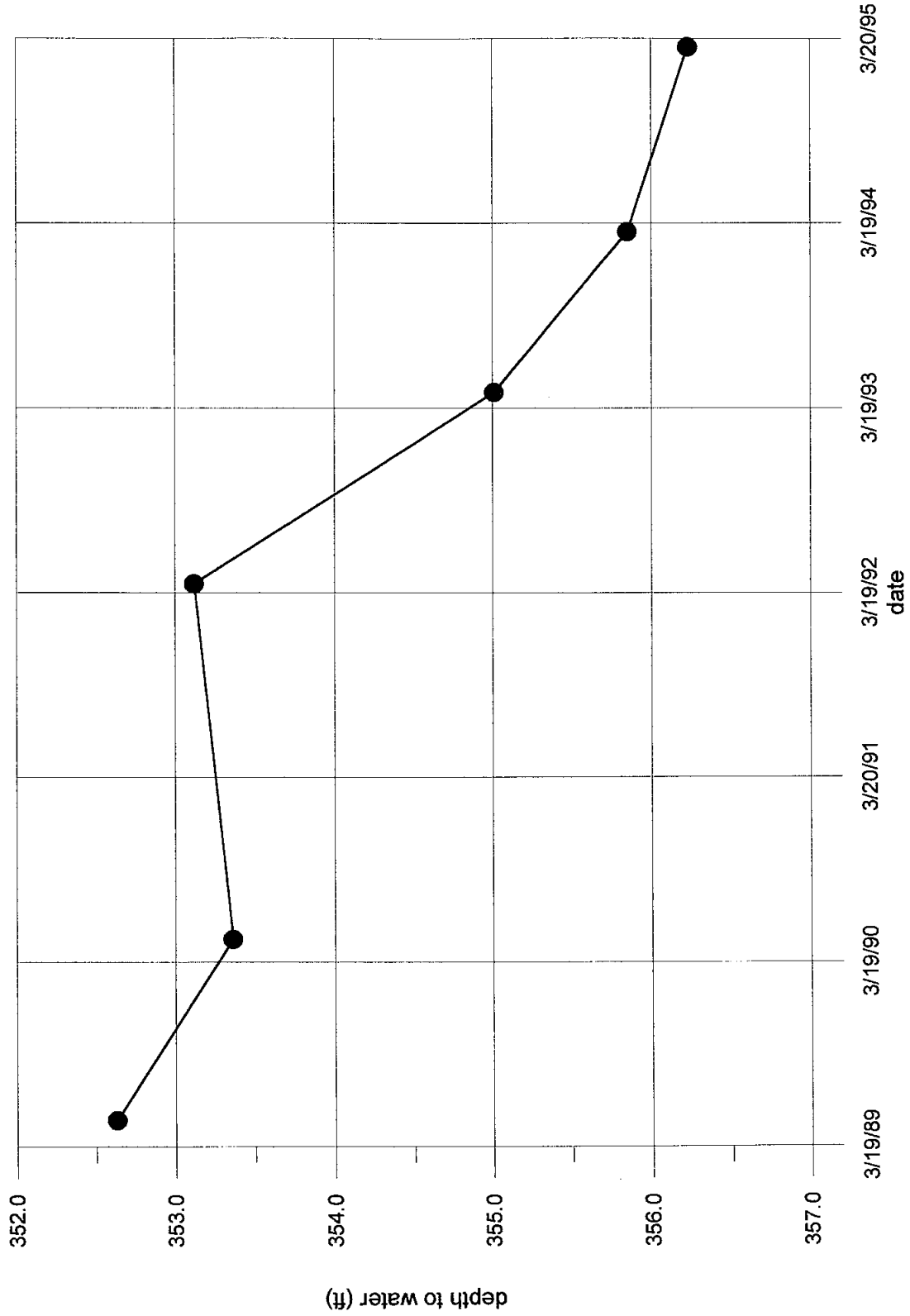
Western Tularosa Basin
Hydrograph of Well 145
T25S.R05E.31.334

depth to water (ft)

352.0   353.0   354.0   355.0   356.0   357.0

3/19/89   3/19/90   3/20/91   3/19/92   3/19/93   3/19/94   3/20/95
date
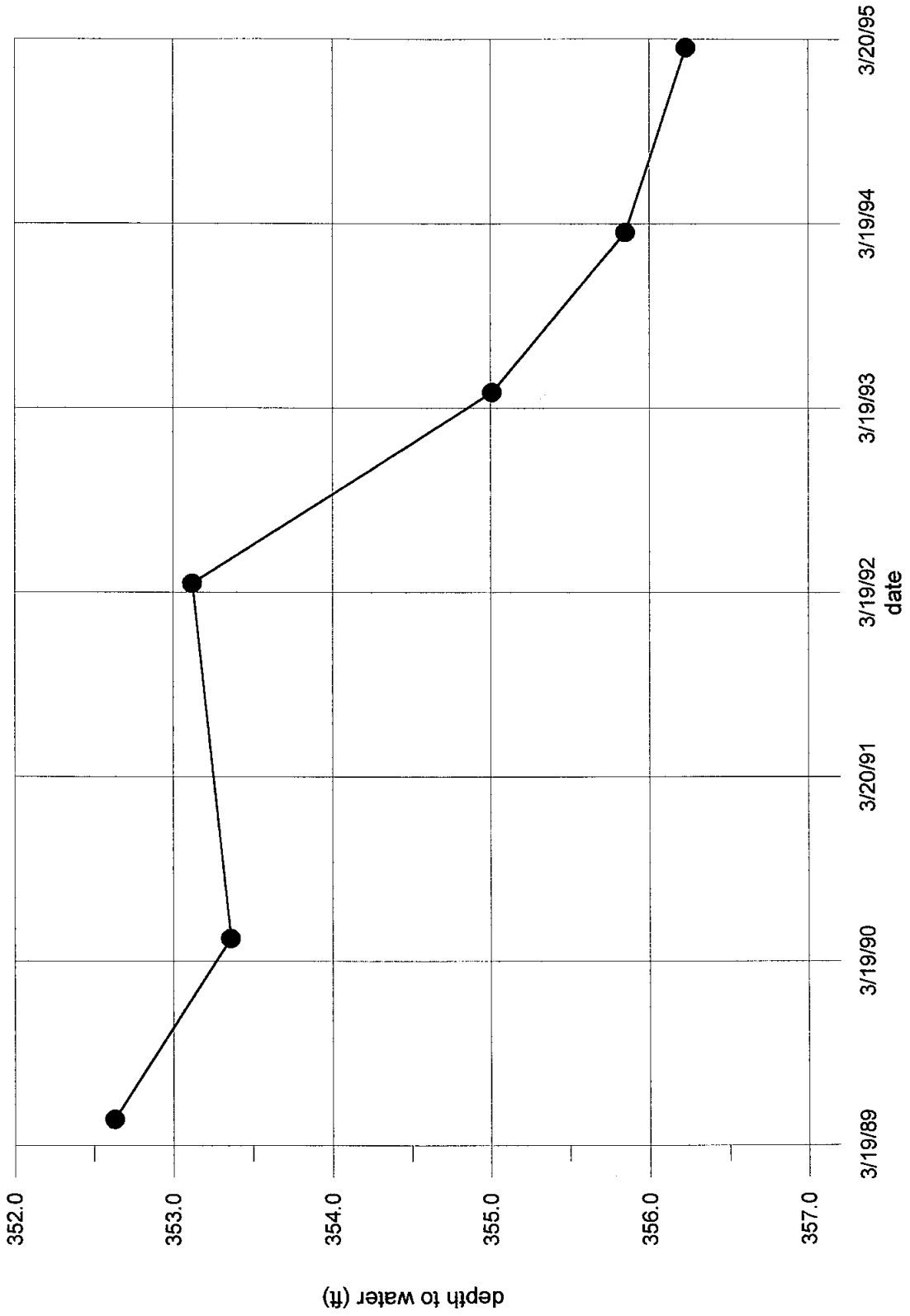
Western Tularosa Basin
Hydrograph of Well 146
T25S.R04E.35.213

depth to water (ft)

date
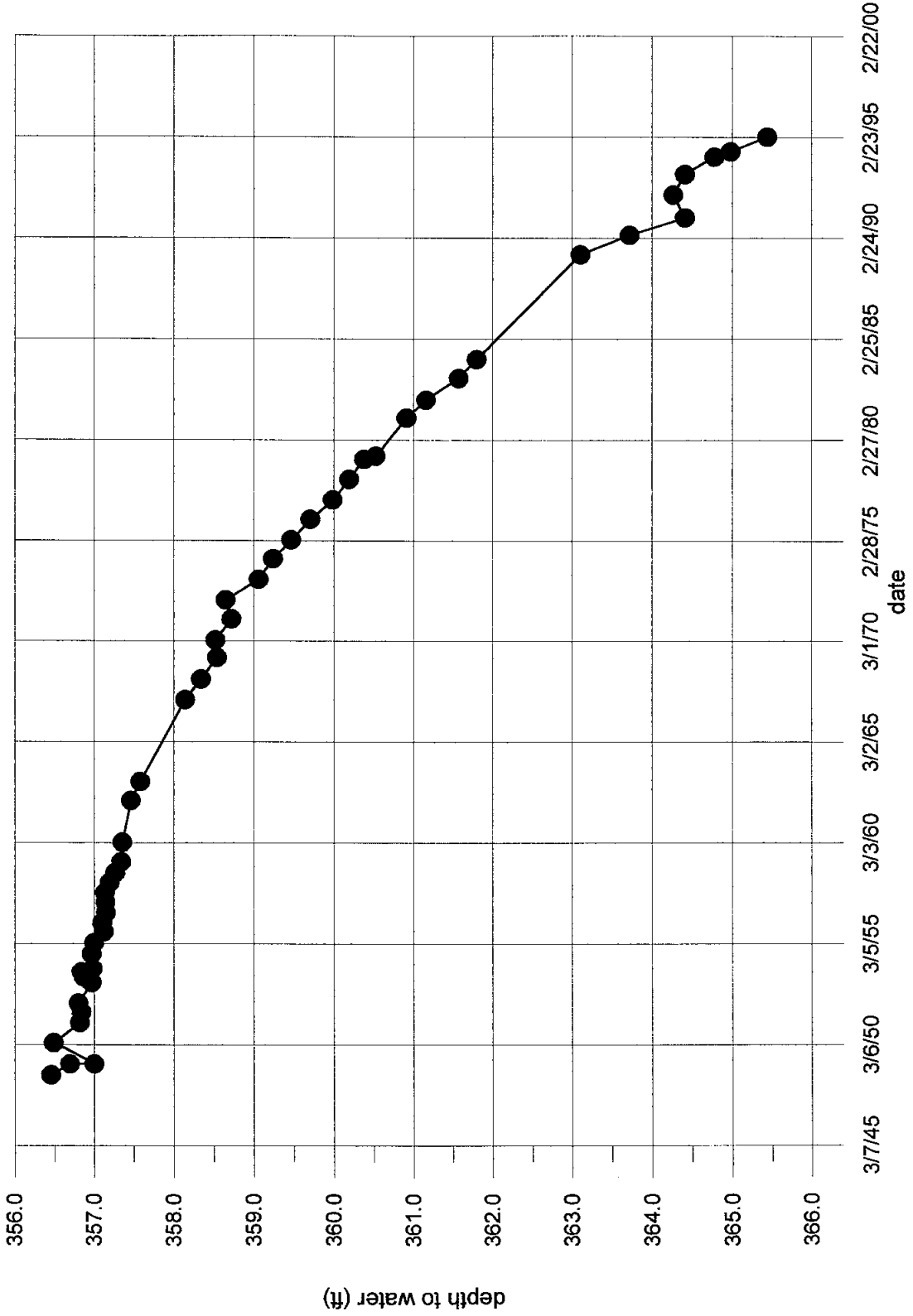
Western Tularosa Basin
Hydrograph of Well 147
T25S.R04E.16.333

depth to water (ft)

date
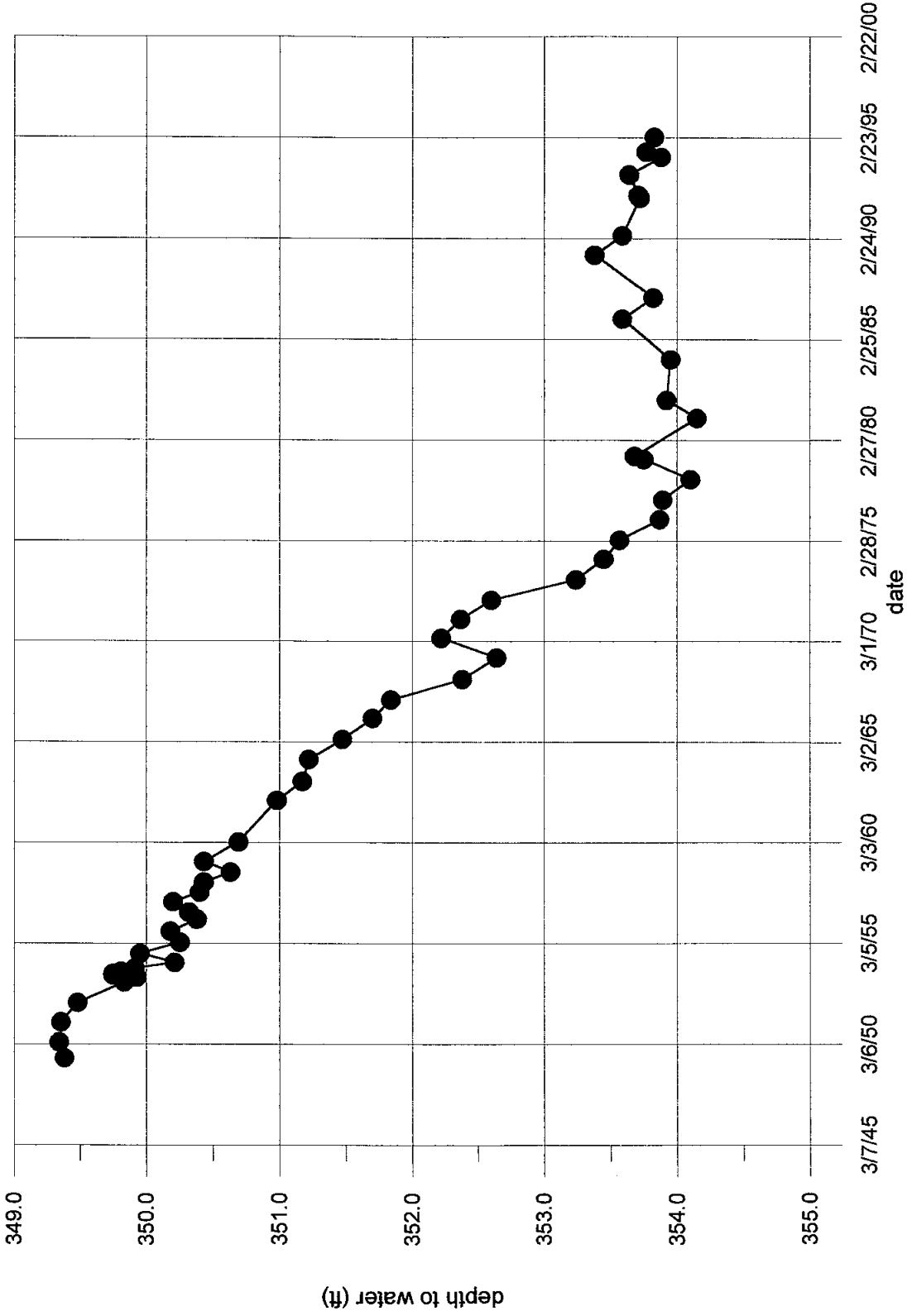
Western Tularosa Basin
Hydrograph of Well 148
T25S.R05E.16.232

depth to water (ft)

date

2/27/80　　2/25/85　　2/24/90　　2/23/95　　2/22/00

308.0　　309.0　　310.0　　311.0
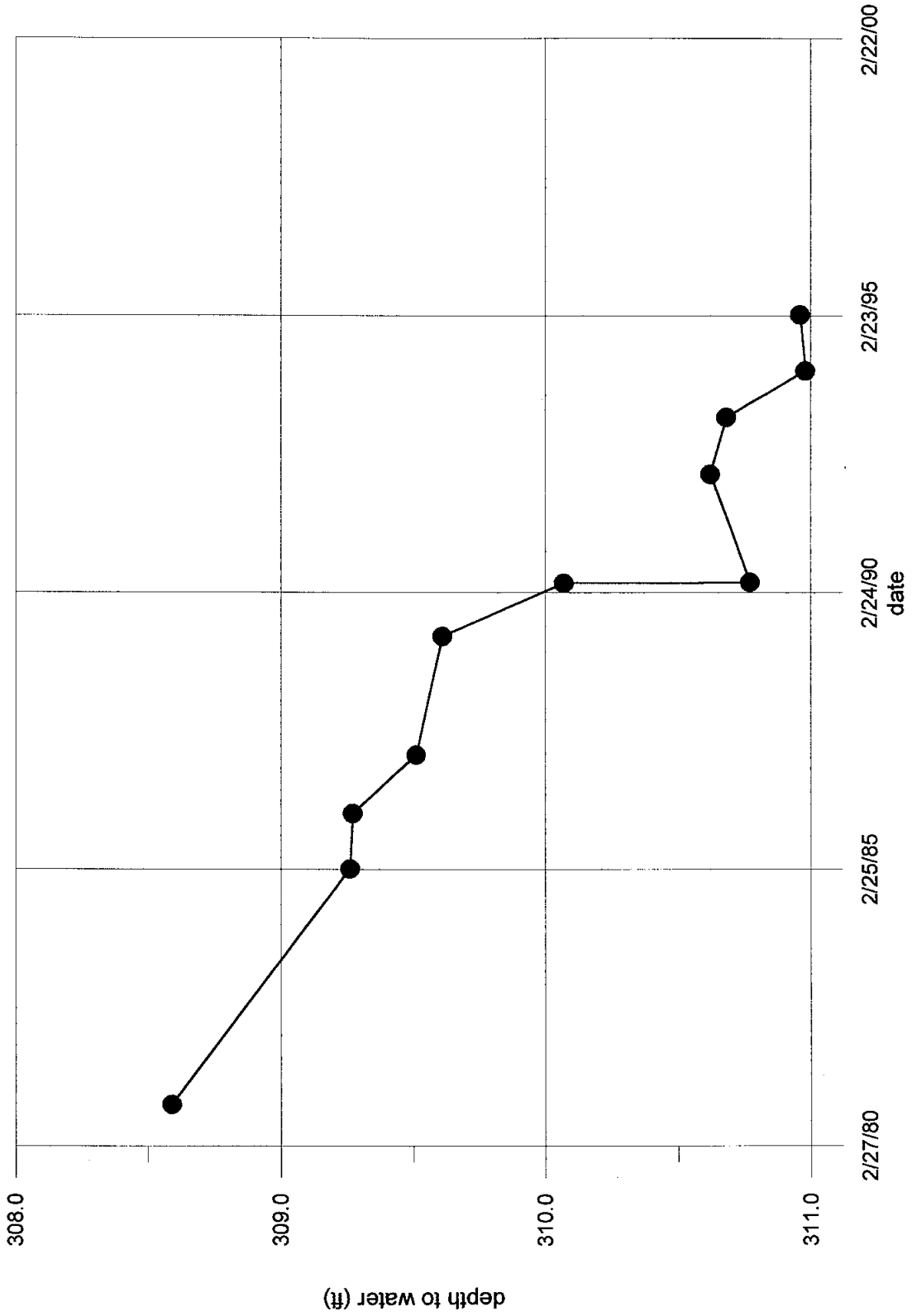
Western Tularosa Basin
Hydrograph of Well 150
T25S.R04E.10.334

JOHN SHOMAKER AND ASSOCIATES, INC.
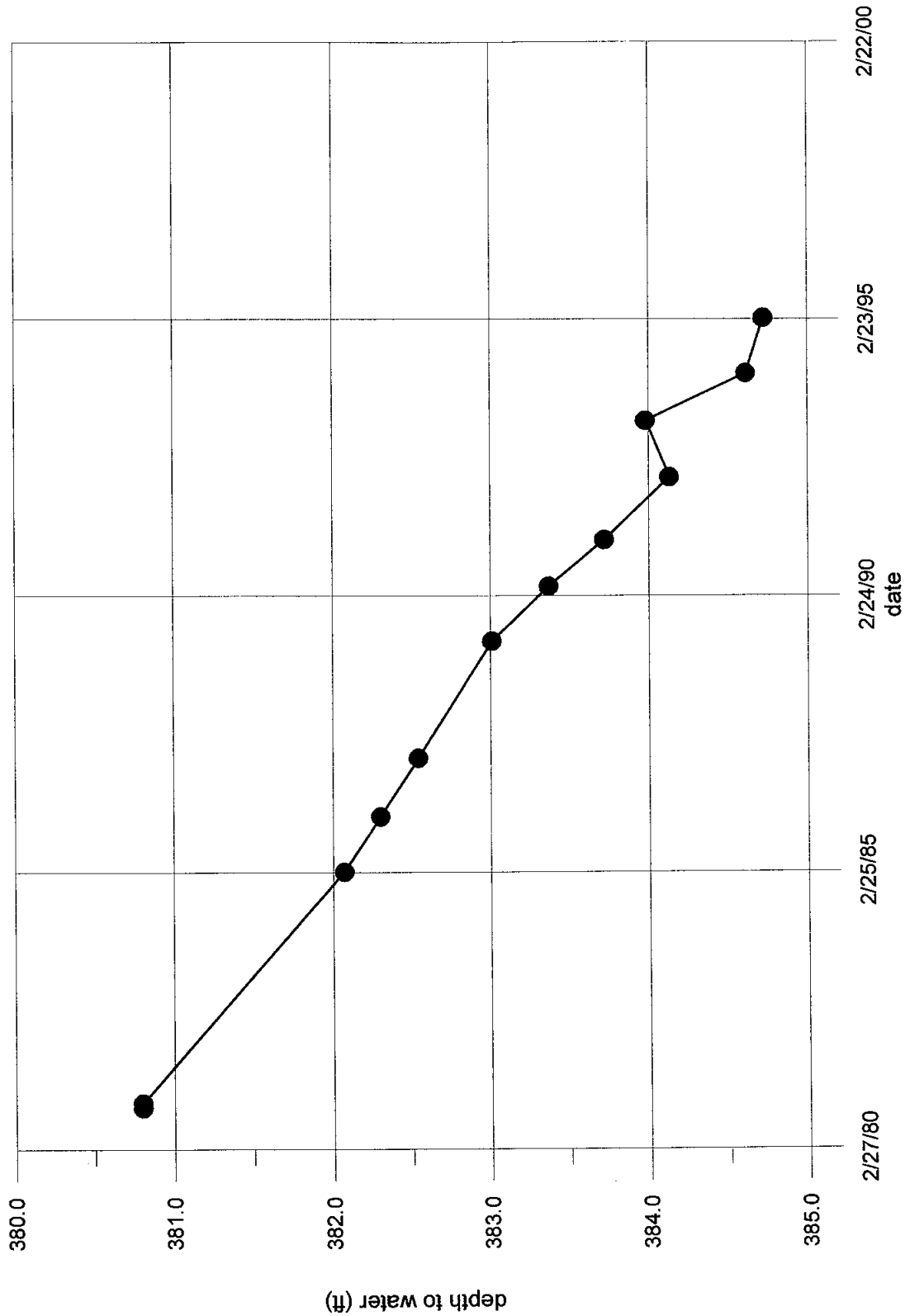
Western Tularosa Basin
Hydrograph of Well 151
T25S.R04E.11.123

depth to water (ft)

date
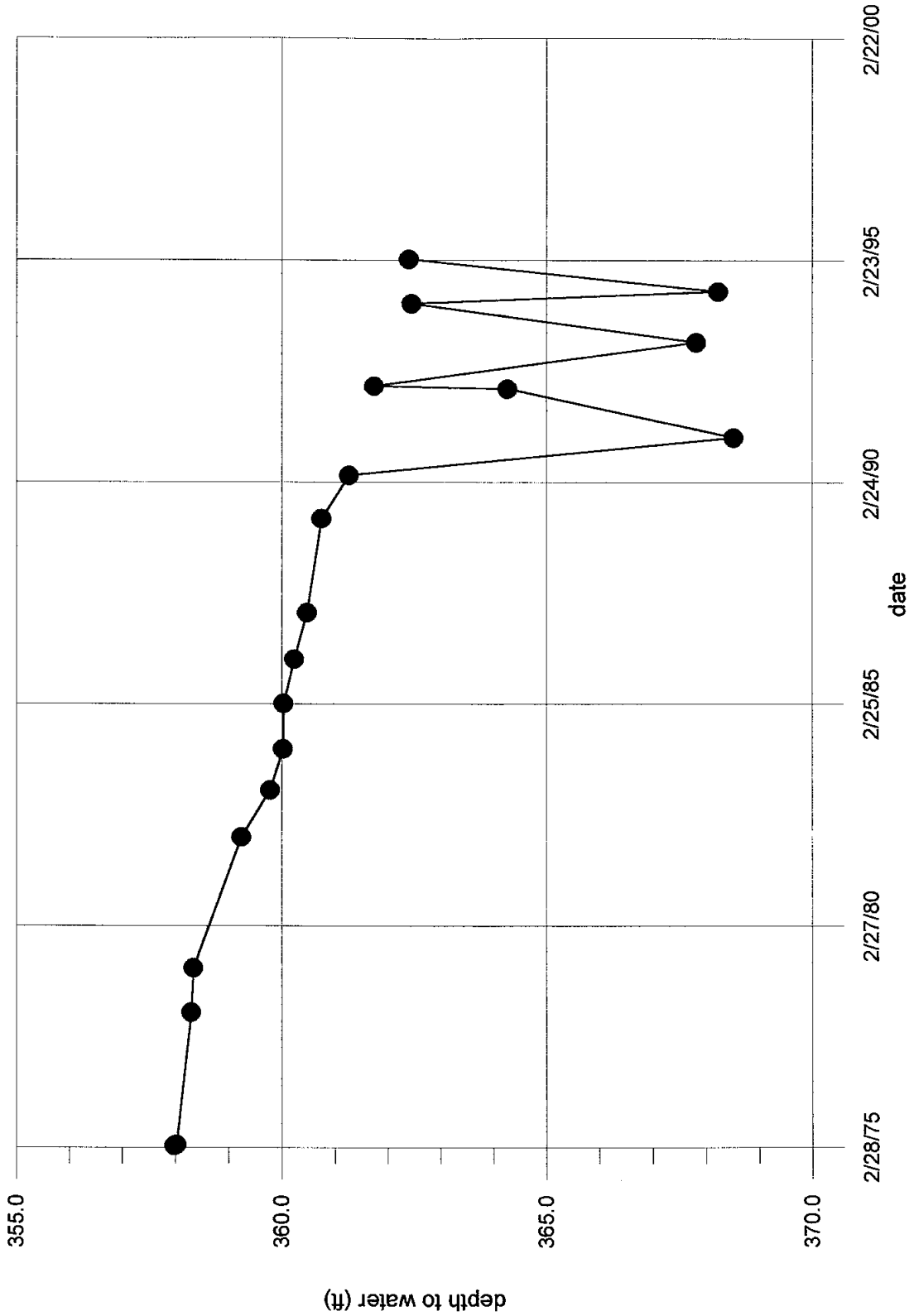
Western Tularosa Basin
Hydrograph of Well 152
T25S.R04E.12.121

depth to water (ft)

date
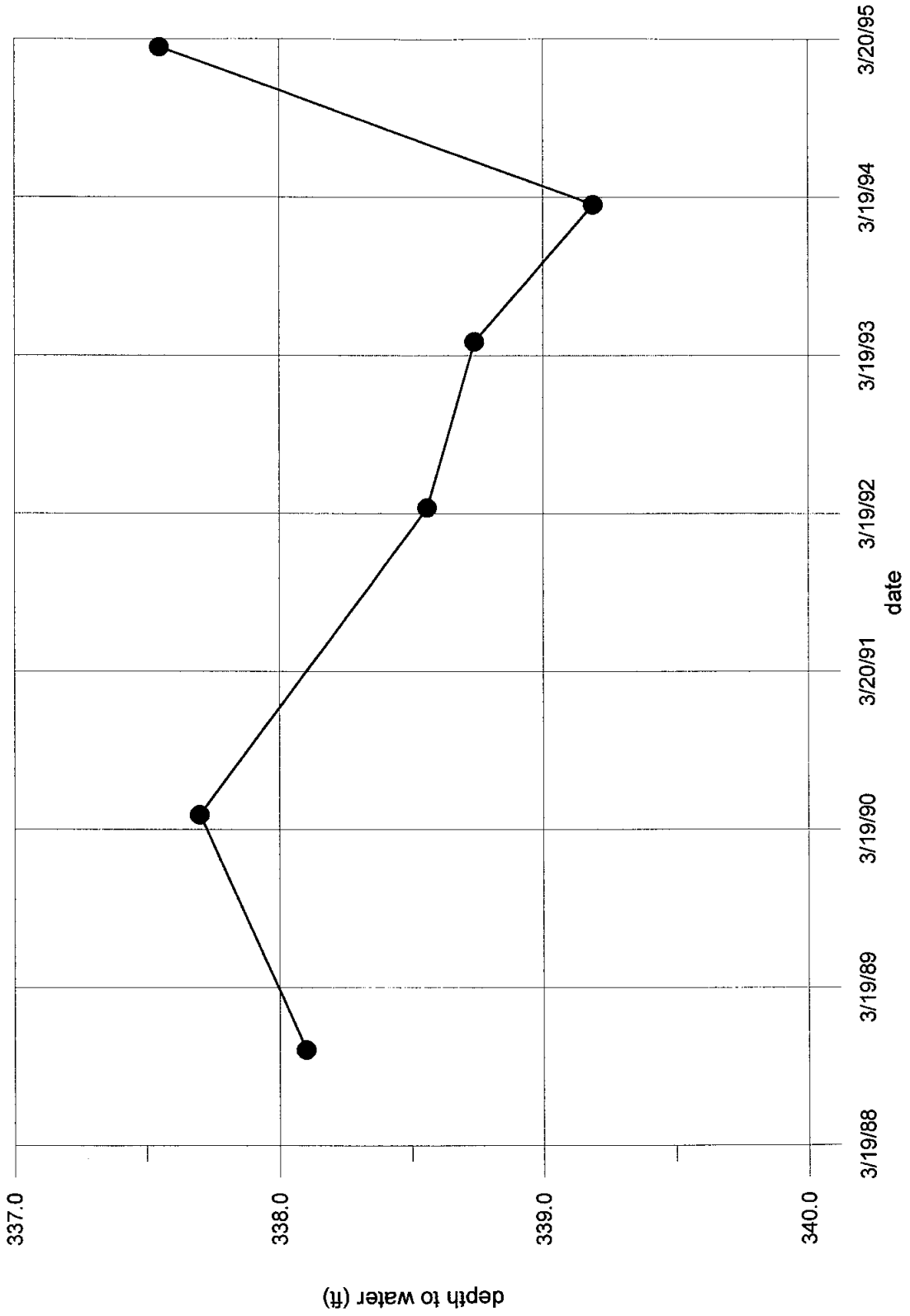
Western Tularosa Basin
Hydrograph of Well 153
T22S.05E.05.313

depth to water (ft)

275.0

276.0

3/19/84   3/19/85   3/19/86   3/20/87   3/19/88   3/19/89   3/19/90   3/20/91   3/19/92

date
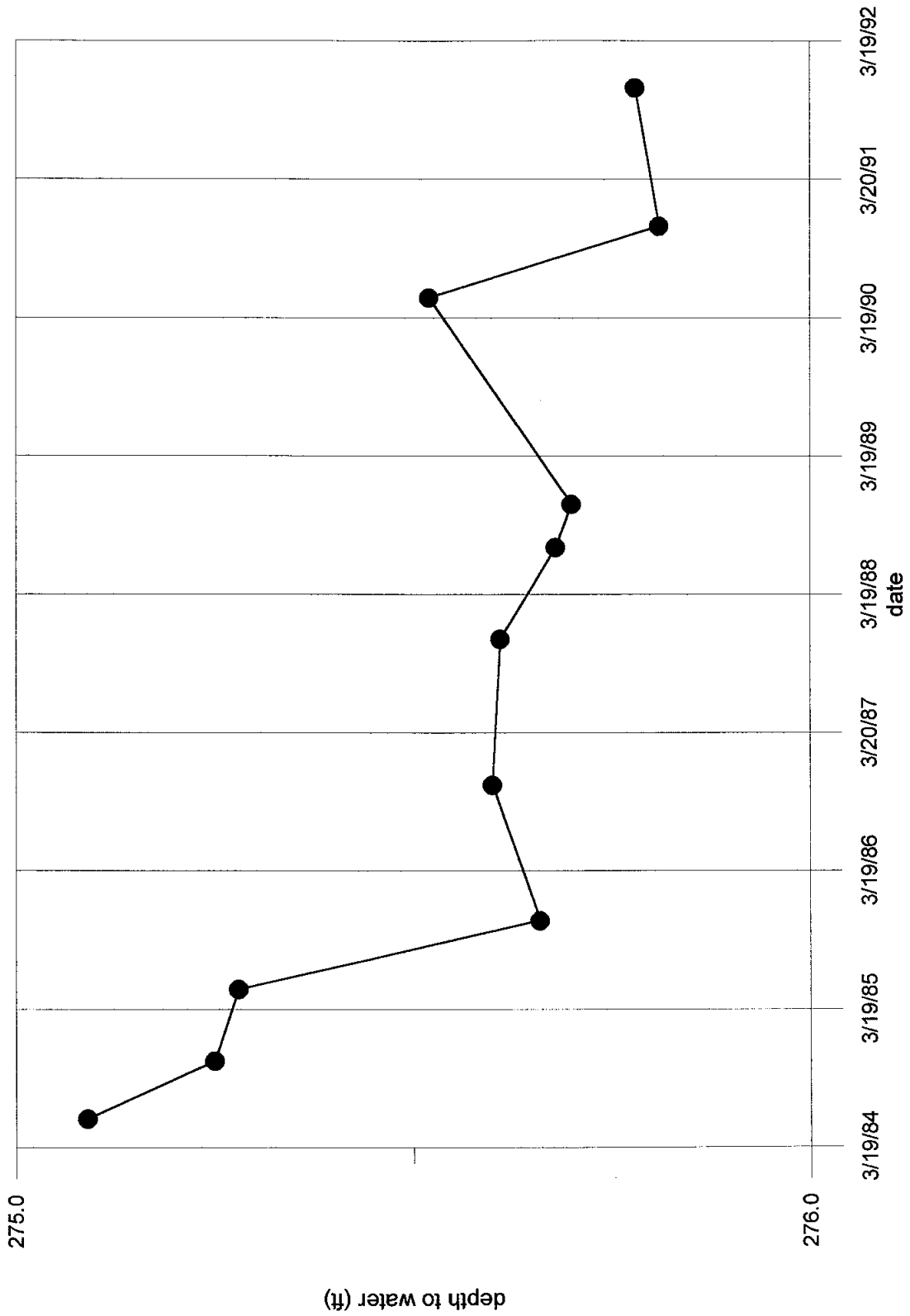
Western Tularosa Basin
Hydrograph of Well 154
T23S.R05E.34.132A

JOHN SHOMAKER AND ASSOCIATES, INC.
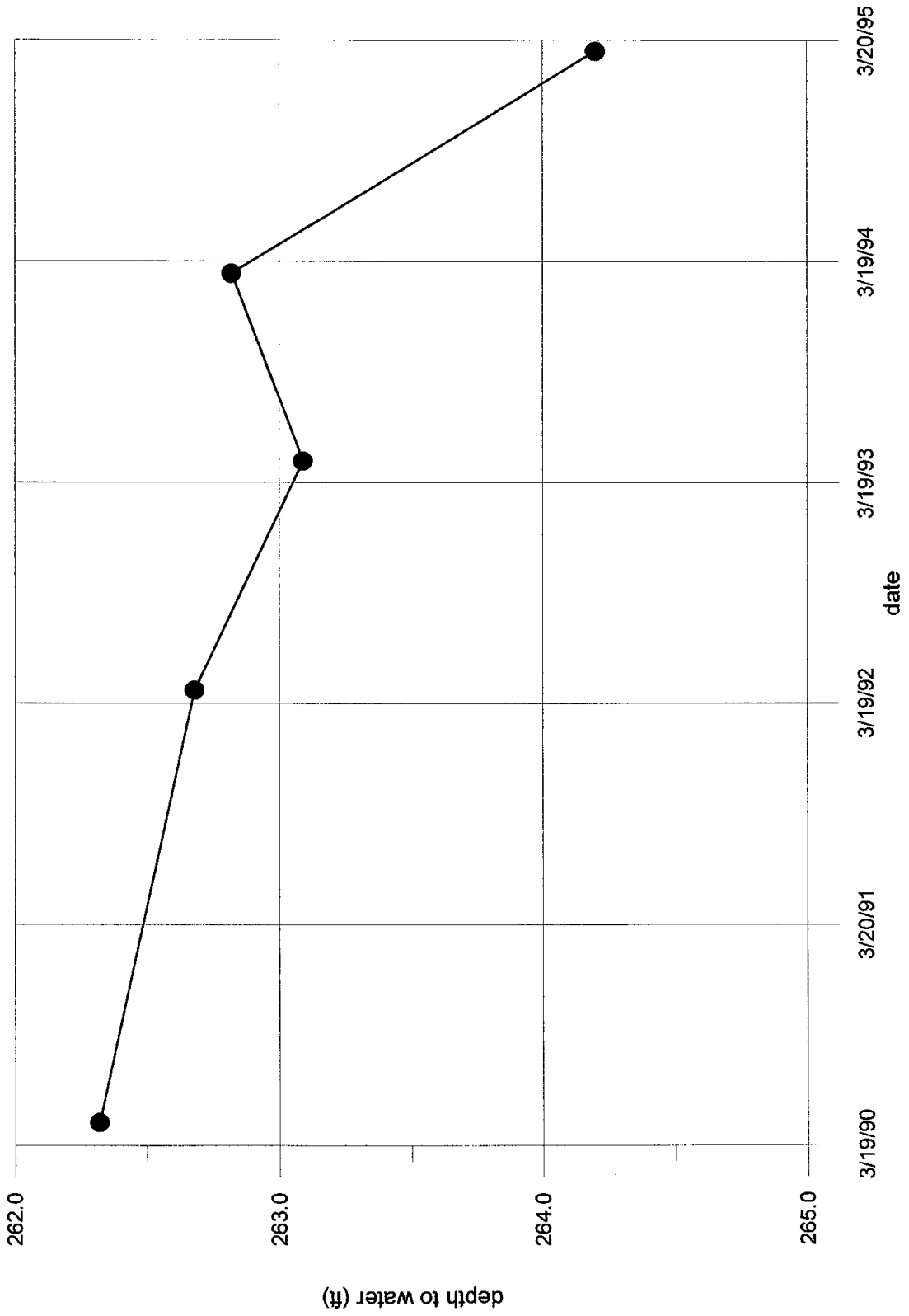
Western Tularosa Basin
Hydrograph of Well 155
T23S.R05E.27.142

depth to water (ft)

date

JOHN SHOMAKER AND ASSOCIATES, INC.
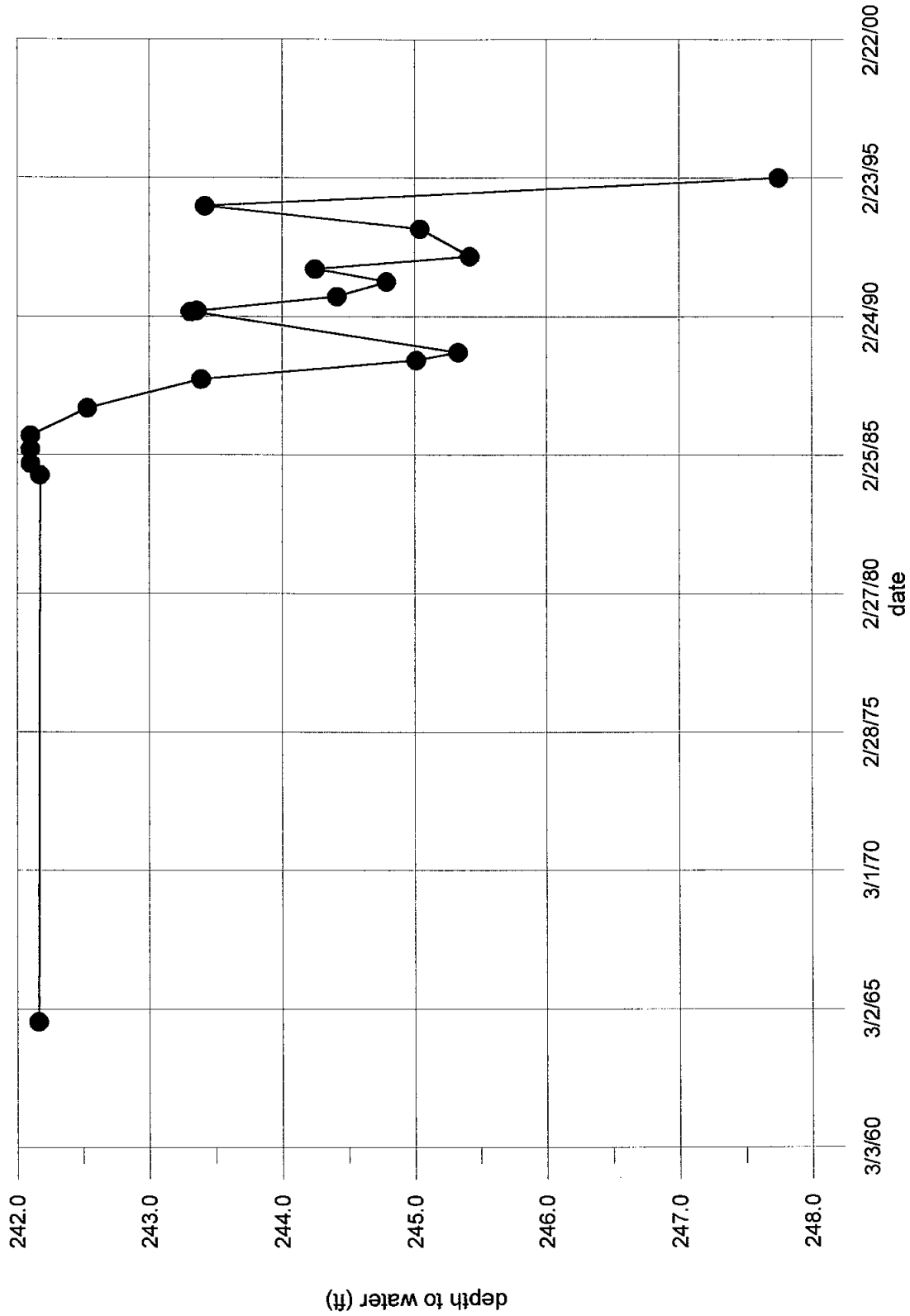
Western Tularosa Basin
Hydrograph of Well 156
T23S.R05E.10.413

depth to water (ft)

175.0   180.0   185.0   190.0

2/27/80   2/25/85   2/24/90   2/23/95   2/22/00

date

JOHN SHOMAKER AND ASSOCIATES, INC.
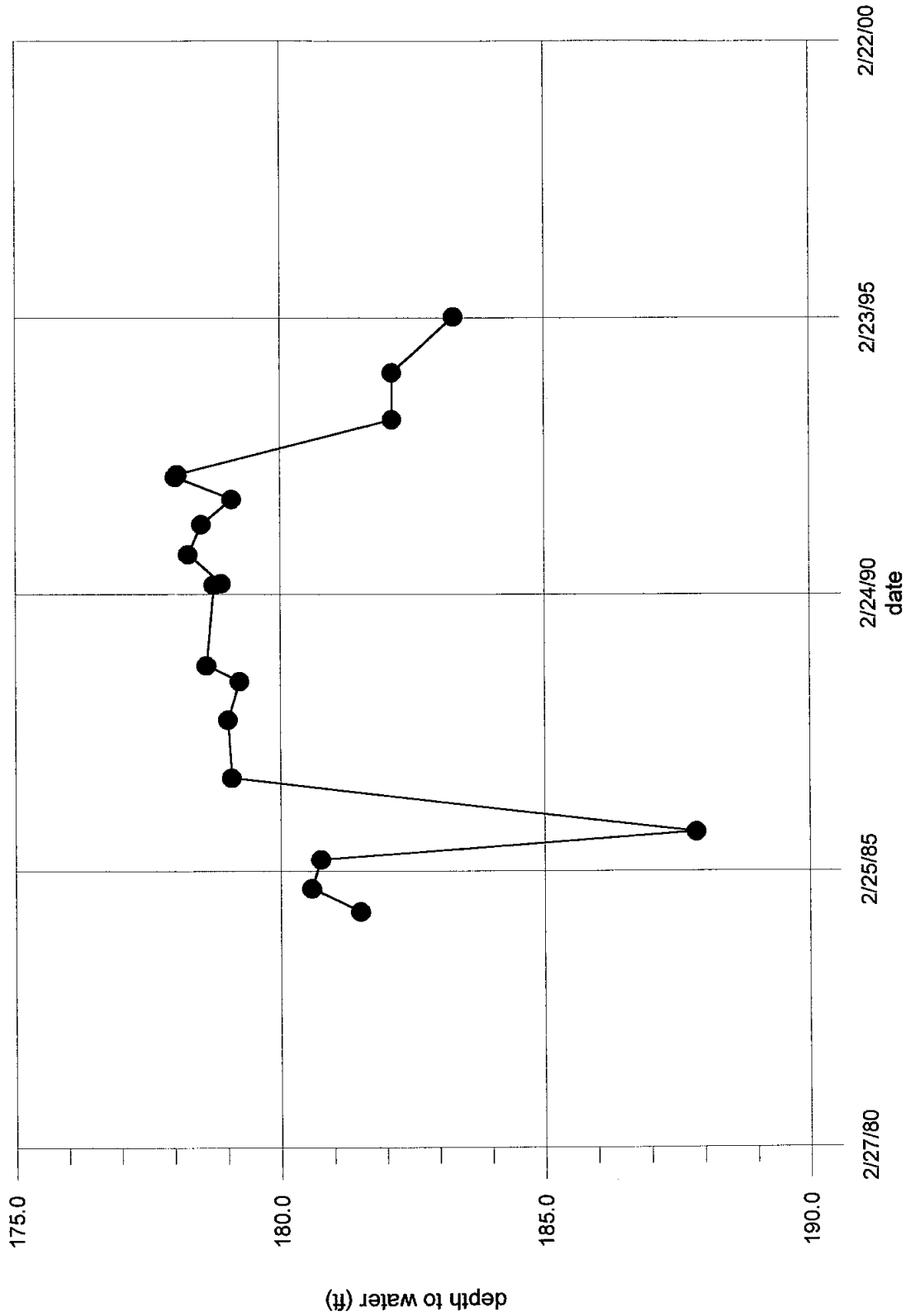
Western Tularosa Basin
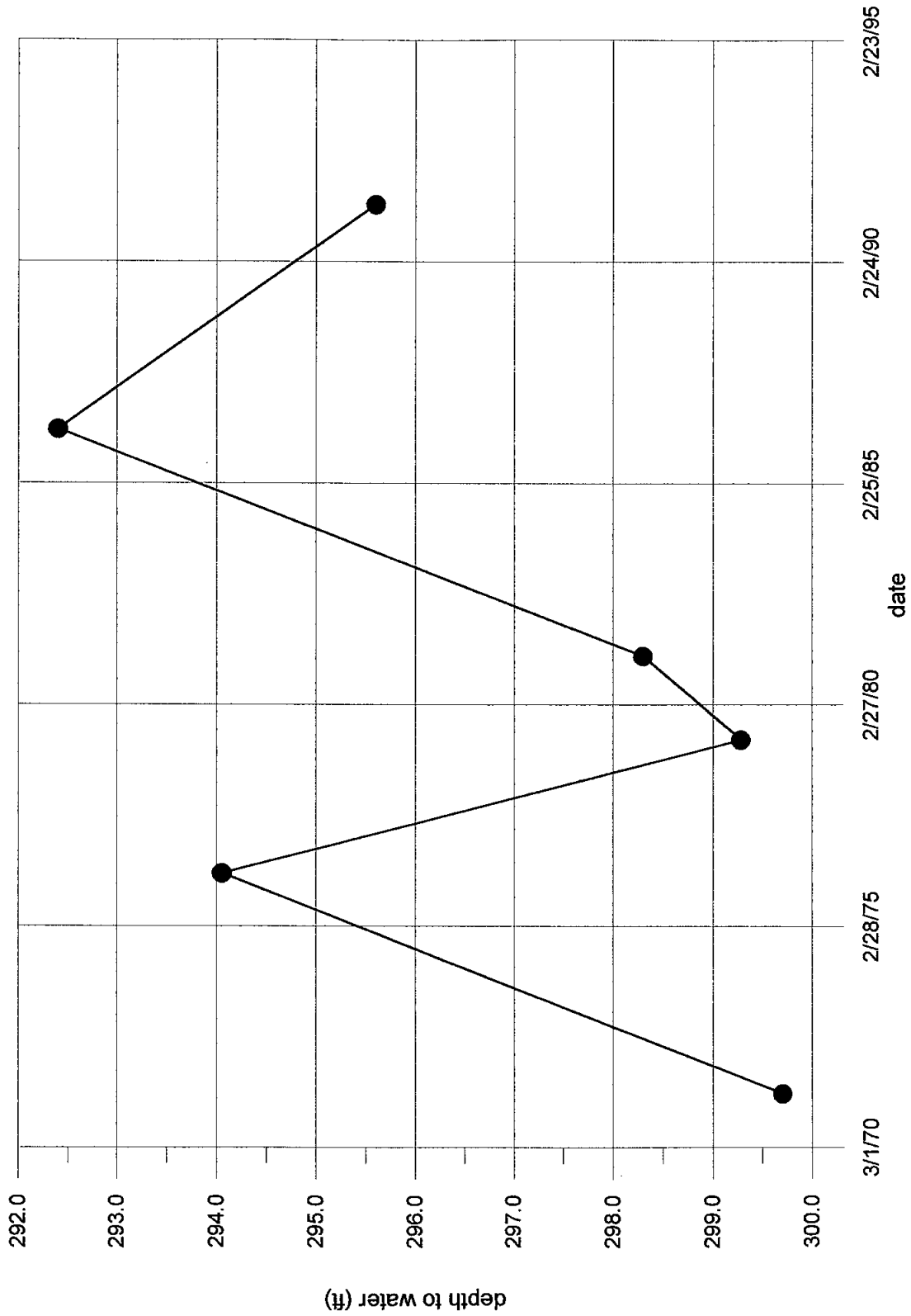Hydrograph of Well 157
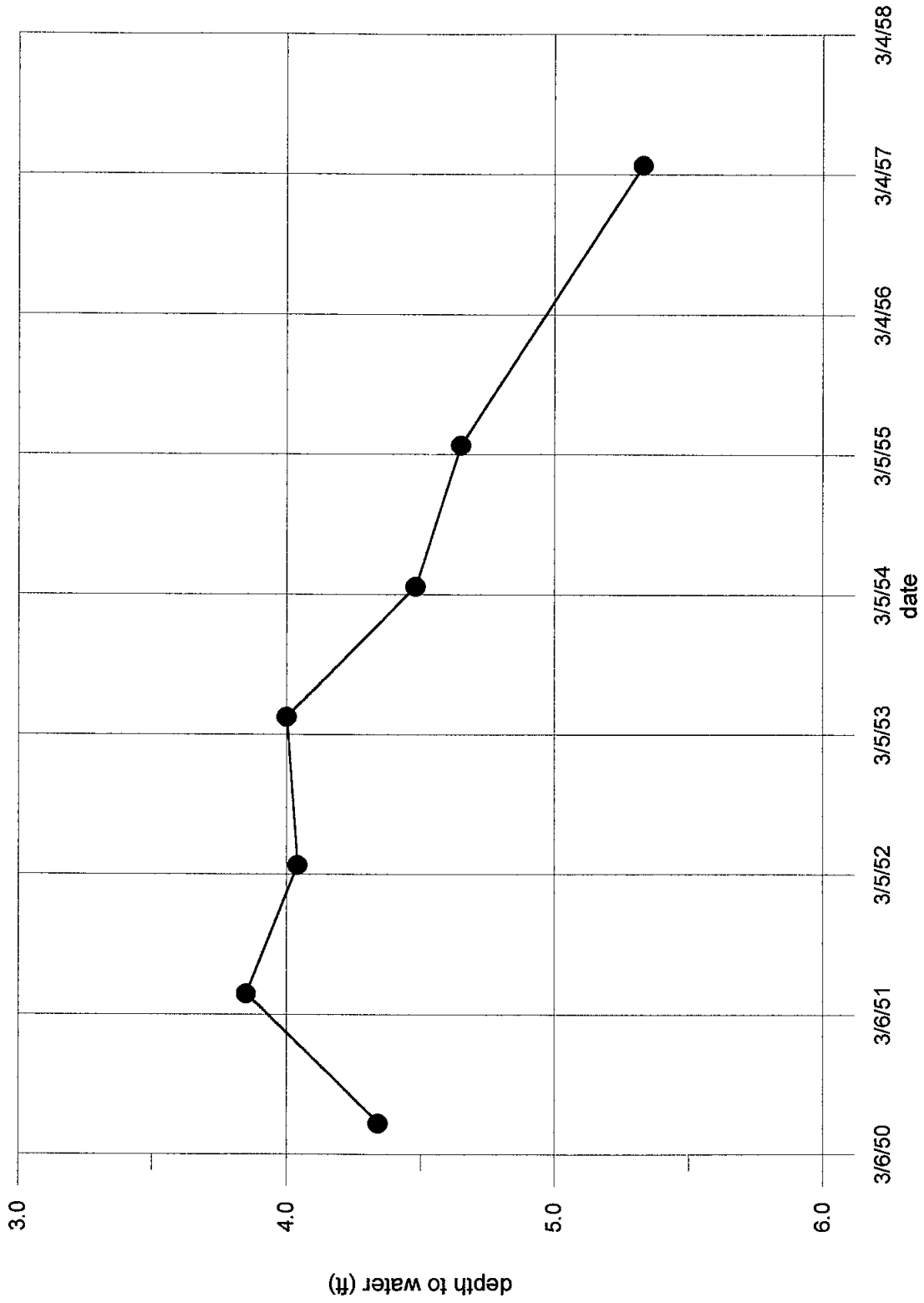T23S.R05E.05.321

depth to water (ft)

date
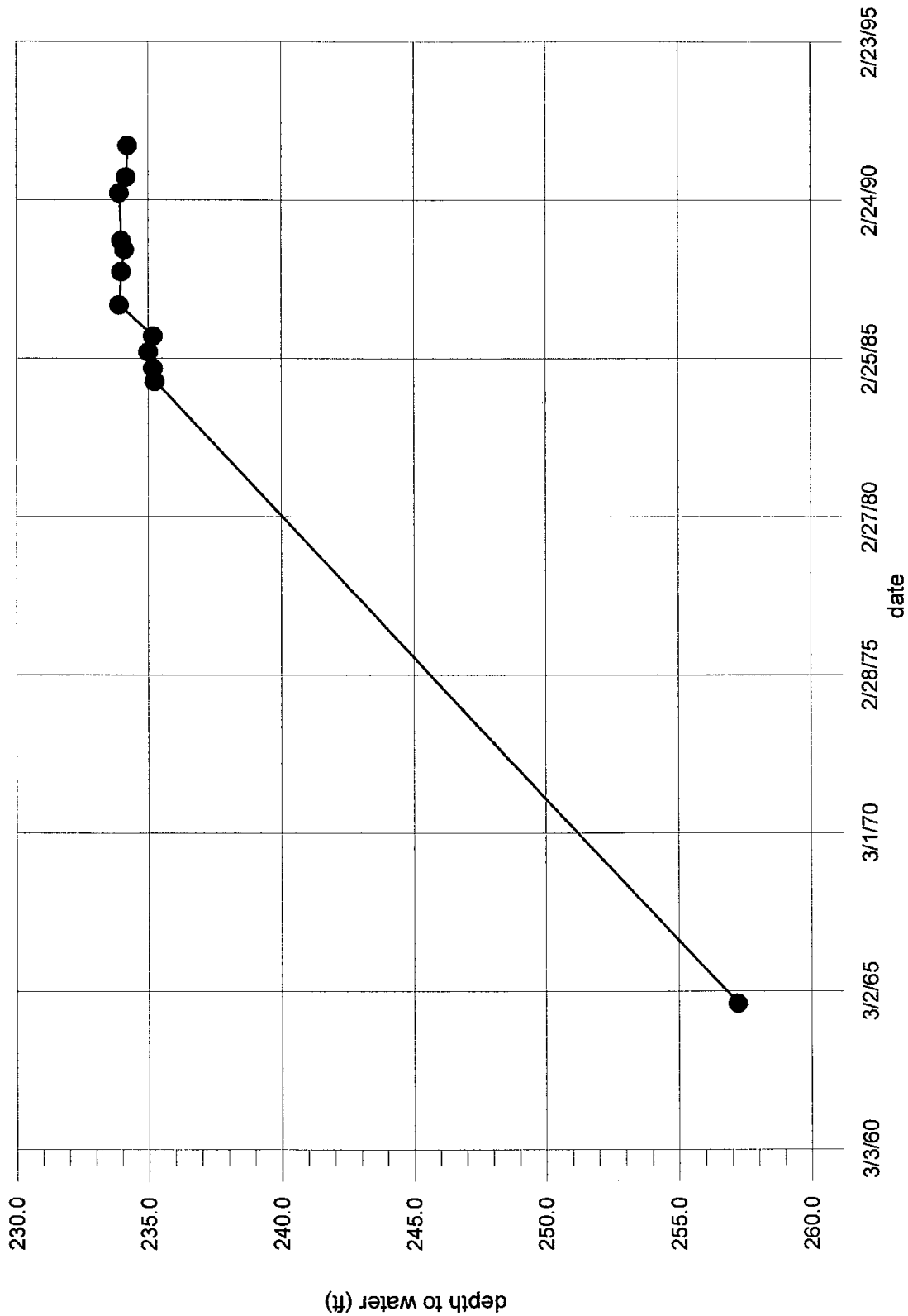
Western Tularosa Basin
Hydrograph of Well 158
T22S.R05E.31.424
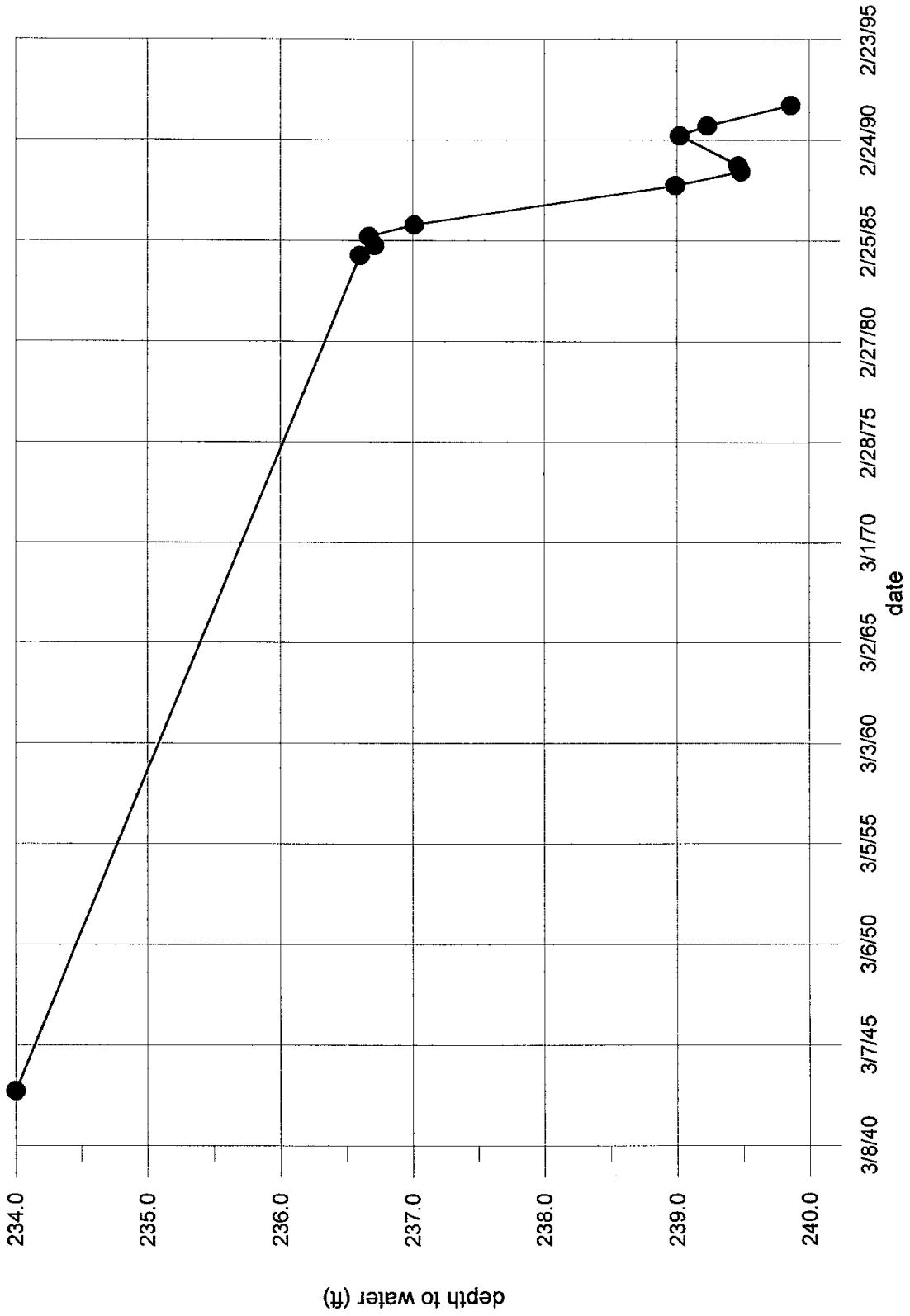
Western Tularosa Basin
Hydrograph of Well 159
T23S.R05E.01.113

depth to water (ft)

date
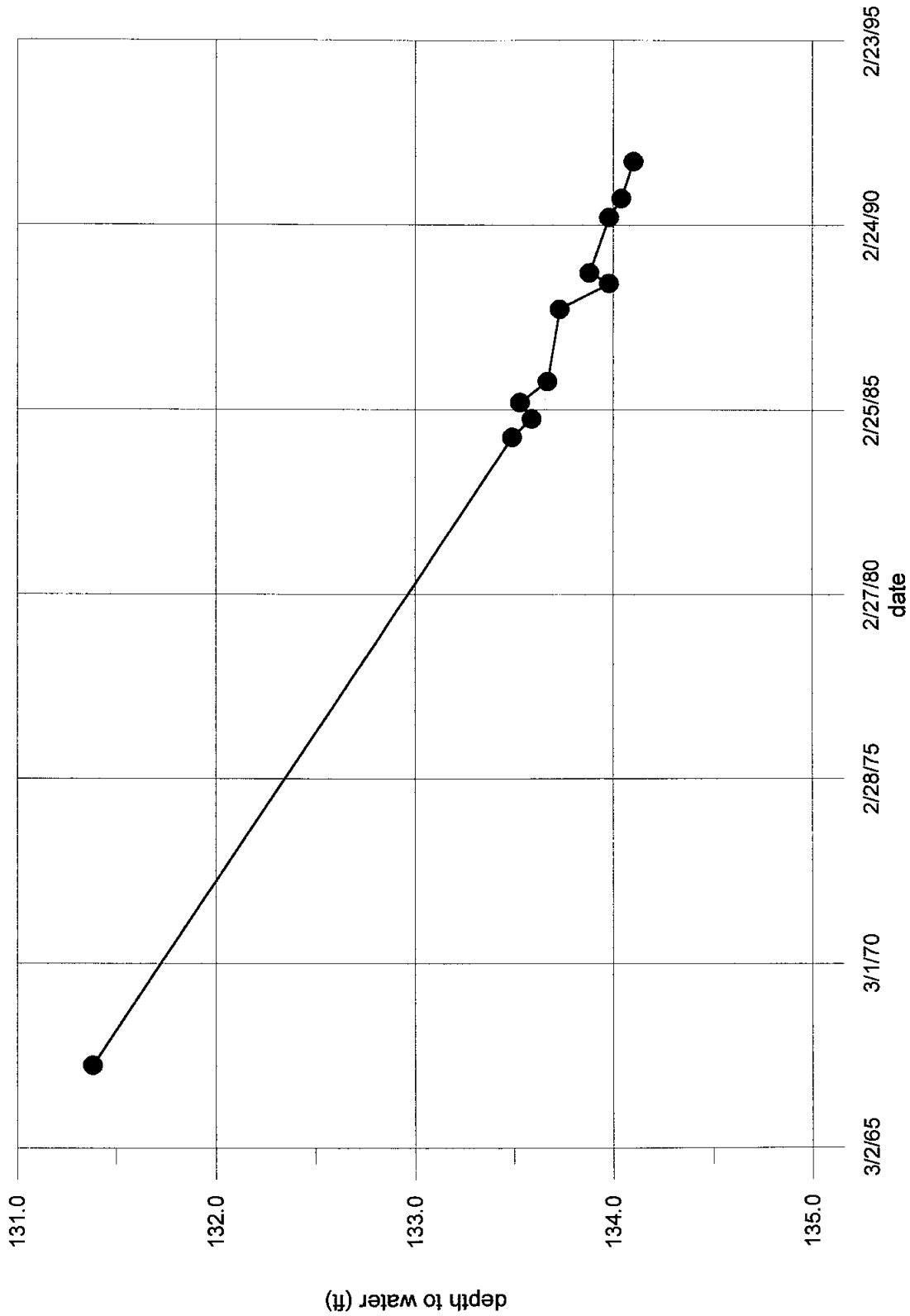
Western Tularosa Basin
Hydrograph of Well 160
T22S.R05E.33.244

depth to water (ft)

date

3/3/60   3/2/65   3/1/70   2/28/75   2/27/80   2/25/85   2/24/90   2/23/95

179.0   180.0   181.0
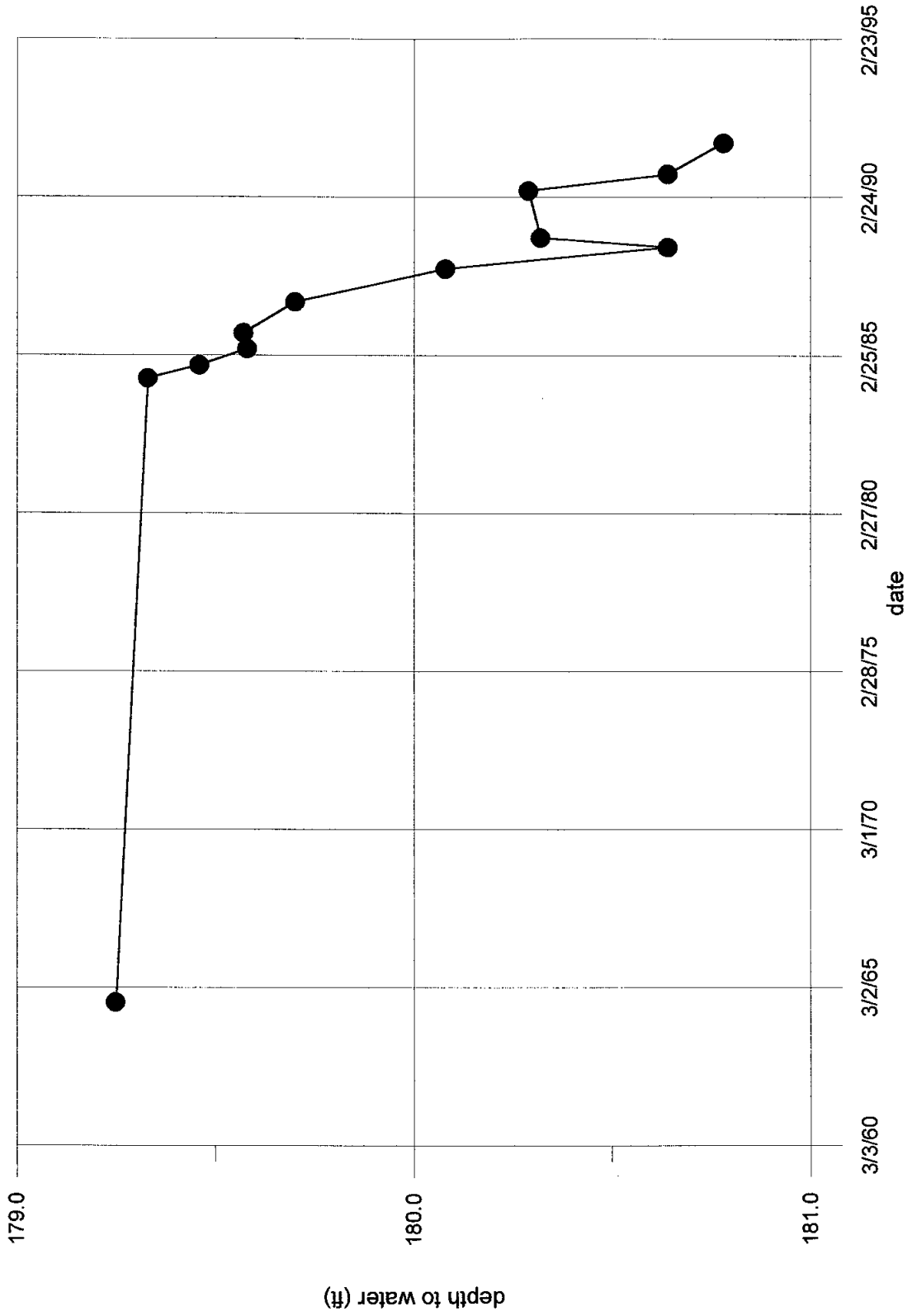
Western Tularosa Basin
Hydrograph of Well 161
T22S.R05E.33.223

depth to water (ft)

date
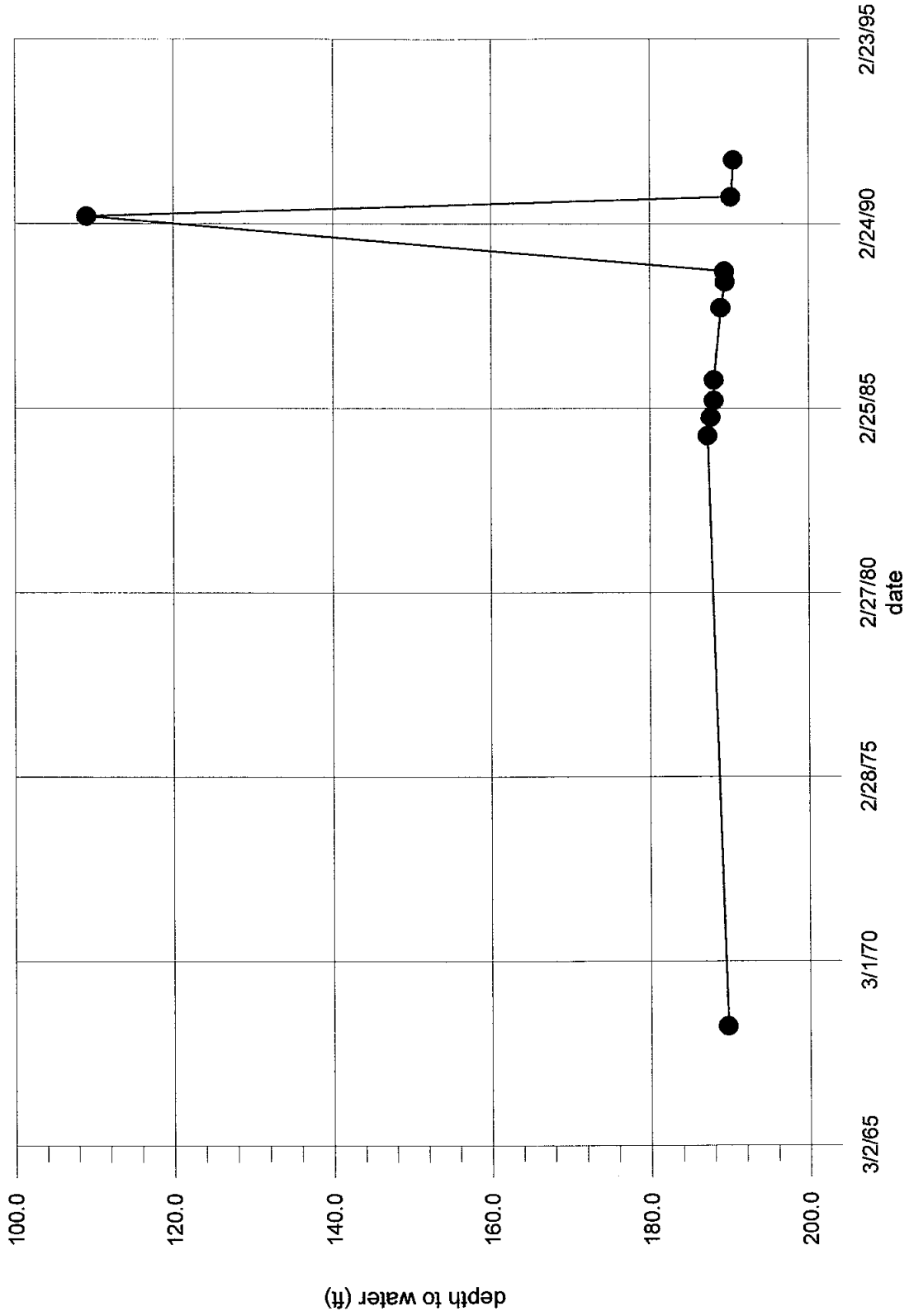
Western Tularosa Basin
Hydrograph of Well 162
T22S.R05E.30.423

depth to water (ft)

265.0

270.0

275.0

280.0

3/2/65　3/1/70　2/28/75　2/27/80　2/25/85　2/24/90　2/23/95

date
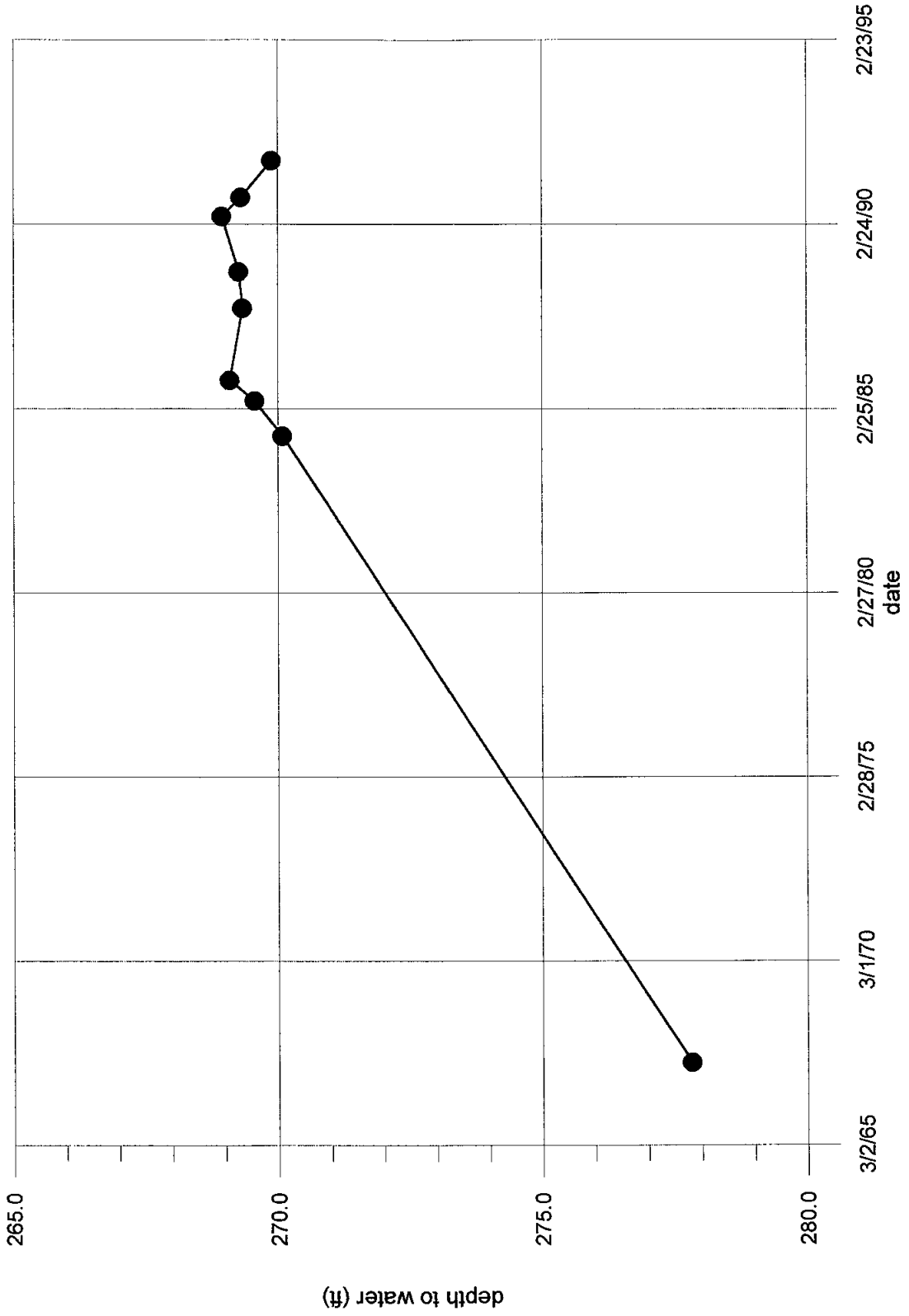
Western Tularosa Basin
Hydrograph of Well 163
T22S.R05E.29.412

depth to water (ft)

date

3/3/60   3/2/65   3/1/70   2/28/75   2/27/80   2/25/85   2/24/90   2/23/95

270.0   275.0   280.0   285.0

JOHN SHOMAKER AND ASSOCIATES, INC.
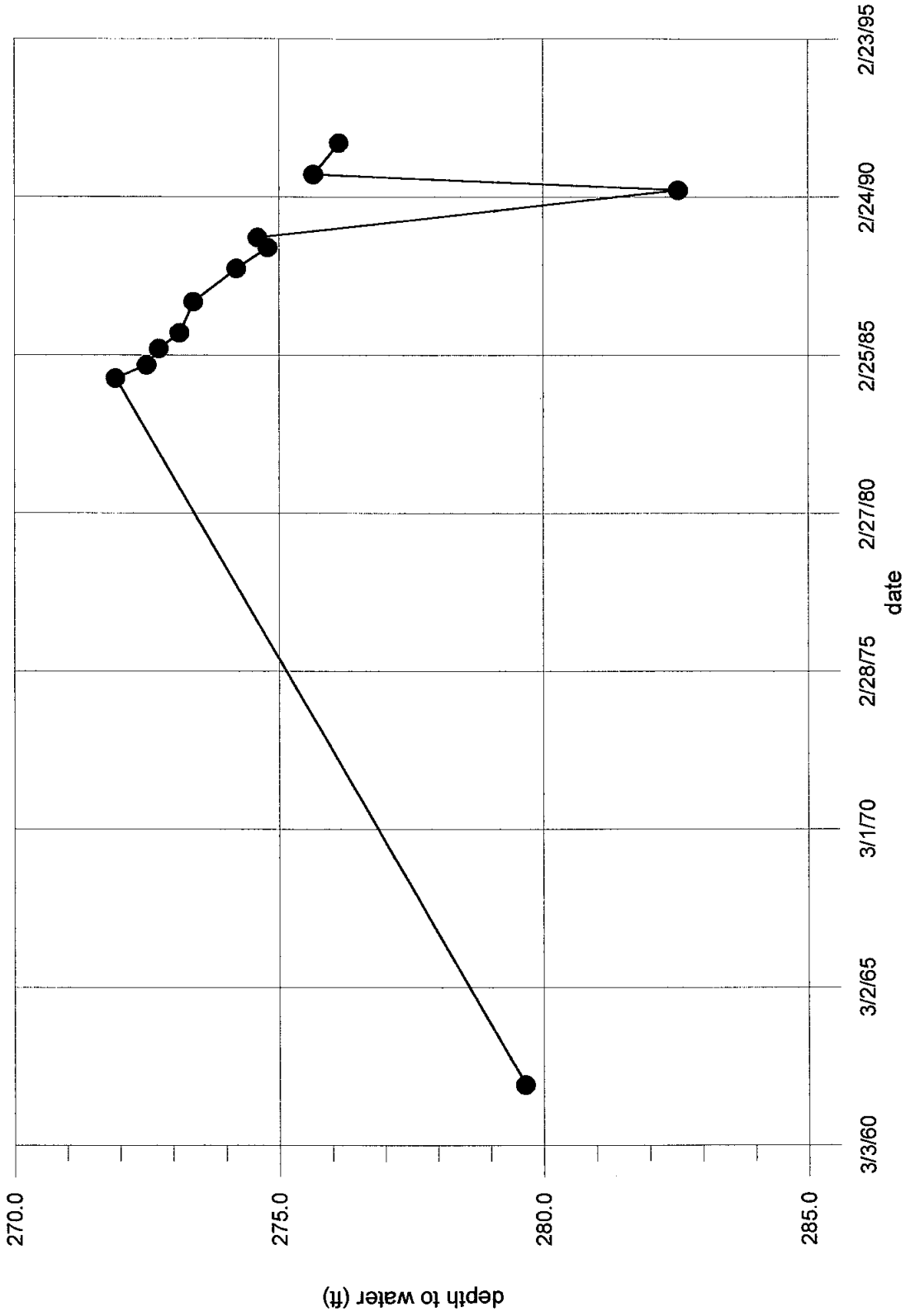
Western Tularosa Basin
Hydrograph of Well 164
T22S.R05E.26.312

depth to water (ft)

date
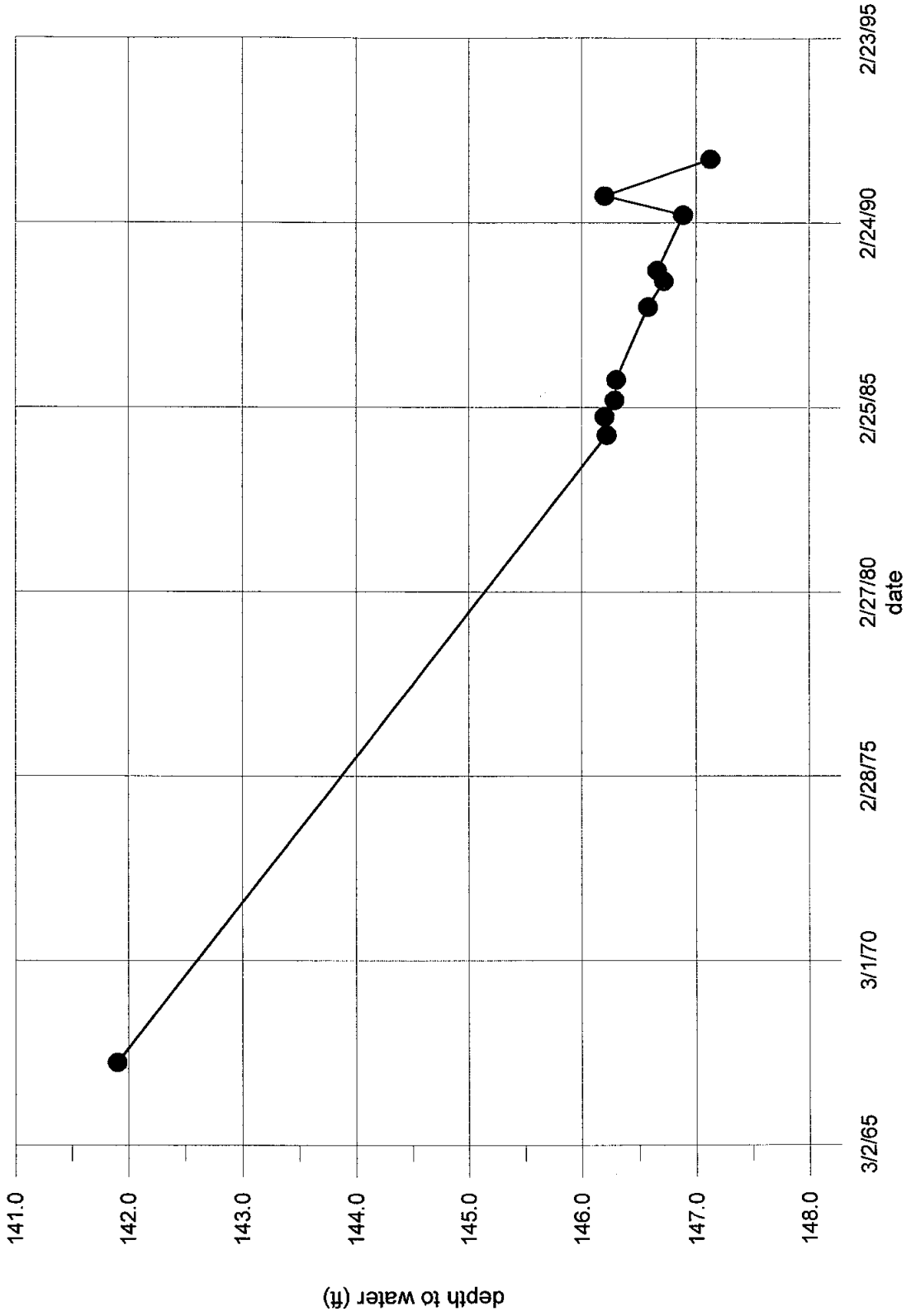
Western Tularosa Basin
Hydrograph of Well 165
T22S.R05E.28.233

depth to water (ft)

date
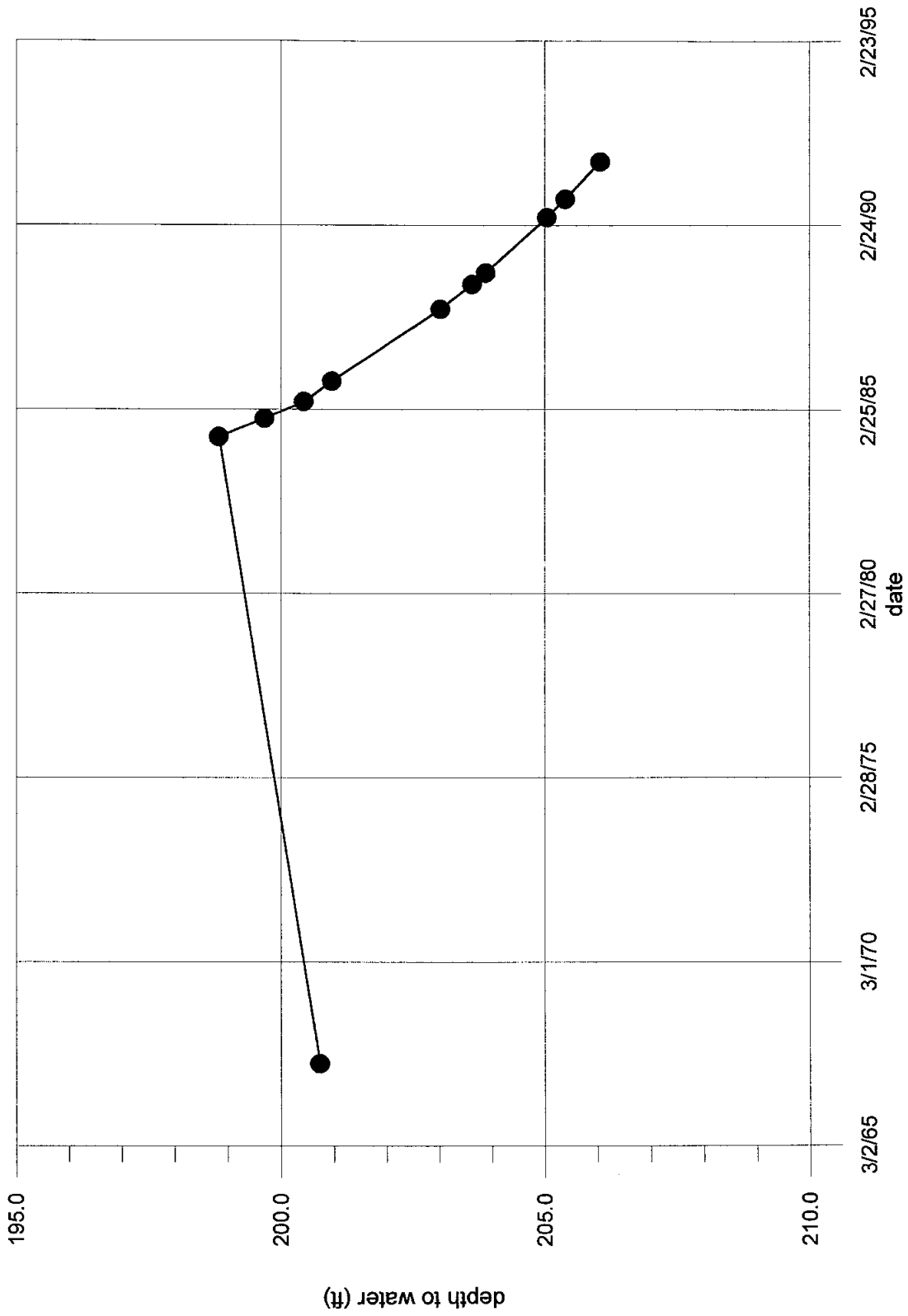
Western Tularosa Basin
Hydrograph of Well 166
T22S.R05E.28.234

depth to water (ft)

date
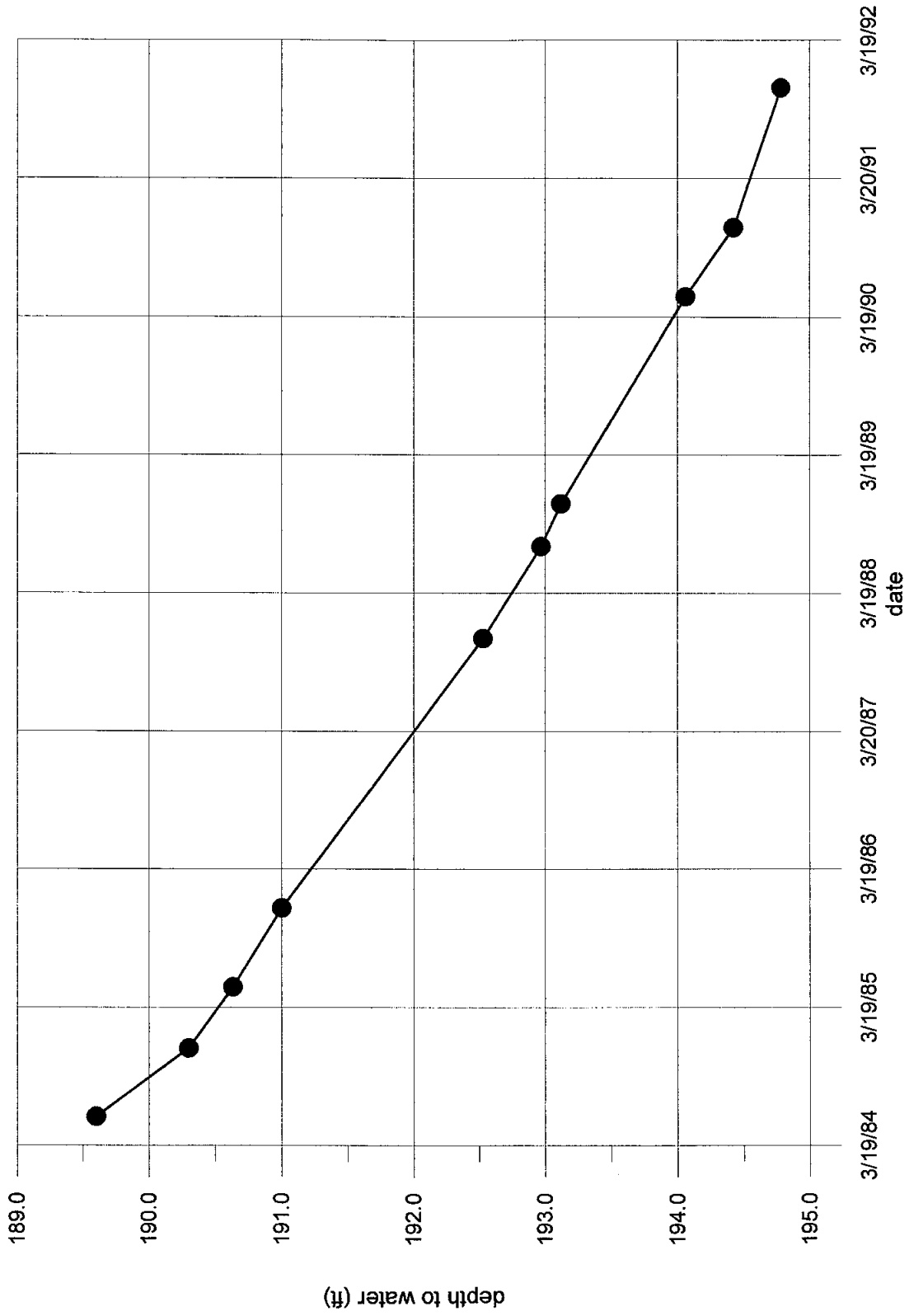
Western Tularosa Basin
Hydrograph of Well 167
T22S.R05E.28.142C

depth to water (ft)

date
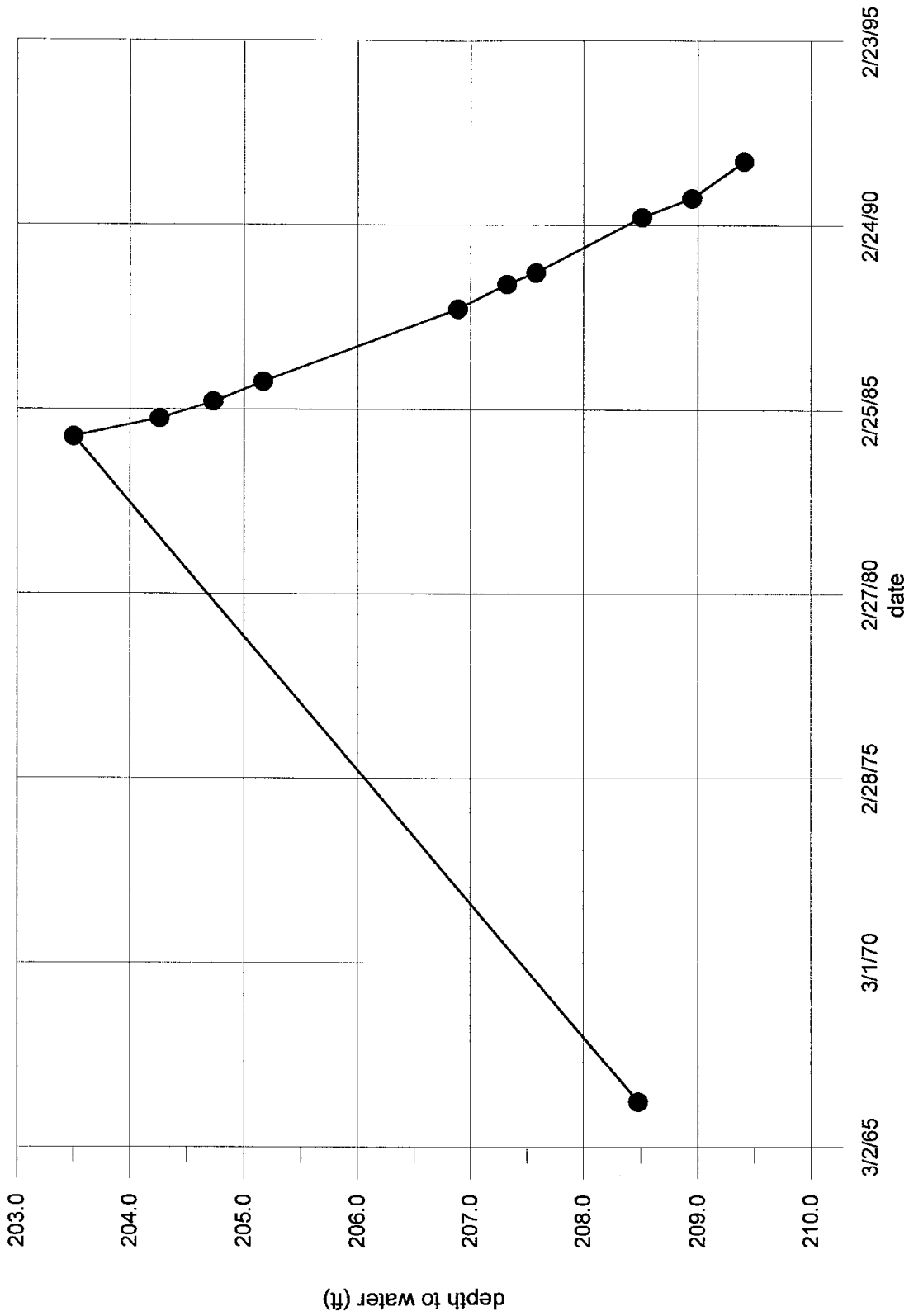
Western Tularosa Basin
Hydrograph of Well 168
T22S.R05E.28.124

depth to water (ft)

196.0 · 197.0 · 198.0 · 199.0 · 200.0 · 201.0 · 202.0 · 203.0 · 204.0 · 205.0

3/2/65 · 3/1/70 · 2/28/75 · 2/27/80 · 2/25/85 · 2/24/90 · 2/23/95

date
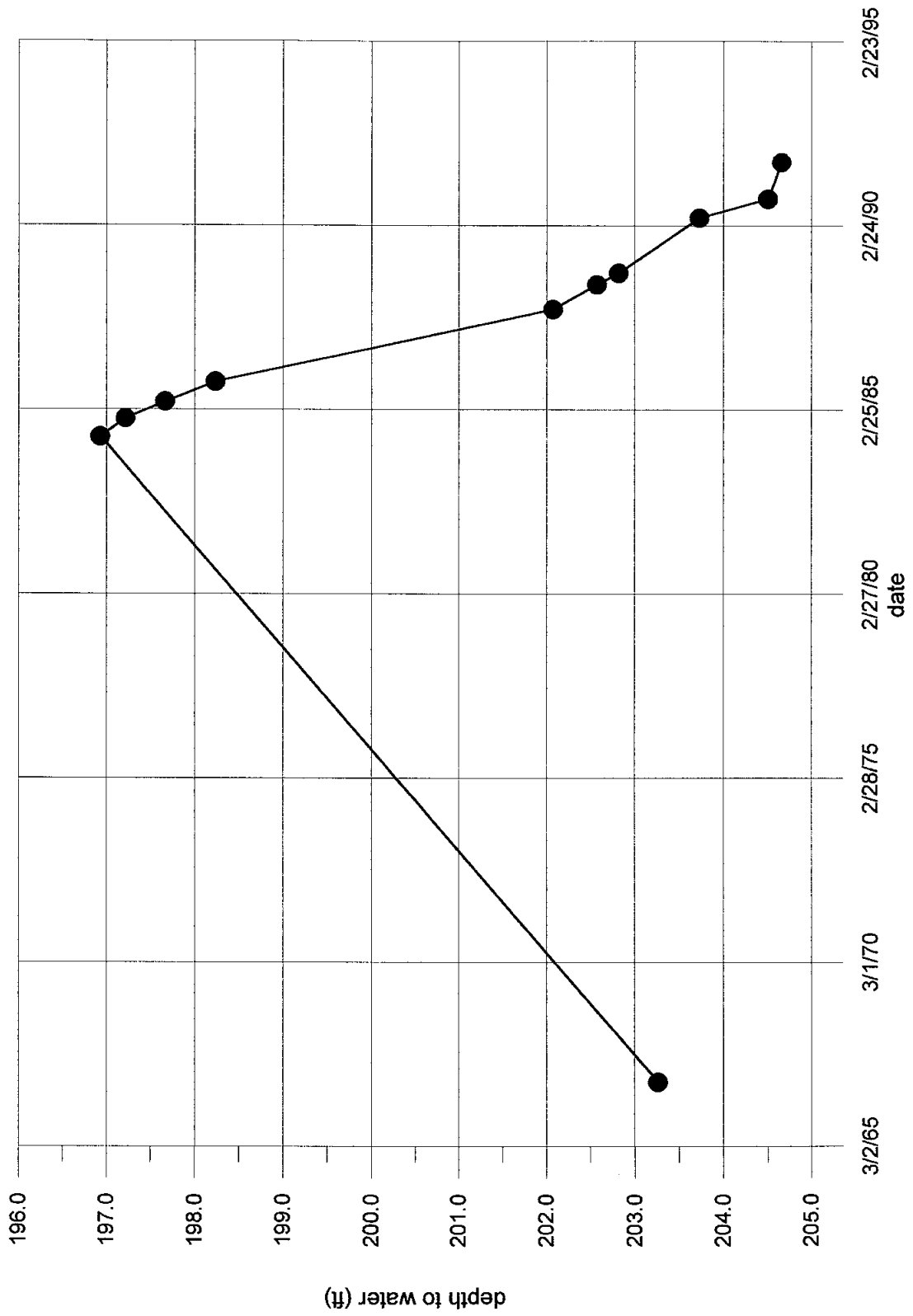
Western Tularosa Basin
Hydrograph of Well 169
T22S.R05E.30.122

depth to water (ft)

date
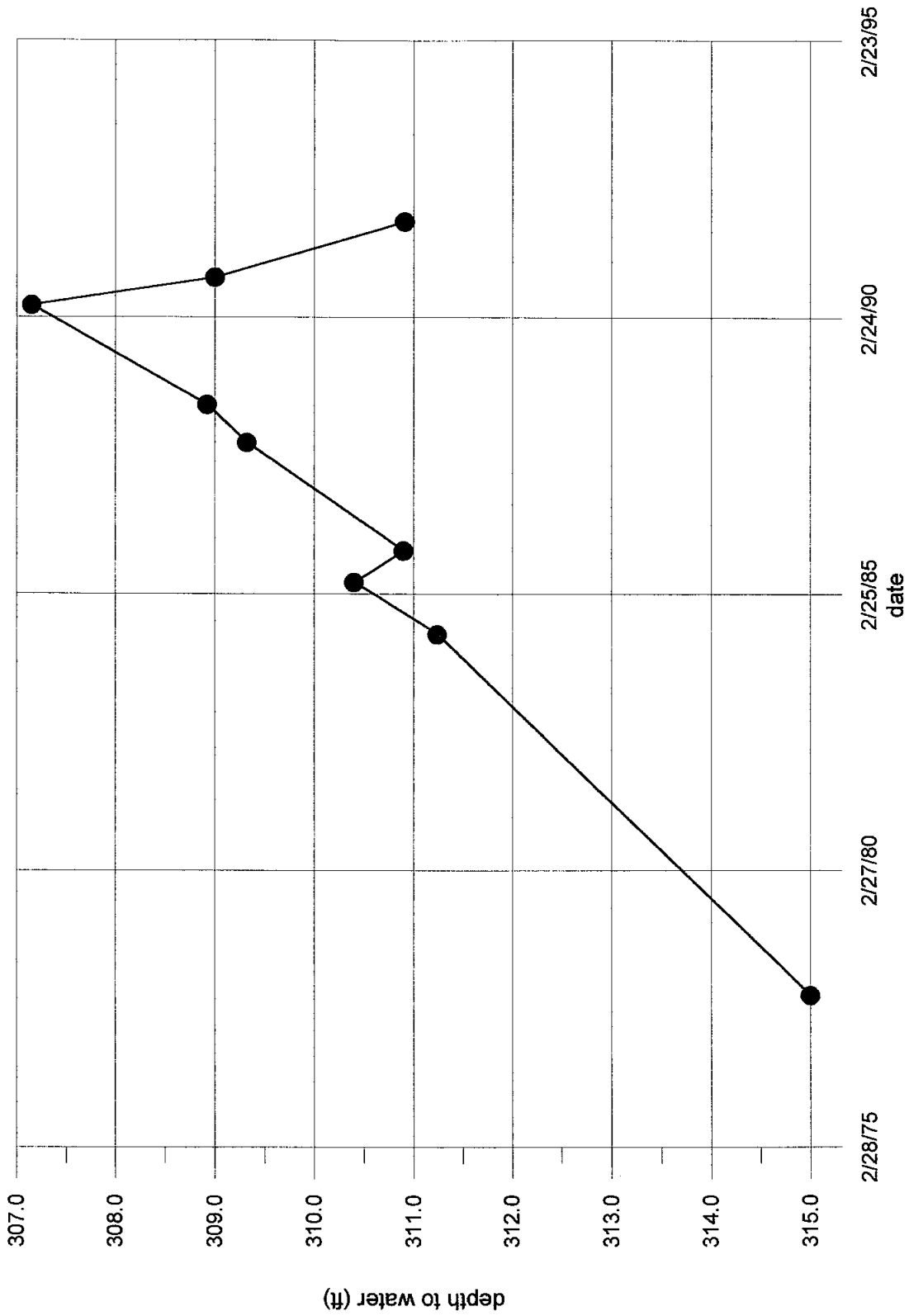
Western Tularosa Basin
Hydrograph of Well 170
T22S.R05E.19.323

depth to water (ft)

date

335.0 340.0 345.0 350.0 355.0 360.0

3/1/70 2/28/75 2/27/80 2/25/85 2/24/90 2/23/95
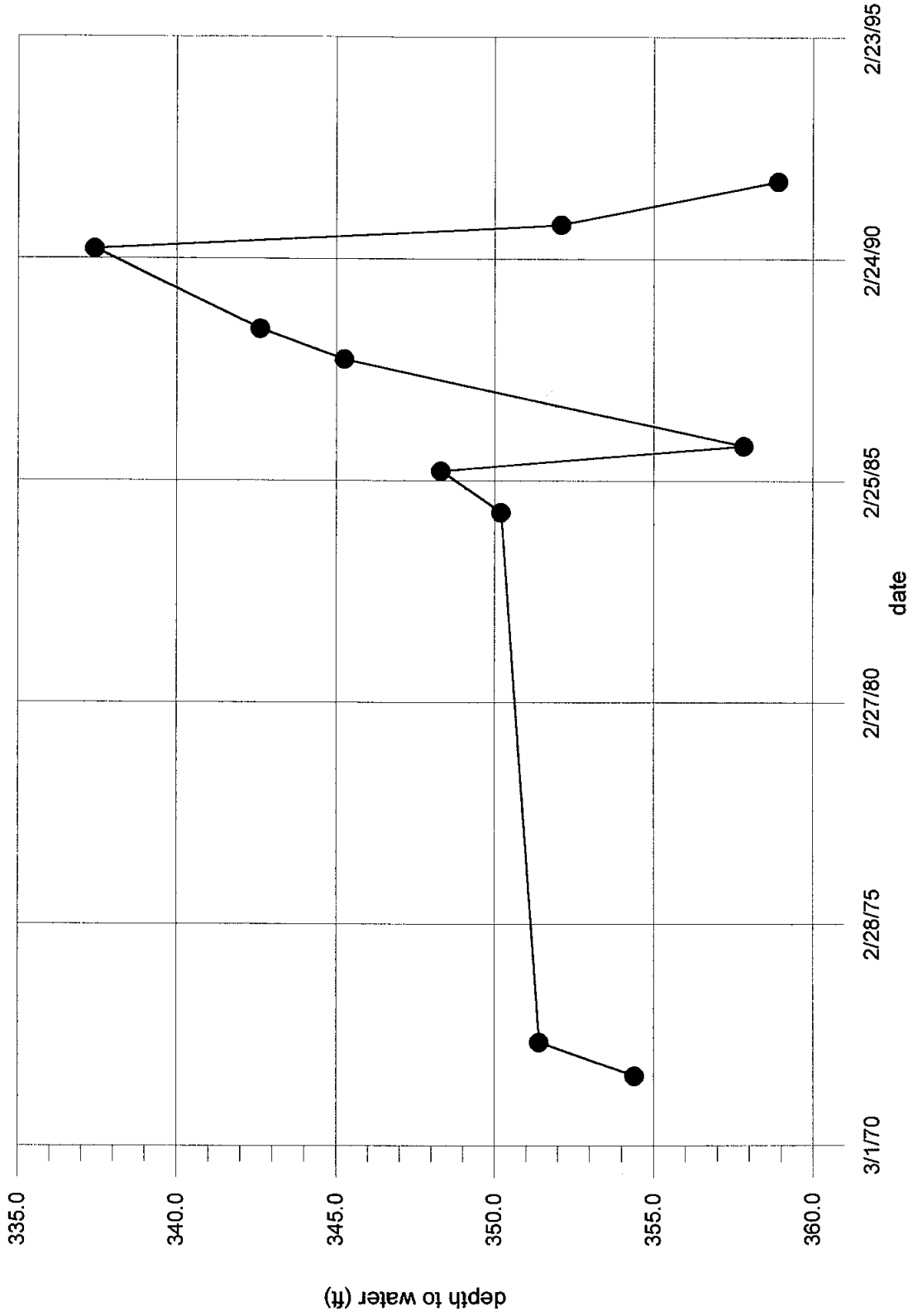
Western Tularosa Basin
Hydrograph of Well 171
T22S.R04E.23.214

depth to water (ft)

220.0
230.0
240.0
250.0
260.0
270.0
280.0
290.0
300.0

3/7/45
3/6/50
3/5/55
3/3/60
3/2/65
3/1/70
2/28/75
2/27/80
2/25/85
2/24/90
2/23/95

date
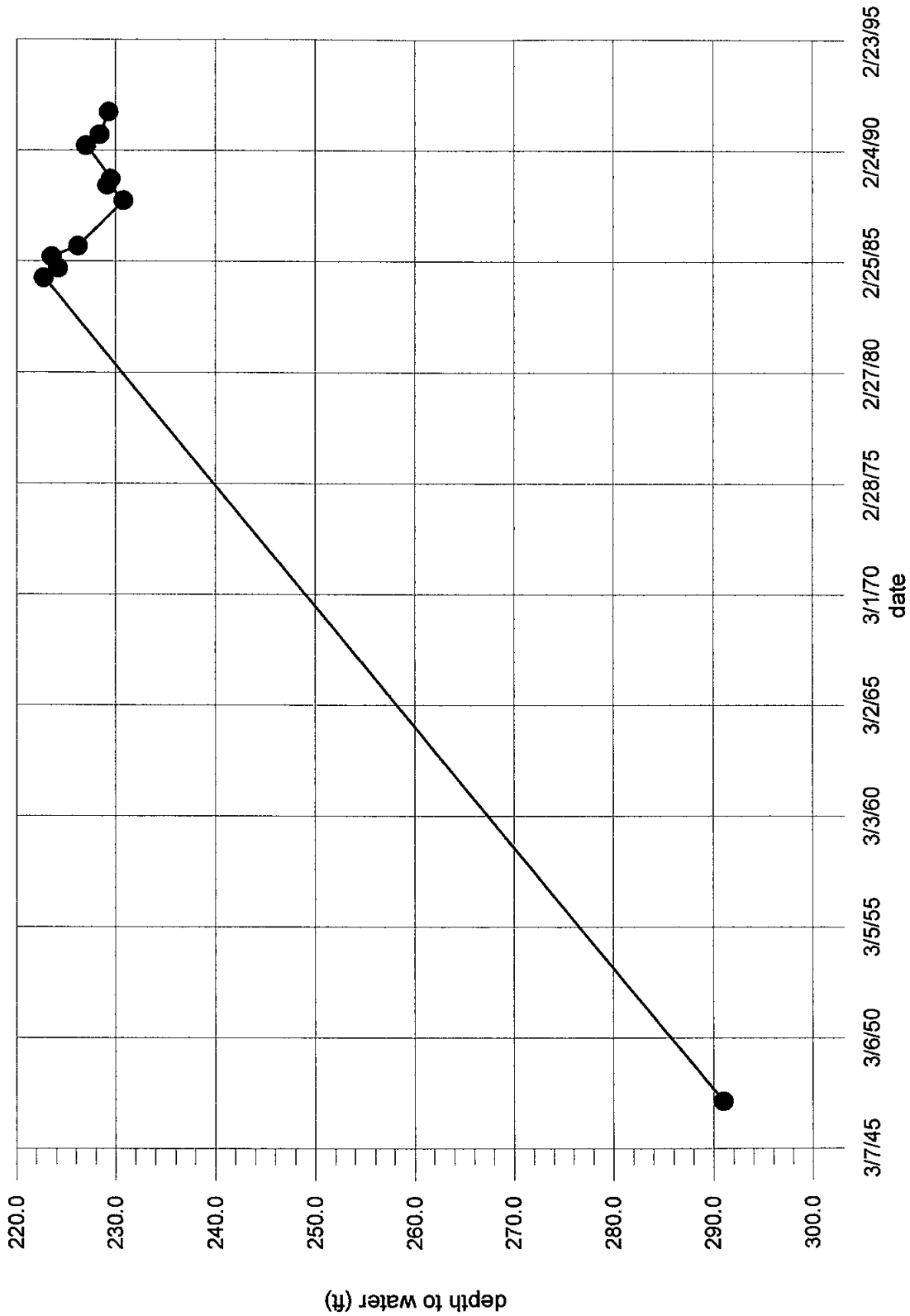
Western Tularosa Basin
Hydrograph of Well 172
T22S.R05E.19.141
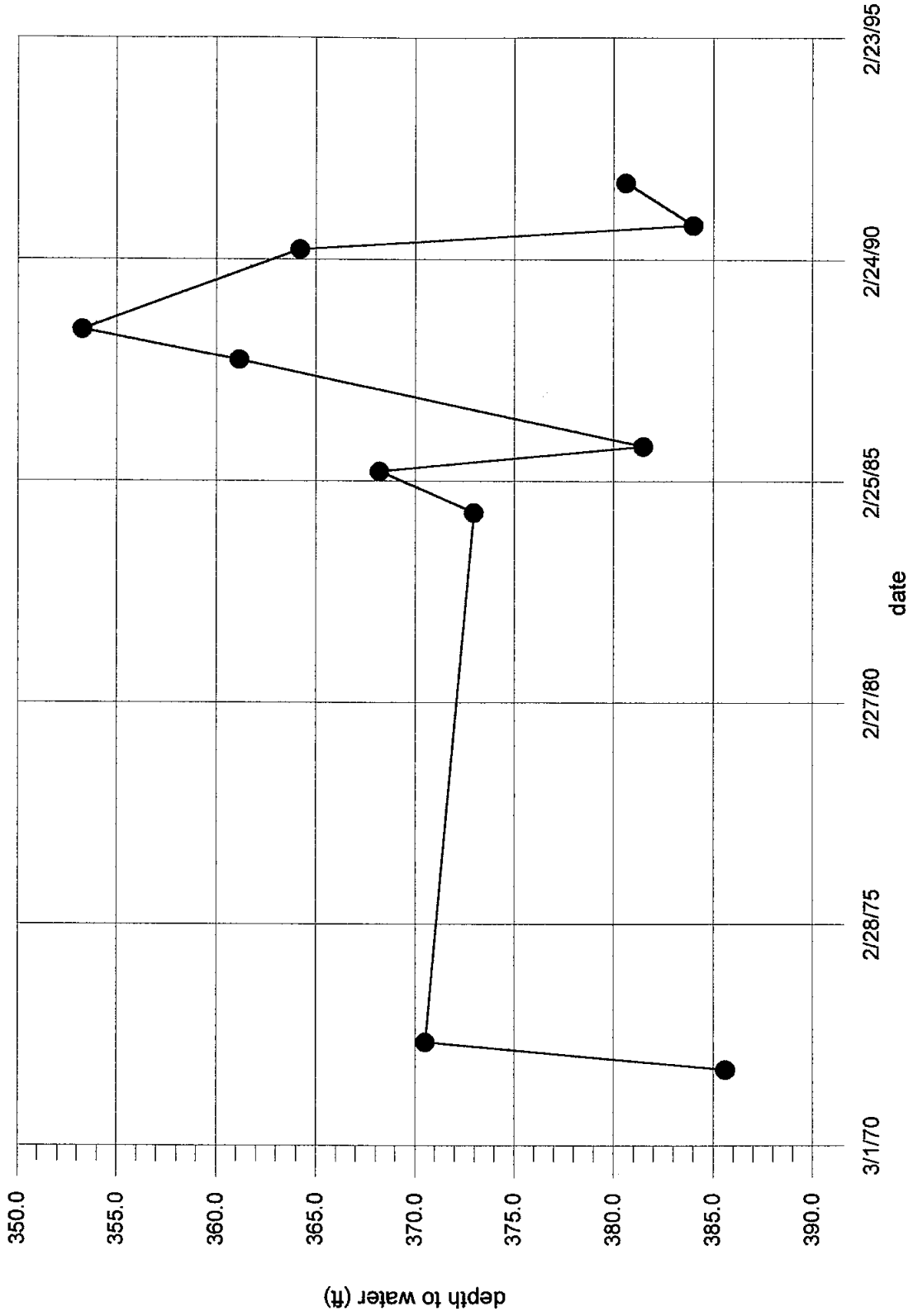
Western Tularosa Basin
Hydrograph of Well 173
T22S.R04E.24.212A

depth to water (ft)
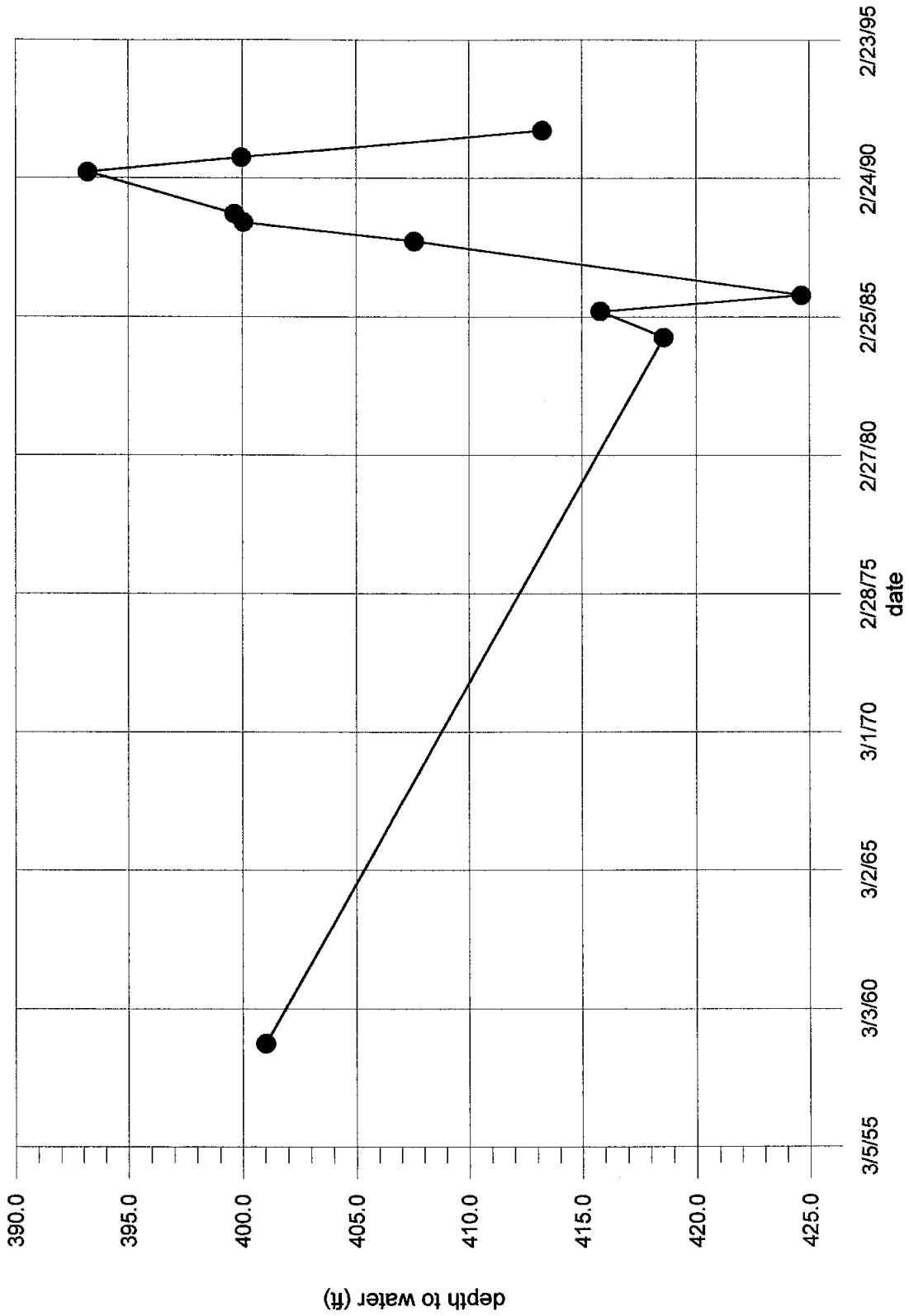
Western Tularosa Basin
Hydrograph of Well 174
T22S.R05E.20.111

JOHN SHOMAKER AND ASSOCIATES, INC.
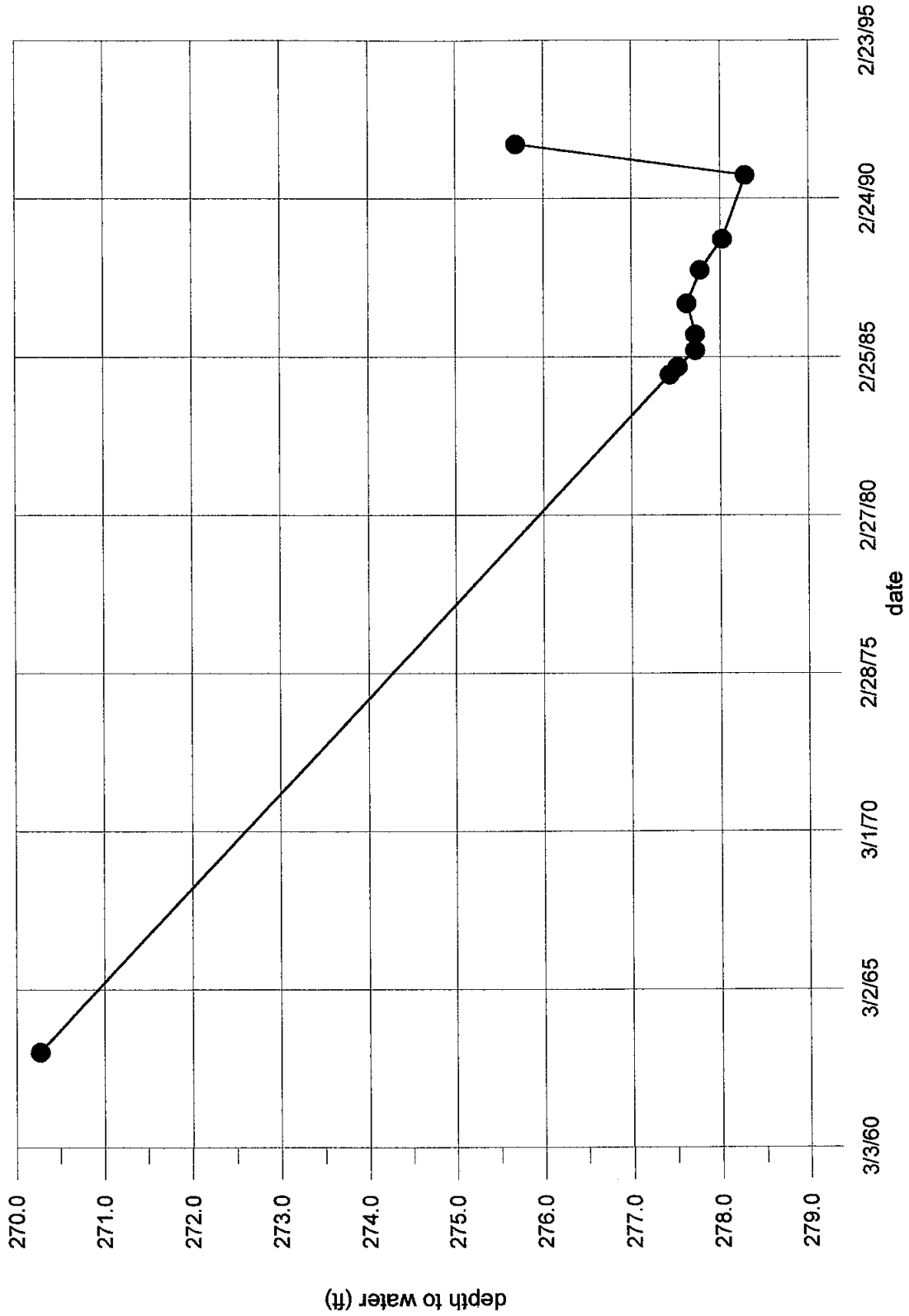
Western Tularosa Basin
Hydrograph of Well 175
T22S.R05E.21.211

depth to water (ft)

date
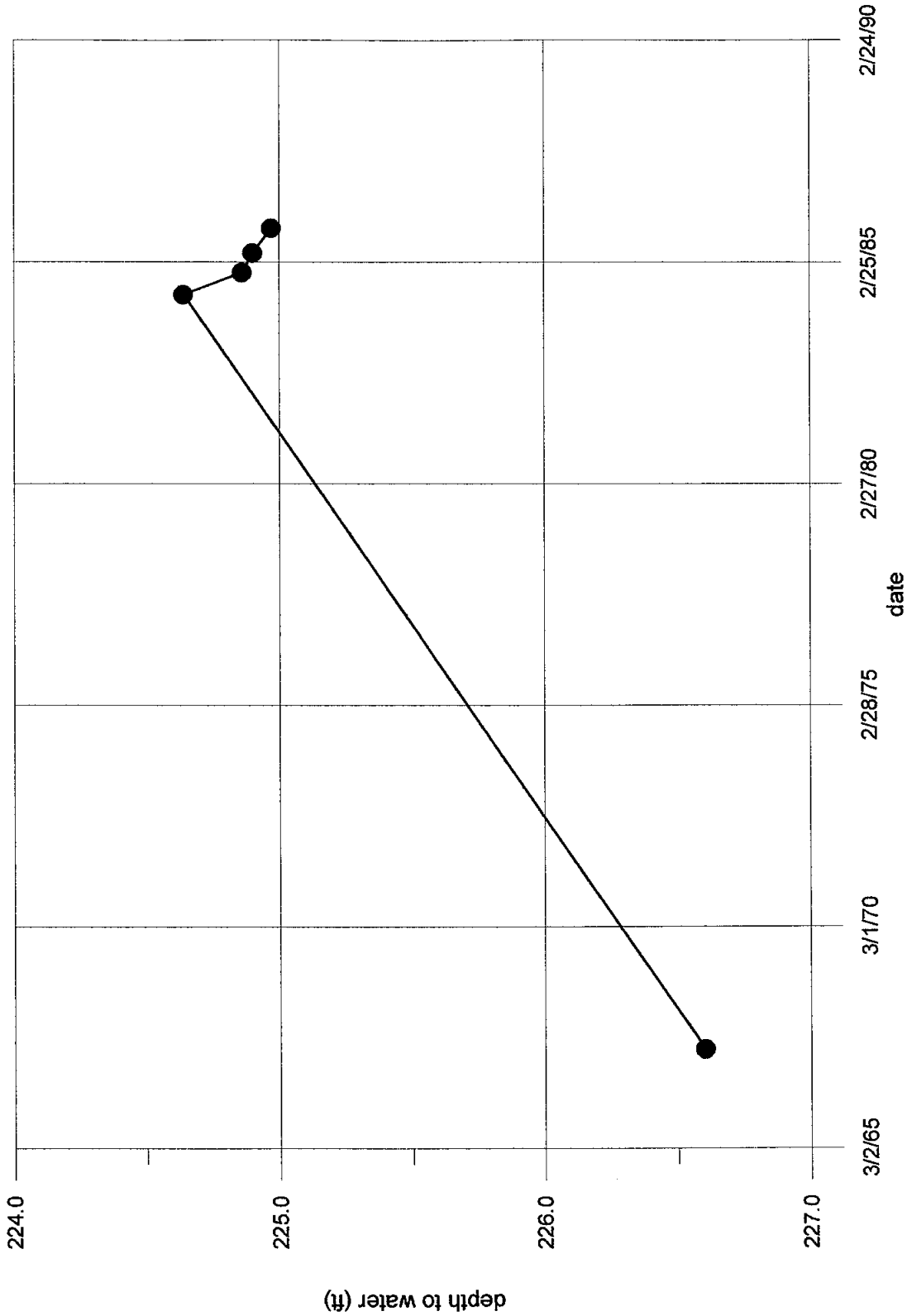
Western Tularosa Basin
Hydrograph of Well 176
T22S.R04E.15.331

JOHN SHOMAKER AND ASSOCIATES, INC.
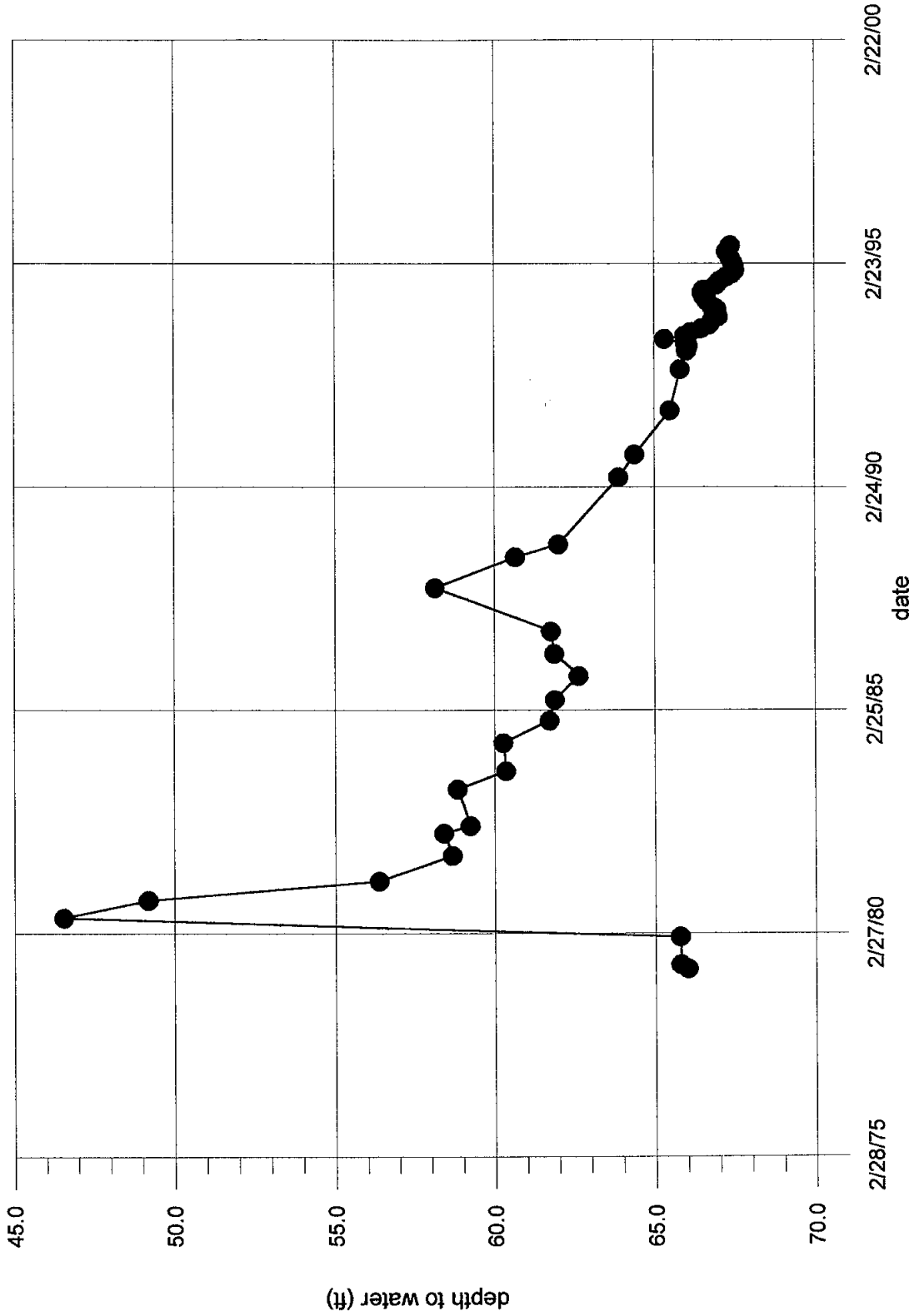
Western Tularosa Basin
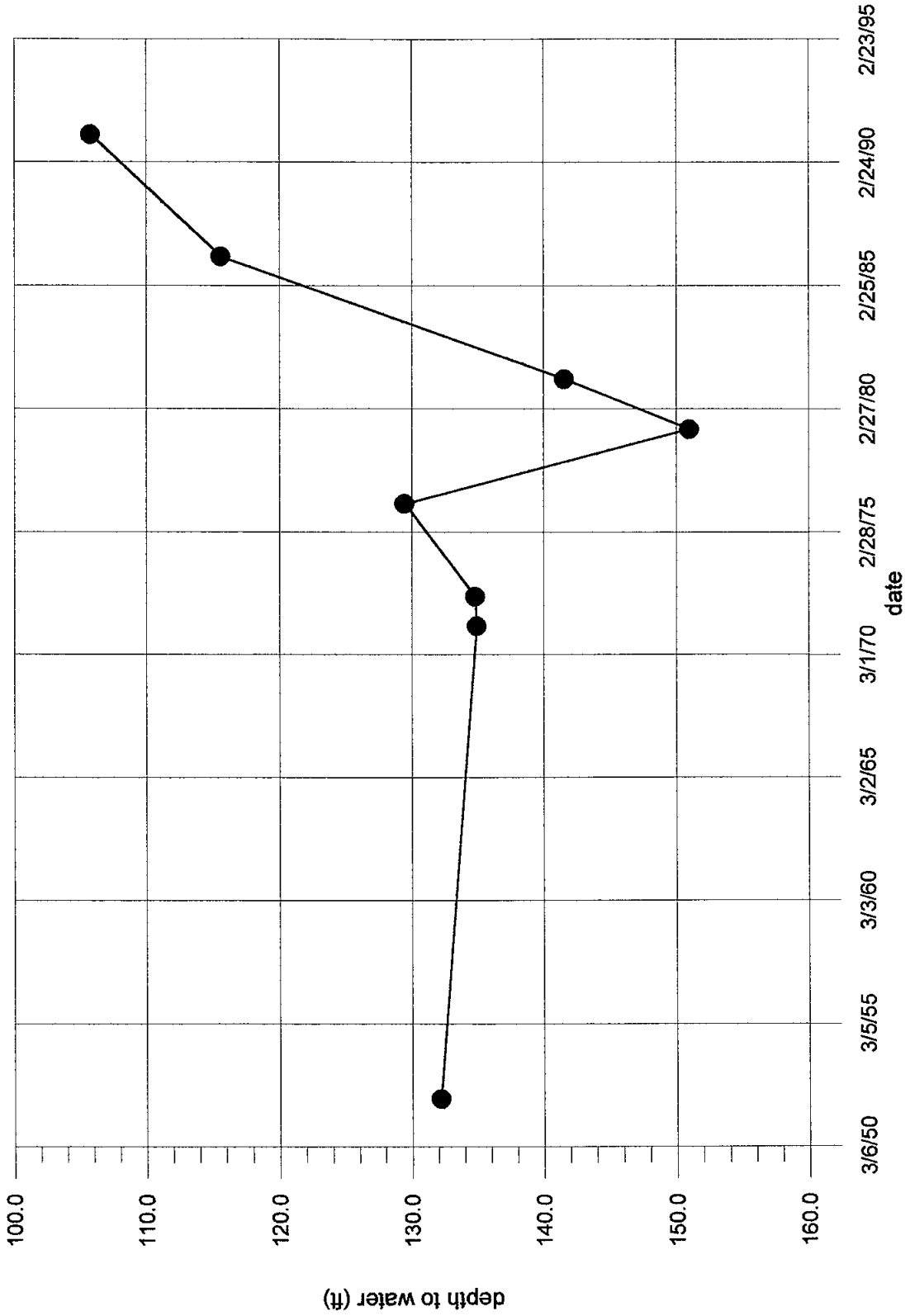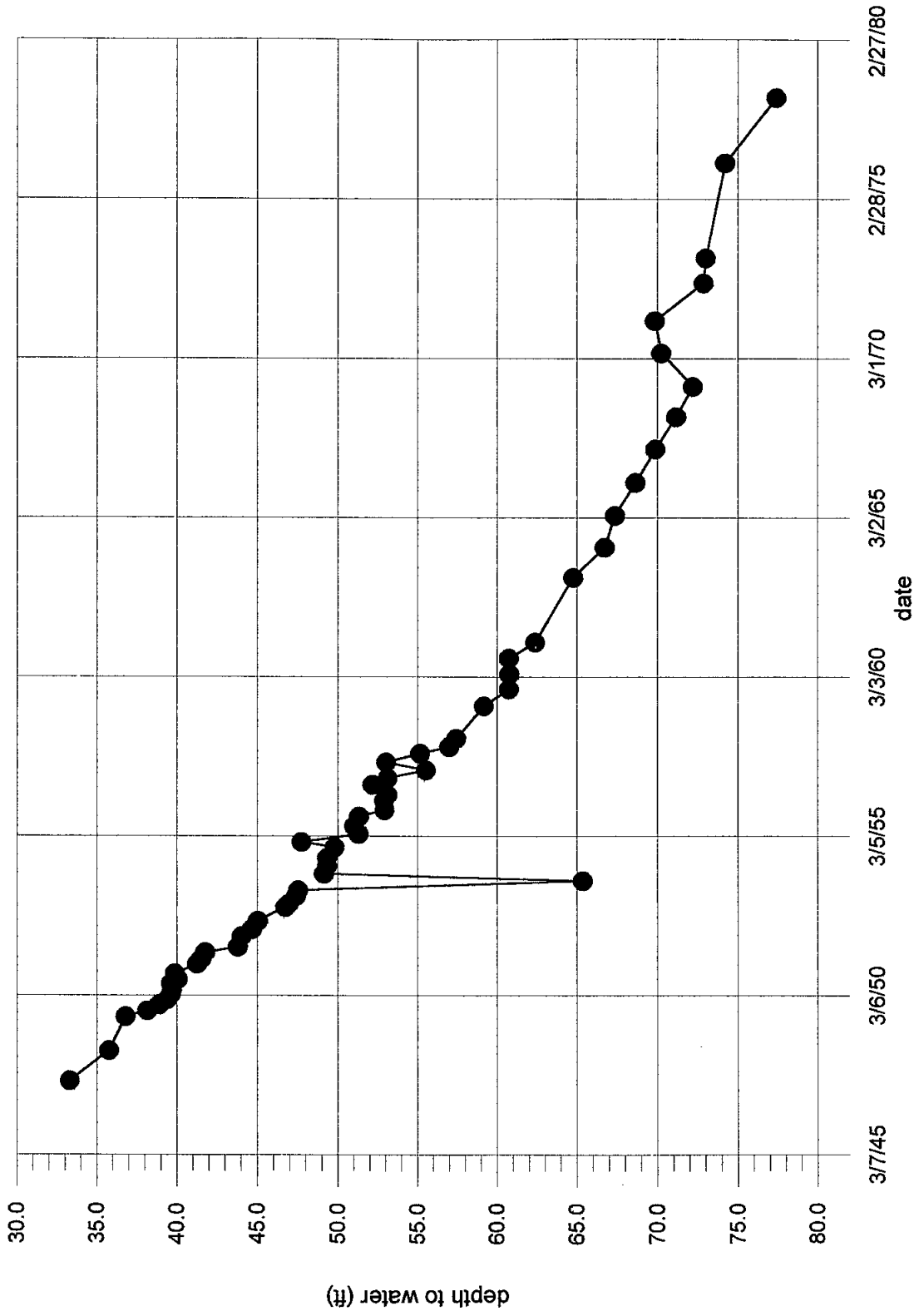Hydrograph of Well 177
T22S.R04E.14.133
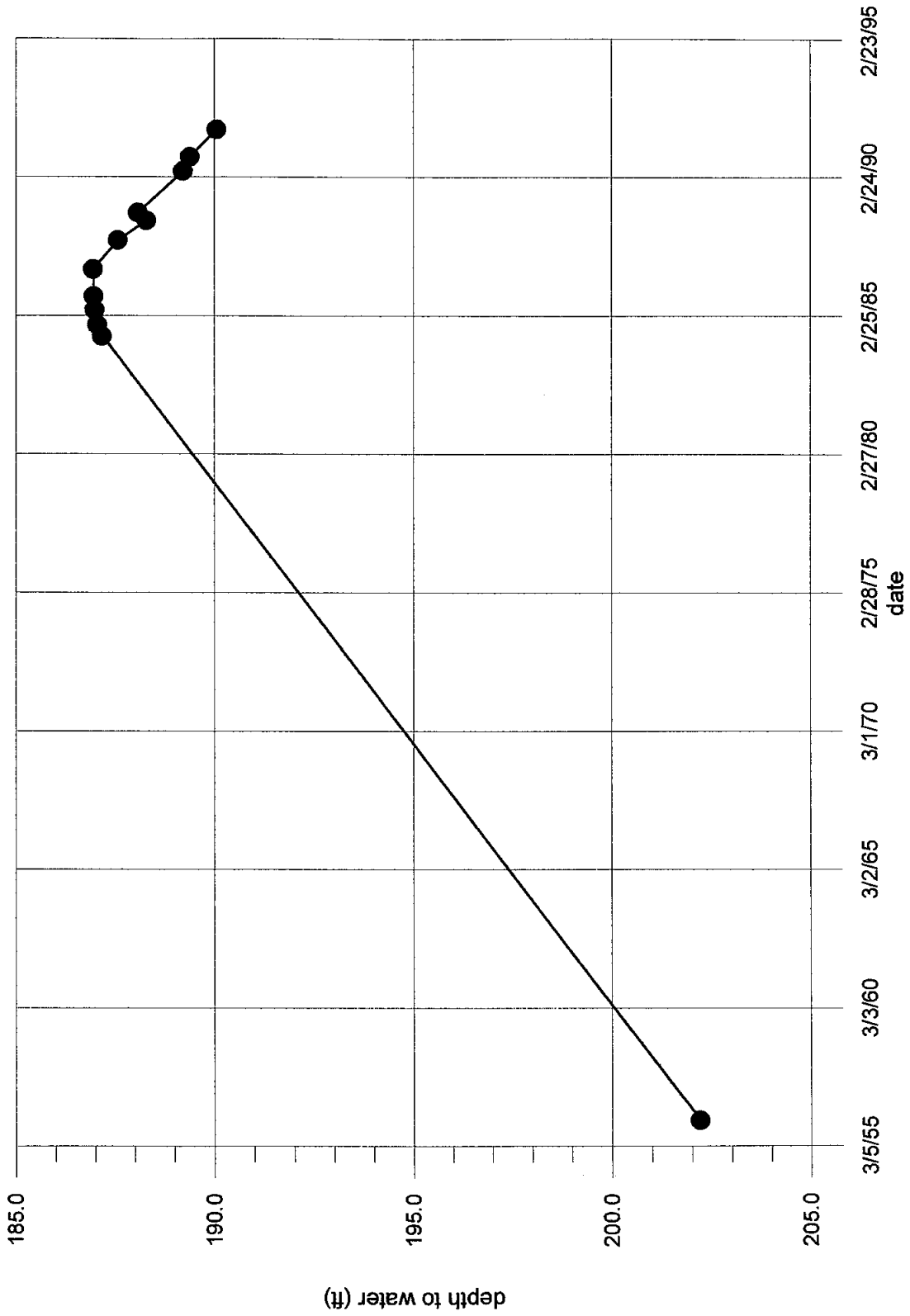
Western Tularosa Basin
Hydrograph of Well 178
T22S.R04E.14.134

Western Tularosa Basin
Hydrograph of Well 179
T22S.R05E.15.221

JOHN SHOMAKER AND ASSOCIATES, INC.
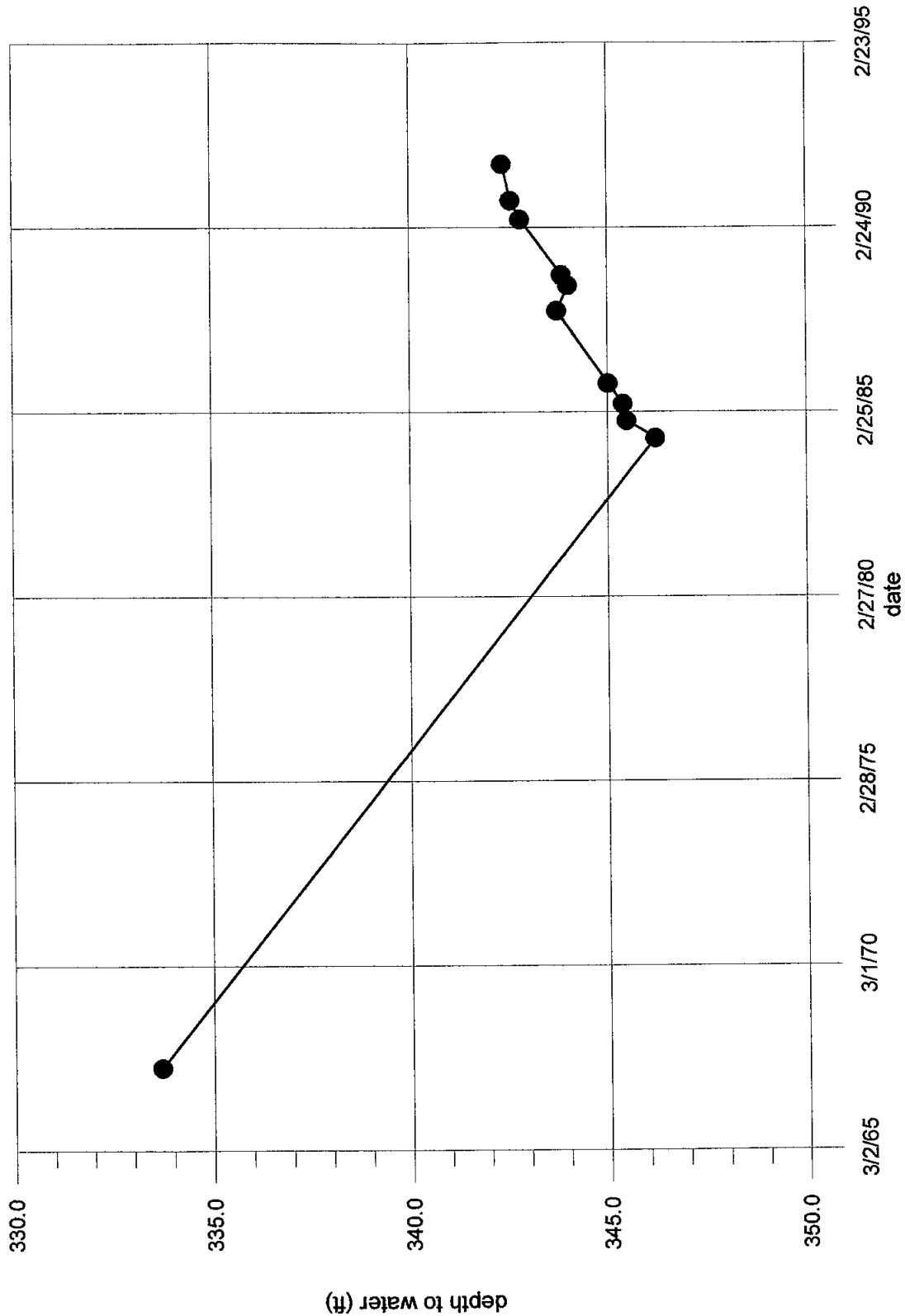
Western Tularosa Basin
Hydrograph of Well 180
T22S.R05E.16.111

depth to water (ft)

date
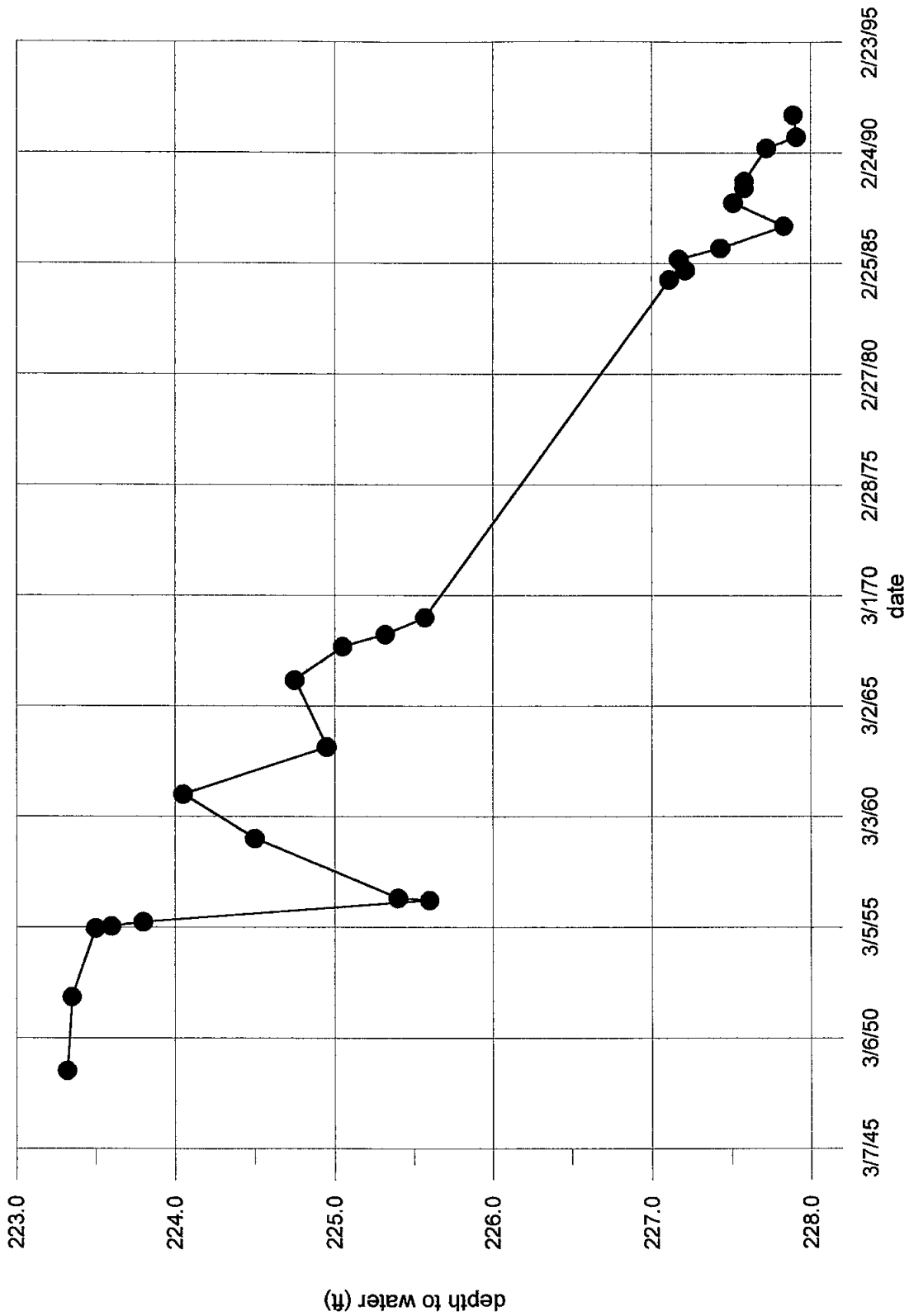
Western Tularosa Basin
Hydrograph of Well 181
T22S.R05E.16.111A

JOHN SHOMAKER AND ASSOCIATES, INC.
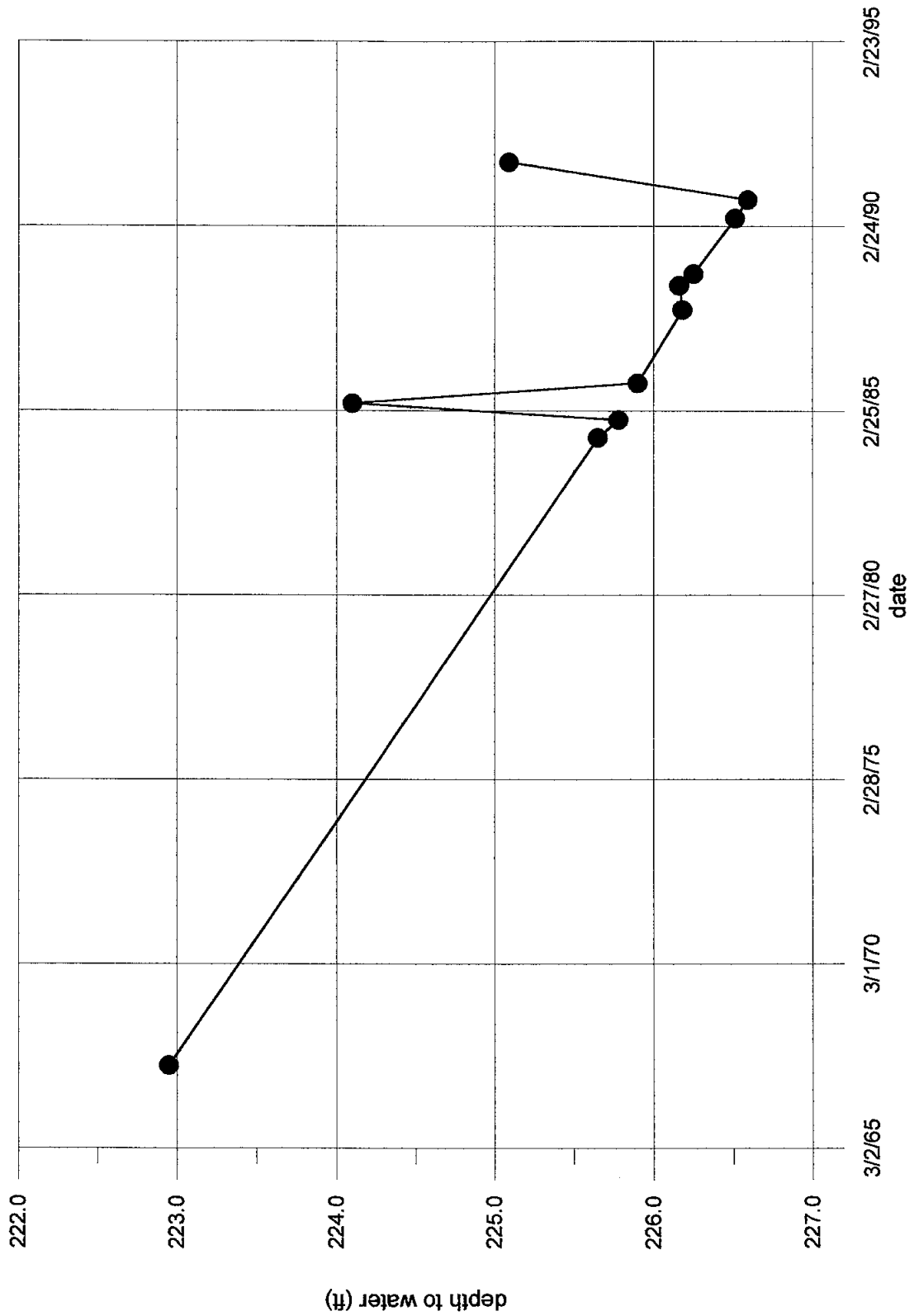
Western Tularosa Basin
Hydrograph of Well 182
T22S.R04E.12.434

depth to water (ft)

date

3/5/55   3/3/60   3/2/65   3/1/70   2/28/75   2/27/80   2/25/85   2/24/90   2/23/95

400.0   405.0   410.0   415.0   420.0   425.0   430.0   435.0
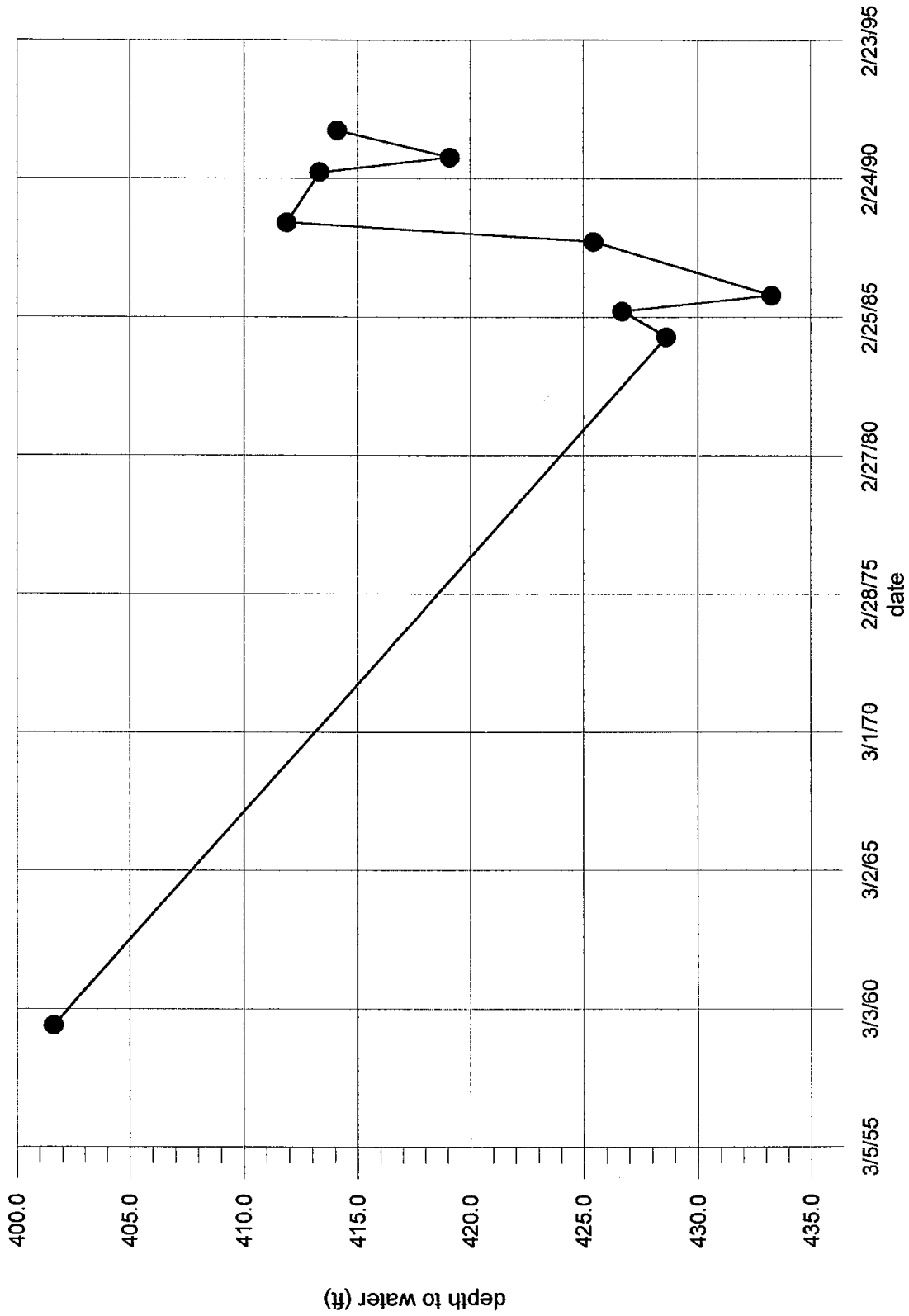
Western Tularosa Basin
Hydrograph of Well 183
T22S.R05E.08.334

JOHN SHOMAKER AND ASSOCIATES, INC.
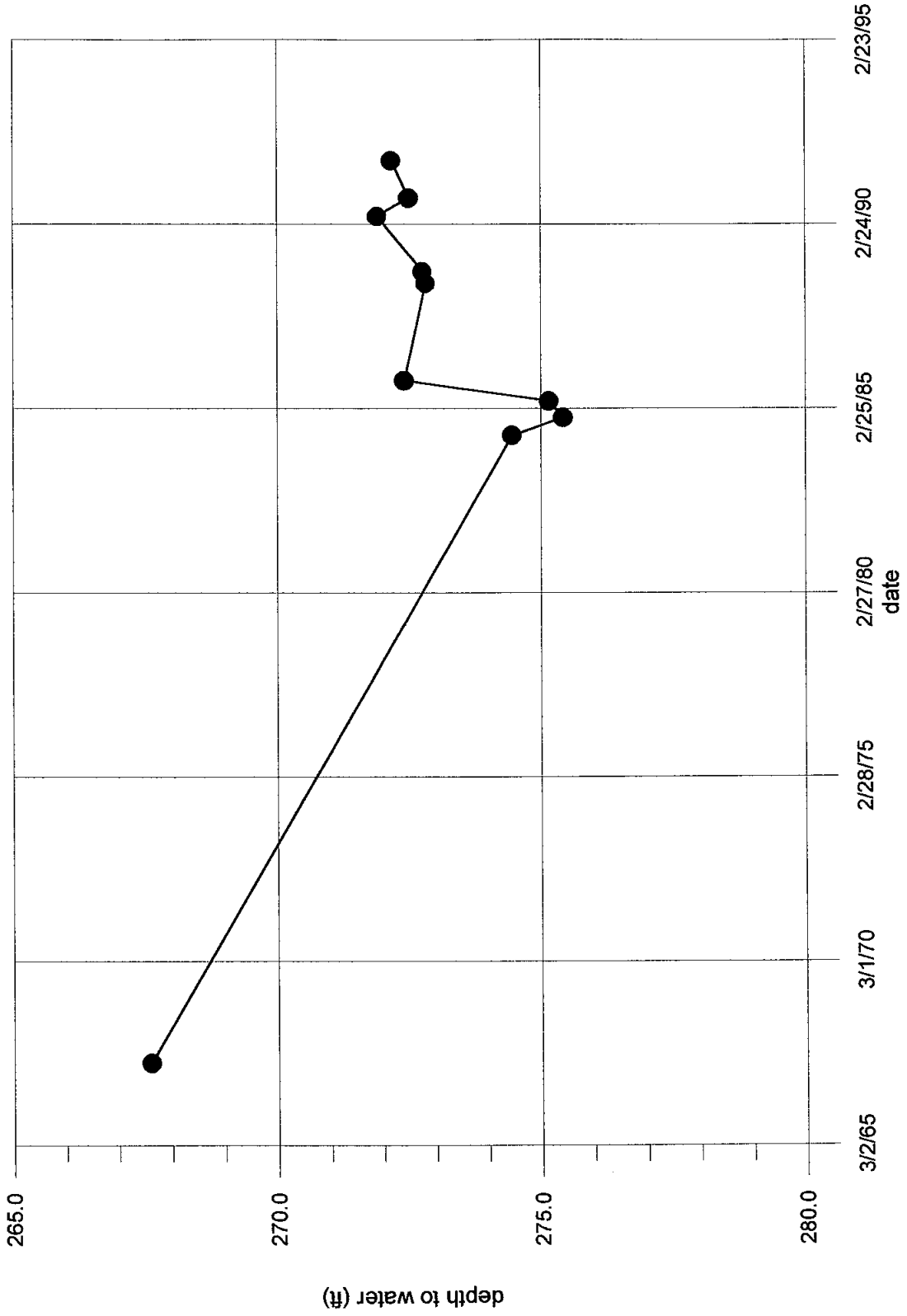
Western Tularosa Basin
Hydrograph of Well 184
T22S.R04E.11.444

depth to water (ft)

date

330.0   335.0   340.0   345.0   350.0   355.0   360.0

3/2/65   3/1/70   2/28/75   2/27/80   2/25/85   2/24/90   2/23/95
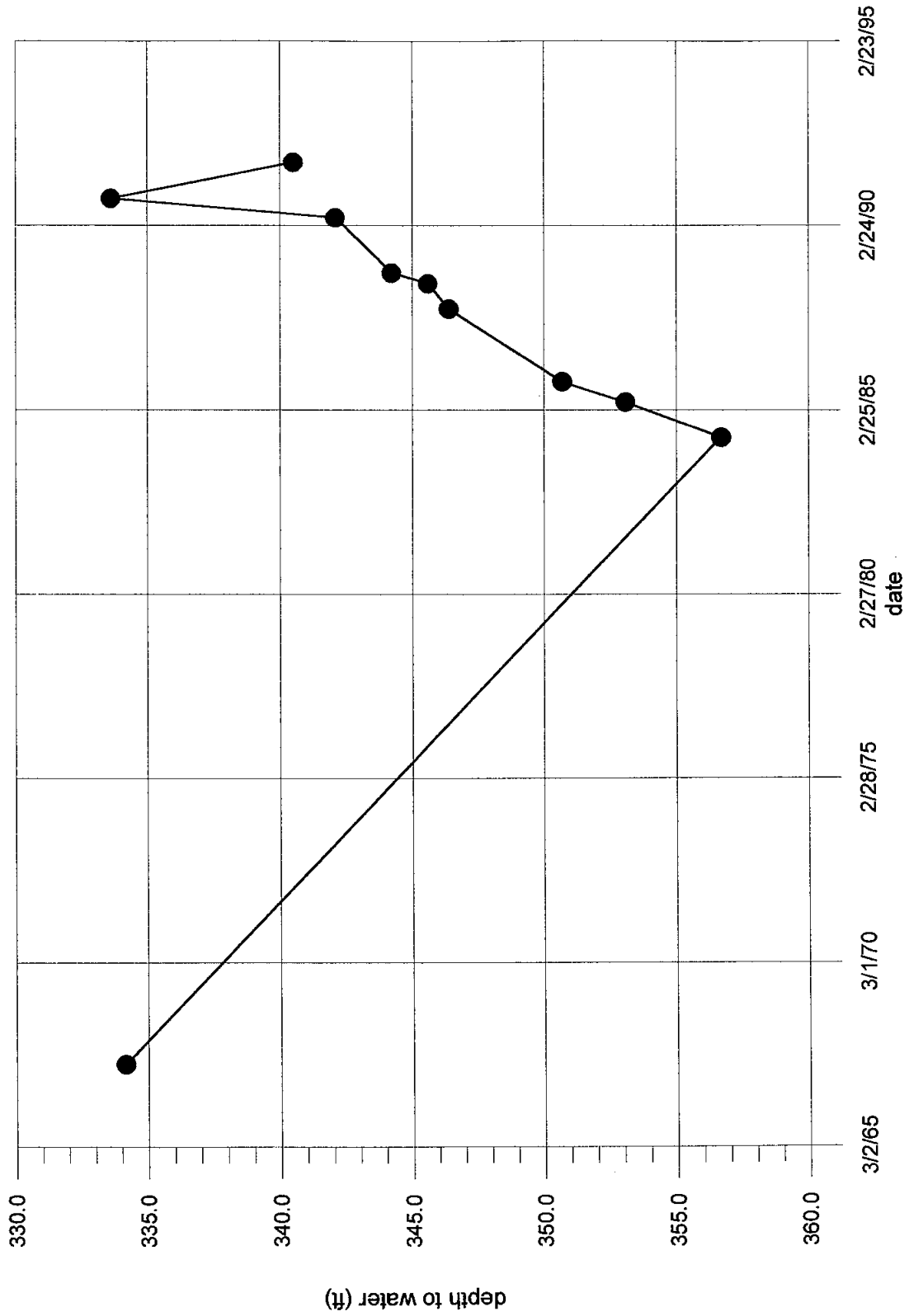
Western Tularosa Basin
Hydrograph of Well 186
T22S.R05E.07.342

depth to water (ft)

date
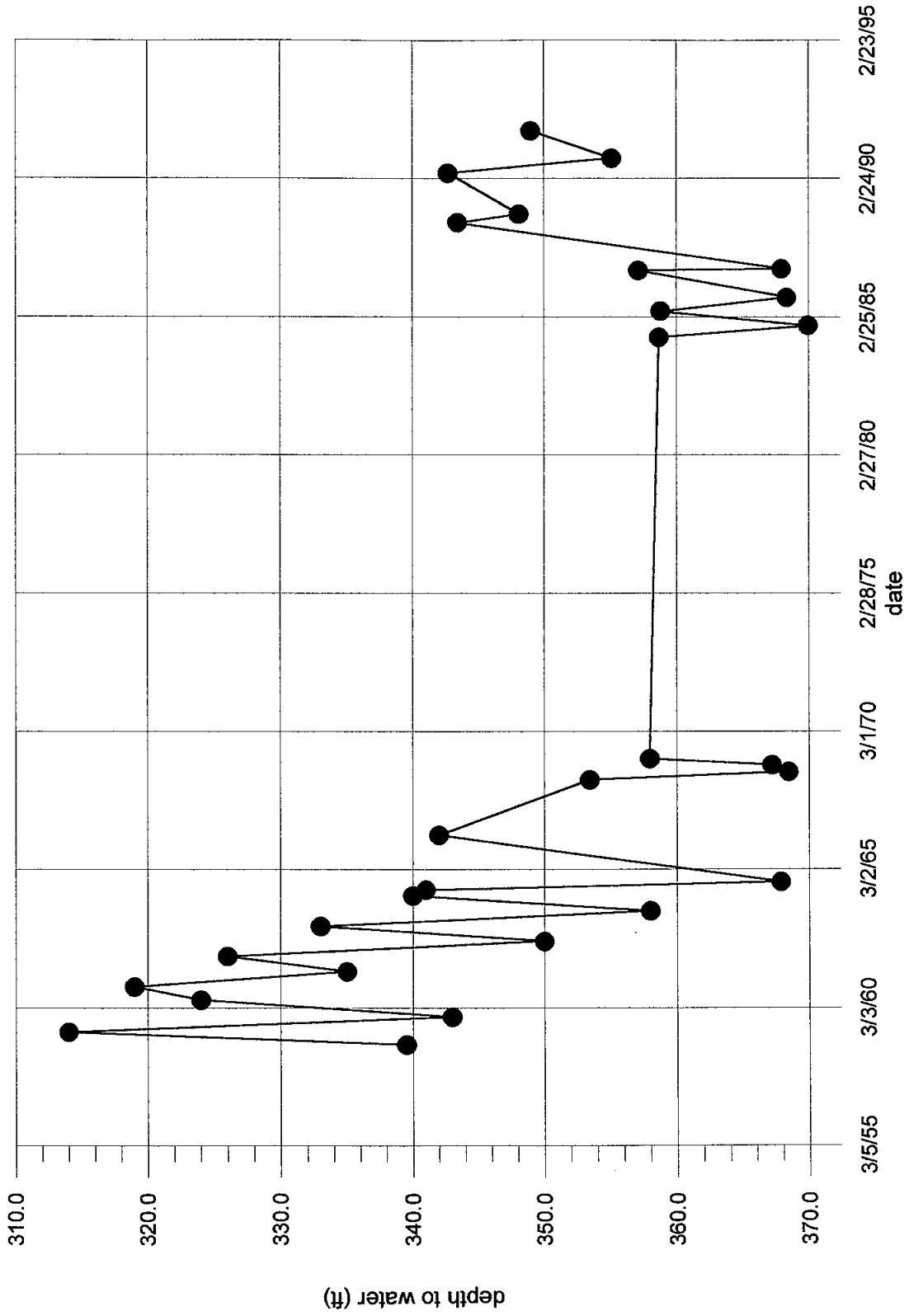
Western Tularosa Basin
Hydrograph of Well 185
T22S.R04E.11.344

depth to water (ft)

date
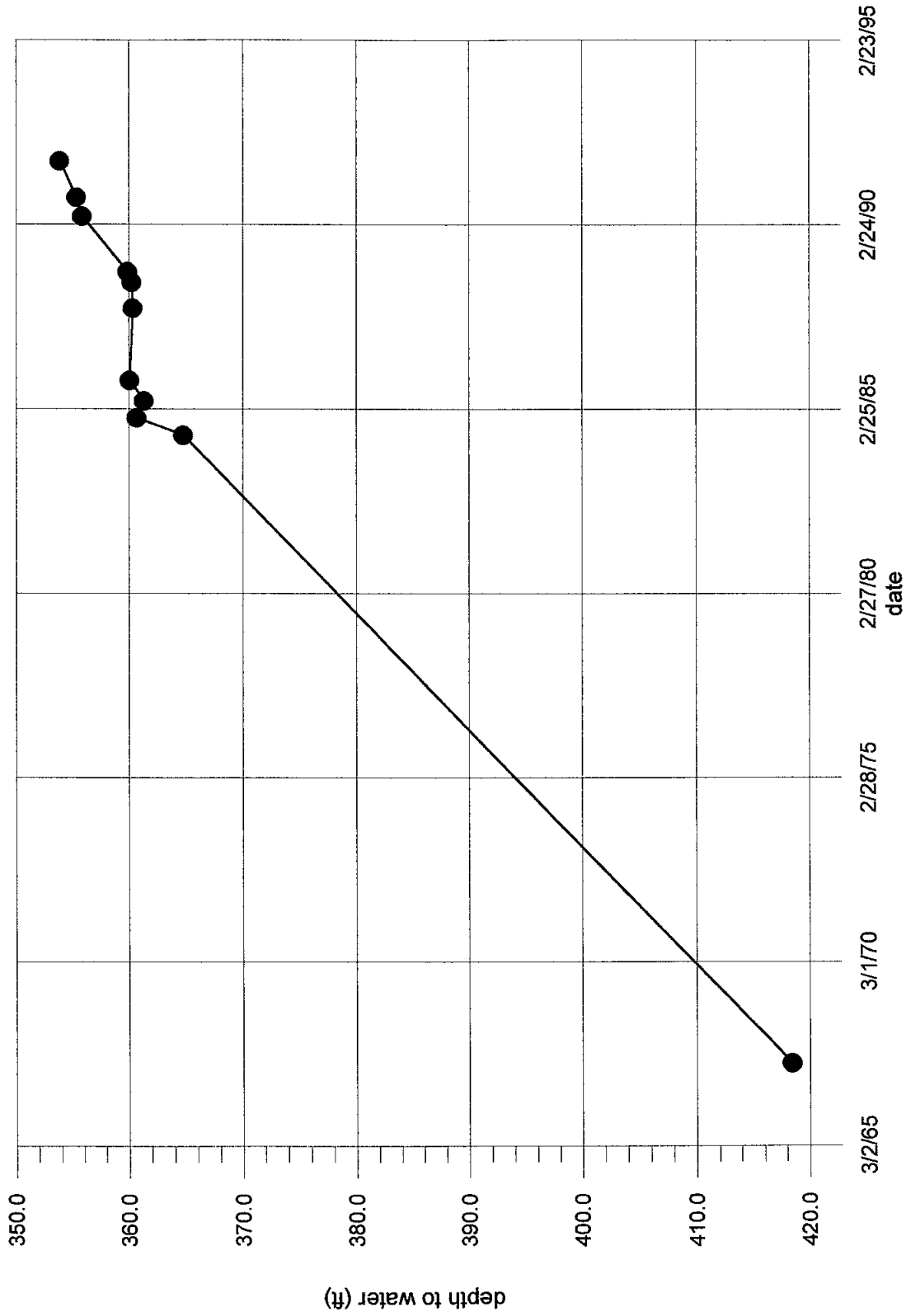
Western Tularosa Basin
Hydrograph of Well 187
T22S.R04E.12.414

depth to water (ft)

date
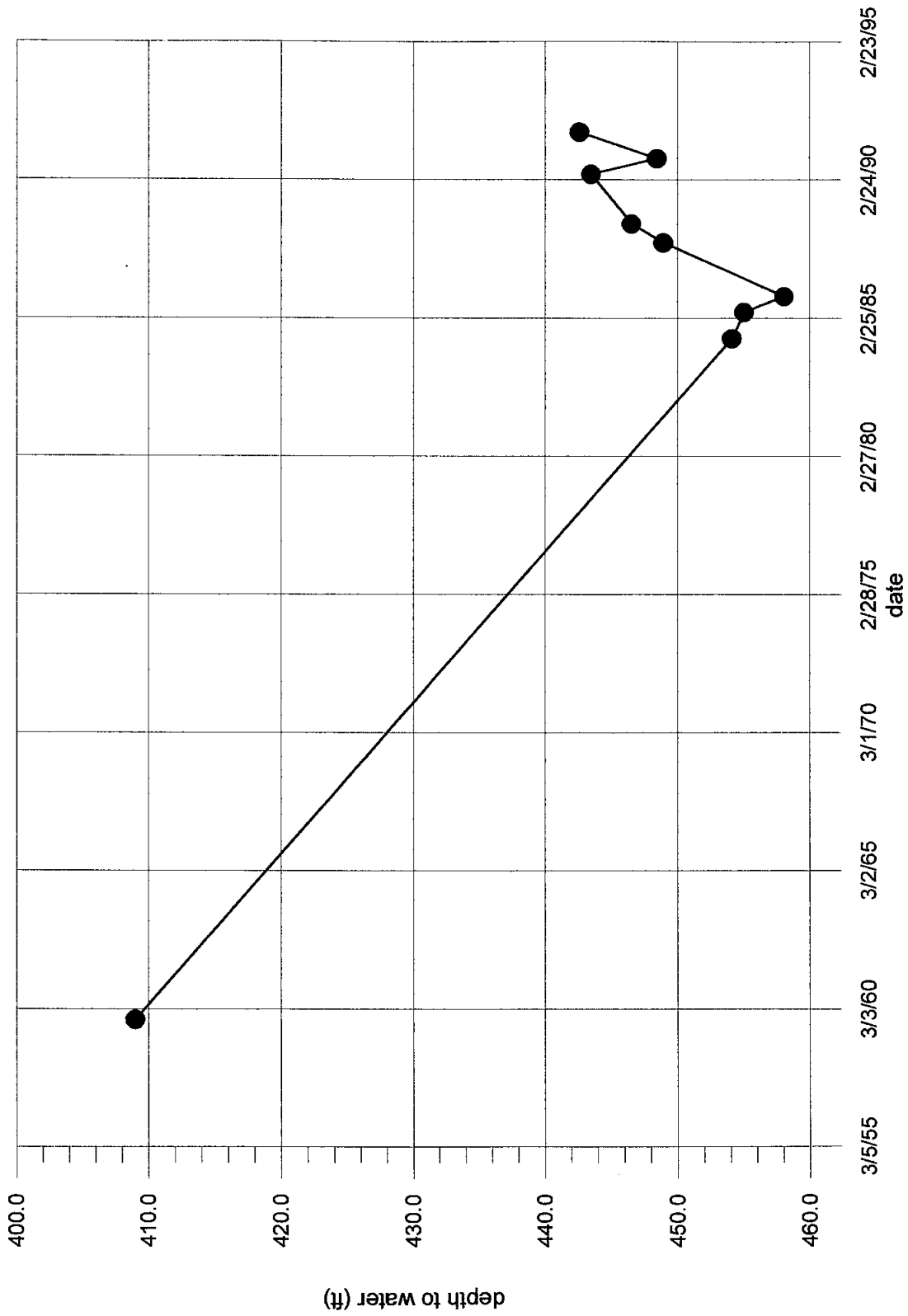
Western Tularosa Basin
Hydrograph of Well 188
T22S.R04E.11.224

depth to water (ft)

date
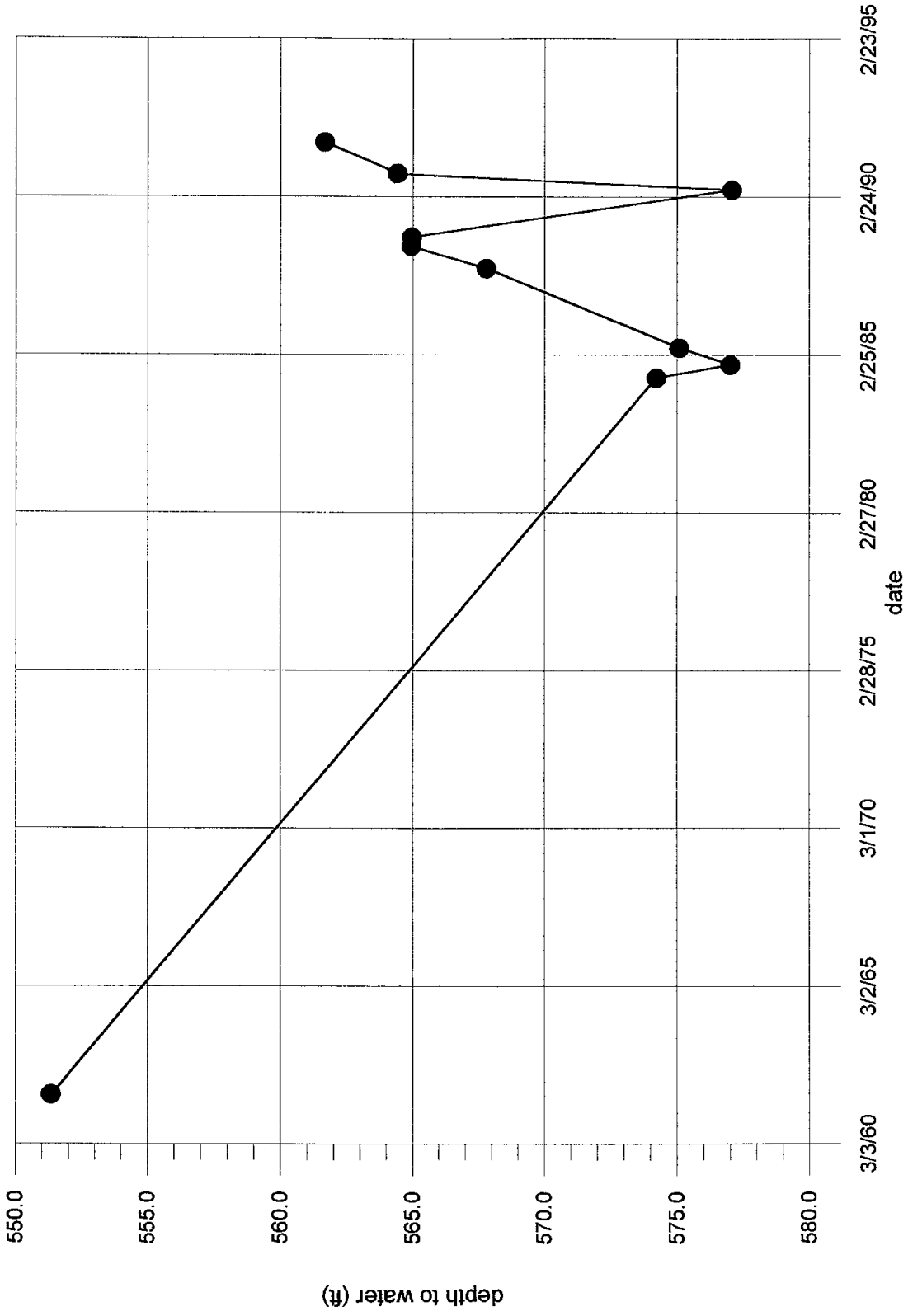
Western Tularosa Basin
Hydrograph of Well 189
T22S.R05E.08.143

depth to water (ft)

230.0   235.0   240.0   245.0   250.0

3/2/65   3/1/70   2/28/75   2/27/80   2/25/85   2/24/90   2/23/95

date

JOHN SHOMAKER AND ASSOCIATES, INC.
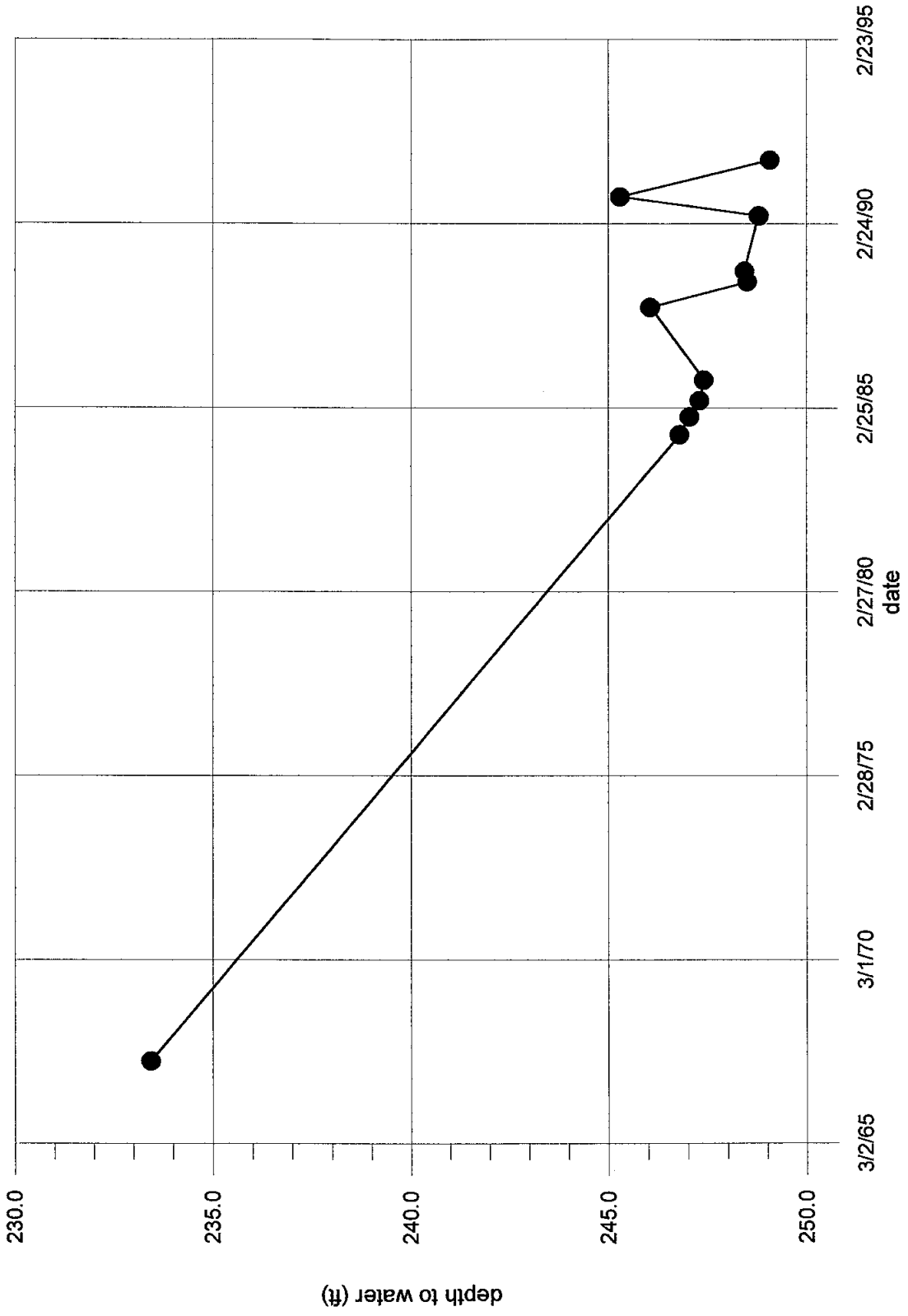
Western Tularosa Basin
Hydrograph of Well 190
T22S.R04E.12.214

depth to water (ft)

date

JOHN SHOMAKER AND ASSOCIATES, INC.
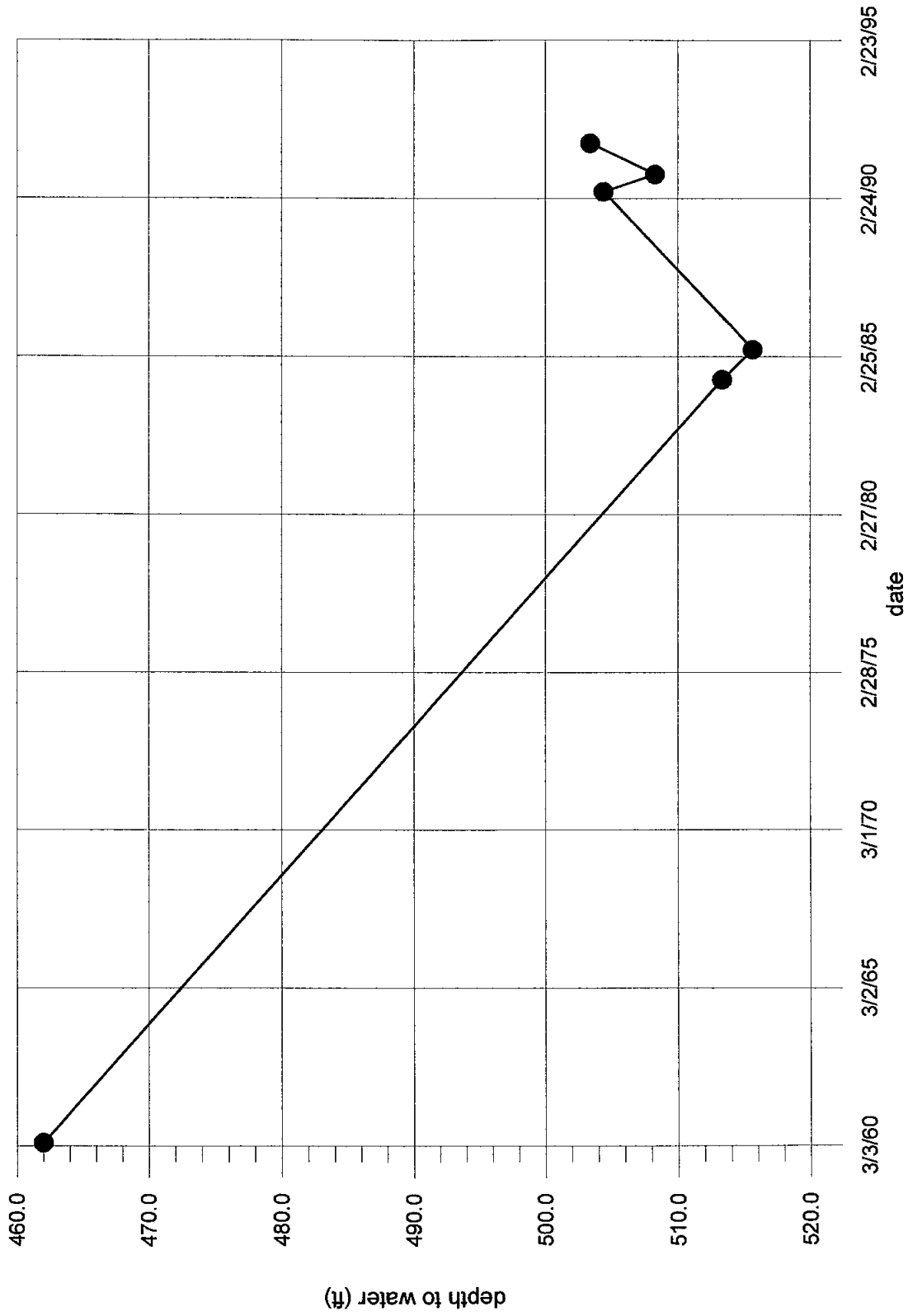
Western Tularosa Basin
Hydrograph of Well 191
T22S.R05E.09.113

depth to water (ft)

date
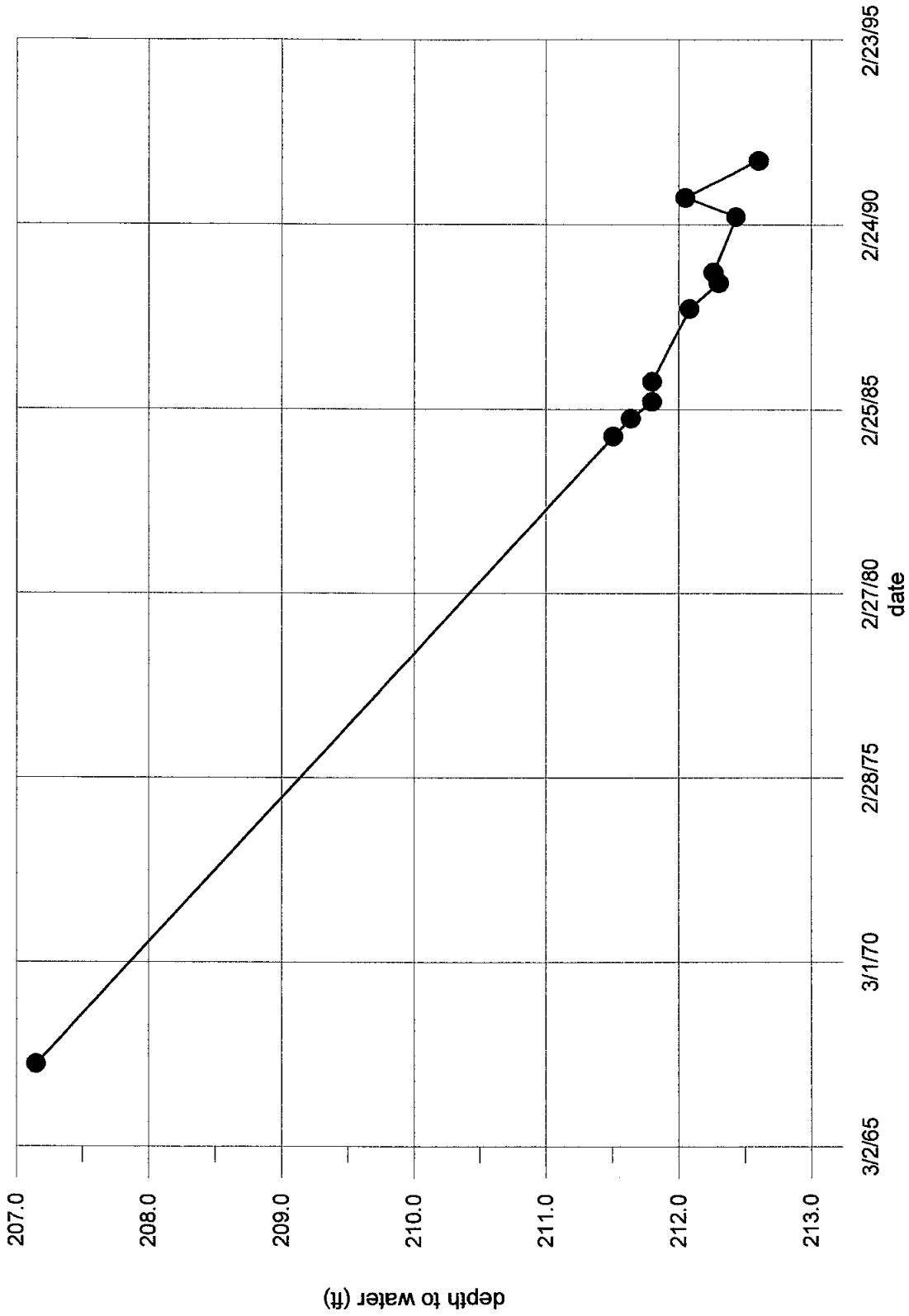
Western Tularosa Basin
Hydrograph of Well 192
T22S.R05E.09.113A

depth to water (ft)

date
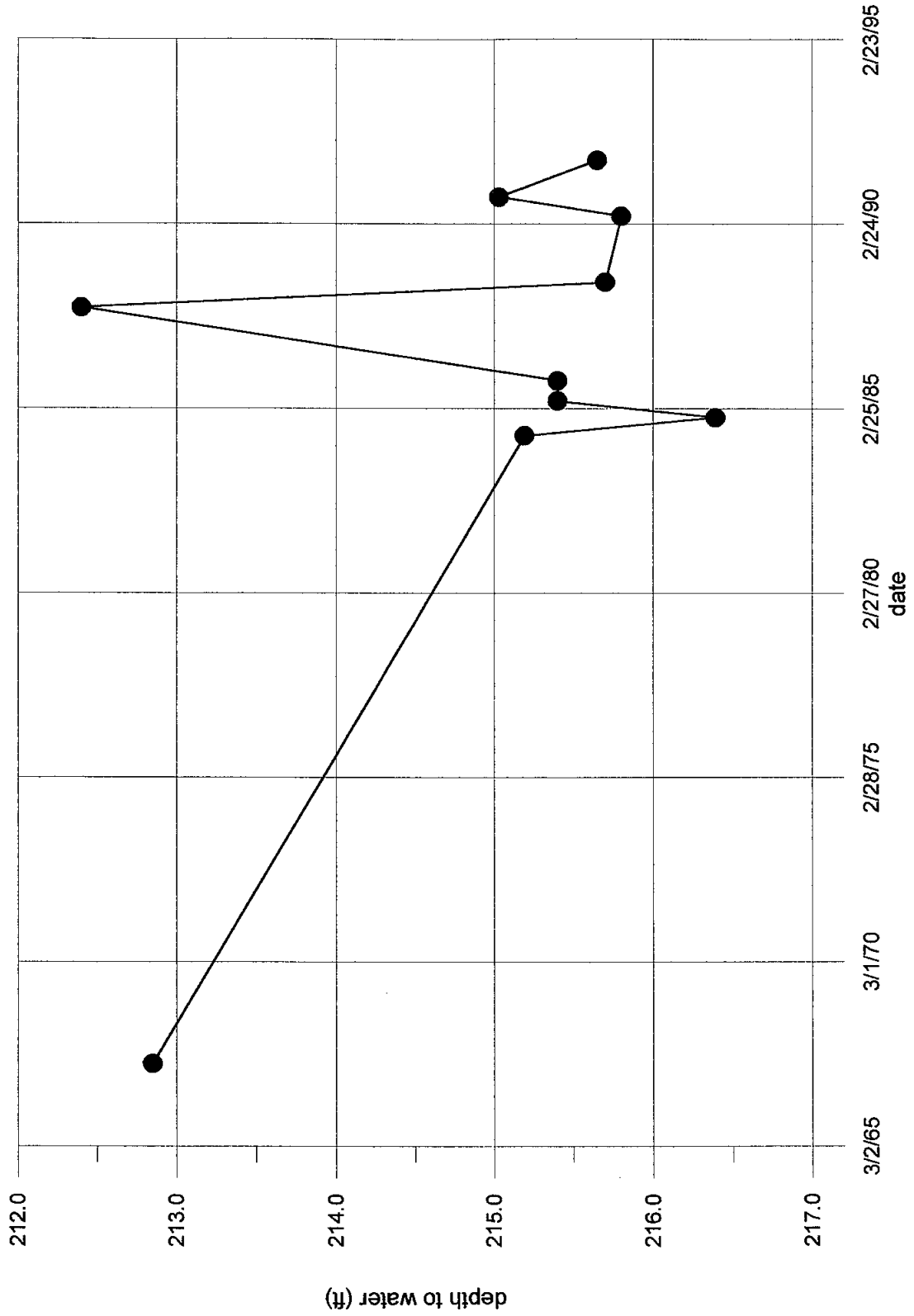
Western Tularosa Basin
Hydrograph of Well 193
T22S.R05E.07.242

depth to water (ft)

290.0   295.0   300.0   305.0   310.0

3/2/65   3/1/70   2/28/75   2/27/80   2/25/85   2/24/90   2/23/95
date
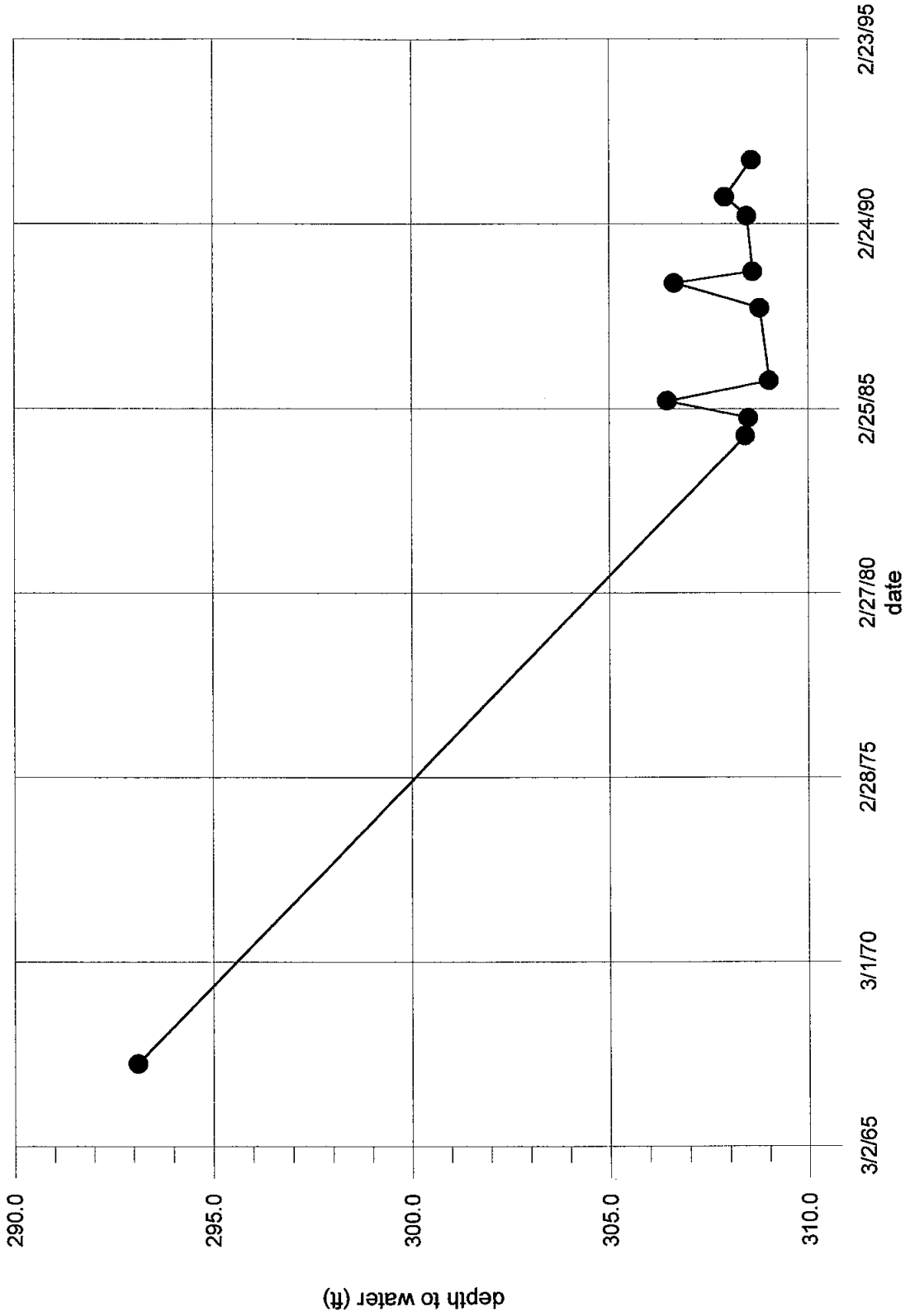
Western Tularosa Basin
Hydrograph of Well 194
T22S.R04E.01.431

depth to water (ft)

365.0
370.0
375.0
380.0
385.0
390.0

3/3/60
3/2/65
3/1/70
2/28/75
2/27/80
2/25/85
2/24/90
2/23/95

date
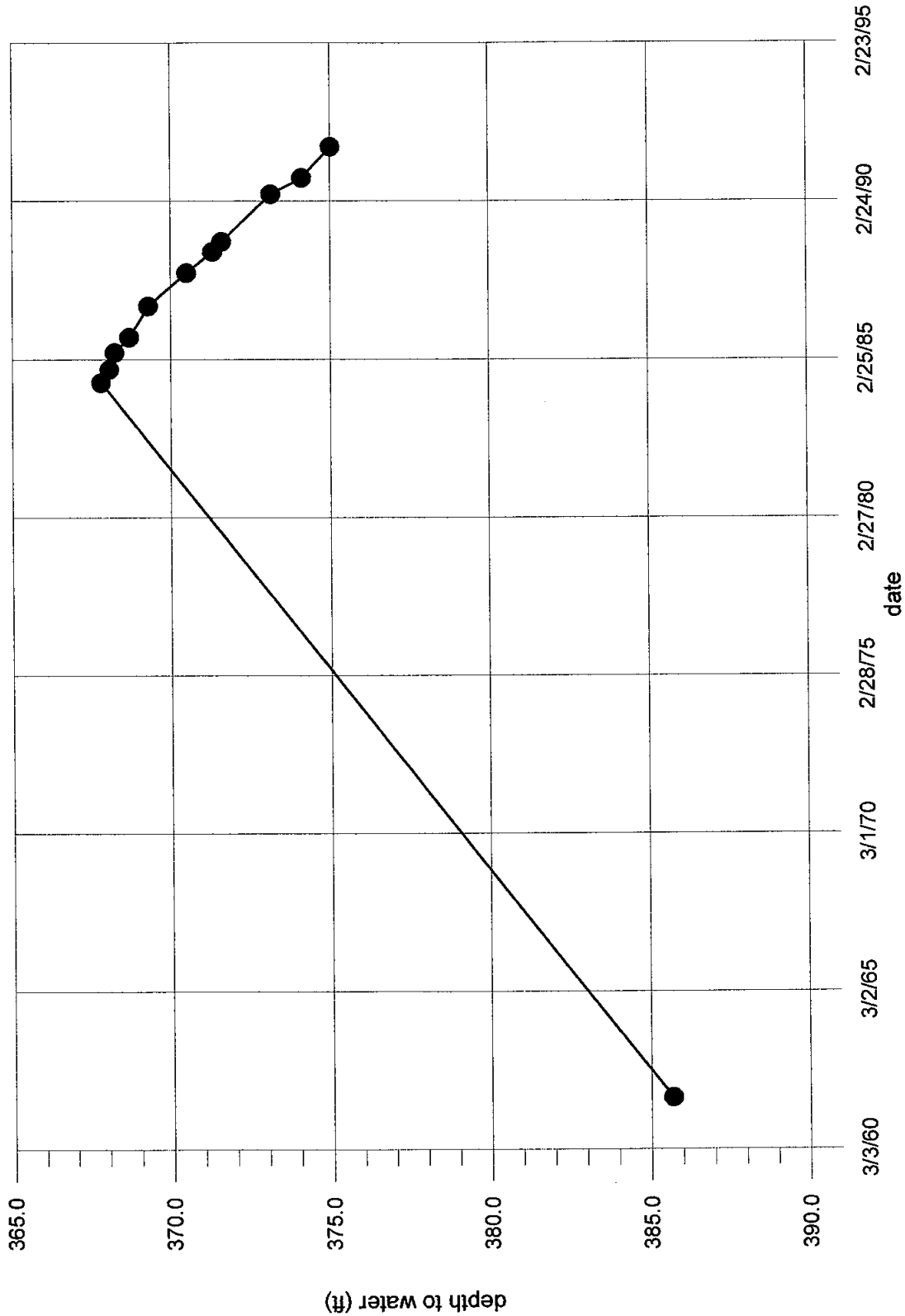
Western Tularosa Basin
Hydrograph of Well 195
T22S.R04E.01.323
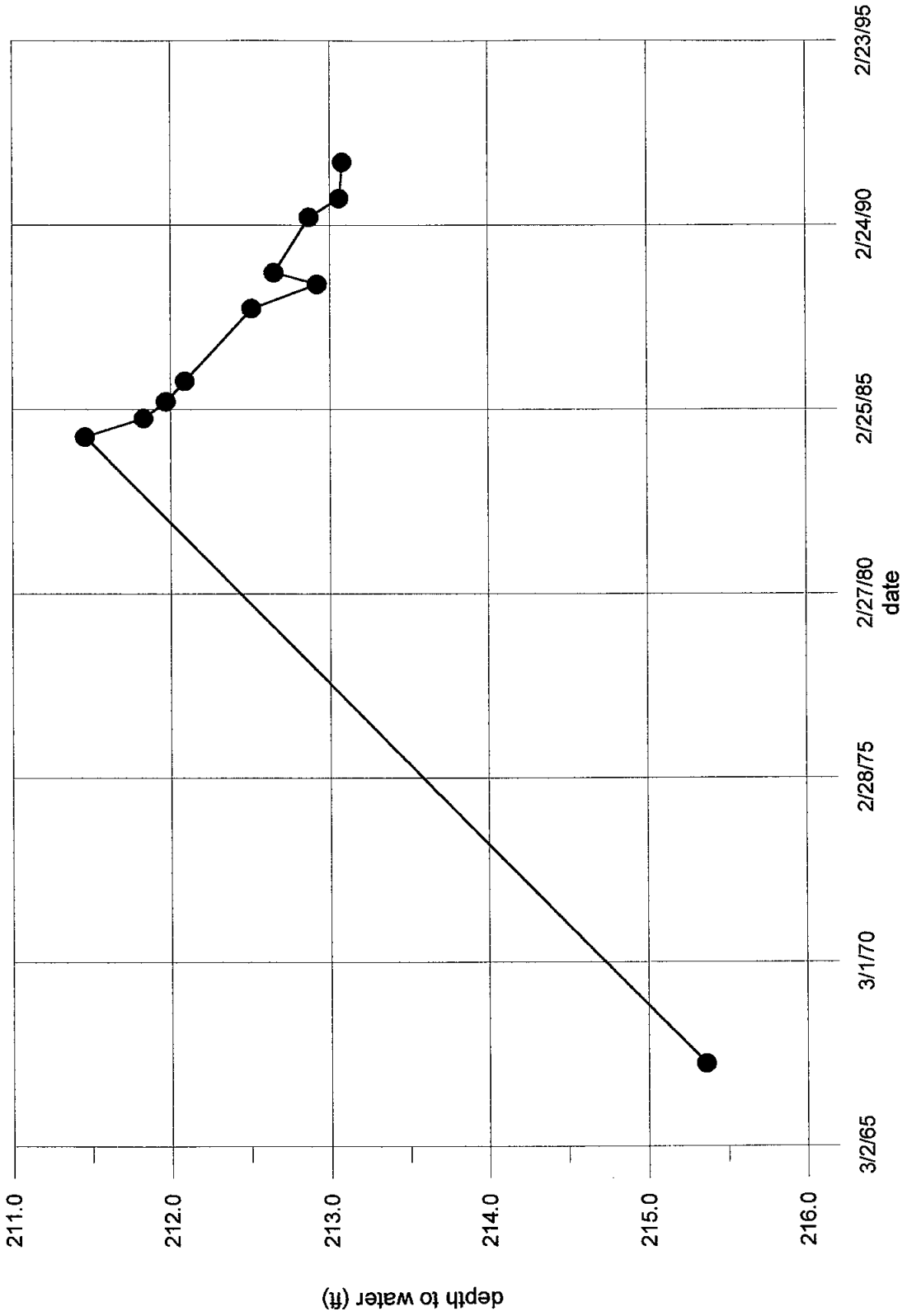
Western Tularosa Basin
Hydrograph of Well 196
T22S.R05E.03.221

depth to water (ft)

date
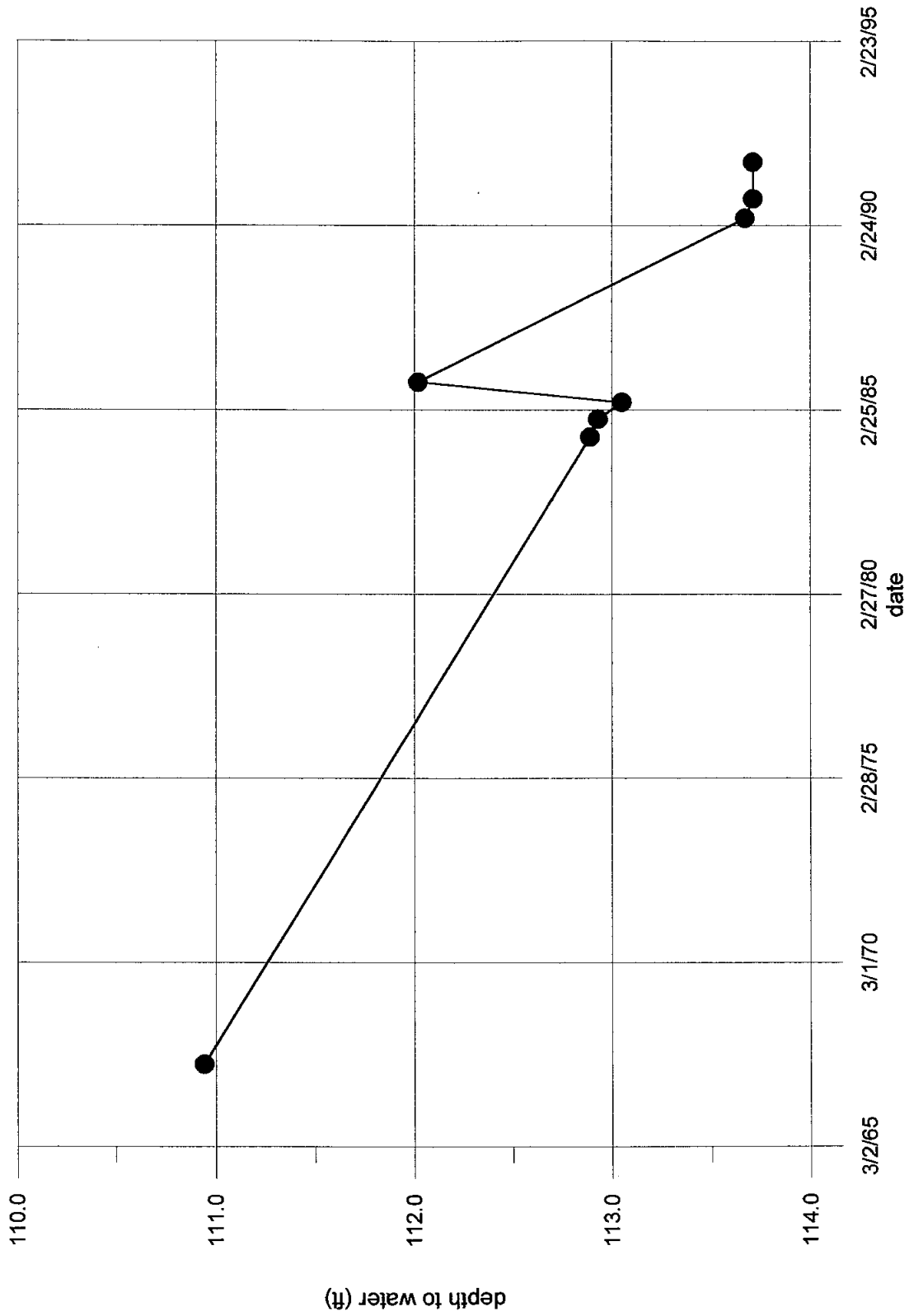
Western Tularosa Basin
Hydrograph of Well 197
T21S.R05E.33.242

depth to water (ft)

date

109.0 110.0 111.0 112.0 113.0 114.0

3/2/65 3/1/70 2/28/75 2/27/80 2/25/85 2/24/90 2/23/95
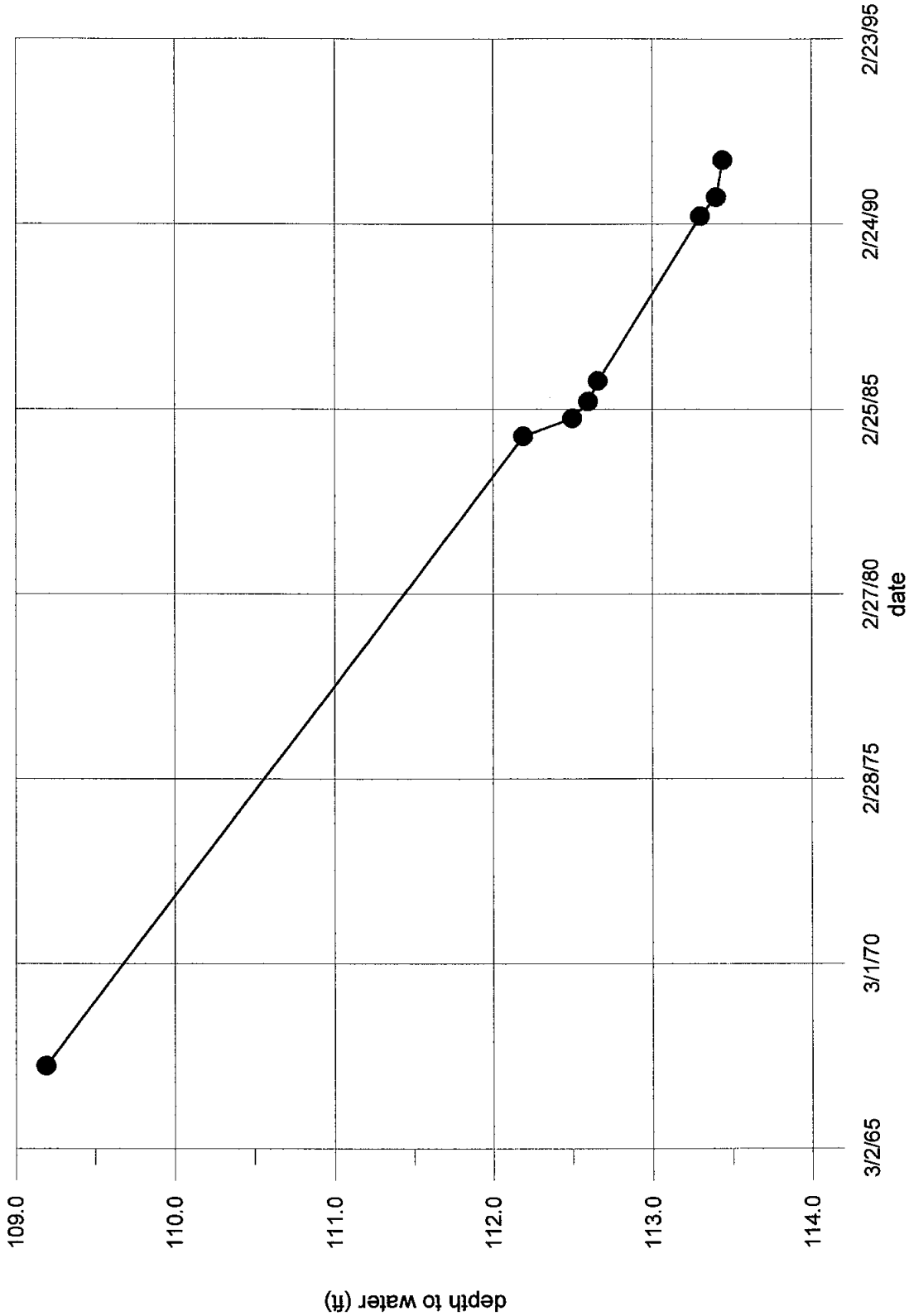
Western Tularosa Basin
Hydrograph of Well 198
T21S.R05E.32.222

depth to water (ft)

date
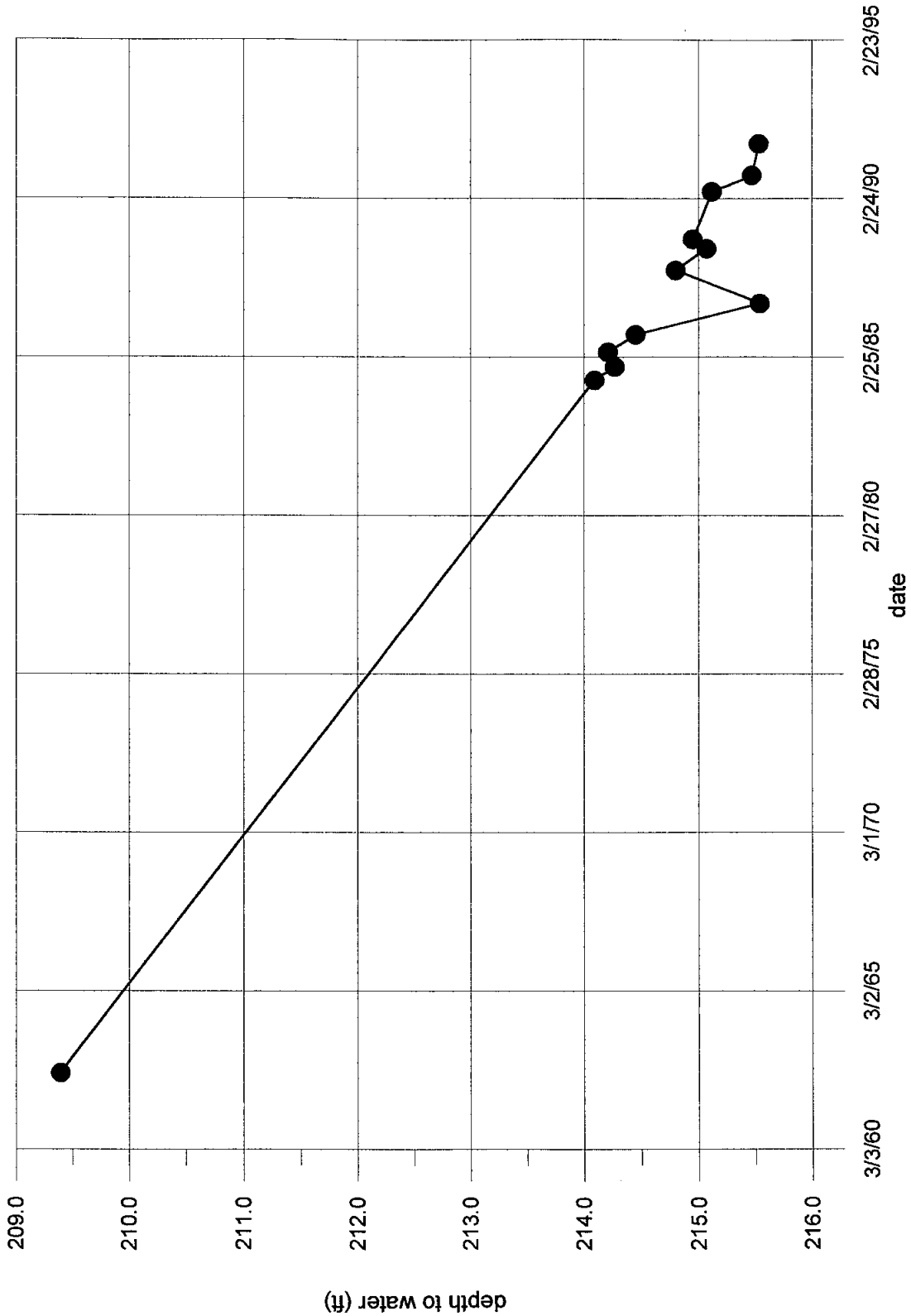
Western Tularosa Basin
Hydrograph of Well 199
T21S.R05E.34.213

depth to water (ft)

date
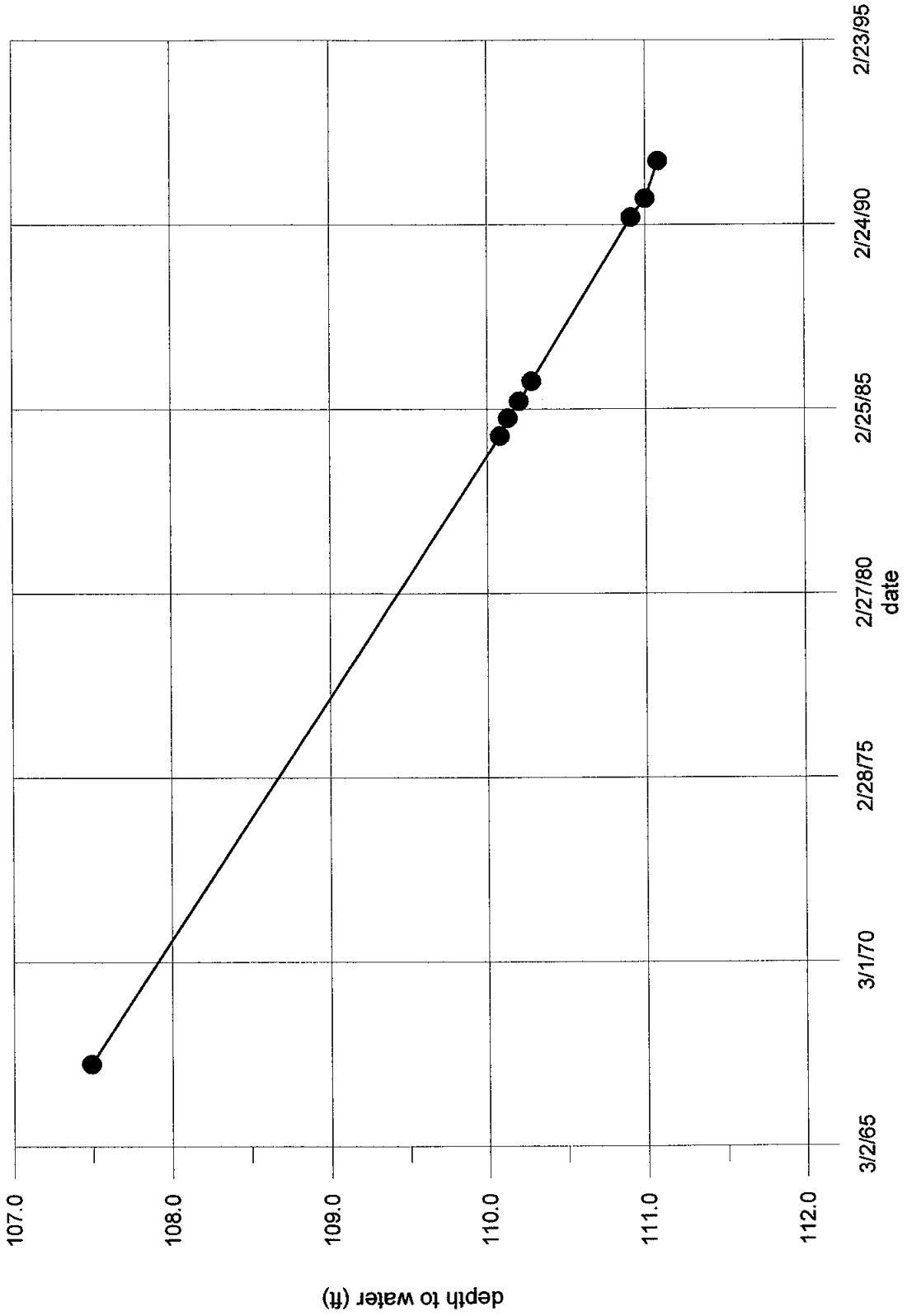
Western Tularosa Basin
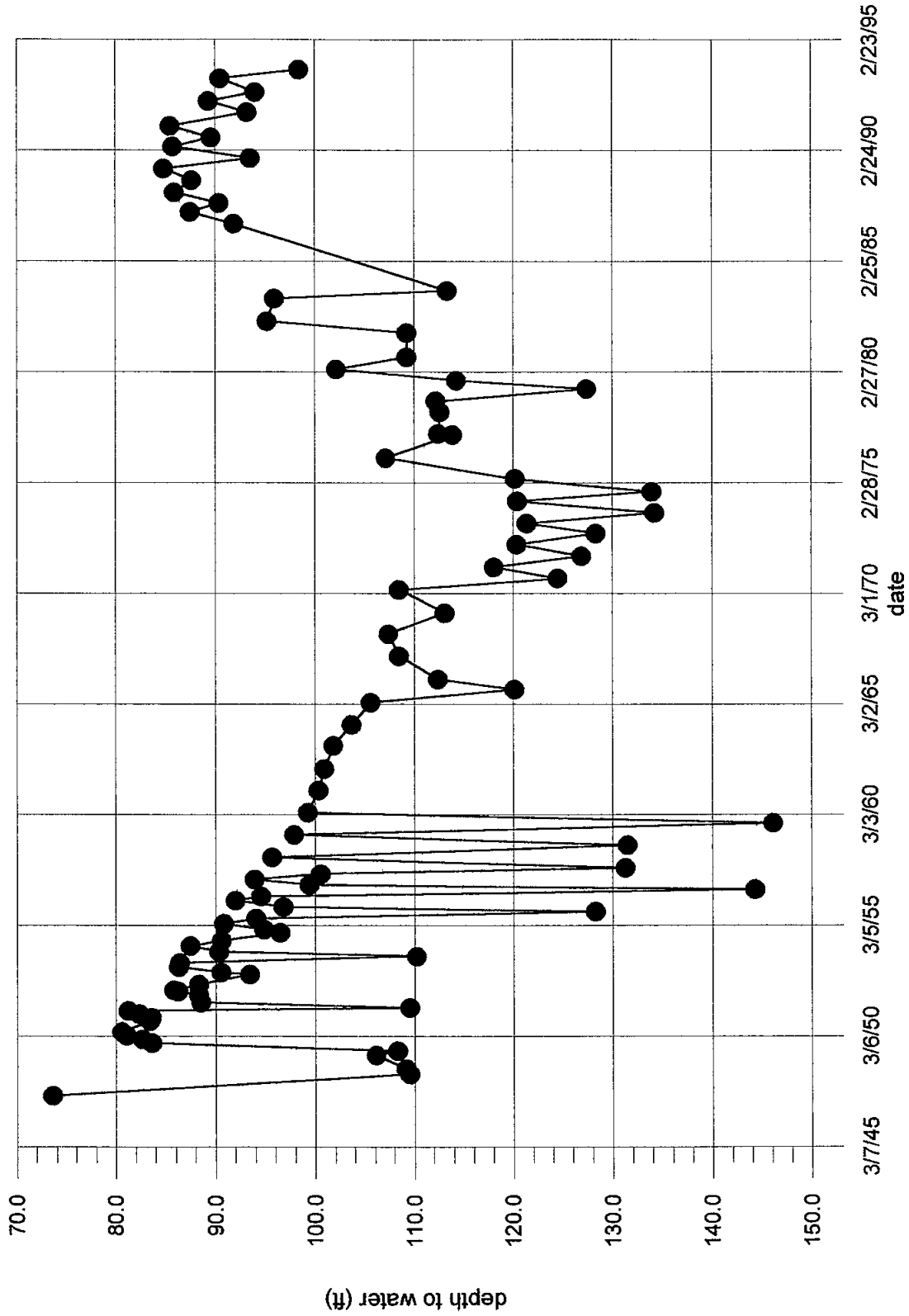Hydrograph of Well 201
T21S.R05E.20.344

depth to water (ft)

date
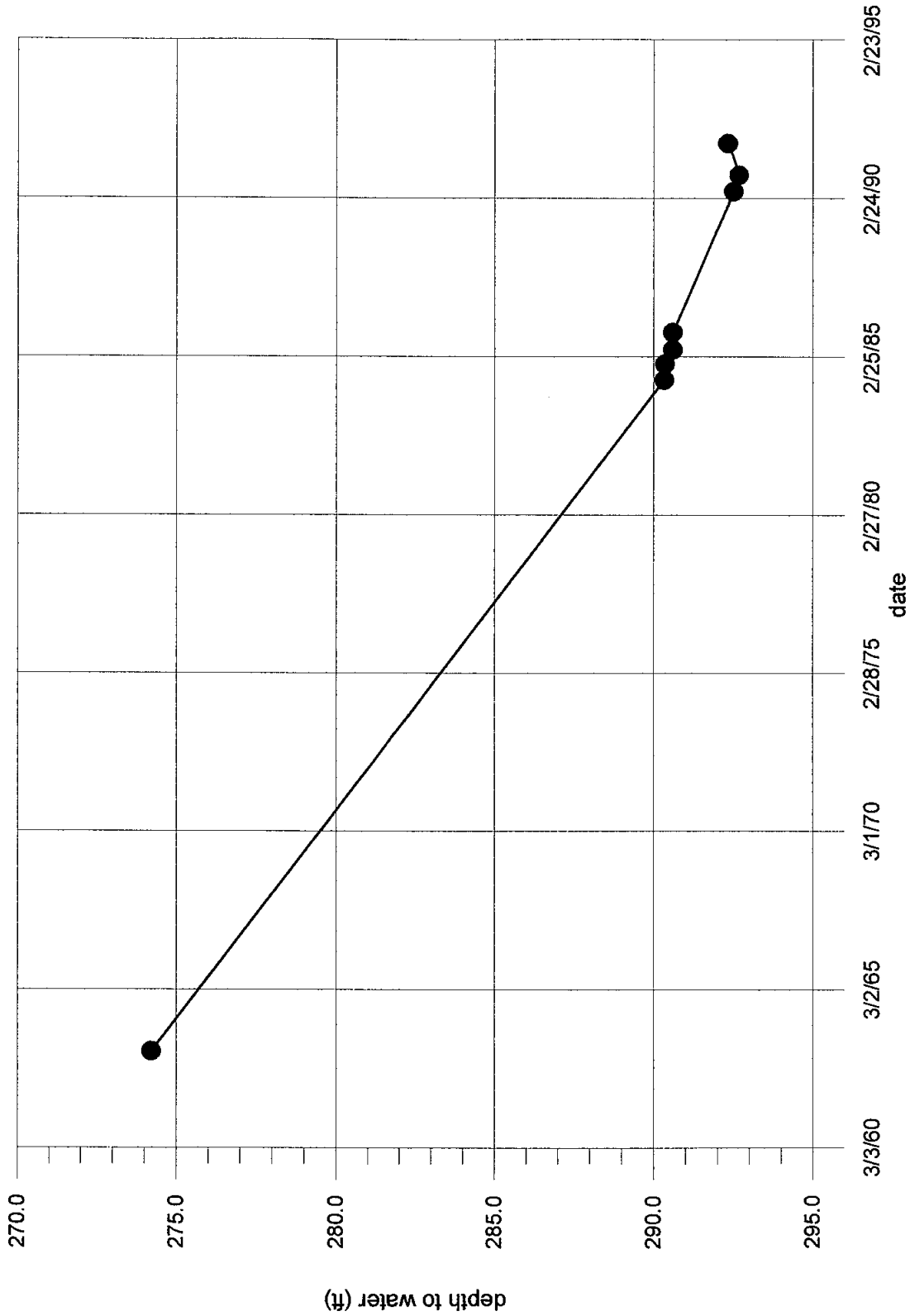
Western Tularosa Basin
Hydrograph of Well 202
T21S.R05E.23.134
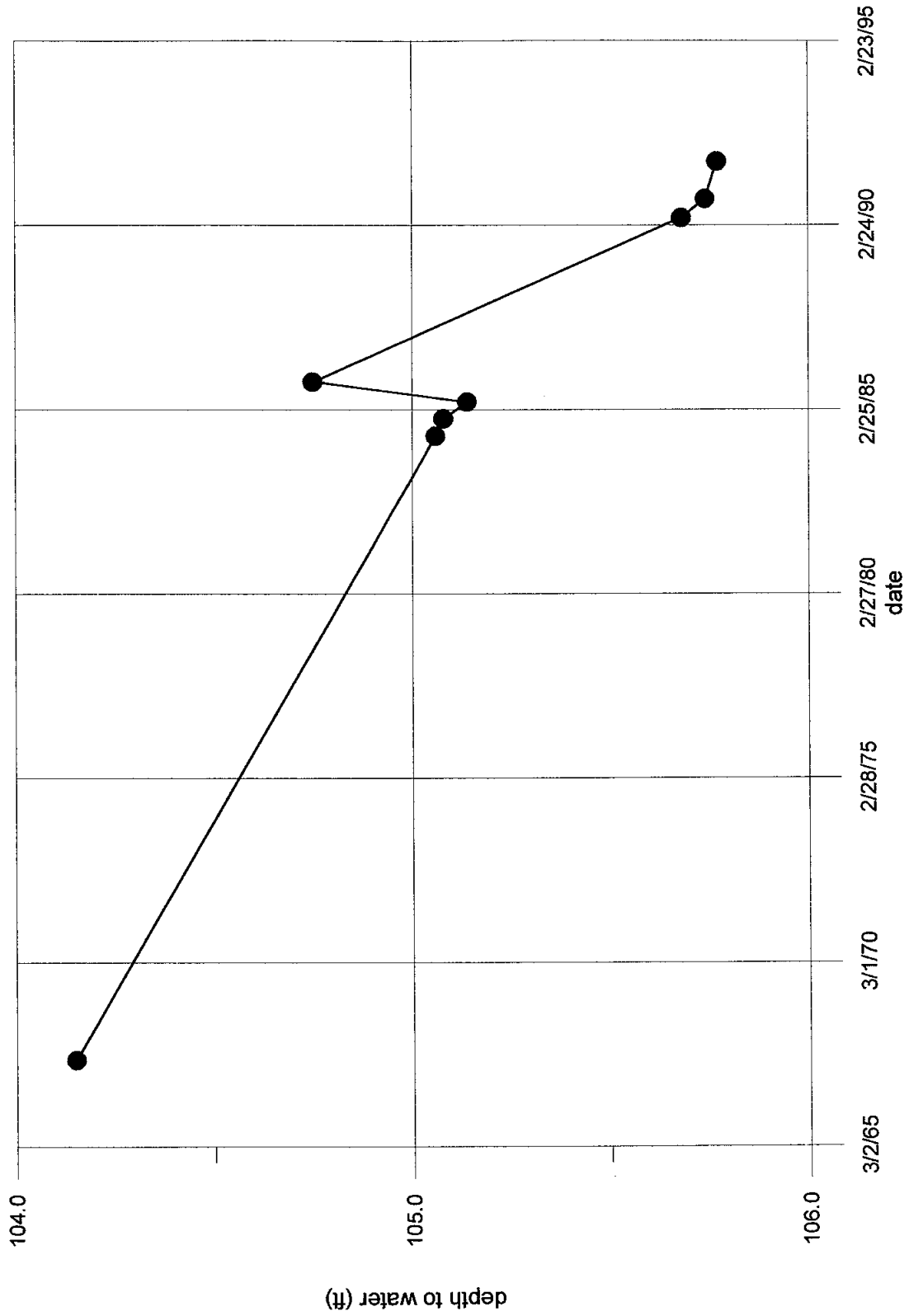
Western Tularosa Basin
Hydrograph of Well 200
T21S.R05E.27.113

depth to water (ft)

133.0
134.0
135.0
136.0
137.0
138.0

3/2/65
3/1/70
2/28/75
2/27/80
date
2/25/85
2/24/90
2/23/95
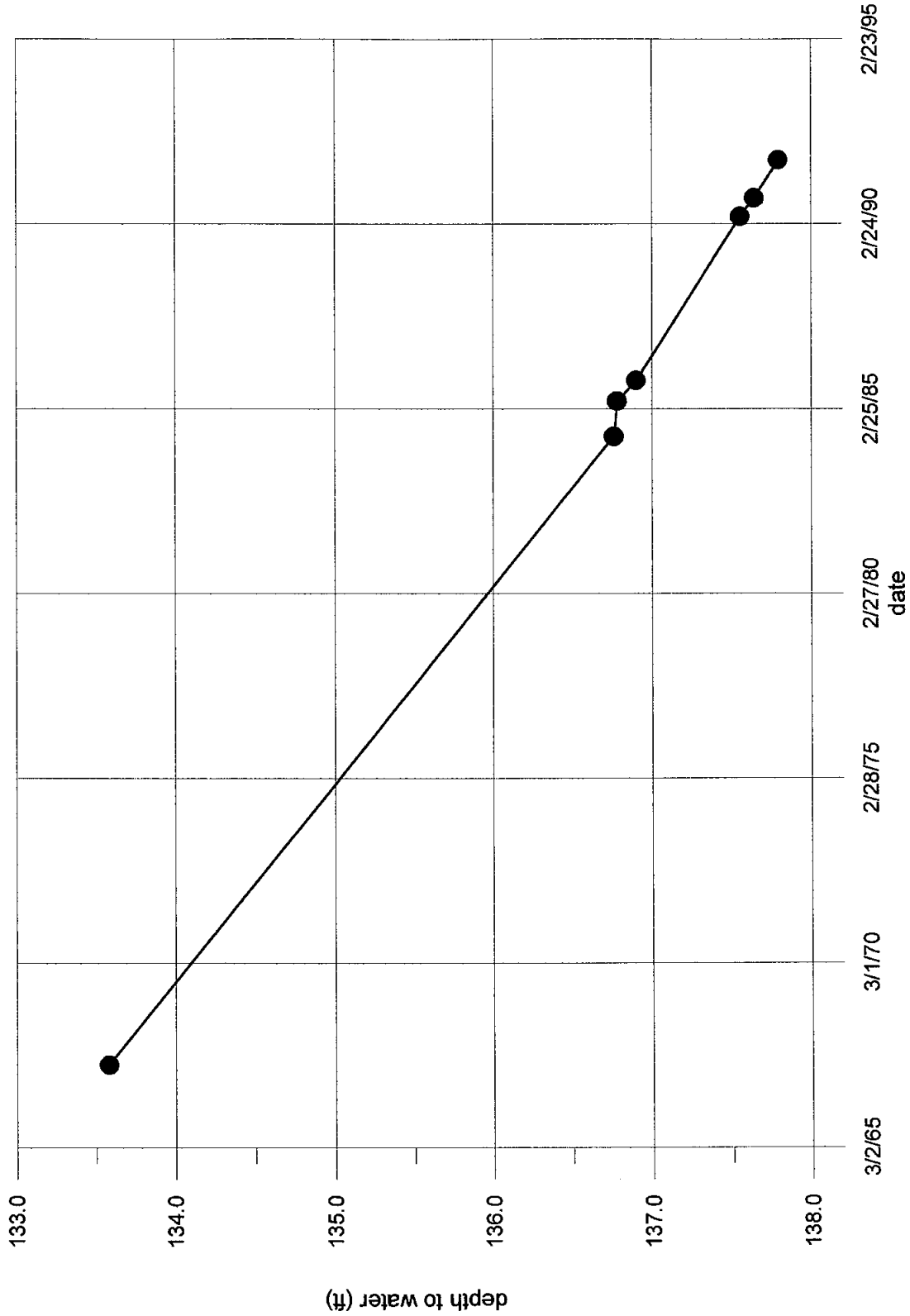
Western Tularosa Basin
Hydrograph of Well 203
T21S.R05E.17.424

depth to water (ft)

date
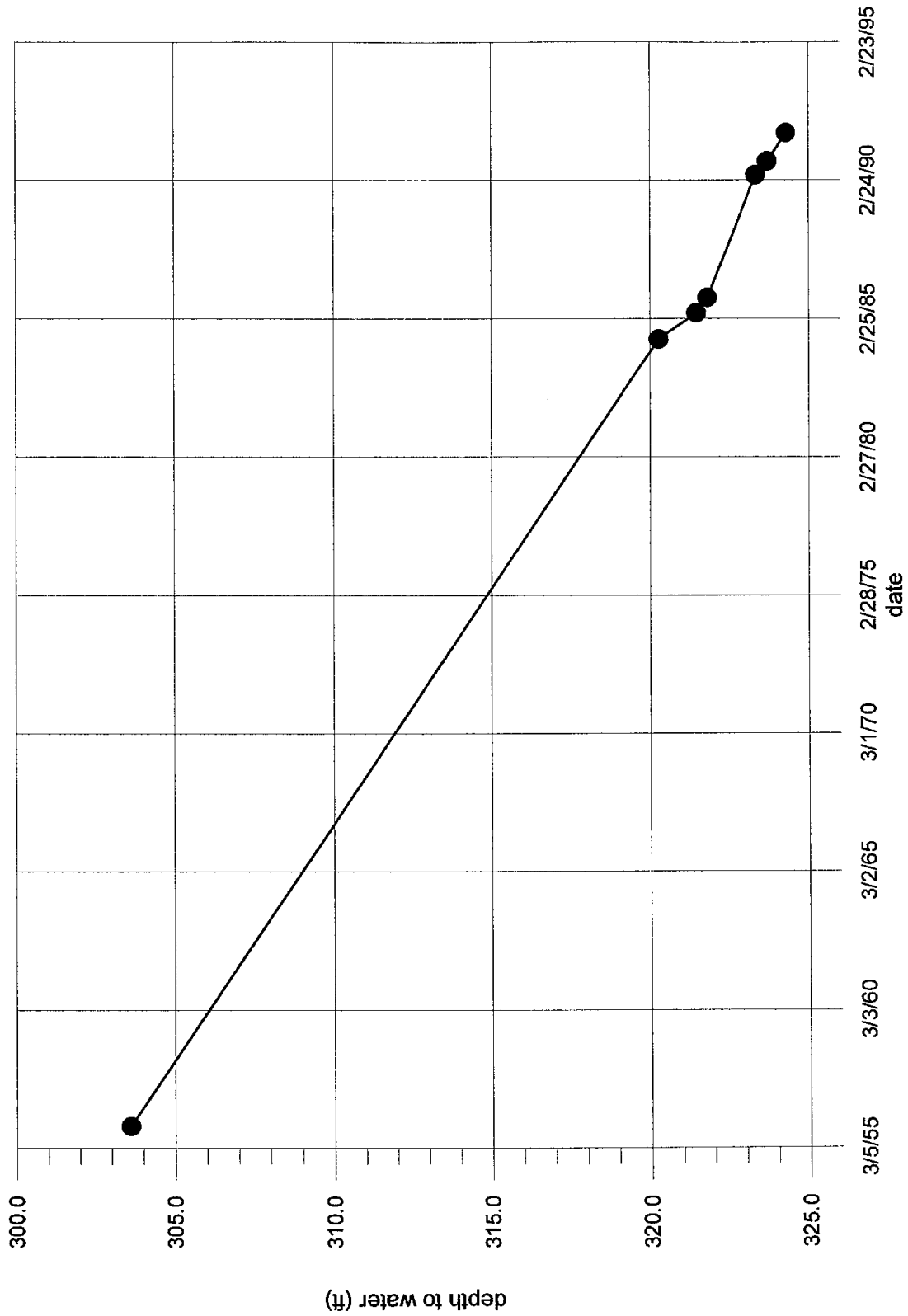
Western Tularosa Basin
Hydrograph of Well 204
T21S.R04E.14.114
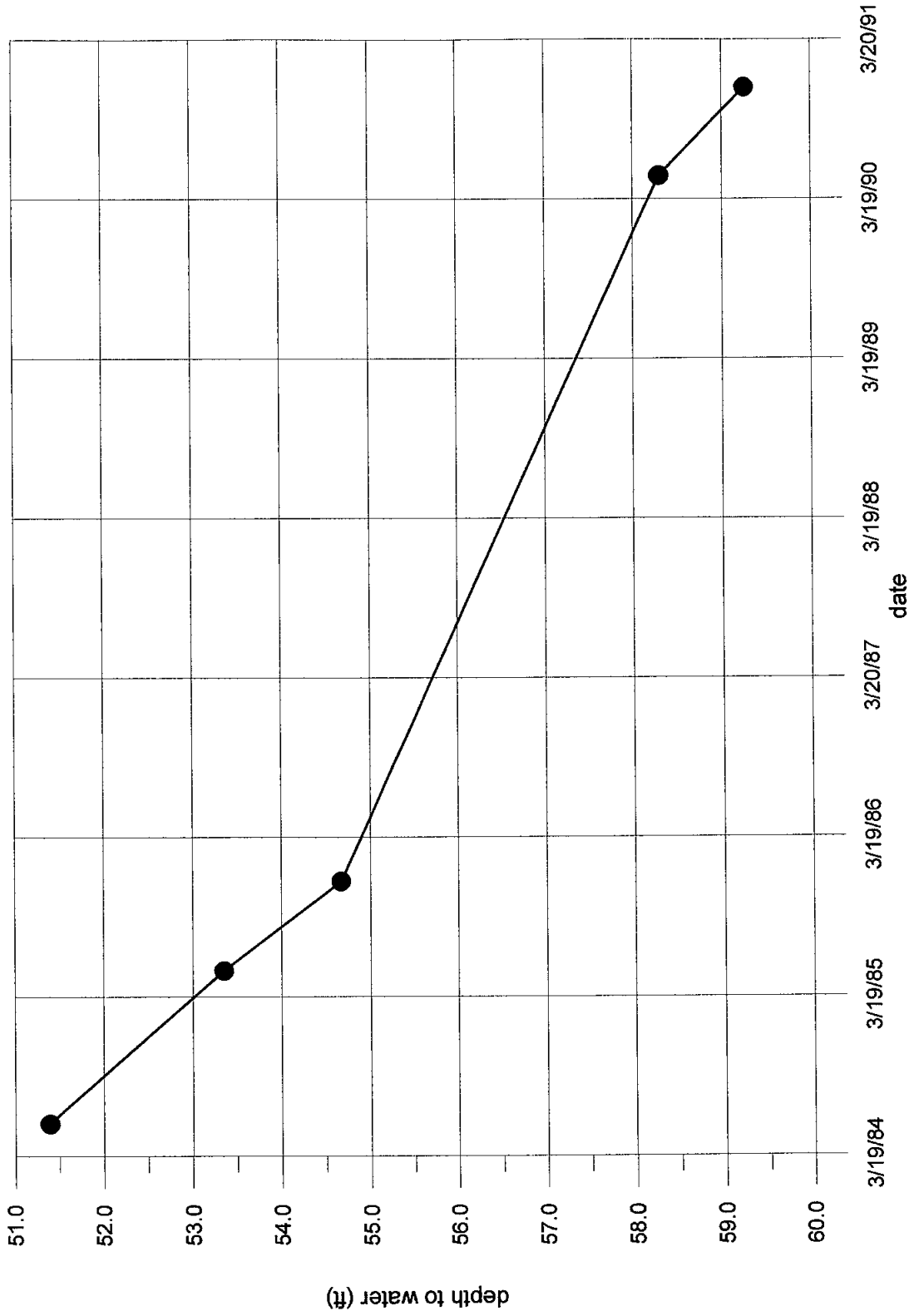
Hydrograph of Well 205
T21S.R05E.02.341
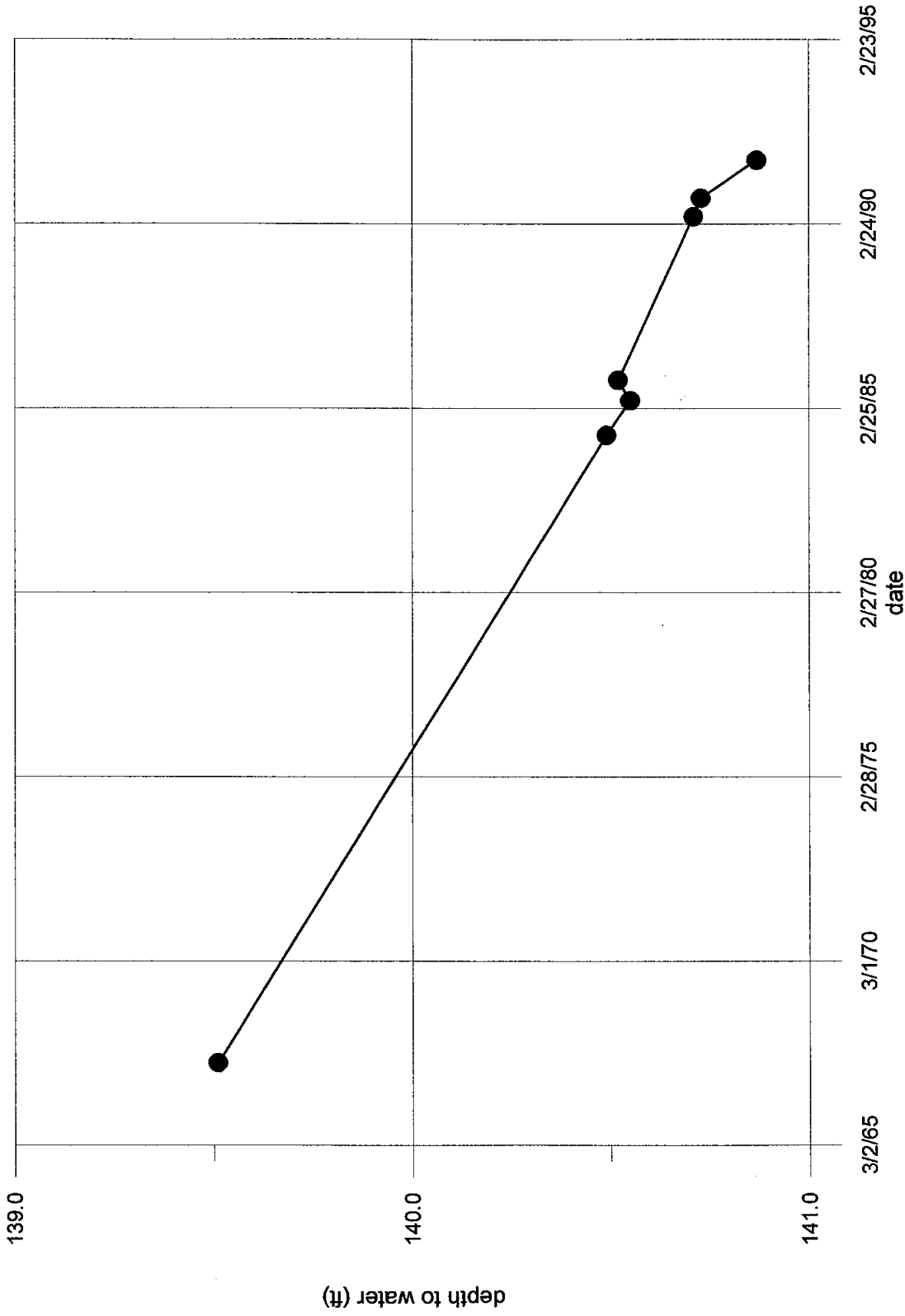
depth to water (ft)

139.0   140.0   141.0

3/2/65   3/1/70   2/28/75   2/27/80   2/25/85   2/24/90   2/23/95

date

Western Tularosa Basin
Hydrograph of Well 206
T21S.R05E.01.224

depth to water (ft)

date
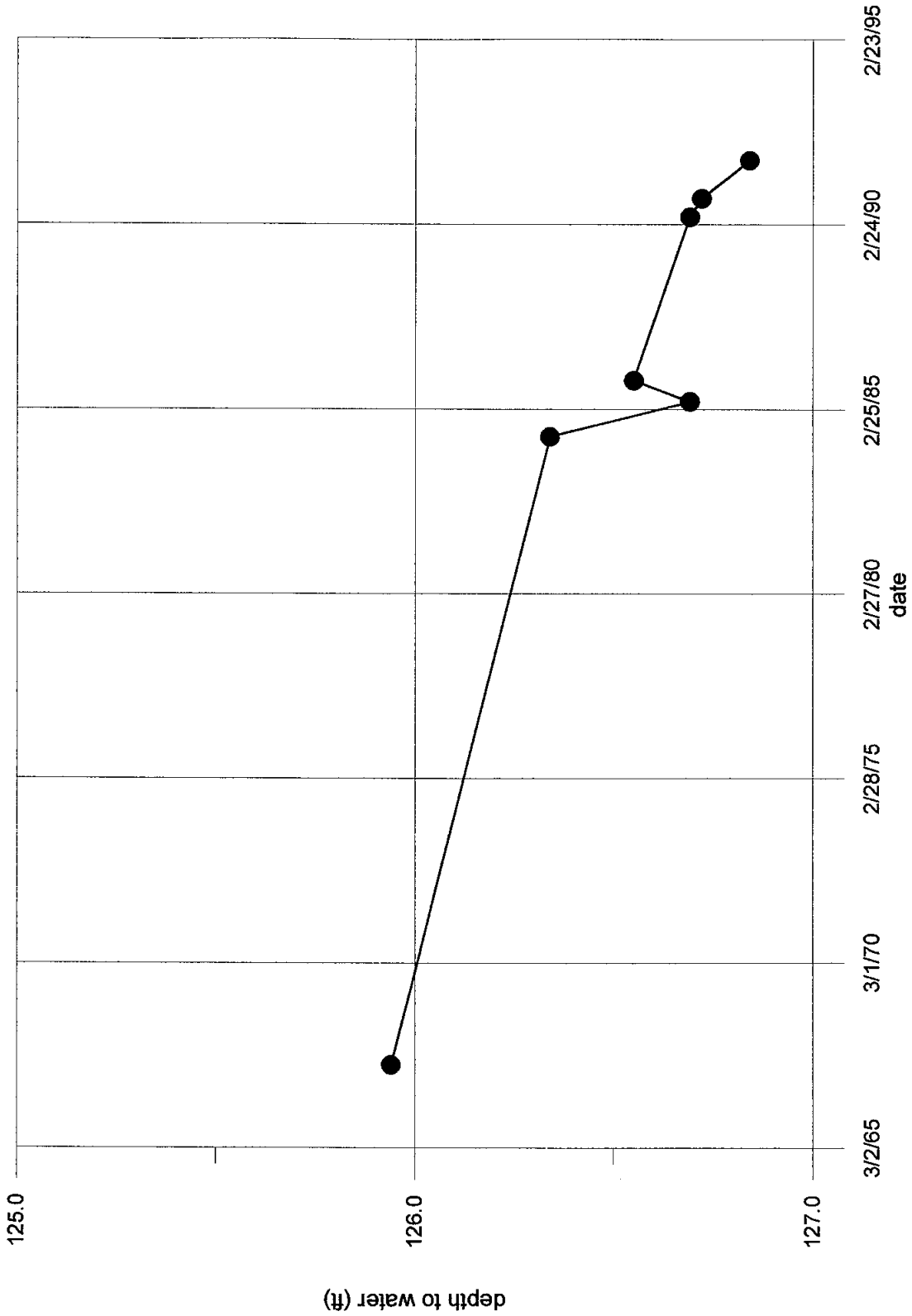
Western Tularosa Basin
Hydrograph of Well 208
T20S.R05E.23.213
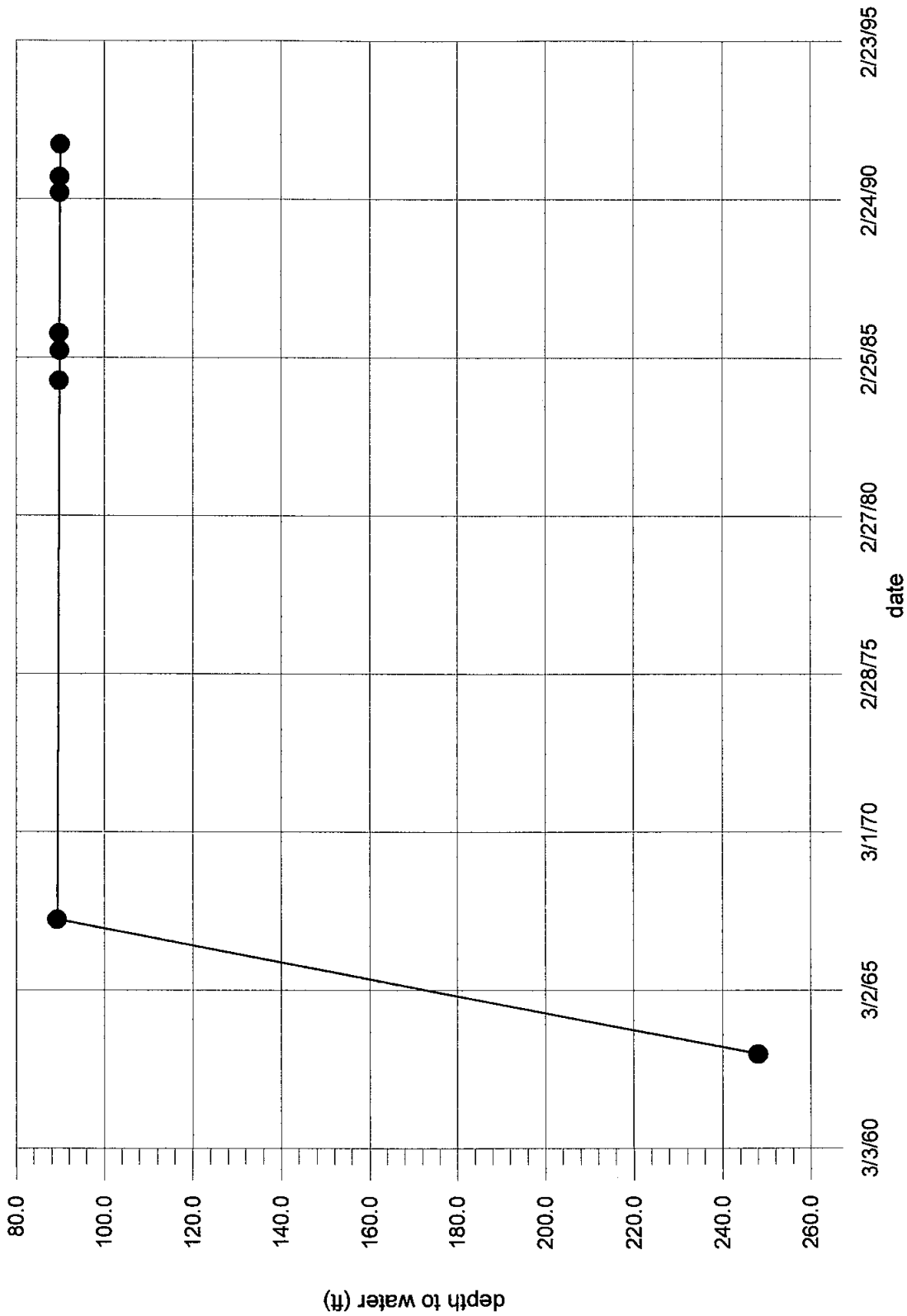
Western Tularosa Basin
Hydrograph of Well 209
T19S.R05E.19.413

depth to water (ft)

date

220.0   240.0   260.0   280.0   300.0   320.0

3/3/60   3/2/65   3/1/70   2/28/75   2/27/80   2/25/85   2/24/90   2/23/95
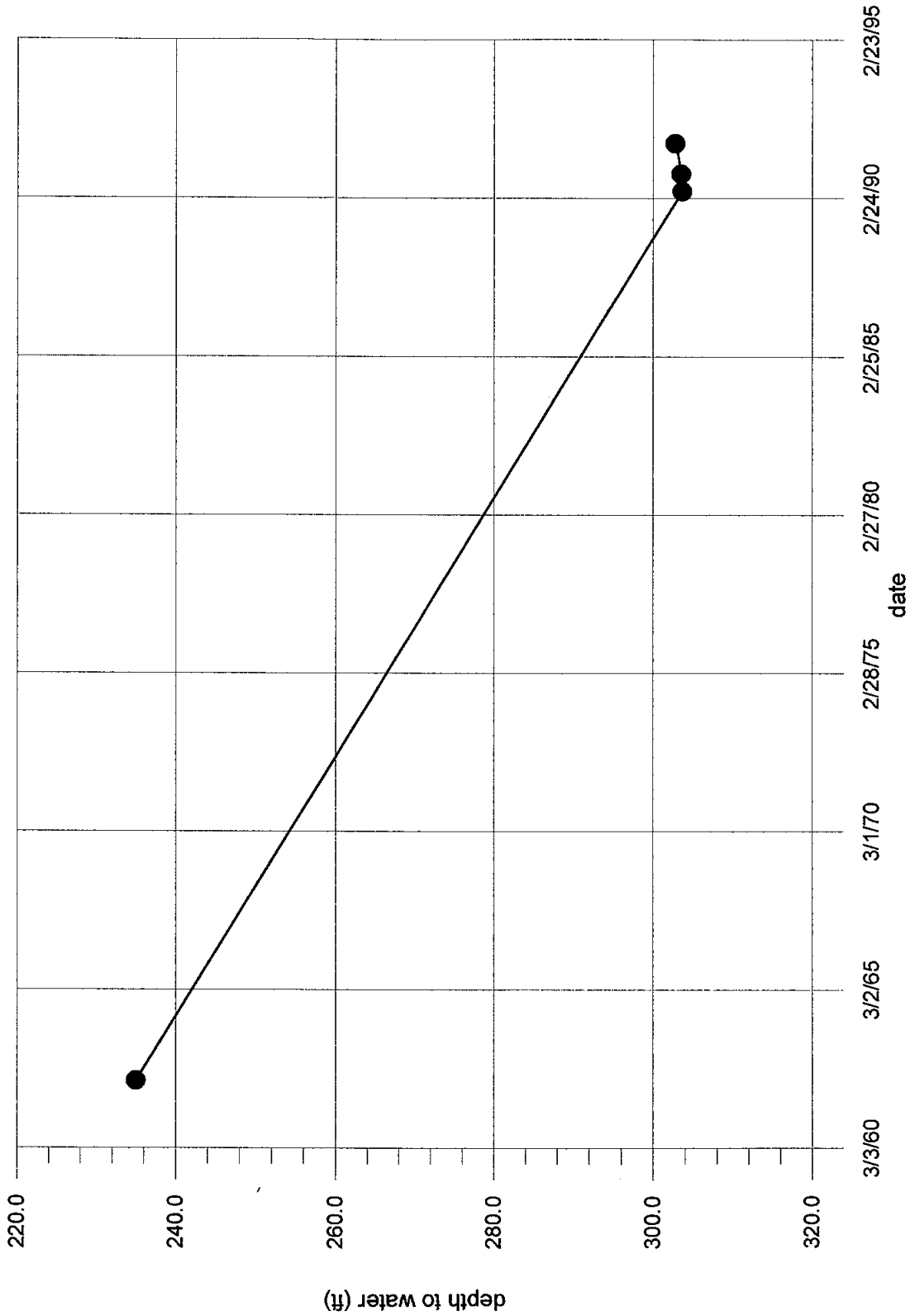
Western Tularosa Basin
Hydrograph of Well 210
T19S.R05E.17.333
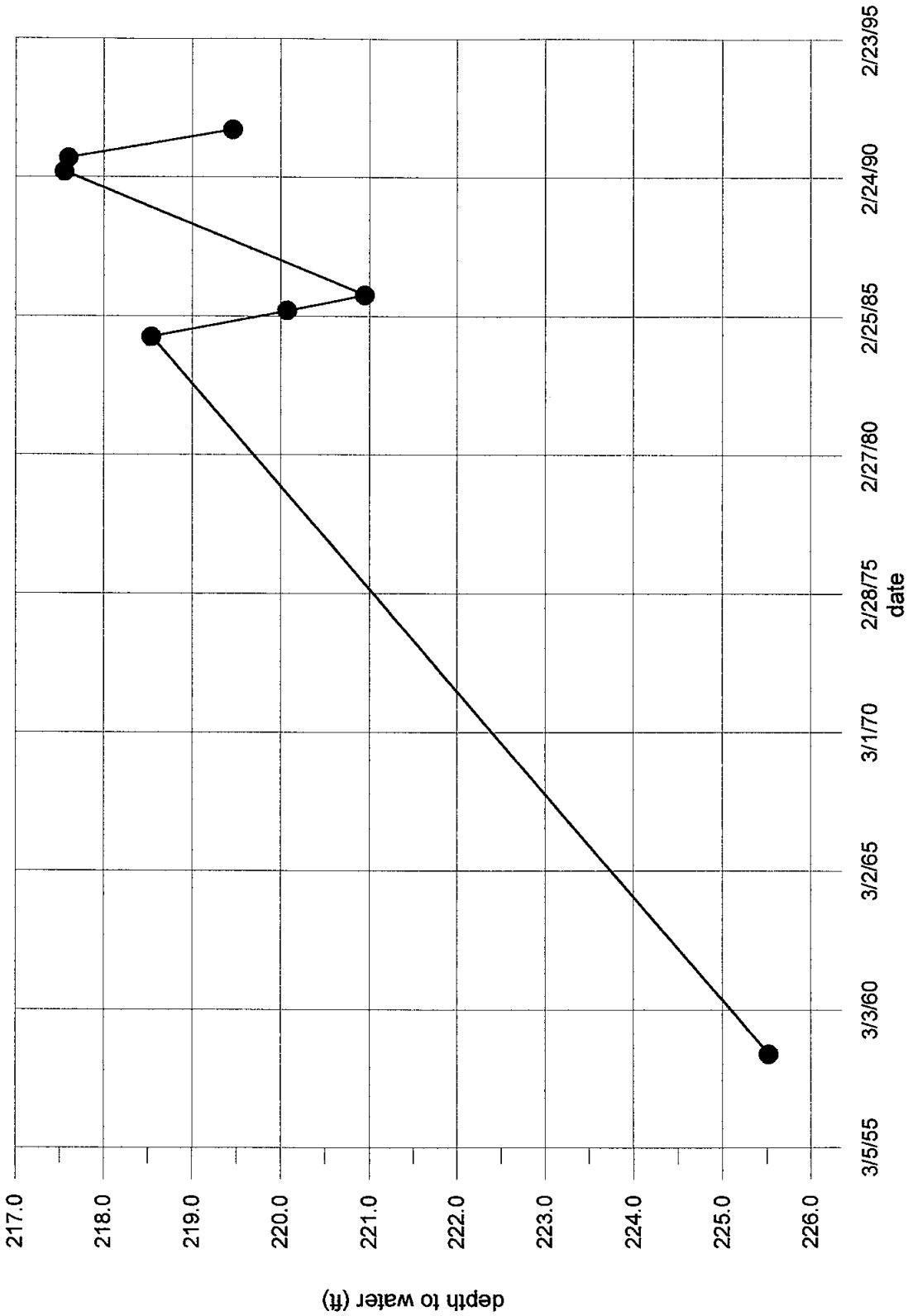
Hydrograph of Well 211
T19S.R05E.17.334
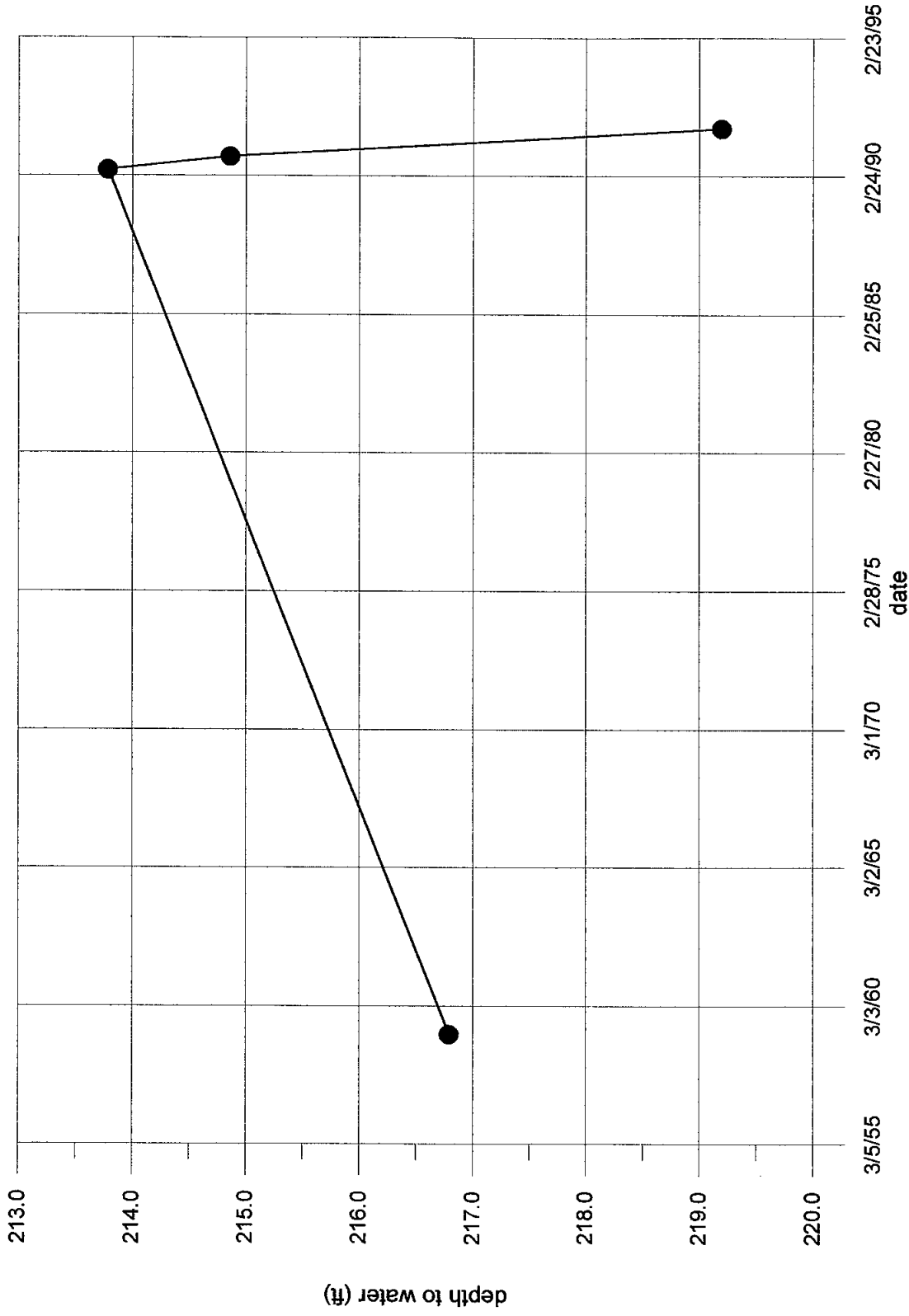
depth to water (ft)

213.0 · 214.0 · 215.0 · 216.0 · 217.0 · 218.0 · 219.0 · 220.0

3/5/55 · 3/3/60 · 3/2/65 · 3/1/70 · 2/28/75 · 2/27/80 · 2/25/85 · 2/24/90 · 2/23/95

date

Western Tularosa Basin
Hydrograph of Well 213
T17S.R04E.02.211

depth to water (ft)

date
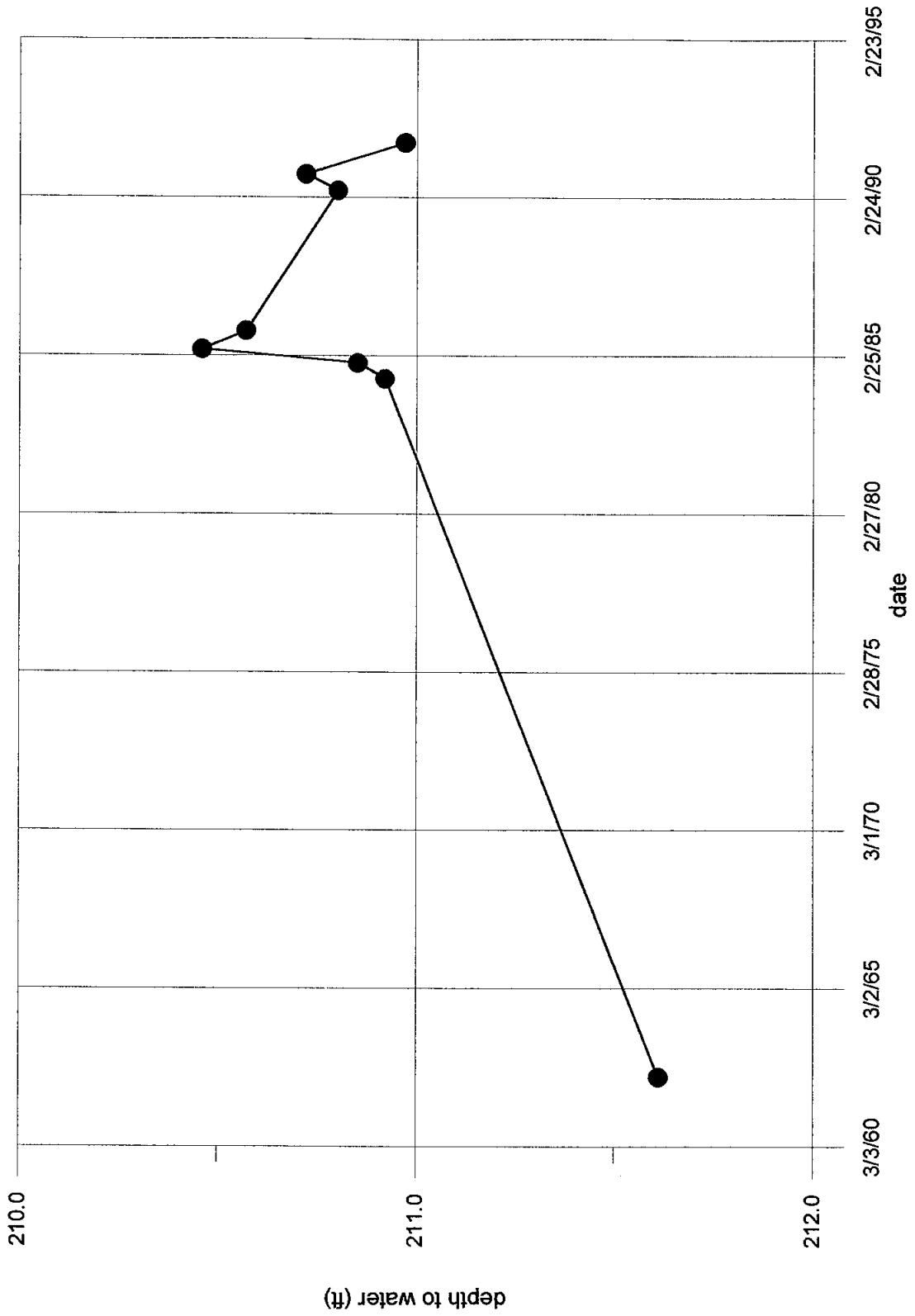
Eastern Tularosa Basin
Hydrograph of Well 1
T11S.R09E.22.244

depth to water (ft)

date
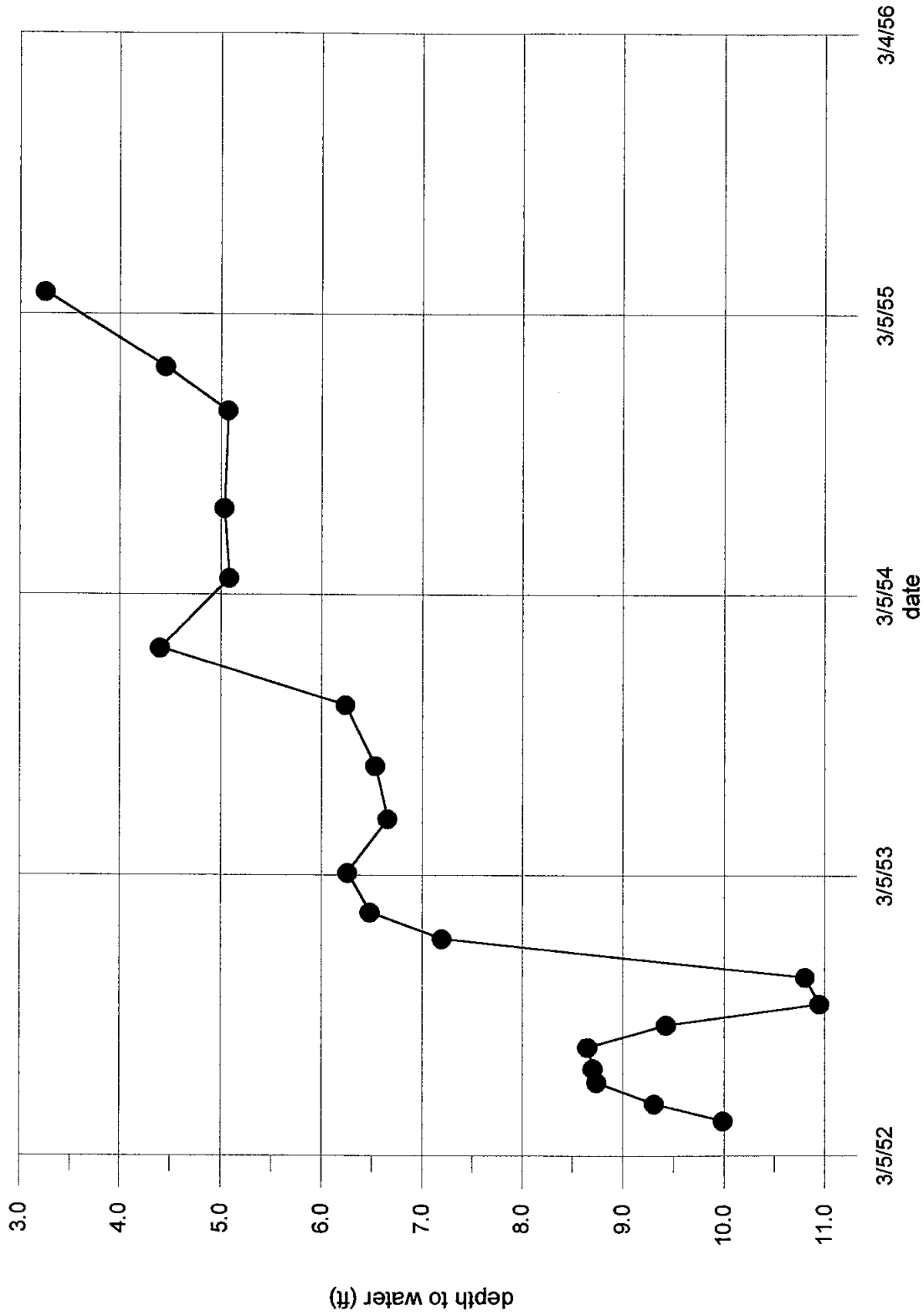
Eastern Tularosa Basin
Hydrograph of Well 2
T11S.R09E.22.400

depth to water (ft)

date

130.0
132.0
134.0
136.0
138.0
140.0
142.0
144.0
146.0
148.0
150.0

3/1/70
2/28/75
2/27/80
2/25/85
2/24/90

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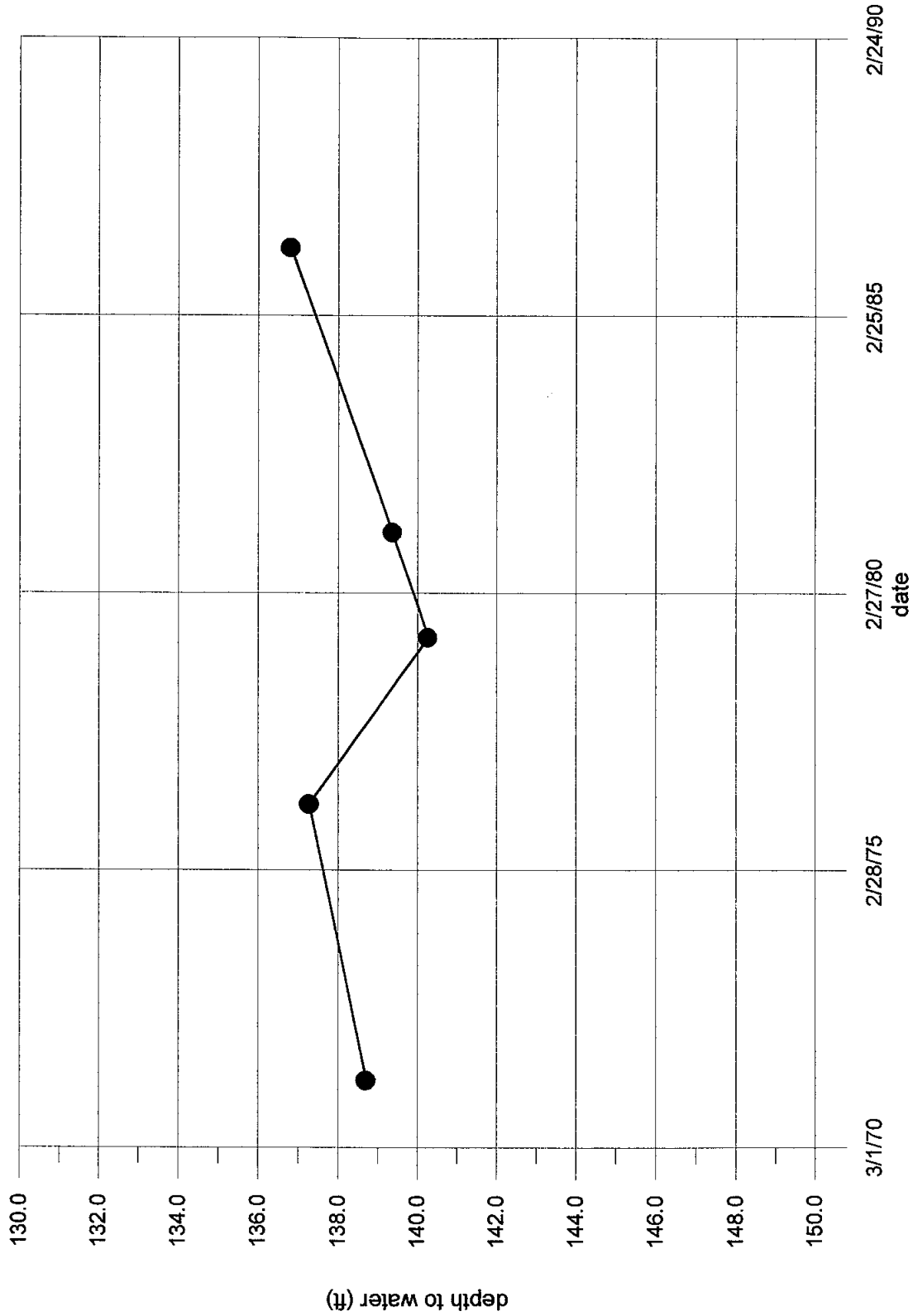
Eastern Tularosa Basin
Hydrograph of Well 3
T11S.R09E.34.400

depth to water (ft)

292.0
293.0
294.0
295.0
296.0
297.0
298.0
299.0
300.0

3/1/70
2/28/75
2/27/80
2/25/85
2/24/90
2/23/95

date

Eastern Tularosa Basin
Hydrograph of Well 4
T13S.R09E.20.234

Eastern Tularosa Basin
Hydrograph of Well 5
T13S.R09E.34.430

depth to water (ft)

date
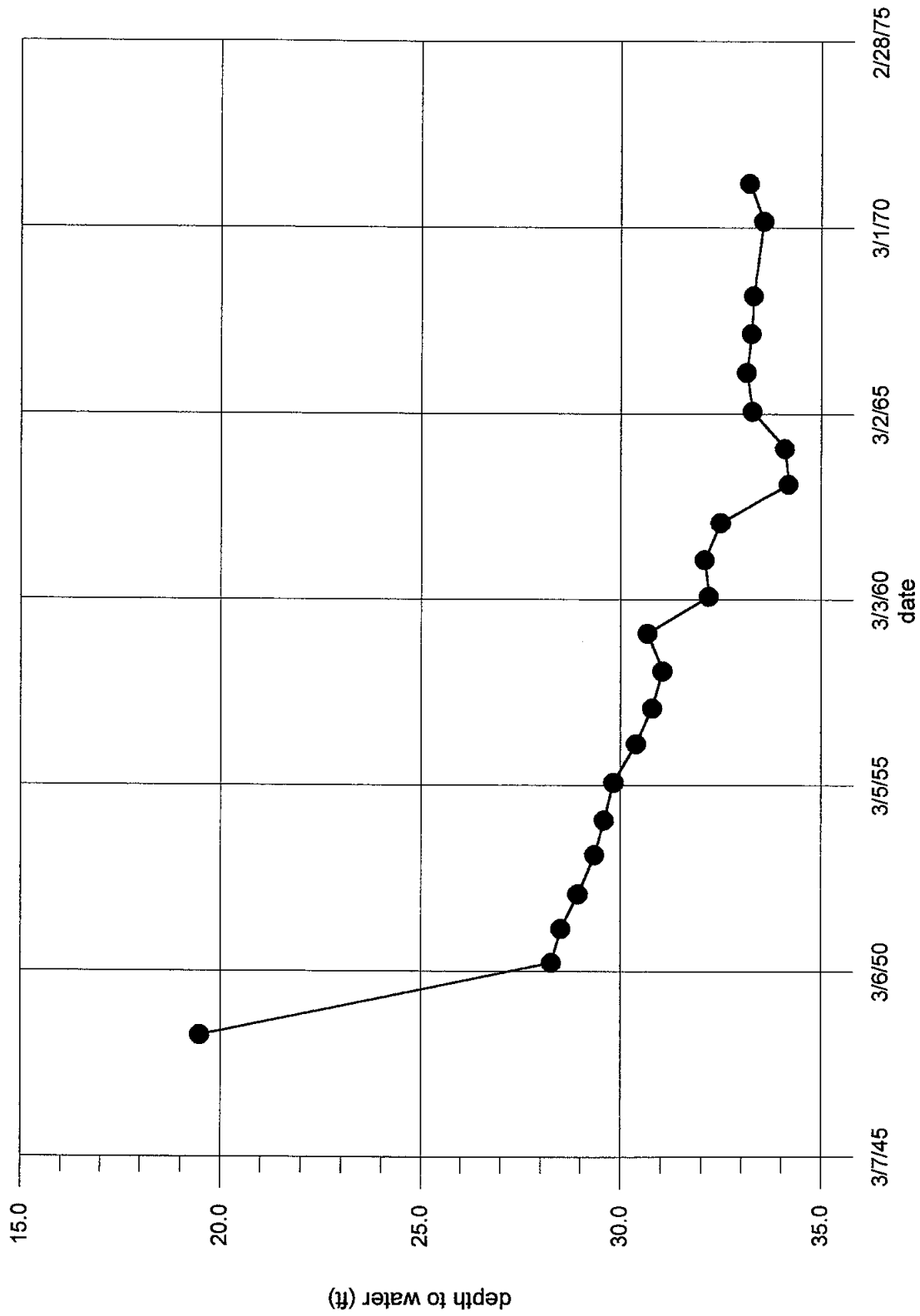
Eastern Tularosa Basin
Hydrograph of Well 6
T14S.R09E.12.220

depth to water (ft)

date
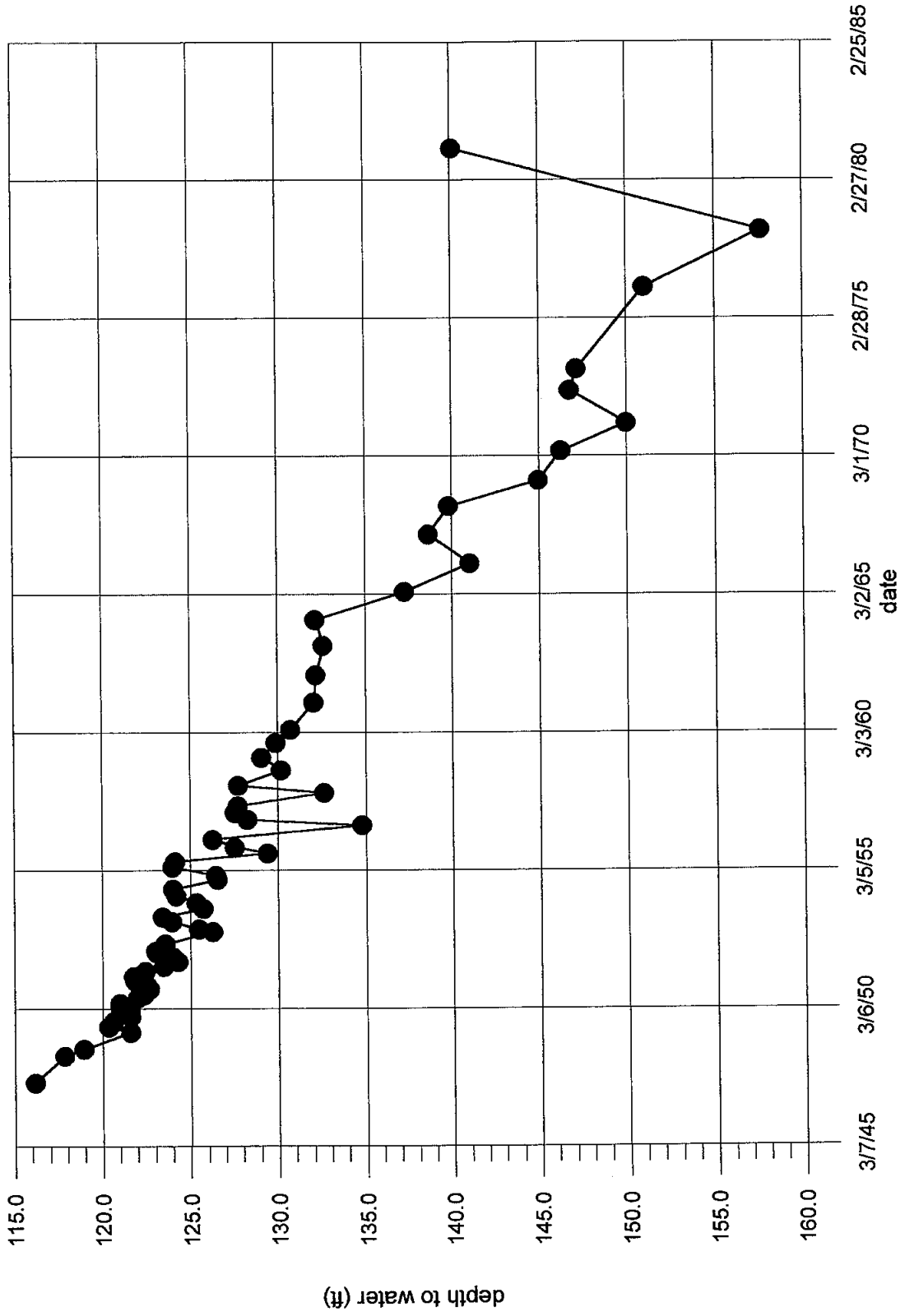
Eastern Tularosa Basin
Hydrograph of Well 7
T14S.R09E.15.344

depth to water (ft)

date
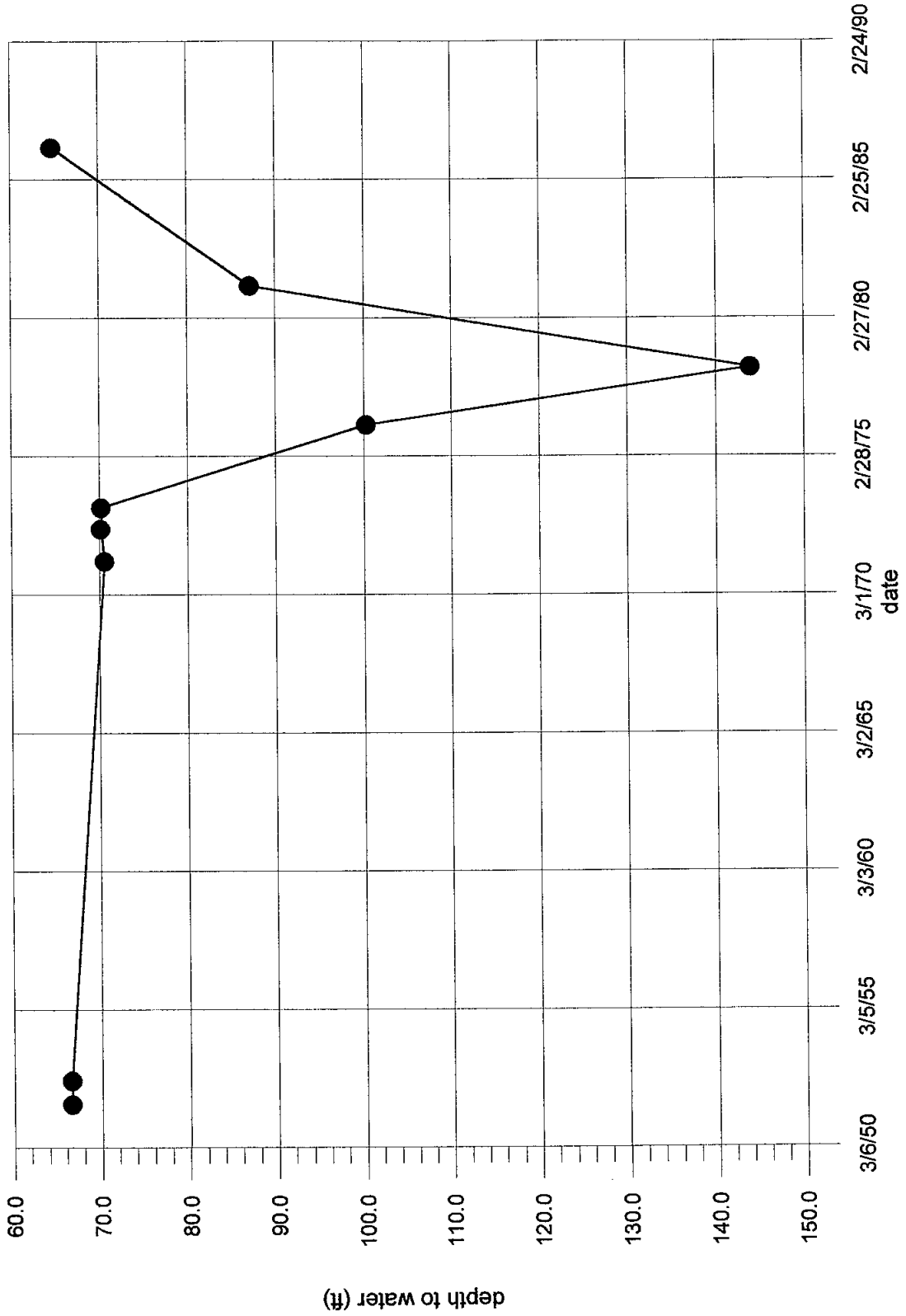
Eastern Tularosa Basin
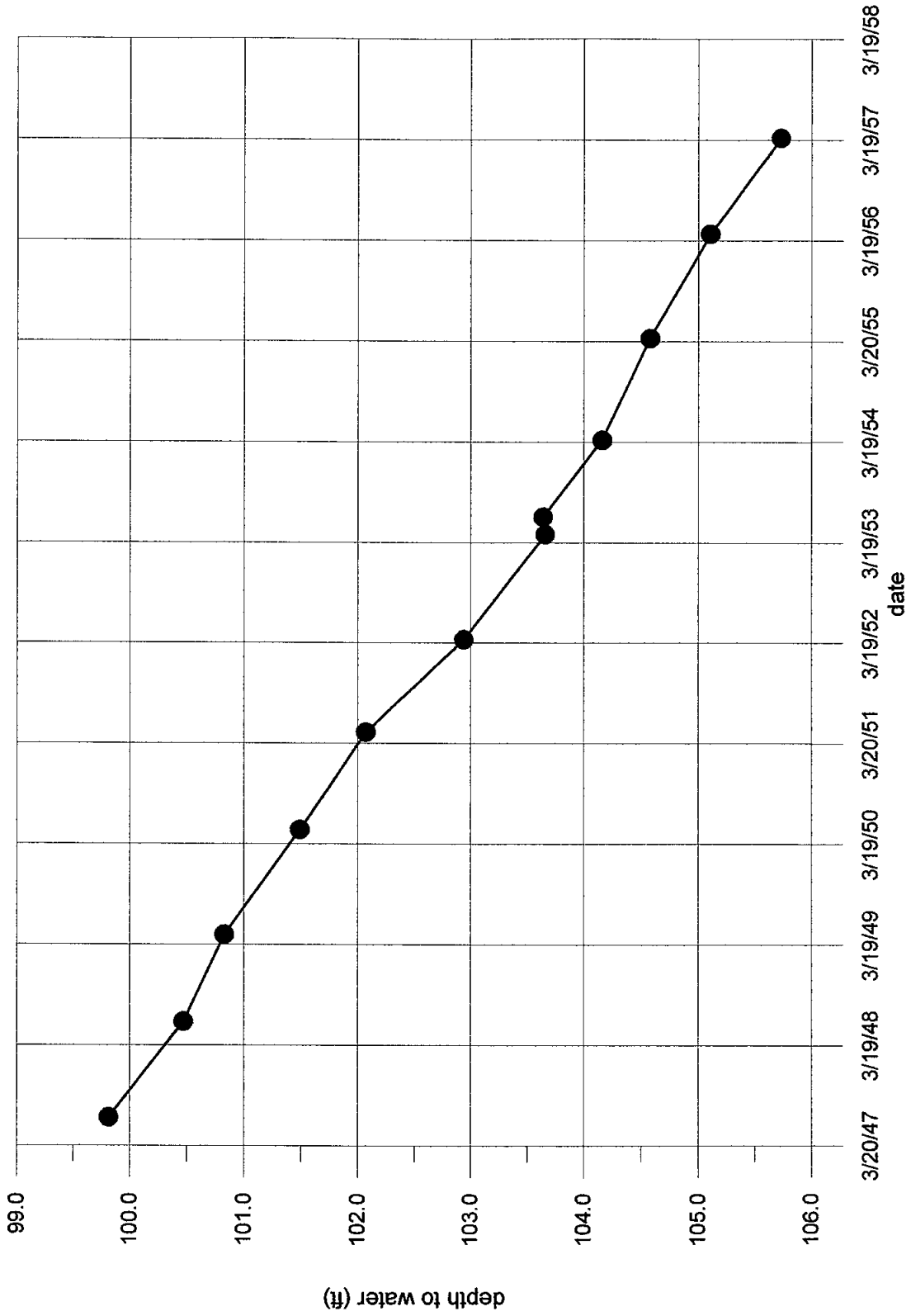Hydrograph of Well 8
T14S.R09E.22.222

depth to water (ft)

date
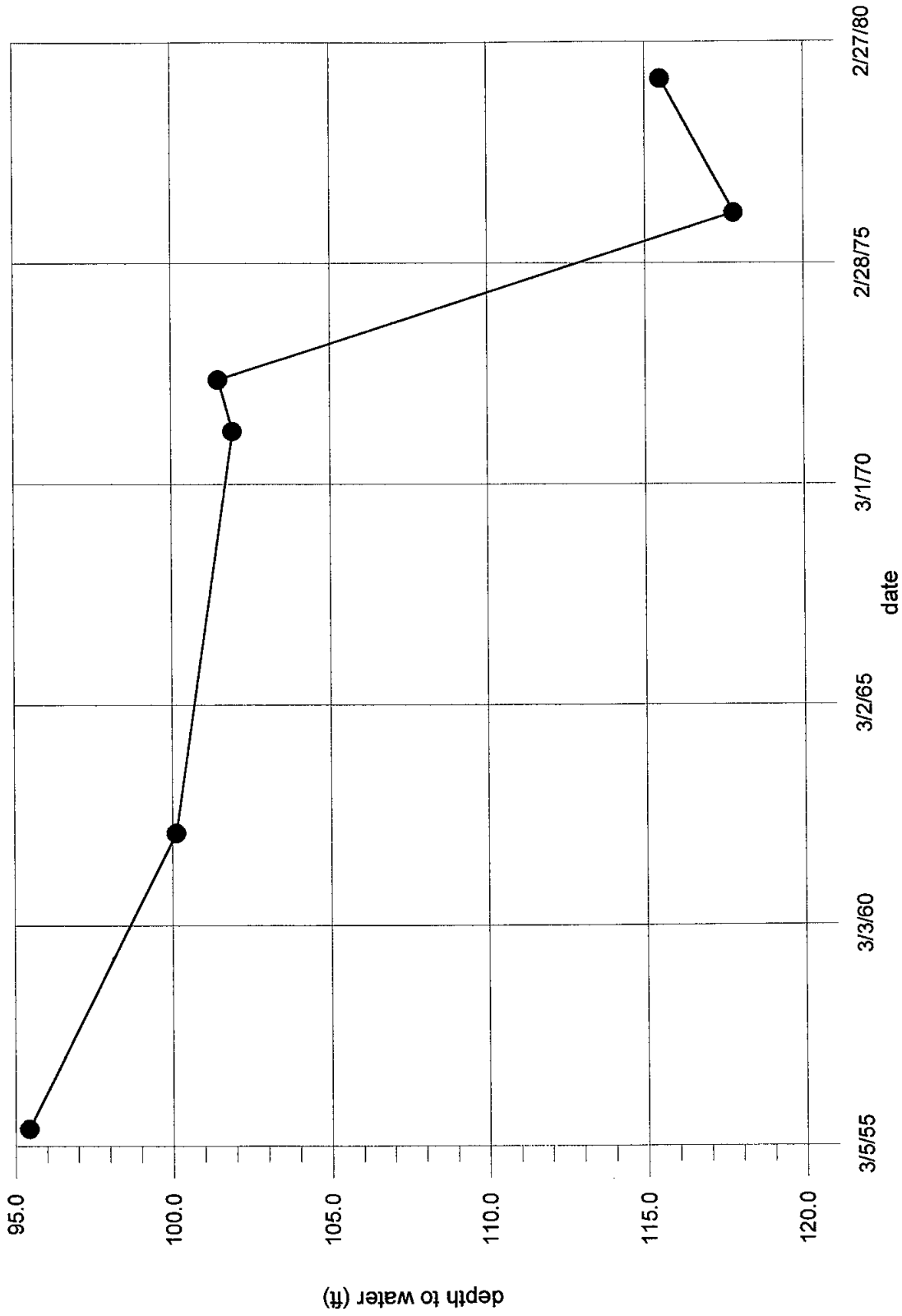
Eastern Tularosa Basin
Hydrograph of Well 9
T14S.R09E.23.112
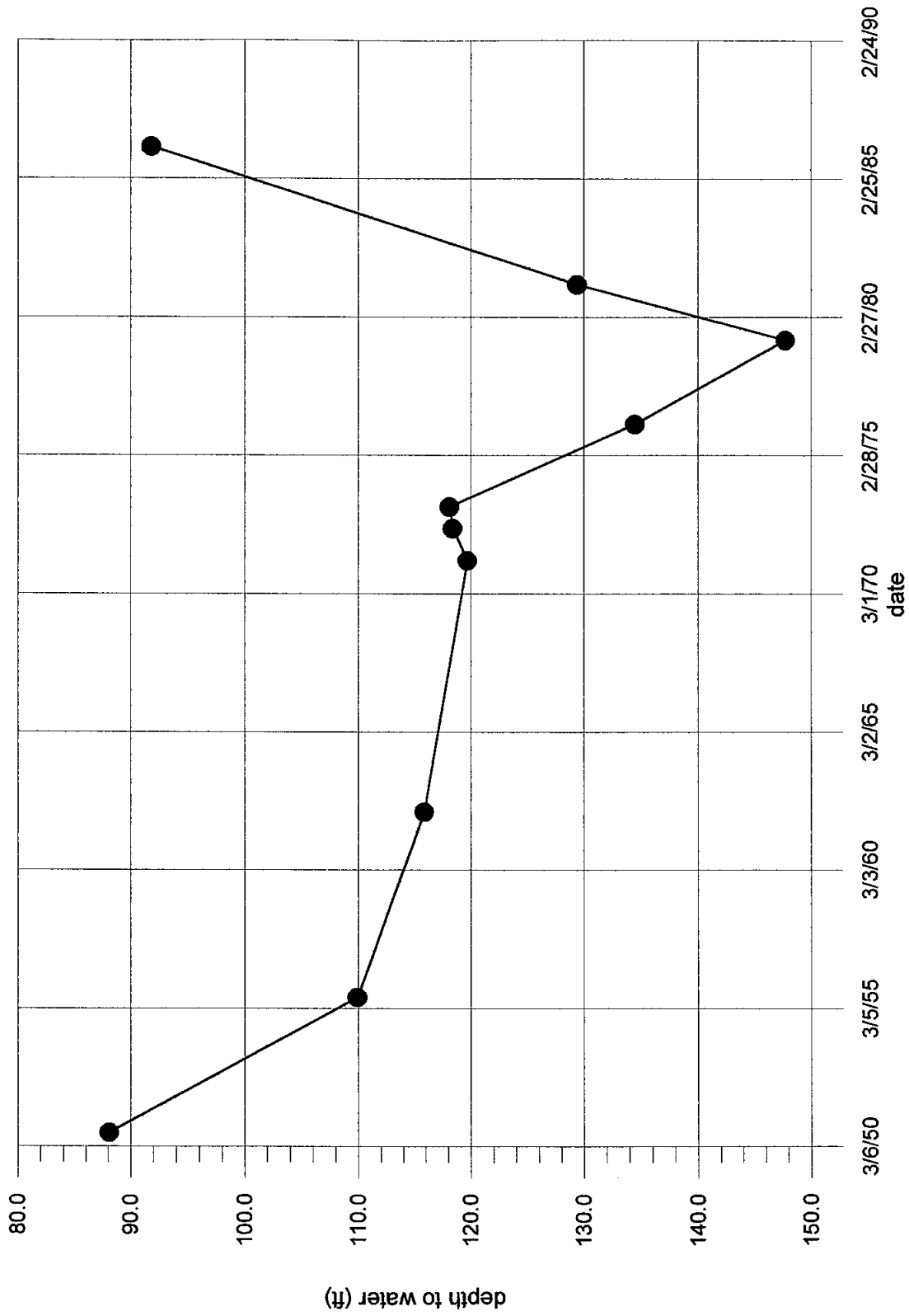
Eastern Tularosa Basin
Hydrograph of Well 10
T14S.R09E.25.140

depth to water (ft)

date

150.0 — 160.0 — 170.0 — 180.0 — 190.0 — 200.0 — 210.0

3/7/45 — 3/6/50 — 3/5/55 — 3/3/60 — 3/2/65 — 3/1/70 — 2/28/75
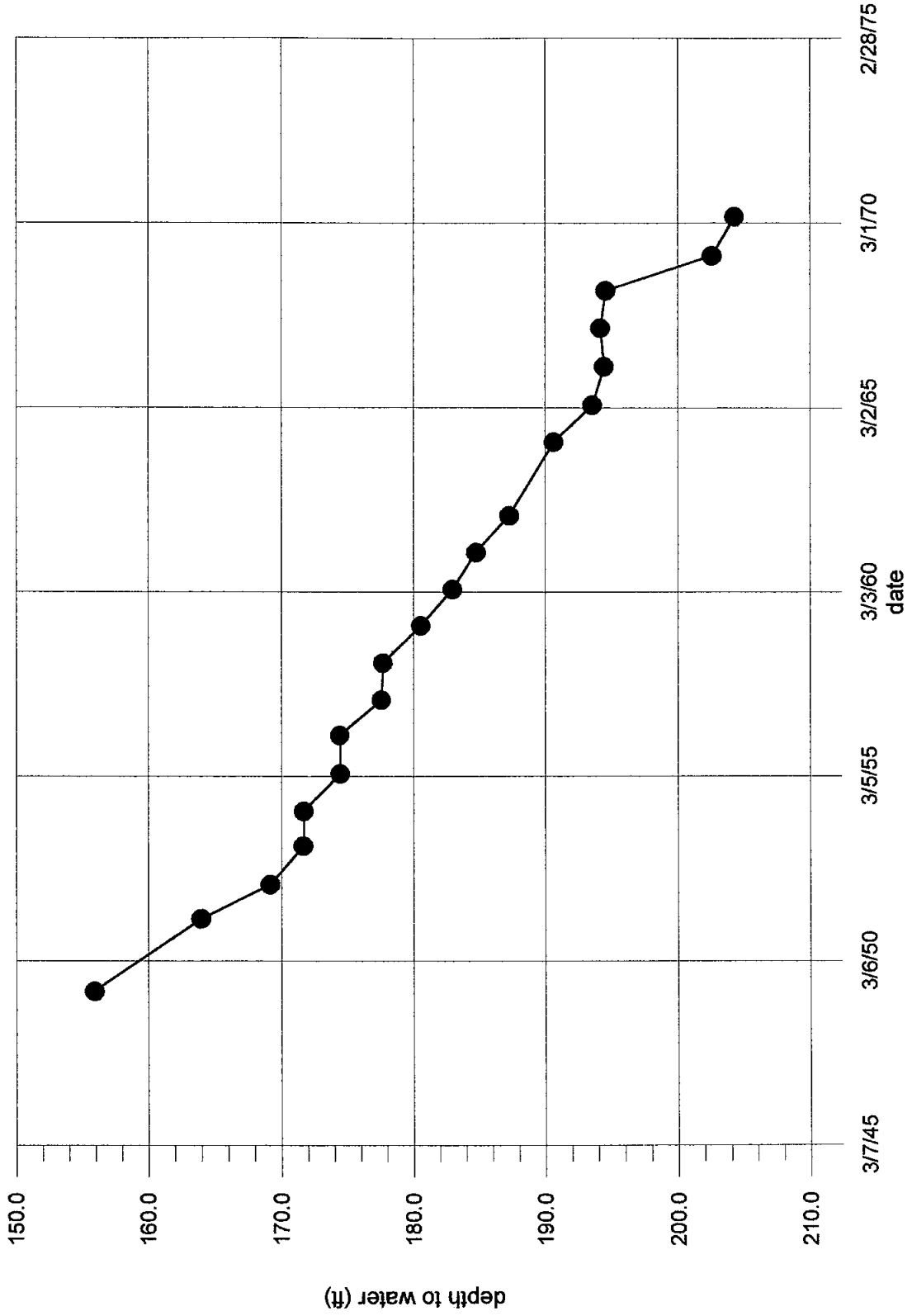
Eastern Tularosa Basin
Hydrograph of Well 11
T14S.R09E.26.422

depth to water (ft)

date

Eastern Tularosa Basin
Hydrograph of Well 12
T14S.R09E.28.121

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Eastern Tularosa Basin
Hydrograph of Well 13
T14S.R09E.35.342

depth to water (ft)

date
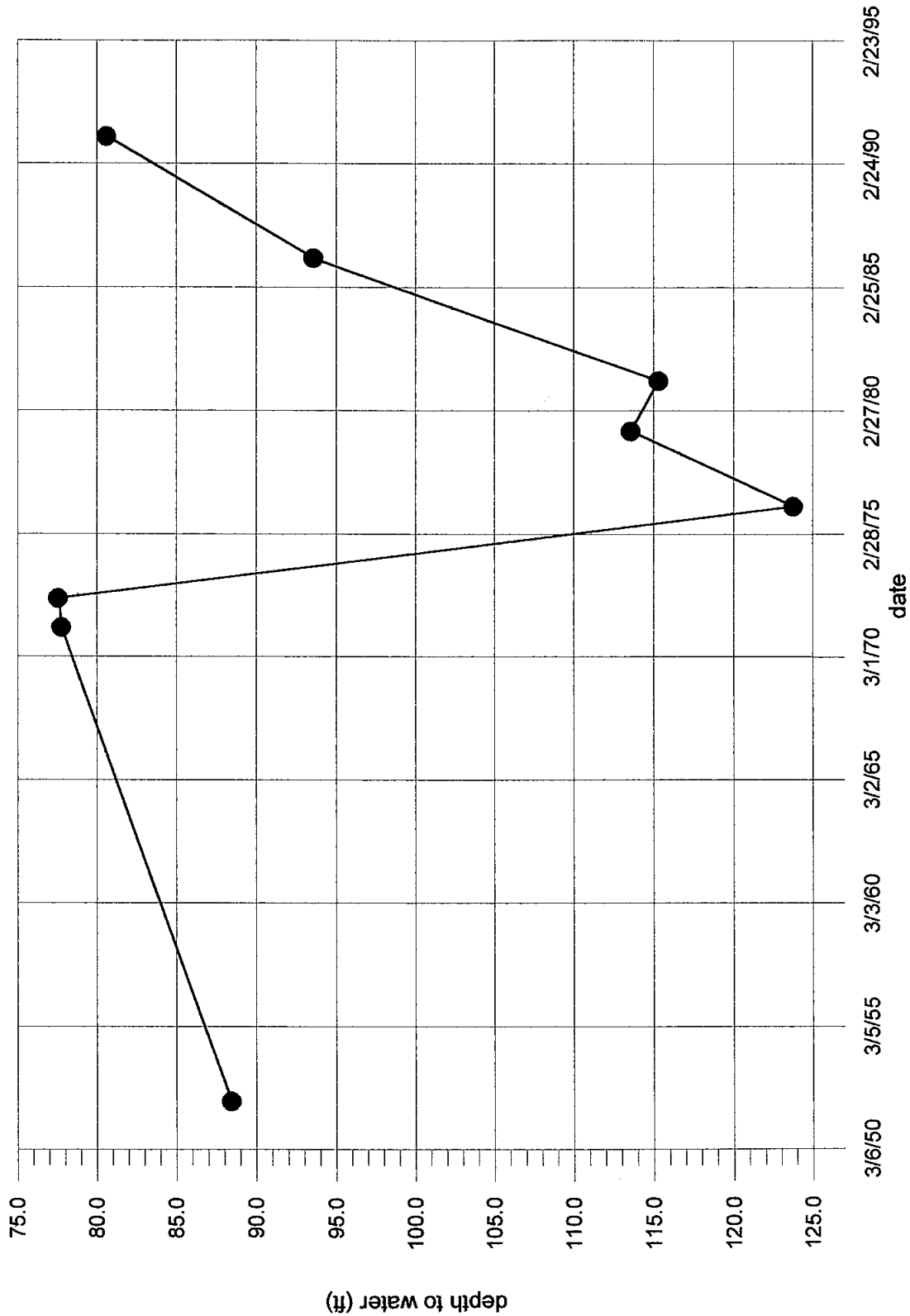
Eastern Tularosa Basin
Hydrograph of Well 14
T14S.R09E.36.112

depth to water (ft)

date
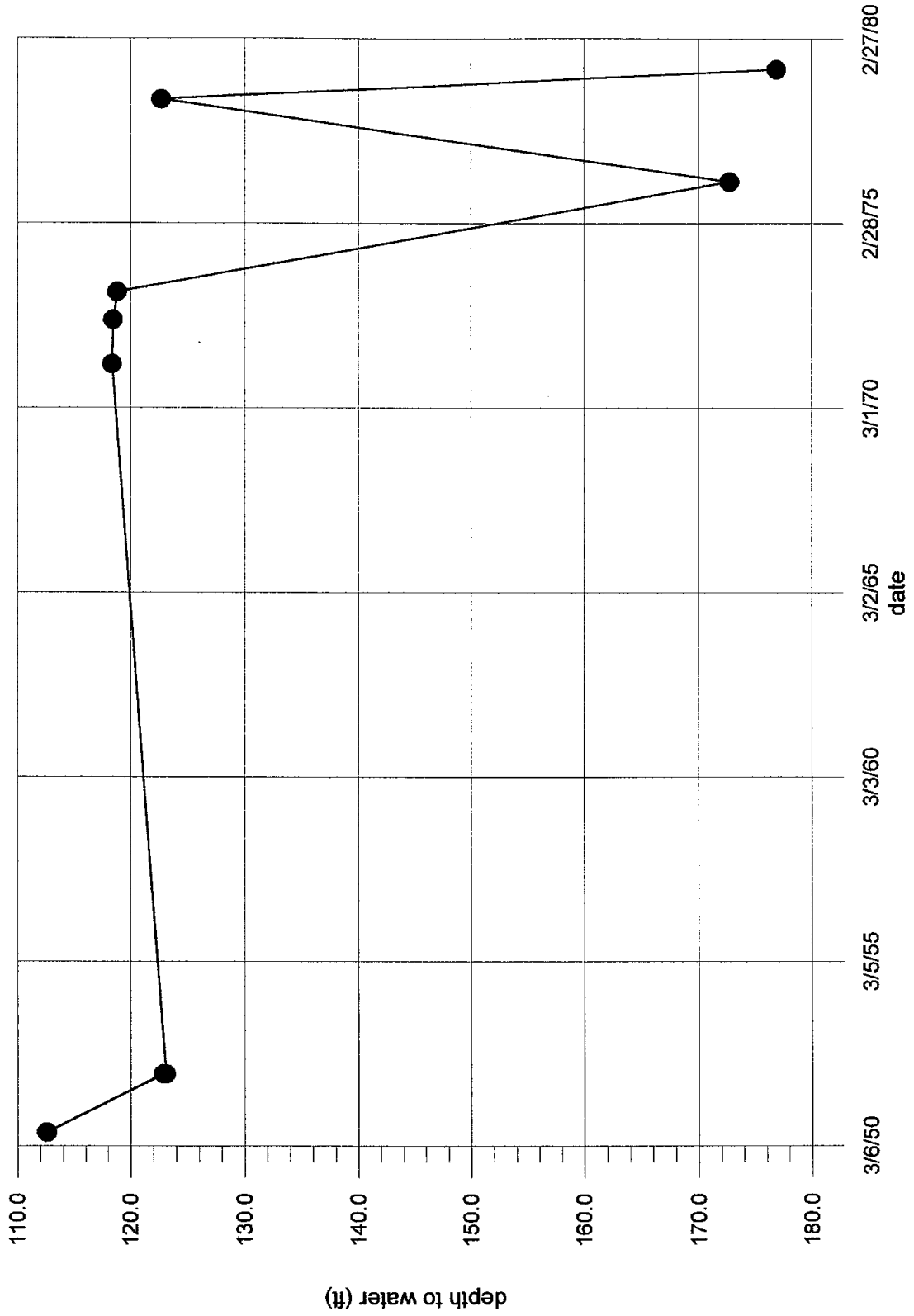
Eastern Tularosa Basin
Hydrograph of Well 15
T14S.R10E.18.424

depth to water (ft)

date
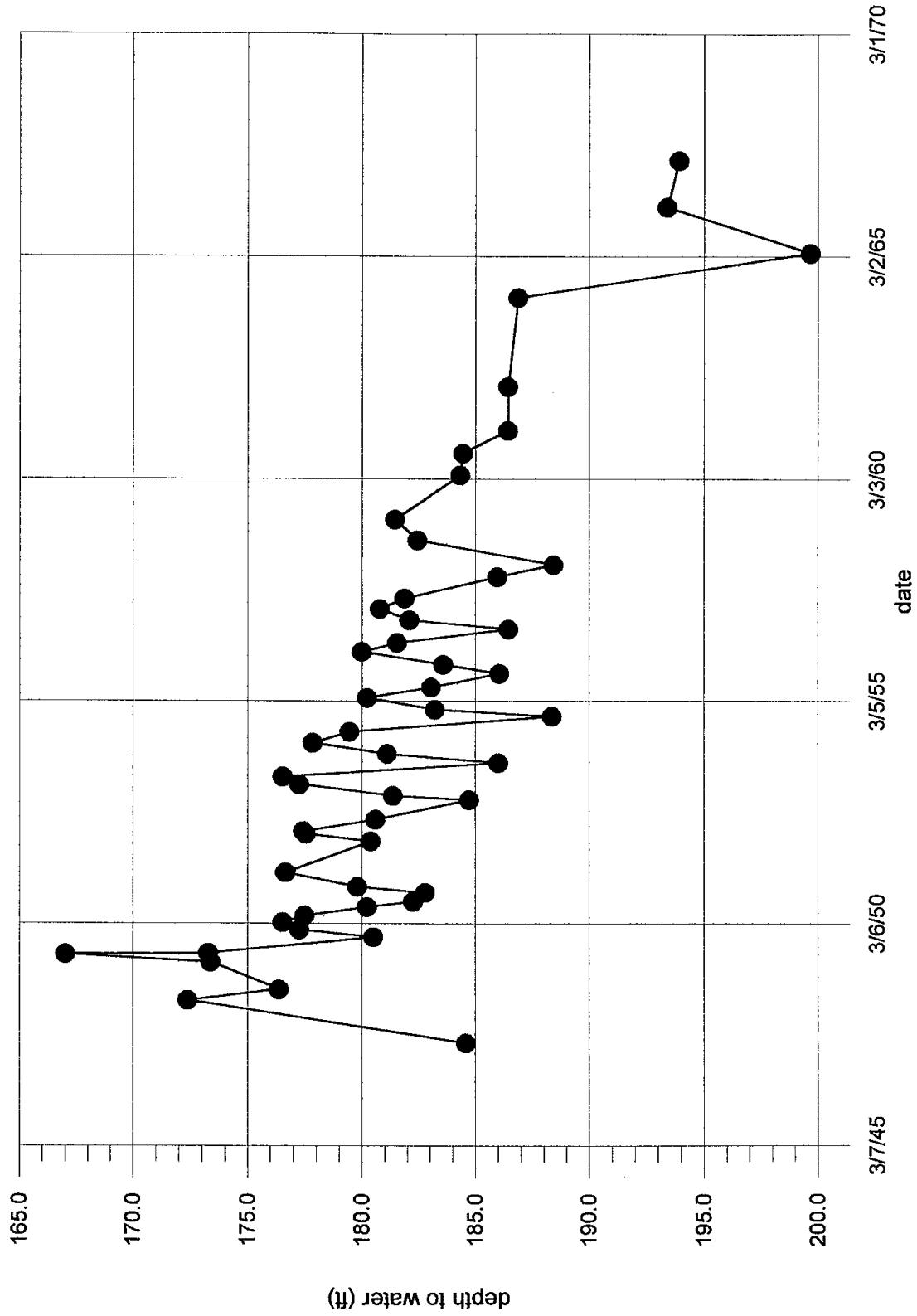
Eastern Tularosa Basin
Hydrograph of Well 16
T14S.R10E.19.130

depth to water (ft)
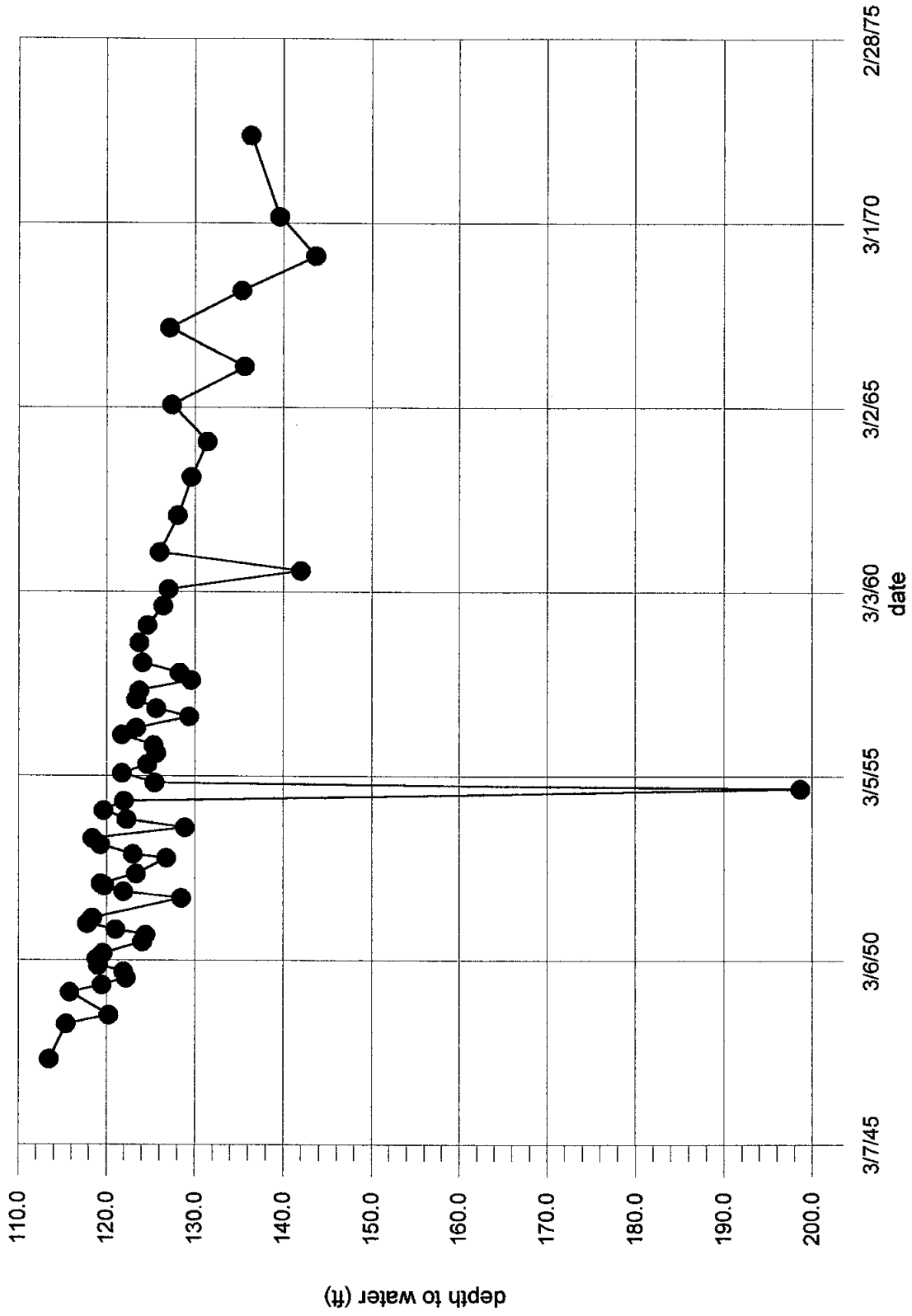
Eastern Tularosa Basin
Hydrograph of Well 17
T14S.R10E.20.221

depth to water (ft)

date
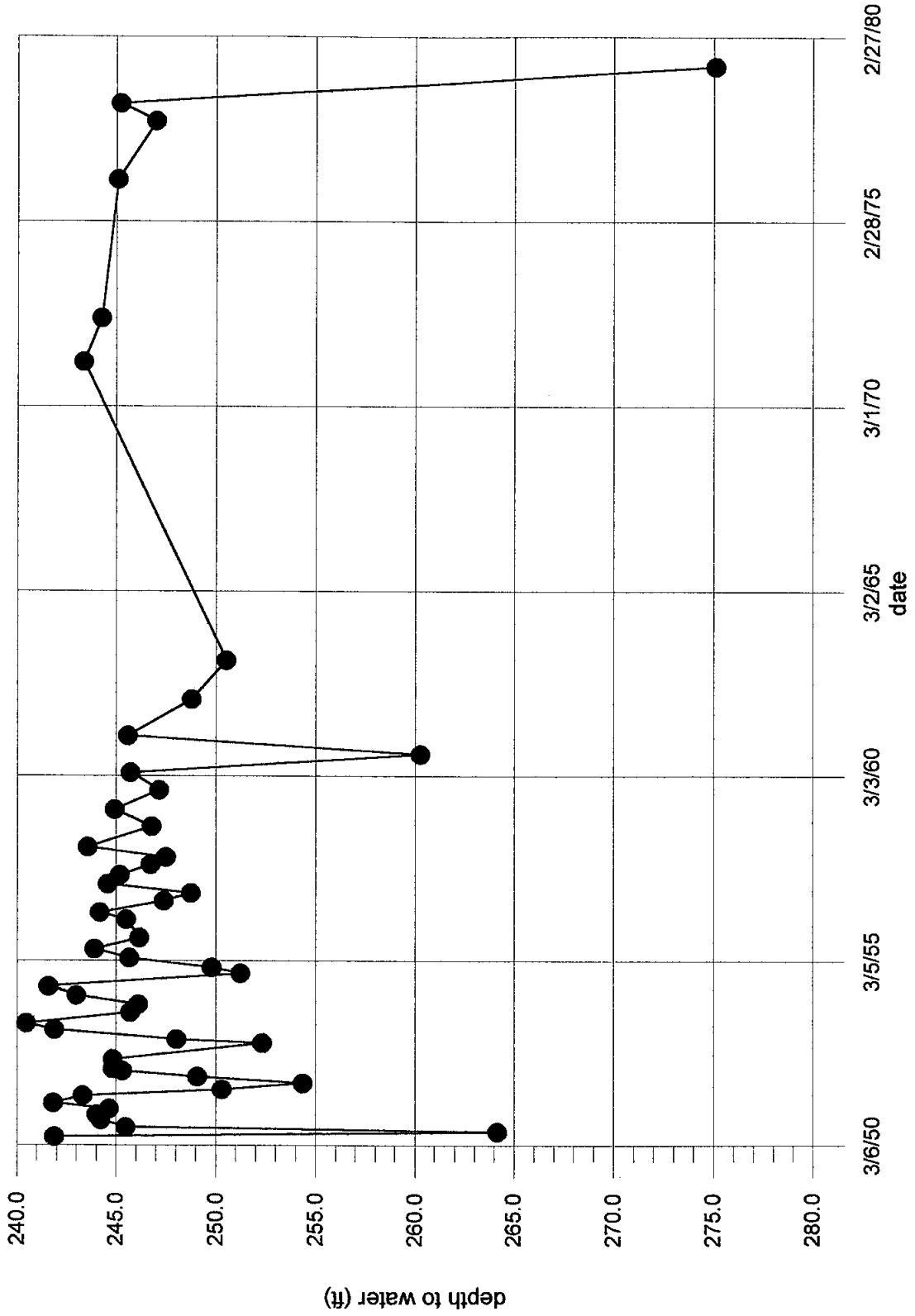
Eastern Tularosa Basin
Hydrograph of Well 18
T14S.R10E.29.312
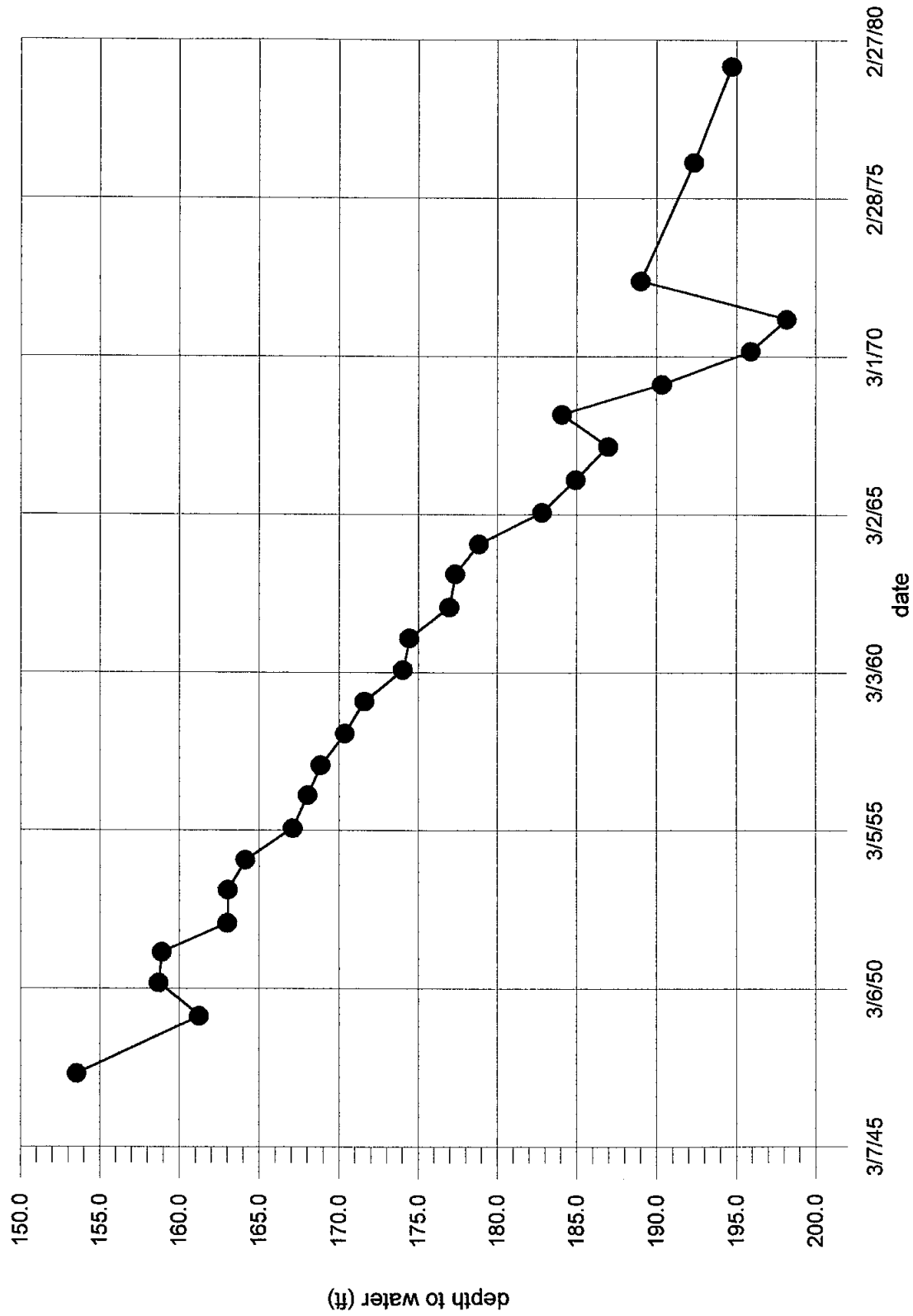
Eastern Tularosa Basin
Hydrograph of Well 19
T14S.R10E.30.123

depth to water (ft)

date
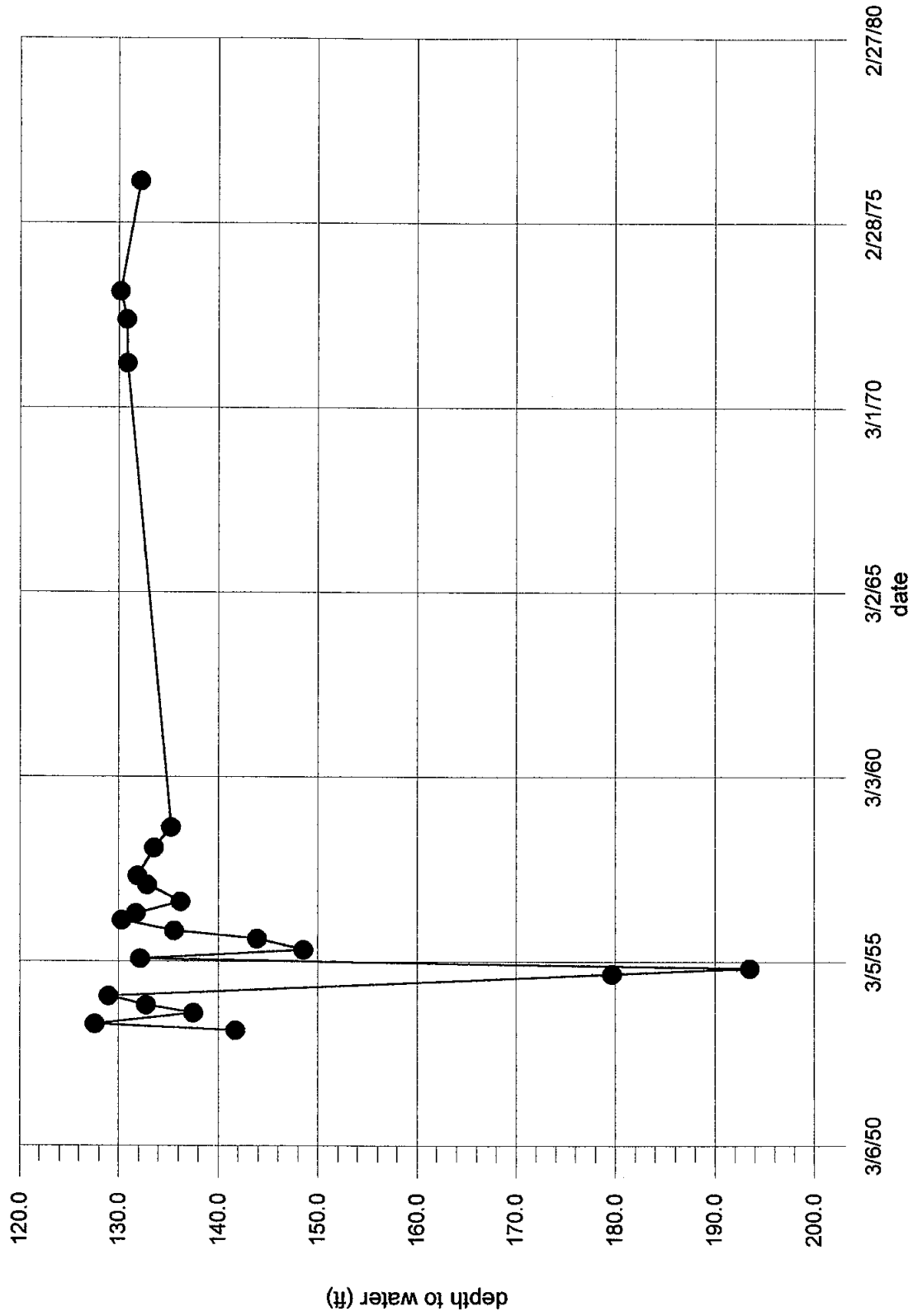
Eastern Tularosa Basin
Hydrograph of Well 20
T14S.R10E.31.144

depth to water (ft)

date

JOHN SHOMAKER AND ASSOCIATES, INC.

Eastern Tularosa Basin
Hydrograph of Well 21
T15S.R09E.01.122

depth to water (ft)

date
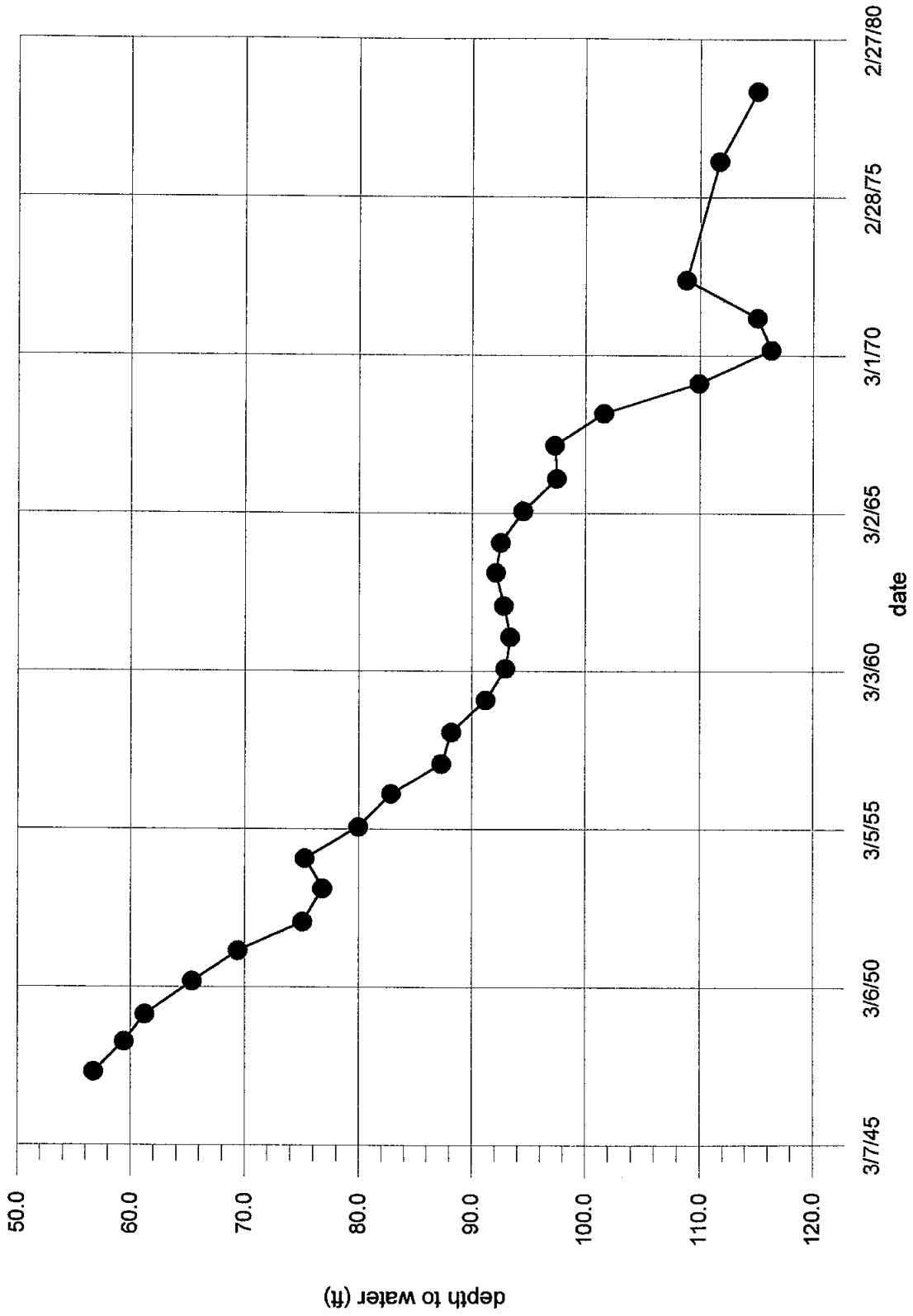
Eastern Tularosa Basin
Hydrograph of Well 22
T15S.R09E.12.4221

depth to water (ft)

date
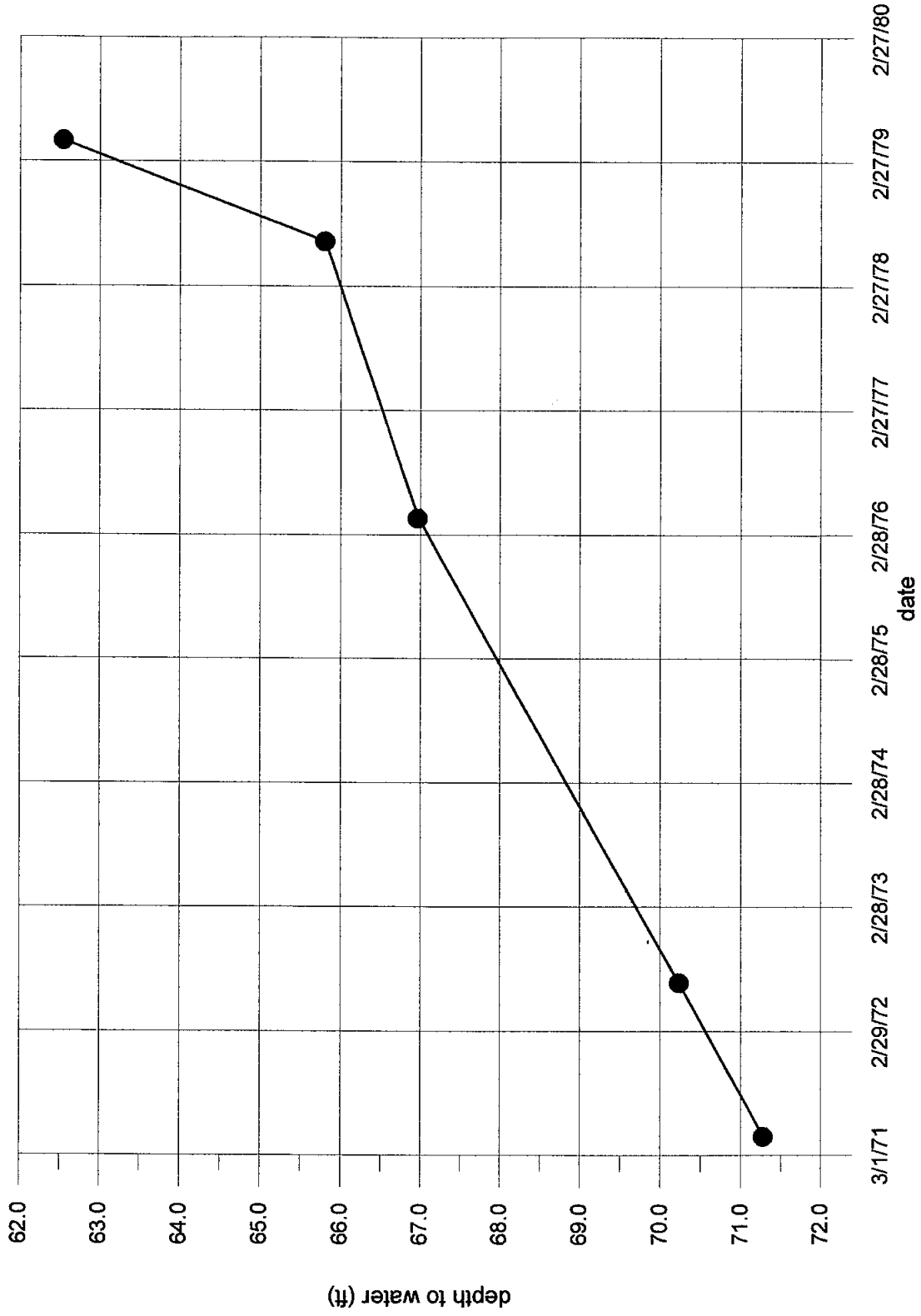
Eastern Tularosa Basin
Hydrograph of Well 23
T15S.R09E.24.242

depth to water (ft)

date
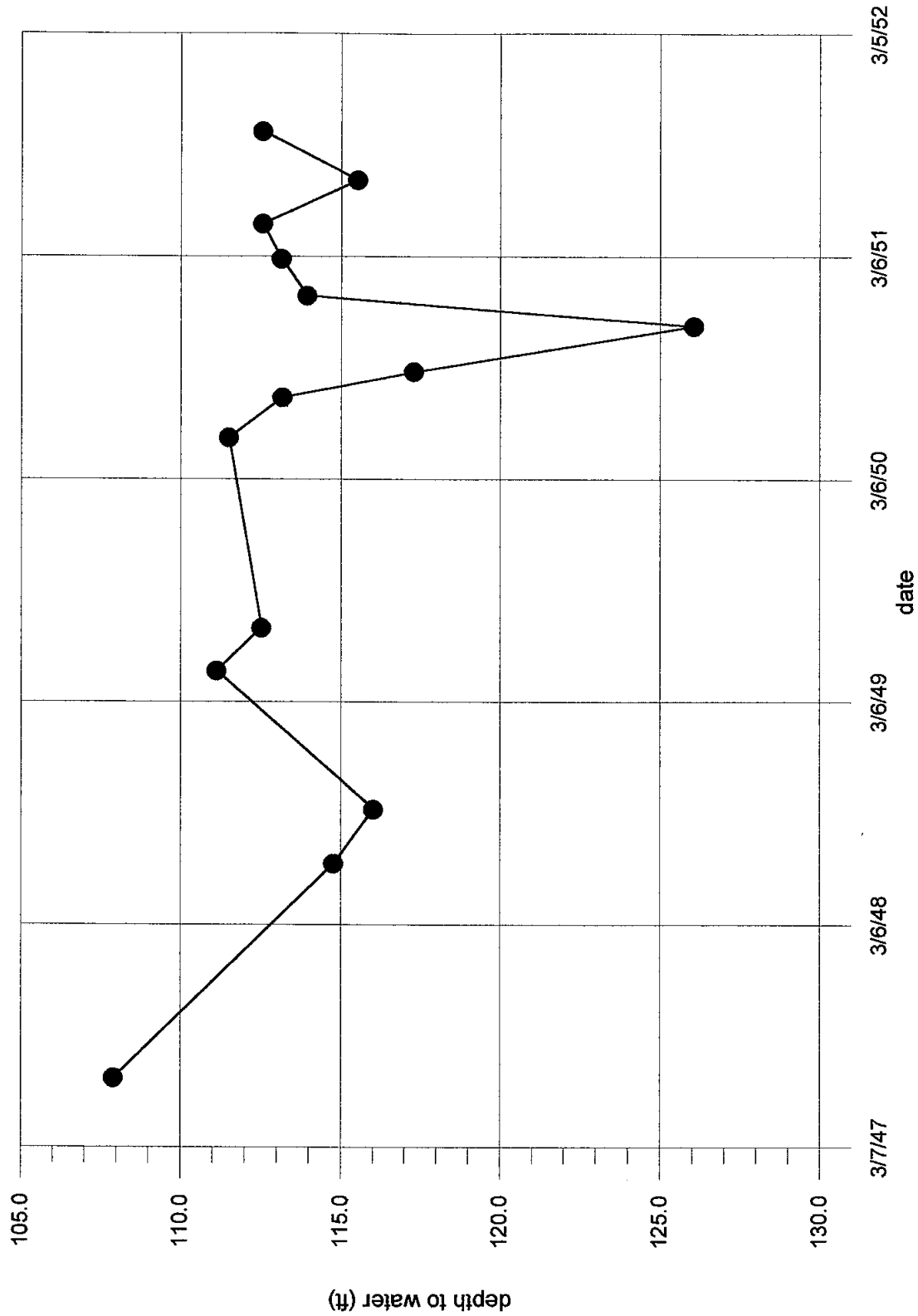
Eastern Tularosa Basin
Hydrograph of Well 24
T15S.R09E.24.242

depth to water (ft)

date
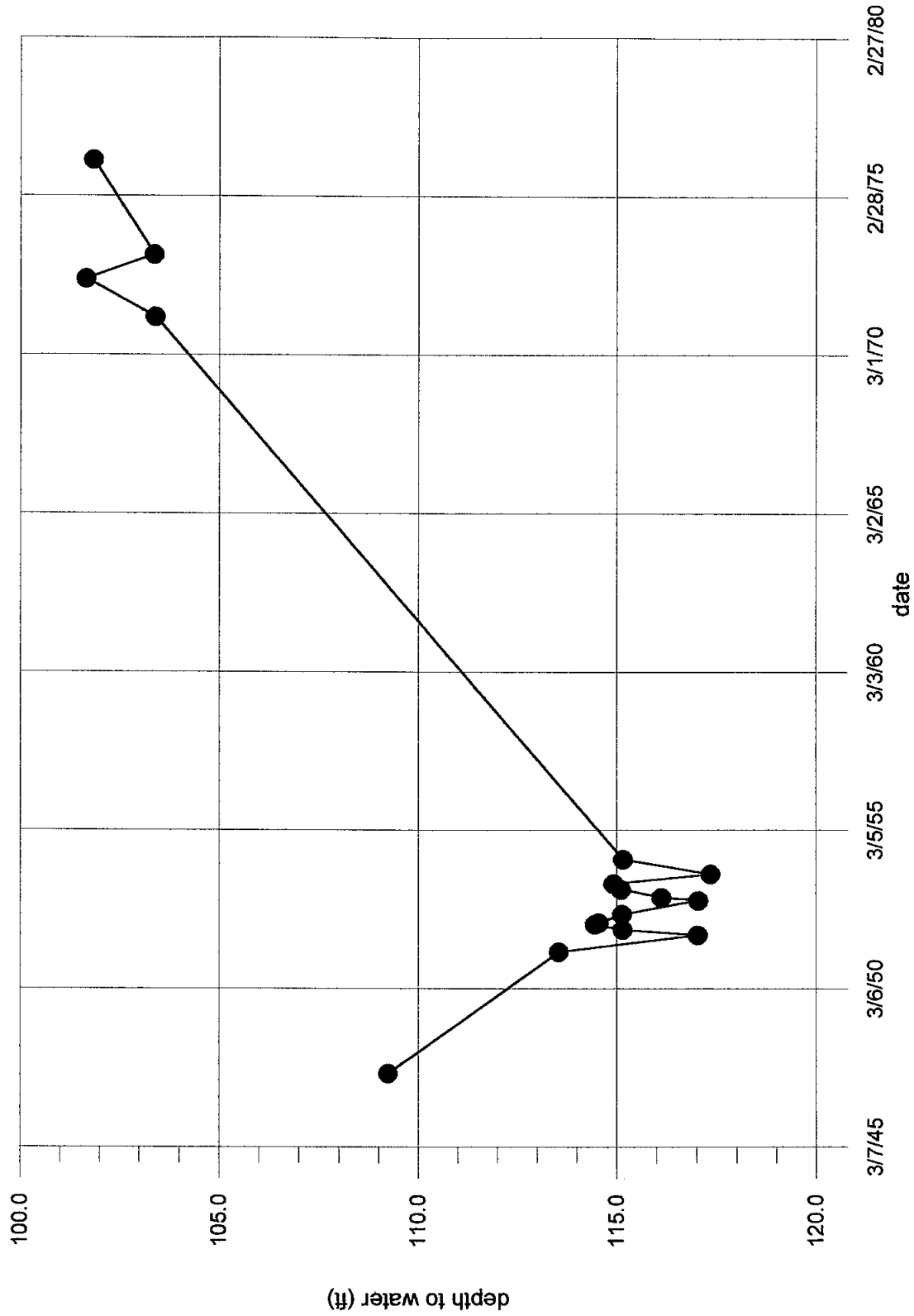
Eastern Tularosa Basin
Hydrograph of Well 25
T15S.R10E.06.312

depth to water (ft)

date
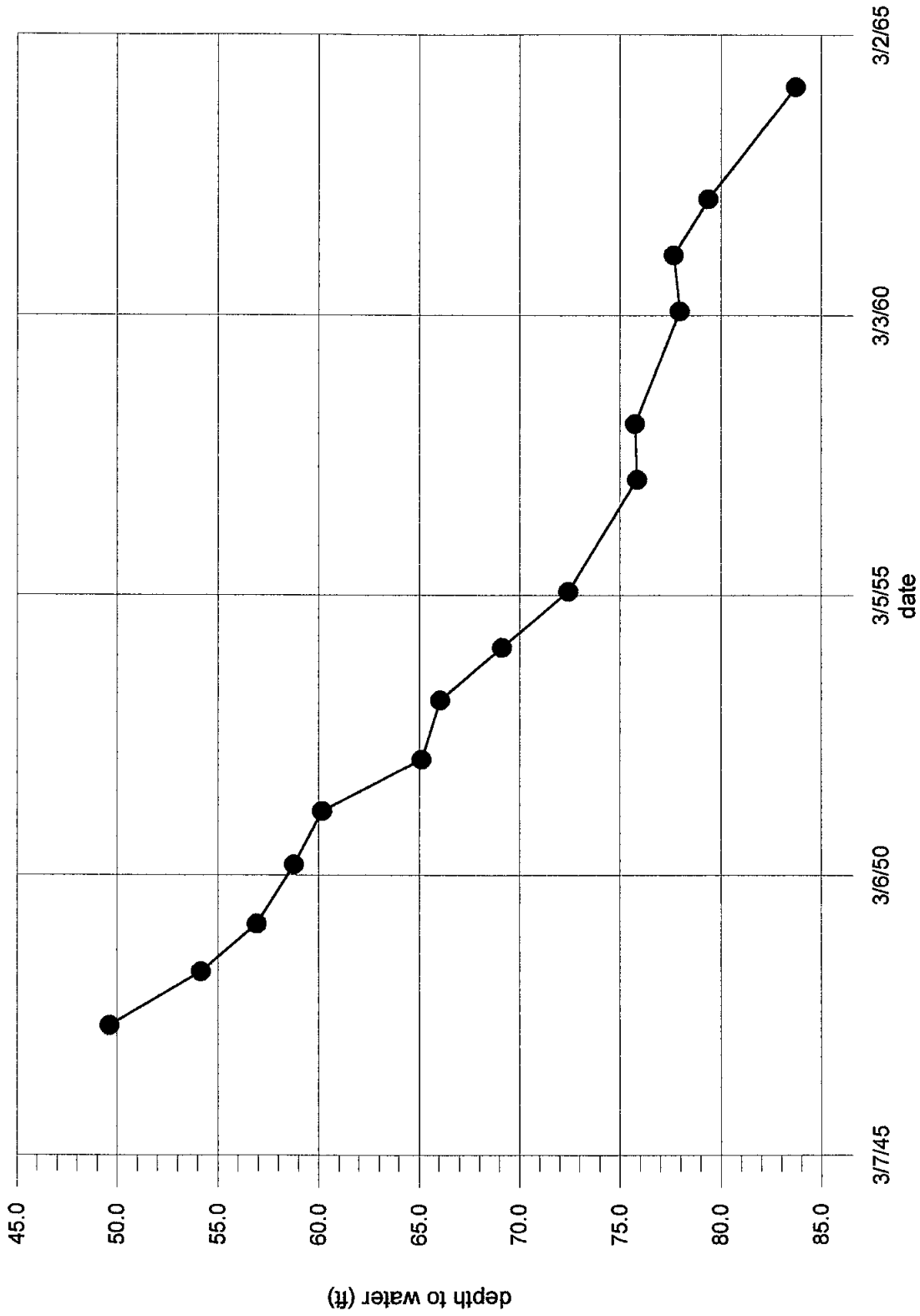
Eastern Tularosa Basin
Hydrograph of Well 26
T15S.R10E.07.412

depth to water (ft)

date
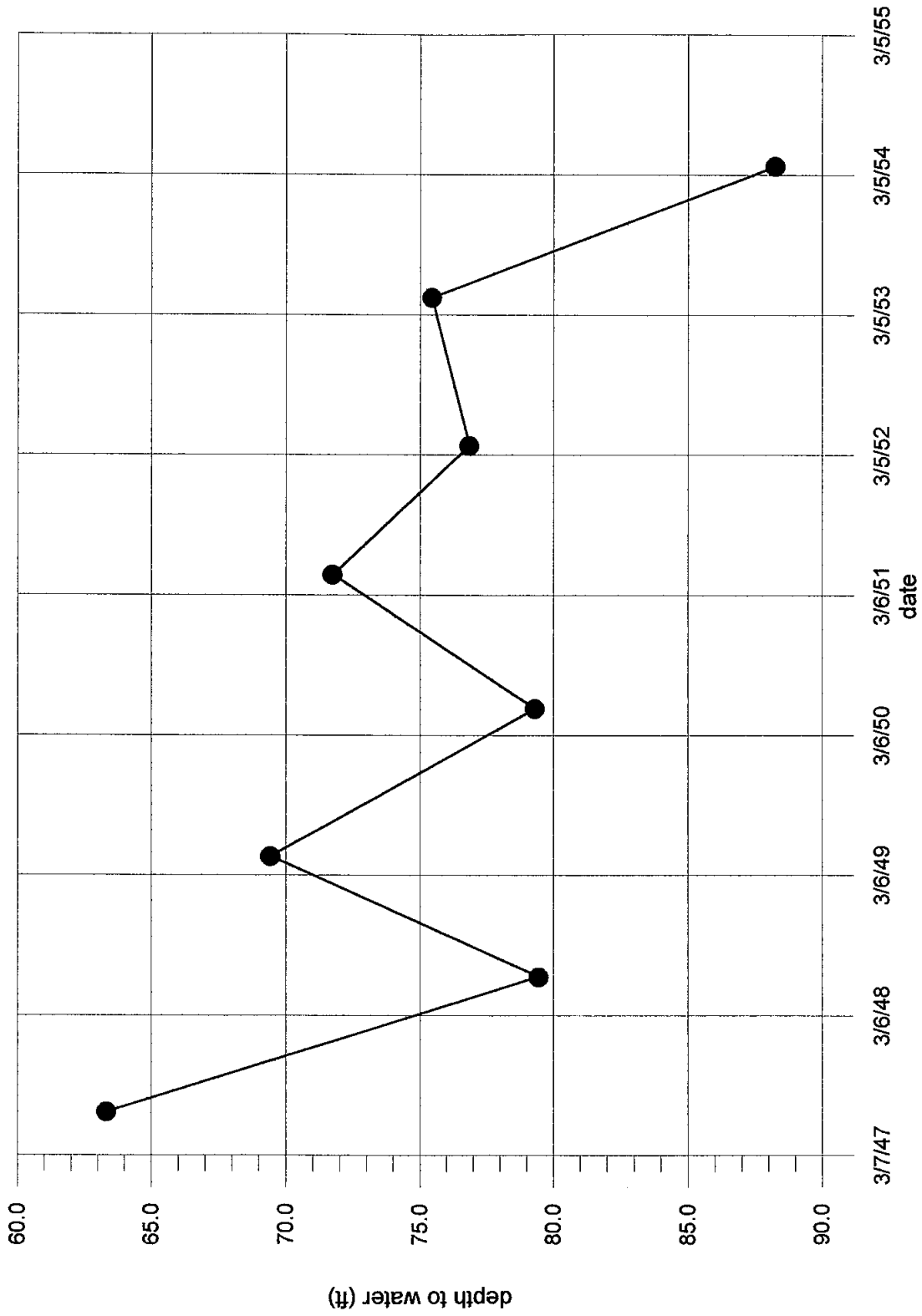
Eastern Tularosa Basin
Hydrograph of Well 27
T15S.R10E.29.100

depth to water (ft)

JOHN SHOMAKER AND ASSOCIATES, INC.
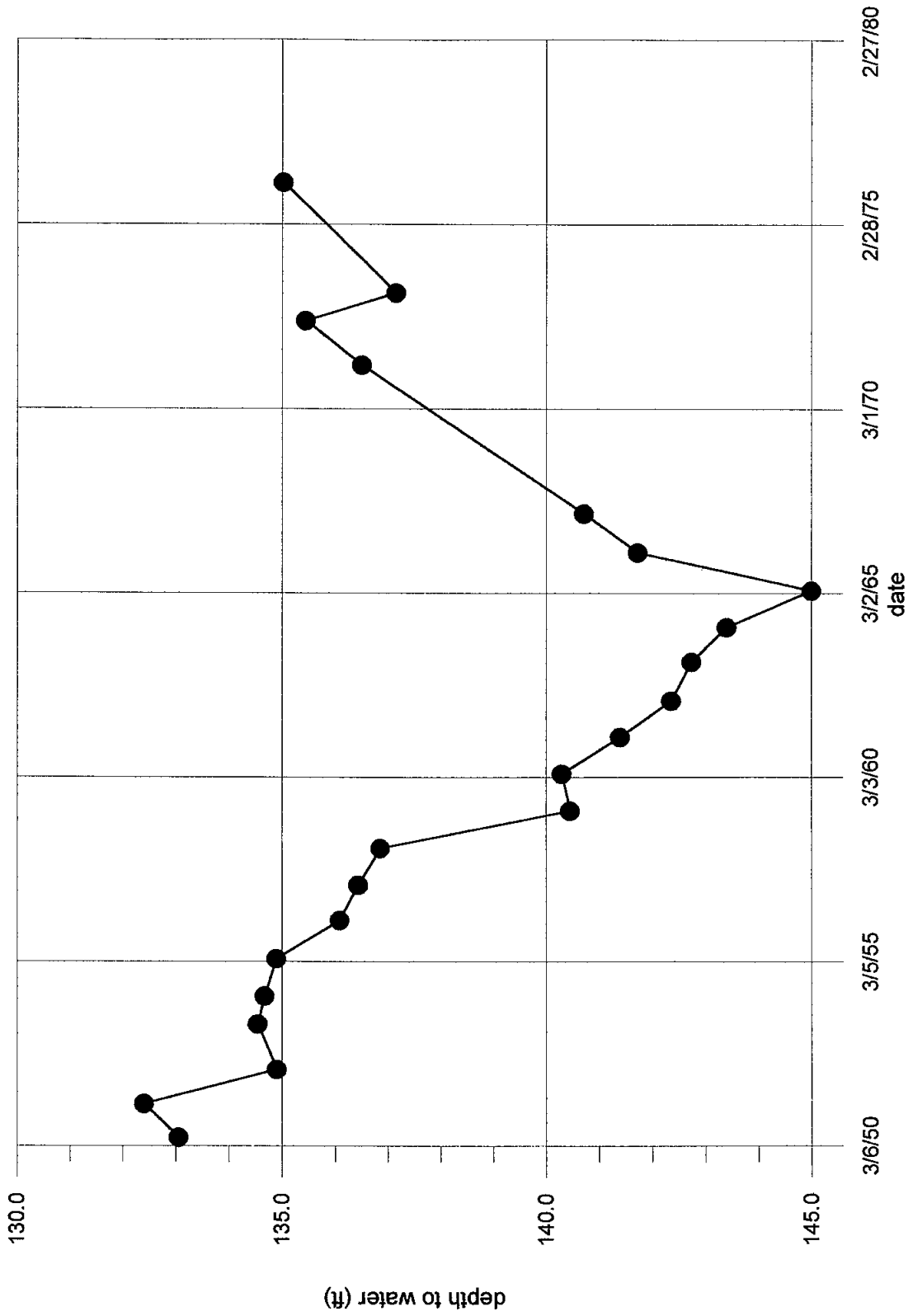
Eastern Tularosa Basin
Hydrograph of Well 28
T15S.R10E.30.344

depth to water (ft)

date

Eastern Tularosa Basin
Hydrograph of Well 29
T15S.R10E.32.314

depth to water (ft)

date
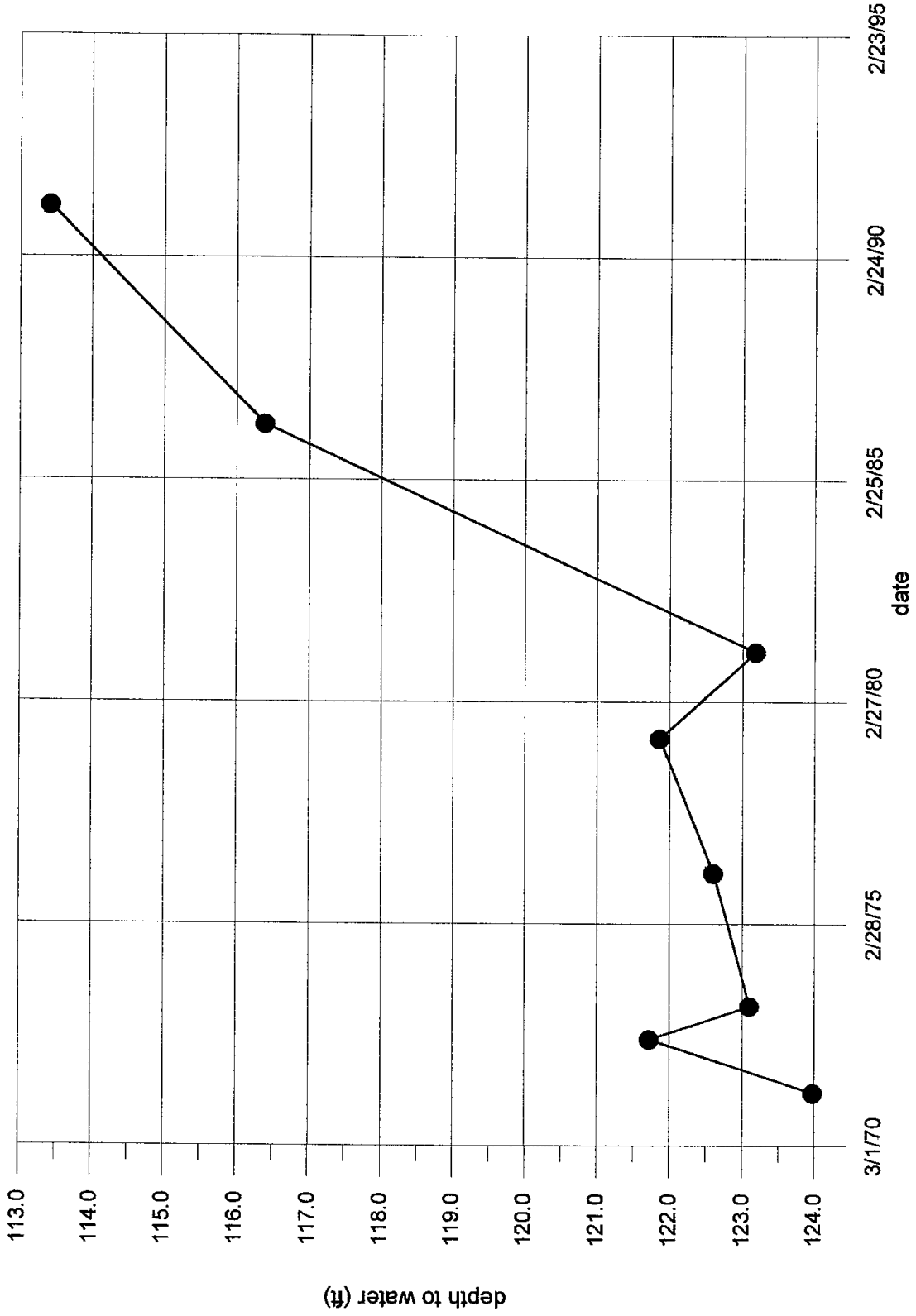
Eastern Tularosa Basin
Hydrograph of Well 30
T16S.R09E.03.422

depth to water (ft)

date
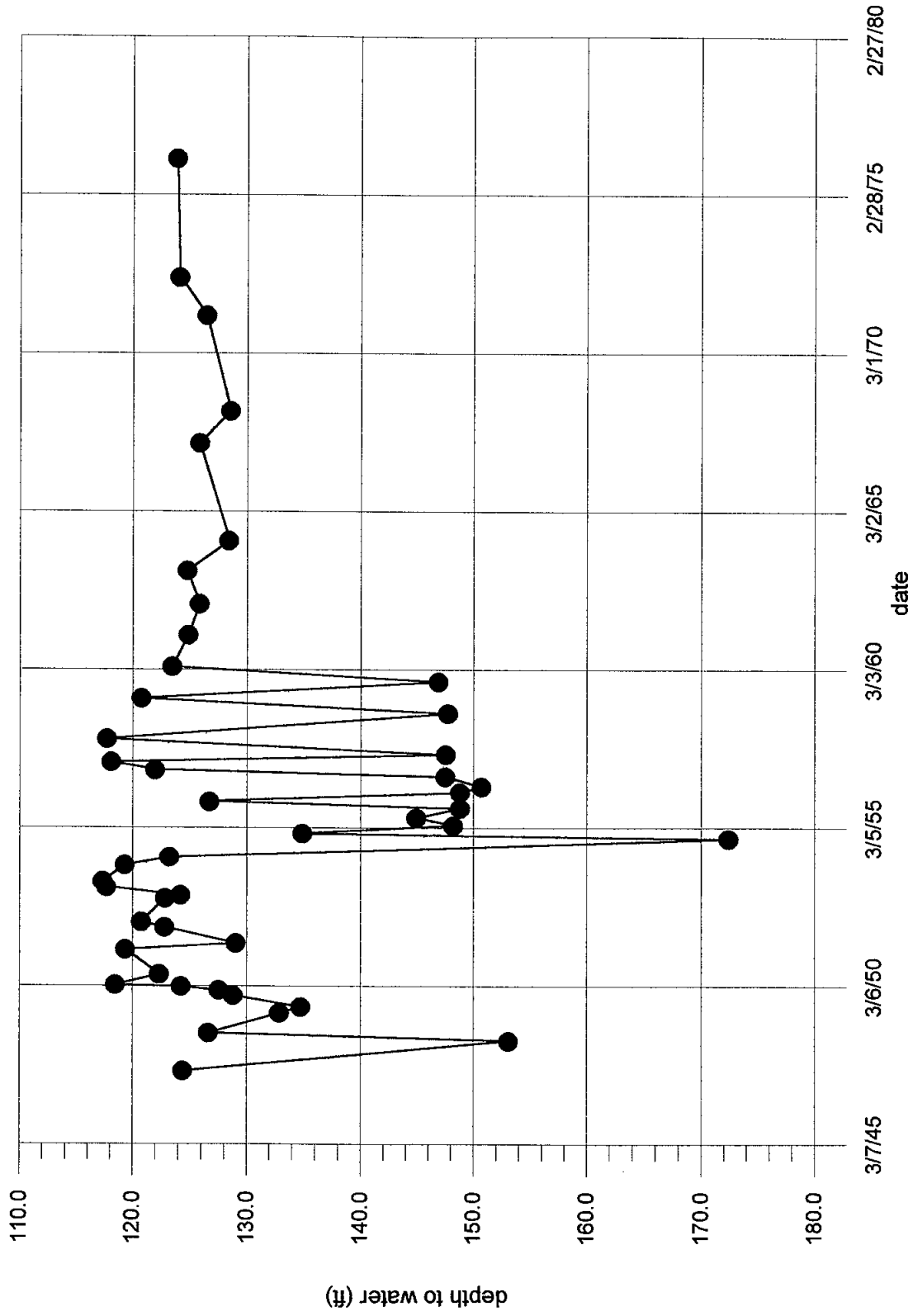
Eastern Tularosa Basin
Hydrograph of Well 31
T16S.R09E.06.212

depth to water (ft)

date

3/6/50 3/6/51 3/5/52 3/5/53 3/5/54 3/5/55 3/4/56 3/4/57 3/4/58

28.0 29.0 30.0 31.0 32.0
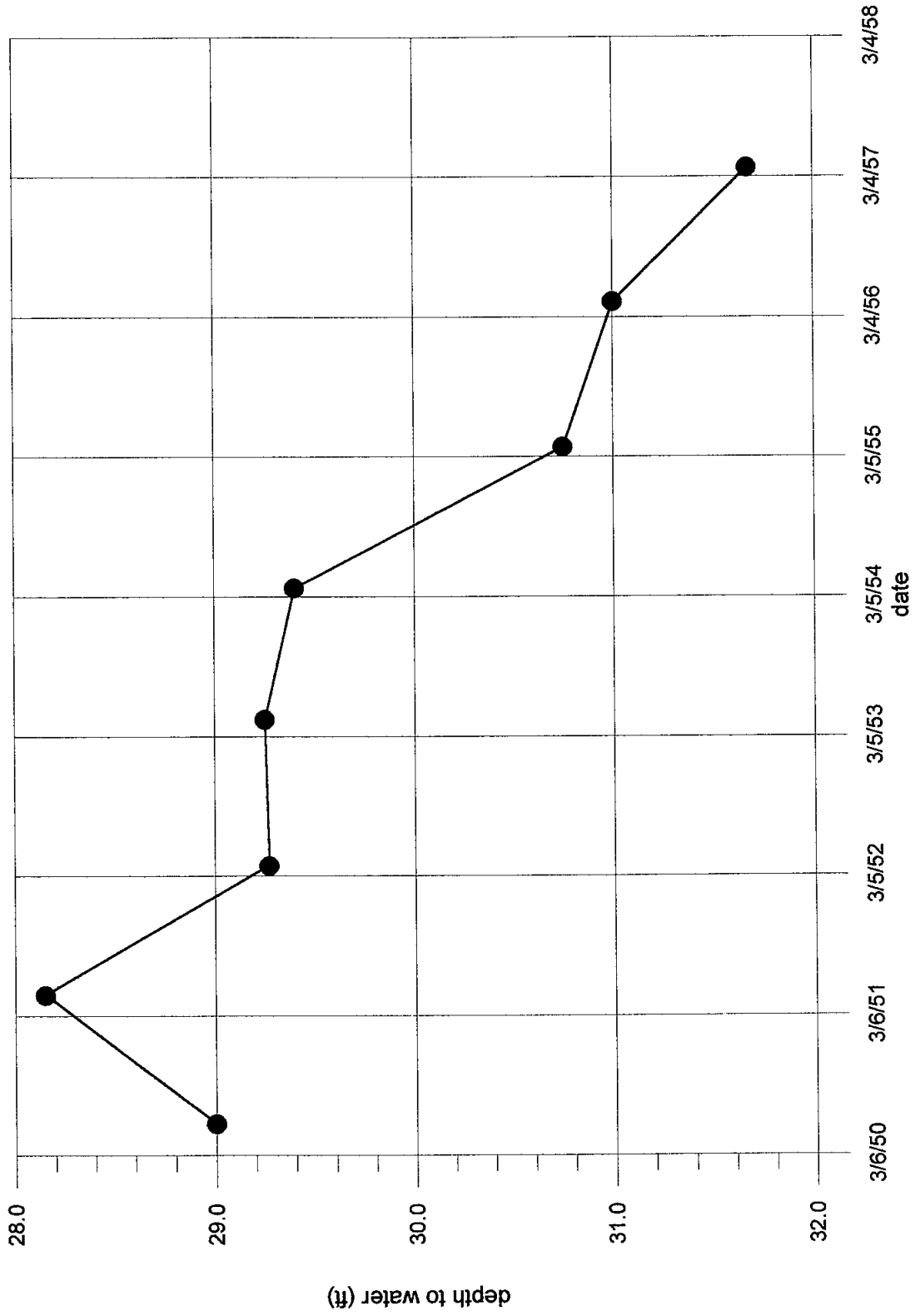
Eastern Tularosa Basin
Hydrograph of Well 32
T16S.R09E.08.222

depth to water (ft)

date
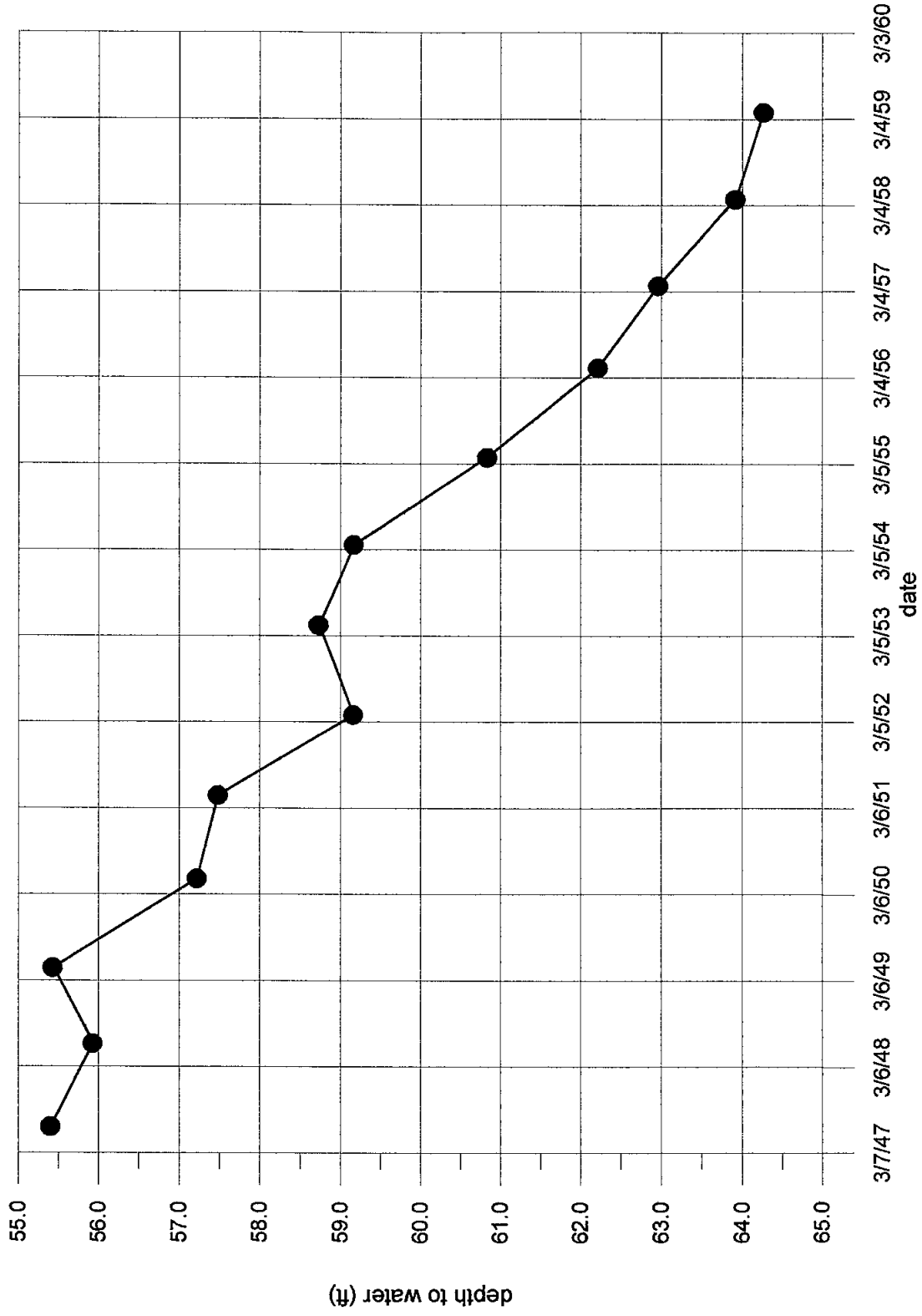
Eastern Tularosa Basin
Hydrograph of Well 33
T16S.R09E.13.320

depth to water (ft)

date
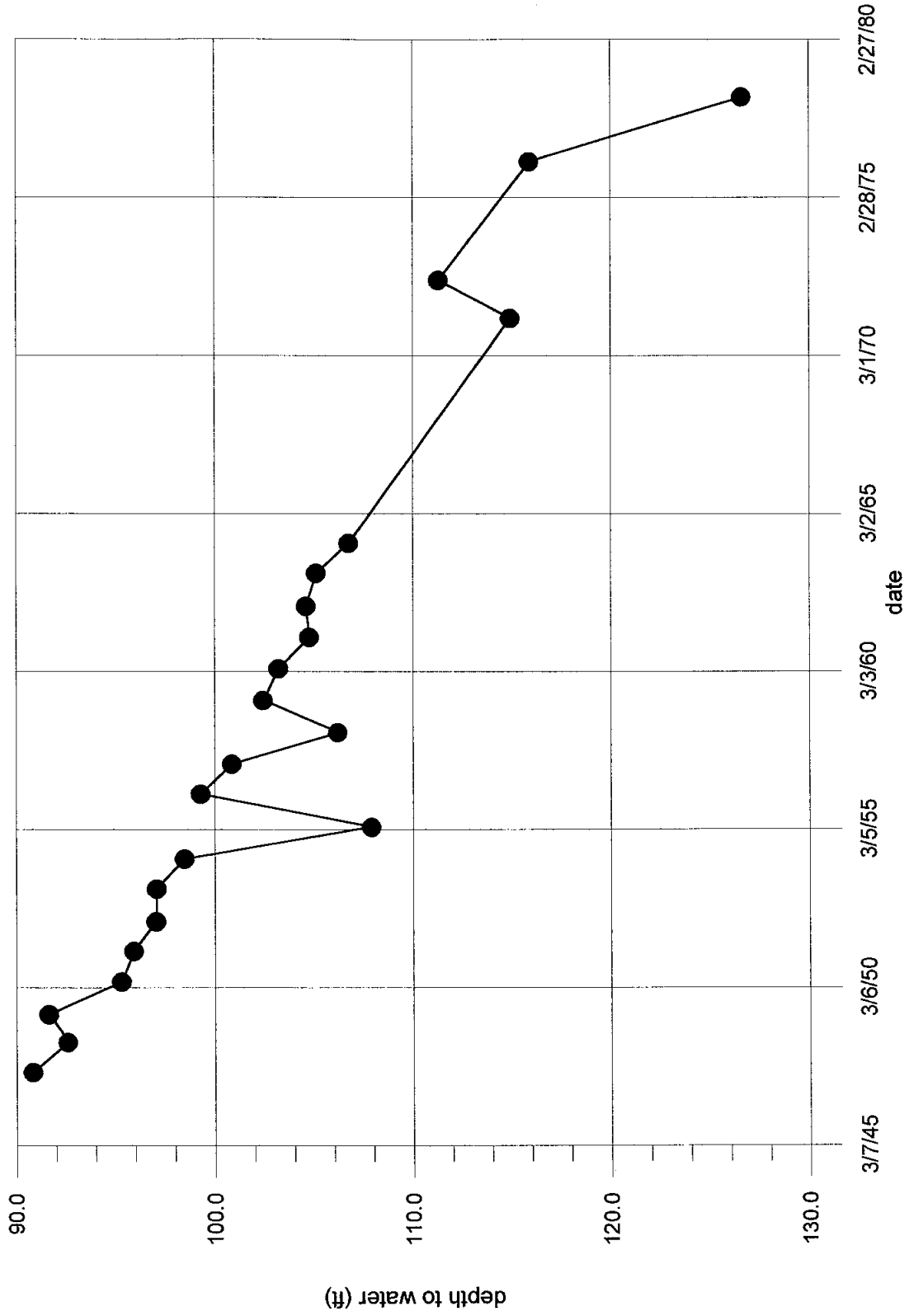
Eastern Tularosa Basin
Hydrograph of Well 34
T16S.R09E.25.431

depth to water (ft)

date
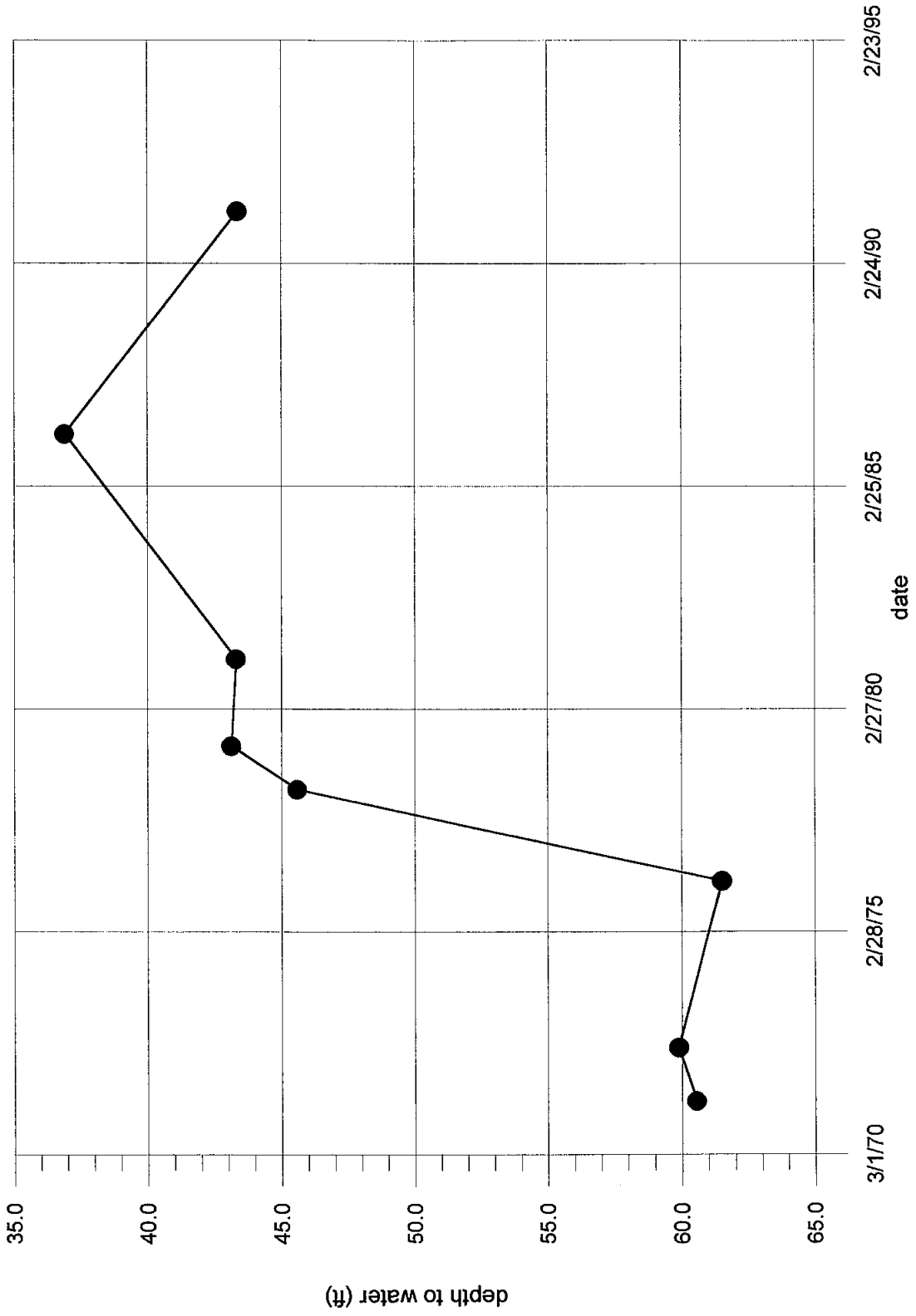
Eastern Tularosa Basin
Hydrograph of Well 35
T16S.R09E.26.341

depth to water (ft)

date
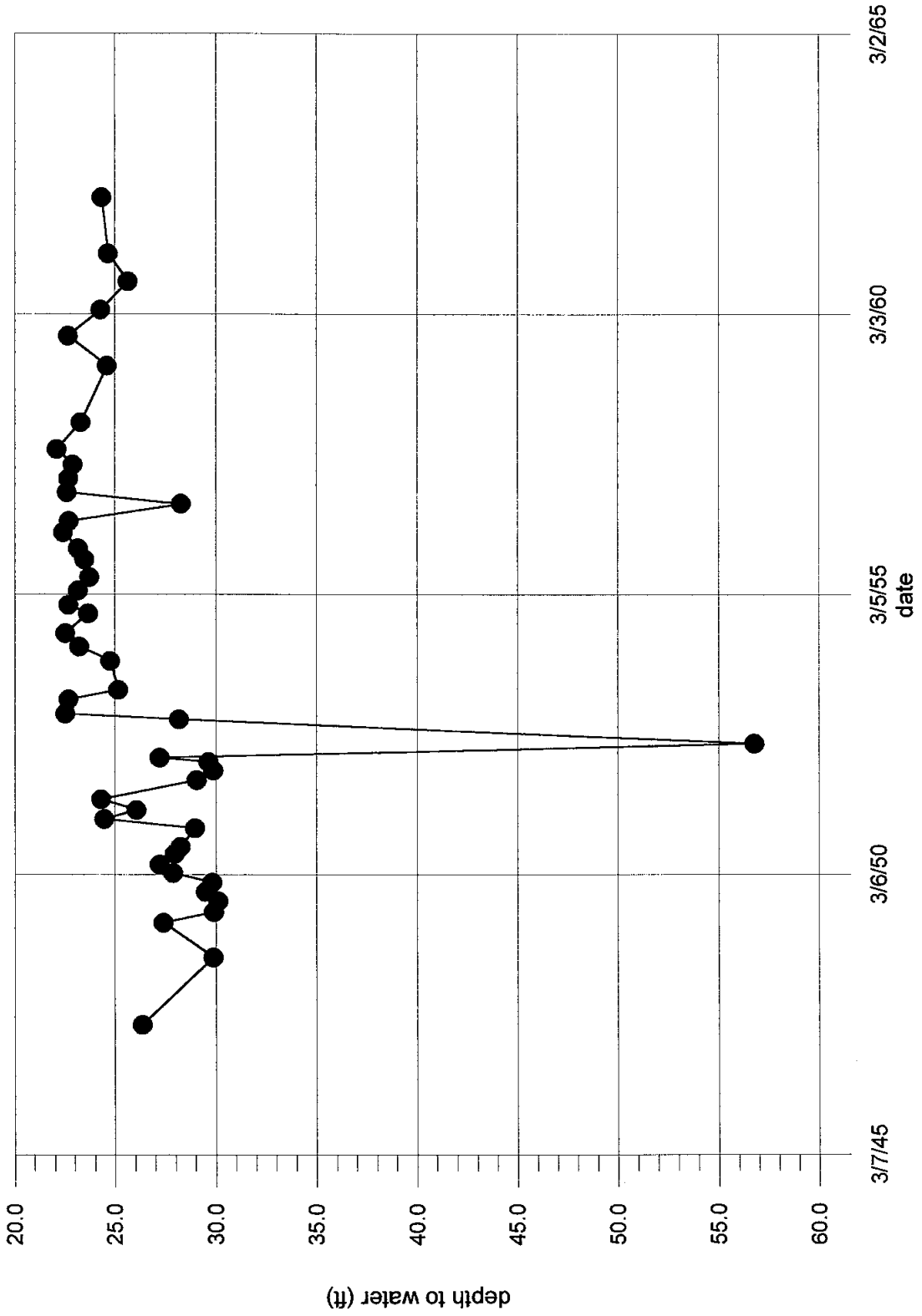
Eastern Tularosa Basin
Hydrograph of Well 36
T16S.R09E.35.1311

depth to water (ft)

date
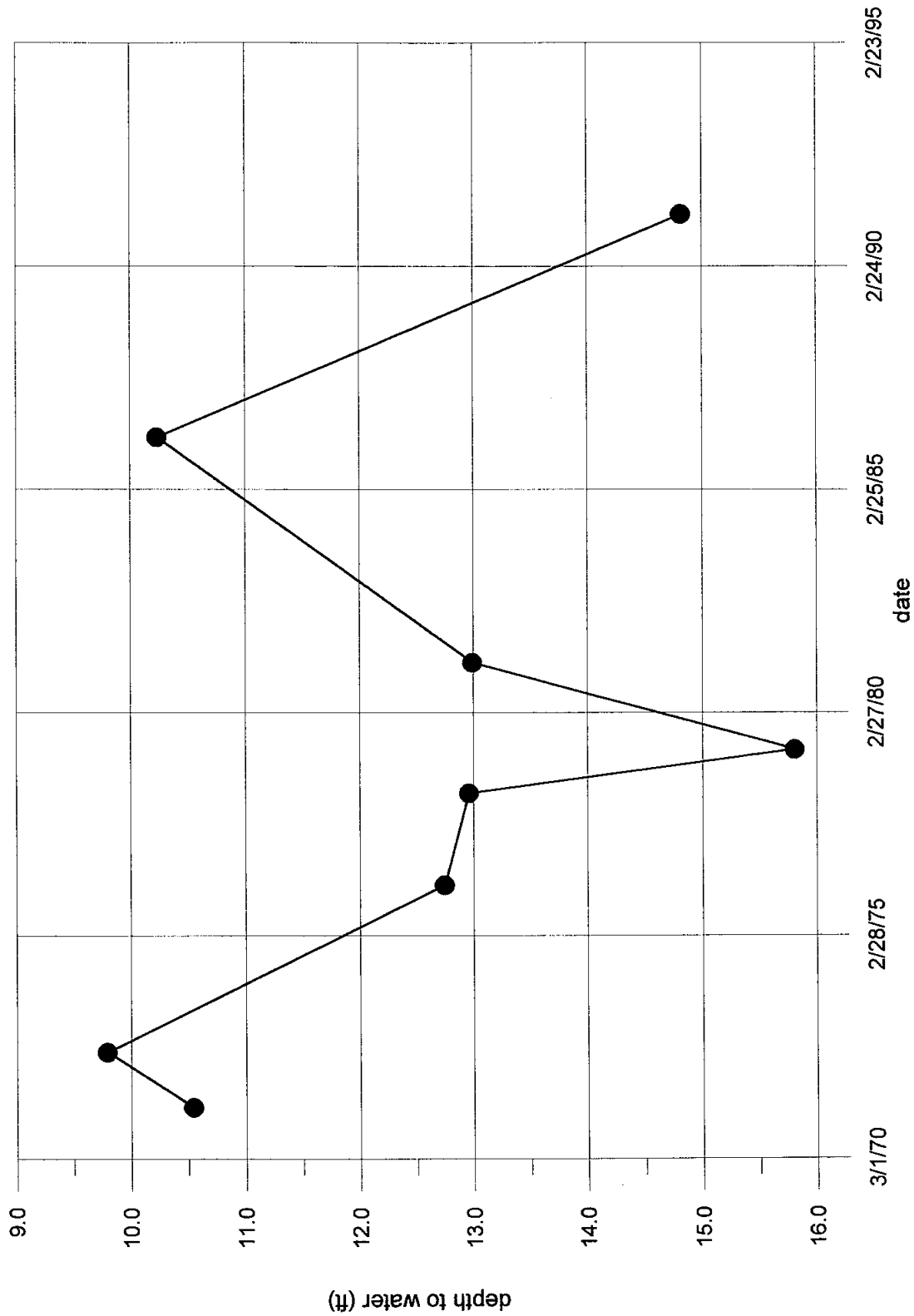
Eastern Tularosa Basin
Hydrograph of Well 37
T17S.R08E.13.113A

depth to water (ft)

date
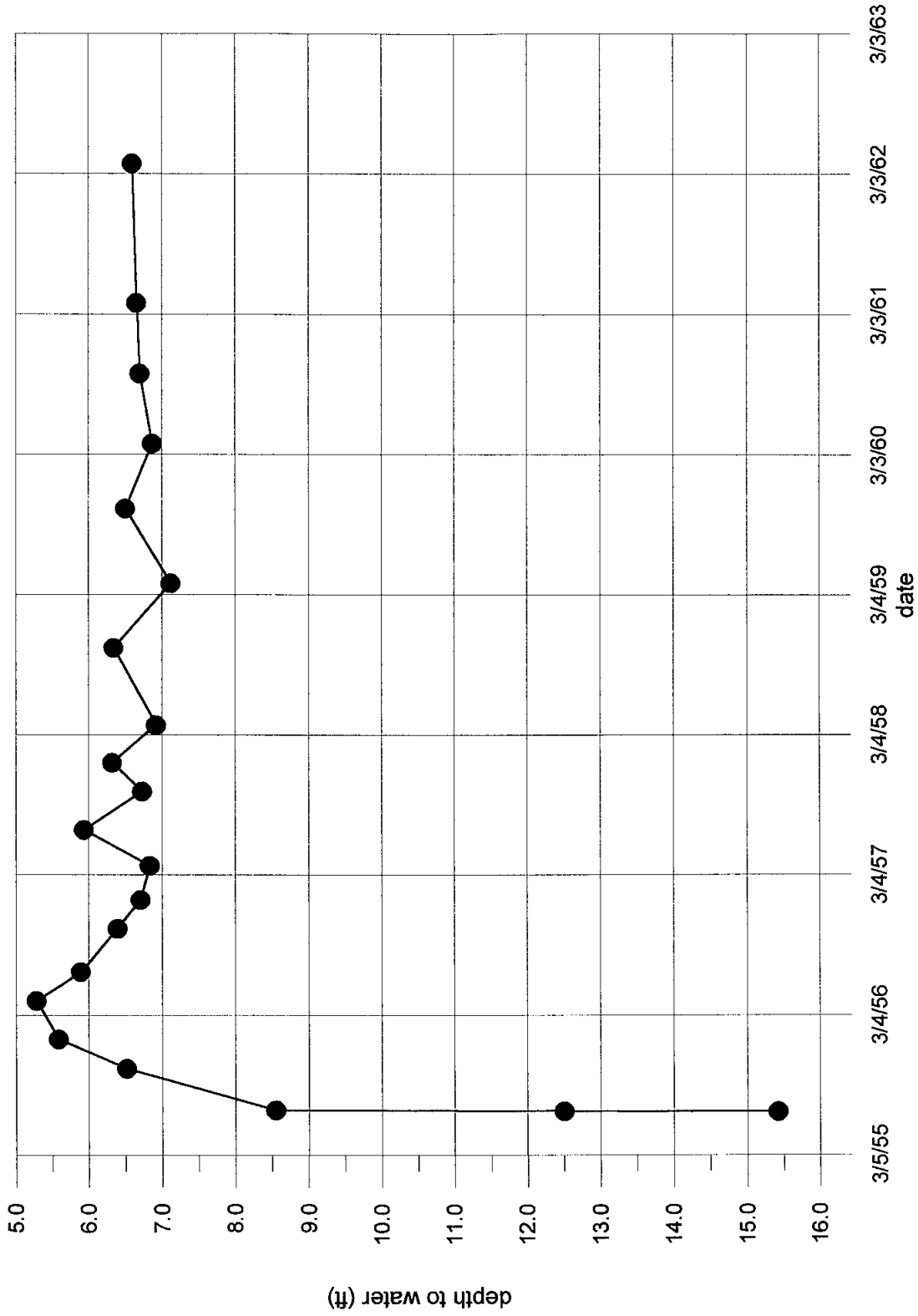
Eastern Tularosa Basin
Hydrograph of Well 38
T17S.R09E.02.331

depth to water (ft)

date
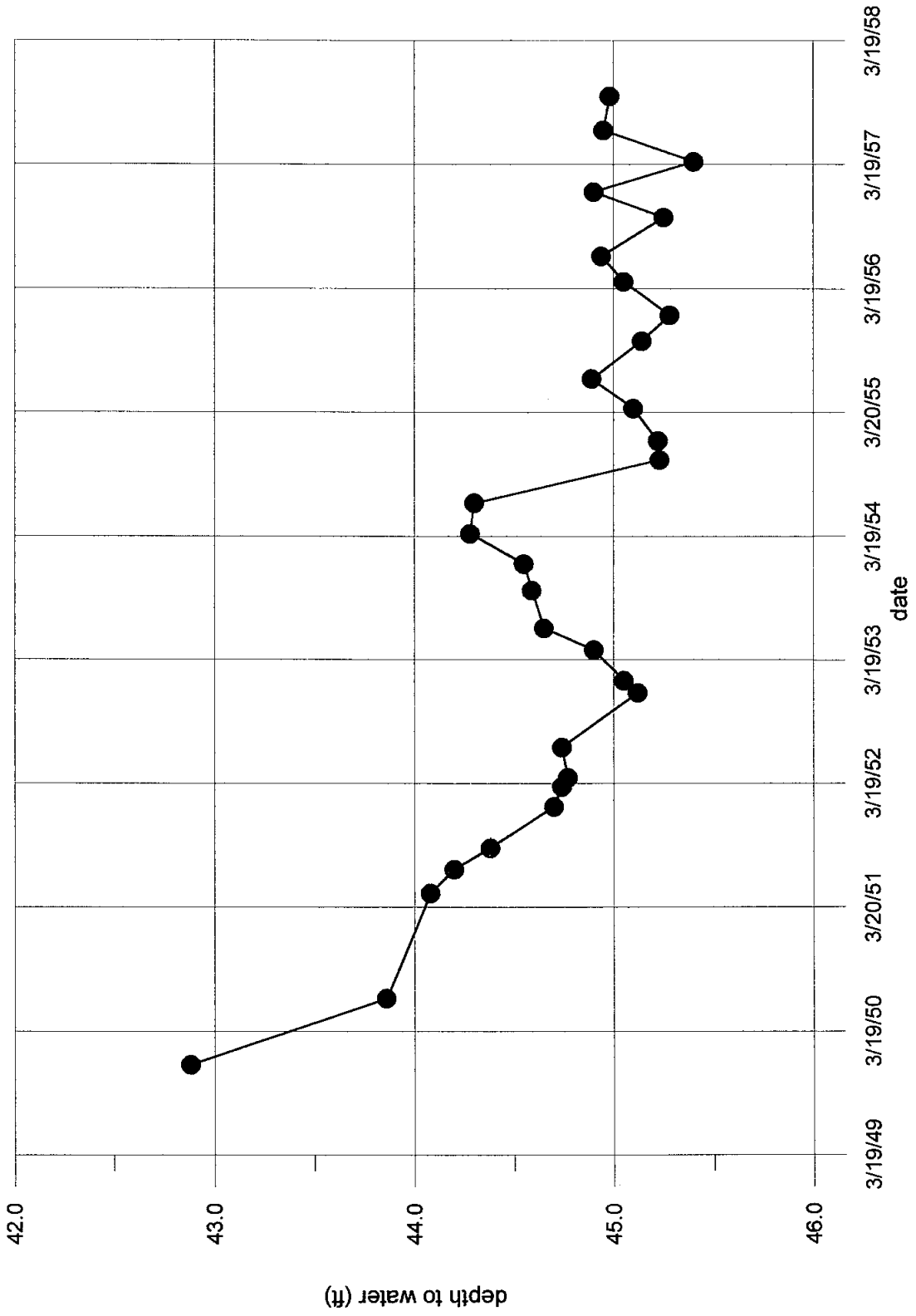
Eastern Tularosa Basin
Hydrograph of Well 39
T17S.R09E.12.422

depth to water (ft)

date
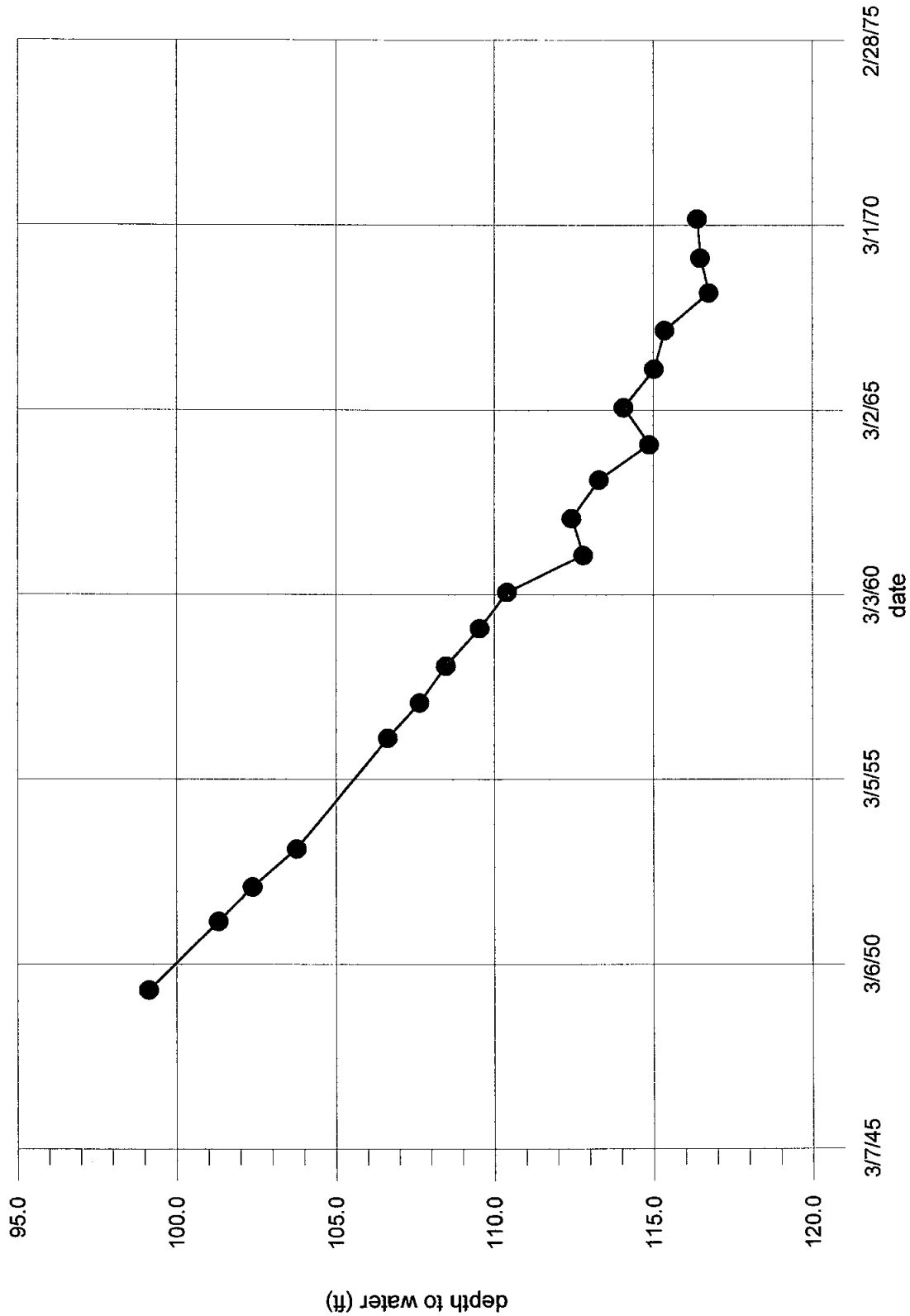
Eastern Tularosa Basin
Hydrograph of Well 40
T17S.R09E.24.343 B-34
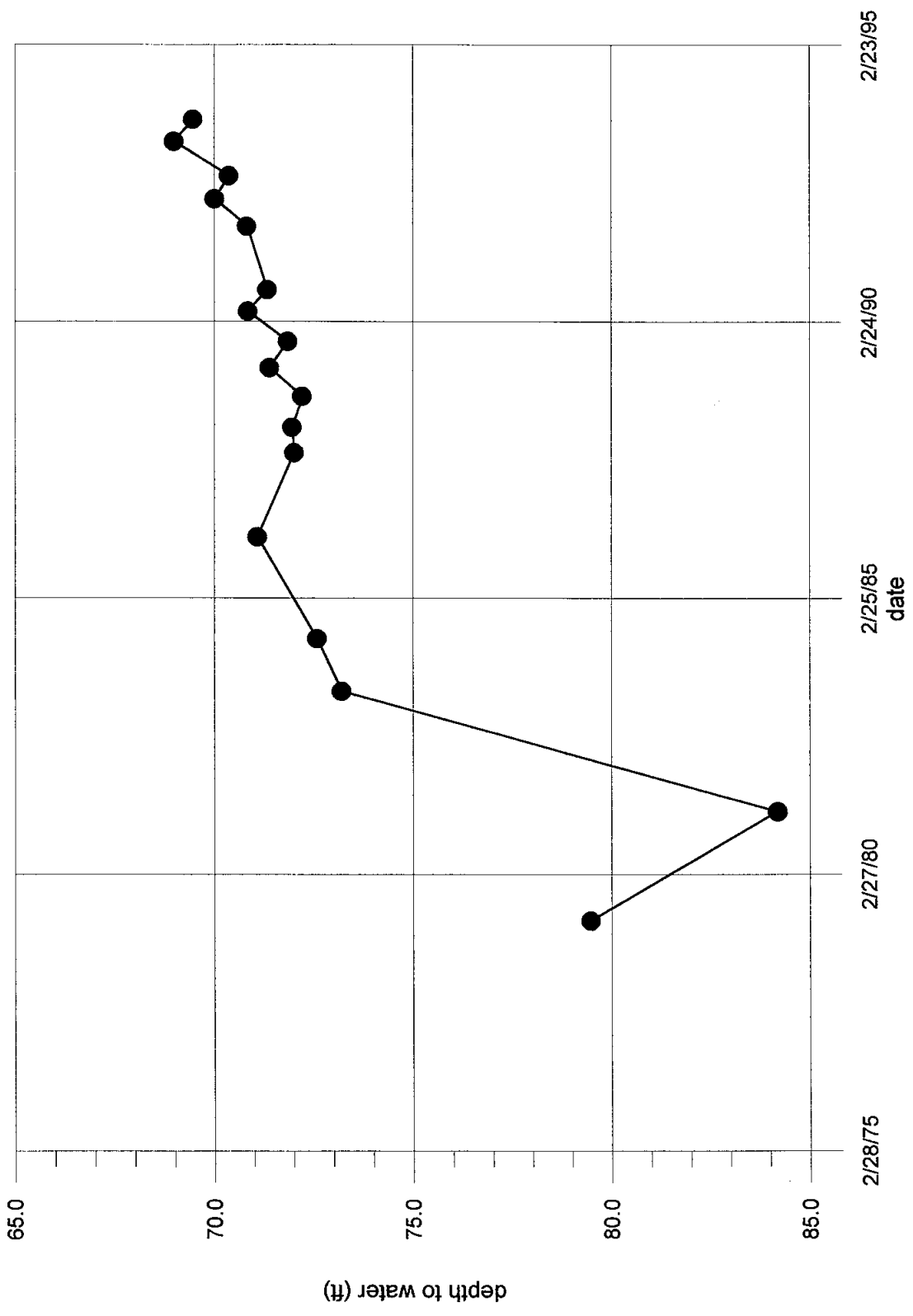
T17S.R09E.25.343

Eastern Tularosa Basin
Hydrograph of Well 43
T17S.R10E.06.114

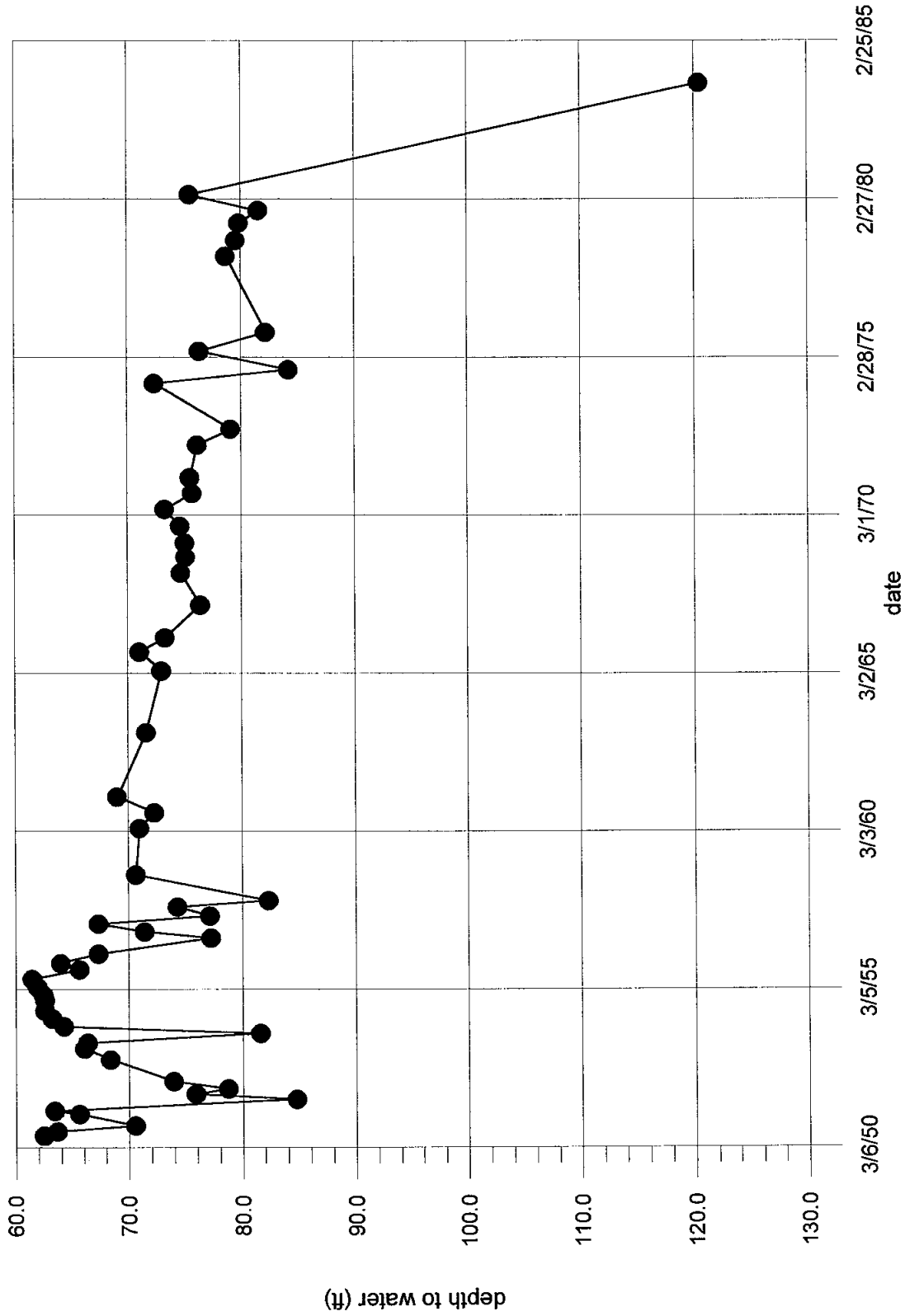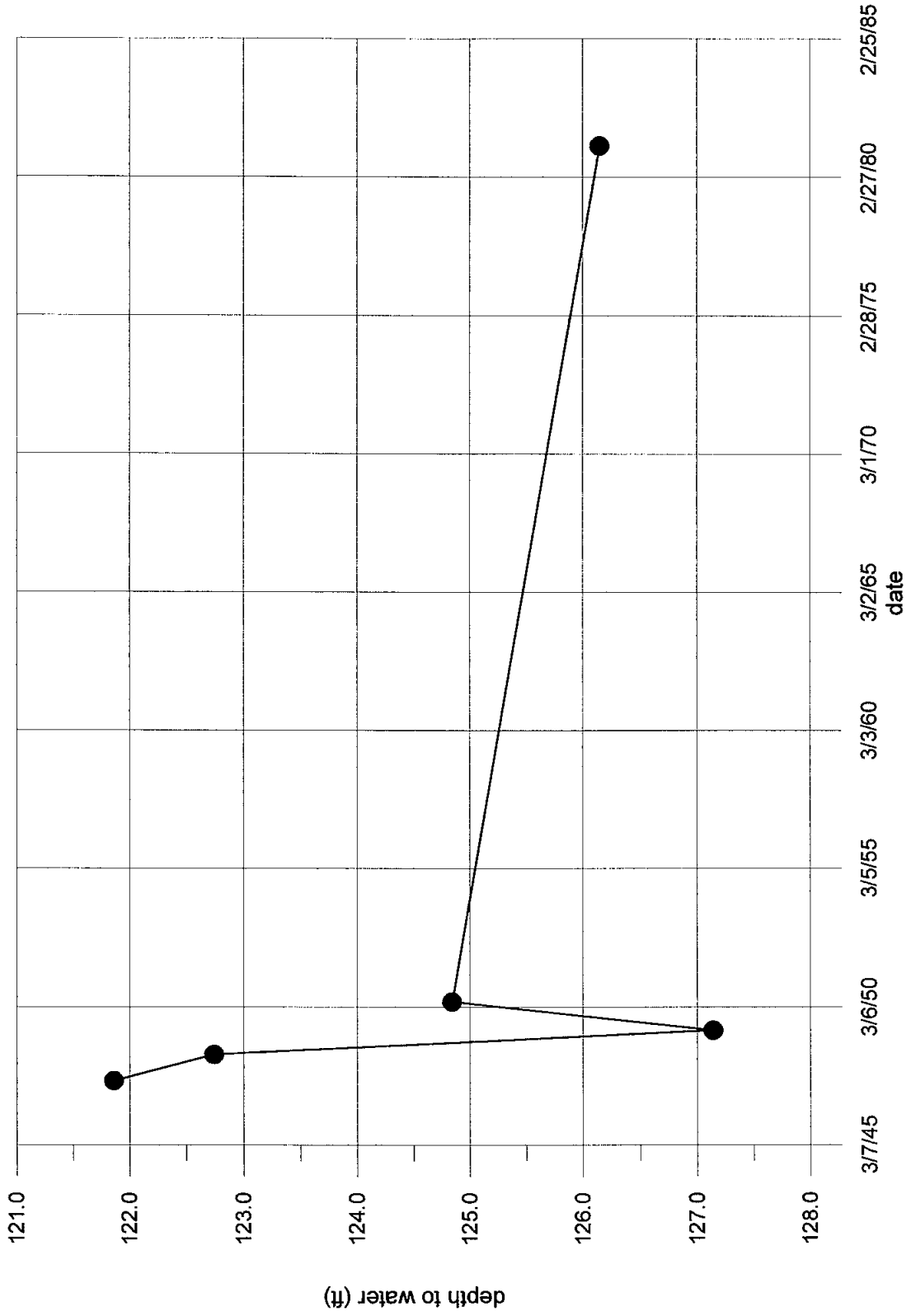Eastern Tularosa Basin
Hydrograph of Well 44
T17S.R10E.06.12

depth to water (ft)

date
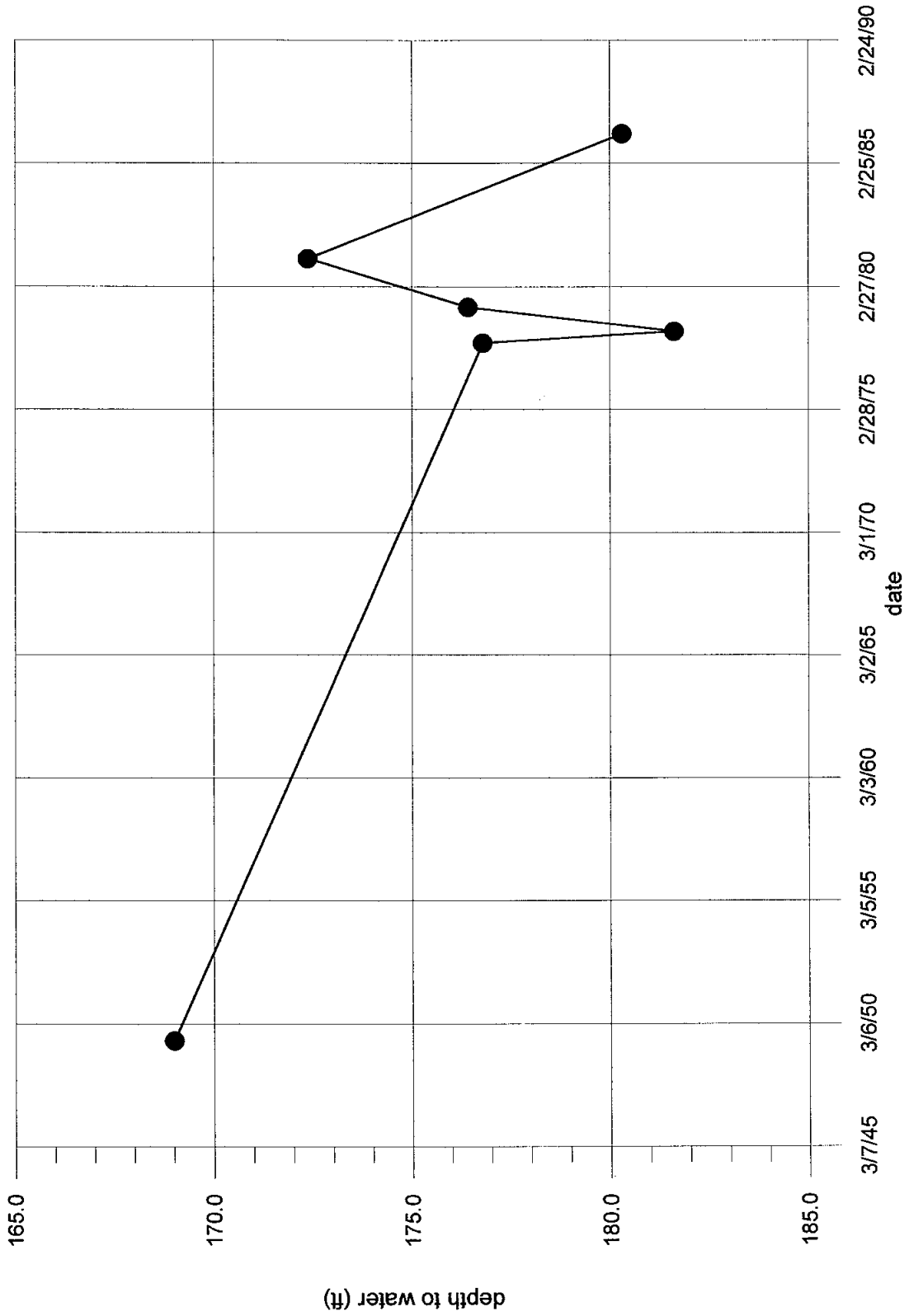
Eastern Tularosa Basin
Hydrograph of Well 45
T17S.R10E.18.432A

depth to water (ft)

date
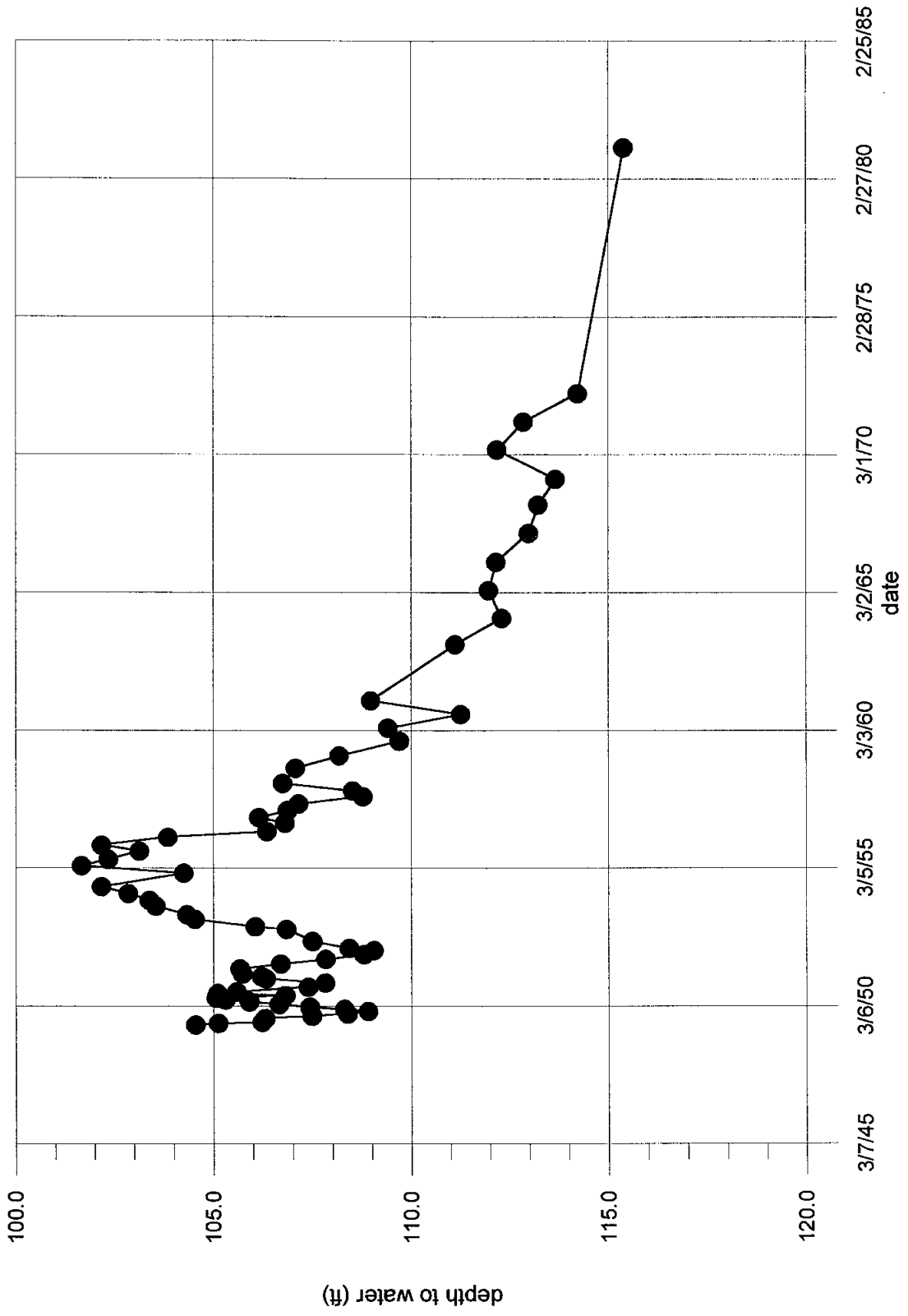
Eastern Tularosa Basin
Hydrograph of Well 46
T17S.R10E.19.321A

depth to water (ft)

date

JOHN SHOMAKER AND ASSOCIATES, INC.
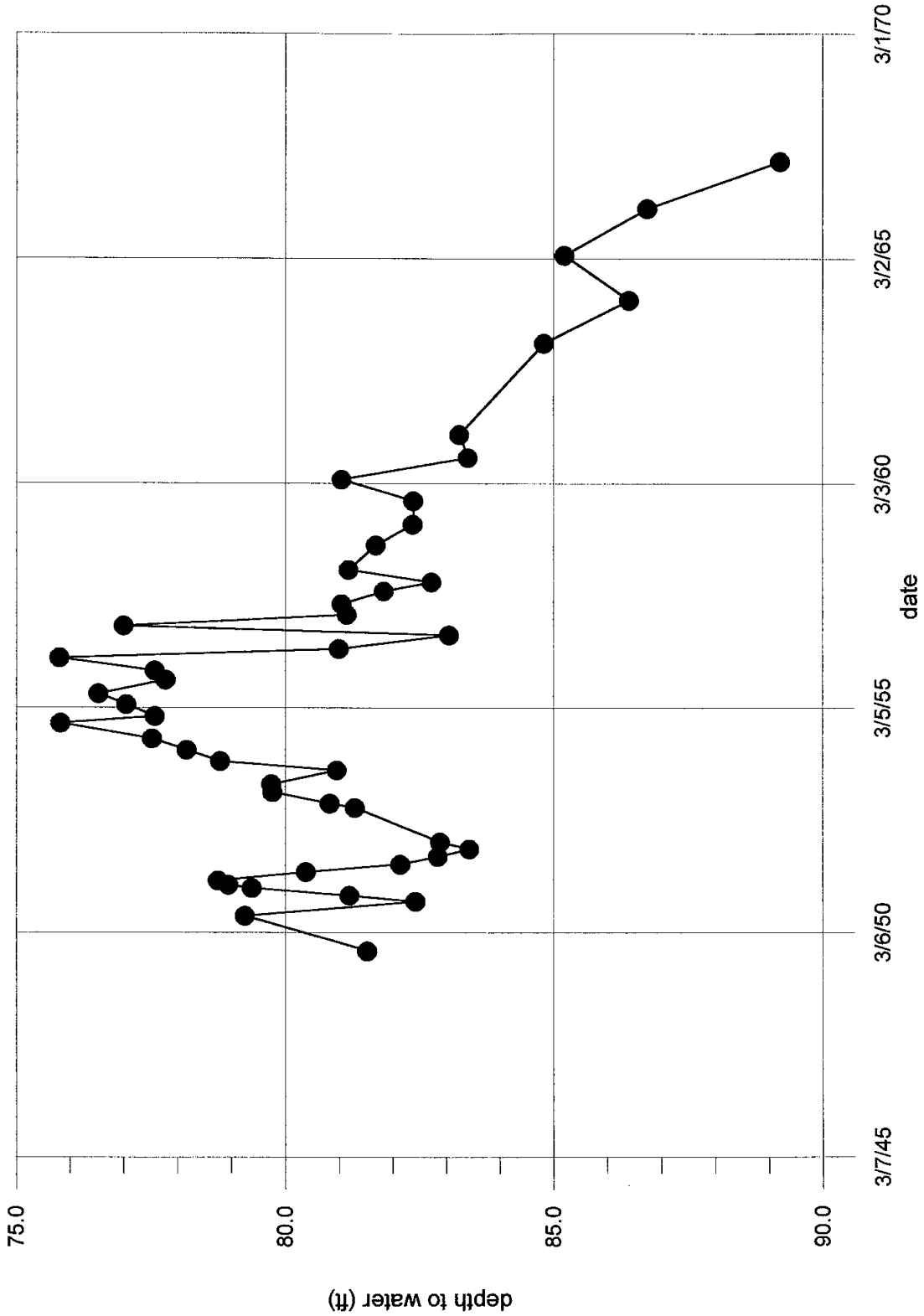
Eastern Tularosa Basin
Hydrograph of Well 47
T17S.R10E.19.323A

depth to water (ft)

date
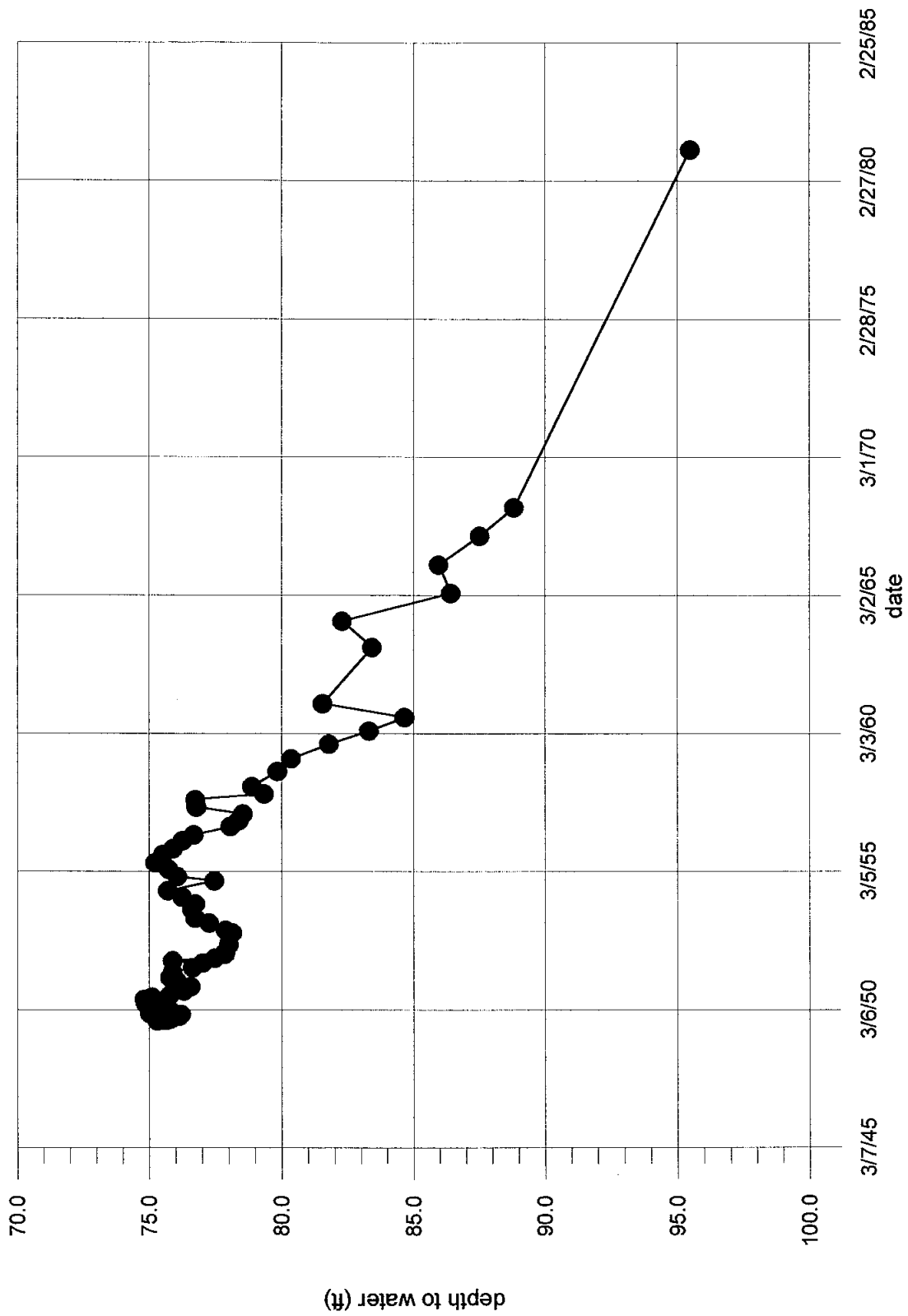
Eastern Tularosa Basin
Hydrograph of Well 48
T18S.R09E.11.144

depth to water (ft)

date
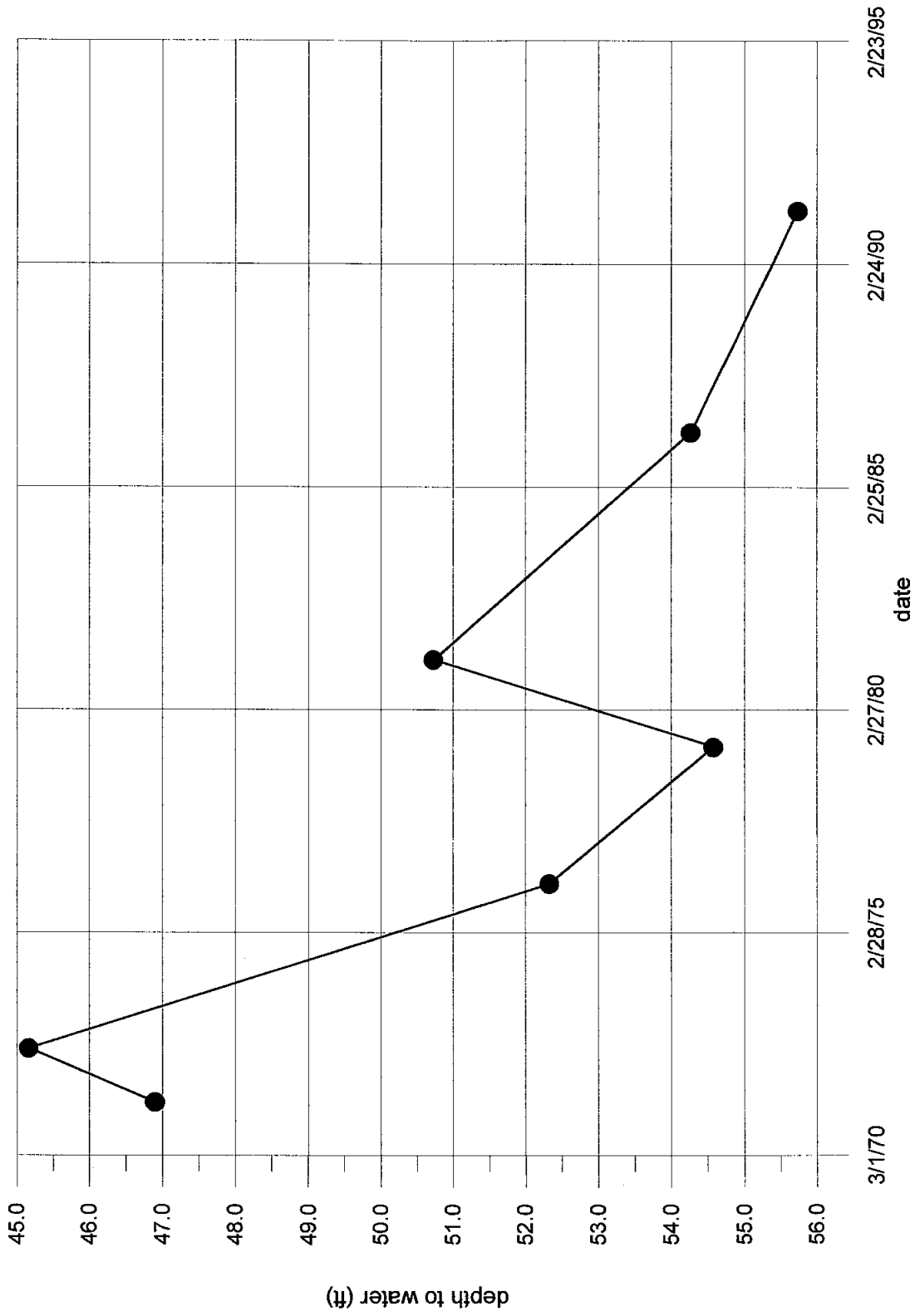
Eastern Tularosa Basin
Hydrograph of Well 49
T18S.R09E.12.4111

depth to water (ft)

date
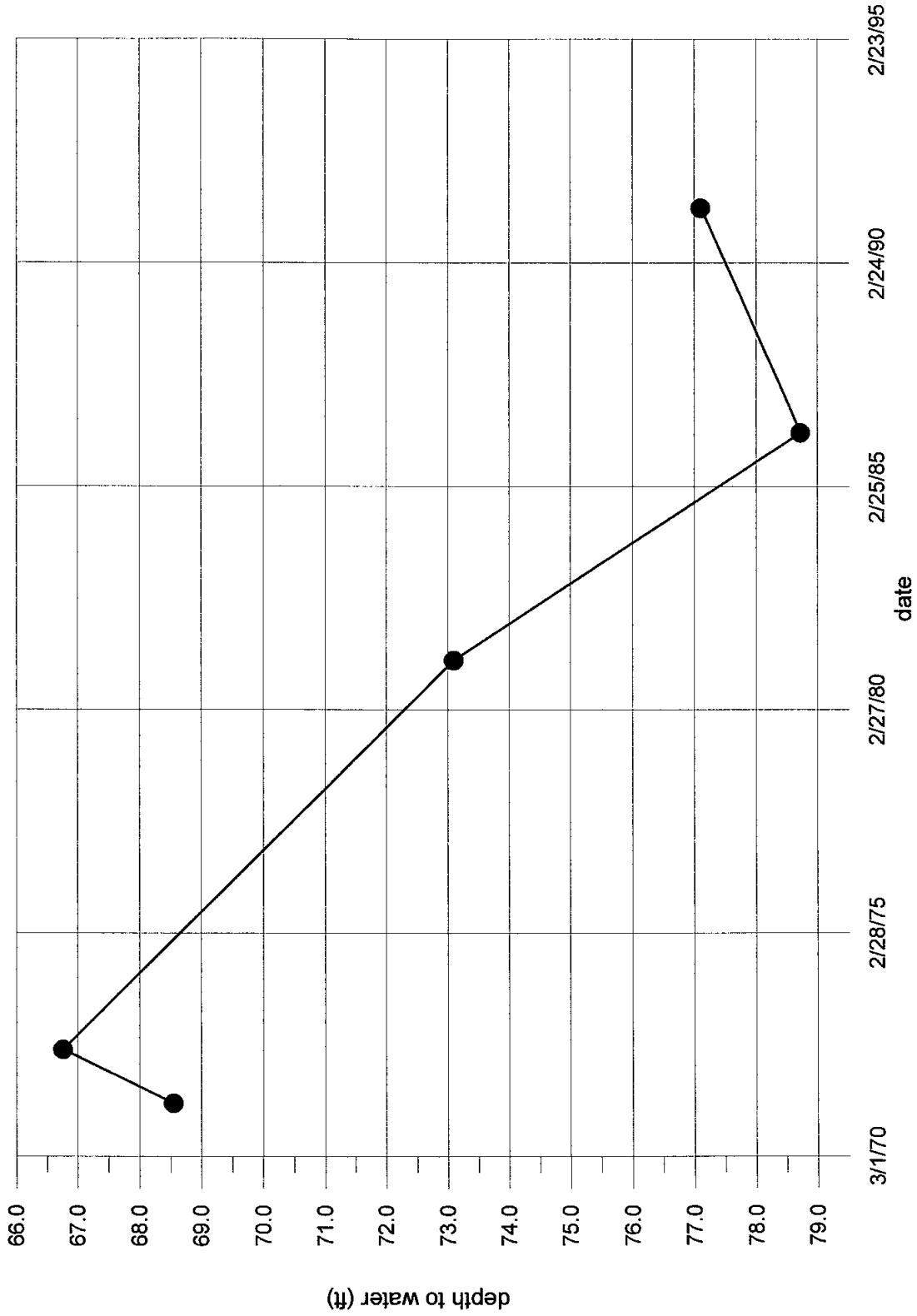
Eastern Tularosa Basin
Hydrograph of Well 50
T18S.R09E.12.422

depth to water (ft)

date

3/1/70   2/28/75   2/27/80   2/25/85   2/24/90   2/23/95

75.0   80.0   85.0   90.0   95.0

JOHN SHOMAKER AND ASSOCIATES, INC.
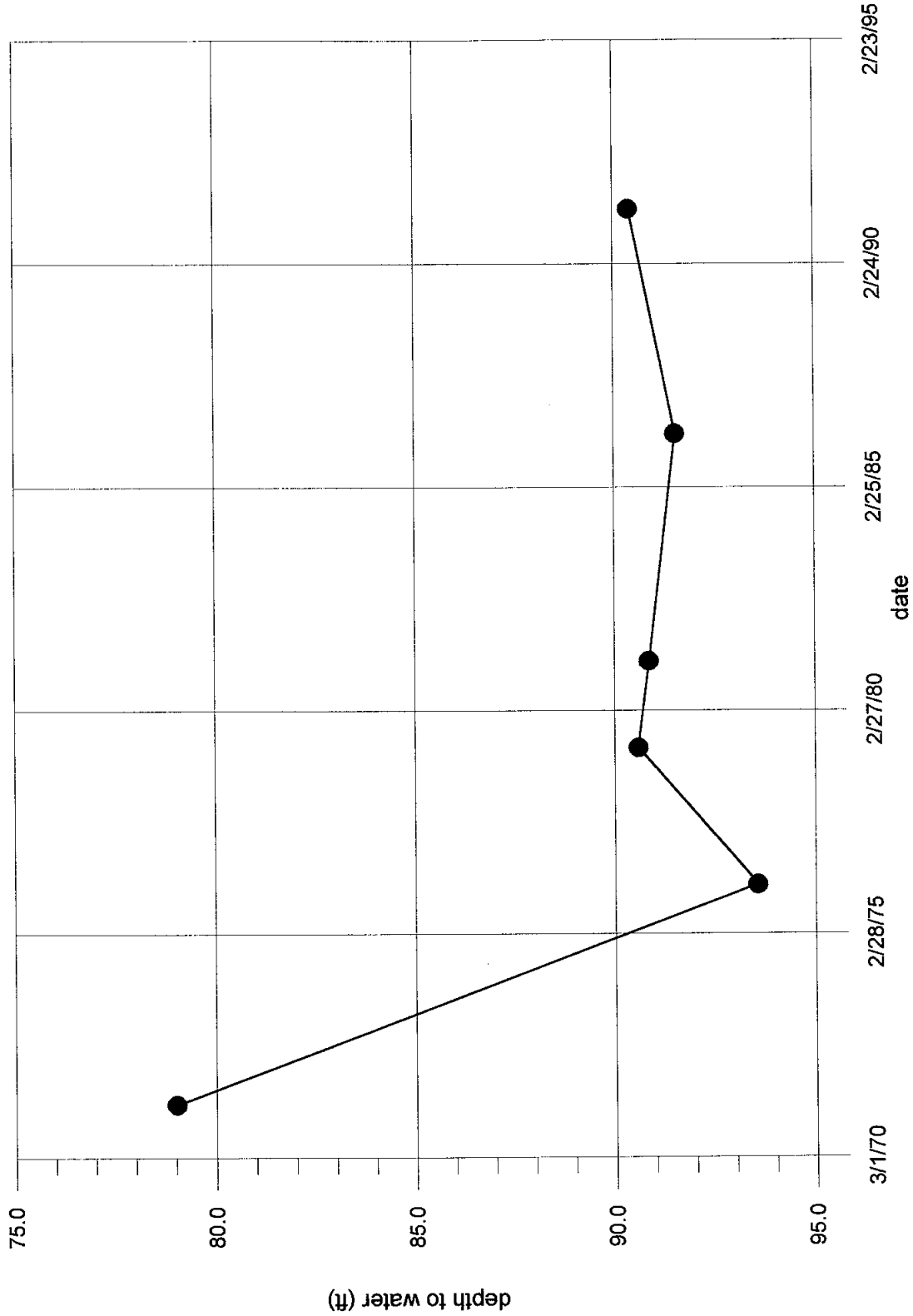
Eastern Tularosa Basin
Hydrograph of Well 51
T18S.R09E.23.414

depth to water (ft)

JOHN SHOMAKER AND ASSOCIATES, INC.
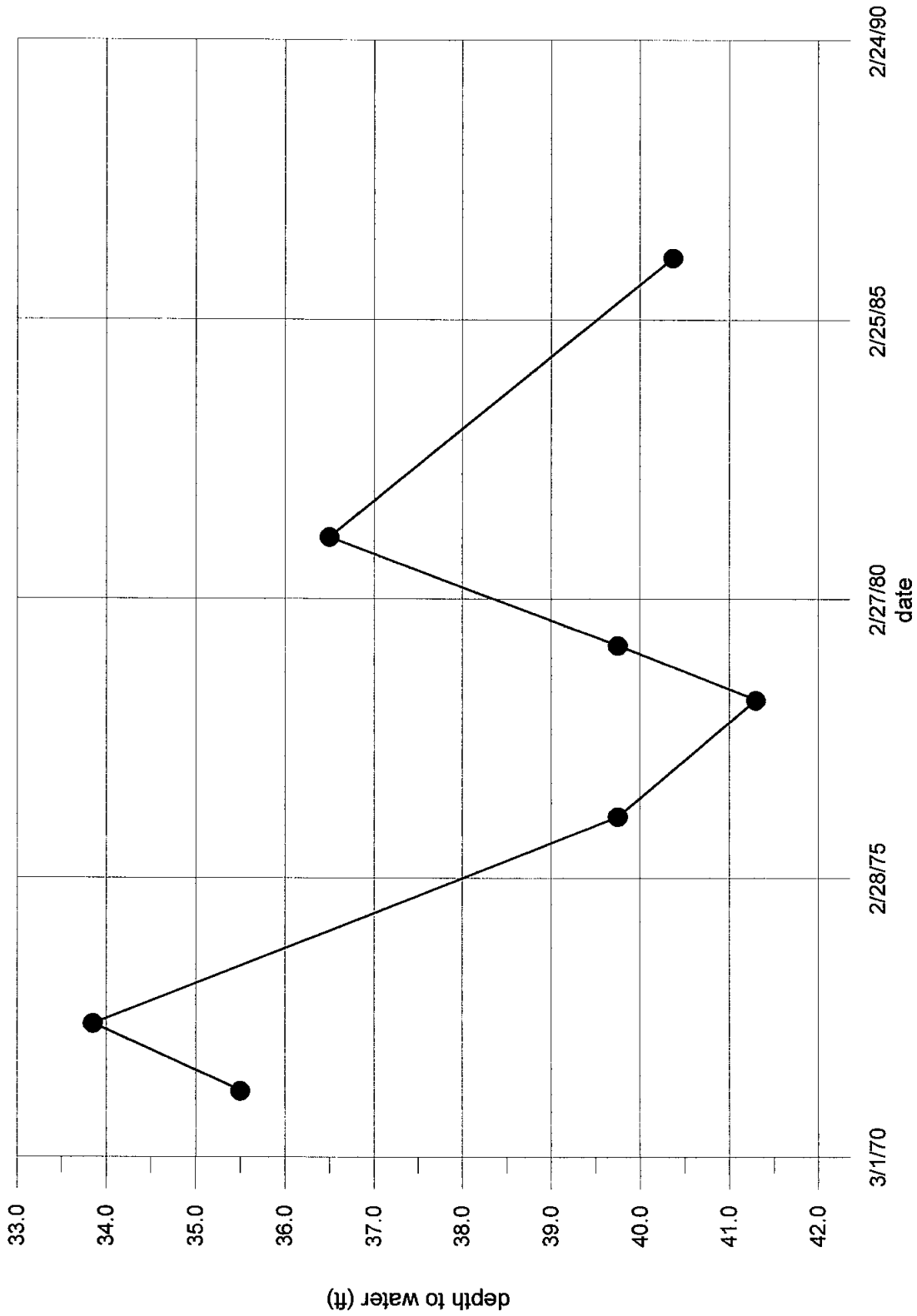
Eastern Tularosa Basin
Hydrograph of Well 52
T18S.R09E.24.213

depth to water (ft)

date

JOHN SHOMAKER AND ASSOCIATES, INC.
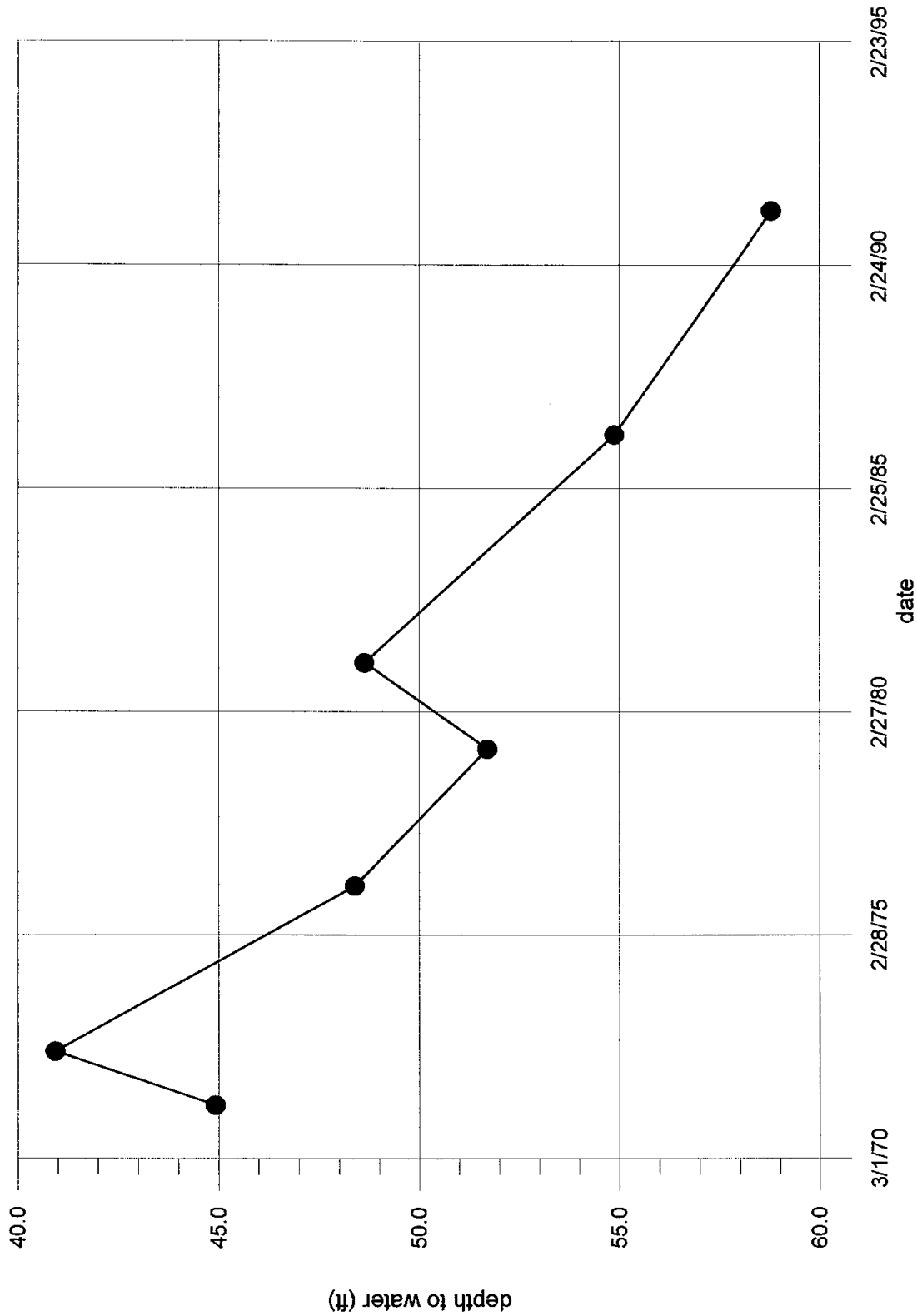
Eastern Tularosa Basin
Hydrograph of Well 53
T18S.R09E.26.214
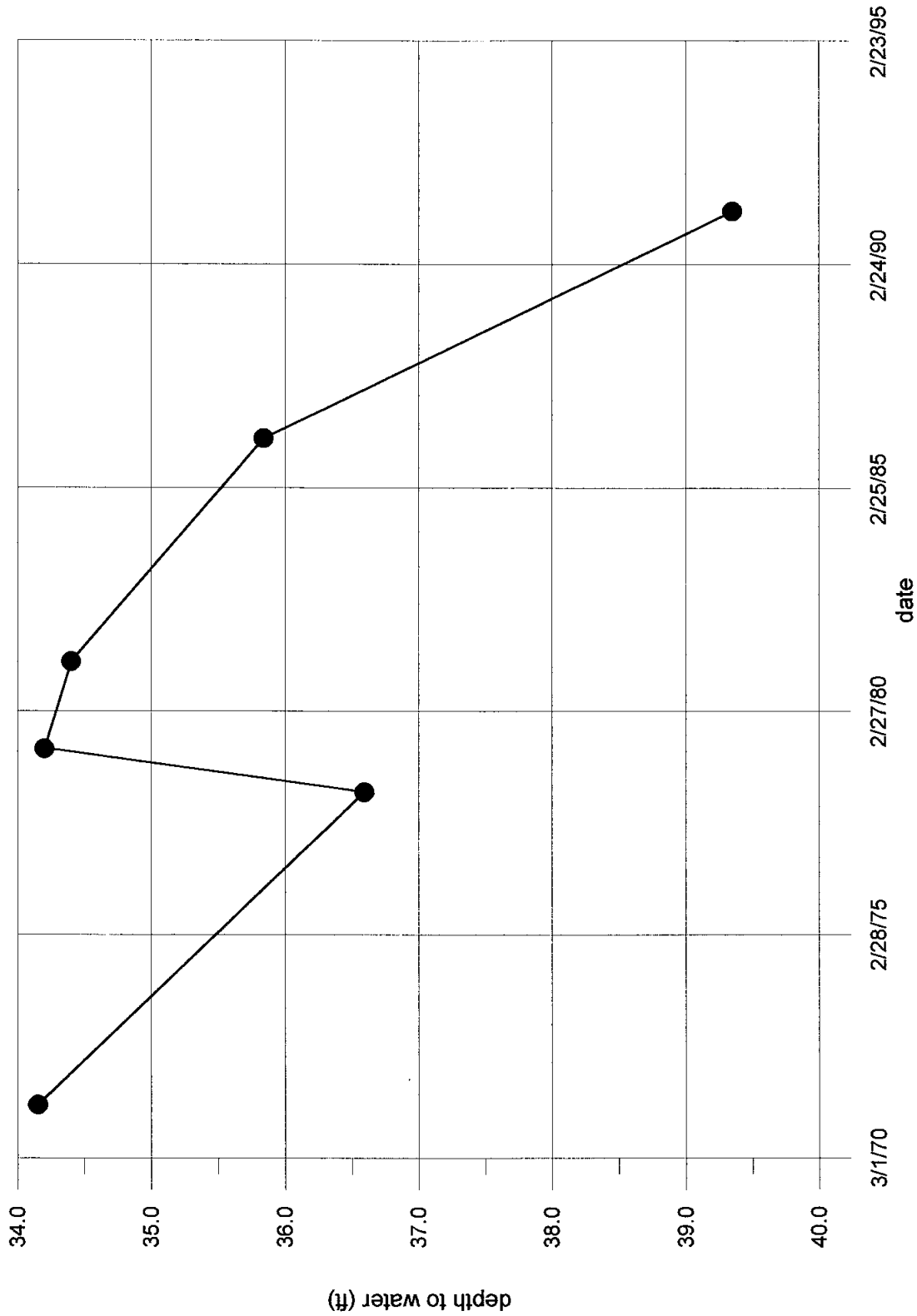
Eastern Tularosa Basin
Hydrograph of Well 54
T18S.R09E.36.2222

depth to water (ft)

3/1/70   2/28/75   2/27/80   2/25/85   2/24/90
date

55.0   56.0   57.0   58.0   59.0   60.0   61.0

JOHN SHOMAKER AND ASSOCIATES, INC.
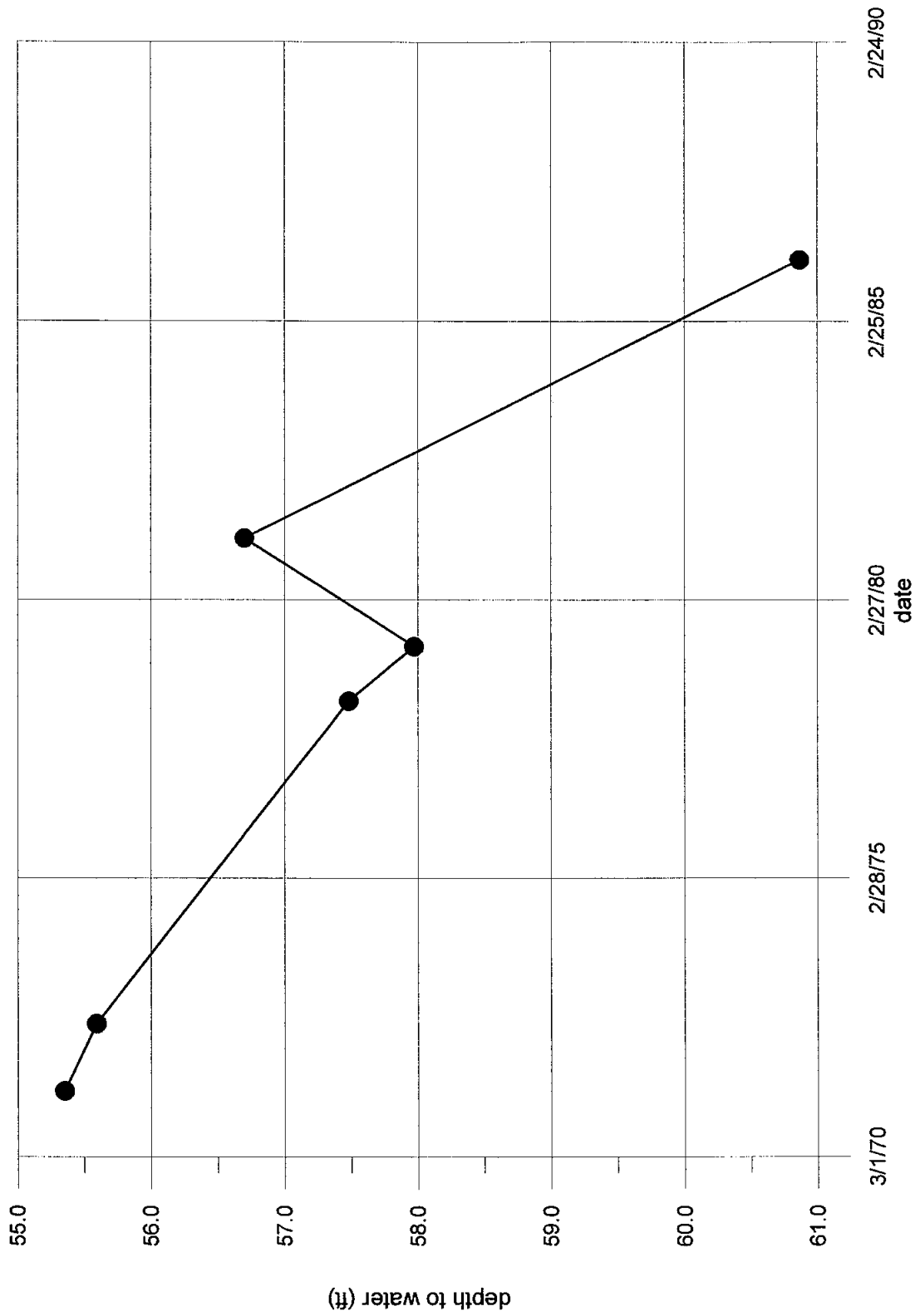
Eastern Tularosa Basin
Hydrograph of Well 55
T18S.R10E.18.224
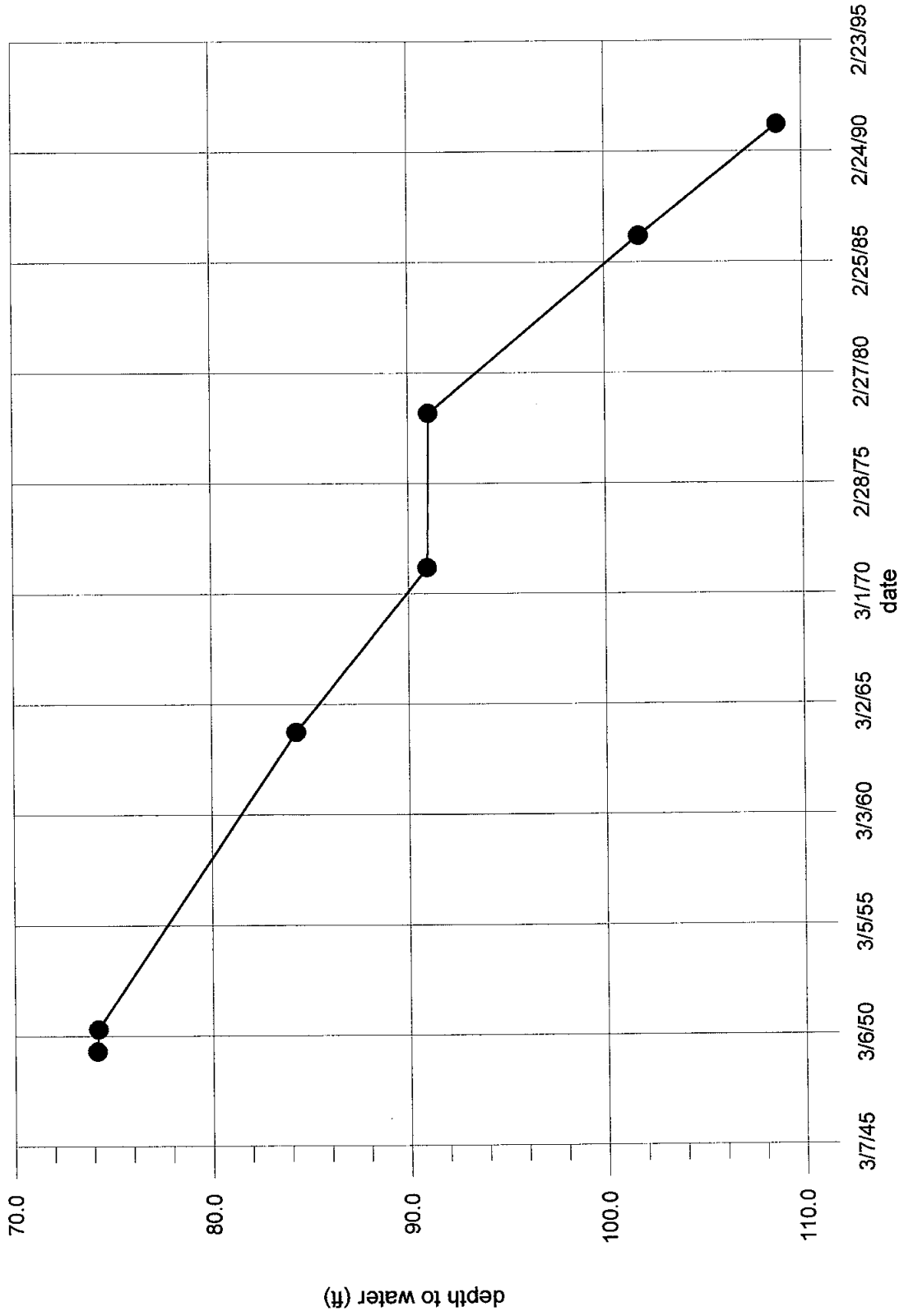
Eastern Tularosa Basin
Hydrograph of Well 101
T21S.R08E.26.142

depth to water (ft)

date

188.0

189.0

3/19/84 3/19/85 3/19/86 3/20/87 3/19/88 3/19/89 3/19/90 3/20/91 3/19/92
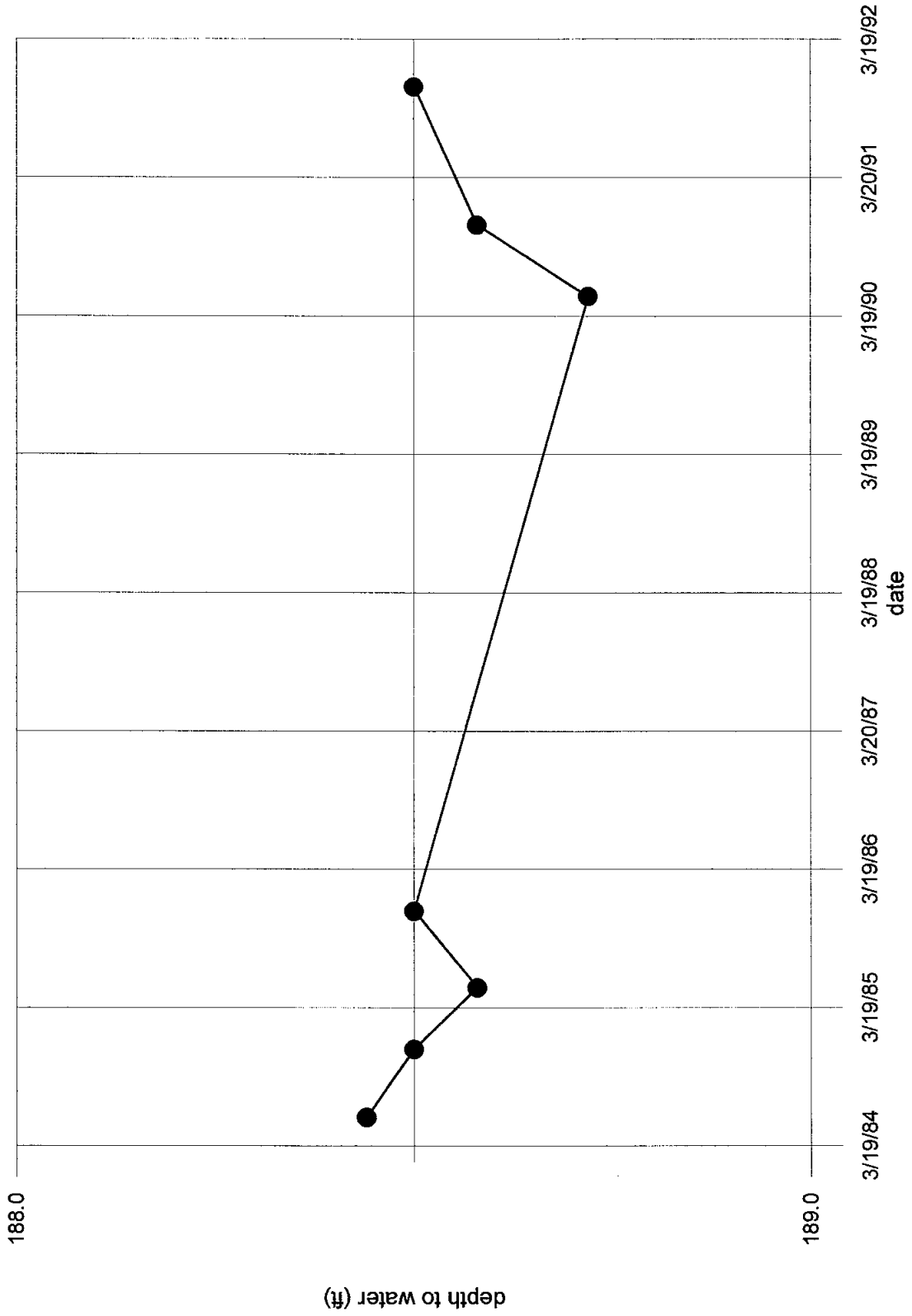
Eastern Tularosa Basin
Hydrograph of Well 113
T16S.R09E.35.133
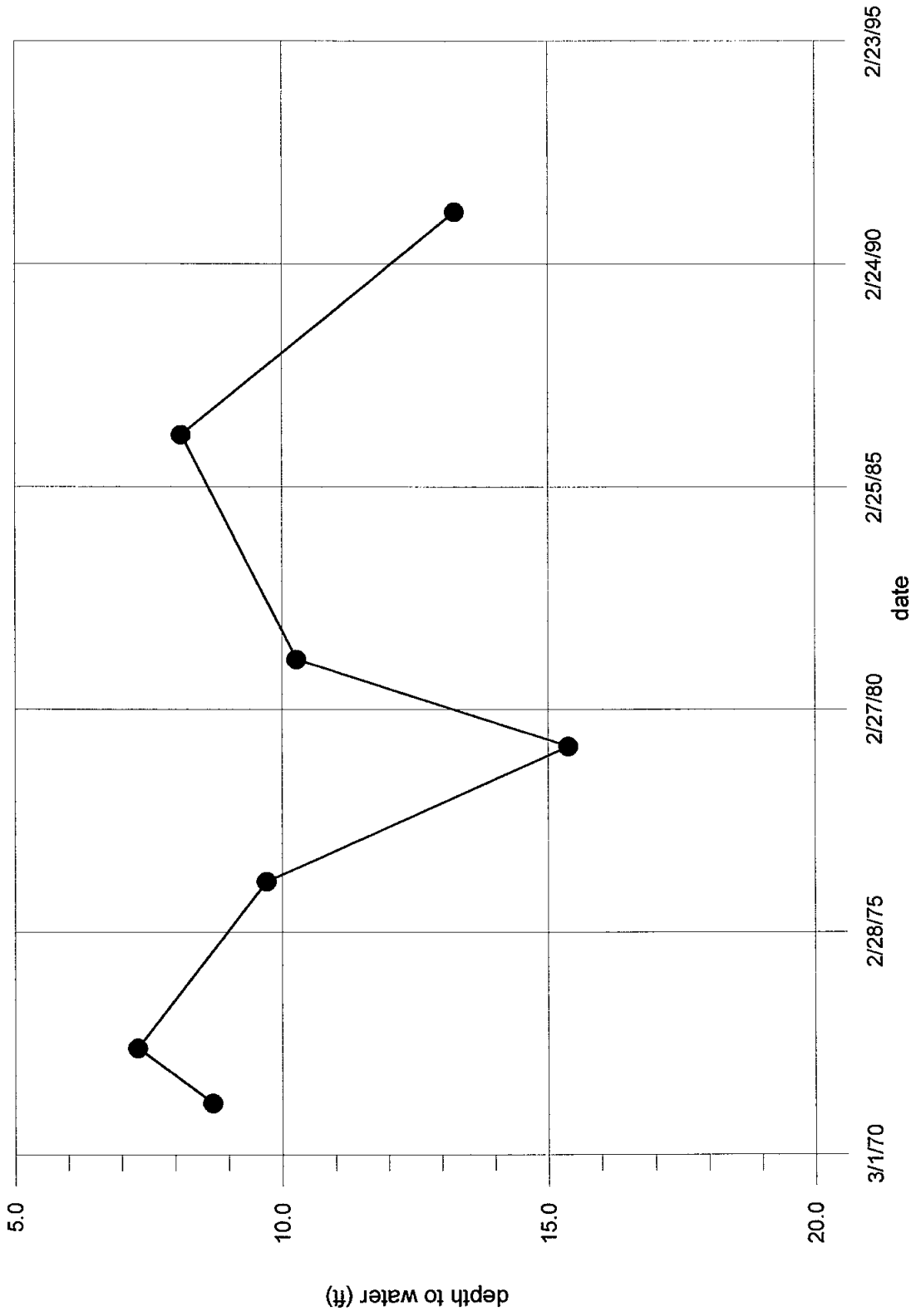
Eastern Tularosa Basin
Hydrograph of Well 114
T16S.R09E.35.132

depth to water (ft)

date

JOHN SHOMAKER AND ASSOCIATES, INC.
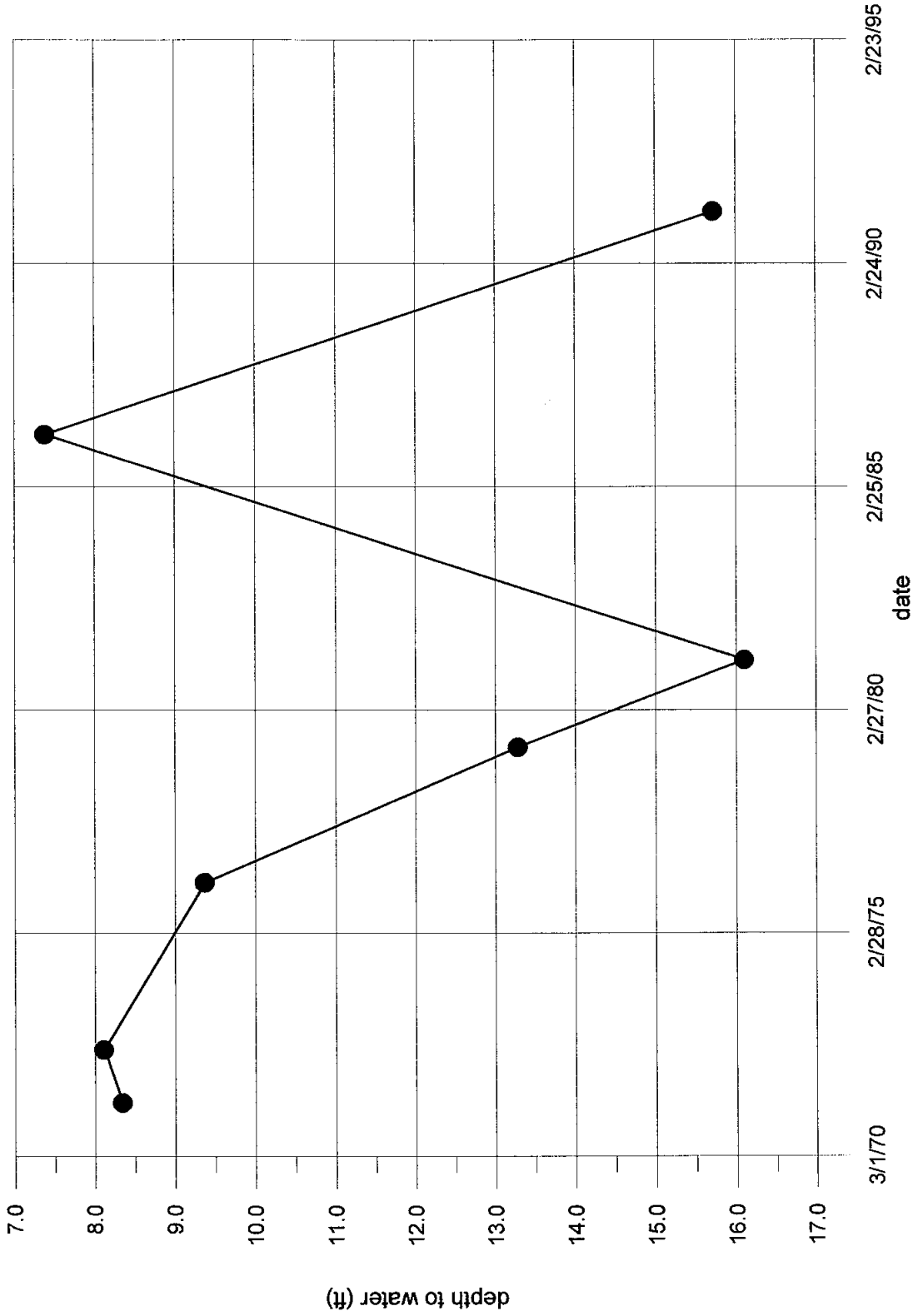
Eastern Tularosa Basin
Hydrograph of Well 115
T16S.R09E.25.442

depth to water (ft)

date

JOHN SHOMAKER AND ASSOCIATES, INC.
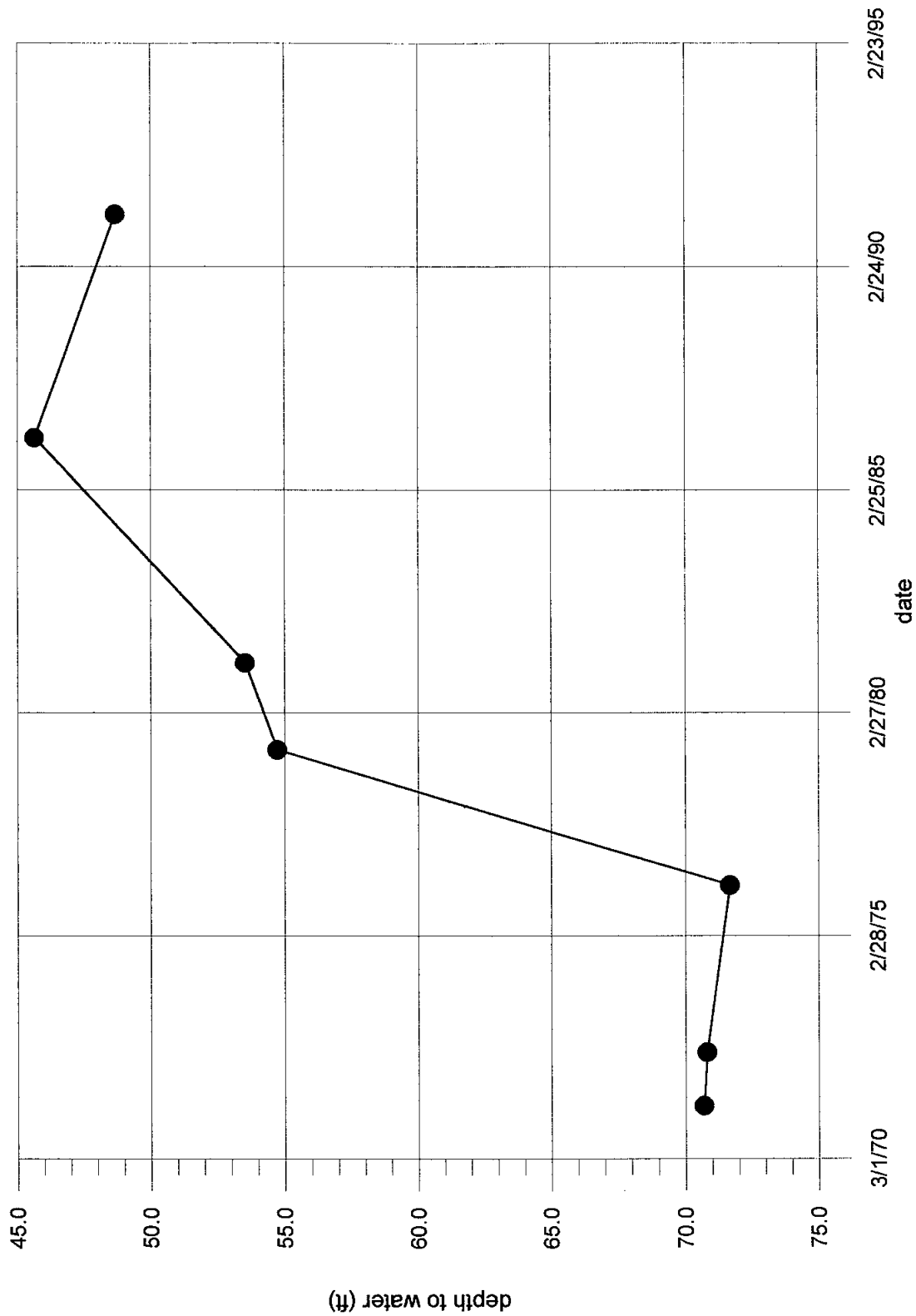
Eastern Tularosa Basin
Hydrograph of Well 118
T14S.R09E.25.342

JOHN SHOMAKER AND ASSOCIATES, INC.
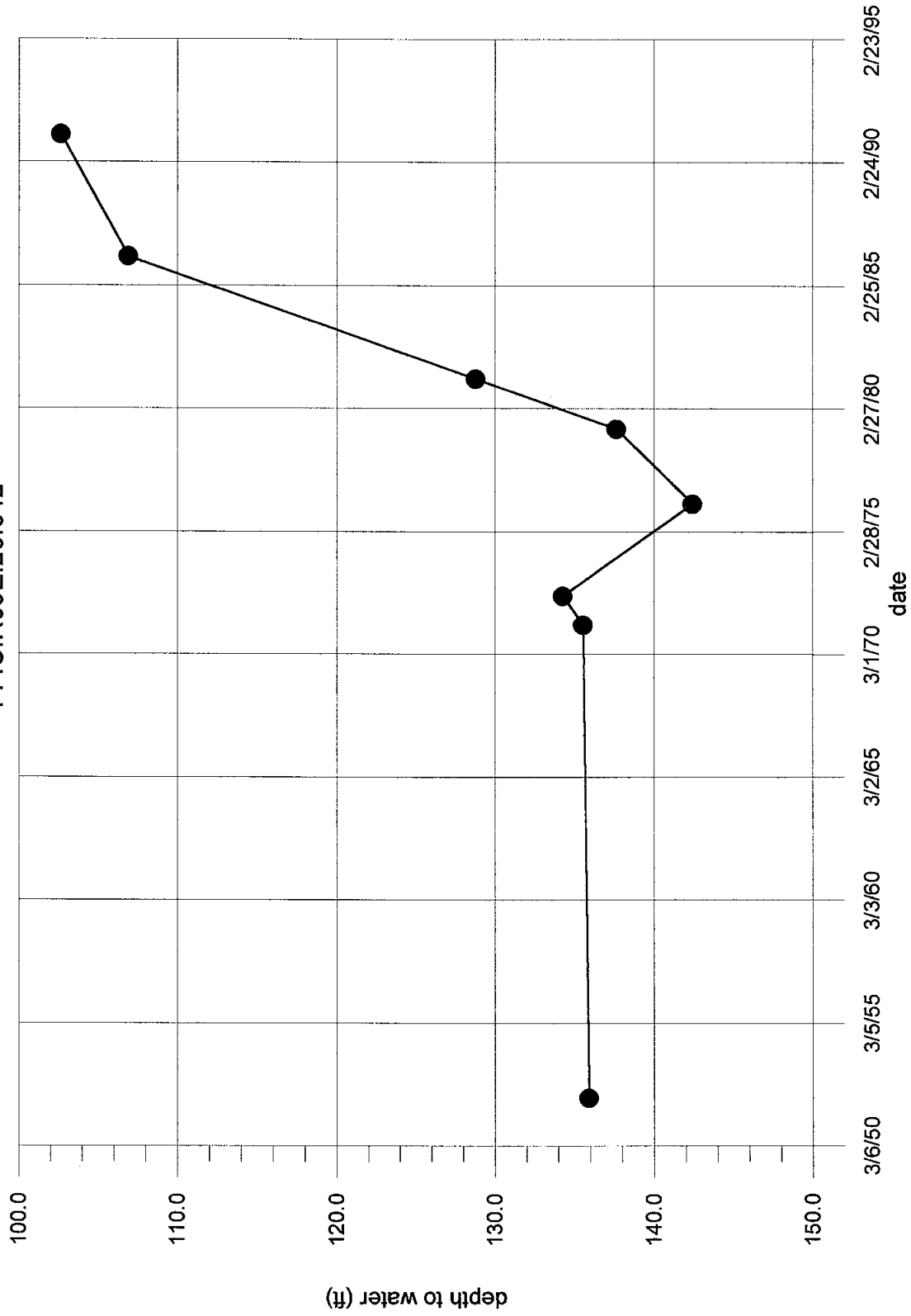
Eastern Tularosa Basin
Hydrograph of Well 119
T14S.R09E.26.222

depth to water (ft)

date
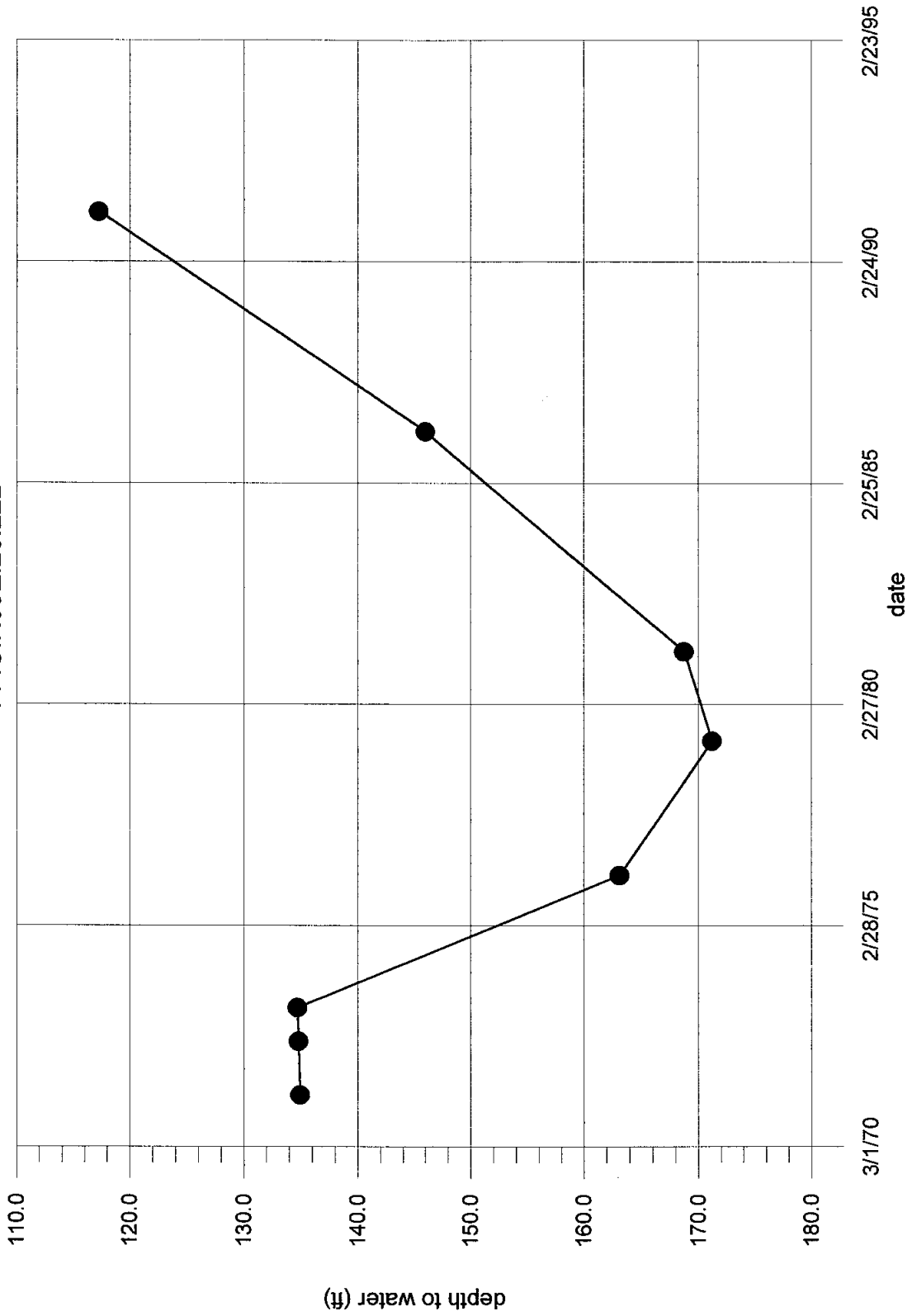
Eastern Tularosa Basin
Hydrograph of Well 120
T11S.R10E.06.431

depth to water (ft)

date
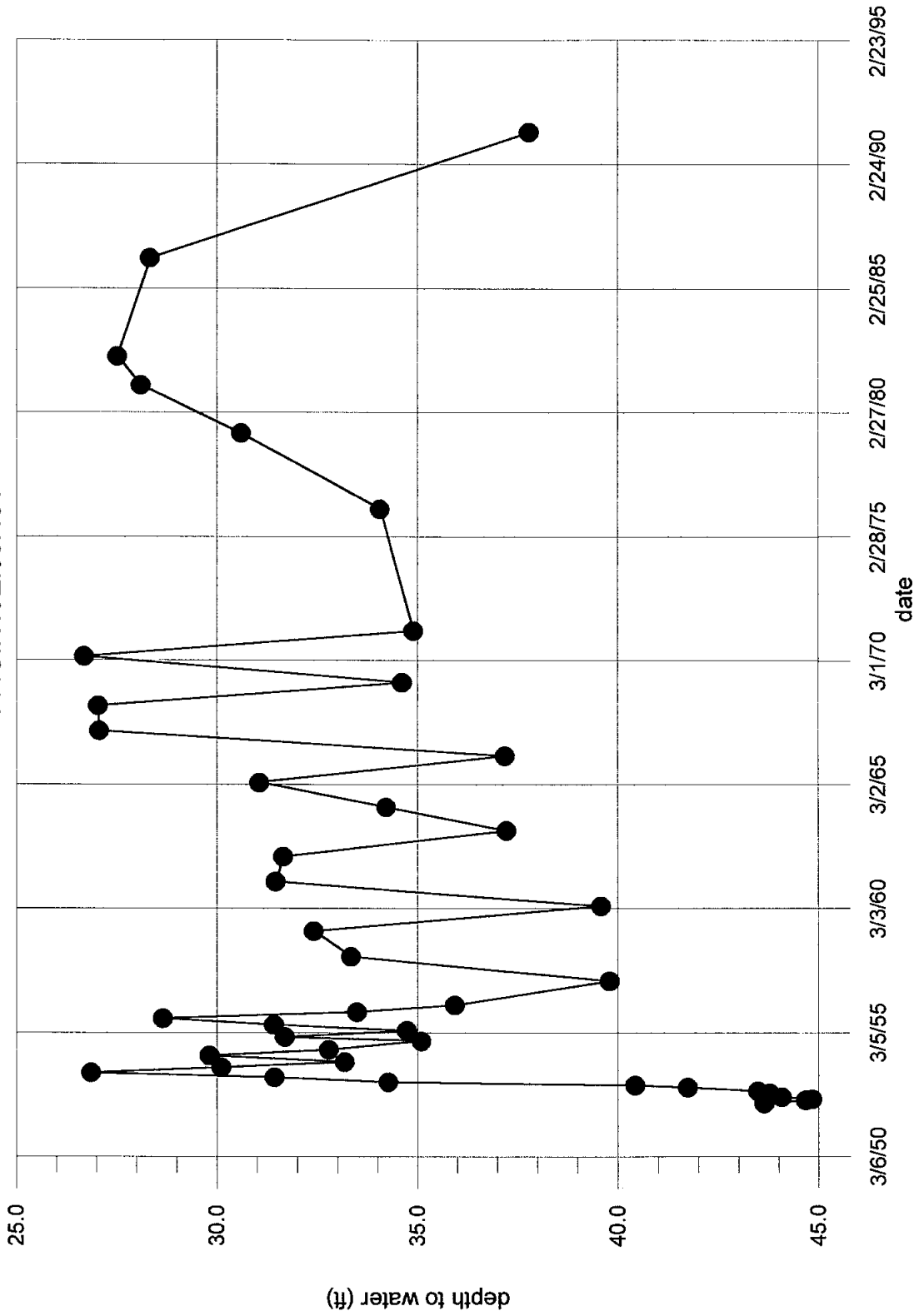
Eastern Tularosa Basin
Hydrograph of Well 121
T11S.R10E.07.234

depth to water (ft)

date

JOHN SHOMAKER AND ASSOCIATES, INC.
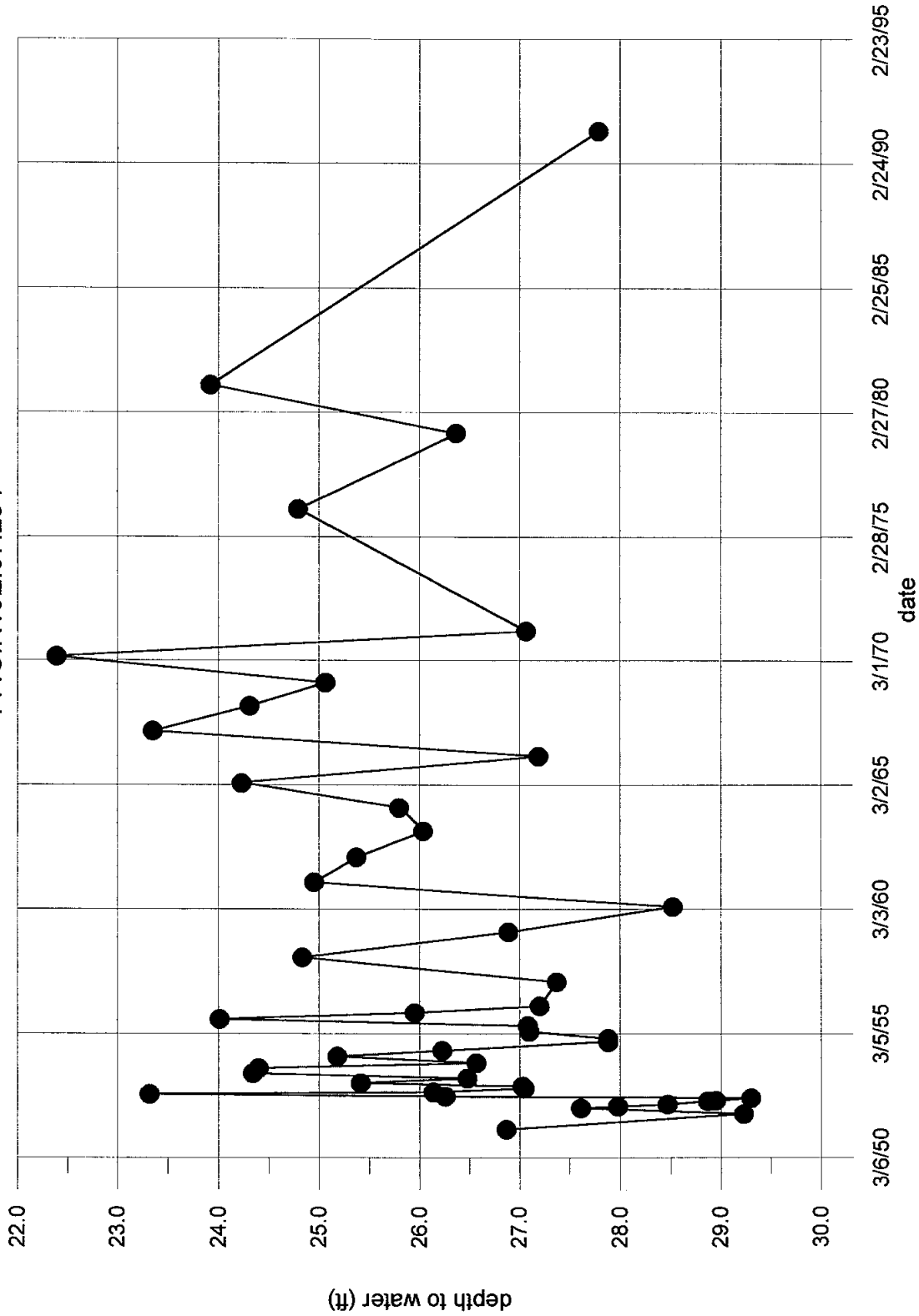
Salt Basin
Hydrograph of Well 80
T26S.R18E.33.133

depth to water (ft)

date
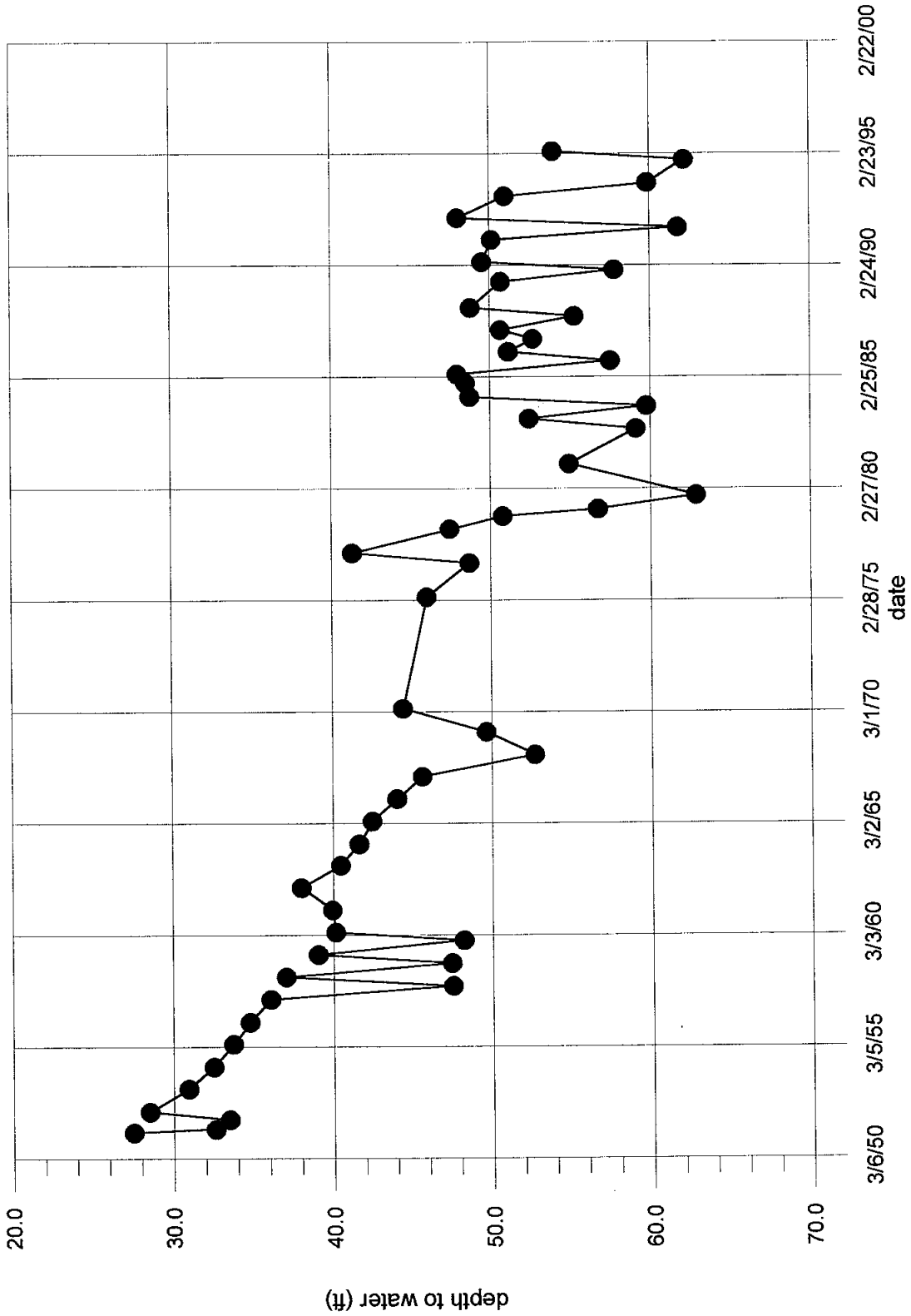
Salt Basin
Hydrograph of Well 82
T26S.R18E.30.312

depth to water (ft)

date
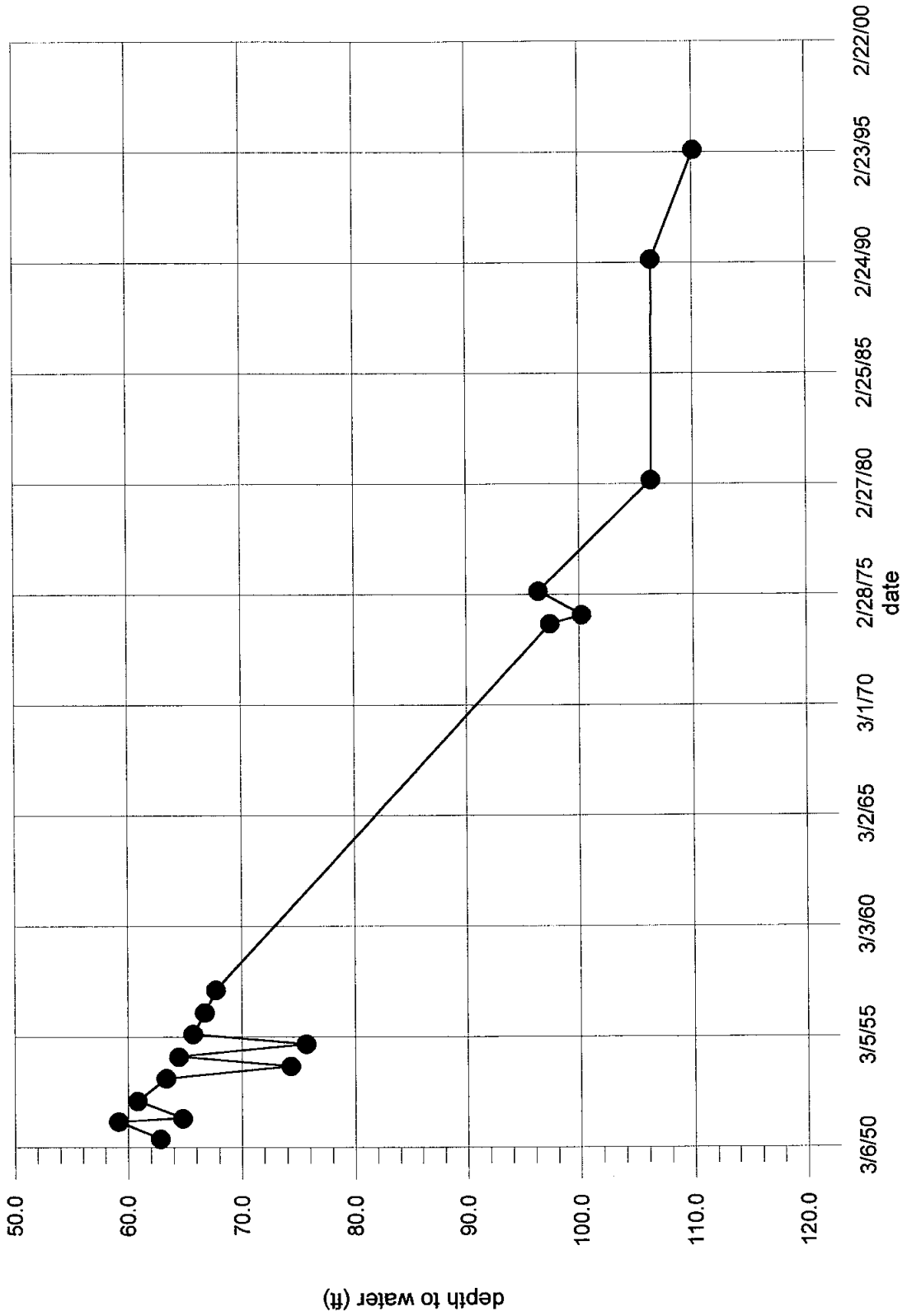
Salt Basin
Hydrograph of Well 83
T26S.R18E.29.113
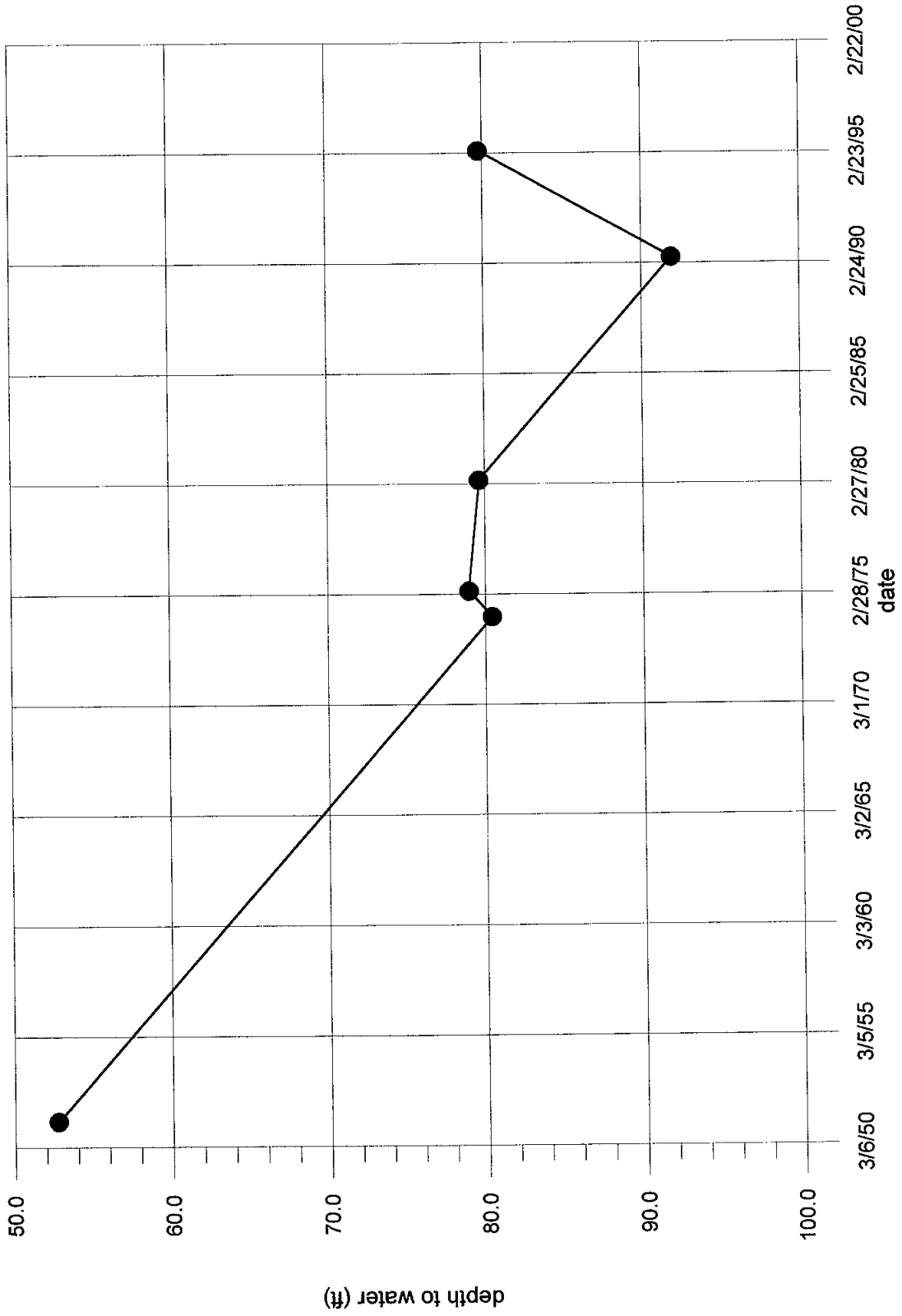
Salt Basin
Hydrograph of Well 84
T26S.R18E.30.122

depth to water (ft)

date
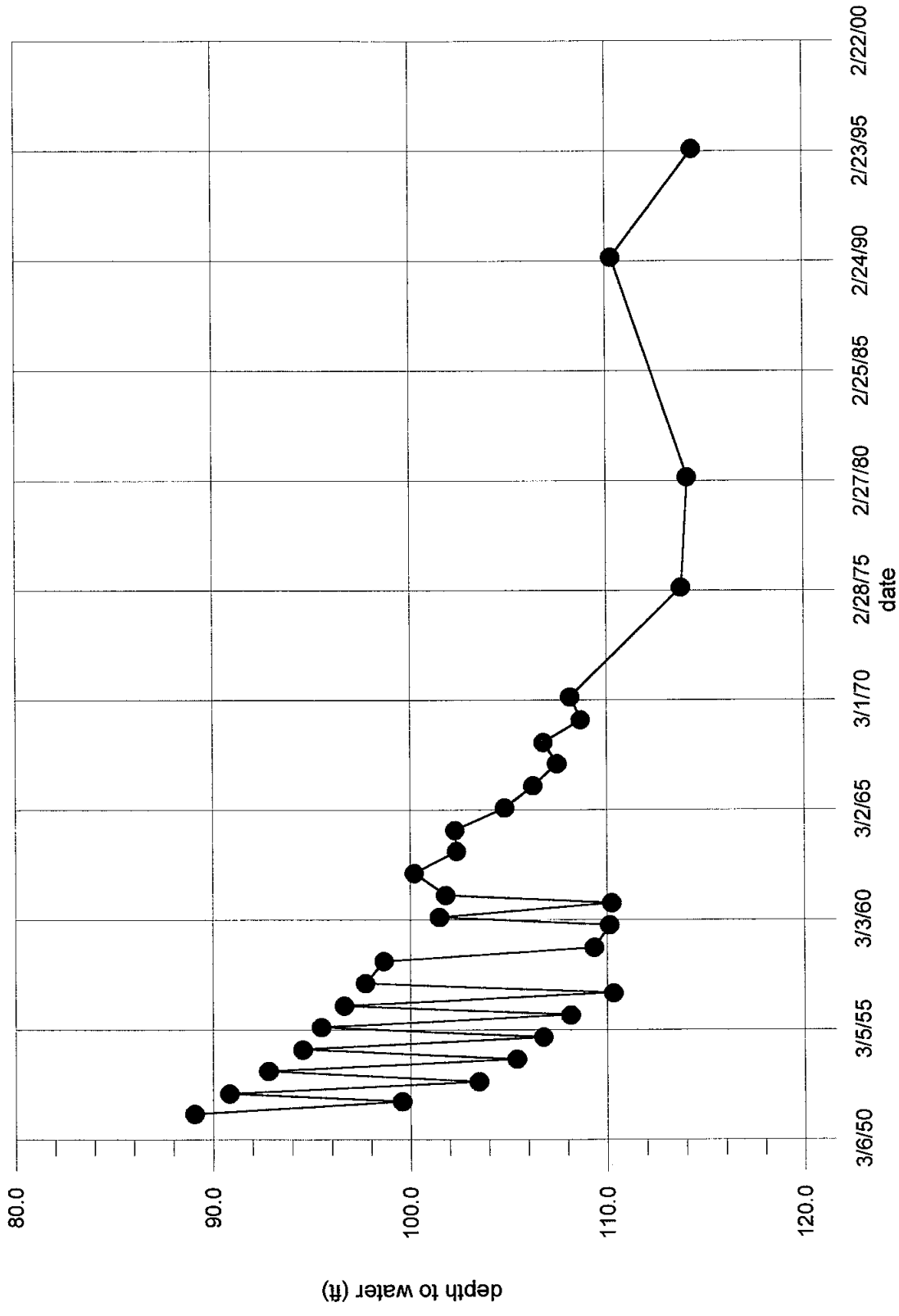
Salt Basin
Hydrograph of Well 85
T26S.R18E.19.433

depth to water (ft)

date

JOHN SHOMAKER AND ASSOCIATES, INC.
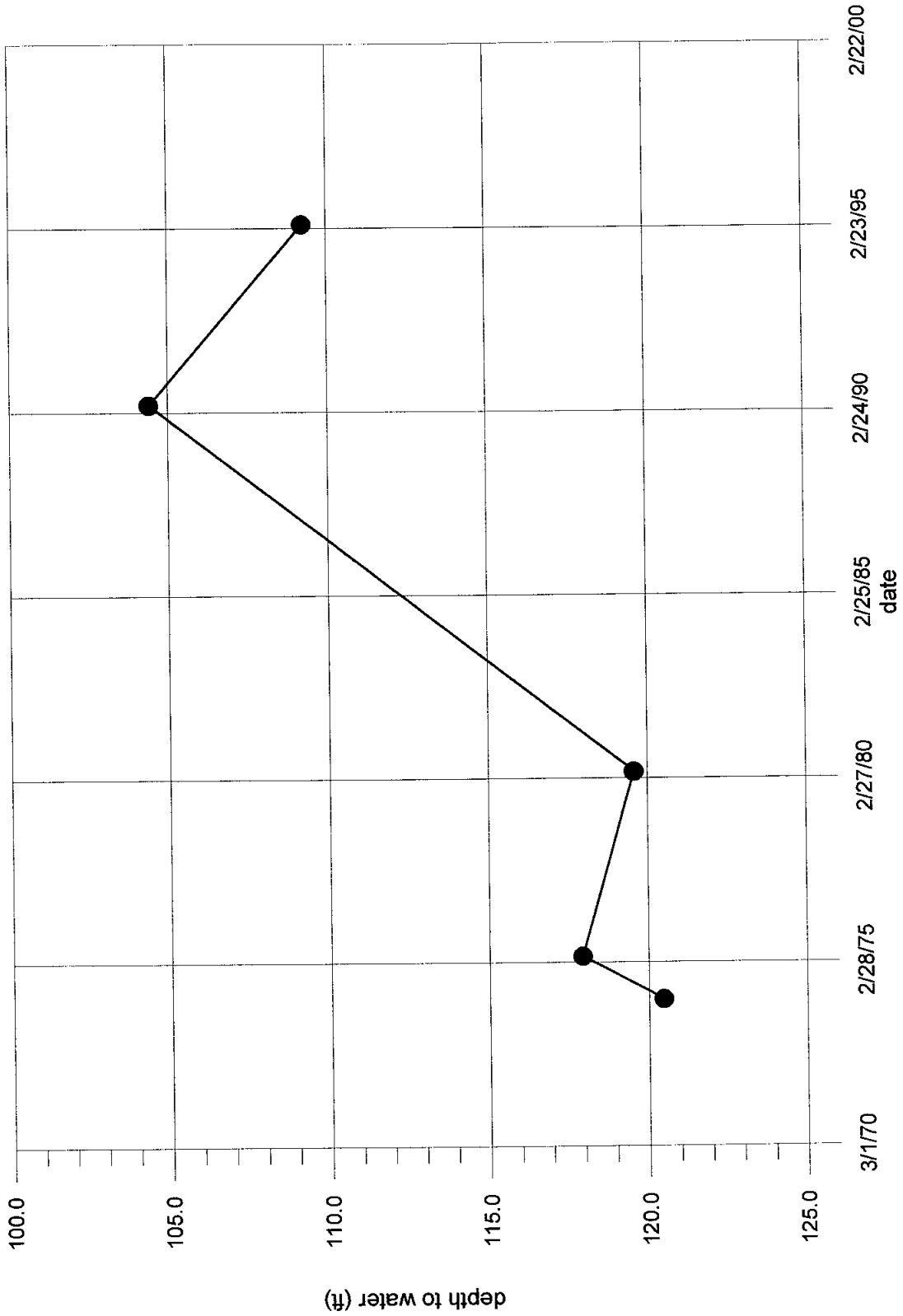
Salt Basin
Hydrograph of Well 86
T26S.R18E.21.411

depth to water (ft)

date

45.0　50.0　55.0　60.0

3/1/70　2/28/75　2/27/80　2/25/85　2/24/90　2/23/95　2/22/00
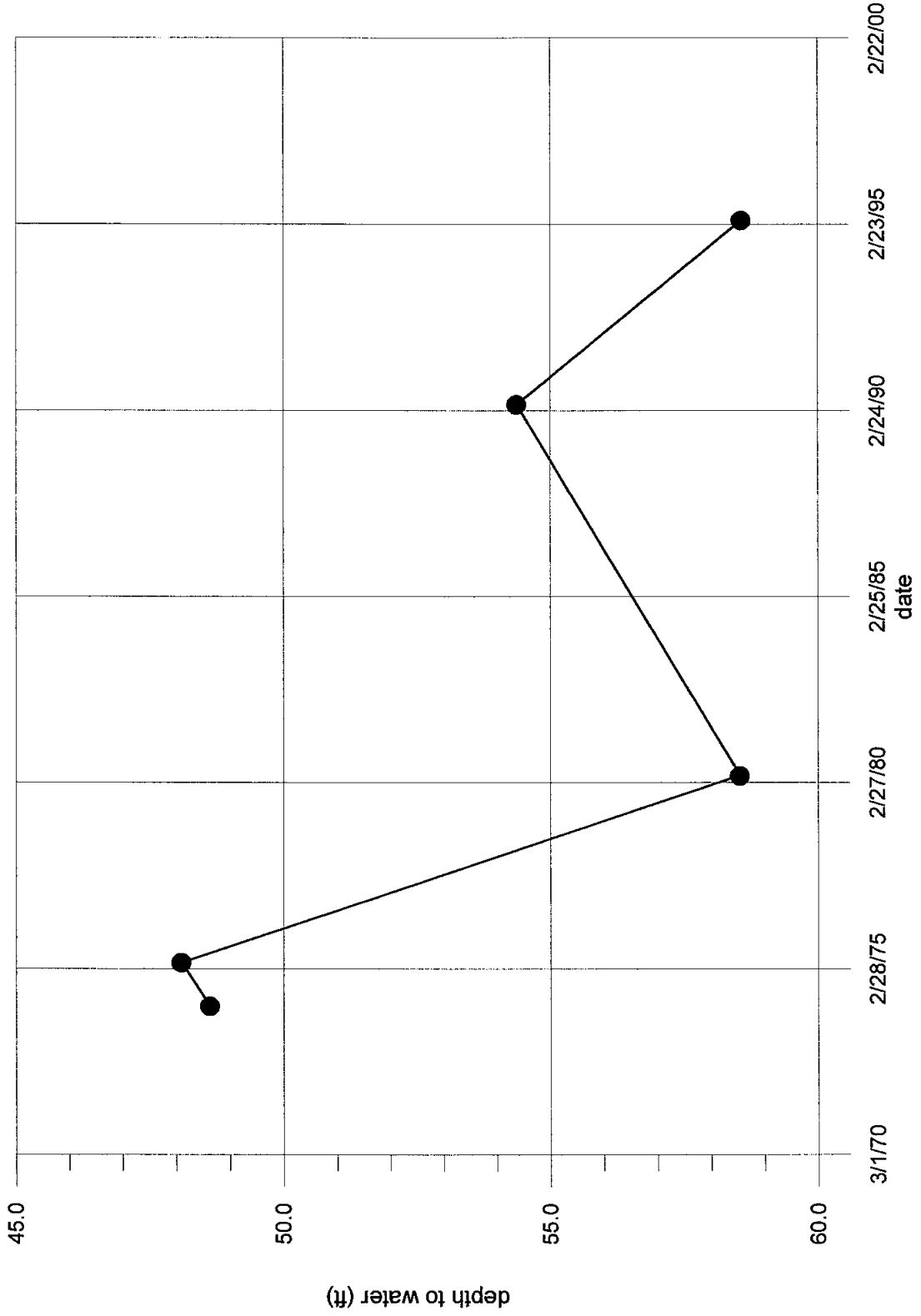
Salt Basin
Hydrograph of Well 87
T26S.R18E.21.331

depth to water (ft)

date
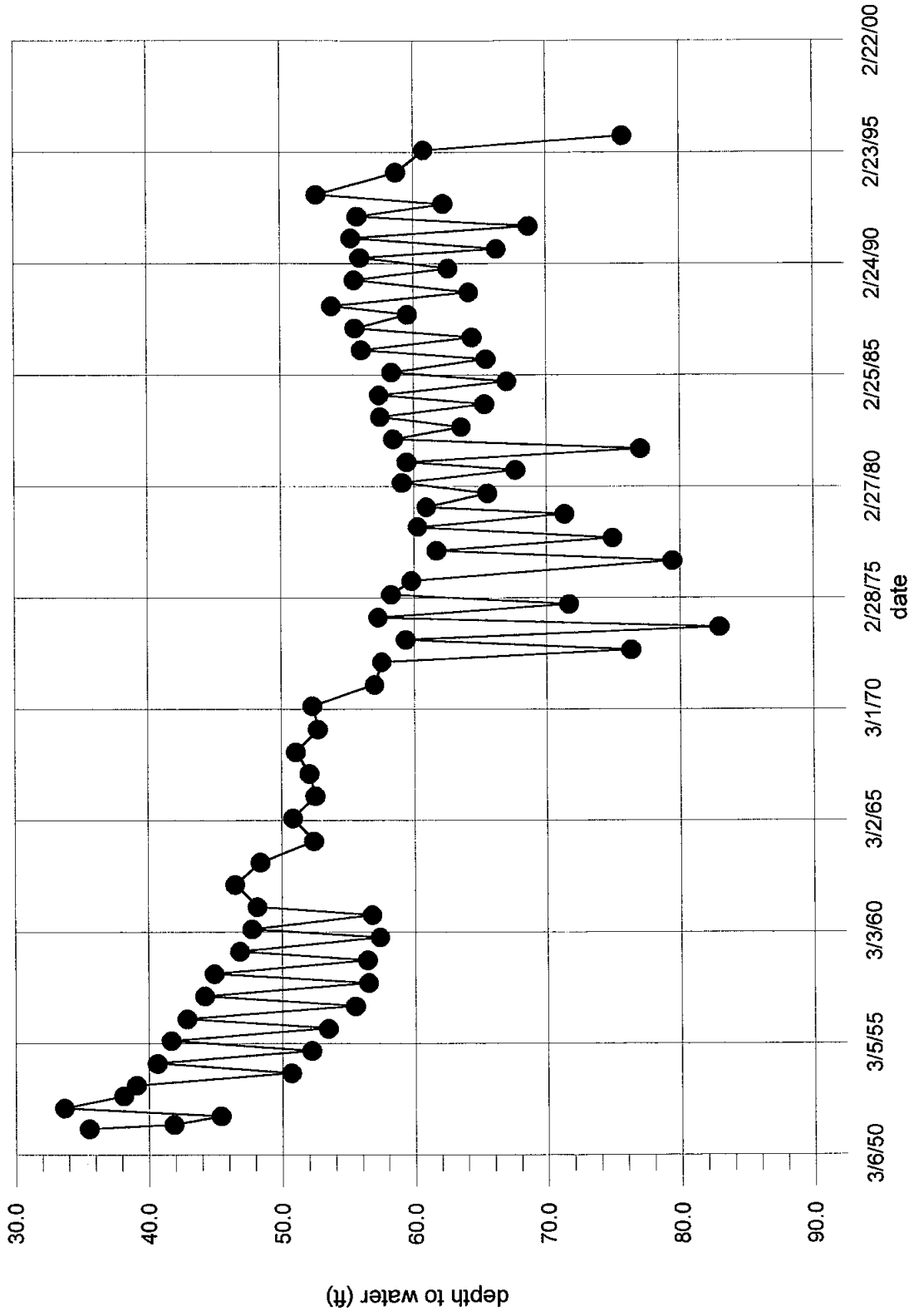
Salt Basin
Hydrograph of Well 88
T26S.R18E.19.424

depth to water (ft)

date

95.0
100.0
105.0
110.0

3/1/70   2/28/75   2/27/80   2/25/85   2/24/90   2/23/95   2/22/00
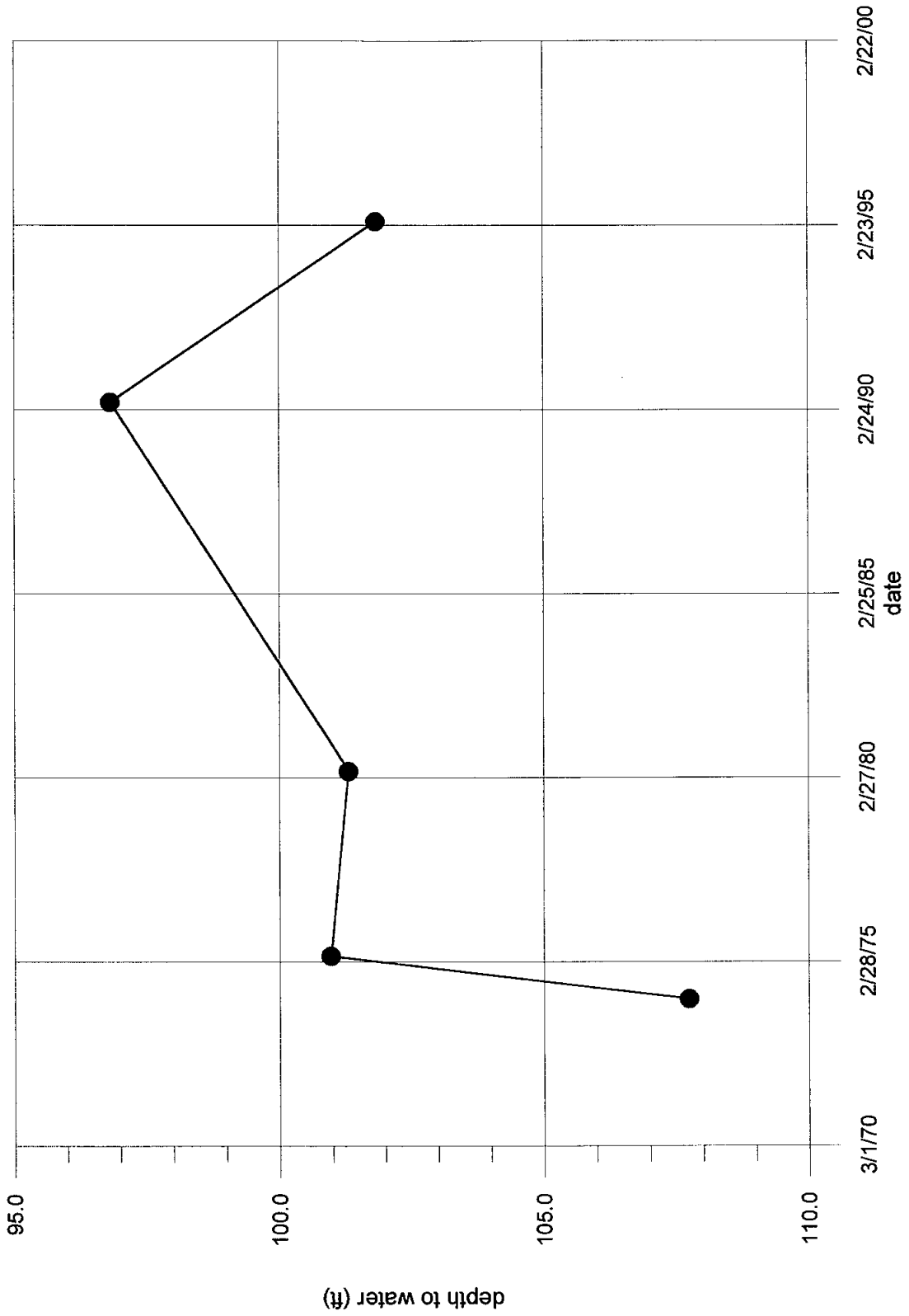
Salt Basin
Hydrograph of Well 89
T26S.R18E.21.223

depth to water (ft)

date
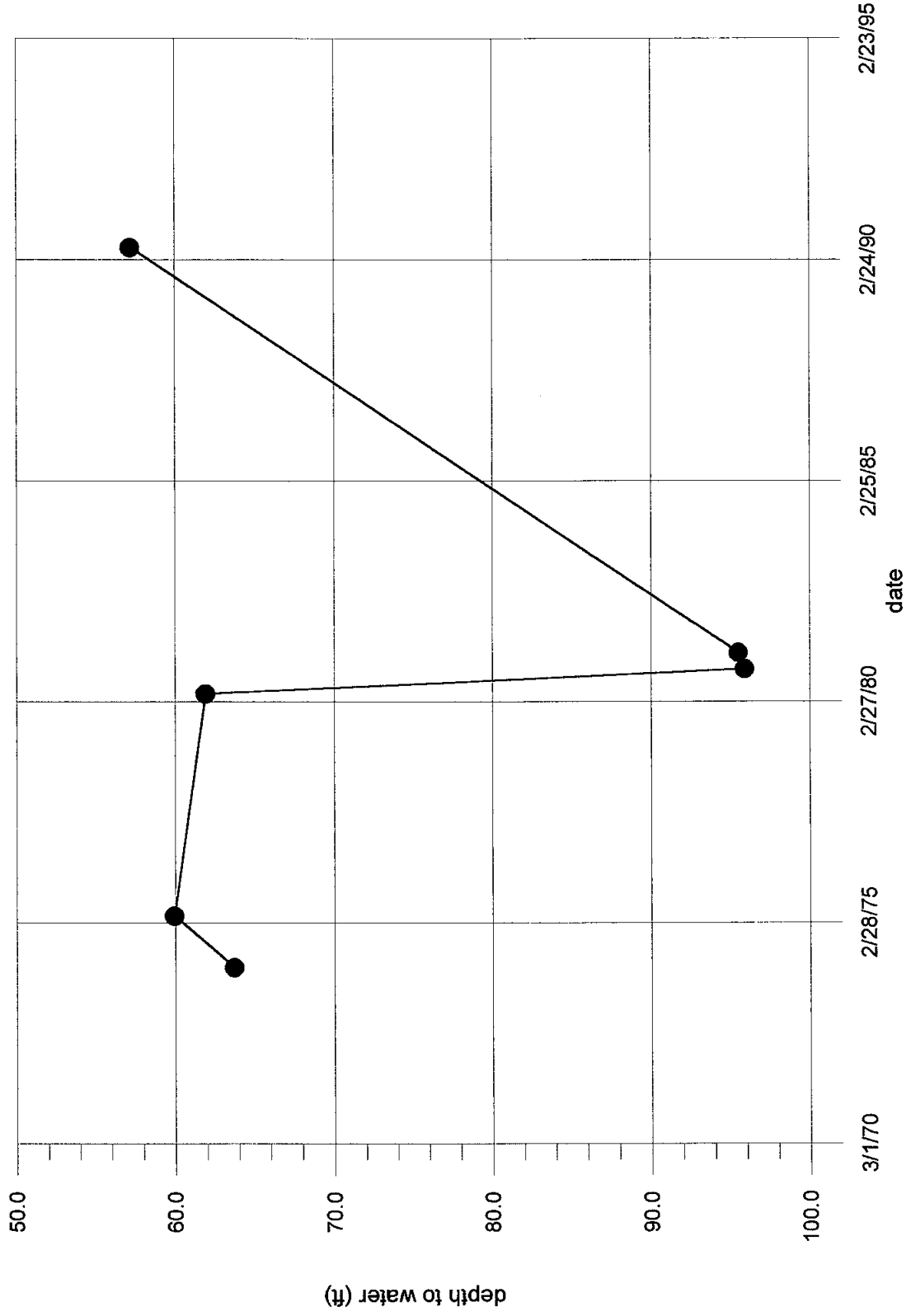
Salt Basin
Hydrograph of Well 90
T25S.R18E.25.232
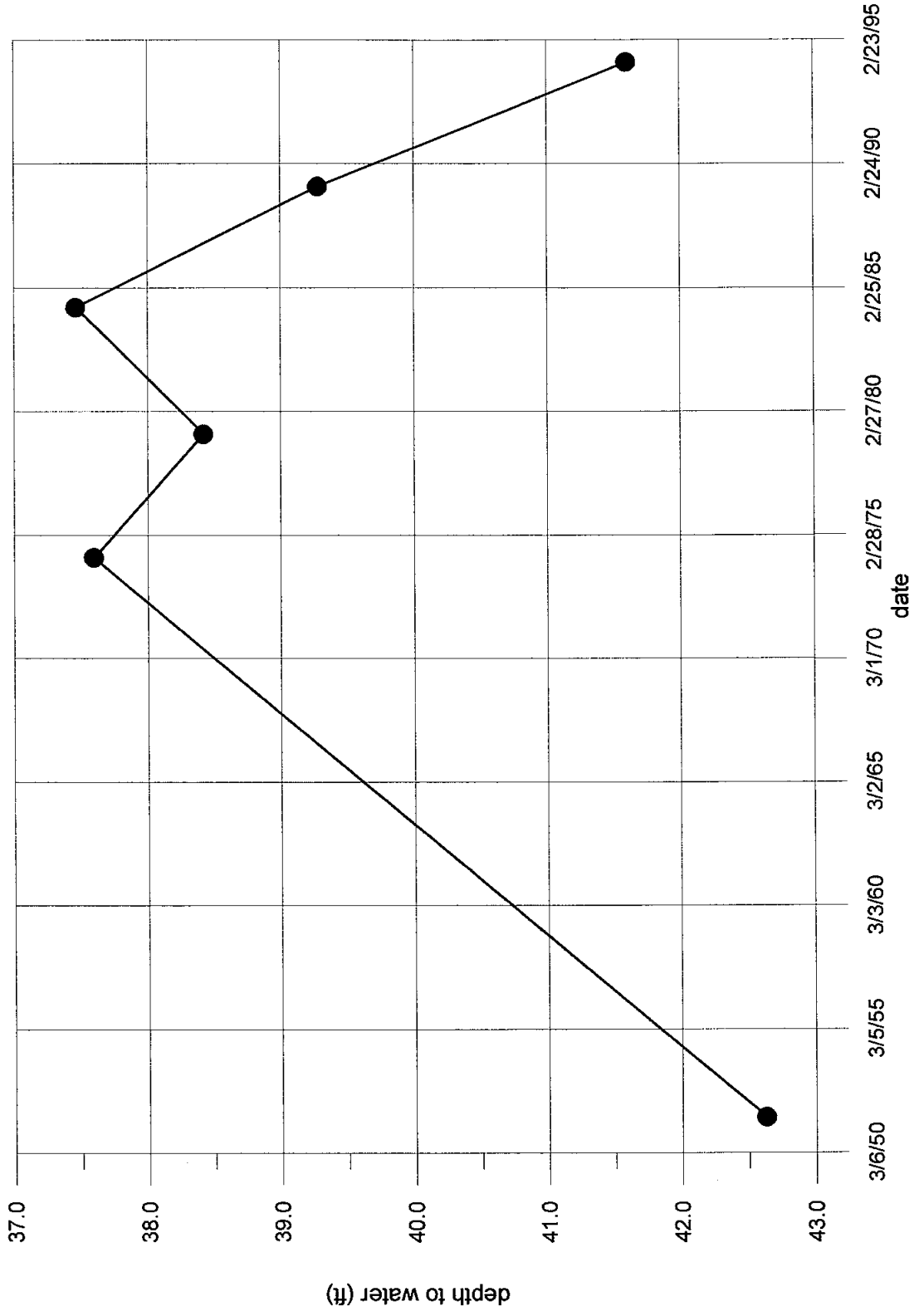
Salt Basin
Hydrograph of Well 93
T25S.R18E.24.122

depth to water (ft)

date

65.0 70.0 75.0 80.0

3/1/70 2/28/75 2/27/80 2/25/85 2/24/90 2/23/95 2/22/00
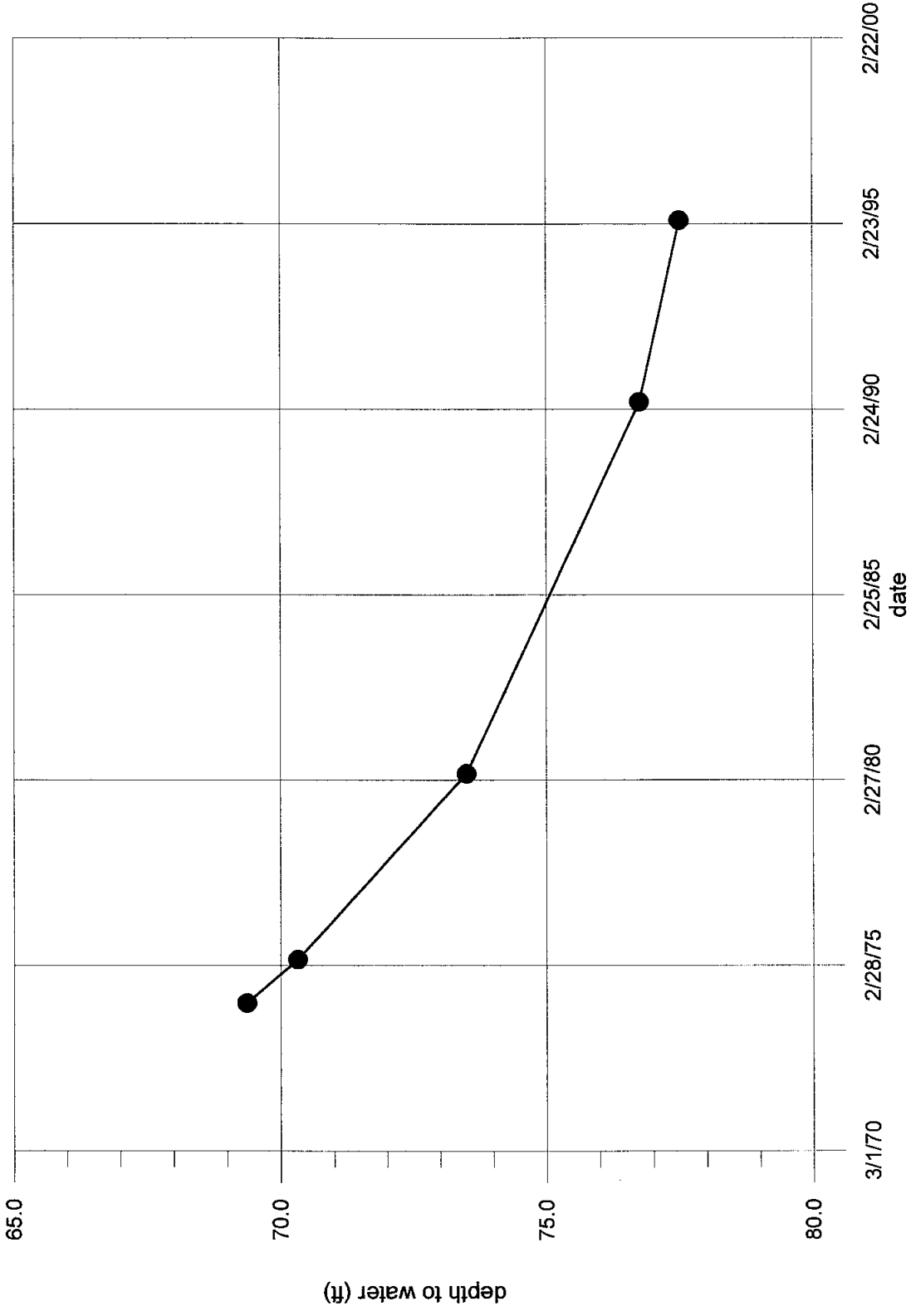
Salt Basin
Hydrograph of Well 94
T24S.R18E.36.324

depth to water (ft)

date

78.0
79.0
80.0
81.0
82.0
83.0

3/1/70
2/28/75
2/27/80
2/25/85
2/24/90
2/23/95
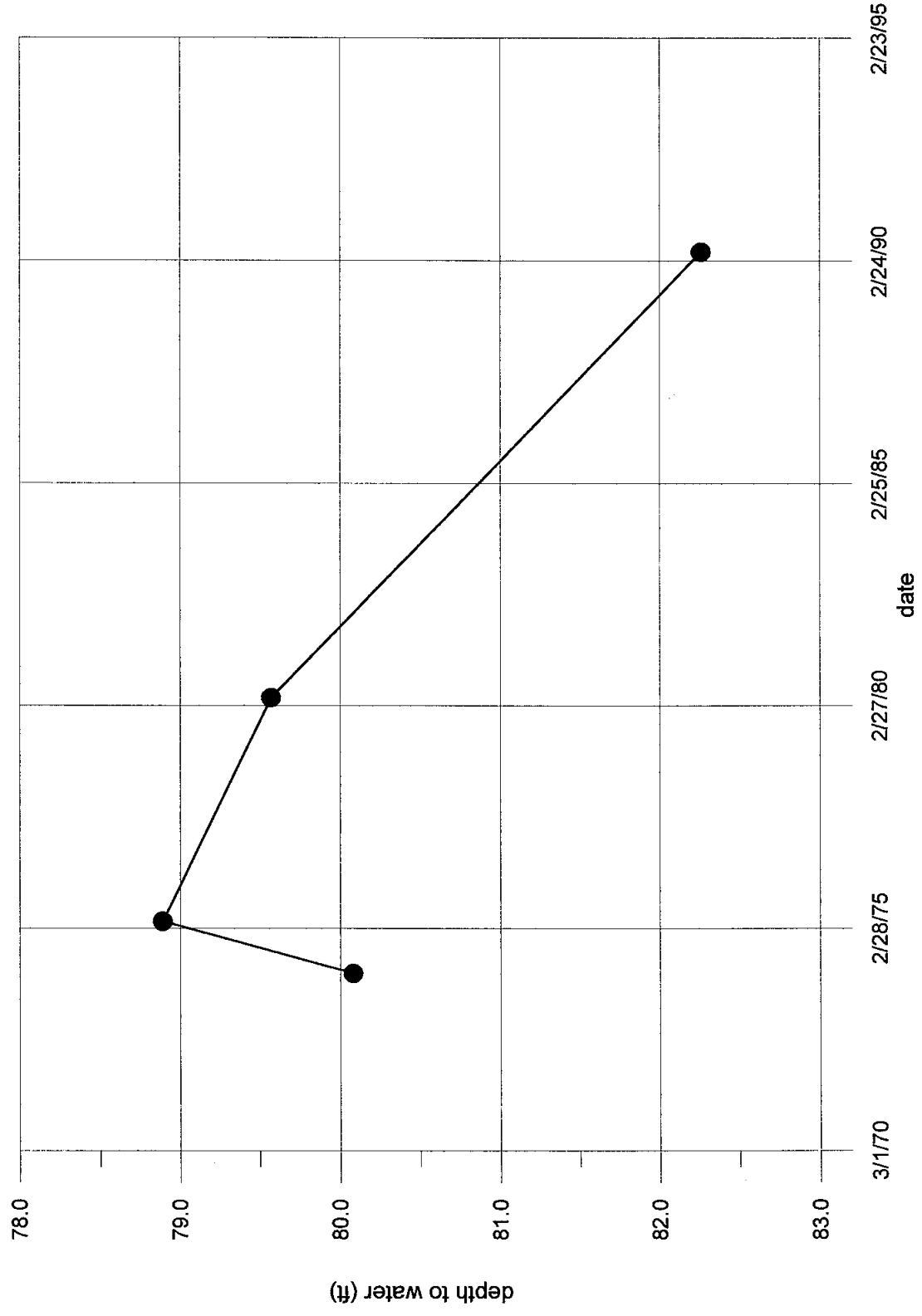
Salt Basin
Hydrograph of Well 97
T23S.R18E.22.244

depth to water (ft)

185.0
190.0
195.0
200.0
205.0

3/1/70　2/28/75　2/27/80　2/25/85　2/24/90　2/23/95　2/22/00

date
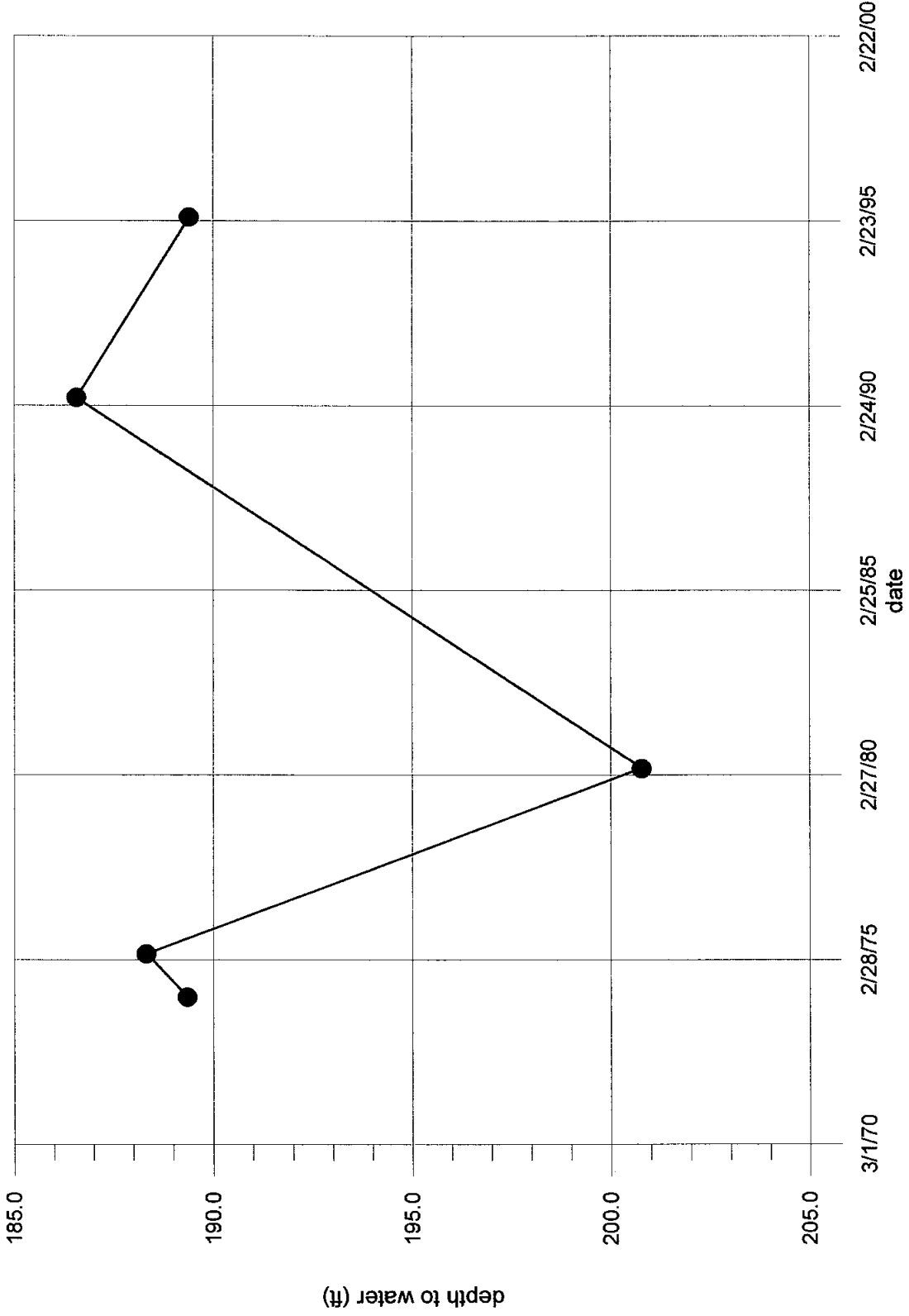
Population
Projection Data

**A
P
P
E
N
D
I
X**

7.2

1910 TO 2000 DECENNIAL POPULATION; BBER PROJECTIONS; RWP POPUL. ESTIMATES

NOTE SCALE CHANGE

TB RWP POPULATION VALUES

TB RWP TOTAL POPULATION

BBER OTERO CNTY PROJ

TB RWP ALAMOGORDO

BBER LINCOLN CNTY PROJ

POPULATION

YEAR

Legend:
- ALAMOGORDO
- OTERO PROJ.
- RWP-CARR.
- TULAROSA
- LINCOLN PROJ.
- RWP-RURAL/DOM.
- OTERO CNTY
- RWP HAFB
- RWP-TOTAL
- CARRIZOZO
- RWP-ALAMO
- LINCOLN CNTY
- RWP-TULIE

1910 to 1950 DECENNIAL POPULATION & BBER PROJ. POPUL.& RWP VALUES

POPULATION

YEAR

100,000
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0

1910 1920 1930 1940 1950 1960 1970 1980 1990 2000 2005 2010 2015 2020 2025 2030 2035 2040

ALAMOGORDO — TULAROSA — OTERO CNTY — CARRIZOZO
LINCOLN CNTY — OTERO PROJ. — RWP HAFB — RWP-ALAMO
RWP-TULIE — RWP-CARR. — RWP-RURAL/DOM. — RWP-TOTAL

POPULATION

ALAMOGORDO · TULAROSA · OTERO CNTY
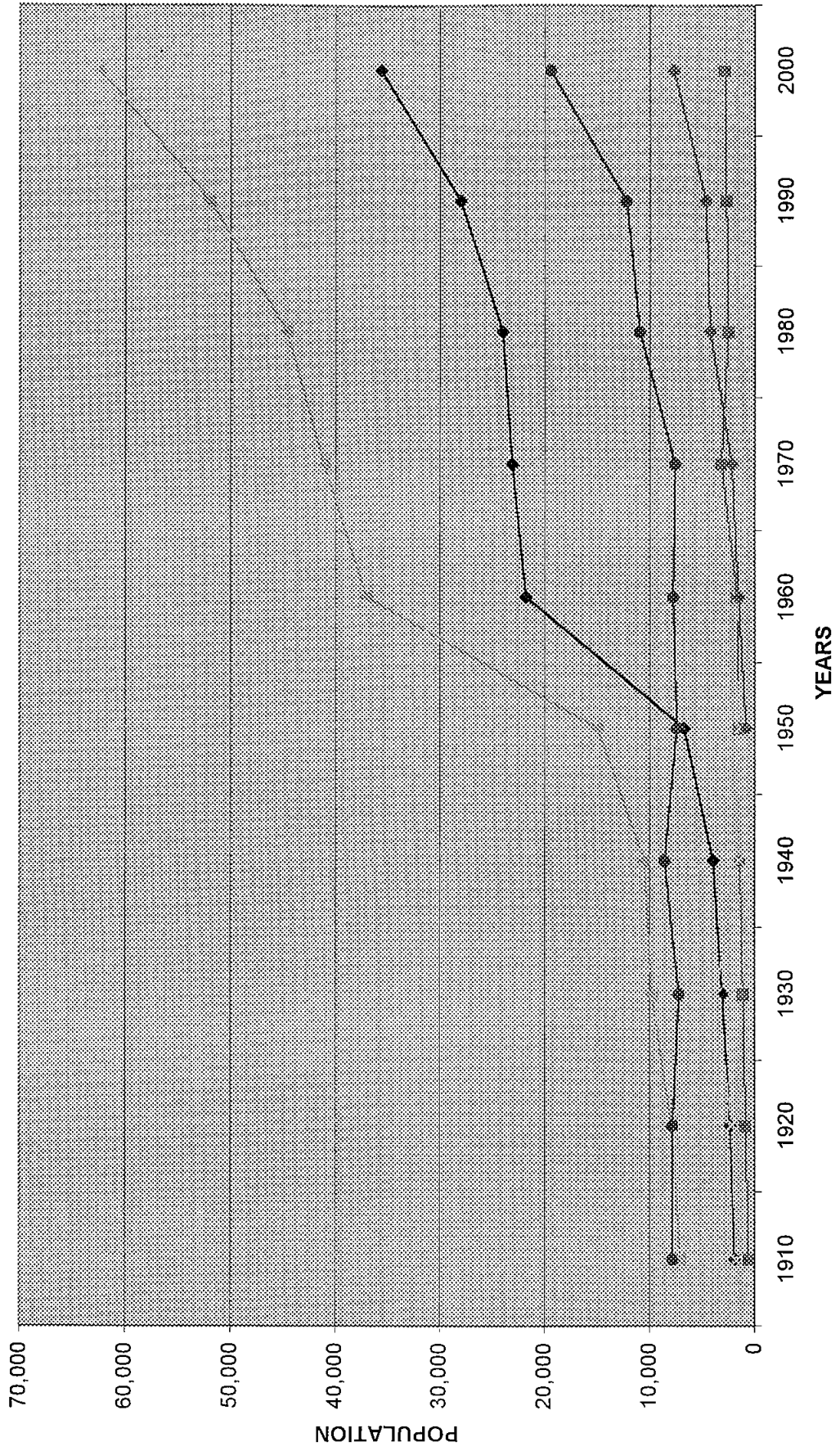
YEAR

POPULATION

Legend: ALAMOGORDO — TULAROSA — OTERO CNTY — CARRIZOZO

Y-axis: POPULATION (0, 10,000, 20,000, 30,000, 40,000, 50,000, 60,000, 70,000)

X-axis: YEARS (1910, 1920, 1930, 1940, 1950, 1960, 1970, 1980, 1990, 2000)

POPULATION

Legend: ALAMOGORDO — TULAROSA — OTERO CNTY — CARRIZOZO — LINCOLN CNTY — RUIDOSO

Y-axis: POPULATION (0; 10,000; 20,000; 30,000; 40,000; 50,000; 60,000; 70,000)

X-axis: YEARS (1910, 1920, 1930, 1940, 1950, 1960, 1970, 1980, 1990, 2000)

1910 to 2000 DECENNIAL POPULATION AND BBER POPULATION PROJECTIONS

BBER Projections Otero Cnty

Note Scale Change
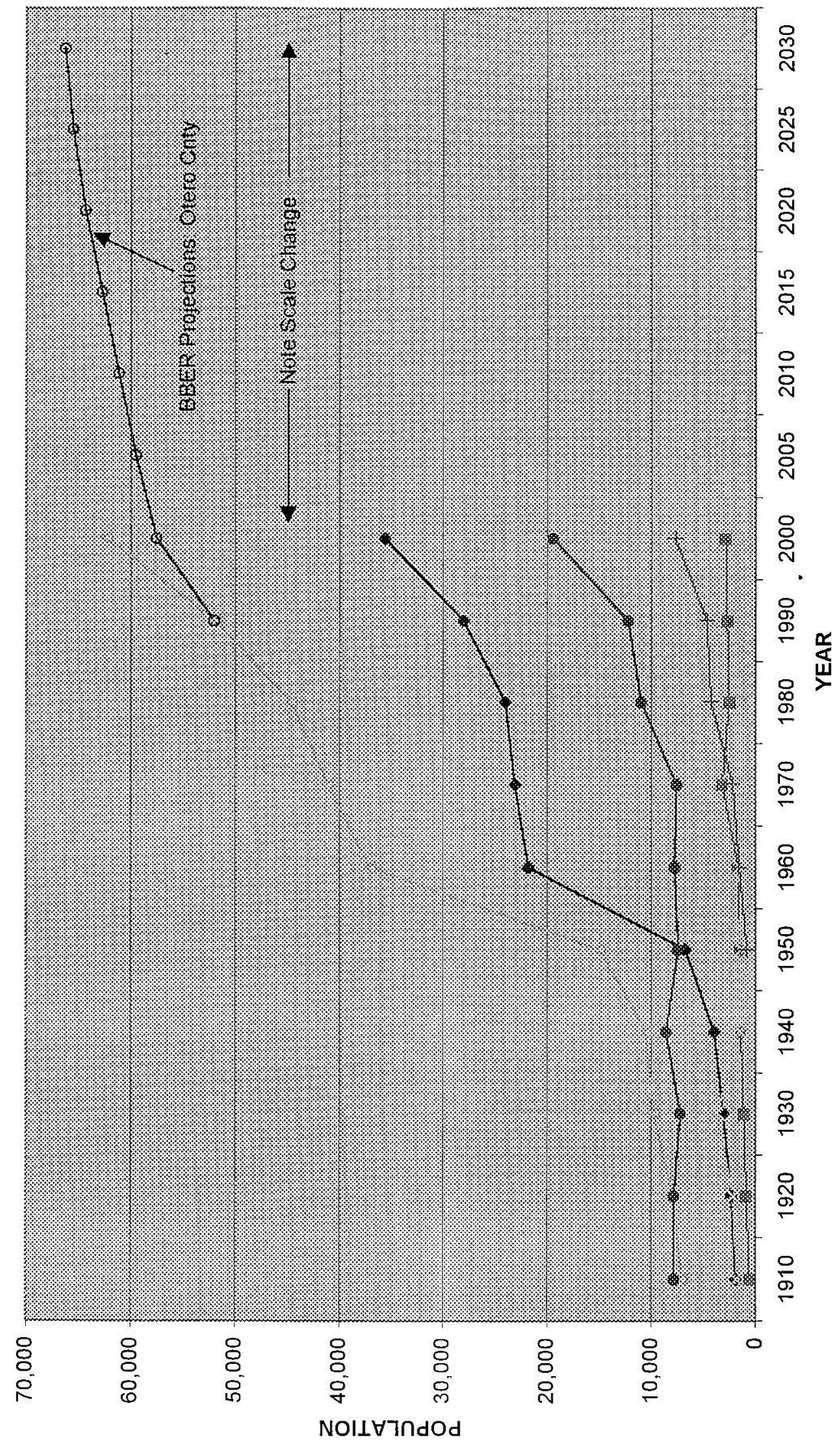
ALAMOGORDO — TULAROSA — OTERO CNTY — CARRIZOZO — LINCOLN CNTY — RUIDOSO — OTERO PROJ.

Example Water Conservation Plans

A
P
P
E
N
D
I
X

8.1

ORDINANCE NO. 172

AN ORDINANCE ESTABLISHING WATER
CONSERVATION MEASURES; PROVIDING FOR
LIMITATIONS ON THE OUTDOOR USE OF WATER;
PROVIDING EXCEPTIONS TO THE RESTRICTIONS
ON THE OUTSIDE USE OF WATER; AND PROVIDING
PENALTIES.

BE IT ORDAINED BY THE GOVERNING BODY of the Village of Tularosa,
New Mexico that a new Section 6-5-20 of the Code of Ordinances, Tularosa, New
Mexico 1975 is hereby adopted to read as follows:

6-5-20 WATER CONSERVATION:

(1)   The following water conservation measures shall be in effect at all times in the
Village and no person, firm, or corporation shall use any water from the municipal water
system except as follows:
        (a)   Use of water through a sprinkler system or use of water through a hose to
water any grass, trees, plants or other vegetation shall be allowed as follows:
                i.   Users with odd numbered addresses shall be permitted to use water in
the above manner on each Wednesday, Friday and Sunday.
                ii.   Users with even numbered addresses shall be permitted to use water in
the above manner on each Tuesday, Thursday and Saturday.
                iii.   Watering in the above manner shall be prohibited between the hours of
10:00 a.m. and 6:00 p.m.
        (b)   These restrictions shall apply to all residences and to all businesses and
institutions having lawns, gardens, trees, or shrubs, and shall be followed at all parks and
public buildings which are watered with treated water. Areas watered with effluent, grey,
well water or water from the Tularosa Community Ditch are exempted from these
restrictions. These restrictions shall not apply to any person, firm or corporation engaged
in the business of growing or selling plants of any kind.
        (c)   Newly seeded or sodded lawns or newly planted trees or shrubs shall be
exempted from the restrictions of this Ordinance for the time needed to establish the
lawn, tree or shrub, and the time needed to establish the lawn, tree or shrub does not
exceed sixty (60) days.
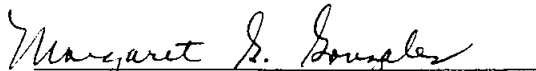
(2)   No person shall be convicted of violating this Ordinance unless such person in fact turned on water, directed the turning on of water, or kept water turned on after learning it was turned on in violation of this Ordinance, or failed to turn off automatic devices capable of turning on water in violation of this Ordinance. It will not be necessary, however, to present a witness who saw the accused turning on the water, if circumstances indicate the accused did turn on the water.

(3)   Any person, firm, or corporation violating any provision of this Ordinance shall be fined not more than Five Hundred Dollars ($500.00) or, imprisoned for not more than ninety (90) days, or both such fine and imprisonment, for each offense, and a separate offense shall be deemed committed on each day during or on which a violation occurs or continues in accordance with the general violation provisions of the Code of Ordinances, Tularosa, 1975.

PASSED, APPROVED AND ADOPTED this ___15th___ day of __July__, 1997.

MAYOR

ATTEST:

Village Clerk

2

Long-Range Water Conservation Strategy Resolution

CITY of ALBUQUERQUE
ELEVENTH COUNCIL

COUNCIL BILL NO. R-173
ENACTMENT NO. 40-1995
SPONSORED BY: Angela M. Robbins
RESOLUTION:

ADOPTING A LONG-RANGE WATER CONSERVATION STRATEGY FOR THE CITY OF ALBUQUERQUE AND THE PROPERTIES SERVED BY THE CITY'S WATER UTILITY.

WHEREAS, the adopted "Albuquerque/Bernalillo County Comprehensive Plan" requires that "The water resources of the metropolitan area shall be managed to ensure permanent adequate supply;" and

WHEREAS, recent findings of the U.S. Geological Survey and the New Mexico Bureau of Mines and Mineral Resources indicate that the City is pumping local ground water at a rate that cannot be sustained; and

WHEREAS, conservation can extend the City's supply at a fraction of the cost of other alternatives; and

WHEREAS, active water conservation is a condition of State Engineer consideration of requests to obtain additional water supply; and

WHEREAS, conservation will be a prerequisite for state or federal permits necessary to begin using City surface water resources in more effective ways; and

WHEREAS, protection of the limited ground water resources is a regional issue since all ground water used in the Middle Rio Grande Basin is from the same aquifer; and

WHEREAS, an aggressive strategy which achieves a 30% reduction in water usage in six to ten years will reduce the current average 250 gallons per capita per day to 175 gallons per capita per day and is estimated to reduce water demand in the year 2004 by 37 million gallons a day and water demand in the year 2060 by 57 million gallons a day; and

WHEREAS, Albuquerque's usage averages 250 gallons per capita per day while other southwestern cities of comparable size and climate have successfully reduced their usage to less than 180 gallons per capita per day; and

WHEREAS, City Council Resolution Bill No. R-58, Enactment No. 49-1992, calls for the development of a long-term water conservation strategy for the City of Albuquerque; and

WHEREAS, the aggressive strategy was validated and strengthened by the Mayor's and City Council's Town Hall meetings on Water Conservation on September 9th and 10th of 1994; and

WHEREAS, raising the price of water is probably the most effective method for reducing its usage; and

WHEREAS, low and fixed income residents of Albuquerque and customers using reasonable amounts of water should be protected from excessive increases in water rates; and

WHEREAS, voluntary compliance with most recommended water conservation measures for single family residences is preferable and may be modified to mandatory compliance in the future if desired reductions in usage are not achieved.

BE IT RESOLVED BY THE COUNCIL, THE GOVERNING BODY OF THE CITY OF ALBUQUERQUE:

Section 1. That the City's Long-Term Water Conservation Strategy, as described in the following sections of this Resolution, is hereby adopted and implementation will be initiated in January or February of 1995.

Section 2. PLANNING AND OVERALL APPROACH. The City shall initiate the following measures.

(A) Promote the regional awareness and planning that is essential to ground water resource management in the Middle Rio Grande Basin and includes the following:

1. A long-range water resource planning process which incorporates the goal of sustainable growth;

2. Inclusion of other city, county, and tribal governments and water users in the planning process;

3. Addressing water quality and quantity issues as well as conservation.

(B) In general, encourage voluntary water conservation for existing single family residences while requiring conservation for other properties.

(C) Apply more stringent requirements to City-owned facilities to set an example within the City.

(D) Set the example for water conservation in the Middle Rio Grande Basin and strive to involve other communities and water users in the conservation effort.

(E) Determine the best use of San Juan-Chama water and reuse of effluent to reduce aquifer depletion.

(F) Embrace the natural and cultural environment of Albuquerque in the water conservation effort.

(G) Evaluate existing land use planning and zoning laws affecting water use and revise them to be consistent with the conservation strategy.

(H) Create a water resources intern program in cooperation with the University of New Mexico's Master of Water Resource Administration program.

Section 3. REDUCTION GOALS. The City shall adopt the following water use reduction goals.

(A) Reduce current overall per capita usage of 250 gallons per capita per day by 30% to achieve 175 gallons per capita per day by the year 2004.

(B) Reduce current summer outdoor usage by 25%

(C) Reduce current year-round indoor usage by 33%.

(D) Reduce peak day usage by 20% within six to ten years.

(E) Set parcel-specific goals for all customers by the year 1998.

(F) Measure and evaluate the effectiveness of the elements of the Water Conservation Strategy on an ongoing basis: revise the Strategy annually, as necessary, to reflect and enhance the effectiveness of its various elements.

Section 4. RATES. The City shall implement the following measures related to rates.

(A) Allow sufficient lead time for extensive public education prior to implementation of higher excess use surcharges.

(B) Retain average residential winter median by meter size for meter sizes up to and including two inch meters.

(C) Utilize excess use surcharge revenues to offset declining revenues resulting from decreased demand. The Mayor shall not increase the excess water use surcharge prior to April 1996. Before any increase in the excess water use surcharge, the Mayor shall authorize a thorough analysis of alternative surcharge rates, their impact on different categories of water customers in terms of current use, family size, income, etc., and their reasonableness and fairness with regard to financial penalties for individual households failing to meet their water conservation goals. As conservation is achieved and surcharge revenues decrease significantly, alternative funding sources will be necessary.

Section 5. EDUCATION/PUBLIC AWARENESS. The City will initiate or continue the following to educate and get feedback from the community about conservation issues.

(A) Establish a citizens Water Conservation Advisory Committee.

(B) Continue the water conservation marketing and awareness program and provide adequate funding to effectively inform the public of the need for water conservation and of the ways that they can conserve.

(C) Include a bar chart of the previous month's usage and the current month's usage on the monthly bill, in addition to conservation tips and information.

(D) Cooperatively, with the Albuquerque Public Schools, fund a K-12 environmental education specialist in 1995 to develop and implement an ongoing ecological program for water conservation and related environmental issues in our schools.

(E) Continue the annual education programs offered in all public schools.

(F) Collaborate with existing community organizations to promote water conservation.

Section 6. RESIDENTIAL USE/PLUMBING. The City shall implement the following measures to reduce interior/plumbing uses.

(A) Adopt a Plumbing Code amendment requiring low-volume plumbing fixtures for all customers (now mandatory for only residential customers).

(B) Initiate a voluntary residential fixture retrofit program to install, without charge to customers, water-saving retrofit devices in existing residential development.

(C) Implement a 1.6 gallon-per-flush, low-volume toilet rebate program with rebates of up to $100 per toilet for replacement of three gallons or more per flush toilets for all residential and commercial customers.

(D) Actively encourage owners to replace high volume toilets with low- flow toilets whenever a building permit is obtained.

(E) Promote voluntary, City provided water use surveys and retrofit kits for residential customers to reduce both indoor and outdoor usage; target the highest 25% of users but make available to all customers.

(F) Encourage plumbing fixture wholesalers and retailers to sell only low-flow plumbing fixtures.

Section 7. LANDSCAPING/WATER WASTE. The City shall implement the following measures to reduce landscaping water use and water waste.

(A) Adopt the proposed "Water Conservation Landscaping and Water Waste Ordinance" which makes compliance with water conservation measures a condition of water service from the Albuquerque water utility system and requires the following:

1. No watering of City properties in April through September between 10:00 a.m. and 5:00 p.m.; voluntary for private sector;

2. Water even/water odd watering on City properties; voluntary for private sector;

3. No water waste or fugitive water in the public right-of-way, onto adjacent property, or into storm or sanitary sewers;

4. Water waste fees applied to water bill; increasingly higher fees for repeat violations; installation of flow-restriction device at water meter with the eighth violation to provide only enough water for basic drinking and sanitation needs;

5. No more than 20% of landscaped area in high water use plants for new private development or as allowed through water budget formula to achieve comparable low use; voluntary for existing single family residential;

6. No high water use plants for new City development, excepting parks and golf courses, or as allowed through water budget formula to achieve comparable low use;

7. Surcharge on parks or golf course usage above annual allowance; allowance goes down over time;

8. No high water use turf in medians, on slopes steeper than 6:1, or in areas less than ten feet in any dimension; voluntary for existing single family residential;

9. Efficient new irrigation systems;

10. Installation of new sprinkler heads at least eight inches from the curb.

(B) Initiate irrigation system water use surveys on new properties with one acre or more turf area, beginning in the year 1996; voluntary for single family residential.

(C) Combine all City of Albuquerque requirements regarding landscaping into one manual; eliminate conflicts with the conservation strategy.

(D) Initiate Xeriscape landscape retrofit and rebate program offering five cents per square foot rebate or credit, with a customer limit of $150, for replacement of high water use turf and landscape plants with low or medium water use turf and plants.

(E) Initiate efficient irrigation system retrofit and rebate program offering rebates or credits of up to $150 for replacement of old, inefficient irrigation systems with approved water-efficient systems.

(F) Initiate a Xeriscape education program including:

1. Creation of additional Xeriscape demonstration gardens;

2. Expansion of Parks and General Services irrigation efficiency weather network;

3. Sponsoring an irrigation auditor training and certification program;

4. Promotion and participation in Xeriscape research projects;

5. Initiation or cooperation with other agencies on public workshops, tours, videos, newsletters, events, etc.

(G) Improve the effectiveness of water waste enforcement:

1. Escalate fees for repeat offenders; install flow restriction device with eighth violation;

2. Assess fee on first violation observed by enforcement officers;

3. Apply fees to water bill;

4. Hire an irrigation specialist to supervise unit.

Section 8. EVALUATION. After this Resolution has been in effect for approximately nine months from the date of publication, a comprehensive evaluation and analysis shall be conducted by the Public Works Department in which input is received from residents, businesses, and others. This report shall be forwarded to the City Council.

Section 9. INSTITUTIONAL, COMMERCIAL, AND INDUSTRIAL USE (ICI). The City shall implement the following measures to reduce water use in the Institutional, Commercial, and Industrial billing classifications.

(A) Prepare, through a public process, and adopt a Large Water Users Policy specific to institutional, commercial, and industrial water uses and including, but not limited to, these provisions:

1. Require new customers using over 50,000 gallons per day to prepare and implement a Water Conservation Plan;

2. Prohibit use of City water for the purpose of diluting customer's effluent.

3. Initiate periodic surveys of new customers using more than 300,000 gallons per day; require implementation of auditor's recommendations defined through negotiations with the City;

4. Retrofit existing large water users to reduce use by 2000, in proportion to their growth or downsizing, unless longer period agreed to by the City.

(B) Adopt ordinance prohibiting once-through cooling systems.

(C) Promote City-provided water use surveys and retrofit for the highest 25% of the ICI customers to address both indoor and outdoor usage.

(D) Initiate a City and school building plumbing fixture retrofit program; costs to be shared by the customer and the City.

(E) Implement a strategy for reducing excess water use for City facilities or services.

(F) Initiate a Water Utility unaccounted-for-water loss reduction program including:

1. Water loss reduction program to audit and repair system water losses on a continuous basis;

2. Meter maintenance and replacement program to identify, repair, and/or replace inaccurate or malfunctioning meters;

3. Installation of meters in all unmetered City parks;

4. Development and implementation of strategy to reduce and use well wash water and water system discharge water.

Section 10. Conservation requirements, as they apply to new construction, shall take effect six months after the effective date of this legislation.

EDYS Model Estimate, Wells South of Alamogordo Feasibility, Alamogordo Water Conservation Ordinance

APPENDIX

8.2

AN ESTIMATE OF THE APPLICABILITY OF THE EDYS MODEL IN PREDICTING THE EFFECTS OF WATERSHED MANAGEMENT AND CLOUD SEEDING ON THE YIELD OF WATER IN THE TULAROSA AND SALT BASINS

A "base" case and two "test" cases using the Ecological Dynamics Simulation Model (EDYS) have been recently run for the Penasco River drainage which is located on the eastern slopes of the Sacramento Mountains. The model has to be tailored to a specific region and area on the basis of that region's unique soil, topographic, climate, fauna, and flora characteristics (among other factors). Generally some field data collection and satellite imagery are needed for each region in order to prepare a special version of the model applying to that region only.

Although the Penasco River drainage is not in the Tularosa Basin, it borders the Basin on the west approximately along a line from Cloudcroft to Sunspot and has many of the same characteristics in terms of soil, climate, and plant life. The intent of these three computer simulation runs was to see how well the results derived for the Pecos River Valley Water Basin compared to other, more general, estimated and empirical data pertaining to tests of the effects of forest thinning (watershed management) and cloud seeding (precipitation enhancement) on water recharge in other areas of the arid southwest.

The EDYS model was developed by Shepherd Miller, Inc., which is located in Fort Collins, CO, apparently under US Army and Air Force funding. Specific versions have been applied to fairly wide-spread areas in the U S and elsewhere [1]. The preparation of the Penasco version of the model was funded by the US Forest Service in Alamogordo, and incorporates data on climate, soils, plants, animals, the hydrology, spatial factors, the landscape, and potential management actions specific to a 120,759 acre area in the Penasco Watershed in the Lincoln National Forest. The Penasco Underground Water Basin of the Lower Pecos River Underground Water Basin consists of about 500,000 acres; consequently, this watershed is only about 25% of the total, but is still significant in terms of predicting and calibrating the recharge potential of various forest management strategies.

The base case (Case 1) in the Table below utilizes the built-in plot data to calculate the export of water out of the region (surplus), but, in fact, it is the amount of water that gets below the root line. There is a significant question as to whether or not this water actually becomes recharge to the Pecos. It covers a five-year time period and yields the export values for each year shown.

Case 2 is a simulation of the effects of increasing the precipitation by 10% over the same time period. According to the model, an increase in the yearly and total export is seen.

The total (26,936 acre-feet), when reduced to the yearly yield per acre, is about 0.045 AFY per acre.

Case 3 deals with a specific management scenario proposed by the Forest Service to do selective thinning of trees over an area of 30,000 acres within the watershed. The case assumes that thinning begins at the beginning of the 2nd year and is carried out over the next three years. The total increase in export is 9,578 AF, which results in a yield of 0.106 AFY per acre. This value is in good agreement with the values projected in a recent review of applicable references done by Garrett [2], who, using those references, estimated an increase of from 0.083 to 0.017 AFY per acre resulting from forest thinning within the Lincoln National Forest, including the Tularosa Basin part. The value of 0.106, however, does not agrees very well with the average yield of water (0.05 AFY per acre) obtained from several experimental plots in Arizona, as reported by Pete Stewart of the USFS Gila National Forest. (Personal communication from a presentation made to Forest Service personnel in Alamogordo about a year ago)

The model has some built-in shortcomings and errors at the present time, but they are not major and do not seem to affect the results. Because of the similarities of the Penasco River drainage to some of the recharge areas on the western slopes of the Sacramento Mountains in the Tularosa Basin, and because the results of the cases run so far for the Penasco drainage seem to be in generally good agreement with empirical data for other areas in the southwest, it is suggested that factors of approximately 0.05 AFY per acre and 0.10 AFY per acre for cloud seeding and watershed management, respectively, might be applicable to the western slopes of the Sacramento Mountains in terms of evaluating these two alternatives.

References

(1) W. Michael Childress and Terry McLendon, "Simulation of Multi-Scale Environmental Impacts Using the EDYS Model", Hydrological Science and Technology, Volume 15, American Institute of Hydrology, November 1-4, 1999.

(2) L. D. and P. J. Garrett, "Evaluating Forest Restoration Opportunities On The Lincoln National Forest", M3 Research, September 25, 2001 (M3 Research, 53670 Falcon Road, Olathe, CO 81425. (970) 323-9511)

ECOLOGICAL DYNAMICS SIMULATION MODEL   RIO PENASCO WATERSHED   REVISED 02/06/02

CASE #	PREC. #	VEGETATION	RUN YEARS	START YEAR	END YEAR	YEAR 2000 EXPRT (AF)	YEAR 2001 EXPRT (AF)	YEAR 2002 EXPRT (AF)	YEAR 2003 EXPRT (AF)	YEAR 2004 EXPRT (AF)
1	1	Base	5	2000	2004	32,436	19,916	5,470	1,396	11,853
2	1.10	Base	5	2000	2004	45,449	26,336	8,064	2,421	15,737
					Difference	13,013	6,420	2,594	1,025	3,884
3	1	150 ft^2/acre	4	2001	2003	32,433	21,347	11,772	3,243	Not Calc.
					Difference	3	1,431	6,302	1,847	

TOTAL CHANGE IN EXPORT OVER 5 YEAR PERIOD = 26,936 AF DUE TO INCREASE IN PRECIPITATION OF 10%

26,936 AF/(5YR X 120,759 ACRE) = 0.045 AF PER ACRE-YEAR

TOTAL CHANGE IN EXPORT OVER 3 YEAR PERIOD = 9,580 AF DUE TO WATERSHED MANAGEMENT

9,578 AF/(3YR X 30,000 ACRES) = 0.106 AF PER ACRE-YEAR

OTHER SOURCES OF WATER YIELD ESTIMATES RESULTING FROM FOREST THINNING PROJECTS

(1) PETE STEWART (USFS-GILA) : 0.05 AFY PER ACRE @ 30%REDUCTION IN PRECIPITATION
(2) ROSS WILFORD (BGW,INC.) : 0.022 AFY PER ACRE @ 25% EFFICIENCY AND ONLY CERTAIN SPECIES
(3) L. D. & P. J. GARRETT (M3 RESEARCH) : 0.08 TO 0.17 AFY PER ACRE------BASED ON WORK OF OTHERS

NOTE: PRELIMINARY DATA.   SUBJECT TO REVIEW AND REVISION

THE FEASIBILITY OF ADDITIONAL WATER WITHDRAWALS FROM WELL FIELDS SOUTH OF ALAMOGORDO

The possibility of withdrawing additional water from wells in selected wells fields south of Alamogordo and within the SEO's Administrative Area was discussed at several meetings of the Regional Water Planning Steering Committee as a means of increasing the water supply for the area without impairing the field or nearby wells. One individual, who attended the meetings and who had carried out a simplified analysis of the effects of additional water withdrawals, had suggested that an additional 4,000 AFY could possibly be extracted without undue harm. See Appendix 2.2.

At the request of the Regional Water Planning Committee, the SEO in Las Cruces kindly agreed to run some cases in order to determine the impact of withdrawing an additional 4,000 AFY in one scenario and 10,000 AFY in another from the HAFB Boles Field and from the Boles Acres well field using the Morrison Model (1989). The Committee specifically did not request the SEO to make any judgment as to the feasibility of the hypothetical action nor to do an evaluation of the results relative to the administrative criteria. They simply put into the model the hypothetical withdrawal rates and the cell locations for those withdrawals as specified by the Committee.

Table 1 is a cell map of the Administrative area which extends from about Townships 13 through 18 South and Ranges 8 through 10 East. The cells are 2,640 feet square (1/2 mile square) even though they appear as rectangles in the Table. The extent of drawdown in feet over a 40 year time period is shown for each cell. The case is based on pumping a total of 4,000 AFY from the six cells designated as R56C14, R56C15, R56C16, R57C14, R57C15, and R57C16, which are highlighted in dark grey in the Table. Six hundred sixty seven (667) AFY are assumed to be extracted from each cell to produce the total of 4,000 AFY. The light grey cells with the number 4500 in them on the right side of the Table (i.e., the eastern side where the Sacramento Mountains escarpment starts) are no-flow cells. Only cells R32C24 through R32C24, inclusive, and cells R4C24 and R5C24 are postulated to have inflow into the administrative area from the east.

Within the six-cell area where the 4,000 AFY pumping rate is hypothetically proposed to occur, the minimum drawdown is 118 feet in 40 years (cell R56C14) and the maximum is 187 feet (cell R57C16), as can be seen in the Table. Since approved applications (HAFB Boles Well Field) are already pumping water from these cells, the additional withdrawal of 4,000 AFY would not seem to be acceptable. The permissible drawdown, according to the administrative model, depends, in part, on the thickness of the fresh water zone. If it is greater than 400 feet, for example, the allowable drawdown is, in general, about 100 feet (2 ½ feet per year for 40 years). If one includes the existing, permitted, withdrawal rates from the six-cell area, along with the 4,000 AFY rate, the minimum drawdown is 187 feet (R56C14) and the maximum is 259 feet (R57C16). The effects are also more pronounced outside of the six-cell area.

For the case in which the withdrawal of 10,000 AFY is postulated to occur over a twelve-cell area (833 AFY each) for 40 years, the drawdowns, as expected, are very large (425 to 571 feet) and would be harmful to the existing field.

At this time it appears prudent, in terms of the conclusions developed for the RWP, to accept the Morrison Model results, but, sometime in the future, it may be worthwhile investigating further whether or not the withdrawals are optimized for some of these fields in order to assure that they are being utilized to the maximum extent possible without harmful effects on the field or the surrounding area.

MODEL GRID FOR THE TULAROSA UNDERGROUND WATER MODEL
(R56C14, R56C15, R56C16, R57C14, R57C15, R57C16)
Q = 4000AFY total = 666.66 acre-feet per annum per cell = 79,560 cubic feet per day per cell
Volumetric Percent Discrepancy = 0.01%

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4500.00	1
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4500.00	4500.00	2
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4500.00	3
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4500.00	4500.00	6
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4500.00	4500.00	7
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4500.00	4500.00	4500.00	8
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	4500.00	4500.00	4500.00	4500.00	9
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	4500.00	4500.00	4500.00	4500.00	10
11	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	4500.00	4500.00	4500.00	4500.00	11
12	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	4500.00	4500.00	4500.00	12
13	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	4500.00	4500.00	4500.00	13
14	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	4500.00	4500.00	4500.00	14
15	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	4500.00	4500.00	4500.00	15
16	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	4500.00	4500.00	4500.00	16
17	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	4500.00	4500.00	4500.00	17
18	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	4500.00	4500.00	4500.00	18
19	0.00	0.00	0.01	0.01	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	4500.00	4500.00	4500.00	19
20	0.00	0.00	0.01	0.01	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	4500.00	4500.00	4500.00	20
21	0.00	0.01	0.01	0.01	0.03	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	4500.00	4500.00	4500.00	21
22	0.00	0.01	0.02	4500.00	0.04	0.04	0.05	0.05	0.05	0.05	0.06	0.06	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	4500.00	4500.00	4500.00	22
23	0.00	0.01	0.02	0.04	0.05	0.05	0.06	0.06	0.06	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.06	4500.00	4500.00	23
24	0.00	0.01	0.03	0.04	0.05	0.06	0.07	0.07	0.08	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.06	0.07	4500.00	4500.00	24
25	0.00	0.01	0.03	0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.11	0.12	0.12	0.12	0.11	0.11	0.10	0.10	0.09	0.09	0.09	0.08	4500.00	4500.00	25
26	0.01	0.02	0.03	0.06	0.07	0.09	0.10	0.11	0.12	0.13	0.14	0.15	0.16	0.16	0.16	0.15	0.15	0.15	0.14	0.13	0.12	0.11	4500.00	4500.00	26
27	0.01	0.02	0.04	0.07	0.09	0.10	0.12	0.13	0.14	0.16	0.18	0.19	0.20	0.21	0.22	0.22	0.22	0.21	0.20	0.18	0.16	0.15	4500.00	4500.00	27
28	0.01	0.02	0.05	0.08	0.10	0.13	0.14	0.16	0.18	0.20	0.22	0.24	0.25	0.27	0.29	0.29	0.30	0.30	0.28	0.24	0.21	0.20	4500.00	4500.00	28
29	0.01	0.03	0.06	0.09	0.13	0.15	0.18	0.20	0.22	0.25	0.27	0.29	0.31	0.33	0.36	0.39	0.41	0.41	0.37	0.32	0.27	0.25	0.25	4500.00	29
30	0.01	0.03	0.07	0.11	0.15	0.19	0.21	0.24	0.27	0.30	0.33	0.35	0.37	0.40	0.44	0.49	0.50	0.49	0.44	0.39	0.34	0.29	0.28	4500.00	30
31	0.01	0.04	0.08	0.14	0.19	0.23	0.26	0.29	0.32	0.36	0.39	0.42	0.45	0.48	0.51	0.54	0.55	0.54	0.50	0.45	0.40	0.35	0.32	4500.00	31
32	0.01	0.05	0.10	0.16	0.23	0.28	0.31	0.35	0.38	0.43	0.47	0.50	0.53	0.56	0.60	0.61	0.61	0.60	0.57	0.51	0.45	0.40	0.37	0.36	32
33	0.02	0.06	0.12	0.20	0.28	0.33	0.38	0.42	0.46	0.51	0.55	0.59	0.62	0.67	0.71	0.71	0.70	0.69	0.65	0.57	0.50	0.44	0.40	0.38	33
34	0.02	0.07	0.15	0.24	0.33	0.40	0.45	0.49	0.54	0.60	0.65	0.69	0.73	0.79	0.83	0.82	0.81	0.79	0.74	0.65	0.55	0.48	0.43	0.40	34
35	0.02	0.08	0.18	0.28	0.39	0.46	0.52	0.58	0.64	0.70	0.76	0.81	0.86	0.91	0.95	0.95	0.93	0.91	0.85	0.74	0.61	0.52	0.45	0.42	35
36	0.03	0.10	0.21	0.35	0.47	0.55	0.62	0.68	0.75	0.83	0.90	0.95	1.01	1.07	1.11	1.11	1.09	1.06	0.99	0.88	0.73	0.60	0.51	0.44	36
37	0.03	0.12	0.26	0.42	0.56	0.66	0.74	0.81	0.89	0.98	1.06	1.13	1.19	1.26	1.30	1.30	1.27	1.22	1.15	1.04	0.88	0.73	0.63	4500.00	37
38	0.04	0.14	0.31	0.51	0.67	0.79	0.89	0.98	1.07	1.17	1.26	1.33	1.41	1.49	1.55	1.54	1.49	1.41	1.32	1.20	1.05	0.88	0.72	4500.00	38
39	0.04	0.17	0.38	0.61	0.80	0.94	1.07	1.16	1.29	1.40	1.49	1.57	1.67	1.77	1.88	1.84	1.76	1.60	1.50	1.36	1.23	1.06	4500.00	4500.00	39
40	0.05	0.20	0.46	0.75	0.97	1.16	1.32	1.48	1.60	1.74	1.85	1.97	2.09	2.19	2.26	2.22	2.14	1.91	1.80	1.77	1.72	4500.00	4500.00	4500.00	40
41	0.06	0.24	0.55	0.92	1.20	1.45	1.67	1.85	2.05	2.25	2.44	2.63	2.78	2.85	2.77	2.69	2.55	2.50	2.43	2.48	2.46	4500.00	4500.00	4500.00	41
42	0.07	0.28	0.67	1.13	1.50	1.83	2.12	2.37	2.64	2.92	3.21	3.50	3.75	3.90	3.80	3.71	3.51	3.47	3.38	3.29	3.20	4500.00	4500.00	4500.00	42
43	0.08	0.32	0.80	1.39	1.88	2.31	2.69	3.03	3.39	3.78	4.20	4.63	5.07	5.50	5.43	5.33	5.09	4.79	4.51	4.37	4.42	4.91	4500.00	4500.00	43
44	0.09	0.38	0.96	1.70	2.34	2.92	3.42	3.86	4.35	4.88	5.44	6.05	6.72	7.36	7.30	7.19	6.86	6.37	5.89	5.62	5.62	5.65	4500.00	4500.00	44
45	0.10	0.44	1.15	2.08	2.92	3.67	4.32	4.91	5.56	6.25	7.00	7.79	8.64	9.31	9.45	9.37	8.96	8.28	7.52	7.05	6.91	6.76	4500.00	4500.00	45
46	0.11	0.51	1.37	2.54	3.62	4.60	5.46	6.23	7.07	7.99	8.96	9.98	11.04	11.87	12.10	12.04	11.54	10.65	9.46	8.64	8.31	7.91	4500.00	4500.00	46
47	0.12	0.58	1.61	3.08	4.47	5.76	6.87	7.87	8.98	10.17	11.44	12.75	14.09	15.12	15.41	15.34	14.75	13.82	12.51	10.89	9.81	8.81	4500.00	4500.00	47
48	0.13	0.66	1.89	3.71	5.50	7.19	8.62	9.92	11.36	12.93	14.57	16.25	17.93	19.20	19.53	19.41	18.71	17.71	16.55	14.03	11.56	4500.00	4500.00	4500.00	48
49	0.15	0.75	2.19	4.45	6.86	8.95	10.76	12.43	14.32	16.38	18.53	20.70	22.81	24.33	24.65	24.37	23.47	22.38	21.49	19.46	4500.00	4500.00	4500.00	4500.00	49
50	0.16	0.83	2.52	5.30	8.53	11.03	13.32	15.49	17.97	20.69	23.54	26.37	29.01	30.80	31.02	30.33	29.06	27.78	26.74	24.78	4500.00	4500.00	4500.00	4500.00	50
51	0.18	0.92	2.86	6.24	10.27	13.39	16.35	19.16	22.41	26.03	29.86	33.61	36.98	39.03	39.10	37.21	35.34	34.09	32.16	28.58	4500.00	4500.00	4500.00	4500.00	51
52	0.19	1.01	3.20	7.21	12.26	16.15	19.88	23.46	27.69	32.53	37.77	42.88	47.35	49.46	50.07	47.91	44.99	42.31	37.51	4500.00	4500.00	4500.00	4500.00	4500.00	52
53	0.21	1.09	3.53	8.19	14.20	18.63	23.00	27.28	32.43	38.51	45.13	51.77	57.92	61.74	64.15	63.36	59.18	53.96	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	53
54	0.22	1.17	3.82	8.95	15.38	20.22	25.00	29.75	35.59	42.68	50.63	59.25	68.41	76.59	82.37	83.05	76.04	63.36	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	54
55	0.24	1.24	4.06	9.52	16.18	21.40	26.43	31.48	37.85	45.87	55.17	65.96	78.97	95.11	107.20	111.10	99.68	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	55
56	0.25	1.30	4.26	9.76	16.25	22.06	27.01	32.11	38.64	47.01	57.03	69.71	88.18	███	███	███	136.60	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	56
57	0.26	1.34	4.31	9.64	16.12	22.07	26.86	31.81	38.12	46.20	55.88	68.27	87.02	███	███	███	157.40	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	57
58	0.27	1.38	4.27	9.32	15.72	21.53	26.04	30.62	36.36	43.52	51.69	61.07	72.25	82.32	113.60	128.60	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	58
59	0.28	1.38	4.17	8.93	15.08	20.59	24.67	28.74	33.71	39.66	46.06	52.63	59.23	68.69	80.64	88.75	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	59
60	0.28	1.35	4.02	8.47	14.23	19.27	22.90	26.41	30.56	35.34	40.18	44.69	48.65	53.16	58.64	60.45	51.21	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	60
61	0.28	1.31	3.83	7.94	13.23	17.77	20.91	23.87	27.25	31.01	34.65	37.79	40.28	42.44	44.94	46.17	44.81	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	61
62	0.27	1.26	3.60	7.36	12.14	16.16	18.83	21.28	24.01	26.94	29.70	32.00	33.79	34.78	35.78	37.08	39.71	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	62
63	0.27	1.20	3.35	6.74	11.00	14.51	16.76	18.77	20.95	23.23	25.33	27.13	29.02	29.26	28.81	28.91	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	63
64	0.26	1.12	3.08	6.11	9.86	12.91	14.79	16.42	18.15	19.89	21.41	22.52	23.80	23.74	22.96	22.73	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	64
65	0.25	1.04	2.80	5.47	8.74	11.38	12.95	14.28	15.64	16.97	18.06	18.70	18.91	18.60	18.10	17.85	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	65
66	0.24	0.96	2.51	4.83	7.64	9.95	11.28	12.37	13.45	14.48	15.33	15.70	15.38	14.80	14.27	13.99	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	66
67	0.23	0.88	2.23	4.22	6.55	8.49	9.61	10.49	11.33	12.09	12.68	12.90	12.47	11.81	11.22	10.86	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	67
68	0.22	0.80	1.95	3.62	5.54	7.10	8.01	8.70	9.33	9.87	10.23	10.33	10.02	9.40	8.77	8.16	6.59	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	68
69	0.22	0.72	1.68	3.06	4.60	5.89	6.63	7.18	7.66	8.04	8.29	8.33	8.05	7.50	6.93	6.46	5.62	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	69
70	0.21	0.64	1.43	2.52	3.82	4.85	5.47	5.91	6.28	6.56	6.74	6.75	6.49	6.01	5.55	5.25	4.57	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	70
71	0.21	0.57	1.18	1.99	3.17	3.99	4.50	4.85	5.14	5.34	5.47	5.46	5.23	4.82	4.42	4.01	3.49	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	71
72	0.21	0.53	1.04	1.63	2.57	3.28	3.70	3.98	4.20	4.36	4.43	4.40	4.22	3.86	3.50	2.99	2.59	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	72
73	0.21	0.51	0.96	1.46	2.13	2.71	3.05	3.28	3.45	3.57	3.62	3.59	3.42	3.11	2.77	2.27	1.81	1.36	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	73
74	0.20	0.49	0.89	1.30	1.78	2.25	2.52	2.71	2.85	2.95	2.92	2.96	2.81	2.52	2.21	1.78	1.41	1.12	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	74
75	0.20	0.46	0.81	1.15	1.51	1.87	2.10	2.25	2.37	2.46	2.53	2.51	2.36	2.05	1.77	1.41	1.11	0.87	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	75
76	0.19	0.43	0.74	1.01	1.28	1.57	1.75	1.88	1.99	2.06	2.10	2.10	1.90	1.61	1.39	1.11	0.82	0.59	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	76
77	0.18	0.39	0.65	0.86	1.05	1.26	1.41	1.52	1.64	1.69	1.64	1.53	1.33	1.15	0.99	0.76	0.55	0.41	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	77
78	0.17	0.34	0.54	0.68	0.80	0.93	1.03	1.08	1.13	1.13	1.07	0.95	0.82	0.70	0.58	0.47	0.39	0.34	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	78
79	0.15	0.28	0.41	0.49	0.53	0.59	0.61	0.62	0.55	0.47	0.40	0.35	0.33	0.30	0.27	0.25	0.23	0.22	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	79
80	0.13	0.20	0.27	0.32	0.31	0.30	0.28	0.24	0.16	0.12	0.10	0.10	0.10	0.10	0.10	0.10	0.10	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	4500.00	80

ORDINANCE NO. <u>948</u>

AN ORDINANCE AMENDING SECTION 28-03-035 OF THE <u>CODE OF ORDINANCES OF THE CITY OF ALAMOGORDO, NEW MEXICO</u> AND ADOPTING SECTIONS 28-03-036 AND 28-03-037.

WHEREAS, the City Commission of the City of Alamogordo, New Mexico deems it in the best interest of the citizens of the City to adopt Sections 28-03-033 and 28-03-034 and amend Section 28-03-035.

BE IT THEREFORE ORDAINED by the City Commission of the City of Alamogordo, New Mexico that Sections 28-03-033 and 28-03-034 are adopted and Section 28-03-035 of the <u>Code of Ordinances of the City of Alamogordo, New Mexico</u> is amended as follows:

SECTION ONE

Section 28-03-033 of the <u>Code of Ordinances of the City of Alamogordo, New Mexico</u> is adopted to read:

28-03-033. Water Conservation

1. The following water conservation measures shall be in effect at the times specified. No person, firm or corporation shall use any water in violation of any provision of this ordinance.

(a). The following water conservation measures shall be in effect for all users on the Alamogordo water works system during the period of the year when daylight savings time is in effect.

(1). Outdoor use of water through a sprinkler system or use of water through a hose to water any grass, trees, plants or other vegetation shall be determined as follows.

a. Users with odd numbered addresses shall be permitted to use water in the above manner on each Wednesday, Friday and Sunday.

b. Users with even numbered addresses shall be permitted to use water in the above manner on each Tuesday, Thursday and Saturday.

c. Watering in the above manner shall be prohibited on each Monday.

d. Newly seeded or sodded lawns or newly planted trees or shrubs shall be exempted from these restrictions for the time period needed to establish the lawn, tree or shrub which time period shall not exceed sixty (60) days.

(2). The conservation measures detailed in paragraph (1) above shall be in effect during the period that daylight savings time is in effect and shall apply to all residences and to all businesses and institutions having grass, trees, plants or other vegetation and shall be followed at all parks and public buildings which are watered with treated water. Areas watered using effluent water or wells are exempted from these restrictions. These conservation measures shall not apply to any person, firm or corporation engaged in the business of growing or selling plants of any kind.

(3)   Beginning with the implementation of daylight savings time and continuing throughout the duration of daylight savings time, outdoor watering of grass, trees, plants or other vegetation shall be prohibited between the hours of 10 a.m. and 6 p.m..

SECTION TWO

Section 28-03-034 of the Code of Ordinances of the City of Alamogordo, New Mexico is adopted to read:

28-03-034   Nonessential water use restrictions.

1.   The following restrictions shall apply to all customers of or persons who use or receive treated water from the City of Alamogordo: The use of a free-flowing hose to wash any vehicle is prohibited. Vehicles may be washed only from a handheld bucket or a handheld hose equipped with a positive shutoff nozzle for quick rinses. This prohibition also includes the operation of vehicle washes such as fund-raisers held at commercial businesses, but does not apply to the washing of vehicles when conducted as part of normal business operations on the premises of a commercial car wash or a commercial service station.

2.   "Wasting water" is prohibited. The following practices are wasting water:

(a). Using treated water for any purpose in such a way that it flows, sprays, or is otherwise excessively discharged upon any street, alley or other public right-of-way, ditch or drain;

(b). Failing to repair a leak in a system which delivers water within five working days of the discovery of same;

3. All swimming pools, which are constructed after the effective date of this ordinance must be equipped with filtration, pumping and recirculation systems. For purposes of this ordinance, a swimming pool is any structure more than twenty-four inches in depth and containing more than one thousand one hundred twenty-two gallons of water and intended primarily for recreational use.

4. New or replacement bleeder lines from evaporative coolers shall not be larger than one-eighth-inch inside diameter. Bleeder lines shall not be routed into the sewer system where the effluent can be used to water landscaping or other outdoor vegetation, except where this would be impractical or unfeasible.

5. Restaurants shall provide drinking water to customers only upon request.

SECTION THREE

Section 28-03-035 of the <u>Code of Ordinances of the City of Alamogordo, New Mexico</u> is amended to read:

28-03-035. Water Rationing.

1. The following water conservation stages shall be in effect at the times specified. When Stage 1, Stage 2, or Stage 3 water rationing is in effect, no person, firm or corporation shall use any water in violation of any provision of this ordinance.

(a) <u>Stage 1</u>: Water Rationing. Whenever the storage facilities for the City's water system contain less than fifty percent (50%)

of capacity, the City Manager shall have the authority to impose Stage 1 Water Rationing. The City Commission shall consider the actions of the City Manager at its next meeting at which time the City Commission shall approve or disapprove the action taken by the City Manager. The following requirements shall be in effect.

(1) The City Manager shall make public announcements, through the print and broadcast media concerning the Stage 1 Water Rationing, whenever Stage 1 is in effect. The announcement will include a description of the rationing restrictions.

(2) Use of water through a sprinkler system or use of water through a hose to water any grass, trees, plants or other vegetation shall be determined as follows:

a. Users with odd numbered addresses shall be permitted to use water in the above manner on each Wednesday And Sunday.

b. Users with even numbered addresses shall be permitted to use water in the above manner on each Tuesday and Saturday.

c. Watering in the above manner shall be prohibited between the hours of 10 a.m. and 6 p.m..

(3) These restrictions shall apply to all residences and to all businesses and institutions having lawns, gardens, trees, or shrubs, and shall be followed at all parks and public buildings which are watered with treated water. Areas watered with effluent or well water are exempted from these restrictions. These

restrictions shall not apply to any person, firm or corporation engaged in the business of growing or selling plants of any kind.

(4) No swimming pools shall be filled. Swimming pools that were filled before Stage 1 Water Rationing went into effect may have water added to make up losses through evaporation or splashing. Water lost through draining or through leaks in the pool may not be made up during Stage 1 Water Rationing.

(5) Newly seeded or sodded lawns or newly planted trees or shrubs shall be exempted from Stage 1 Water Rationing for the time needed to establish the lawn, tree or shrub - provided the vegetation was planted before Stage 1 was imposed and the time needed to establish the lawn, tree or shrub does not exceed sixty (60) days. No lawns shall be newly seeded or sodded or trees or shrubs planted after Stage 1 is imposed.

(b) Stage 2 Water Rationing. Whenever the storage facilities for the City's water system contain less than thirty-five percent (35%) of capacity the City Manager shall have the authority to impose Stage 2 Water Rationing. The following requirements will be in effect:

(1) The City Manager will make public announcements through the print and broadcast media that Stage 2 is in effect. The announcements will include a description of the rationing restrictions.

(2). The City Commission shall be called into emergency session in accordance with the current open meetings resolution after the imposition of Stage 2 to consider ratifying the City

Manager's action or to amend or lift the Stage 2 water rationing as circumstances warrant.

(3) Use of water through a sprinkler system or use of water through a hose to water any grass, trees, plants or other vegetation shall be determined as follows:

a. Users with odd numbered addresses shall be permitted to use water in the above manner on each Friday.

b. Users with even numbered addresses shall be permitted to use water in the above manner on each Tuesday.

c. Watering in the above manner shall be prohibited between the hours of 10 a.m. and 6 p.m..

(4) These restrictions shall apply to all residences and to all businesses and institutions having lawns, gardens, trees, or shrubs and shall be followed at all parks and public buildings which are watered with treated water. Areas watered with effluent or well water are exempt from these restrictions.

(5) No water shall be used to wash any vehicle (including fund raising car washes at commercial businesses), except at places of business where autos are washed on every business day either with attendants, with automatic equipment or by self service.

(6) No swimming pools will be filled and no water shall be added to any swimming pool. Indoor pools used for medical or rehabilitative purposes shall be exempt from this section.

(7) Washing sidewalks, driveways, parking areas, tennis courts, patios or other impervious surface areas with a hose except

in emergencies to remove spills of hazardous materials or to eliminate dangerous conditions which threaten the public health, safety, or welfare is prohibited.

(c) <u>Stage 3 Water Rationing</u>. Whenever the storage facilities of the City 's water system contain less than twenty-five percent (25%) of capacity the City Commission finds that the City is in a state of emergency and the following measures are necessary to protect the health and welfare of the citizens. The City Manager shall have the authority to impose Stage 3 Water Rationing . The following requirements will be in effect:

(1) The City Manager will make public announcements in the print and broadcast media that Stage 3 water rationing is in effect. The announcements will include a description of the provisions in effect.

(2) The City Commission shall be called into emergency session in accordance with the current open meetings resolution after the imposition of Stage 3 to consider ratifying the City Manager's action or amend or lift the Stage 3 water rationing as circumstances warrant.

(3) Use of water through a sprinkler system or use of water through a hose to water any grass, trees, plants or other vegetation shall be determined as follows:

a. Users located North of 10th St. with odd numbered addresses shall be permitted to use water in the above manner on each Friday.

b. Users located South of 10th St. with odd numbered addresses shall be permitted to use water in the above manner on each Wednesday.

c. Users located North of 10th St. with even numbered addresses shall be permitted to use water in the above manner on each Thursday.

d. Users located North of 10th St. with even numbered addresses shall be permitted to use water in the above manner on each Tuesday.

e. Watering in the above manner shall be prohibited between the hours of 10 a.m. and 6 p.m..

(4) All watering of grass, trees, plants or other vegetation at all parks and public buildings owned by the City of Alamogordo which are watered using treated water shall be prohibited. Areas watered with effluent or well water are exempt from these restrictions.

(5) No water shall be used to wash any vehicle (including fund raising car washes at commercial businesses), except at places of business where autos are washed on every business day either with attendants, with automatic equipment or by self service. The hours of operation of such businesses shall be limited to ten (10) hours per day.

(6) No swimming pools will be filled and no water shall be added to any swimming pool.

(7) It shall be the policy of the City of Alamogordo to keep Stage 3 in effect for no longer than absolutely necessary. The

City Manager and The City Commission shall take steps to lift the Stage 3 restrictions as soon as lifting the restrictions will not endanger the water supply by reducing amounts of water in storage.

2. No person shall be convicted of violating this ordinance unless such person in fact turned on water, directed the turning on of water, or kept water turned on after learning it was turned on in violation of this ordinance, or failed to turn off automatic devices capable of turning on water in violation of this ordinance. It will not be necessary, however, to present a witness who saw the accused turning on the water, if circumstances indicated the accused did turn on the water.

3. The City Manager will make written reports to the City Commission at every regular City Commission meeting (including emergency sessions called under this ordinance) while water rationing is in effect. The City Manager will make weekly written reports to the City Commission while Stage 3 Water Rationing is in effect.

4. Any person, firm, or corporation violating any provision of this ordinance shall be fined not more than five hundred dollars for each offense, and a separate offense shall be deemed committed on each day during or on which a violation occurs or continues in accordance with the general violation provisions of the Code of Ordinances.

SECTION FOUR.

Severability Clause.

The provisions of this ordinance are severable, and if any provisions of this ordinance or the application thereof to any person or circumstance is held invalid, the invalidity does not affect other provisions or applications of the ordinance which can be given effect without the invalid provisions or applications.

PASSED, APPROVED AND ADOPTED this 13th day of June, 1995.

CITY OF ALAMOGORDO, NEW MEXICO,
a New Mexico municipal corporation

By: _____
    Daniel R. King
    Mayor

ATTEST:

_____
Angie J. Rahn
City Clerk

APPROVED AS TO FORM:

_____
Rebecca W. Ehler
City Attorney

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