

DATA FOR GROUND-WATER STUDIES OF THE SAN JUAN  
BASIN, NEW MEXICO (1982-83)

By R. L. Klausning and G. E. Welder

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## CONVERSION FACTORS

In this report measurements are given in inch-pound units only. The following table contains factors for converting to metric units.

<u>Multiply inch-pound units</u>	<u>By</u>	<u>To obtain metric units</u>
foot	0.3048	meter
foot squared per day	0.0929	meter squared per day
mile	1.609	kilometer

National Geodetic Vertical Datum of 1929 (NGVD of 1929): A geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called mean sea level. NGVD of 1929 is referred to as sea level in this report.

# DATA FOR GROUND-WATER STUDIES OF THE SAN JUAN

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## ABSTRACT

Ground-water data that can be used for future hydrologic studies in the San Juan structural basin of New Mexico are reported. Descriptions and a location map of 64 observation wells, a list of water levels measured in the observation wells, water-level hydrographs of 32 wells, 15 partial chemical analyses of water samples from wells, and descriptions and a location map of 264 potential observation wells are included. The latter are wells for which good records exist. Their potential for use as observation wells needs to be verified in the field.

## INTRODUCTION

In October 1980, the Water Resources Division (WRD) of the U.S. Geological Survey began a 2-year ground-water data collection project in the San Juan basin of New Mexico in cooperation with the Eastern Navajo Area Office of the U.S. Bureau of Indian Affairs (BIA). The purpose of the project was to collect data to be utilized in a possible separate forthcoming project that would analyze the effect of industrial ground-water use on the Navajo's water supplies, particularly in the vicinity of Crownpoint (fig. 1). A report for the project entitled, "Preliminary data report for the San Juan basin-Crownpoint surveillance study", by P. F. Frenzel, S. D. Craig, and E. T. Padgett (1981), was prepared in the first year of the investigation.

Some of the geohydrologic data assembled herein were collected during the latter part of 1982 in cooperation with the New Mexico State Engineer Office for another investigation. That investigation continues (1983).

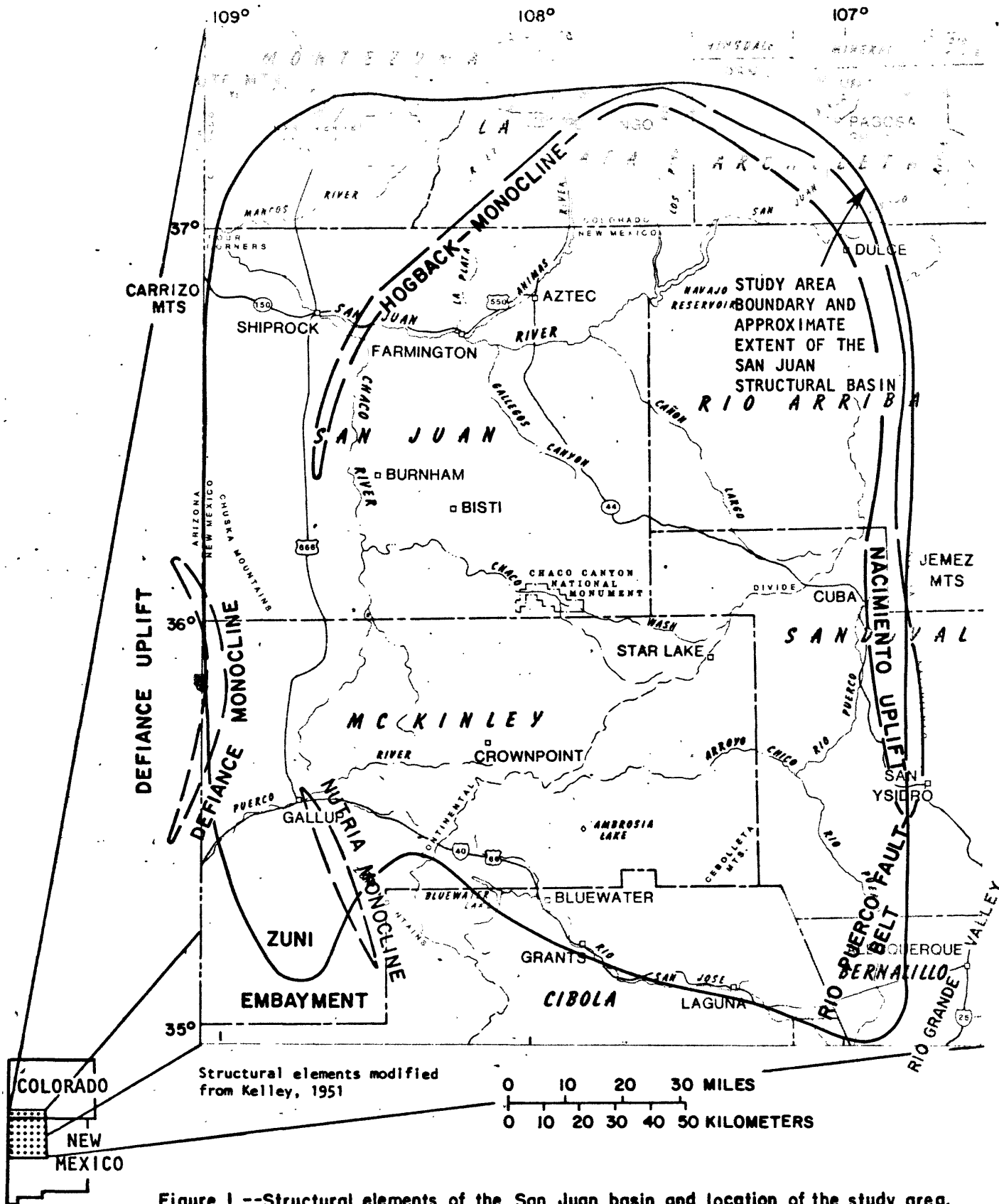


Figure 1.--Structural elements of the San Juan basin and location of the study area.

This report includes more descriptive information for the observation-network wells listed in Frenzel and others (1981), plus, data for 17 additional network wells. It also includes a table of water levels, hydrographs of 32 additional wells, 15 additional partial chemical analyses of water samples from wells, and a table and location map of 264 potential observation wells. The latter are wells for which good records exist. Their potential for use as observation wells has not been verified in the field.

### PRESENTATION OF DATA

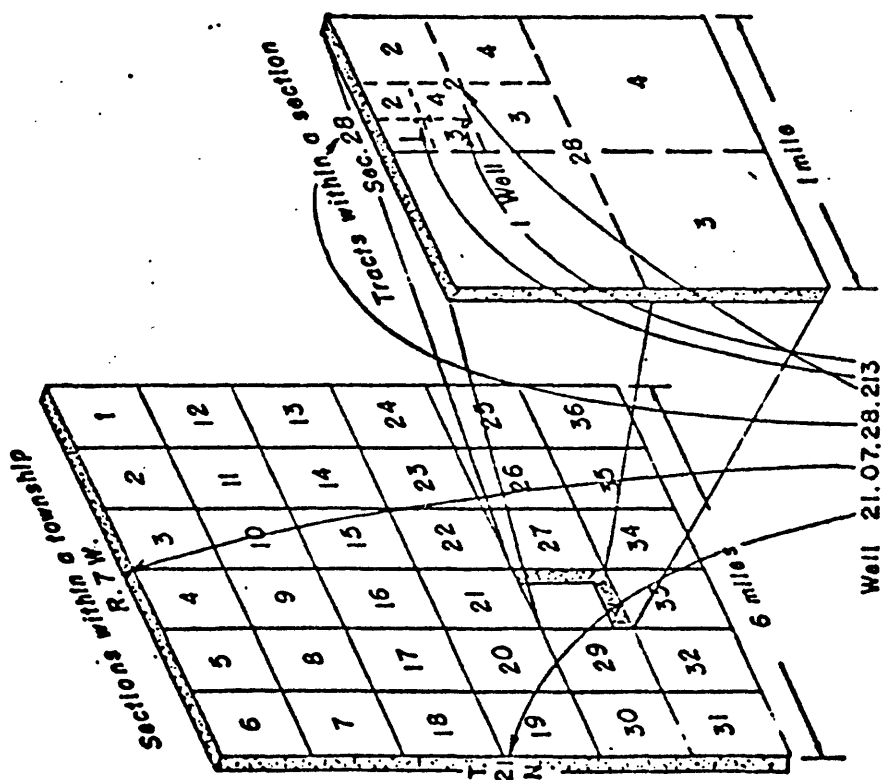
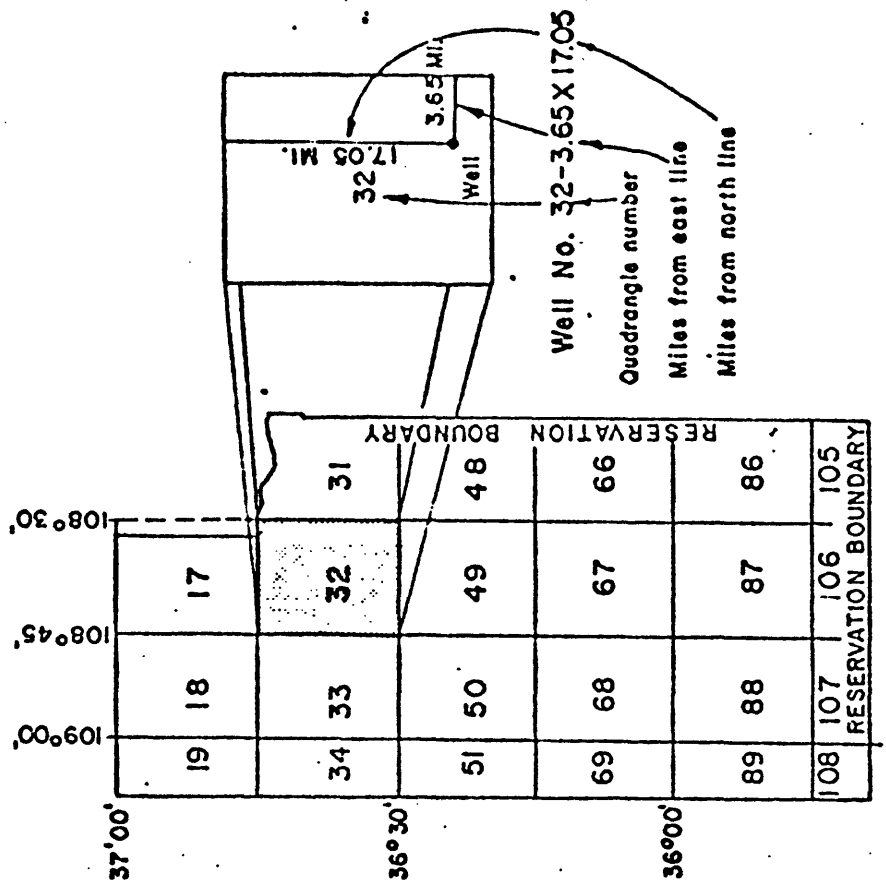
An explanation of principal aquifer codes used in tables 2, 3, 4, and 5 is given in table 1. Records of wells in the San Juan basin observation-well network are listed in table 2, and the locations of these wells are shown on plate 1. Records of water-level measurements made in the observation wells are listed in table 3. Hydrographs of selected observation wells are shown in figure 4. Records of potential observation wells located in the San Juan basin are listed in table 4 and their locations are shown on plate 2.

Some of the more common chemical constituents in ground-water samples collected and analyzed by the U.S. Geological Survey are listed in table 5. The samples were collected between February 1981 and October 1982 from wells in McKinley, Rio Arriba, and Sandoval Counties. Additional selected analyses, including trace elements, are available from the U.S. Geological Survey files in Albuquerque, New Mexico.

### WELL-NUMBERING SYSTEMS

Two numbering systems are used in this report to locate a well. The first uses the common subdivision of lands into townships, ranges, and sections. In this system, the location number is divided into four segments separated by periods. The first segment indicates the township north of the New Mexico Base Line, and the second denotes the range west of the New Mexico Principal Meridian. The third segment indicates the section within the township; and the fourth segment indicates the tract within which the well is located. To determine the fourth segment of the location number, the section is divided into quarters numbered 1, 2, 3, and 4 for the NW  $\frac{1}{4}$ , NE  $\frac{1}{4}$ , SW  $\frac{1}{4}$ , and SE  $\frac{1}{4}$ , respectively. Each quarter section is further subdivided into as many as four subdivisions depending on how closely the well was located. As an example, a well with a location number 21.07.28.213 is located in the southwest  $\frac{1}{4}$  of the northwest  $\frac{1}{4}$  of the northeast  $\frac{1}{4}$  of section 28, Township 21 North, Range 7 West (fig. 2).

A different numbering system is used for the main part of the Navajo Reservation. This area is divided into 15-minute quadrangles, each of which is assigned a number. The well number consists of the quadrangle number followed by the distance in miles from the east line and the distance in miles from the north line, in that order. Thus, a well numbered 32-3.65x17.05 is in quadrangle number 32, 3.65 miles from the east line and 17.05 miles from the north line as shown in figure 2.



System of numbering wells on the Navajo Indian Reservation

System of numbering wells in New Mexico

Figure 2.--Well-numbering system.



## REFERENCES

- Frenzel, P. F., Craig, S. D., and Padgett, E. T., 1981, Preliminary data report for the San Juan basin - Crownpoint surveillance study: U.S. Geological Survey Open-File Report 81-484, 33 p.
- Stone, W. J., Lyford, F. P., Frenzel, P. F., Mizell, N. H., and Padgett, E. T., 1983, Hydrogeology and water-resources of the San Juan basin: Hydrologic report number 6: New Mexico Bureau of Mines and Mineral Resources, 70 p.

Table 1.--Explanation of principal aquifer codes used in tables 2, 3, 4 and 5

TERTIARY:

Tsj - San Jose Formation  
Tsjl - Llaves Member  
Tn - Nacimiento Formation

TERTIARY - CRETACEOUS:

TKoa - Ojo Alamo Sandstone

CRETACEOUS:

Kf - Fruitland Formation  
Kpc - Pictured Cliffs Sandstone  
Kch - Cliff House Sandstone  
Kmf - Menefee Formation  
Kpl - Point Lookout Sandstone  
Kg - Gallup Sandstone  
Kd - Dakota Sandstone

JURASSIC:

Jm - Morrison Formation  
Jmb - Brushy Basin Member  
Jmw - Westwater Canyon Member  
Je - Entrada Sandstone

TRIASSIC:

TRc - Chinle Formation  
TRsc - Shinarump Member

PERMIAN:

Psa - San Andres Limestone  
Psag - San Andres and/or Glorieta Sandstone  
Pg - Glorieta Sandstone  
Pdc - DeChelly Member of Cutler Formation

Table 2.-- Records of wells in San Juan basin observation-well network

Location.--The location of a well is described by using the system of quartering of sections or the Navajo system for the Navajo Reservation. The systems are explained in the text and shown in figure 2.

Owner Name or Well Number.--The number or name assigned to a well may be the owner's name or number, the BIA or Navajo name or number, a traditional name, or the name of a nearby landmark.

Reported Depth of Well.--The reported depth is the total depth of the well, in feet, below land surface datum (LSD). An asterisk indicates that the well depth has been measured by the U.S. Geological Survey. Other depths are either reported or obtained from drillers' logs.

Casing Diameter.--Casing diameter is the outside diameter given in inches. Two numbers separated by a comma indicate that two different sizes of casing were used to case the well.

Casing Depth.--Casing depth is depth to bottom of casing, in feet, below land surface.

Producing Interval.--Producing interval is the part(s) of the well that is (are) open to the water-bearing unit, in feet, below land surface.

Date Completed.--The date that the well was completed.

Depth to Water.--The depth to static water level, in feet, below land surface datum (LSD). Water levels with decimal accuracy were measured, others were reported. A plus (+) sign indicates that the water level is above LSD. Only an initial water level is given; subsequent levels are in table 3.

Date Measured.--The date measured is the date that the indicated water level was measured.

Use of Water.--The symbols defining the use of water are: D - domestic, Irr - irrigation, Ind - industrial, Ps - public supply, Rec - recreational, S - stock, U - unused.

Specific Conductance.--Specific conductance is a measure of the ability of water to conduct an electrical current. Multiplying the specific conductance (in micromhos per centimeter at 25° Celsius) by 0.65 to 0.70 gives an estimate of the dissolved solids (in milligrams per liter) in the water. An asterisk by specific conductance number indicates value was measured by the U.S. Geological Survey.

Altitude of LSD.--The altitude of the land surface above sea level, in feet, at the well.

Log Avail.--Indicates the availability of logs.

Principal Aquifer.--The geologic formation or formations from which the well obtains water. The abbreviations used to identify water-bearing formations are given in table 1.

Table 2.--Records of wells in San Juan Basin observation network - continued

LOCATION	OWNER NAME OR WELL NUMBER	REPORTED DEPTH OF WELL (feet)	CASING DIAMETER (inches)	CASING DEPTH (feet)	PRODUCING INTERVAL (feet)	DATE COMPLETED	DEPTH TO WATER (feet)	DATE MEASURED	USE OF WATER	SPECIFIC CONDUCTANCE	ALTITUDE OF LSD	LOG AVAILABLE	PRINCIPAL AQUIFER
10.10.26.331	Monico Mirabel	216	—	—	—	1951	22.18	02-21-52	Irr		6455	no	Psa
11.10.27.241	Growers assoc.	158	—	—	—	1952	19.86	02-20-53	Ind		6840	no	Psa
12.10.29.434	Stanley Cord	398	—	—	—	1948	87.93	10-16-50	Ind		6552	no	Psa
13.09.21.4123	Nabor Marquez	155*	—	—	—	1955	144.28	12-08-25	S	1600*	6786	no	Jmw
13.09.22.112	Ingersoll-Rand	297	—	297	277-297	1958	204.80	12-15-58	Irr		6830	yes	Jmw
13.13.22.1332	Charles Bass	300	6.62	300	—	1974	+3.87	11-12-81	S		7419	yes	Pg
13.14.25.2143	U.S. Forest Ser.	163	4	—	—	1979	91.51	01-09-80	U		7525	no	Psa
14.10.35.221	G.P. Roundy	760	8, 6.62	—	—	1954	461.40	12-17-57	U		7010	no	Jmw
14.14.25.3342	H.M. St.Hwy. Dept	862.3	6.5	720	700-862.3	1977	10.84	01-18-82	Ps		7205	yes	Psag
14.15.04.1134	"	608	5	503	593-608	1969	+187.00	05-00-69	Ps	1080*	6560	no	Psag
14.15.28.1434	BLM-Prewitt #4	370	12	347	—	1940	13.23	10-17-41	S		7405	no	Psag
14.16.05.2441	EIA School #5	347	10.8	347	147-347	1963	15	00-00-63	Ps		6305	yes	Psag
14.16.07.4414	U.S. Forest Ser.	160	5	135	135-160	1950	68.00	00-00-58	D, Rec		7195	no	Pg
14.16.33.1322	"	30*	—	—	—	1955	17.88	08-31-56	S		7604	no	Psa
15.13.21.14	Western Nuclear Ruby 122	1305	6.62	1305	1100-1305	—	676.10	01-28-82	Ind		7610	no	Je
15.13.22.1111	M.T. 161-519	1275	6.62	1275	350-500 786-1275	1963	502.00	12-03-63	D, S	830*	7515	yes	Jm
15.13.25.1423	Western Nuclear Ruby 324	3102	6.5	2800	2800-3102	1979	550	00-00-79	Ind	470*	7585	yes	Psag
15.14.09.2333	M.T. 161-587	1334	6.62	1201	162-243, 466 507, 1201-1334	1976	448	02-09-76	S	570*	7520	yes	Je
15.17.24.4121	U.S. Army Ft. Wingate 69	1350	16, 12, 7.5 8, 7.5	1350	1100-1350	1970	+29.02	01-18-79	PS	1290	6620	yes	Psag
15.18.16.1113	City of Gallup Santa Fe #14	1602	—	—	—	1961	296	00-00-61	U		6515	no	Kg
16.04.05.331	NWBMNR	250	—	—	128-245	1978	98.40	08-24-78	U	980	6230	yes	Kp1

Table 2.--Records of wells in San Juan Basin observation network - continued

LOCATION	OWNER NAME OR WELL NUMBER	DEPTH OF WELL (feet)	DIAMETER (inches)	DEPTH (feet)	INTERVAL (feet)	DATE COMPLETED	TO WATER (feet)	DATE MEASURED	USE OF WATER	SPECIFIC CONDUCTANCE	ALTITUDE OF LSD	LOG AVAILABLE	PRINCIPAL AQUIFER
16.04.18.4444	NNBMMR R-21	250	2	250	84-241	1978	102.20	07-27-78	S	580	6410	yes	Kpl
16.04.36.232	BLM-Homestead	602	6.62	602	400-500, 520-530, 570-580	1971	+150	08-30-71	S	450	6165	yes	Kg
16.05.02.2444	NNBMMR R-24	250	2	—	—	1978	123.00	10-13-78	U	1100	6310	yes	Kpl
16.10.18.331a	Conoco	2098	4.33	2054	2054-2098	1981	413.03	08-05-82	U	715	6920.52	no	Jmw
16.10.18.331b	Conoco	1838	4.33	1845	1845-1838	1981	350.47	08-05-82	U	901	6923.97	no	Kd
16.10.18.331c	Conoco	2095	4.33	2055	2055-2095	1981	423.49	08-05-82	U	656	6926.15	no	Jmw
16.11.17.4322	N.T. 15T-505	570*	6.62	570	470-570	1959	265.10	07-10-59	D,S	1400	7070	yes	Kg
16.11.33.332	Corrego Pass BIA School-PH3	2023	6.8	2023	1801-2023	1972	752	09-07-72	Ps	1160	7350	yes	Jmw
16.16.15.4322	N.T. 16T-513	318	8.62	206	206-318	1959	182.00	07-27-59	D	2200*	6875	yes	Jmw
16.16.25.1142	N.T. 16T-535	1052*	8.75	1052	620-896 974-1033	1965	140	10-28-65	D	550 *	7115	yes	Je
16.17.21.3442	N.T. 16T-534	410	5.62	410	—	1965	250	07-29-65	S	1200*	6825	yes	Jmw
16.18.17.1222	City of Gallup Munoz 1-A	3217	16.8	3200	1500-1974	1968	82	05-00-69	Ps	1570*	6622	yes	Kg
17.11.30.431	N.T. 15R-319	469	6.62	447	447-469	1963	32.69	08-05-82	S	—	6770	yes	Kpl
17.12.17.3333	Grownpoint re- corner well	2410	6	2110	2110-2410	1975	346.6	12-13-75	U	530*	6870	no	Jmw
17.14.13.1111	United Nuclear	1729	8.62* 8.62	1587	1587-1729	—	76.21	03-04-82	U	—	6757.7	no	Kd
17.14.13.1116	United Nuclear	2225	8.62	1820	1820-2225	—	332.43	08-04-82	U	—	6757.1	no	Jmw
NR105-12.63x05.67	N.T. 15T-203	614	7	537	537-614	1952	302	01-11-52	S	3500*	7033	yes	Kg
17.15.29.123	Kerr-McGee	2374	16	2019	2019-2374	—	1348.85	06-30-82	U	—	7290	no	Jmw
17.16.22.4322	Kerr-McGee	1045	9.62	845	845-1045	—	605.08	08-03-82	U	—	7290	no	Kg
NR036-03.93x17.20	N.T. 15T-529	1292	10.75, 7	1130	1130-1292	1969	84	12-10-69	S	1230*	6743	yes	Kg
18.14.20.411	Standing Rock	2638	20.10.75	2638	2316-2335 2380-2420 2465-2485 2528-2538	1950	87.30	06-07-80	Ps	—	6492	yes	Jmw
													--

Table 2.--Records of wells in San Juan Basin observation network - continued

LOCATION	OWNER NAME OR WELL NUMBER	REPORTED DEPTH OF WELL (feet)	CASING DIAMETER (inches)	CASING DEPTH (feet)	PRODUCING INTERVAL (feet)	DATE COMPLETED	DEPTH TO WATER (feet)	DATE MEASURED	USE OF WATER	SPECIFIC CONDUCTANCE	ALTITUDE OF LSD	LOG AVAILABLE	PRINCIPAL AQUIFER
NF56-12.95x15.19.19.111	30 N.T. 14A-81	395	8.62	300	115-135 245-265 300-395	1937	135	05-01-37	D	1300 *	6231	yes	Kpl
19.01.14.3332	La Ventana Nuclear Corp.	1950	—	—	1912-1950	1974	445.5	11-27-78	U	3780 *	6378	yes	Jm
20.10.16.4413	Bendix CC#15	3988	—	3957	3957-3988	1978	+173.0	01-17-80	Ind	1600 *	6330	yes	Jm
21.09.07.3333	N.T. CCR#9	500	7	505	175-185 440-445	1960	100	10-10-60	S	3700 *	6327	yes	Kch
21.10.21.3444	CC Nat'l Mon(NPS) "Fields" Well	3090	—	3095	3000-3020 3050-3090	1972	+404.00	09-13-72	Ps	600 *	6195	yes	Kg
22.09.29.3443	Willie Well 198-309	961	6.62	961	270-355 500-760	1963	324	09-07-68	D	4700 *	6447	yes	Kch
NR03-04.00x16.90	EPNG Burnham 1	5250	20.5.5	5000	800-810 895-945	1973	+703.00	08-18-73	S	1390 *	5746	yes	Jmw
NR04-04.29x13.11	N.T. 13K-208	800	10.8	666	666-800	1953	280.00	09-04-53	S	7000 *	5887	yes	Kch
24.14.08	U.S. Forest Ser.	250	—	—	—	1956	119.40	09-27-59	U	1100 *	7480	no	Ts,jl
25.01.17.131	Ozilh School BIA Em. 1	1146*	10	1090	300-320 360-378 430-540 555-610	1966	442	06-30-66	Ps	813 *	6775	yes	Tn,TKoa
NR04-02.35x11.35	U.T. 13K-207	1120	6	885	1070-1120	1952	429.00	10-17-52	S	4530 *	6074	yes	Kpc
25.12.34.411	N.T. 12R-242	362	6.62	204	204-362	1935	60	01-02-35	S	3900 *	5439	no	Kch
NR04-07.75x15.80	EPNG Huerfano Water Well #1	950	5.25	—	940-950	1956	437.50	09-12-80	Ind	—	6585	yes	Tn
26.10.13.423	Huerfano Dorn	435	8.6	435	300-435	1968	102.50	01-30-68	Ps	920 *	6185	yes	Tn,TKoa
26.11.33.21x2	BIA pm. 2	2034	2	1200	1200-2034	1977	+272.12	07-18-78	S	600 *	5595	yes	Jm
NR04-12.85x13.35	Havalo Exxon Test	247*	—	—	—	1965	166.33	05-06-75	S	2660 *	6045	no	TKoa
26.18.35	N.T. IT-501	2300	2	1512	1512-2300	1977	+445.50	07-19-78	S	7000 *	5060	yes	Jm
27.13.26.3411	N.T. IT-501	2300	2	1512	1512-2300	1977	+445.50	07-19-78	S	7000 *	5060	yes	Jm
NR03-07.55x12.47	N.T. 12T-630	2300	2	1512	1512-2300	1977	+445.50	07-19-78	S	7000 *	5060	yes	Jm



Table 3.--Records of water levels in observation wells  
in the San Juan basin

(Water level is depth below or above (+) land surface in feet)

\*Location - 10.10.26.331

Aquifer - Psa

Date	Water level	Date	Water level
02-21-52	22.18	02-21-67	28.14
08-27-52	23.16	04-02-68	22.15
02-20-53	23.03	02-12-69	28.47
10-09-53	24.12	02-16-70	28.75
02-09-54	23.57	08-18-70	28.49
06-11-54	48.68	01-11-71	28.44
02-09-55	24.25	01-20-72	28.83
04-15-55	58.24	01-24-73	28.60
01-21-56	24.89	08-28-73	29.64
04-17-56	47.79	01-14-74	28.53
02-12-57	25.90	08-06-74	30.26
05-07-57	27.18	01-16-75	29.17
02-05-58	25.80	02-11-76	33.83
08-19-58	27.43	08-11-76	29.96
02-17-59	26.71	01-17-77	34.69
11-04-59	28.35	08-16-77	29.87
02-08-60	27.40	02-02-78	29.71
08-26-60	49.59	08-07-78	30.49
02-16-61	27.83	03-06-79	29.72
05-10-61	40.40	07-17-79	31.90
02-13-62	27.95	02-14-80	31.58
08-14-62	28.99	07-15-80	30.32
02-05-63	23.73	01-22-81	29.77
08-19-63	49.53	07-20-81	30.82
08-12-64	29.62	02-23-82	30.23
02-09-65	26.12	09-07-82	30.55
08-05-65	44.50	01-17-83	29.39
02-09-66	24.17	02-17-83	29.38
08-23-66	32.77		

\* Location - 11.10.27.241

Aquifer - Psa

Date	Water level	Date	Water level
02-20-53	19.86	02-21-67	25.78
10-09-53	29.45	04-02-68	25.60
02-09-54	21.35	02-12-69	28.54
06-14-54	26.28	02-16-70	27.84
02-10-55	22.28	08-18-70	33.23
06-15-55	26.31	01-11-71	31.25
02-08-56	24.75	01-19-72	33.99
08-02-56	30.19	01-24-73	35.27
02-12-57	28.15	08-28-73	36.57
08-01-57	31.49	01-14-74	33.84
02-05-58	28.60	08-06-74	35.18



Location - 11.10.27.241 (cont'd)

Date	Water level	Date	Water level
08-18-53	32.77	01-16-75	32.46
02-17-59	31.13	02-11-76	30.96
11-04-59	34.73	08-11-76	31.01
02-08-60	31.79	01-17-77	28.64
03-26-60	36.30	08-16-77	34.62
02-16-61	33.59	02-02-78	32.98
11-30-61	36.82	08-07-78	36.98
02-13-62	36.22	03-09-79	34.22
03-15-62	36.52	08-17-79	38.44
02-04-63	33.10	07-15-80	34.61
08-19-63	33.25	01-22-81	30.95
03-09-64	30.05	07-20-81	32.64
08-12-64	31.64	02-23-82	28.51
02-09-65	28.25	09-07-82	28.59
08-05-65	27.10	01-17-83	25.74
02-09-66	27.25	02-17-83	25.56
08-23-66	29.35		

Location - 12.10.29.434Aquifer - Psa

Date	Water level	Date	Water level
10-16-50	87.93	11-30-61	106.32
02-15-51	84.71	02-13-62	105.82
10-28-52	104.09	05-15-62	105.87
02-17-53	88.15	00-00-63	101.13
02-07-56	96.38	00-00-64	102.23
08-01-56	107.00	00-00-65	98.47
02-13-57	101.25	00-00-66	102.80
08-01-57	105.64	00-00-67	96.00
05-14-58	107.00	00-00-69	99.19
11-20-58	104.62	00-00-70	98.15
02-07-59	103.47	00-00-71	101.13
11-03-59	104.78	01-19-72	101.22
02-09-60	102.97	09-07-82	91.58
05-11-60	105.38	01-17-83	83.96
02-15-61	106.00		

\* Location - 13.09.21.4123Aquifer - Jmw

Date	Water level	Date	Water level
12-08-55	144.28	01-14-81	67.50
10-30-57	141.74	09-25-81	70.70
06-30-77	67.10	01-12-82	71.65
02-22-78	58.30	05-14-82	72.74
05-27-80	65.70	07-20-82	73.48

Location - 13.09.22.112Aquifer - Jmw

Date	Water level	Date	Water level
12-15-58	204.80	09-25-81	101.80
06-30-77	101.70	01-12-82	102.37
02-22-78	58.80	05-14-82	95.92
08-26-80	98.10	07-20-82	92.01
01-14-81	93.50		

Location - 13.13.22.1333Aquifer - Pg

Date	Water level	Date	Water level
11-12-81	+3.87	07-20-82	+2.61

Location - 13.14.25.2143Aquifer - Psa

Date	Water level	Date	Water level
01-09-80	91.51		

Location - 14.10.35.221Aquifer - Jmw

Date	Water level	Date	Water level
12-17-57	461.40	09-25-81	518.60
05-29-80	519.85	01-18-82	516.60
01-14-81	520.20	08-02-82	523.81

Location - 14.14.25.3342Aquifer - Psag

Date	Water level	Date	Water level
01-18-82	10.84	07-20-82	+0.40

\* Location - 14.15.04.1134Aquifer - Psag

Date	Water level	Date	Water level
05-21-69	+187.00	01-15-81	+159.98
01-18-79	+152.90	01-23-81	+222.40
01-10-80	+152.90	07-20-82	+233.90

\* Location - 14.15.23.1434Aquifer - Psag

Date	Water level	Date	Water level
10-17-41	13.23	04-03-68	45.00
06-21-50	21.76	01-23-79	59.00
03-19-56	27.34	01-10-80	64.00

Location - 14.15.28.1434 (cont'd)

Date	Water level	Date	Water level
07-20-56	29.08	01-15-81	64.66
11-00-60	44.00	07-20-82	59.88
03-00-61	40.00		

Location - 14.16.05.2441Aquifer - Psag

Date	Water level	Date	Water level
00-00-63	15.00	01-16-81	24.30
01-18-79	38.47	01-13-82	22.73
01-09-80	31.62	07-21-82	24.34

\*Location - 14.16.07.4414Aquifer - Pg

Date	Water level	Date	Water level
00-00-58	68.00	00-02-68	85.00
00-07-62	61.00	11-12-81	92.78
00-11-63	75.00	07-21-82	85.38

Location - 14.16.33.1322Aquifer - Psa

Date	Water level	Date	Water level
08-13-56	17.88	11-13-81	13.27

Location - 15.13.21.14Aquifer - Je

Date	Water level	Date	Water level
01-28-82	676.10		

Location - 15.13.22.1111Aquifer - Jm

Date	Water level	Date	Water level
12-03-63	502.00	05-28-80	513.52
06-08-64	550.00	01-14-81	498.00
06-23-77	510.80		

Location - 15.13.25.1423Aquifer - Psag

Date	Water level	Date	Water level
00-00-79	550.00	08-17-82	607.16
01-29-82	603.00		

\* Location - 15.14.09.2333Aquifer - Ja

Date	Water level	Date	Water level
02-09-76	448.00	09-23-81	407.66
06-11-80	442.25	01-19-82	405.50
01-14-81	380.15	08-05-82	385.92

\* Location - 15.17.24.4121Aquifer - Psag

Date	Water level	Date	Water level
02-05-42	+100.00	04-00-63	+81.00
05-00-51	+157.00	01-00-64	+81.00
00-00-52	+157.00	10-00-67	+60.00
08-00-59	+110.00	01-18-79	+29.02
06-00-60	+95.00	01-09-80	+35.50
10-00-60	+83.00	01-16-81	+39.93
07-00-61	+83.00	09-23-81	+20.40
03-00-62	+95.00	01-13-82	+39.34
06-00-62	+79.00	07-21-82	+41.19

\* Location - 15.18.16.1113Aquifer - Kg

Date	Water level	Date	Water level
00-00-61	296.00	01-15-81	286.43
01-19-79	304.49	01-14-82	262.00
01-10-80	299.01		

\* Location - 16.04.06.331Aquifer - Kpl

Date	Water level	Date	Water level
08-24-78	93.40	06-18-80	92.90
08-31-78	93.20	01-18-81	93.20
06-30-79	93.50	09-01-81	92.10
07-17-79	93.60	01-20-82	92.83
05-17-80	90.90	07-19-82	93.12

\* Location - 16.04.18.4444Aquifer - Kpl

Date	Water level	Date	Water level
07-27-78	102.20	06-18-80	101.90
08-29-79	98.80	01-18-81	101.20
06-23-79	102.40	08-01-81	101.20
07-17-79	102.50	01-20-82	100.00
05-17-80	101.90	07-19-82	100.05

\* Location - 16.04.36.2321Aquifer - Kg

Date	Water level	Date	Water level
03-30-71	150.00	01-18-81	+168.13
10-04-74	+214.30	08-30-81	+156.58
04-13-78	+178.50	01-20-82	+152.00
07-22-80	+135.80	07-19-82	+142.70
10-19-80	+160.00		

\* Location - 16.05.02.2444Aquifer - Kpl

Date	Water level	Date	Water level
10-13-78	123.00	01-18-81	120.30
05-23-79	120.70	09-01-81	117.40
07-17-79	118.90	01-20-82	119.00
05-17-80	117.20	07-19-82	118.42
06-18-80	117.30		

Location - 16.10.13.331aAquifer - Jmw

Date	Water level	Date	Water level
08-05-82	418.03		

Location - 16.10.18.331bAquifer - Kd

Date	Water level	Date	Water level
08-05-82	350.47		

Location - 16.10.13.331cAquifer - Jmw

Date	Water level	Date	Water level
08-05-82	423.49		

\* Location - 16.11.17.4322Aquifer - Kg

Date	Water level	Date	Water level
07-10-59	265.10	09-23-81	307.50
02-23-78	295.60	07-21-82	318.28
05-28-80	230.90	08-04-82	304.16
01-15-81	308.75		

Location - 16.11.33.332Aquifer - Jnw

Date	Water level	Date	Water level
09-09-72	752.00	05-28-80	600.00
06-10-77	756.00		

\*Location - 16.16.15.4322Aquifer - Jmw

Date	Water level	Date	Water level
07-27-59	182.00	01-15-81	312.00
10-05-76	213.00	09-24-81	343.80
06-21-77	160.00	01-02-82	298.00
02-24-78	302.00	07-21-82	313.92
06-10-80	308.00		

\*Location - 16.16.25.1142Aquifer - Je

Date	Water level	Date	Water level
10-28-65	140.00	01-13-82	132.17
06-10-80	159.53	07-21-82	137.56
01-16-81	133.10	08-03-82	145.87
09-24-81	136.10		

\*Location - 16.17.21.3442Aquifer - Jmw

Date	Water level	Date	Water level
07-29-65	250.00	09-23-81	193.60
02-24-78	187.90	01-16-82	194.40
06-11-80	196.50	08-04-82	189.00
01-16-81	194.50		

Location - 16.18.17.122aAquifer - Kg

Date	Water level	Date	Water level
01-19-79	453.22	11-13-81	460.65
01-10-80	466.06	01-14-82	464.90
10-22-81	486.25		

Location - 17.11.30.431Aquifer - Kpl

Date	Water level	Date	Water level
08-06-82	32.69		

Location - 17.12.17.333Aquifer - Jmw

Date	Water level	Date	Water level
12-13-75	349.60	01-18-80	394.00
10-31-78	397.00	09-06-80	437.50
12-02-78	382.00	01-12-81	415.30
02-08-79	384.00	11-09-81	443.80
10-17-79	421.00	01-11-82	427.90
12-31-79	396.00	07-17-82	456.70
		11-29-82	439.40

Location - 17.14.13.111aAquifer - Kd

Date	Water level	Date	Water level
08-04-82	76.21		

Location - 17.14.13.111bAquifer - Jmw

Date	Water level	Date	Water level
08-04-82	332.43		

\* Location - 17.15.29.1231Aquifer - Kg

(NR105-12.68 x 05.47)

Date	Water level	Date	Water level
01-11-52	302.40	01-16-81	326.62
02-14-57	310.97	09-23-81	329.30
06-23-77	312.50	01-13-82	328.50
02-24-78	313.60	07-21-82	337.59
02-13-79	324.00		

Location - 17.16.22.432aAquifer - Jmw

Date	Water level	Date	Water level
06-30-82	1348.85	08-03-82	1344.15

Location - 17.16.22.432bAquifer - Kg

Date	Water level	Date	Water level
08-30-82	605.08		

\* Location - 18.14.20.411      Aquifer - Jmw  
(NR086-5.65 x 15.50)

Date	Water level	Date	Water level
06-07-80	87.30	01-14-82	105.42
07-15-81	99.60	10-30-82	121.10
12-01-81	108.40		

\* Location - 18.14.34.14      Aquifer - Kg  
(NR086-03.95 x 17.20)

Date	Water level	Date	Water level
12-10-69	84.00	09-23-81	136.02
09-26-76	119.00	01-14-82	137.50
06-23-77	133.50	08-04-82	139.44
01-15-81	137.80		

Location - 18.15.19.111      Aquifer - Kpl  
(NR086-12.95 x 15.30)

Date	Water level	Date	Water level
05-25-37	135.00	09-10-81	49.50
00-00-48	40.00	01-14-82	46.69
01-15-81	42.06	08-04-82	42.69

\* Location - 19.01.14.3332      Aquifer - Jn

Date	Water level	Date	Water level
11-27-78	445.50	09-28-81	445.40
07-22-80	445.00	01-31-82	446.31
11-23-80	446.70	10-21-82	447.94
01-18-81	446.50		

\* Location - 20.10.16.4413      Aquifer - Jm

Date	Water level	Date	Water level
01-17-80	+172.78	01-15-82	+160.08
01-21-81	+178.56	10-15-82	+141.60
12-24-81	+152.40		

\* Location - 21.09.07.3334      Aquifer - Kch

Date	Water level	Date	Water level
10-10-60	100.00	01-21-81	85.82
06-02-75	138.30	01-28-82	83.02
03-07-80	87.70	07-07-82	87.28



\* Location - 21.10.21.3444

Aquifer - Kg

Date	Water level	Date	Water level
09-13-72	+404.00	09-03-81	+333.13
10-17-72	+407.00	01-28-82	+328.51
01-11-80	+370.20	07-15-82	+311.85
01-21-81	+340.15		

Location - 22.09.29.3443

Aquifer - Kch

Date	Water level	Date	Water level
09-07-68	324.00	09-11-81	612.20
08-07-80	369.70	07-07-82	619.70
01-21-81	605.80		

Location - 23.14.03.3114

Aquifer - Jmw

(NR048-04.00 x 16.90)

Date	Water level	Date	Water level
08-18-73	+703.00	01-27-82	+97.71
01-22-81	+144.80	07-12-82	+101.64
09-01-81	+58.44		

\* Location - 24.14.08.2424

Aquifer - Kch

(NR048-04.29 x 13.11)

Date	Water level	Date	Water level
09-04-53	280.00	01-22-81	266.22
02-13-54	278.20	09-02-81	265.87
08-31-54	280.00	07-12-82	268.85

Location - 25.01.17.131

Aquifer - Tsjl

Date	Water level	Date	Water level
09-27-59	119.40	09-19-81	117.46
07-24-80	118.10	07-22-82	119.94

\* Location - 25.09.19.1111

Aquifer - Tn-Tkoa

Date	Water level	Date	Water level
06-30-66	442.00	09-10-81	600.51
09-04-68	442.00	01-28-82	596.05
03-14-79	539.00	07-07-82	601.07

\*Location - 25.14.34.114                      Aquifer - Kpc  
(NR048-02.35 x 11.35)

Date	Water level	Date	Water level
10-17-52	429.00	09-02-81	447.16
01-22-81	473.40	01-27-82	454.90

\*Location - 25.17.10.122                      Aquifer - Kch  
(NR049-07.75 x 05.80)

Date	Water level	Date	Water level
01-02-35	60.00	01-22-81	98.86
05-30-52	87.00	09-01-81	98.18
07-07-80	100.93	07-09-82	99.66

Location - 26.10.13.423                      Aquifer - Tn

Date	Water level	Date	Water level
09-12-80	437.50	09-12-81	437.50

\*Location - 26.11.33.2142                      Aquifer - Tn-Tkoa

Date	Water level	Date	Water level
01-30-68	102.50	09-04-81	155.29
03-08-77	131.50	01-28-82	148.48
06-25-80	150.60	07-07-82	153.59

\*Location - 26.18.35.21                      Aquifer - Jm  
(NR049-12.85 x 03.35)

Date	Water level	Date	Water level
07-18-78	+272.12	01-26-82	+349.90
01-22-81	+354.52	07-09-82	+349.90
09-01-81	+296.77		

\*Location - 27.13.26.3411                      Aquifer - Tkoa

Date	Water level	Date	Water level
05-06-75	166.33	09-02-81	184.44
06-24-80	196.28	01-27-82	135.33
01-22-81	187.77	07-21-82	126.28

Location - 29.17.21.4441      Aquifer - Jm  
(NR032-07.55 x 02.47)

Date	Water level	Date	Water level
07-19-78	+445.50	01-22-81	+440.90

\*Location - 30.19.05.213      Aquifer - Jm  
(NR018-06.70 x 10.50)

Date	Water level	Date	Water level
1-21-77	+159.00	09-01-81	+107.96
07-19-78	+159.00	01-26-82	+97.56
01-23-81	+120.66	07-09-82	+112.58

Location - 30.19.21.14      Aquifer - Jm  
(NR018-05.50 x 14.00)

Date	Water level	Date	Water level
07-20-78	+77.00	01-26-82	+36.65
07-09-80	+74.00	07-09-82	+18.17
01-22-81	+48.20		

Location - 31.20.19.3441      Aquifer - Jm  
(NR019-20.0 x 08.30)

Date	Water level	Date	Water level
08-00-57	370.00	01-22-81	128.46
07-09-80	131.20	09-01-82	128.30

\* See hydrographs in figure 3.

Table 4.--Records of potential observation wells in the San Juan basin

Location.--The location of a well is described by using the system of quartering of sections or the Navajo system for the Navajo Reservation. The systems are explained in the text (fig. 2).

Owner Name or Well Number.--The number or name assigned to a well may be the owner's name or number, the BIA or Navajo name or number, a traditional name, or the name or a nearby landmark.

Report of Well Depth.--The reported depth is the total depth of the well, in feet, below land surface datum (LSD). An asterisk indicates that the well depth has been measured by the USGS. Other depths are either reported or obtained from drillers' logs.

Producing Interval.--Producing interval in the part(s) of the well that is(are) open to the water-bearing unit, in feet, below land surface.

Depth to Water.--The depth to static water level, in feet, below land surface datum (LSD). Water levels with decimal accuracy were measured, others were reported. A plus (+) sign indicates that the water level is above LSD.

Date Measured.--The date measured is the date that the indicated water level was measured.

Altitude of LSD .--The altitude of the land surface above sea level, in feet, at the well. Mean sea level is now referred to as National Geodetic Vertical Datum of 1929.

Log Available.--Indicates the availability of logs.

Principal Aquifer.--The geologic formation or formations from which the well obtains water. The abbreviations used to identify water-bearing formations are given in table 1.

Table 4.--Records of potential observation wells in the San Juan Basin - continued

LOCATION	OWNER NAME OR WELL NUMBER	REPORTED DEPTH OF WELL (feet)	PRODUCING INTERVAL (feet)	DEPTH TO WATER(feet)	DATE MEASURED	ALTITUDE OF LSD	LOG AVAILABLE	PRINCIPAL AQUIFER
13.09.15.343	J.D. Ragland Well	260	215-260	233.7	12-05-57	6840	yes	Jmw
13.10.18.4113	N.T. 16T-521	414*	380-414	365	11-13-63	7050	yes	Je
13.11.17.3333	Pistol Navarre	540	520-530	381.0	10-24-62	6920	yes	TRC
13.12.11.32	Baca 9, pml, 16K-301	475	195-225	79.7	06-25-48	6840	yes	TRC
14.09.28.233	Phillips Co.	710	560-710	440.4	09-28-56	6981	yes	Jmw
14.13.19.1	N.T. 16T-529	1708	1522-1708	228	03-20-64	7380	yes	Pg
14.13.20.4322	Transwest Pipelining #2	1350	683-733	338	02-16-60	7307	yes	Pg
14.13.20.4323	" #3	735*	665-725	317	03-23-60	7298	yes	TRC
14.13.25.1334	N.T. 16T-349	677	527-677	160	07-11-61	7122	yes	TRC
14.13.33.211	Thoreau 2 16K-326	420	240-263 365-397	119.5	01-27-51	7155	yes	TRC
14.13.33.3333	Blue Water#2 Well	870	630-680	141	03-13-75	7147	yes	Psa
14.20.24.4	N.T. 16T-339	314	270-314	79	08-11-54	6550	yes	Kg
14.21.26.2	N.T. 16K-337	300	238-280	82.5	02-15-54	6400	yes	Kd
14.21.35.4	N.T. 16T-518	350	—	30	02-27-62	6195	yes	Je
15.05.01.1321	BLM	1315*	—	flow	08-28-82	6625	no	--
15.10.20.124	Gulfwest Largo	2310	1198-2212	1000	09-19-77	7554	yes	Jmw
15.10.29.211	Pathfinder Mines	2070	1900-2070	1025	02-02-80	7575	yes	Jmw
15.11.25.334	N.T. 16T-501	995	940-980	665.0	08-02-61	7280	yes	Kd
15.12.03.134	N.T. 16R-539	1470	1300-1484	650	12-08-55	7370	yes	Jmw
15.12.17.123	USIS 16K-325	696	657-696	398.5	09-08-55	7240	yes	Kd
15.15.18.3344	N.T. 16R-537	1367	1308-1367	8	06-17-66	6960	yes	Psa

Table 4.--Records of potential observation wells in the San Juan Basin - continued

LOCATION	OWNER NAME OR WELL NUMBER	REPORTED DEPTH OF WELL (feet)	PRODUCING INTERVAL (feet)	DEPTH TO WATER(feet)	DATE MEASURED	ALTITUDE OF LSD	LOG AVAILABLE	PRINCIPAL AQUIFER
15.15.20.313	N.T. 16T-351	1050	1010-1050	flow	03-01-58	6922	yes	TRcs
15.16.23.3132	BIA 16-B-12	1188	1140-1188	flow	09-15-55	6825	yes	Pg
15.17.13.1124	USIS 16-B-40a	1683	1638-1683	flow	06-10-65	6750	yes	Pg
107-7.25x14.7 15.19.03.32	N.T. 16T-353	427*	120-427	41.0	10-17-60	6497	yes	Kg
15.20.06.33	N.T. 16T-548	255	222-255	27	10-29-67	6575	yes	Kg
15.20.24.4342	N.T. 16T-339	314	217-314	79.3	09-07-55	6410	yes	Kg
16.04.36.232	BLM	602*	_____	+133.9	08-17-82	_____	yes	Kg
16.05.19.4141b	BLM	1110	_____	flow	08-28-82	6466	no	Kg
16.06.20.4413	Sinclair#1 SF*	1028	820-920	+2	10-03-62	6425	yes	Kg
16.13.03.2333	Conoco	2662	2346-2662	1275	06-10-80	7815	no	Jmw
16.15.17.1431	N.T. 16T-348	410*	380-404	flow	11-11-57	6900	yes	Kd
16.15.17.4333	N.T. 16T-514	496*	275-330, 405-415 455-475	63.3	08-31-59	6975	yes	Kd
16.15.27.141	N.T. 16T-560	398	383-393	200	07-26-71	7220	yes	Kd
16.17.15.2324	N.T. 16T-510	680*	520-530	103.5	08-30-60	6818	yes	Kd
16.19.11.1373	N.T. 16T-608	1760	1700-1760	360	05-11-81	6696	yes	Kg
16.19.22.2	N.T. 16K-333	372	190-210 250-360	161.7	06-02-55	6580	yes	Kmf
16.19.23.22	N.T. 16T-585	1775	1700-1775	236	09-05-75	6518	yes	Kg
16.20.03.3	N.T. 16T-550	1363	1043-1087, 1118-1161 1250-1363	684	07-22-70	7190	yes	Kg
16.21.26.3221	N.T. 18T-348	492	330-378 430-455	320	05-07-57	6750	yes	Kg
17.05.03.224	Cholla well 15R316	450	243-250 415-443	235	06-25-69	6600	yes	Kmf
17.06.25.11	Gulf Oil, Beard#1	2925	1710-1765	flow	00-00-71	6450	yes	Kg
102-12.48x5.4 17.08.30.414	N.T. 15R-321a	290	132-154, 200-220 265-290	150	07-02-70	7085	yes	Kmf

Table 4.--Records of potential observation wells in the San Juan Basin - continued

LOCATION	OWNER NAME OR WELL NUMBER	REPORTED DEPTH OF WELL (feet)	PRODUCING INTERVAL (feet)	DEPTH TO WATER (feet)	DATE MEASURED	ALTITUDE OF LSD	LOG AVAILABLE	PRINCIPAL AQUIFER
17.12.28.141	Mobil Oil Corp.	1750	1500-1510, 1540-1550 1580-1610	100	05-22-79	6817	yes	Kd
17.12.28.132	"	2140	1941-1961	300	05-28-79	6820	yes	Jmw
17.13.04.141a	"	2280	2136-2170	100	02-20-78	6600	yes	Jmw
17.13.04.141b	"	1930	1760-1870	100	02-23-78	6598	yes	Kd
17.13.09.3	"	2100	1946-1969	197.1	02-06-78	6708	no	Jmw
17.13.09.3	"	1788	1640-1752	31.7	02-06-78	6705	no	Kd
17.13.15.3314	"	2075	1886-1890 1897-1907	6452.14	08-15-82	6746	yes	Jmw
17.13.16.4422	"	1800	1680-1690 1710-1720	6644.27 <sup>1/</sup>	08-15-82	6749	yes	Kd
17.13.32.221	Pathfinder Mines	690	—	300	02-28-80	7080	yes	Kg
17.13.32.231	Pathfinder Mines	1924	1914-1924	700	06-25-81	7145	yes	Jmw
17.13.34.2324	Teton	1140	620-700	219	03-17-78	7115	yes	Kg
17.16.35.413	United Nuclear	1650	1550-1650	900	01-00-69	7193	yes	Jmw
17.18.32.4	Powell Tip	575	423-547	—	10-10-55	6580	yes	Kmf
18.03.20.43	N.T. 15T-541	875	435-550	276	10-25-72	6600	no	Kmf
18.03.27.432	BLM	900	345-445 650-670	85.16	08-26-82	6420	no	Kp1
18.04.22.3	Chaparral House 19T-506	435*	380-440	100	12-00-66	6355	yes	Kmf
18.05.01.134	Tinian Well 15R-312	502	405-485	189	07-00-69	6660	yes	Kmf
18.05.09.311	Pinto Well 15R-313	522	455-509	383.5	07-00-69	7050	yes	Kch
18.05.14.221	Pinon Canyon 15R-315	365	95-105 310-355	180.0	07-00-69	6740	yes	Kch
18.06.23.233	Sandoval Well 15R-314	520	235-245, 420-430 470-500	351.0	07-00-69	6700	yes	Kmf
83-5.2x13.95 18.07.02.33	N.T. 15T-540	810	441-510 583-625	350.0	01-29-73	6820	yes	Kmf
83-11.09x13.14 18.08.09.111	Chee Well 15R-293	305	255-288	261.0	06-20-69	6745	yes	Kmf

<sup>1/</sup> Altitude of water level above mean sea level

Table 4.--Records of potential observation wells in the San Juan Basin - continued

LOCATION	OWNER NAME OR WELL NUMBER	REPORTED DEPTH OF WELL (feet)	PRODUCING INTERVAL (feet)	DEPTH TO WATER (feet)	DATE MEASURED	ALTITUDE OF LSD	LOC AVAILABLE	PRINCIPAL AQUIFER
83-8.23x13.15	Chavez Well							
18.08.11.22	15R-303	381	240-250	289.5	06-20-69	6810	yes	Kmf
84-11.5x13.74								
18.09.12.1131	N.T. 15T-500	404	375-390	271.3	06-20-69	6757	yes	Kmf
18.10.17.3311	Seven Lakes turn	340	—	35.4	02-16-78	6645	no	Kmf
84-11.5x13.05								
18.11.13.4334	Pitt Ranch #6	225	—	flow	06-26-69	6528	no	Kpl
84-12.53x15.5								
12.11.23.411	Pitt Ranch #1	1500	—	60	06-25-69	6606	no	Kg
19.01.08.223	BLN Brandy #1	670	420-470, 520-570 630-640	94	04-25-78	6730	yes	Kmf
19.02.28.342	Naesta Bros	225	180-215	168.7	12-14-50	6770	yes	Kch
19.03.09.3	L. Johnson	200	150-195	90	12-00-50	6750	yes	Kpc
19.05.04.214	Encino Well	137	43-47, 70-85 120-128	47.9	01-14-76	6625	yes	Kpc
19.05.23.3431	N.T. 19K-333 (15K-333)	471	427-471	182.2	01-14-76	6585	yes	Kch
19.06.10.2111	Star Lake Mission	400	360-400	74.2	12-28-75	6750	yes	Kch
19.08.17.144	N.T. Lake Well	450	260-290 385-435	388.0	06-15-49	6745	yes	Kmf
19.09.11.4433	N.T. 15B-27	430	280-294 362-395	178.3	06-23-69	6610	yes	Kmf
84-0.5x11.5								
19.09.35.13	N.T. 15-292	351	275-323 338-343	180.0	06-25-69	6610	yes	Kmf
19.10.25.2241	Tenneco Oil	3337	—	—	01-30-71	6538	yes	Kd
84-12.35x8.75								
19.11.16.44	Pitt Ranch #8	502	460-485	306.0	06-23-69	6675	yes	Kmf
19.12.27.14	N.T. 15T-517	701	399-670	77.0	06-30-69	6340	yes	Kpl
19.13.13.444	N.T. 15K-336	730	550-730	69.0	11-02-71	6325	yes	Kpl
20.01.06.432	Ignacio Garcia	70	—	21.7	08-28-59	6820	no	TKoa
20.03.06.444	Torreon #4	827	720-747	509	10-22-72	6965	yes	TKoa
20.03.08.424	Torreon #2	590	540-560	343	06-00-72	6680	yes	TKoa
20.03.17.23	Pan Am C #1 BLM well	665	356-417 605-665	200	00-00-69	6800	no	TKoa



Table 4.--Records of potential observation wells in the San Juan Basin - continued

LOCATION	OWNER NAME OR WELL NUMBER	REPORTED DEPTH OF WELL (feet)	PRODUCING INTERVAL (feet)	DEPTH TO WATER (feet)	DATE MEASURED	ALTITUDE OF LSD	LOG AVAILABLE	PRINCIPAL AQUIFER
20.05.22.2223	Basin Star Oil Test #2	130	90-130	80	09-09-65	6730	yes	Tkoa
20.05.22.441	19T-502 PM-2 D-15	822	800-815	225	01-14-76	6805	no	Tkoa
20.07.01.221	Poor Horse 19R-300	598	508-588	166	06-16-69	6680	yes	Kpc
20.07.08.321	Alamos Well 19R-289	125	110-120	96	06-06-69	6610	yes	Kpc
20.03.01.314	H.T. 19T-500	545	330-440	63.0	06-15-59	6475	no	Kch
20.03.01.3142	N.T.	399*	—	92.5	01-00-76	6490	no	Kpc
20.03.05.2.3	Pueblo Pintado PM 5	1675	1120-1150	136	08-05-72	6510	yes	Kmf
20.03.13.143	" " PM 1	360	1575-1675	135	09-00-61	6495	yes	Kch
20.03.14	15K-205		305-330					
20.03.19	54-3.3x1.9							
20.09.03.243	H.T. CCR-18	1827	1180-1827	640	01-20-64	6378	yes	Kmf
20.09.26.43	N.T. CCR-8	1200	1010-1060 1137-1200	675	07-07-61	7050	yes	Kmf
20.10.30.324	Benezum Trees Oil	3275	2390-2410	flow	09-27-56	6401	no	Kg
20.11.12.311	H.T. IKW-#11	450	390-450	184.0	06-21-69	6394	yes	Kmf
20.12.26.444	Cowboy Well 15R-317	370	234-270	224.0	06-30-69	6260	yes	Kmf
20.13.05.4214	N.T. IKW-#12	515	270-300 430-460	203.0	06-14-69	6204	no	Kmf
20.13.23.32	H.T. IKW-#13	485	415-430 470-490	243.0	06-29-69	6275	yes	Kmf
21.01.05.141	W.R. McGuire	168	118-168	113.4	04-20-56	7125	yes	Tsj
21.01.17.321	East Lake	76	—	36.2	08-14-59	7010	yes	Tsj
21.01.29.423	Sandoval County Highway Department	152	110-152	16.2	09-03-59	6900	yes	Tkoa
21.02.09.213	H. Snelser	194*	190	109.5	09-07-54	7260	no	Tsj
21.02.28.1422	H. Snelser	206*	185-206	51.0	05-24-77	6991	no	Tsj
21.06.03.2212	N.T. 19K-338	788	460-470 727-786	588.0	09-06-68	6984	yes	Tn, Tkoa
21.08.25.3223	19R-301 FIRE Rock	950	850-870 905-935	463.5	09-06-68	6554	yes	Kch

Table 4.--Records of potential observation wells in the San Juan Basin - continued

LOCATION	OWNER NAME OR WELL NUMBER	REPORTED DEPTH OF WELL (feet)	PRODUCING INTERVAL (feet)	DEPTH TO WATER(feet)	DATE MEASURED	ALTITUDE OF LSD	LOG AVAILABLE	PRINCIPAL AQUIFER
21.12.33.1222	N.T. 151-503	500	195-280	45.7	06-14-69	6080	yes	Kmf
21.13.21.2144	N.T. 15K-337	335*	226-245, 290-300 304-317	184.6	06-14-69	6063	yes	Kmf
22.02.23.11	Johnson Windmill	305	74-95 260-287	—	04-23-74	7271	no	Tsj
22.03.29.3343	BIA	202*	—	160.4	10-11-59	7117	no	Tsj
22.04.31	V. Guitierrez	300*	270-290	250.0	08-01-71	—	yes	Tsj
22.07.01.4442	19T-518	1250	913-940, 968-990 1018-1040	904	06-18-75	7160	yes	TKoa
22.08.14.4414	Gallowash Well (Alamita)	2221	1668-2221	790	05-24-79	6650	yes	Kch
22.09.12.4343	Joe Well 19R-311	762	728-759	332.8	05-27-75	6698	no	Kpc
22.09.22.2134	19K-339	1304	1230-1304	901	02-06-53	6579	yes	Kch
22.10.04.133	Kimbleto Coal Well E-15 DH-6K	290	205-290	69.4	05-24-78	6280	no	Kf
22.10.08.244	DH-5K	474	350-474	136.4	02-24-78	6310	no	Kpc
22.10.18.211	DH-2K	205	91-205	87	08-17-77	6290	no	Kf
22.11.22.3323	15R-307	453	290-315 410-442	273.0	07-00-69	6341	yes	Kch
22.12.31.344	Lake Valley School BIA	605	562-605	240	—	6900	no	Kmf
22.12.31.433	L.V. PM 1 15R-302	962	—	58.4	06-13-69	6920	no	Kmf
22.13.32.332	Gallup Well	—	2876-2952	flow	—	6035	yes	Kg
23.01.12	Lonnie Jaquez	320*	180-225	150.0	08-20-72	—	yes	Tsj
23.02.10.3211	Lindberg Velarde	400	306-328 378-400	—	08-10-73	7300	yes	Tsj
23.03.22.1	Geo. Serafin	303	229-245 272-293	—	10-17-73	7400	no	Tsj
23.05.30.3	Lucian Serafin	328	282-328	—	08-13-73	6800	yes	Tsj
23.08.01.2144	H. Bachelor	700	—	258.4	05-08-75	6955	no	TKoa
23.09.01.1141	Ch. House 19T-510	1022	623-747 975-1022	611.3	08-12-78	6960	yes	TKoa

Table 4.--Records of potential observation wells in the San Juan Basin - continued

LOCATION	OWNER NAME OR WELL NUMBER	REPORTED DEPTH OF WELL (feet)	PRODUCING INTERVAL (feet)	DEPTH TO WATER(feet)	DATE MEASURED	ALTITUDE OF LSD	LOG AVAILABLE	PRINCIPAL AQUIFER
23.09.25.3131	Kee Well 19R-310	550	403-547	293.3	09-07-68	6312	yes	TKoa
23.12.07.2322	TL7-2 Coal Well	150	75-150	75.0	03-01-77	5920	no	Kf
23.12.07.2333	D1st1 D13 Well	350	118-350	163.0	08-20-75	5390	no	Kpc
23.13.09.1322	Foshay Well	4730	3660-3780	+522	03-29-74	5936	yes	Kg
23.13.10.1213	D1st1 #3 19R-326	495	479-494	221.5	07-00-69	5979	no	Kch
24.02.18.23	K. Heddecake	250	65-115 165-225	130.0	10-12-72	7080	yes	Tsj
24.03.32.1	Ray Lesson	250*	189-196 246-250	155.0	09-30-71	7250	yes	Tsj
24.03.01.3	Magnolia	6512	6467-5612	—	—	6700	no	Kd
24.09.01.3314	Magnolia 19T-349	435	300-320 360-410	240	12-00-64	6700	no	Tn
24.09.27.124	Largo#1 19R-296	527	498-518	494.6	09-04-68	6835	no	TKoa
24.10.15.114	19T-313	828	712-828	654.0	09-05-68	6365	yes	TKoa
24.10.33.4441	19R-286 Otis	373	327-340	304.7	05-08-75	6639	yes	TKoa
24.10.36.4342	Kimbe#1 19R-287	442	285-297, 355-365 395-420	393.0	05-12-75	6914	yes	Tn
24.13.11.44	19T-509	806*	705-806	460	12-00-70	6120	yes	Kpc
25.02.17.22	J.M. Pearce	308*	246-294	—	11-22-68	7240	yes	Tsj
25.02.22.31.	Walter Howard	195*	137-157	—	07-10-61	7200	yes	Tsj
25.04.12	Edwin Sandoval	360*	125-145, 215-245 290-355	235.0	08-21-71	—	yes	Tsj
25.06.03.414a	Gonzales Mesa	1330*	460-558, 636-756 1090-1330	—	05-10-72	6780	yes	Tsj
25.08.31.2241	19T-342	461*	310-390 424-450	296.5	03-00-57	6680	yes	Tn
25.10.13.1411	Harfano T.P. #2	559	500-559	256.6	05-15-75	6870	yes	Tn
25.10.33.34	19T-512	950	850-925	648	07-17-73	6847	no	TKoa
25.12.01.3222	Carson #1 19R-324	403	285-300, 330-340 375-390	210	05-28-75	6281	yes	TKoa

Table 4.--Records of potential observation wells in the San Juan Basin - continued

LOCATION	OWNER NAME OR WELL NUMBER	REPORTED DEPTH OF WELL (feet)	PRODUCING INTERVAL (feet)	DEPTH TO WATER(feet)	DATE MEASURED	ALTITUDE OF LSD	LOG AVAILABLE	PRINCIPAL AQUIFER
26.02.23.42	M.E. Huffman	441	241-263 380-396	100	09-01-71	7530	yes	Tsj
26.03.26	W. Velarde	350*	145-165 325-345	150.0	08-15-71	—	no	Tsj
26.04.31.3	Jicarilla	360	180-200 324-350	210	09-01-71	6750	no	Tsj
26.05.02.4	Lindberg Velarde	500	304-355 420-500	385	08-10-77	6750	yes	Tsj
26.06.26	Sam Burson	520*	400-430 480-520	430	09-13-71	—	no	Tsj
26.07.05.331	Kaime	920	520-920	flow	02-07-77	6035	no	Tn
26.09.26.4212	EPNG Ballard #1	481	—	233.5	05-15-75	6495	no	Tn
26.12.19.3	19T-511	220	150-220	150	08-00-71	6120	no	TKoa
27.03.18	Lucian Serafin	310*	250-310	260	08-07-71	—	no	Tsj
27.06.07.2231	Jack Lobato	223*	220-223	55.0	08-07-71	6174	yes	Tsj
27.07.26	R. Arculeta	309*	295-309	240.0	09-25-71	—	yes	Tsj
28.02.33.2a	Wesley Hatsinneh	504	451-472	355	07-19-74	7140	yes	Tsj
29.03.19	Geo. Serafin	355	100-204 325-345	—	10-17-73	—	yes	Tsj
28.05.16.213	BLM	95	—	58.8	12-03-67	6580	no	Tsj
29.06.25.13	Largo Grazing Corp.	575	365-395 610-675	455	05-29-73	6690	yes	Tsj
28.11.17.4423	19T-521	370	339-360	238	03-00-75	5630	no	TKoa
29.03.04	Jicarilla	315	220-250 260-295	230	11-15-74	7180	yes	Tsj
29.05.15	V. Lobato	480	125-140, 252-260 432-446	250	06-28-71	—	yes	Tsj
29.07.32.4423	Pat Montoya	779	730-779	712	11-11-75	6720	yes	Tsj
29.09.17.2411	L.G. Anderson	119	99-119	84.5	10-02-74	5720	no	Tn
29.11.31.3342	Edgar Lund	600	300	29.1	10-09-74	5458	no	Tn
29.12.34.4341	Chas. Christianson	100	—	65.5	10-21-71	5480	no	TKoa

Table 4.--Records of potential observation wells in the San Juan Basin - continued

LOCATION	OWNER NAME OR WELL NUMBER	REPORTED DEPTH OF WELL (feet)	PRODUCING INTERVAL (feet)	DEPTH TO WATER(feet)	DATE MEASURED	ALTITUDE OF LSD	LOG AVAILABLE	PRINCIPAL AQUIFER
30.02.21.41	Barbara Gonzales	380*	352-380	280.0	10-14-72	7510	yes	Taj
30.15.10.4444	PSC well A	620	490-600	65	06-05-73	5340	yes	Kpc
30.15.28.4123	PSC well G	118*	98-118	32.1	12-17-74	5185	no	Kf
31.01.22.24	Jicarilla	2373	2340-2373	1200	—	8100	no	Kd
31.03.32.344	CPNG Pump Mesa water = 1	1992	936-1650	—	08-13-75	6272	yes	Tn
31.16.33.34	Ute Tribe	5201	4625-4887	+231.0	10-23-64	5222	yes	Pdc
31.16.34.31	Ute Tribe	2775	2256-2738	—	—	5397	yes	Jm
31.17.27.4341	H.T. OT-1	1860	1600-1860	flow	06-05-53	5222	yes	Jm
32.17.03.2111	12T-534	1330	1238-1330	34	05-24-67	5190	yes	Kd
32.17.25.43	12T-560	2691	2625-2686	—	—	5880	yes	Jm
32.15.35.1234	12T-520	1777	1482-1777	flow	03-09-61	4945	yes	Jm
32.15.35.15.45	12T-524	1945	1454-1845	flow	—	5110	no	Je
32.19.31.1214	12K-317	874	830-865	136.3	08-06-53	5170	yes	Jm
31.20.03.1244	12T-561	6612	1130-1450	flow	—	4870	yes	Je
31.20.03.1244	13T-517	1458*	1206-1360	670.5	09-06-71	6130	yes	Kpc
31.2.3x13.3	13T-516	1460	1385-1460	900	09-07-71	6208	yes	Kpc
31.2.39x16.71	13T-205	804	704-804	475	06-06-51	5650	yes	Kpc
31.8.20x9.35	13T-521	1160	1016-1130	—	—	5925	yes	Kpc
31.8.54x12.63	12R-91	675	542-675	flow	06-26-52	5385	yes	Kch
32.7.10x15.45	12T-547	1680	1473-1680	200	06-03-82	5382	yes	Kd
32.7.4x9.8	Navajo	1680	1473-1634	—	05-29-62	5382	yes	Kd
32.8.9x10.1e	Exxon	2920	2079-2920	flow	10-16-77	5400	yes	Jm

Table 4.--Records of potential observation wells in the San Juan Basin - continued

LOCATION	OWNER NAME OR WELL NUMBER	REPORTED DEPTH OF WELL (feet)	PRODUCING INTERVAL (feet)	DEPTH TO WATER (feet)	DATE MEASURED	ALTITUDE OF L.S.D.	LOG AVAILABLE	PRINCIPAL AQUIFER
29-16-36.4131	12T-549	1900	1800-1900	500	09-30-65	5235+	no	Je
32-10.45x4.71	Exxon	2682	1806-2682	flow	10-14-77	5270	yes	Jm
32-12.76x10.50	12K-320	1992	1745-1992	flow	05-00-54	5520	yes	Jmw
27-18.09.441	Exxon	2560	1806-2560	flow	11-04-77	5254	yes	Jm
32-13.21x2	McMillan Oil	652	45-652	flow	03-31-55	5280	no	Kg
32-13.3x2.59	12R-84	1430	1136-1430	flow	09-16-54	5830	yes	Jmw
32-14.0x3.4	12R-100	415	299-415	flow	06-30-55	5320	yes	Kg
26-18.03.1324	12R-96	354	272-354	30	11-20-34	5320	yes	Kg
33-2.03x16.38	12T-343	351	203-350	37.0	04-25-58	5550	yes	Kg
27-18.31.3443	12T-582	902	562-733	10	06-24-67	5935	no	Jm
33-2.45x11.10	13K-207	1120	1070-1120	429	10-17-52	6070	yes	Kpc
29-19.24.3134	13K-208	800*	660-740	280.0	08-31-54	5920	yes	Kch
33-3.25x2.90	12T-324	721	685-721	210.0	12-09-55	6030	yes	Kd
27-19.15.2331	EPNG HI	—	260-325	224	06-28-79	5795	no	Kpc
33-5.61x11.94	EPNG Well P	—	397-490	311	06-28-79	5745	no	Kpc
20-19.05.4332	EPNG Well 02	—	586-893	48	06-29-79	5525	no	Kch
22-7.40x16.45	13T-501	225	95-210	33	—	5440	yes	Kpc
25-14.34.2114	13T-515	525	340-525	80	03-28-71	5540	yes	Kch
45-2.35x11.35	12T-336	541*	508-540	flow	11-27-57	5419	yes	Kch
44-14.02x0.45	12K-312	1000	846-1000	flow	07-16-53	5580	yes	Kmf
44-15.22.2443	12T-590	796	716-796	flow	05-28-67	5635	yes	Kd
49-5.3x15.3	12T-600	192	75-155	10	10-24-70	5830	yes	Kg

Table 4.--Records of potential observation wells in the San Juan Basin - continued

LOCATION	OWNER NAME OR WELL NUMBER	REPORTED DEPTH OF WELL (feet)	PRODUCING INTERVAL (feet)	DEPTH TO WATER (feet)	DATE MEASURED	ALTITUDE OF LSD	LOG AVAILABLE	PRINCIPAL AQUIFER
25-19-01-144	Exxon	2349	1491-2349	flow	—	5995	yes	Jm
50-3-4x13.70	Exxon	2518	1750-2518	flow	07-17-78	6010	yes	Jm
25-19-36-233	Exxon	800	500-800	flow	09-20-59	5939	yes	Jm
50-3-78x15.62	12T-512	1040	980-1030	139.3	08-02-59	6370	yes	Kd
25-19-04-415	12T-507	1150	925-1150	295	05-04-69	6476	yes	Jm
50-6-50x5.00	Exxon	1794	1120-1794	flow	07-17-78	6160	yes	Jm
25-19-32-3312	15T-528	750	715-740	5	09-24-69	5775	no	Kmf
50-7-90x10.15	15T-339	987	964-980	191	08-31-55	6004	yes	Kmf
26-19-30-22	15K-340	412 *	347-368	64.6	04-13-57	5820	yes	Kmf
50-3-46x2.51	15A-18	550	350-525	flow	02-10-55	5750	yes	Kmf
25-19-07-32	15T-509	827	805-825	93.0	09-30-63	5940	yes	Kmf
50-8-76x5.75	14N-79	320	260-290	160.9	10-14-54	5850	yes	Kmf
22-1-12-2124	14T-521	485	320-485	flow	03-31-63	5700	yes	Kmf
66-1-52x6.13	12K-314	250	230-250	79.1	09-21-54	5590	yes	Kmf
22-1-11-3414	12T-581	1214	780-1214	flow	02-03-66	5620	yes	Kmf
66-2-70x6.90	14T-535	1610	1310-1610	flow	02-18-66	5880	yes	Kp1
21-13-21	14K-308	380	320-340	flow	05-26-51	5940	yes	Kmf
66-4-20x14.49	12T-325	274 *	230-274	40.0	01-08-56	5890	yes	Kmf
21-1-07	12T-557	1448	1110-1448	flow	05-08-64	5800	no	Kp1
21-16-15-2333	15-16-11-2223	505	421-505	flow	03-25-57	6050	yes	Kp1
67-6-4x14.0	14T-324	2680	908-1070	—	10-29-74	6318	no	Kg
23-17-04	14T-578	188	160-188	50	12-12-65	5901	yes	Kmf
67-8-30x0.30	14T-534							
23-1-17								
67-5-35x2.35								
21-17-07								
67-10-30x12.90								
21-17-18								
67-10-60x12.80								
22-13-13								
67-11-70x7.65								
23-13-02								
68-0-70x4.40								
15-16-11-2223								
97-0-3x13.0								
15-17-22-41								
87-5-30x15.50								
19-17-02-1212								
87-6-68x5.95								

Table 4.--Records of potential observation wells in the San Juan Basin - continued

LOCATION	OWNER NAME OR WELL NUMBER	REPORTED DEPTH OF WELL (feet)	PRODUCING INTERVAL (feet)	DEPTH TO WATER(feet)	DATE MEASURED	ALTITUDE OF LSD	LOG AVAILABLE	PRINCIPAL AQUIFER
19-17-09-2123	EPUG 4	1131	1094-1131	flow	09-24-56	5990	yes	Kp1
20-17-29								
87-3.35x7.00	14T-569	1580	1437-1575	flow	02-11-74	6280	yes	Kg
87-9.2 5.0e								
18-17-19-3241	14M-1	1150	1082-1108	flow	03-16-56	6113	yes	Kg
87-10.63x15.70								
19-18-16								
88-0.20x8.90	Tohatchi 14K-527	1435	871-1430	450	10-06-62	6560	yes	Kg
19-18-32								
83-1.70x12.15	14K-315	302*	260-300	129.50	03-10-70	6360	yes	Kmf
18-19-14	Mexican Springs							
83-4.40x14.55	14K-303	64 *	50-55	26.3	10-12-48	6390	yes	Kmf
18-19-14								
83-4.42x14.63	14T-502	423 *	260-423	145	10-02-72	6380	yes	Kmf
19-18-32								
83-7.15x11.65	14T-322	500	335-410 460-492	34	05-14-73	6720	yes	Kp1
17-14-12-1212	15B-2	1014	840-1014	62.9	06-12-79	6712	yes	Kg
105-1.80x1.68								
17-14-02-324	15T-538	971	902-971	222.9	06-12-79	6385	yes	Kg
105-2.65x1.42								
17-14-03-4324	Pioneer Nuclear	1154	910-1143	216	01-08-77	6830	no	Kg
1-5-3.42x1.50								
17-16-08								
106-3.74x2.67	14T-538	1182	972-1182	330	10-23-70	6880	yes	Kg
17-16-25-3211								
106-3.85x5.70	14T-313	623	560-600	235	05-01-53	7020	yes	Kg
17-18-27								
106-13.75x4.30	14T-306	252 *	225-50	79	06-27-51	6380	yes	Kmf
17-18-17-2343								
107-1.56x3.15	14T-531	3246	2326-3246	+125	09-27-55	6470	yes	Jmw
17-18-13-1113								
107-2.59x2.75	14K-314	254 *	205-230	180.0	10-28-53	6460	yes	Kmf
17-19-34								
107-4.95x5.65	14T-533	1051	590-1051	475	10-08-65	6965	yes	Kg
17-19-03-3412								
107-5.75x1.45	14T-512	350 *	310-350	276.7	12-01-59	6540	yes	Kmf
18-19-05-2324								
107-7.40x0.00	14T-508	560 *	495-560	415.8	01-28-60	6754	yes	Kg
17-19-30-4422								
107-8.12x5.48	14T-537	645	433-611	258	06-24-69	6879	yes	Kg
17-20-35								
107-9.85x6.15	14T-509	477	425-477	36	09-02-59	6910	yes	Kmf
17-20-21-4321								
107-12.75x3.95	18K-329	567	473-567	437	11-19-59	7080	no	Kg





Table 5.--Chemical constituents of water from selected wells in the San Juan basin

Well Location.--The Location of a well is described by using the system of quartering by sections or the Navajo system for the Navajo Reservation. The systems are explained in the text and shown in figure 2.

Number or Name.--The number or name assigned to a well may be the owner's name or number, the BIA or Navajo name or number, a traditional name, or the name of a nearby landmark.

Reported Well Depth.--The reported depth is the total depth of the well, in feet, below land surface datum (LSD).

Principal Aquifer.--The geologic formation or formations from which the well obtains water. The abbreviations used to identify water-bearing formations are given in table 1.

Date Sampled.--The date the water sample was collected.

Chemical Constituents.--Alkalinity, calcium, sodium, sulfate, chloride, and dissolved solids are given in milligrams per liter (mg/L). Analyses were made by the U.S. Geological Survey.

Table 3.--Chemical Constituents of Water from Selected Wells in the San Juan Basin  
(collected between February 1981 and October 1982)

Well Location	Number or Name	Reported Well Depth	Principal Aquifer	Date Sampled	Laboratory Alkalinity (mg/l)	Calcium (mg/l)	Sodium (mg/l)	Sulfate (mg/l)	Chloride (mg/l)	Dissolved Solids (mg/l)
McKinley County										
15.06.01.1321	BLM	1315	Kg	8-28-82	206	4.6	9.6	17	4.4	263
15.13.25.1423	W.Nuclear	3102	Psag	2-24-82	160	50	13	84	2.9	284
15.14.11.2143	Gulf Oil	695	Jmb	2-28-82	220	79	32	98	10	386
16.11.33.332	BIA-PM3	2023	Jmw	7-22-81	150	19	200	330	9.4	679
17.12.19.4314	NTUA 1	2345	Jmw	7-15-81	190	4.7	110	62	3.5	317
17.12.20.1111	NTUA 2	2377	Jmw	7-14-81	200	2.4	120	58	4.4	324
17.12.20.3313	BIA	2500	Jmw	7-14-81	190	2.4	110	55	3.4	305
17.12.30.142	15K-303	575	Kd	7-14-81	210	11	150	150	4.5	466
17.12.30.3243	BIA-PM5	2544	Jm	7-14-81	220	12	150	140	3.2	465
17.13.15.332	Mobil Oil	2150	Jmw	8-17-82	195	2.5	100	39	3.3	282
Rio Arriba County										
21.06.35.341	State of New Mexico	1044	TKoa	9-8-82	56	11	12	5	1.6	127
Sandoval County										
16.03.17.3332	Abbot Brothers	1840	Kd	8-17-82	341	2.8	660	980	82	1940
16.04.36.2321	BLM	602	Kg	8-17-82	239	1.7	130	34	3.8	329
20.02.14.3214	BLM	65	TKoa	8-21-82	237	110	570	1200	18	2080
20.02.16.2144	Smelzer	---	TKoa	8-26-82	250	50	320	600	11	1160

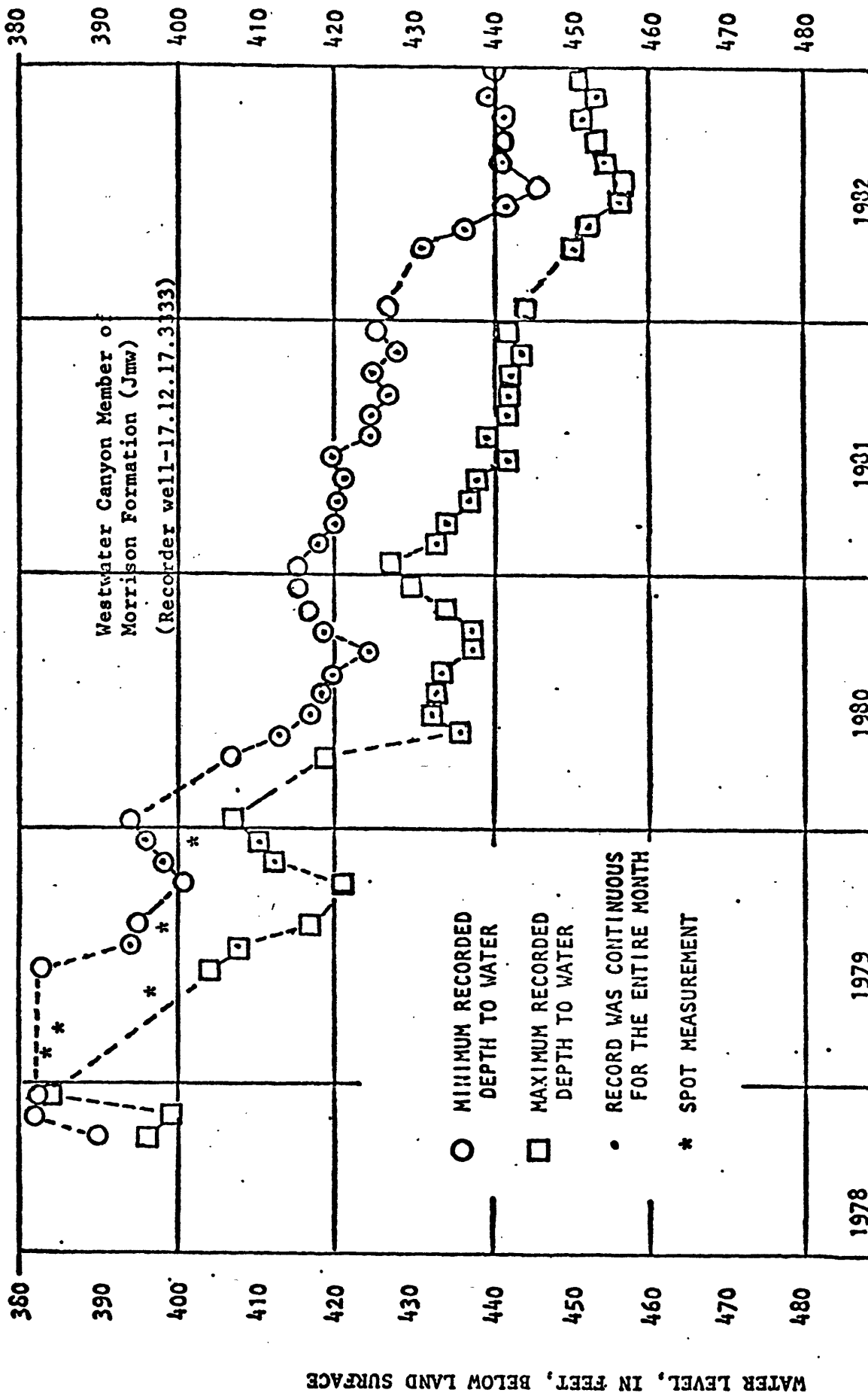


Figure 3.--Hydrographs of wells completed in aquifers of the San Juan basin, New Mexico

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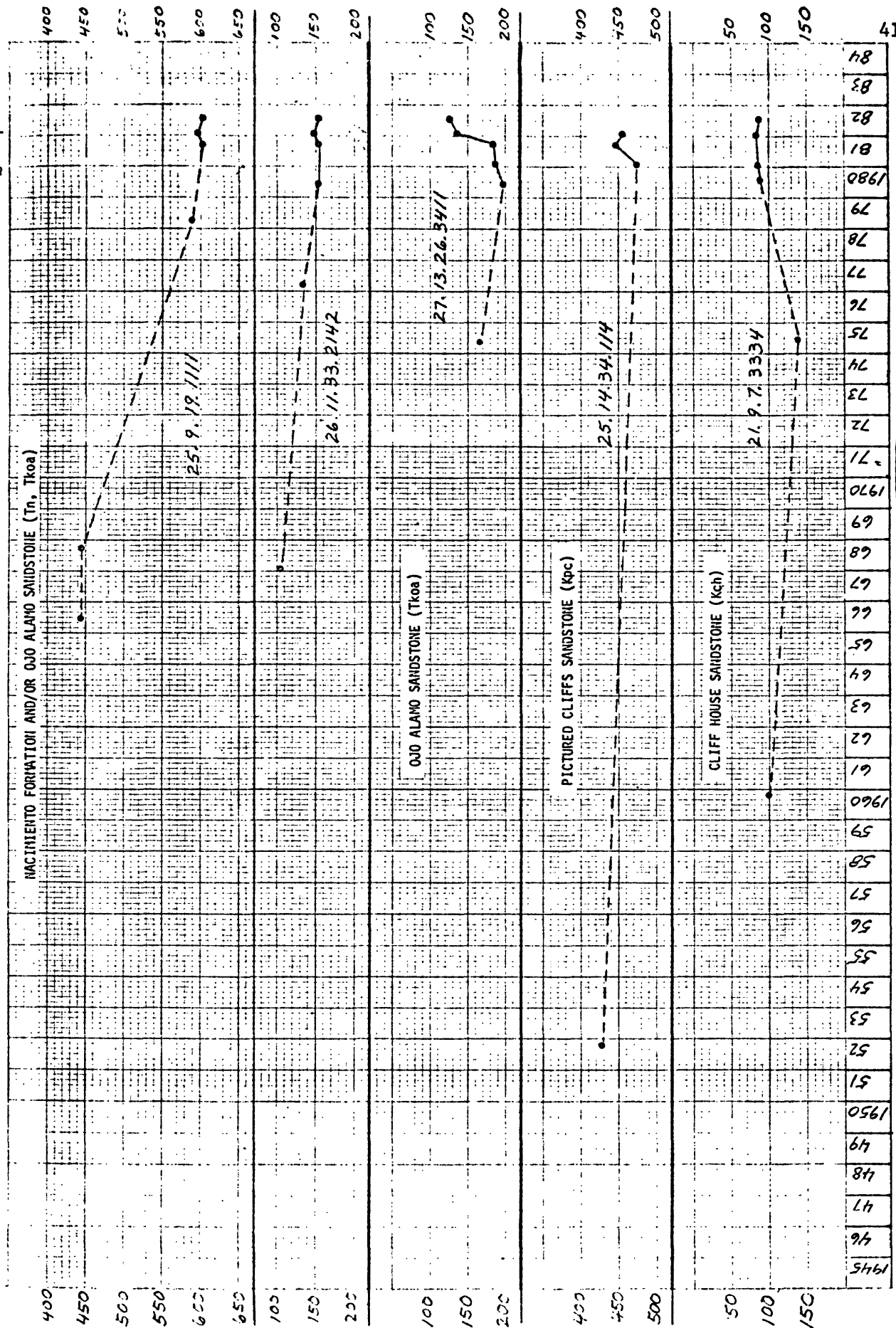


Figure 3.--Hydrographs of wells completed in aquifers of the San Juan basin, New Mexico

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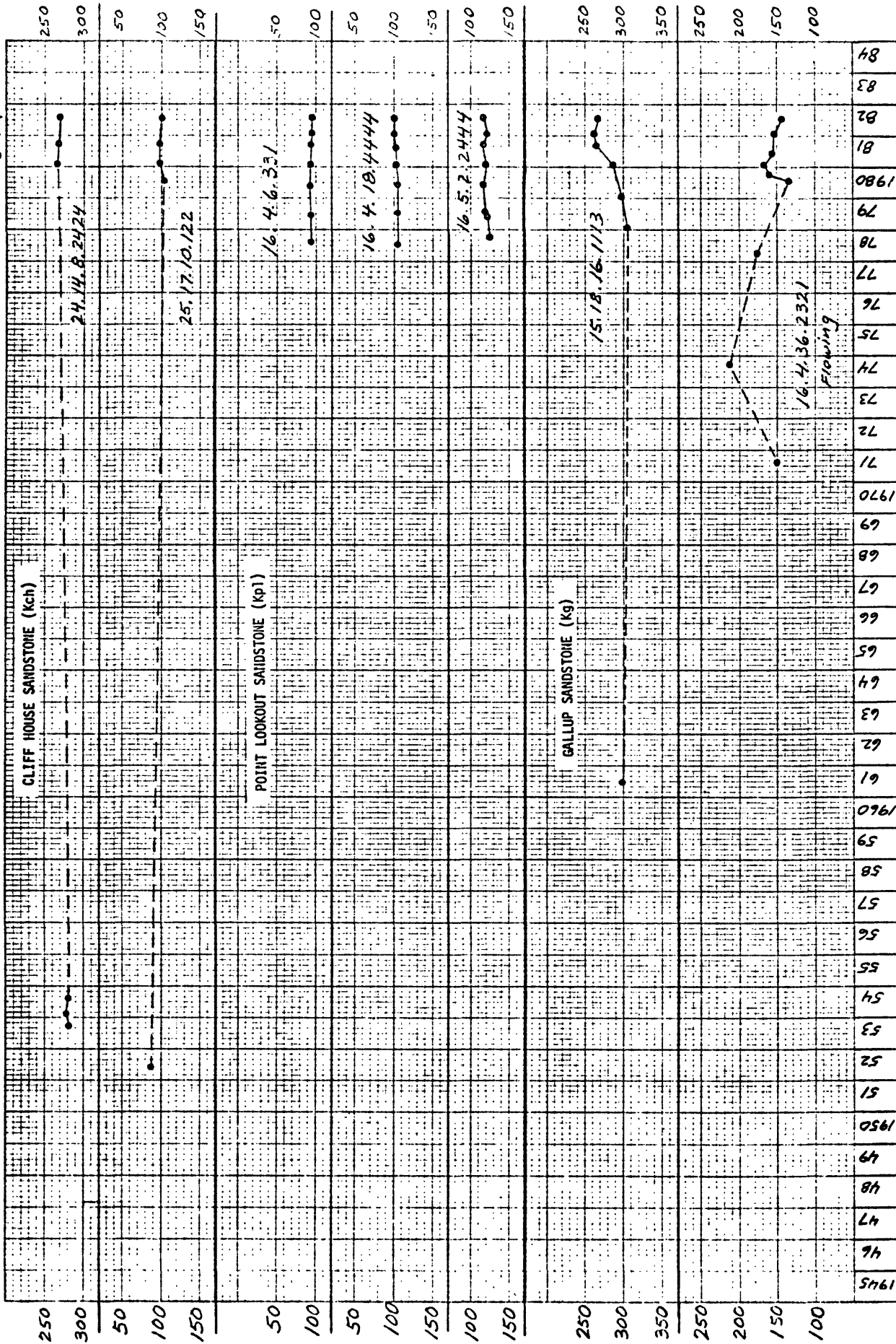


Figure 3.--Hydrographs of wells completed in aquifers of the San Juan basin, New Mexico



**Figure 3.--Hydrographs of wells completed in aquifers of the San Juan Basin, New Mexico**

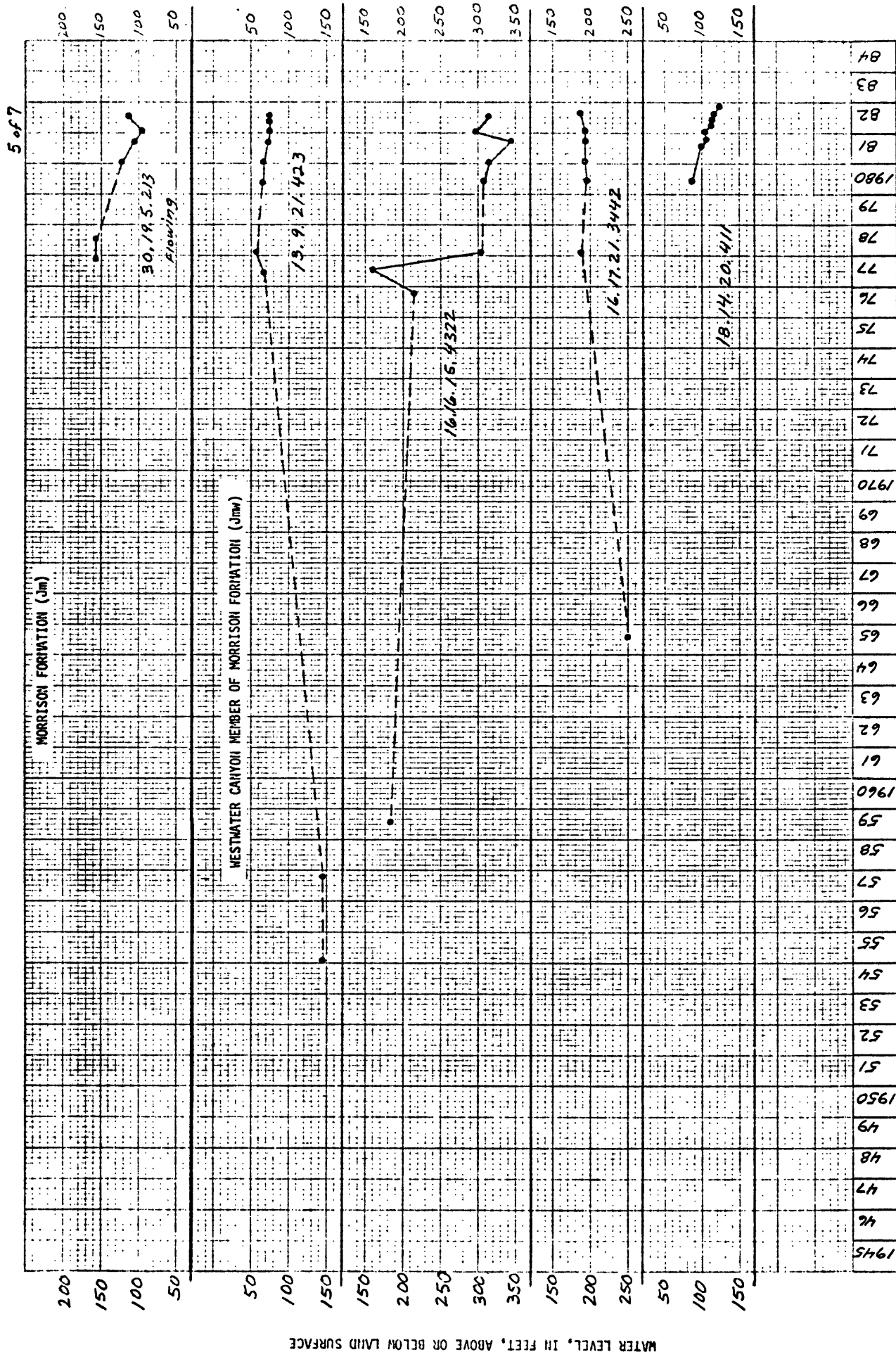


Figure 3.--Hydrographs of wells completed in aquifers of the San Juan basin, New Mexico



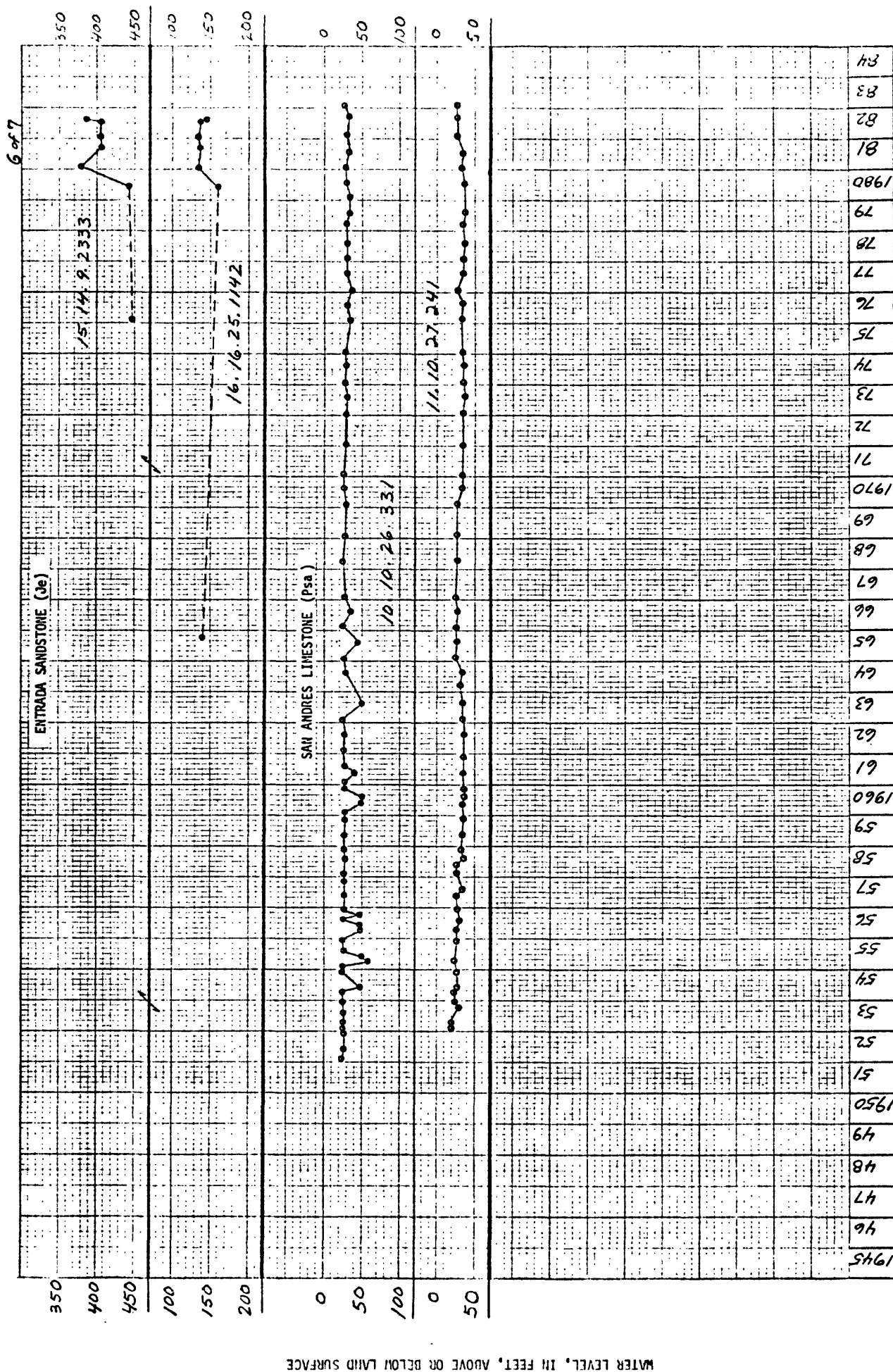


Figure 3.--Hydrographs of wells completed in aquifers of the San Juan basin, New Mexico

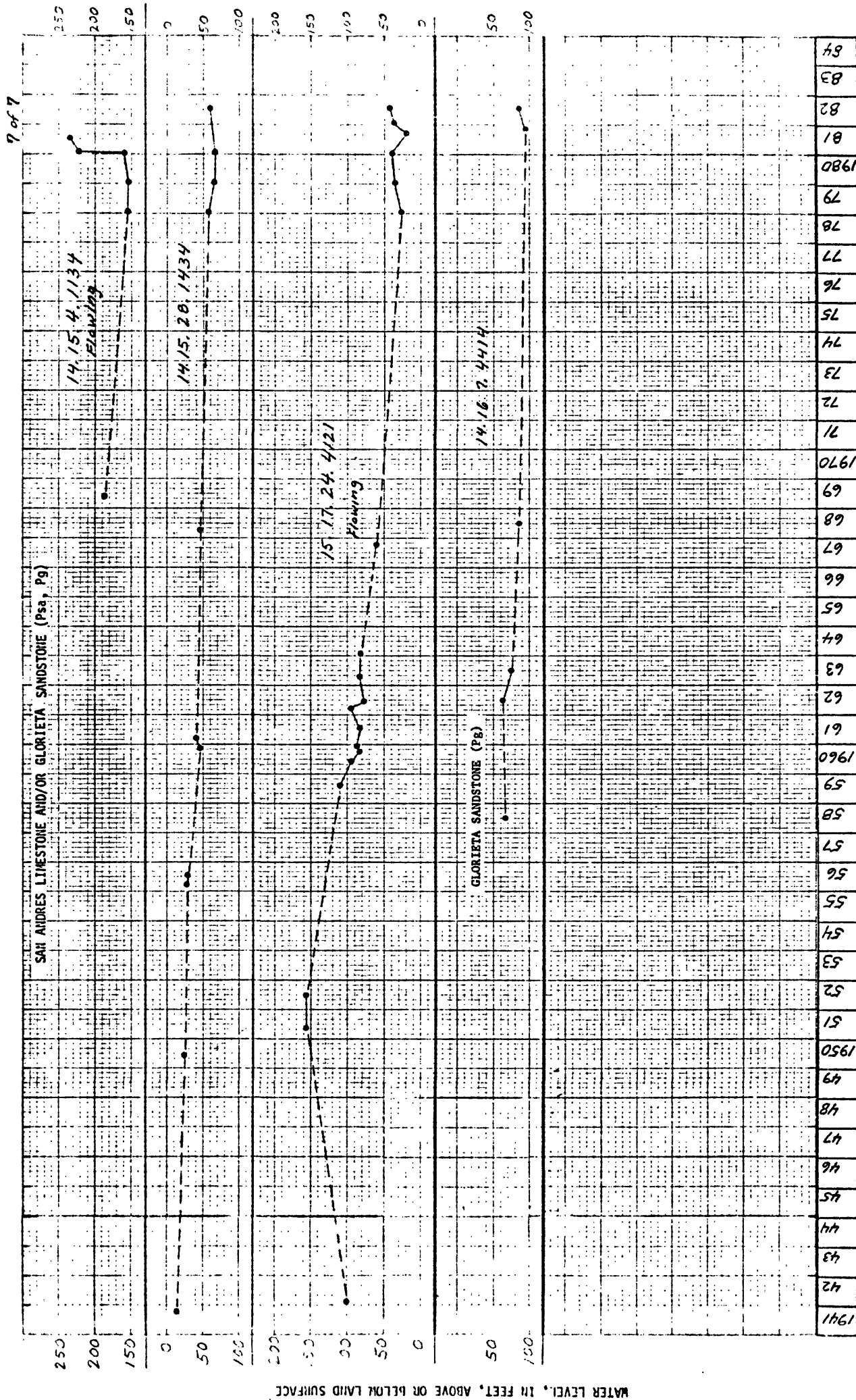


Figure 3.--Hydrographs of wells completed in aquifers of the San Juan basin, New Mexico