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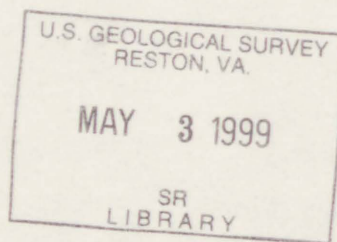
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Water Resources Data Wyoming Water Year 1998

Volume 2. Ground Water

Water-Data Report WY-98-2



U.S. Department of the Interior
U.S. Geological Survey



Prepared in cooperation with the
Wyoming State Engineer and
other State and local agencies

CALENDAR FOR WATER YEAR 1998

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1998

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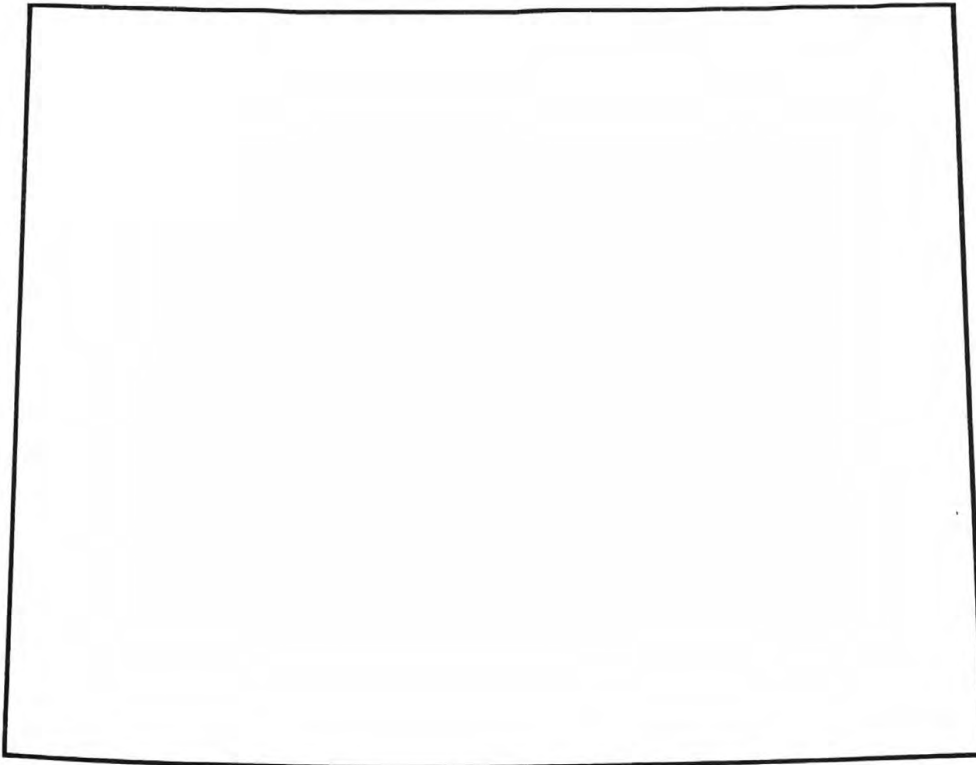
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Water Resources Data Wyoming Water Year 1998

Volume 2. Ground Water

By J.P. Mason, D.T. Miller, and K.M. Ogle

Water-Data Report WY-98-2



UNITED STATES DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, Secretary

GEOLOGICAL SURVEY

Charles G. Groat, Director

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District Chief, Water Resources Division
U.S. Geological Survey
2617 East Lincolnway, Suite B
Cheyenne, Wyoming 82001-5662

WATER RESOURCES DATA - WYOMING, 1998

PREFACE

This annual hydrologic data report of Wyoming is one of a series of annual reports that documents hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and the quality of water provide the hydrologic information needed by Federal, State and local agencies, and the private sector for administering, developing and managing our Nation's land and water resources. These records are contained in 2 volumes:

Volume 1. Surface-Water Data

Volume 2. Ground-Water Data

This report is the culmination of a concerted effort by personnel of the Wyoming District of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. The authors had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to U.S. Geological Survey policies and guidelines.

Most of the data in this volume were collected by personnel from the Wyoming State Engineer's Office, and computed, and processed by personnel from the Wyoming District. The following personnel are recognized for their significant contributions to this report:

T.C. Bartke	K.J. Hedmark
M.L. Clark	C.E. Miller

D. A. Trefren-Miller typed and assembled the report.

This report was prepared under the general supervision of Myron H. Brooks, District Chief, Wyoming District, in cooperation with Gordon W. Fassett, the Wyoming State Engineer.

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13. ABSTRACT (Maximum 200 words) Water resources data for the 1998 water year for Wyoming consists of records of stage, discharge and water quality of streams; stage and contents of lakes and reservoirs, and water levels and water quality of ground water. Volume 2 of this report contains water levels records for 73 wells. Additional ground-water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous studies and programs. These data together with the data in Volume 1 represent part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Wyoming.				
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ALBANY COUNTY

411751105312701.	Local number, 15-073-01dba01.	Local name, Huntoon #1.....	17
411703105314001.	Local number, 15-073-12dbb01.	Local name, Huntoon #2.....	18

BIG HORN COUNTY

441351107434701.	Local number, 49-091-12dba01.	Local name, Worland-1.....	20
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CAMPBELL COUNTY

433438105225401.	Local number, 42-071-35aaa01.	Local name, Ech-8.....	22
441117105192901.	Local number, 49-070-31bbb01.	Local name, Hampshire-1.....	23
441819105305701.	Local number, 50-072-21aba01.	Local name, Gillette H-13.....	24

CARBON COUNTY

411234106424601.	Local number, 14-083-03cab01.	Local name, Helmer South.....	26
422338107145001.	Local number, 28-087-16cca01.	Local name, Split Rock #2.....	27

CONVERSE COUNTY

424420105364201.	Local number, 32-073-16cdb01.	Local name, Natural Bridge East.....	29
431140105151901.	Local number, 37-070-10cbb01.	Local name, Bill #6.....	30

CROOK COUNTY

441113104151001.	Local number, 49-062-36cbb01.	Local name, Inyan Kara Mountain ccmow6.....	32
441113104151002.	Local number, 49-062-36cbb02.	Local name, Inyan Kara Mountain ccmow6A.....	33
442739104214601.	Local number, 52-063-25dcd01.	Local name, Cole #3A.....	34
443453104425602.	Local number, 53-065-18bbd02.	Local name, Park Service.....	35
444854104534501.	Local number, 56-067-28aab01.	Local name, Cole #41 Madison.....	36
444854104534502.	Local number, 56-067-28aab02.	Local name, Cole #41 Minnelusa.....	37

FREMONT COUNTY

430205108243201.	Local number, 1N-4E-28acc01.	Local name, Brentwood.....	39
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GOSHEN COUNTY

414049104074501.	Local number, 20-060-30bbb01.	Local name, LaGrange #2.....	41
414051104100701.	Local number, 20-061-23ccc01.	Local name, Curt Meier.....	42
422519104095101.	Local number, 28-061-02ccd01.	Local name, Prairie Center #6.....	43
422512104135501.	Local number, 28-061-06aba01.	Local name, Goshen County #2.....	44
422928104121401.	Local number, 29-061-17aad01.	Local name, Prairie Center #4.....	45
422849104090801.	Local number, 29-061-23abb01.	Local name, Goshen County #1.....	46
422730104094801.	Local number, 29-061-26cbb01.	Local name, Prairie Center #3.....	47
423549104120901.	Local number, 30-061-09bbb01.	Local name, Prairie Center #5.....	48

HOT SPRINGS COUNTY

434136108183301.	Local number, 43-095-18cab01.	Local name, Thermopolis GTW-1.....	50
433933108121901.	Local number, 43-095-25cdc01.	Local name, Thermopolis GTW-3.....	51

LARAMIE COUNTY

410059104072401.	Local number, 12-060-07ddd01.	Local name, Laramie County #1.....	53
410100104160301.	Local number, 12-062-13baa01.	Local name, USGS southeast of Carpenter.....	54
410111104223102.	Local number, 12-063-15aaa02.	Local name, USGS southwest of Carpenter.....	55
410703104071201.	Local number, 13-060-05ccb01.	Local name, Elmer Glantz.....	56
410324104481701.	Local number, 13-066-32bbd01.	Local name, Laramie County #14.....	57
410530104574001.	Local number, 13-068-13ccc01.	Local name, Borie.....	58
411238104070801.	Local number, 14-060-05bcb01.	Local name, C.C. Gross.....	59
411022104141201.	Local number, 14-061-18ddd01.	Local name, Laramie County #2.....	60
411114104242501.	Local number, 14-063-15aaa01.	Local name, Laramie County #3.....	61
411005104355001.	Local number, 14-064-19bcc01.	Local name, Laramie County #9.....	62
411147104490501.	Local number, 14-066-07add01.	Local name, National Land #1.....	63
411210104452001.	Local number, 14-066-10aba01.	Local name, Laramie County #8.....	64
410940104435701.	Local number, 14-066-23ddd01.	Local name, Laramie County #15.....	65
411213104501401.	Local number, 14-067-12abb01.	Local name, Laramie County #10.....	66
411034104554001.	Local number, 14-067-18ddc01.	Local name, Bell #14.....	67
410930104524701.	Local number, 14-067-27bac01.	Local name, Laramie County #13.....	68
410838104530401.	Local number, 14-067-34bbc01.	Local name, Laramie County #11.....	69
410827104501601.	Local number, 14-067-36acb01.	Local name, Pioneer Park.....	70
410757104582302.	Local number, 14-068-35ddc02.	Local name, King #3.....	71
411531104194701.	Local number, 15-062-20aaa01.	Local name, Laramie County #4.....	72
412227104081402.	Local number, 16-060-07bbb02.	Local name, USGS southwest of Albin.....	73
411136104125301.	Local number, 16-061-17aaa01.	Local name, Laramie County #5.....	74
412343104053101.	Local number, 17-060-33cbb01.	Local name, USGS south of Albin.....	75
412605104203001.	Local number, 17-062-17ccc01.	Local name, Laramie County #6A.....	76
412400104533901.	Local number, 17-067-33baa01.	Local name, MX-North.....	77

NIORRARA COUNTY

424709104194101.	Local number, 32-062-05baa01.	Local name, Niobrara County #1.....	79
424244104202001.	Local number, 32-062-32bbb01.	Local name, Node Well.....	80
430422104183201.	Local number, 36-062-28ab01.	Local name, ETSI T-2.....	81
430422104183202.	Local number, 36-062-28ab02.	Local name, ETSI O-2.....	82
430421104200701.	Local number, 36-062-28bbd01.	Local name, ETSI T-1.....	83

GROUND-WATER LEVELS-Continued

PLATTE COUNTY

420246104590302.	Local number, 24-068-22aab02.	Local name, Platte County #1A.....	85
420718104553901.	Local number, 25-067-19dda01.	Local name, Ed Wilhelm.....	86
420524104530201.	Local number, 25-067-34ccd01.	Local name, Platte County #2.....	87
420859104565001.	Local number, 25-068-12dda01.	Local name, Platte County #4.....	88
420840105000401.	Local number, 25-068-15bbd01.	Local name, Platte County #6.....	89
420748104565001.	Local number, 25-068-24aad01.	Local name, Platte County #3.....	90
420613105024401.	Local number, 25-068-31aaa01.	Local name, Platte County #7.....	91
421443104574601.	Local number, 26-068-12cbd01.	Local name, E. Rutherford.....	92
421128104575801.	Local number, 26-068-36bbb01.	Local name, Platte County #5.....	93

SWEETWATER COUNTY

413850109150601.	Local number, 19-105-10bbb01.	Local name, Rock Springs Golf Course.....	95
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TETON COUNTY

433059110511802.	Local number, 41-117-14bdc02.	Local name, Teton Pines.....	97
433517110493001.	Local number, 42-117-24dab01.	Local name, Teton Village.....	98

WASHAKIE COUNTY

440621107273801.	Local number, 48-089-25ada01.	Local name, Mills.....	100
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WESTON COUNTY

434539104233401.	Local number, 44-063-26cac01.	Local name, Townsend Well.....	102
435610104433001.	Local number, 46-066-25dbb01.	Local name, Terra Resources.....	103
440530104381001.	Local number, 48-065-35ccb01.	Local name, Town of Upton #4.....	104

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State, county, municipal, and other Federal agencies, obtains a large amount of data pertaining to the water resources of Wyoming each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the U.S. Geological Survey, the data are published annually in this report series entitled, "Water Resources Data - Wyoming" as part of the National Water Data System. Water resources data for Wyoming in this volume consists of records of ground-water levels and water quality of ground water for water year 1998, which began October 1, 1997, and ended September 30, 1998. This report also contains historic water levels from 73 observation wells in the form of hydrographs. The location of counties in Wyoming with the number of observation wells listed in this report is shown in figure 1. Additional ground-water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements.

Since 1940, the U.S. Geological Survey, in cooperation with State, county, municipal, and other Federal agencies, periodically has measured ground-water levels in a large number of wells in Wyoming. A more extensive program was started in 1972 to expand the ground-water-level data base throughout the State. Part of the expansion included the installation of continuous water-level recorders in selected wells in an observation-well network. The observation-well network consists of 71 wells, and the program currently is conducted by the U.S. Geological Survey and the Wyoming State Engineer's Office.

Ground-water levels were systematically measured in 73 observation wells in 16 counties in Wyoming, as of September 1998. Seventy-one of these observation wells are part of the cooperative observation-well program conducted by the U.S. Geological Survey and the Wyoming State Engineer's Office. The other two observation-wells are part of a cooperative project conducted by the U.S. Geological Survey and the Teton County Natural Resource District. Water-level data were collected at 63 of the 73 observation wells by Wyoming State Engineer personnel; data at the remaining ten wells were collected by U.S. Geological Survey personnel. The wells are located mainly in areas where ground water is used in large quantities for irrigation or municipal purposes. Water levels were measured in at least one observation well in 16 of the 23 counties in Wyoming. During 1998, a continuous record of water levels was collected from 55 wells equipped with float-driven digital water-level recorders or electronic data recorders, two wells equipped with pressure-sensing transducers and electronic data recorders, and a continuous record of hydraulic heads above land surface was obtained from two flowing wells equipped with pressure-sensing transducers and electronic data recorders. The remaining 14 wells periodically were measured by hand using a steel tape, electric tape, or an air line.

Prior to 1997 only miscellaneous ground-water data were published in this report. In the past the majority of ground-water-level data collected in Wyoming was published in other report series of the U.S. Geological Survey. Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities of the United States or may be purchased from U.S. Geological Survey, Earth Science Information Center, Federal Center, Building 810, Box 25425, Denver, Colorado 80225.

Beginning with the 1971 water year, streamflow, water quality, and ground-water are published in official Survey reports on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report WY-98-2." These water-data reports are for sale, in paper copy or on microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Wyoming water-level data and hydrographs also can be found in a series of 14 open-file reports published by the U.S. Geological Survey between 1973 and 1995.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone at (307) 778-2931.



Figure 1. Location of counties in Wyoming with observation wells, as of September 1998.

COOPERATION

The U.S. Geological Survey and organizations of the State of Wyoming have had cooperative agreements for the systematic collection of streamflow records since 1895, for ground-water levels since 1940, and for water-quality records since 1946. Organizations that assisted in collecting data through cooperative agreement with the U.S. Geological Survey are:

Wyoming State Engineer's Office, Gordon W. Fassett, State Engineer

Wyoming Department of Agriculture, Ronald Micheli, Commissioner

Wyoming Department of Environmental Quality, Dennis Hemmer, Director

Town of Torrington, Ed Jolovich, Mayor

Teton County Natural Resource District, Gene Hoffman, Chairman

Assistance in the form of funds or services was given by Grand Teton National Park, (NPS, U.S. Dept. of the Interior) for 34 ground water monitoring wells, of which 15 include water-quality data that are published in this report.

SUMMARY OF HYDROLOGIC CONDITIONS

Ground-Water Levels

Ground-water levels were monitored in a statewide network of 73 observation wells. Wells completed in the High Plains aquifer and located in areas of ground-water withdrawal in southeast and south-central Wyoming constitute 60 percent of the observation-well network. Ground water is withdrawn from the High Plains aquifer for irrigation in Niobrara, Platte, and Goshen Counties and the eastern part of Laramie County. Substantial ground-water withdrawals from the High Plains aquifer for municipal and domestic use occur in central Laramie County.

Water levels were measured in at least 1 observation well in 16 of the 23 counties in Wyoming. During water year 1998, continuous ground-water-level measurements were recorded at 55 observation wells equipped with float-driven, digital recorders, or electronic data recorders. Two other observation wells, plus two artesian wells, were equipped with pressure-sensing transducers and electronic data recorders. Water levels in the remaining 14 wells were measured manually with a steel or electric tape, or an air line.

Changes in water levels for the statewide observation-well network and wells specifically completed in the High Plains aquifer are summarized in table 1. The changes in water levels from water year 1997 to water year 1998 were determined from the difference between the highest water levels measured each year. Some wells in the network were not included in the comparison of water-level changes between years because insufficient data were collected at the wells to make accurate comparisons. Many of the wells that were not included in the comparison of water-level changes between years were hand-measured wells, where only two or three measurements per year were collected.

Table 1--Changes in ground-water levels in statewide observation-well network and wells completed in the High Plains aquifer.

[Hydrographs for five representative observation wells in southeast Wyoming are shown in figure 2.]

Monitoring-well networks	Water years ¹	Number of wells	Increase in water level (number of wells)	Average increase (in feet)	Decrease in water level (number of wells)	Average decrease (in feet)	Insufficient data for comparison (number of wells)
Statewide network	1997-98	73	30	1.42	26	-0.98	17
High plains aquifer	1997-98	44	24	1.25	18	-0.43	2

¹ Water year is from October 1 to September 30 of the following year.

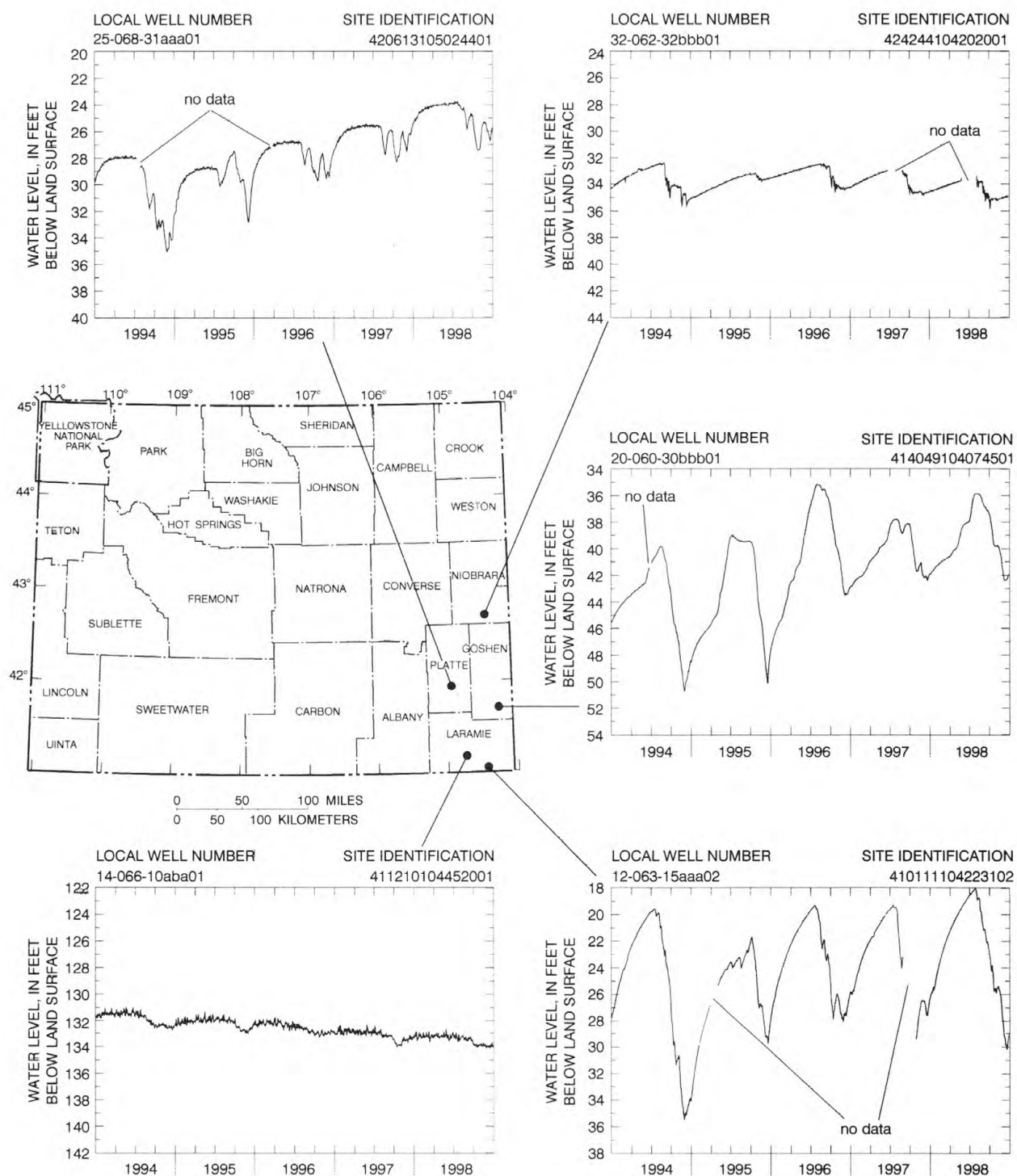


Figure 2. Water-level hydrographs for observation wells in areas of extensive ground-water withdrawals, October 1993 through September 1998.

EXPLANATION OF THE RECORDS

Numbering System for Wells

All wells listed in this report, except for one well located on the Wind River Indian Reservation, are identified according to the Federal township-range system of land subdivision, and also are assigned a local number. An example of a local number in this report is 14-063-15aaa01 (fig. 3). The first number (14) denotes the township, the second number (063) denotes the range, and the third number (15) denotes the section. The first letter following the section number denotes the quarter section (160-acre tract); the second letter, the quarter-quarter section (40-acre tract); and the third letter, if shown, the quarter-quarter-quarter section (10-acre tract). These subsections are designated a, b, c, and d in a counter-clockwise direction, beginning in the northeastern quadrant. The last two numbers in the local number are a sequence number indicating the order of inventory. For example, in figure 3, observation well 14-063-15aaa01 is the first well inventoried in the northeastern quarter of the northeastern quarter of the northeastern quarter of section 15, township 14 north (T. 14 N.), range 63 west (R. 63 W.). All wells in the counties have ranges west of the Sixth Principal Meridian, and townships north of the 40th Parallel Base Line.

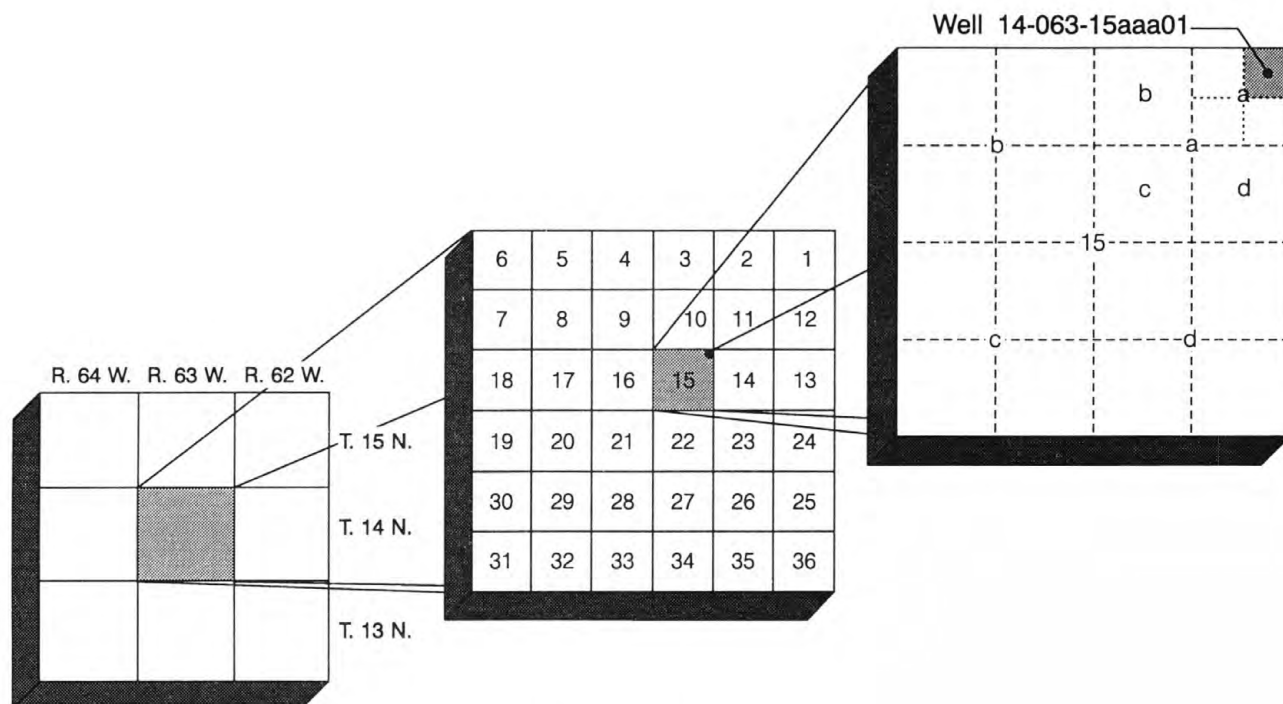


Figure 3. Federal township-range system for numbering wells.

On the Wind River Indian Reservation, the township-range system is based on the Wind River Meridian and Base Line system. Townships are denoted as north or south of the base line and ranges are denoted as east or west of the meridian. Wells may be located in the northeastern, northwestern, southwestern, or southeastern quadrants of this base-line and meridian net. For example, in figure 4, observation well 1N-4E-28acc01 is the first well inventoried in the southwestern quarter of the southwestern quarter of the northeastern quarter of section 28, township 1 north, range 4 east, in the northeastern quadrant of the Wind River Indian Reservation.

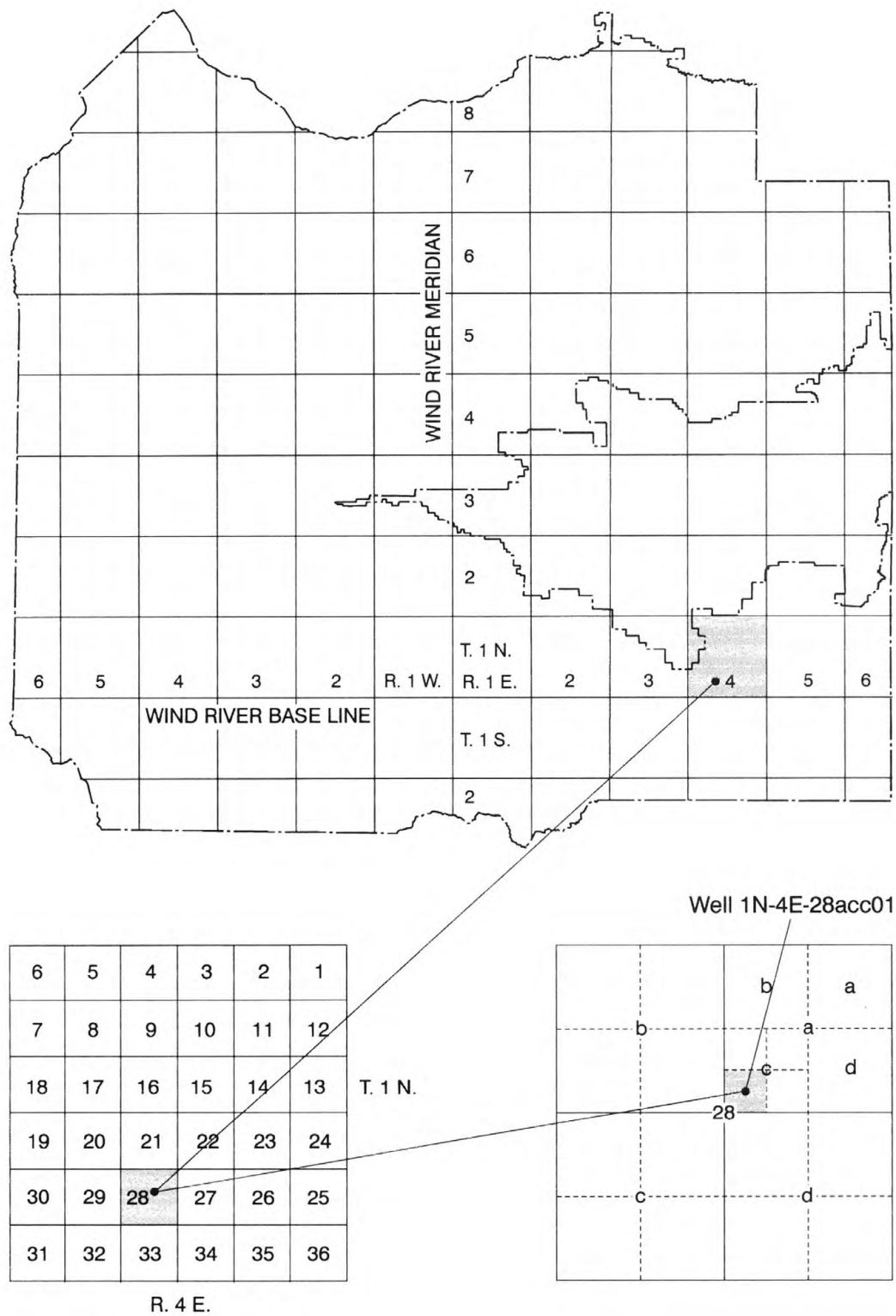


Figure 4. System for numbering wells on the Wind River Indian Reservation.

Latitude-Longitude System

Identification numbers also are assigned to wells according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of north latitude, the next seven digits denote degrees, minutes, and seconds of west longitude, and the last two digits (assigned sequentially) identify the order of inventory of sites if more than one site lies within a 1-second grid (fig. 5). This site-identification number, once assigned, is arbitrary and has no locational significance. If the initial determination of latitude and longitude is found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description.

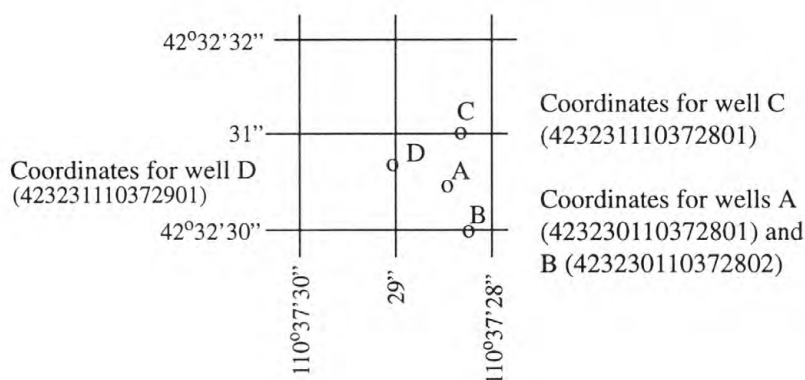


Figure 5. System for numbering wells (latitude and longitude).

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given to a tenth of a foot or a larger unit.

Presentation of Data

Water-level data are presented by county; the counties for which water-level data are available are listed alphabetically. Records of observation wells for each county are preceded by a map showing the location of the wells in that county (figs. 6-21). Water-level hydrographs or hydraulic-head hydrographs for the period of record for each well follow the map for each county. A table above each hydrograph lists water-level measurements taken during water year 1998. For wells equipped with continuous water-level recorders the table lists the daily maximum recorded water-level for every fifth day and the end of the month (EOM). For hand-measured wells the table lists all water-level measurements taken during water year 1998.

The hydrographs for the 73 observation wells were plotted using data from either continuous water-level records or periodic water-level measurements. The daily maximum water level was used for plotting hydrographs for wells equipped with continuous recorders. The hydrographs show water-level fluctuations and water-level trends. If more precise water levels are needed, tabulations of actual water-level measurements are available from the U.S. Geological Survey, 2617 East Lincolnway, Suite B, Cheyenne, Wyoming 82001-5662 (telephone 307/778-2931).

Miscellaneous ground-water-level measurements and ground-water quality data are listed at the end of the volume. These data are from wells that are not part of a systematic observation network. Both miscellaneous water-level and water-quality-data are presented in tabular form.

Station manuscript

Local number: See text description of the well-numbering system.

Local name: Local reference name of observation well.

Location: Latitude, longitude, and legal description of well.

Hydrologic unit: Geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight digit number.

Aquifer: The geologic formation, group of formations, or part of a formation that the well is completed in.

Well characteristics: Depth of well, in feet below land surface.

Datum: Elevation of land surface in feet above sea level. Water levels are given in feet below or above this datum plane.

Measuring point: Arbitrary permanent reference point from which the distance to the water surface is measured to obtain the water level. The height of the measuring point above or below the land surface is subtracted or added to the water-level measurement to give the depth to water below the land surface or feet of head above the land surface.

Period of record: Years for which water-level measurements are available.

Extremes for period of record: The highest and lowest water levels or hydraulic heads recorded for the period of record which represent the static water levels, in feet below land surface, or hydraulic heads, in feet above land surface, unless otherwise footnoted.

Explanation of Hydrographs

_____ Water-level or hydraulic-head data collected by digital or electronic data recorders. Missing sections of lines indicate periods of no data. Typically, intermittent periods of no data are the result of recording equipment malfunctions.

□ --- □ Individual water-level measurements. Dashed line represents periods of no data between measurements.

Ground-Water Quality

Records on ground-water quality in this report differ from records of ground-water levels because for most sampling sites they consist of only one or two sets of measurements for the water year. The quality of ground water ordinarily changes slowly; therefore, for the most general purposes one annual sampling, or a few samples taken at infrequent intervals during the year, is sufficient. Frequent measurements of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate concentration. In the special cases where ground-water quality may change more rapidly, more frequent measurements are made to identify the nature of the changes.

Data Collection

The records of ground-water quality in this report were obtained mostly as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Procedures for on-site measurements and for collecting, treating, and shipping ground-water samples as well as methods used by the U.S. Geological Survey laboratories are given in the publication "Techniques of Water-Resources Investigations", (TWRI) Book 1, Chapter D2. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material comprising the casings.

Data Presentation

The records of ground-water quality are published in a section titled QUALITY OF GROUND WATER immediately following the ground-water-levels records. Data for quality of ground water are grouped by special study and then listed alphabetically by county, and are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water.

Remark Codes

The following remark codes may appear with the water-quality data in this report:

<u>PRINTED OUTPUT</u>	<u>REMARK</u>
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
ND	Not detected

ACCESS TO WATER DATA

The U.S. Geological Survey provides some water-quality and ground-water data through the world wide web (WWW). These data may be accessed at

<http://water.usgs.gov>

In addition, data can be provided in various machine-readable formats on magnetic tape or 3-1/2 inch floppy disk. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division District offices (See address on the back of the title page.)

DEFINITION OF TERMS

Terms related to groundwater, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian pertains to ground water under sufficient hydrostatic pressure to rise above the aquifer containing it. An artesian well is one in which the water rises above the top of the aquifer. A flowing artesian well is one in which the water rises above the land surface.

Dissolved refers to that material (in a representative water sample) which passes through a 0.45 micrometer membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determination of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.493 to reflect the change.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate (CaCO_3).

Less than (<) is a remark code indicating that the analyzed value is known to be less than the numeric value listed. The value associated with the "<" remark indicates the detection limit of the applied laboratory.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level. The MP is added or subtracted appropriately from the measurement value to obtain the water level relative to land surface.

Method reporting limit (MRL) is the default "less-than" concentration reported when a compound is not detected using an analytical method.

Micrograms per gram (UG/G, $\mu\text{g/g}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (gram) of material analyzed.

Micrograms per liter (UG/L, $\mu\text{g/L}$) is a unit expressing the concentration of a chemical constituent in solution as the mass (micrograms) of solute per unit volume (liter) of solution. One thousand micrograms per liter is equivalent to one milligram per liter.

Microsiemens per centimeter at 25 degrees Celsius (US/CM, $\mu\text{S/cm}$) is a unit for reporting specific electrical conductance.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of a chemical constituent in solution as the mass of solute per unit volume (liter) of solution. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

pH indicates the degree of acidity or alkalinity of water and is expressed in logarithmic units. The pH value of an aqueous solution is the negative logarithm of the hydrogen-ion concentration, in moles per liter.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Sea level in this report refers to the 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 Sea Level Datum of 1929.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 degrees Celsius. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the total dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 60 to 65 percent of the specific conductance (in microsiemens per centimeter at 25 degrees Celsius). This relationship is not constant from one source of water to another, and may vary in the same source with changes in the composition of the water.

Turbidity of a sample is the reduction of transparency because of the presence of particulate matter. In this report it is expressed in Nephelometric turbidity units (NTU), obtained from the nephelometric method for turbidity determination which measures the intensity of light scattered by suspended particles at 90 degrees from the path of an incident light source.

TWRI is used as an abbreviation for "Techniques of Water-Resources Investigations" in reference to previously published reports.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period October 1 through the following September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1990, is called "water year 1990."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section B of Book 3 (Applications of Hydraulics) pertains to ground water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Branch of Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

- 1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F. P. Haeni: USGS--TWRI Book 2, Chapter D2. 1988. 86 pages.
- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L.M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
- 2-E2. *Borehole geophysics applied to ground-water investigations*, by W. S. Keys: USGS--TWRI Book 2, Chapter E2. 1990. 150 pages.
- 2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W. E. Teasdale: USGS--TWRI Book 2, Chapter F1. 1989. 97 pages.
- 3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.

- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. *Stage measurement at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
- 3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
- 3-A9. *Measurement of time of travel in streams by dye tracing*, by F. A. Kilpatrick and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1989. 27 pages.
- 3-A10. *Discharge ratings at gaging stations*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.
- 3-A11. *Measurement of discharge by the moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-A12. *Fluorometric procedures for dye tracing*, Revised, by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A12. 1986. 34 pages.
- 3-A13. *Computation of continuous records of streamflow*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.
- 3-A14. *Use of flumes in measuring discharge*, by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.
- 3-A16. *Measurement of discharge using tracers*, by F. A. Kilpatrick and E. D. Cobb: USGS--TWRI Book 3, Chapter A16. 1985. 52 pages.
- 3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 pages.
- 3-A18. *Determination of stream reaeration coefficients by use of tracers*, by F. A. Kilpatrick, R. E. Rathbun, Nobuhiro Yotsukura, G. W. Parker, and L. L. DeLong: USGS--TWRI Book 3, Chapter A18. 1989. 52 pages.
- 3-A19. *Levels at streamflow gaging stations*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 31 pages.
- 3-A20. *Simulation of soluble waste transport and buildup in surface waters using tracers*, by F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A20. 1993. 38 pages.
- 3-A21. *Stream-gaging cableways*, by C. Russell Wagner: USGS--TWRI Book 3, Chapter A21. 1995. 56 pages.
- 3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
- 3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.
- 3-B4. *Regression modeling of ground-water flow*, by R. L. Cooley and R. L. Naff: USGS--TWRI Book 3, Chapter B4. 1990. 232 pages.

- 3-B4. *Supplement 1. Regression modeling of ground-water flow - Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems*, by R. L. Cooley: USGS--TWRI Book 3, Chapter B4. 1993. 8 pages.
- 3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems--An introduction*, by O. L. Franke, T. E. Reilly, and G. D. Bennett: USGS--TWRI Book 3, Chapter B5. 1987. 15 pages.
- 3-B6. *The principle of superposition and its application in ground-water hydraulics*, by T. E. Reilly, O. L. Franke, and G. D. Bennett: USGS--TWRI Book 3, Chapter B6. 1987. 28 pages.
- 3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow*, by E. J. Wexler: USGS--TWRI Book 3, Chapter B7. 1992. 190 pages.
- 3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
- 4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
- 4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
- 4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
- 4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
- 4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
- 4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M.J. Fishman and L. C. Friedman, editors: USGS--TWRI Book 5, Chapter A1. 1989. 545 pages.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
- 5-A3. *Methods for the determination of organic substances in water and fluvial sediments*, edited by R. L. Wershaw, M. J. Fishman, R. R. Grabbe, and L. E. Lowe: USGS--TWRI Book 5, Chapter A3. 1987. 80 pages.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by L. J. Britton and P. E. Greeson, editors: USGS--TWRI Book 5, Chapter A4. 1989. 363 pages.
- 5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
- 5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.
- 5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
- 6-A1. *A modular three-dimensional finite-difference ground-water flow model*, by M. G. McDonald and A. W. Harbaugh: USGS--TWRI Book 6, Chapter A1. 1988. 586 pages.
- 6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model*, by S. A. Leake and D. E. Prudic: USGS--TWRI Book 6, Chapter A2. 1991. 68 pages.

- 6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual*, by L. J. Torak: USGS--TWRI Book 6, Chapter A3. 1993. 136 pages
- 6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions*, by R. L. Cooley: USGS--TWRI Book 6, Chapter A4. 1992. 108 pages.
- 6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details*, by L. J. Torak: USGS--TWRI Book 6, Chapter A5, 1993. 243 pages.
- 6-A6. *A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction*, by Eric D. Swain and Eliezer J. Wexler. 1995. 125 pages.
- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
- 7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
- 7-C3. *A model for simulation of flow in singular and interconnected channels*, by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.
- 8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
- 8-A2. *Installation and service manual for U.S. Geological Survey manometers*, by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.
- 8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.
- 9-A7. *National Field Manual for the Collection of Water-Quality Data: Biological Indicators*, by D. N. Myers and F. D. Wilde: USGS--TWRI Book 9, Chapter A7. 1997. 49 pages.

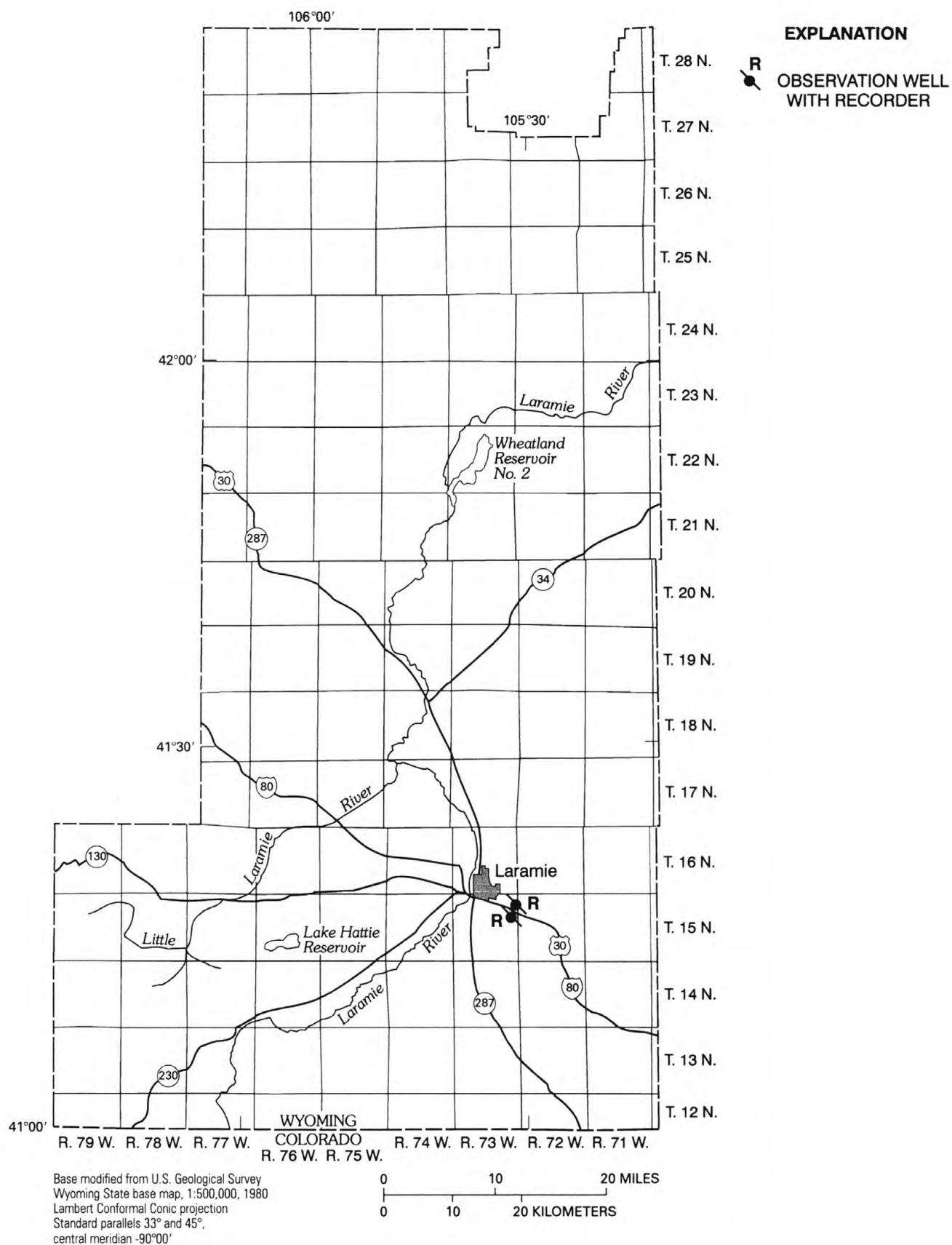


Figure 6. Location of observation wells in Albany County, Wyoming.

GROUND-WATER LEVELS

17

ALBANY COUNTY

411751105312701. Local number, 15-073-01dba01. Local name, Huntoon #1.

Location.--Lat 41°17'51", long 105°31'27", in NE¹/₄ NW¹/₄ SE¹/₄ sec.1, T.15 N., R.73 W., Hydrologic Unit 10180010.
Owner: Wyoming Water Research Center and City of Laramie.

Aquifer.--Casper Formation.

WELL CHARACTERISTICS.--Depth of well, 182 ft below land surface.

DATUM.--Elevation of land surface is 6,500 ft above sea level, from topographic map. Measuring point: top of casing, 0.9 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

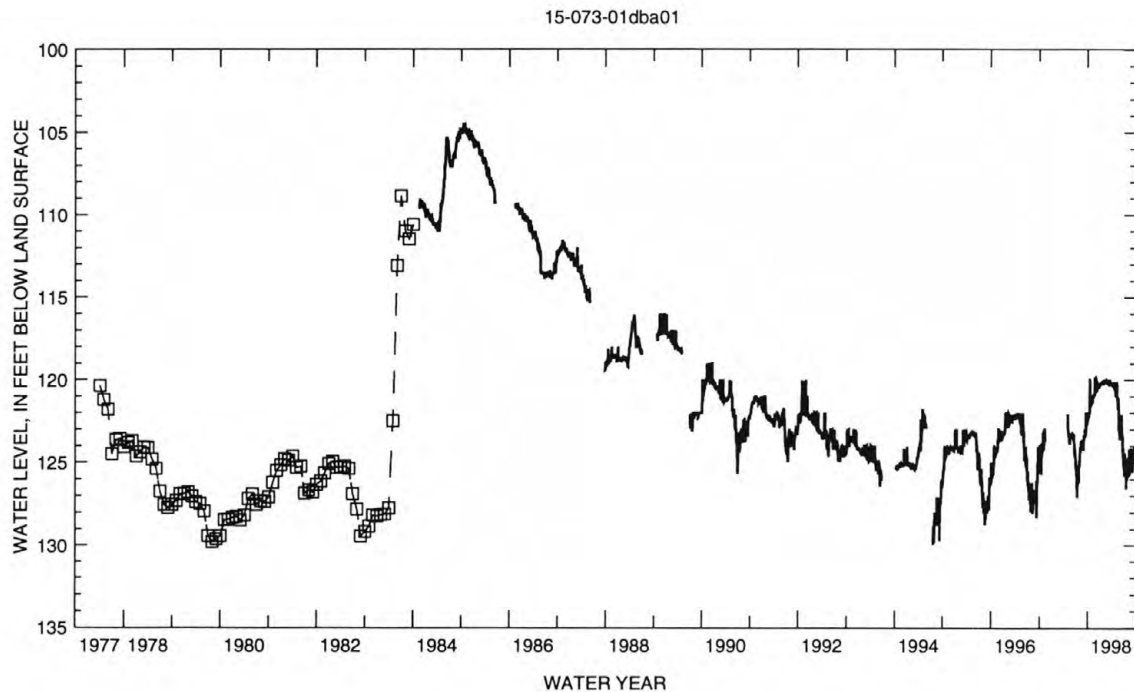
PERIOD OF RECORD.--1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 104.45 ft below land surface, Oct. 17, 1984; lowest, 129.95 ft below land surface, July 22, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	122.43	121.38	119.87	120.22	120.09	120.09	120.23	120.11	122.32	124.82	124.74	125.47
10	122.25	121.11	120.63	120.17	120.18	120.27	120.39	120.91	122.67	124.48	125.06	125.21
15	122.03	121.07	120.50	120.15	120.06	120.27	120.23	121.15	123.11	125.12	125.62	124.42
20	121.90	120.92	120.41	120.10	120.09	120.28	120.46	121.77	122.97	125.17	125.06	124.02
25	121.57	120.87	120.38	120.18	120.06	120.15	120.27	121.13	123.86	125.43	125.16	124.24
EOM	121.21	119.86	120.42	120.13	120.13	120.19	120.62	123.27	125.21	125.14	125.33	124.10

WTR YR 1998 HIGHEST 119.85 DEC 01, 02 LOWEST 126.56 JUL 22



GROUND-WATER LEVELS

ALBANY COUNTY

411703105314001. Local number, 15-073-12dbb01. Local name, Huntoon #2.

LOCATION.--Lat 41°17'03", long 105°31'40", in NW¹/₄ NW¹/₄ SE¹/₄ sec.12, T.15 N., R.73 W., Hydrologic Unit 10180010.
Owner: Wyoming Water Research Center.

AQUIFER.--Casper Formation.

WELL CHARACTERISTICS.--Depth of well, 243 ft below land surface.

DATUM.--Elevation of land surface is 6,500 ft above sea level, from topographic map. Measuring point: top of casing, 1.30 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

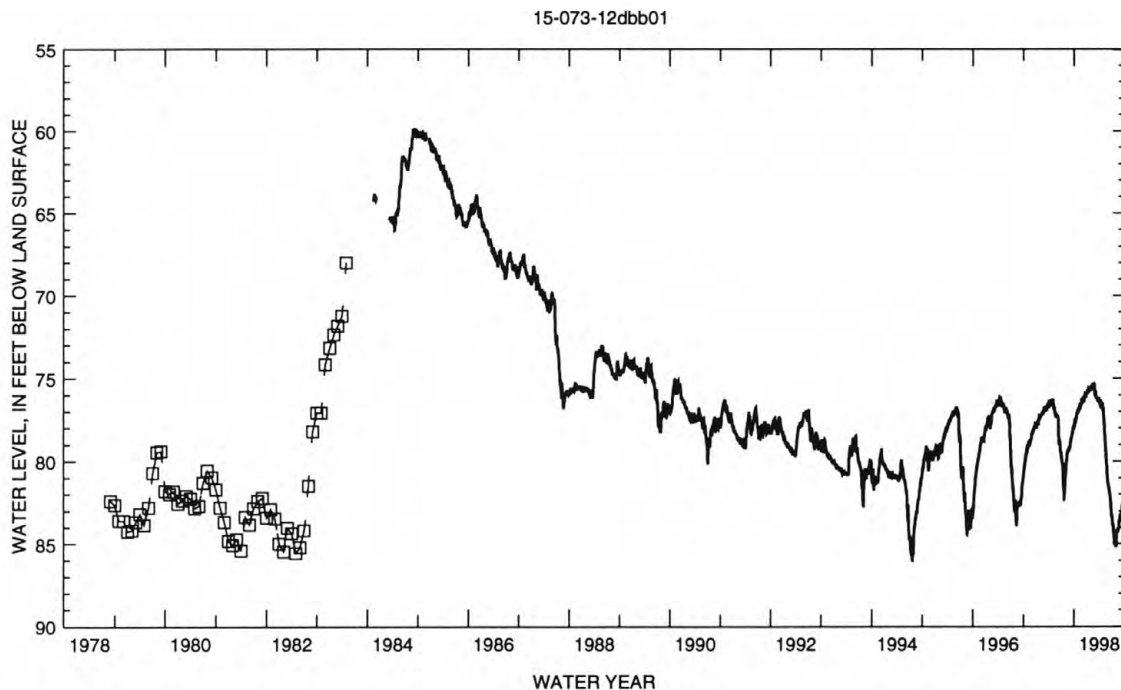
PERIOD OF RECORD.--1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 59.84 ft below land surface, Sept. 7, 1984; lowest, 86.08 ft below land surface, July 24, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	77.87	76.94	76.36	75.81	75.50	75.91	76.36	77.38	81.45	83.60	84.37	83.65
10	77.55	76.68	76.38	75.75	75.64	76.18	76.55	78.20	81.54	83.87	84.18	83.21
15	77.64	76.71	76.08	75.70	75.32	76.22	76.49	78.81	81.91	84.21	84.06	82.66
20	77.38	76.52	75.97	75.57	75.54	76.33	76.73	79.56	82.16	85.03	83.96	82.31
25	77.18	76.48	76.07	75.69	75.26	76.26	76.53	80.21	82.73	84.92	83.56	81.94
EOM	76.86	76.35	75.95	75.62	75.86	76.33	76.81	81.12	83.33	85.00	83.53	81.72

WTR YR 1998 HIGHEST 75.26 FEB 25 LOWEST 85.18 JUL 29



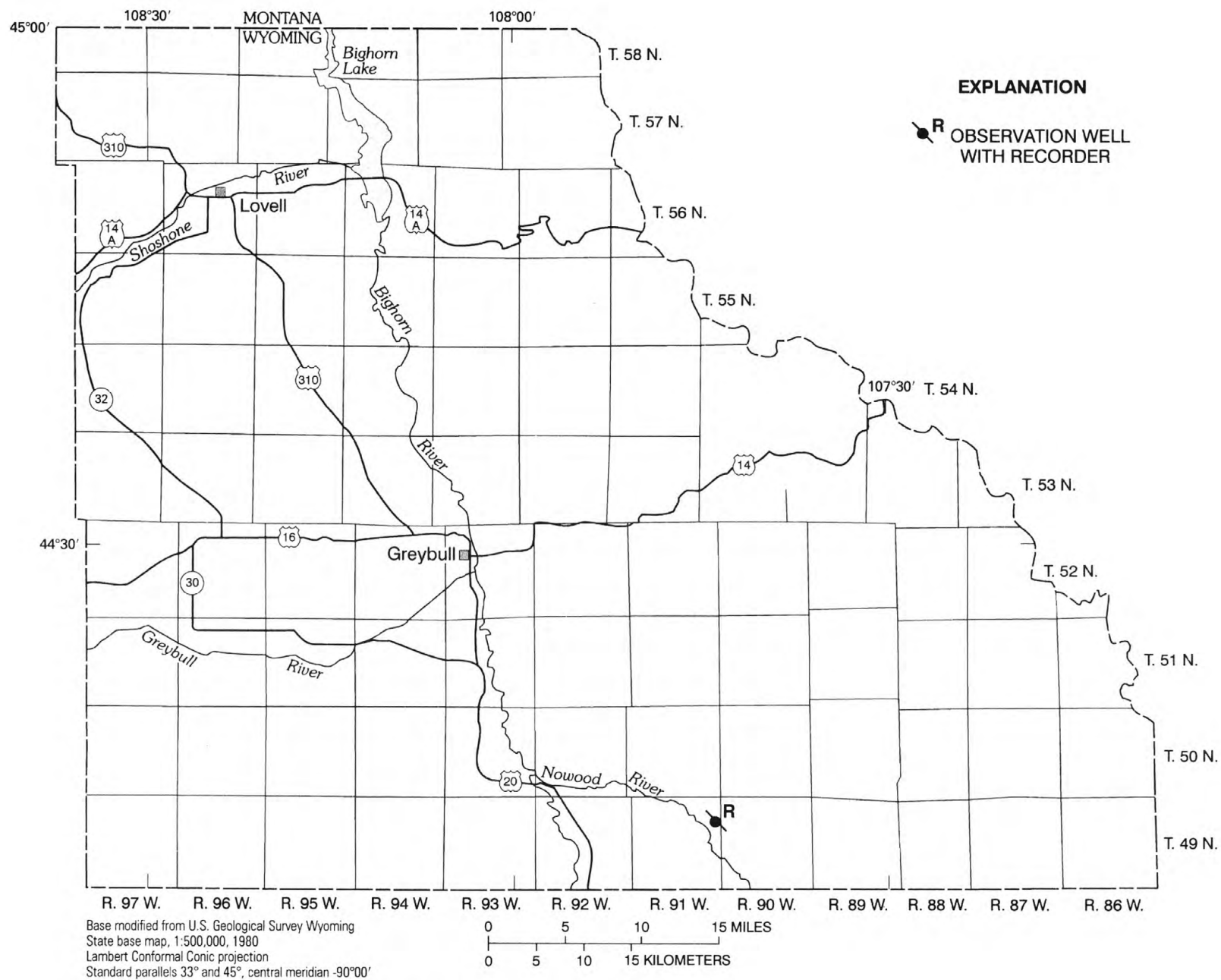


Figure 7. Location of observation well in Big Horn County, Wyoming.

GROUND-WATER LEVELS

BIG HORN COUNTY

441351107434701. Local number, 49-091-12dba01. Local name, Worland-1.

LOCATION.--Lat 44°13'53", long 107°43'41", in NE¹/₄ NW¹/₄ SE¹/₄ sec.12, T.49 N., R.91 W., Hydrologic Unit 10080008.
Owner: City of Worland.

AQUIFER.--Madison Limestone.

WELL CHARACTERISTICS.--Depth of well, 2,730 ft below land surface.

DATUM.--Elevation of land surface is 4,421.7 ft above sea level, from levels.

REMARKS.--Shut-in pressure was measured by pressure transducer and converted to hydraulic head above land surface for illustration purposes. Hydraulic head, in feet above land surface, was calculated by multiplying the shut-in pressure in pounds per square inch times 2.31. The accuracy of the hydraulic head measurements is ± 5.0 ft. Data collected by U.S. Geological Survey.

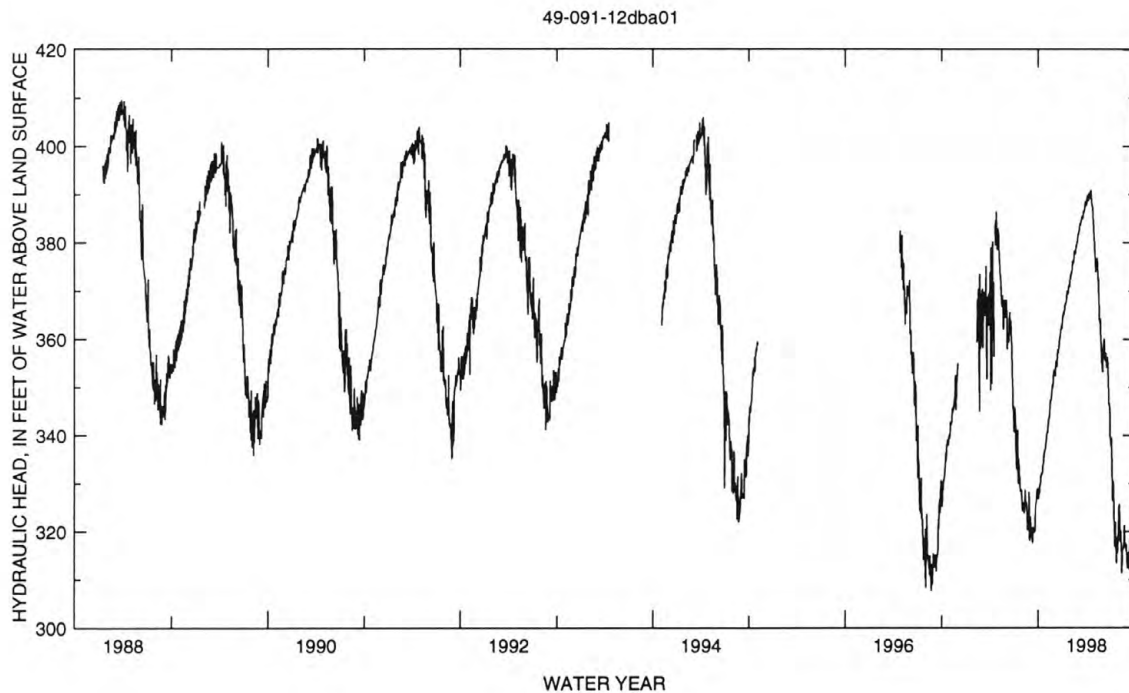
PERIOD OF RECORD.--1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest hydraulic head, 409.50 ft above land surface, Mar. 26, 1988; lowest, 297.43 ft above land surface, Aug. 13, 1998.

HYDRAULIC HEAD, IN FEET ABOVE LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	328.39	340.64	352.43	365.60	373.92	382.24	389.40	377.39	358.13	339.49	322.15	313.50
10	330.01	343.18	354.28	366.29	375.54	383.86	388.71	375.54	358.90	327.83	318.46	311.99
15	331.86	346.19	357.74	367.68	378.08	385.01	389.63	374.15	357.05	322.00	316.00	318.36
20	334.17	347.81	358.91	369.53	378.08	385.01	390.79	365.83	356.08	321.92	317.30	320.62
25	336.48	350.35	361.44	371.15	380.16	386.40	387.55	364.21	346.42	318.28	317.30	323.95
EOM	338.79	353.35	362.60	372.53	380.39	387.79	382.01	355.66	339.56	319.61	315.68	323.54

WTR YR 1998 HIGHEST 390.79 APR 19, 20 LOWEST 311.29 AUG 13



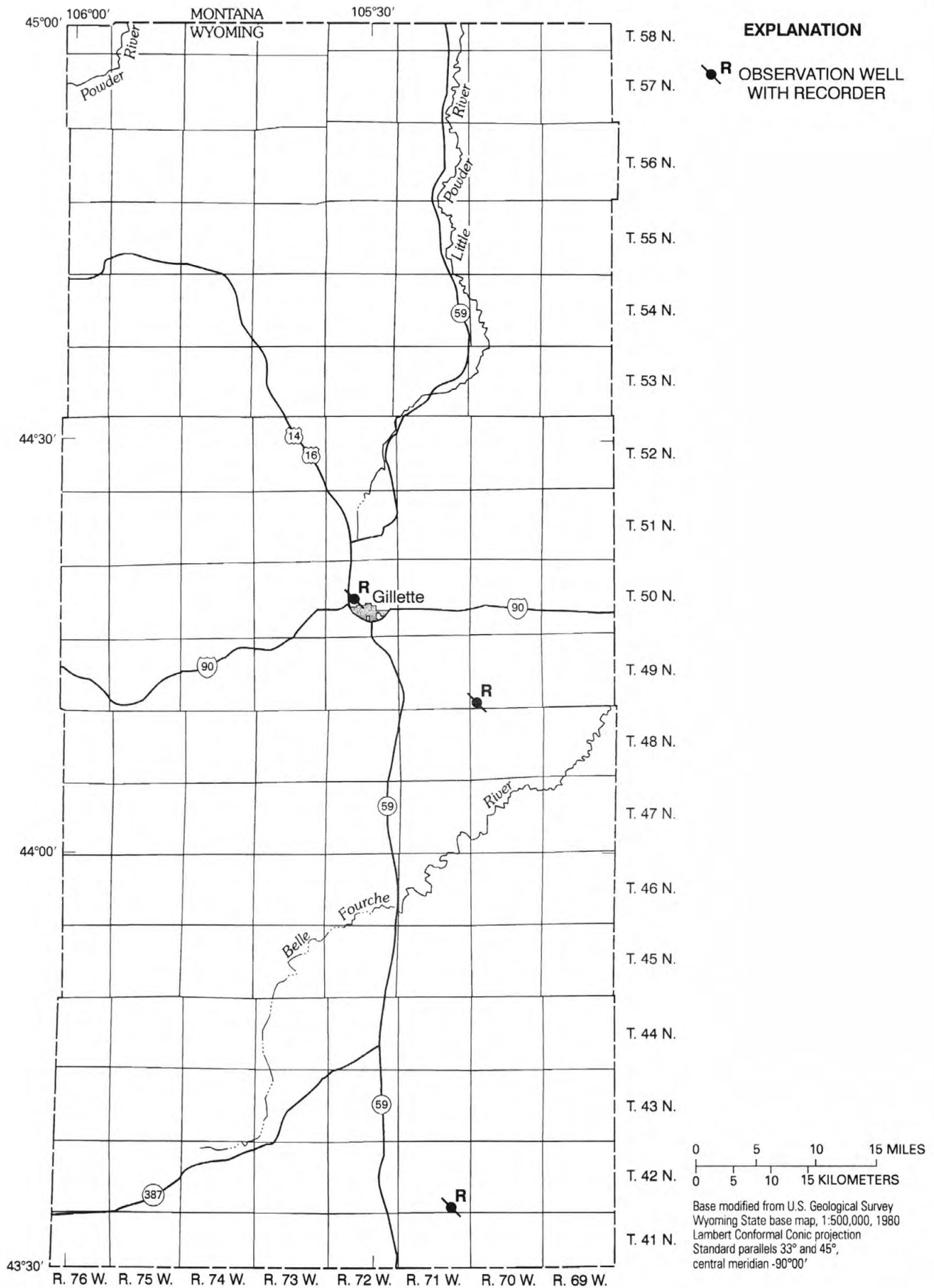


Figure 8. Location of observation wells in Campbell County, Wyoming.

GROUND-WATER LEVELS

CAMPBELL COUNTY

433438105225401. Local number, 42-071-35aaa01. Local name, Ech-8.

LOCATION.--Lat 43°34'38", long 105°22'54", in NE¹/₄ NE¹/₄ NE¹/₄ sec.35, T.42 N., R.71 W., Hydrologic Unit 10120101.
Owner: Thunder Basin Coal Company and State of Wyoming.

AQUIFER.--Wasatch Formation.

WELL CHARACTERISTICS.--Depth of well, 399 ft below land surface.

DATUM.--Elevation of land surface is 4,732 ft above sea level, from topographic map. Measuring point: top of casing, 1.15 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

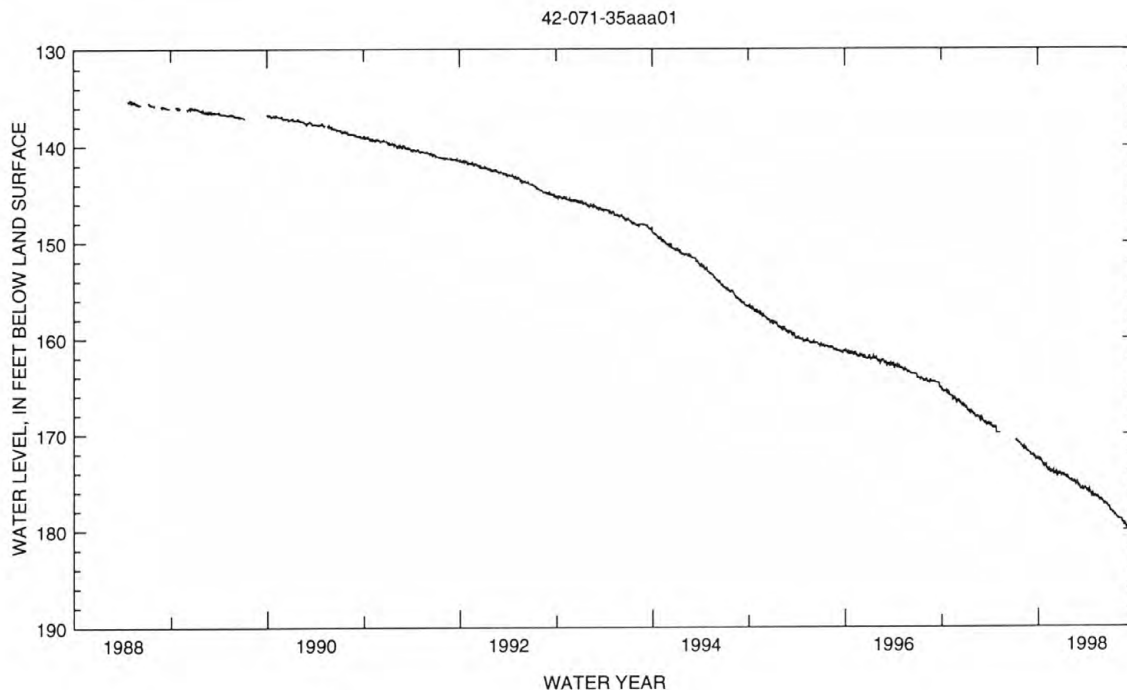
PERIOD OF RECORD.--1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 135.13 ft below land surface, May 3, 1988; lowest, 180.55 ft below land surface, Sept. 30, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	172.70	173.82	174.27	174.29	174.88	175.48	175.84	176.42	177.25	178.09	178.91	179.79
10	172.79	173.80	174.21	174.44	175.12	175.74	176.08	176.64	177.15	178.30	178.91	179.89
15	172.99	174.04	174.19	174.44	174.91	175.79	176.07	176.59	177.32	178.42	179.14	180.21
20	173.38	173.92	174.10	174.42	175.23	175.86	176.40	176.85	177.53	178.49	179.49	180.19
25	173.43	173.99	174.33	174.73	174.91	175.65	176.15	176.94	177.59	178.72	179.47	180.14
EOM	173.27	174.07	174.31	174.90	175.38	175.82	176.48	177.06	178.04	178.81	179.75	180.55

WTR YR 1998 HIGHEST 172.56 OCT 02 LOWEST 180.55 SEP 30



GROUND-WATER LEVELS

23

CAMPBELL COUNTY

441117105192901. Local number, 49-070-31bbb01. Local name, Hampshire-1.

LOCATION.--Lat 44°11'17", long 105°19'29", in NW¹/₄ NW¹/₄ NW¹/₄ sec.31, T.49 N., R.70 W., Hydrologic Unit 10120201.
Owner: Hampshire Energy.

AQUIFER.--Fox Hills Formation.

WELL CHARACTERISTICS.--Depth of well, 3,750 ft below land surface.

DATUM.--Elevation of land surface is 4,620 ft above sea level, from topographic map. Measuring point: top of casing, 1.60 ft above land surface.

REMARKS.--Because of the extreme depths to water and well construction, the accuracy of water-level measurements is ± 2.0 ft. Water levels from Feb. 6 through Sept. 30 not available at time of publication.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

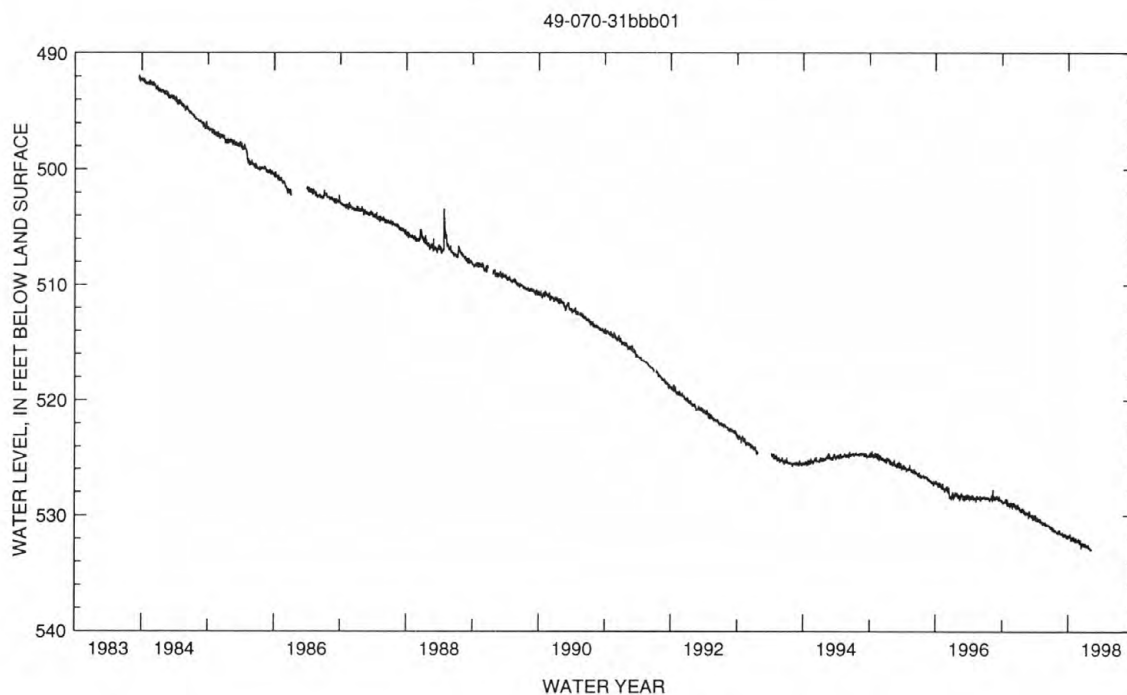
PERIOD OF RECORD.--1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 491.98 ft below land surface, Sept. 17, 1983; lowest, 532.95 ft below land surface, Jan 26, Feb 3, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	531.81	532.24	532.48	532.51	532.91	---	---	---	---	---	---	---
10	531.75	532.10	532.55	532.63	---	---	---	---	---	---	---	---
15	532.21	532.32	532.40	532.59	---	---	---	---	---	---	---	---
20	532.16	532.19	532.36	532.50	---	---	---	---	---	---	---	---
25	532.13	532.20	532.64	532.82	---	---	---	---	---	---	---	---
EOM	531.79	532.23	532.55	532.94	---	---	---	---	---	---	---	---

WTR YR 1998 HIGHEST 531.57 OCT 11 LOWEST 532.95 JAN 26, FEB 3



GROUND-WATER LEVELS

CAMPBELL COUNTY

441819105305701. Local number, 50-072-21aba01. Local name, Gillette H-13.

LOCATION.--Lat 44°18'19", long 105°30'57", in NE¹/₄ NW¹/₄ NE¹/₄ sec.21, T.50 N., R.72 W., Hydrologic Unit 10120201.
Owner: City of Gillette.

AQUIFER.--Wasatch Formation.

WELL CHARACTERISTICS.--Depth of well, 320 ft below land surface.

DATUM.--Elevation of land surface is 4,500 ft above sea level, from topographic map. Measuring point: top of casing, 6.35 ft below land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

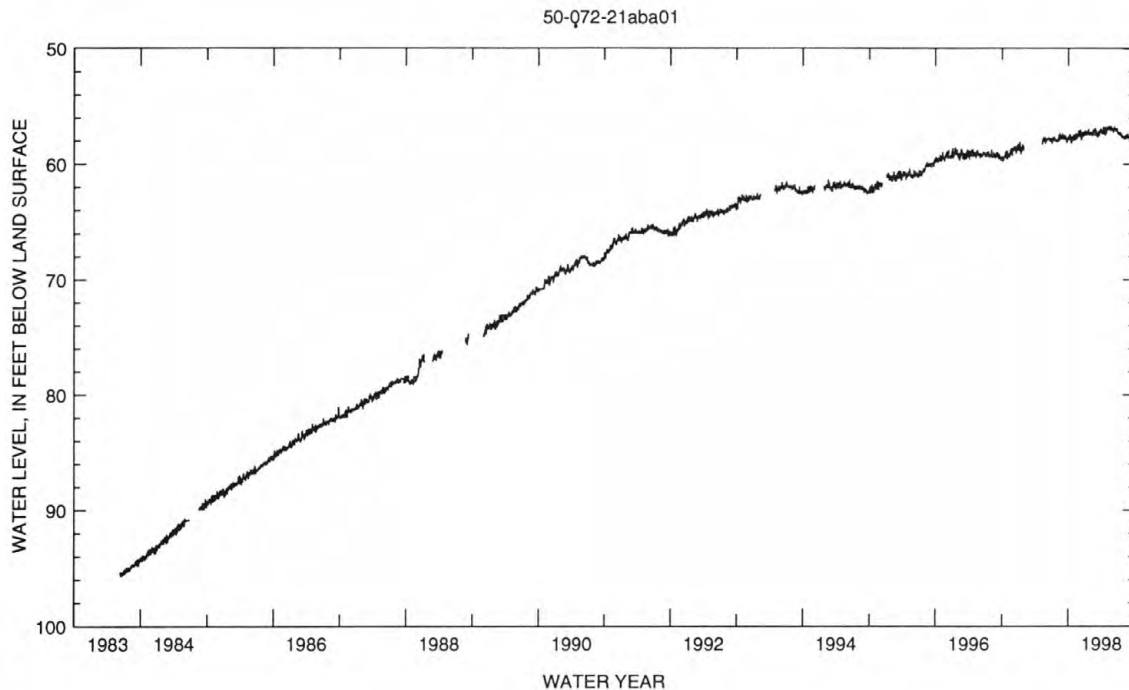
PERIOD OF RECORD.--1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 56.70 ft below land surface, May 13, 1998; lowest, 95.71 ft below land surface, June 14, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	57.79	57.93	57.67	57.21	57.27	57.42	57.09	56.83	57.22	57.27	57.80	57.68
10	57.67	57.71	57.66	57.34	57.50	57.61	57.27	56.96	56.87	57.41	57.75	57.60
15	58.22	57.84	57.41	57.20	57.01	57.46	57.19	56.81	56.88	57.48	57.49	57.85
20	58.12	57.53	57.22	57.02	57.32	57.45	57.43	57.00	57.07	57.43	57.76	57.70
25	57.99	57.48	57.59	57.34	56.88	57.03	56.85	57.00	56.96	57.66	57.57	57.38
EOM	57.43	57.46	57.37	57.40	57.49	57.21	57.10	57.05	57.42	57.59	57.75	57.79

WTR YR 1998 HIGHEST 56.70 MAY 13 LOWEST 58.22 OCT 15



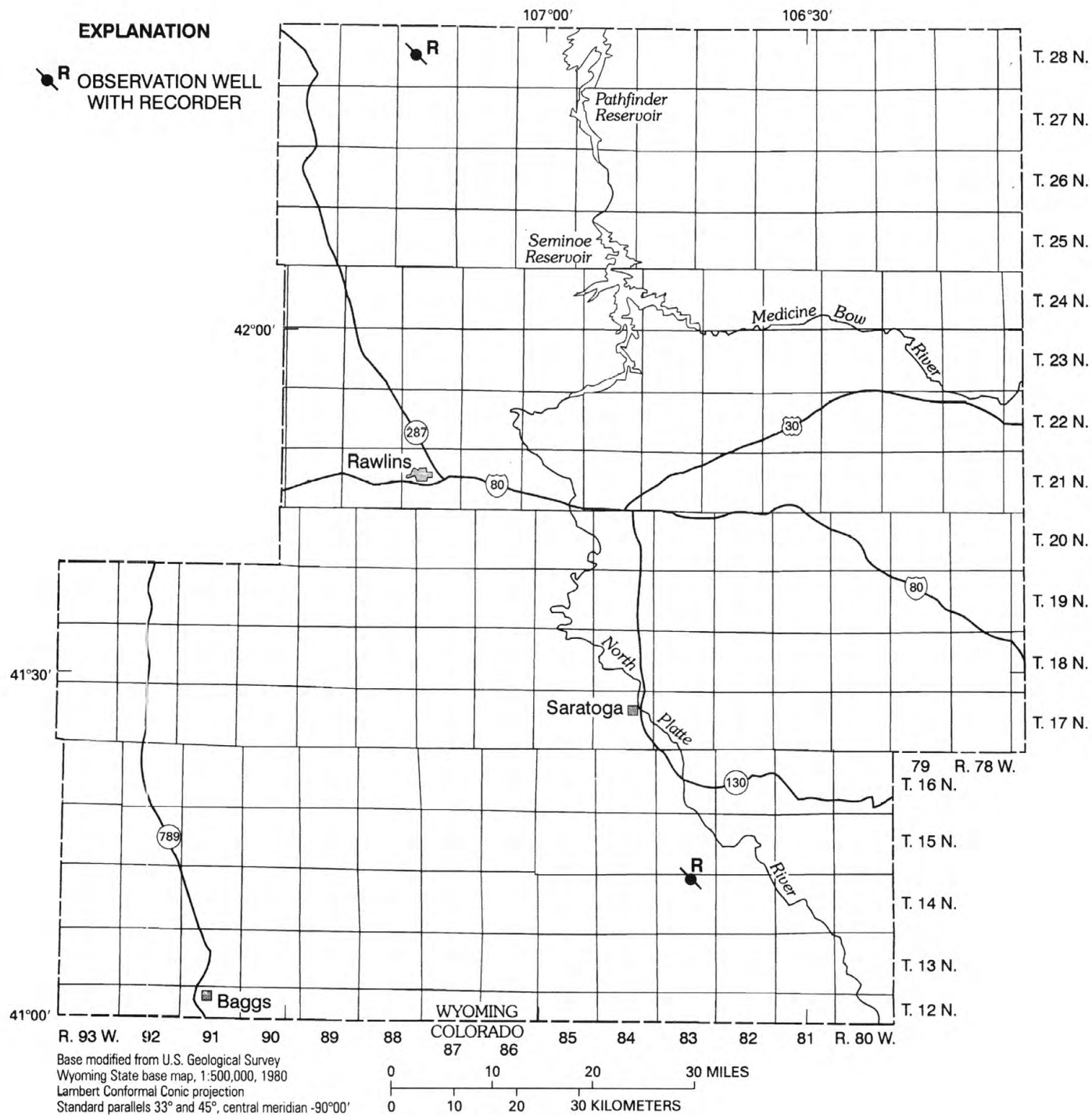


Figure 9. Location of observation wells in Carbon County, Wyoming.

CARBON COUNTY

411234106424601. Local number, 14-083-03cab01. Local name, Helmer South.

LOCATION.--Lat 41°12'34", long 106°42'46", in NW¹/4 NE¹/4 SW¹/4 sec.3, T.14 N., R.83 W., Hydrologic Unit 10180002.
Owner: Ronald Platt and Alice Creighton.

AQUIFER.--North Park Formation.

WELL CHARACTERISTICS.--Depth of well, 58 ft below land surface.

DATUM.--Elevation of land surface is 7,245 ft above sea level, from topographic map. Measuring point: top of casing, 5.40 ft below land surface.

REMARKS.--Data collected by U.S. Geological Survey.

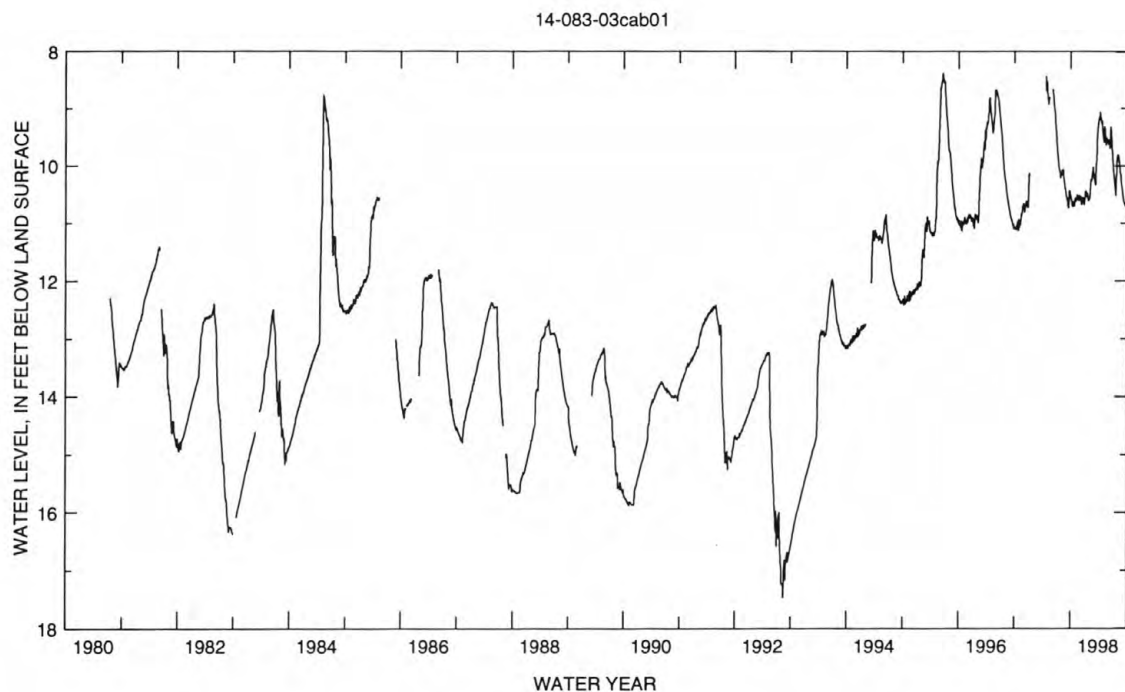
PERIOD OF RECORD.--1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.37 ft below land surface, June 20, 1995; lowest, 17.47 ft below land surface, Aug. 13, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	10.60	10.63	10.60	10.45	10.55	10.23	9.17	9.56	9.63	9.98	9.80	10.48
10	10.65	10.54	10.66	10.47	10.28	10.32	9.11	9.31	9.60	10.16	9.84	10.59
15	10.71	10.58	10.59	10.49	10.23	10.17	9.16	9.47	9.66	10.31	9.93	10.65
20	10.69	10.57	10.56	10.50	10.13	9.91	9.23	9.62	9.36	10.45	10.11	10.68
25	10.71	10.59	10.62	10.59	10.03	9.46	9.29	9.54	9.53	10.25	10.21	10.67
EOM	10.56	10.56	10.66	10.59	10.17	9.28	9.47	9.58	9.77	9.85	10.36	10.73

WTR YR 1998 HIGHEST 9.06 APR 11 LOWEST 10.73 SEP 28, 30



CARBON COUNTY

422338107145001. Local number, 28-087-16cca01. Local name, Split Rock #2.

LOCATION.--Lat 42°23'38", long 107°14'50", in NE¹/₄ SW¹/₄ SW¹/₄ sec.16, T.28 N, R.87 W., Hydrologic Unit 10180006.
Owner: Pete Creek Production System.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 812 ft below land surface.

DATUM.--Elevation of land surface is 6,000 ft above sea level, from topographic map. Measuring point: top of casing, 1.95 ft above land surface.

REMARKS.--Water level data from July 13 through Sept. 30 not available at time of publication. A twenty-day pumping test was conducted in September and October 1981.

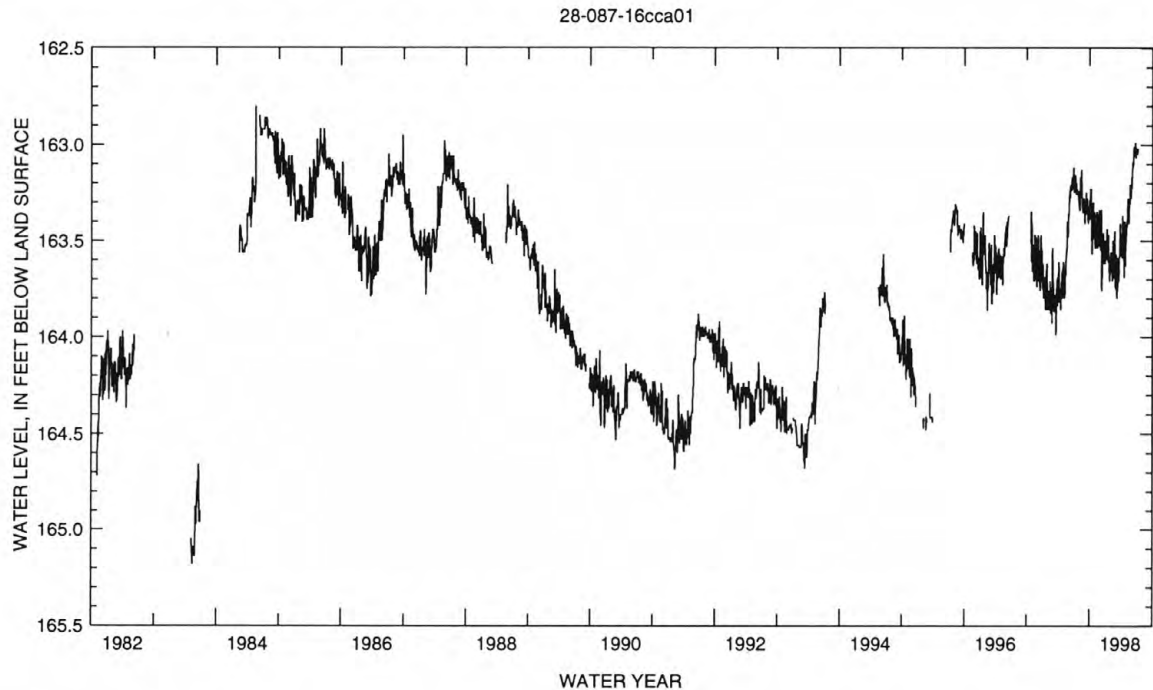
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 162.80 ft below land surface, May 16, 1984; lowest, 182.66 ft below land surface, Oct. 16, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	163.32	163.53	163.55	163.50	163.56	163.62	163.50	163.42	163.19	163.02	---	---
10	163.32	163.45	163.49	163.47	163.66	163.78	163.59	163.38	163.09	163.04	---	---
15	163.56	163.50	163.56	163.55	163.50	163.73	163.46	163.33	163.06	---	---	---
20	163.48	163.46	163.50	163.47	163.69	163.71	163.61	163.37	163.02	---	---	---
25	163.40	163.51	163.55	163.64	163.45	163.55	163.40	163.29	162.99	---	---	---
EOM	163.35	163.50	163.62	163.64	163.68	163.48	163.56	163.28	163.07	---	---	---
WTR YR 1998	HIGHEST 162.99			JUN 25, 26		LOWEST 163.80		MAR 11				



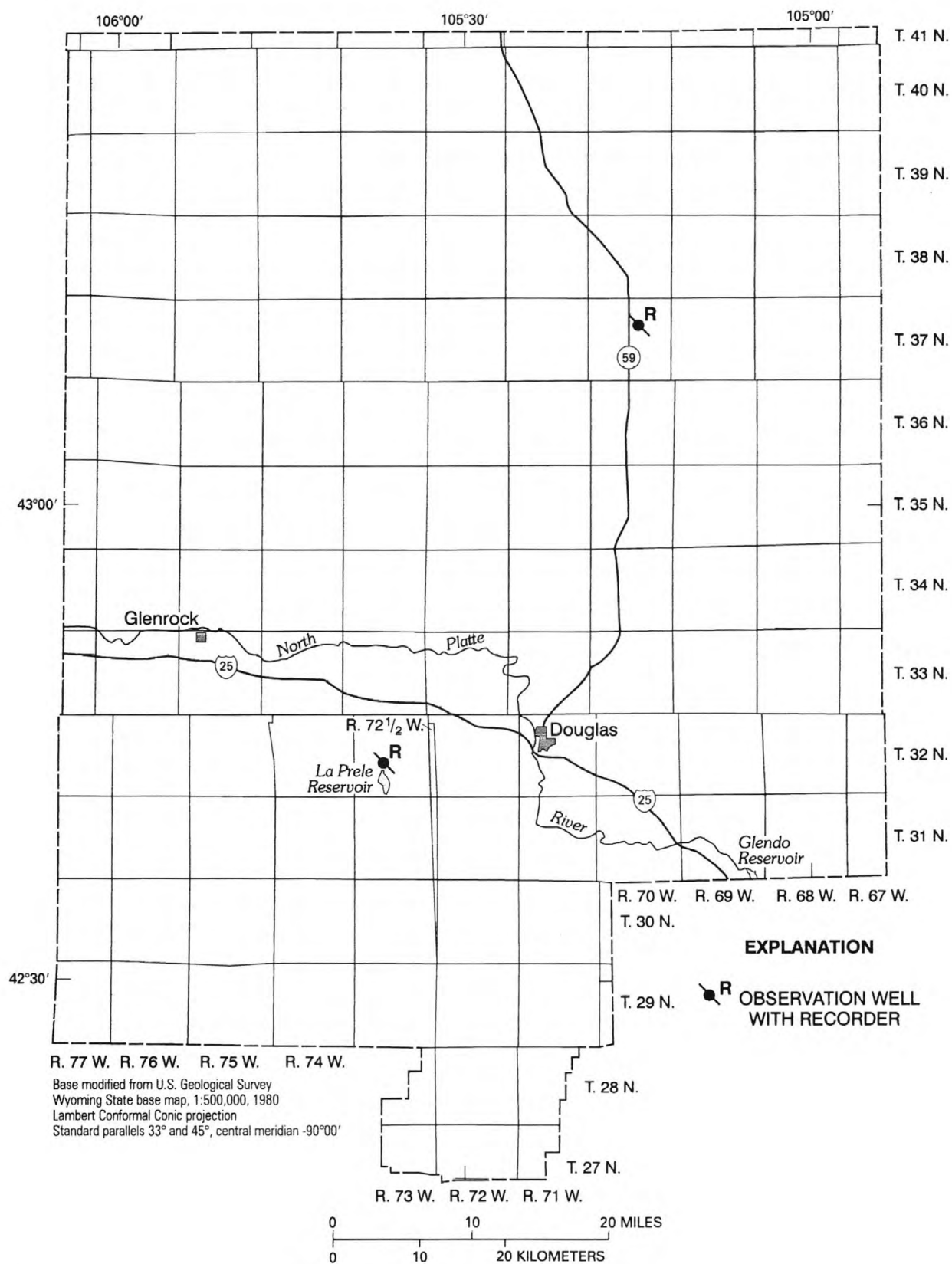


Figure 10. Location of observation wells in Converse County, Wyoming.

CONVERSE COUNTY

424420105364201. Local number, 32-073-16cdb01. Local name, Natural Bridge East.

LOCATION.--Lat 42°44'20", long 105°36'42", in NW¹/4 SE¹/4 SW¹/4 sec.16, T.32 N., R.73 W., Hydrologic Unit 10180007.
Owner: State of Wyoming.

AQUIFER.--Casper Formation.

WELL CHARACTERISTICS.--Depth of well, 220 ft below land surface.

DATUM.--Elevation of land surface is 5,316.4 ft above sea level, from levels. Measuring point: top of casing, 1.70 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

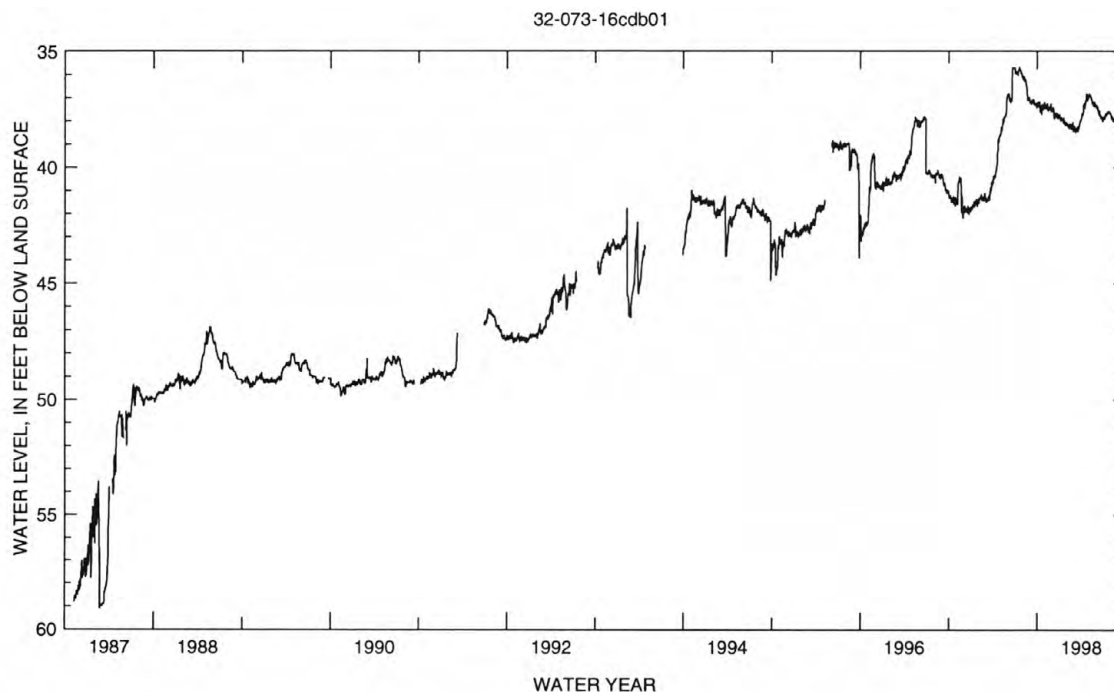
PERIOD OF RECORD.--1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 35.71 ft below land surface, June 19-23, 1997; lowest, 59.12 ft below land surface, Feb. 21, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	37.32	37.45	37.60	37.84	38.17	38.41	37.70	36.87	37.47	37.82	37.86	38.28
10	37.30	37.32	37.85	37.90	38.35	38.43	37.61	36.93	37.53	37.78	38.00	38.29
15	37.63	37.53	37.69	37.89	38.11	38.40	37.41	37.16	37.65	37.74	37.90	38.41
20	37.69	37.44	37.69	37.88	38.31	38.39	37.17	37.27	37.82	37.63	38.13	38.68
25	37.53	37.47	37.89	38.13	38.08	38.14	36.90	37.29	37.88	37.64	38.15	38.66
EOM	37.20	37.46	37.83	38.19	38.45	37.96	37.00	37.36	37.97	37.70	38.22	38.86

WTR YR 1998 HIGHEST 36.82 APR 24 LOWEST 38.89 SEP 27



GROUND-WATER LEVELS

CONVERSE COUNTY

431140105151901. Local number, 37-070-10cbb01. Local name, Bill #6.

LOCATION.--Lat 43°11'40", long 105°15'19", in NW¹/₄ NW¹/₄ SW¹/₄ sec.10, T.37 N., R.70 W., Hydrologic Unit 10120105.
Owner: Converse County.

AQUIFER.--Wasatch Formation.

WELL CHARACTERISTICS.--Depth of well, 268 ft below land surface.

DATUM.--Elevation of land surface is 4,720 ft above sea level, from topographic map. Measuring point: top of casing, 0.40 ft above land surface.

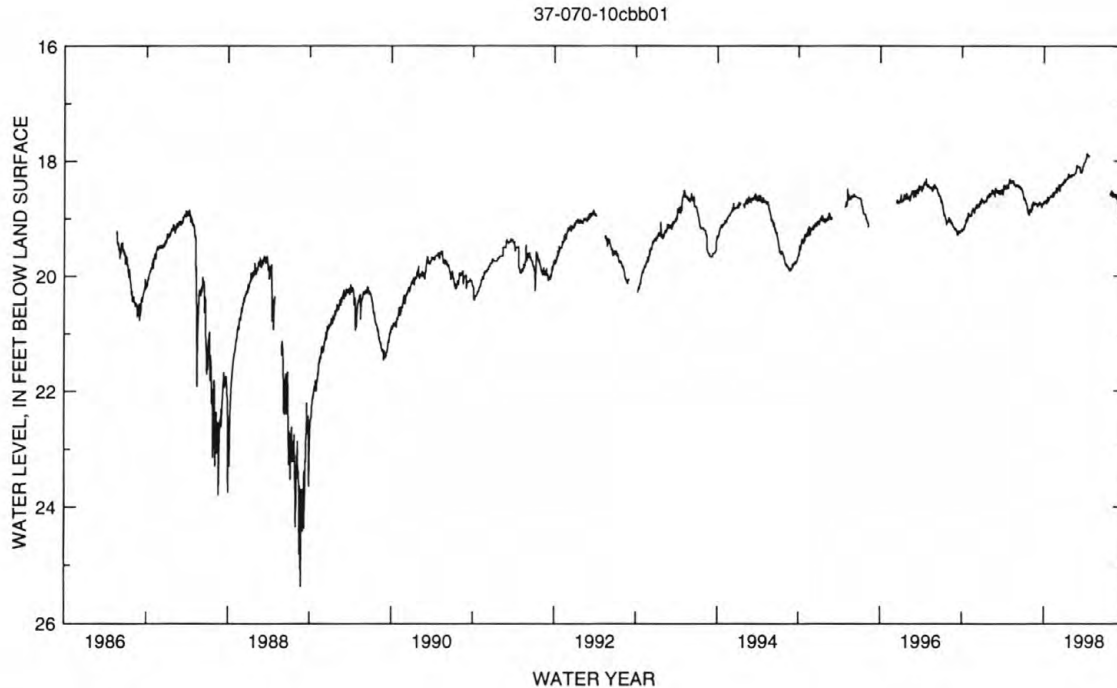
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

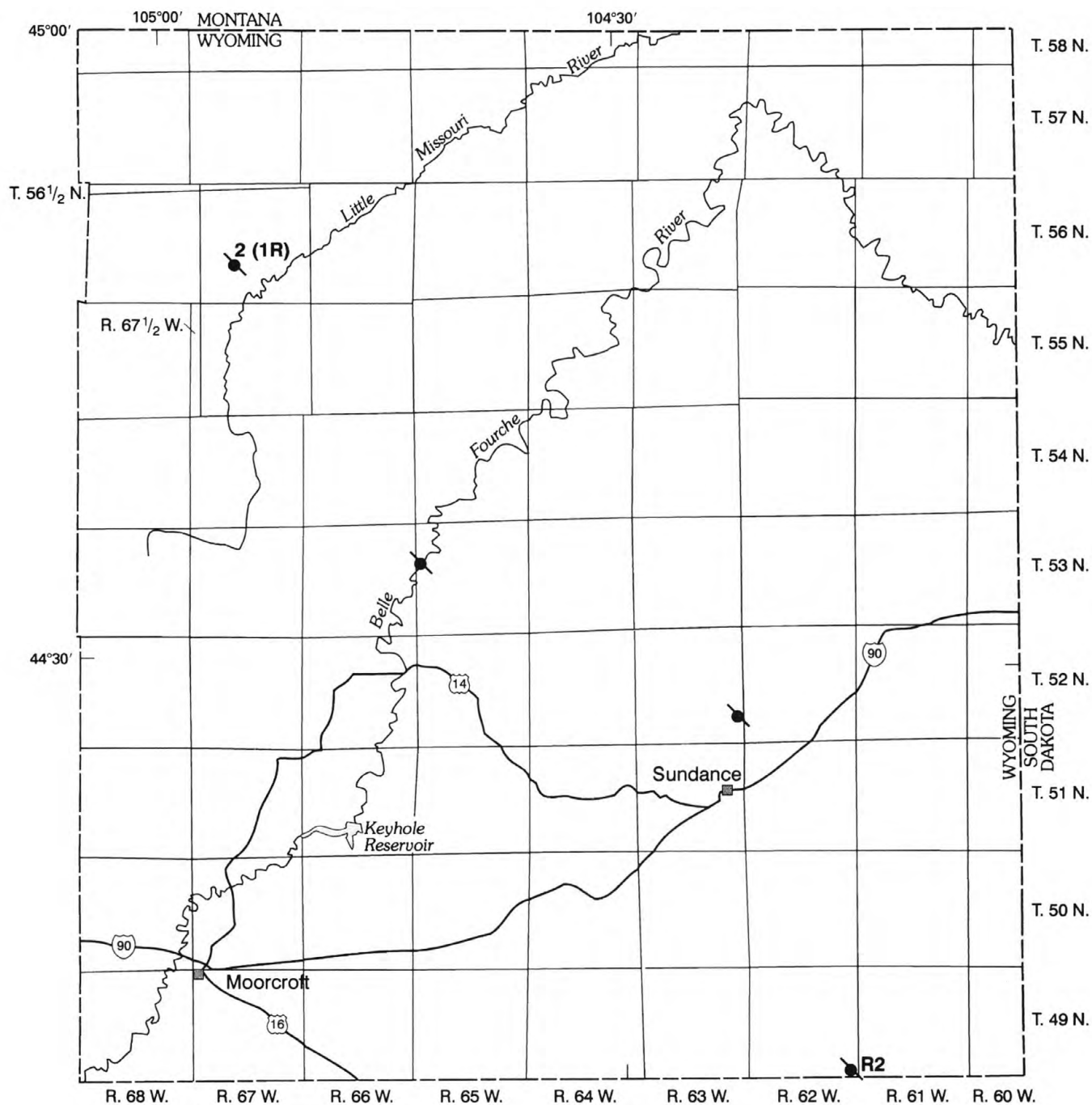
PERIOD OF RECORD.--1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.87 ft below land surface, Apr. 12, 1998; lowest, 25.38 ft below land surface, Aug. 31, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	18.73	18.64	18.50	18.34	18.24	18.10	18.00	---	---	---	18.58	18.85
10	18.72	18.55	18.49	18.33	18.25	18.11	17.95	---	---	---	18.61	18.93
15	18.73	18.62	18.43	18.29	18.23	18.21	17.91	---	---	---	18.58	19.01
20	18.71	18.54	18.42	18.23	18.22	18.21	---	---	---	---	18.66	19.02
25	18.67	18.49	18.42	18.26	18.08	18.10	---	---	---	18.56	18.60	18.88
EOM	18.60	18.52	18.38	18.28	18.12	18.04	---	---	---	18.52	18.75	18.90
WTR YR 1998	HIGHEST 17.87 APR 12			LOWEST 19.02 SEP 17, 20								





Base modified from U.S. Geological Survey
 Wyoming State base map, 1:500,000, 1980
 Lambert Conformal Conic projection
 Standard parallels 33° and 45°, central meridian -90°00'

0 5 10 MILES
 0 5 10 KILOMETERS

EXPLANATION

- OBSERVATION WELL--
 Number near well
 is number of wells
 at that location
- OBSERVATION WELL
 WITH RECORDER

Figure 11. Location of observation wells in Crook County, Wyoming.

GROUND-WATER LEVELS

CROOK COUNTY

441113104151001. Local number, 49-062-36cbb01. Local name, Inyan Kara Mountain CCMOW6.

LOCATION.--Lat 44°11'13", long 104°15'10", in NW¹/₄ NW¹/₄ SW¹/₄ sec.36, T.49 N., R.62 W., Hydrologic Unit 10120201.
Owner: Wyoming State Engineer's Office.

AQUIFER.--Madison Formation.

WELL CHARACTERISTICS.--Depth of well, 1,280 ft below land surface.

DATUM.--Elevation of land surface is 5,403 ft above sea level, from topographic map. Measuring point: top of casing, 0.60 ft below land surface.

REMARKS.--This well was included in the Wyoming State Engineer's Office/U.S. Geological Survey cooperative program on Oct. 1, 1997. Data prior to Oct. 1, 1997 is included in the overall well record, but has not been reviewed by the U.S. Geological Survey.

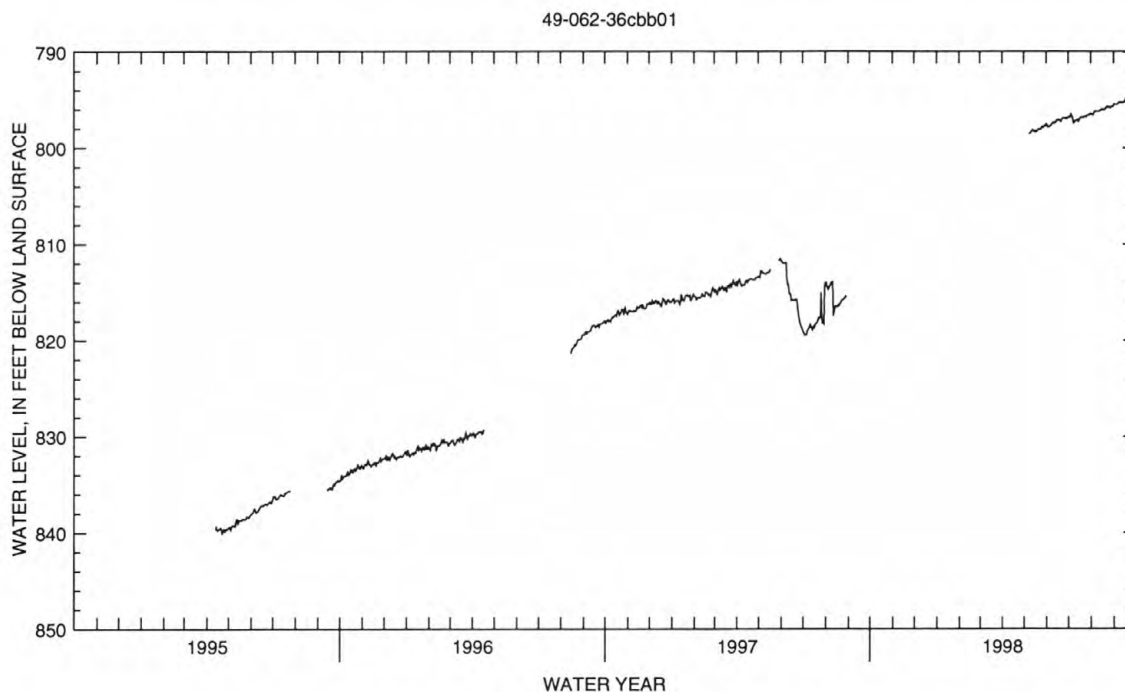
COOPERATION.--Data collected and records provided by the office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 794.81 ft below land surface, Sept. 25, 1998; lowest, 840.05 ft below land surface, Apr. 22, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	---	---	---	---	---	---	797.84	796.53	796.44	795.50
10	---	---	---	---	---	---	---	798.47	797.34	797.31	796.19	795.31
15	---	---	---	---	---	---	---	798.22	797.15	797.25	796.06	795.31
20	---	---	---	---	---	---	---	798.22	797.22	796.81	796.06	795.06
25	---	---	---	---	---	---	---	797.97	796.90	796.75	795.81	794.81
EOM	---	---	---	---	---	---	---	797.72	796.90	796.50	795.75	794.94
WTR YR 1998	HIGHEST 794.81 SEP 25			LOWEST 798.53 MAY 8,9								



CROOK COUNTY

441113104151002. Local number, 49-062-36cbb02. Local name, Inyan Kara Mountain CCMOW6A.

LOCATION.--Lat 44°11'13", long 104°15'10", in NW¹/₄ NW¹/₄ SW¹/₄ sec.36, T.49 N., R.62 W., Hydrologic Unit 10120201.
Owner: Wyoming State Engineer's Office.

AQUIFER.--Minnelusa Formation.

WELL CHARACTERISTICS.--Depth of well, 500 ft below land surface.

DATUM.--Elevation of land surface is 5,403 ft above sea level, from topographic map. Measuring point: top of casing, 0.90 ft below land surface.

REMARKS.--This well was included in the Wyoming State Engineer's Office/U.S. Geological Survey cooperative program on Oct. 1, 1997. Data prior to Oct. 1, 1997 is included in the overall well record, but has not been reviewed by the U.S. Geological Survey.

COOPERATION.--Data collected and records provided by the office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

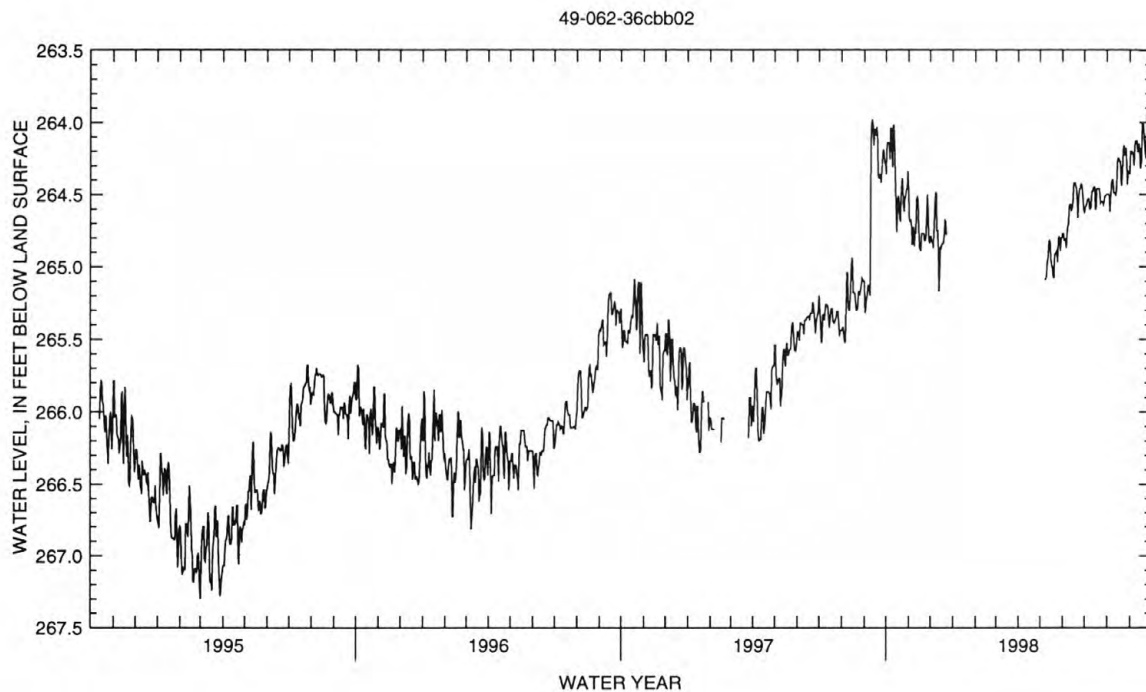
PERIOD OF RECORD.--1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 263.94 ft below land surface, Sept. 25, 26, 1998; lowest, 267.30 ft below land surface, Mar. 1, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	264.15	264.72	264.87	---	---	---	---	---	264.81	264.54	264.62	264.22
10	264.31	264.77	264.75	---	---	---	---	265.07	264.58	264.59	264.49	264.13
15	264.66	264.72	264.86	---	---	---	---	264.83	264.56	264.45	264.28	264.26
20	264.67	264.77	264.78	---	---	---	---	265.08	264.47	264.46	264.41	264.02
25	264.57	264.79	---	---	---	---	---	264.97	264.46	264.55	264.23	263.94
EOM	264.34	264.84	---	---	---	---	---	264.80	264.60	264.50	264.34	264.21

WTR YR 1998 HIGHEST 263.94 SEP 25, 26 LOWEST 265.08 MAY 09, 20



GROUND-WATER LEVELS

CROOK COUNTY

442739104214601. Local number, 52-063-25dcd01. Local name, Cole #3A.

LOCATION.--Lat 44°27'39", long 104°21'46", in SE¹/₄ SW¹/₄ SE¹/₄ sec. 25, T.52 N., R.63 W., Hydrologic Unit 10120203.
Owner: City of Sundance.

AQUIFER.--Madison Limestone.

WELL CHARACTERISTICS.--Depth of well, 1,120 ft below land surface.

DATUM.--Elevation of land surface is 4,740 ft above sea level, from topographic map. Measuring point: top of casing, 2.0 ft above land surface.

REMARKS.--Data reflect static and pumping water levels.

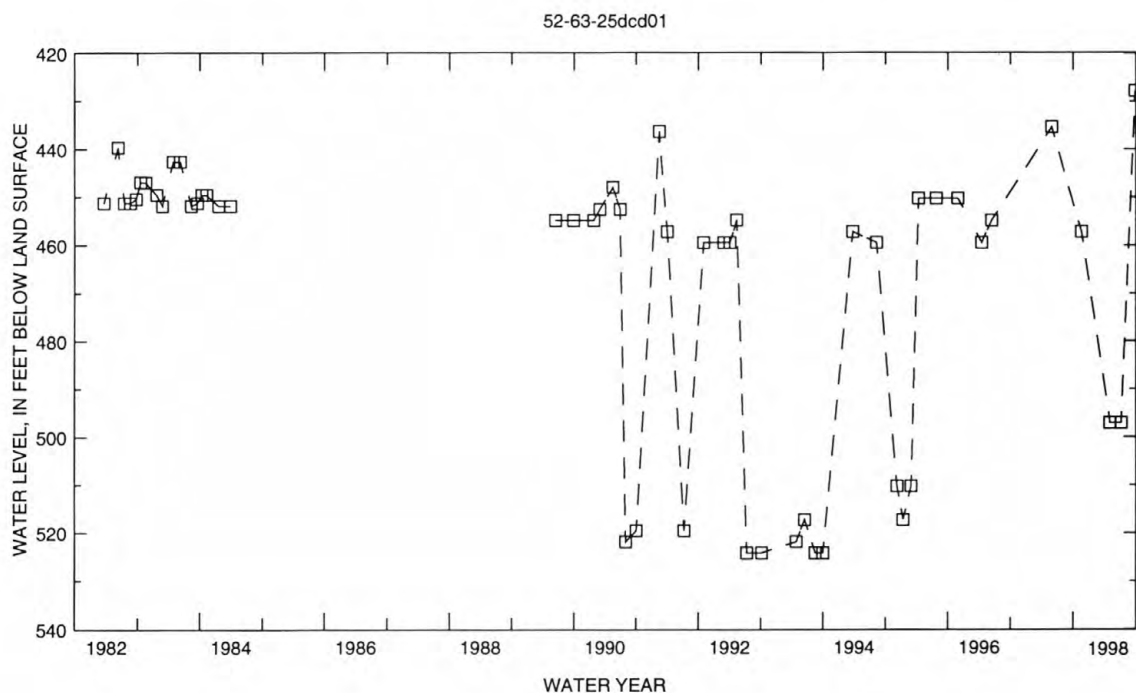
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1982 to 1984, 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 427.79 ft below land surface, Sept 29, 1998; lowest, 524.19 ft below land surface, July 10, Oct. 7, 1992, Aug. 18, Oct. 1, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 19	457.20	JUL 08	497.09
MAY 05	497.09	SEP 29	427.79



CROOK COUNTY

443453104425602. Local number, 53-065-18bbd02. Local name, Park Service.

LOCATION.--44°34'53", long 104°42'56", in SE¹/₄ NW¹/₄ NW¹/₄ sec.18, T.53 N., R.65 W., Hydrologic Unit 10120201.
Owner: National Park Service.

AQUIFER.--Madison Limestone. Labeled as Pahasapa Limestone, which is equivalent, in some previous reports.

WELL CHARACTERISTICS.--Depth of well, 1,340 ft below land surface.

DATUM.--Elevation of land surface is 3,865 ft above sea level, from topographic map. Measuring point: top of casing, 2.3 ft above land surface.

REMARKS.--After 1982 some water-level measurements were taken while well was being pumped or recently after the well was pumped.

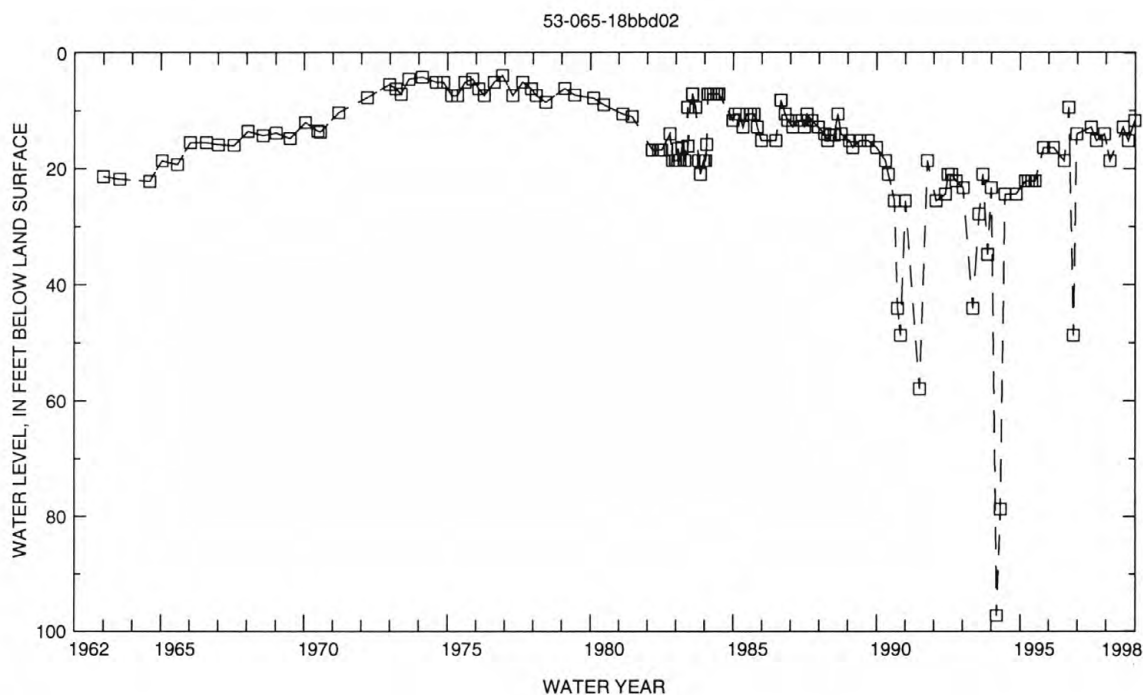
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.90 ft below land surface, Sept. 1, 1976; lowest, 97.24 ft below land surface (well being pumped), Dec. 8, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 18	18.70	JUL 08	15.24
MAY 06	12.93	SEP 30	11.77



GROUND-WATER LEVELS

CROOK COUNTY

444854104534501. Local number, 56-067-28aab01. Local name, Cole #41 Madison.

LOCATION.--Lat 44°48'54", long 104°53'45", in NW¹/₄ NE¹/₄ NE¹/₄ sec.28, T.56 N., R.67 W., Hydrologic Unit 10110201.
Owner: Jahnig Ranch.

AQUIFER.--Madison Limestone.

WELL CHARACTERISTICS.--Depth of well, 3,320 ft below land surface.

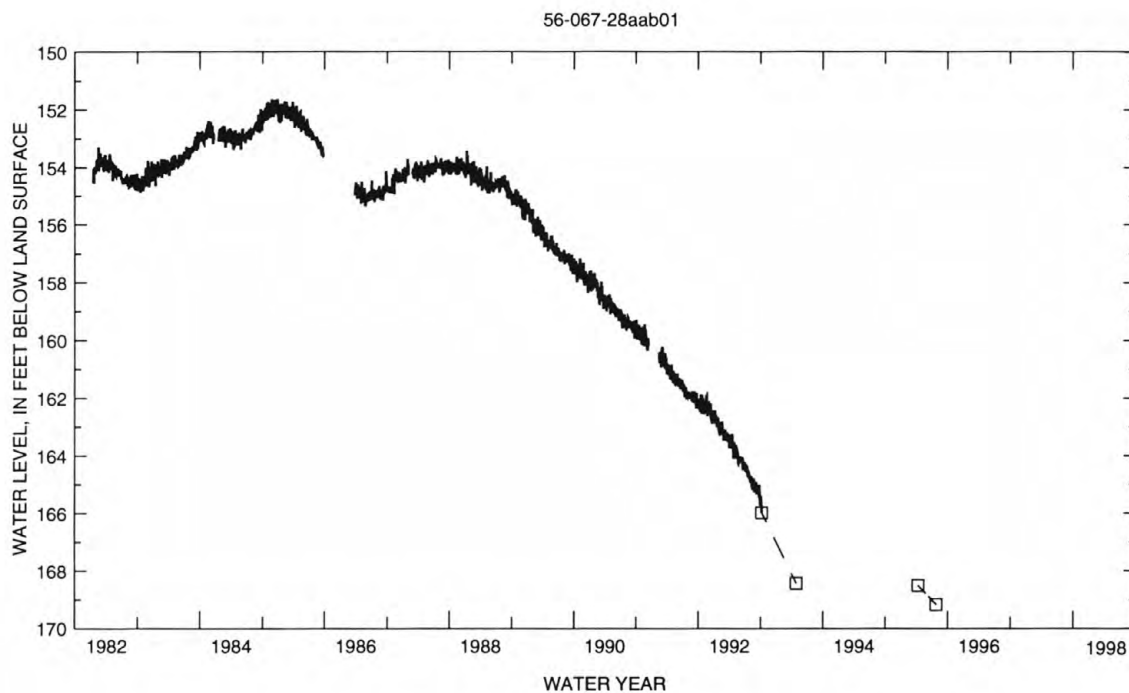
DATUM.--Elevation of land surface is 4,500 ft above sea level, from topographic map. Measuring point: top of casing, 1.20 ft above land surface.

REMARKS.--No data available for 1997 water year.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 151.65 ft below land surface, Nov. 24, 1984; lowest, 169.17 ft below land surface, July 25, 1995.



GROUND-WATER LEVELS

37

CROOK COUNTY

444854104534502. Local number, 56-067-28aab02. Local name, Cole #41 Minnelusa.

LOCATION.--Lat 44°48'54", long 104°53'45", in NW¹/₄ NE¹/₄ NE¹/₄ sec.28 T.56 N., R.67 W., Hydrologic Unit 10110201.
Owner: Energy Transportation Systems, Inc.

AQUIFER.--Madison Limestone.

WELL CHARACTERISTICS.--Depth of well, 2,240 ft below land surface.

DATUM.--Elevation of land surface is 4,500 ft above sea level, from topographic map. Measuring point: top of casing, 1.20 ft above land surface.

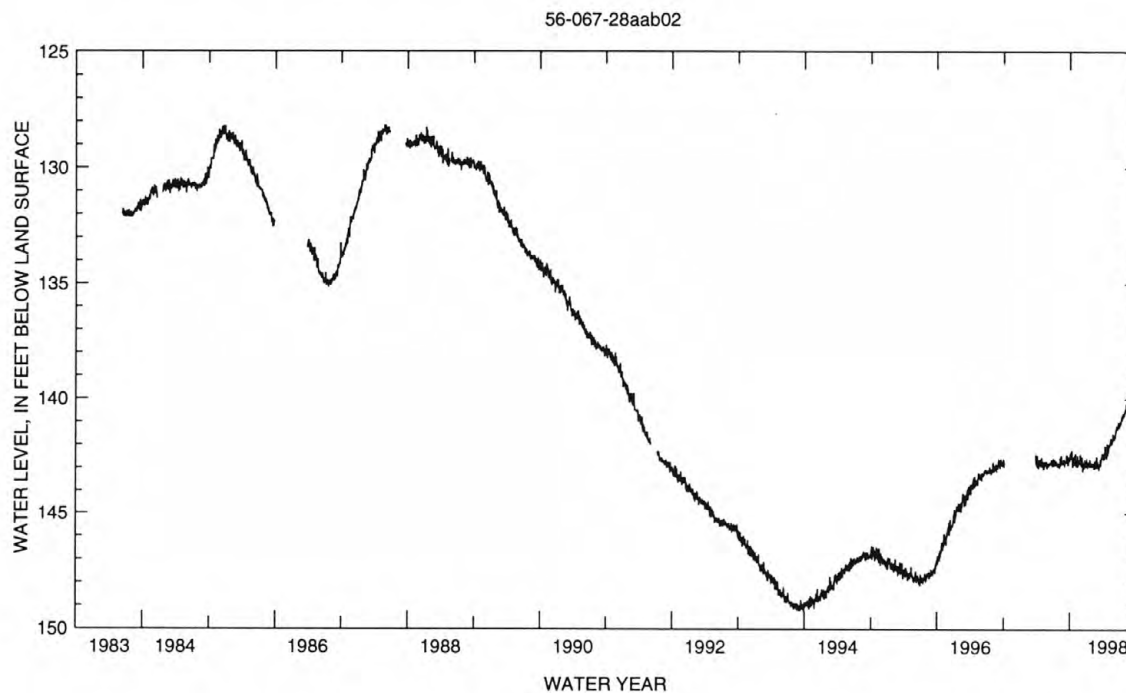
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

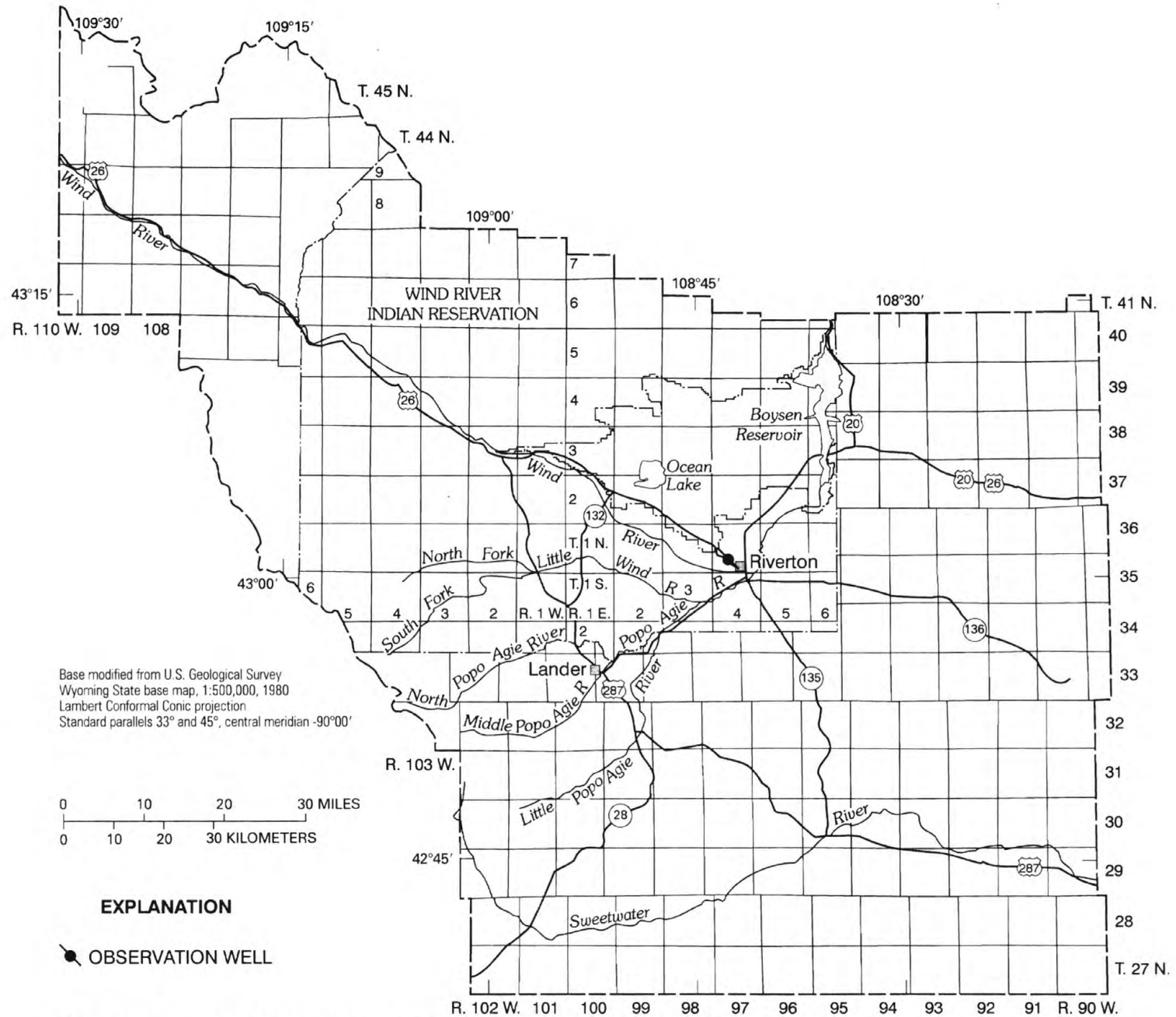
PERIOD OF RECORD.--1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 128.18 ft below land surface, May 5-25, 26, 27, 28, 31, 1987;
lowest, 149.25 ft below land surface, Sept. 28, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	142.57	142.86	142.93	142.74	142.88	142.90	142.35	141.95	141.72	141.00	140.48	139.54
10	142.41	142.73	142.97	142.90	143.04	142.98	142.45	141.97	141.31	140.93	140.29	139.30
15	142.95	142.93	142.75	142.73	142.66	142.85	142.43	141.79	141.18	140.88	140.00	139.29
20	142.90	142.72	142.66	142.63	142.90	142.77	142.56	141.86	141.21	140.68	140.05	139.12
25	142.85	142.71	142.92	142.84	142.49	142.41	142.09	141.74	140.99	140.71	139.78	138.74
EOM	142.37	142.69	142.76	142.91	142.97	142.53	142.22	141.65	141.24	140.47	139.78	---
WTR YR 1998	HIGHEST 138.74 SEP 25			LOWEST 143.14 DEC 11								





GROUND-WATER LEVELS

39

FREMONT COUNTY

430205108243201. Local number, 1N-4E-28acc01. Local name, Brentwood.

LOCATION.--Lat 43°02'05", long 108°24'32", in SW¹/₄ SW¹/₄ NE¹/₄ sec.28, T.1 N., R.4 E., Hydrologic Unit 10080001.
Owner: Brentwood Subdivision.

AQUIFER.--Wind River formation.

WELL CHARACTERISTICS.--Depth of well, 440 ft below land surface.

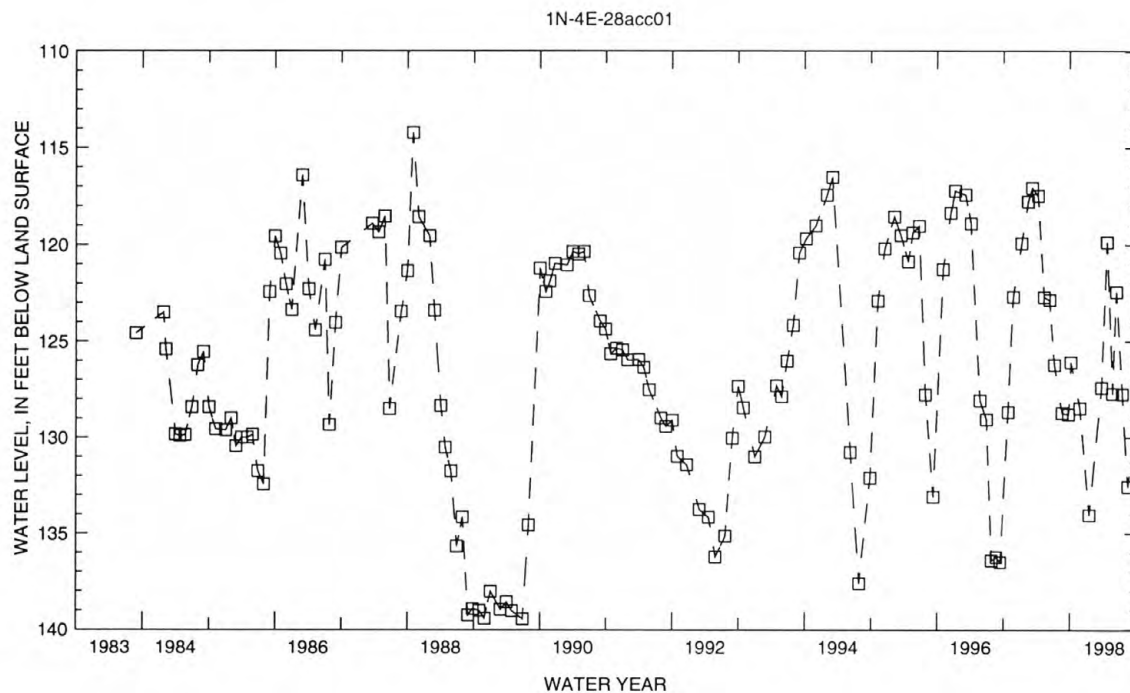
DATUM.--Elevation of land surface is 5,050 ft above sea level, from topographic map. Measuring point: top of casing, 1.0 ft above land surface.

PERIOD OF RECORD.--1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 114.22 ft below land surface, Oct. 30, 1987; lowest, 139.45 ft below land-surface, June 26, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06	126.09	MAR 23	127.40	JUN 11	122.44
NOV 25	128.48	APR 23	119.88	JUL 13	127.74
JAN 15	134.04	MAY 22	127.72	AUG 14	132.56



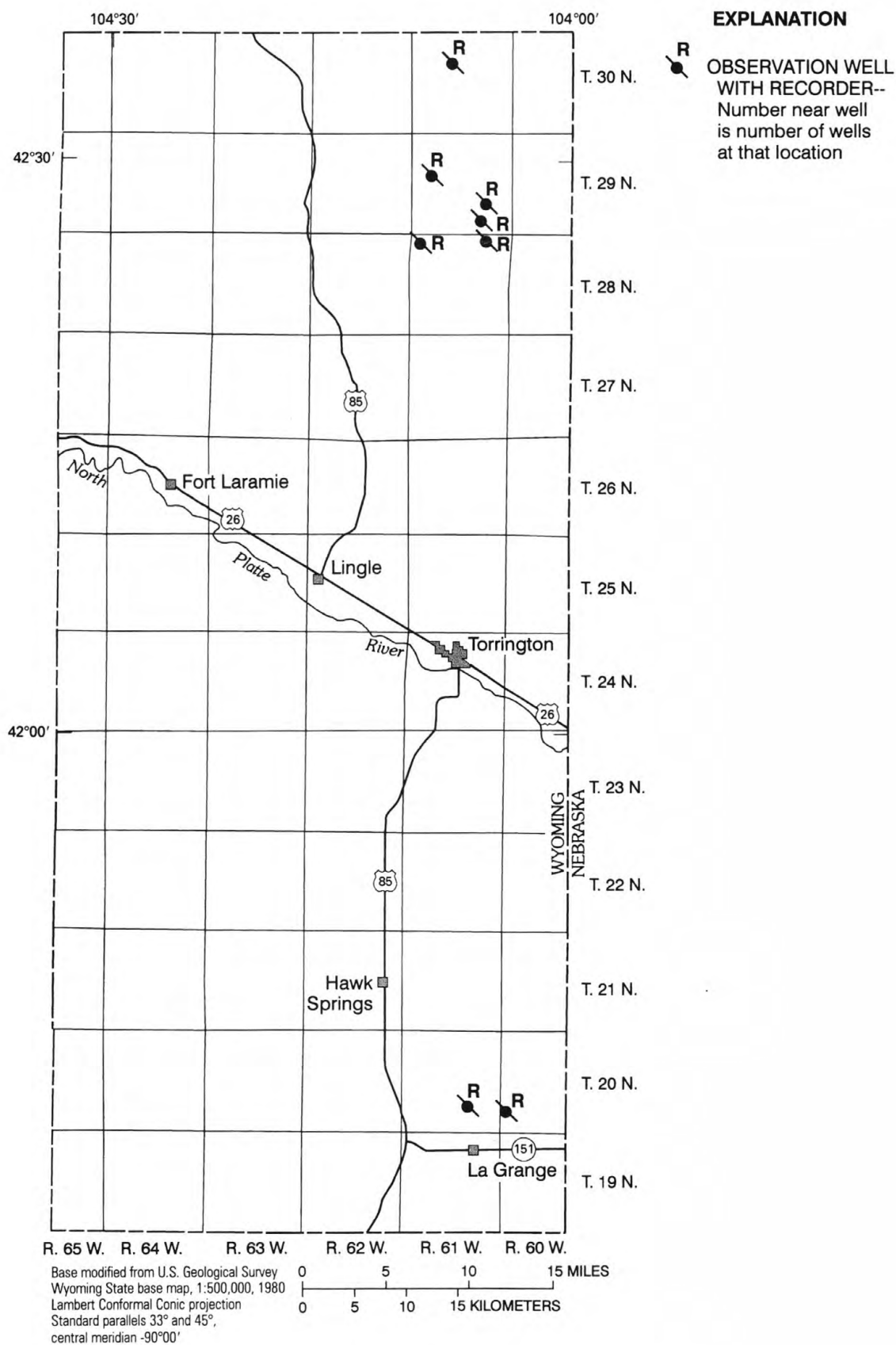


Figure 13. Location of observation wells in Goshen County, Wyoming.

GROUND-WATER LEVELS

41

GOSHEN COUNTY

414049104074501. Local number, 20-060-30bbb01. Local name, LaGrange #2.

LOCATION.--Lat 41°40'49", long 104°07'45", in NW¹/₄ NW¹/₄ NW¹/₄ sec.30, T.20 N., R.60 W., Hydrologic Unit 10180012.
Owner: State of Wyoming.

AQUIFER.--Brule Formation.

WELL CHARACTERISTICS.--Depth of well, 70 ft below land surface.

DATUM.--Elevation of land surface is 4,530 ft above sea level, from topographic map. Measuring point: top of casing, 1.00 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

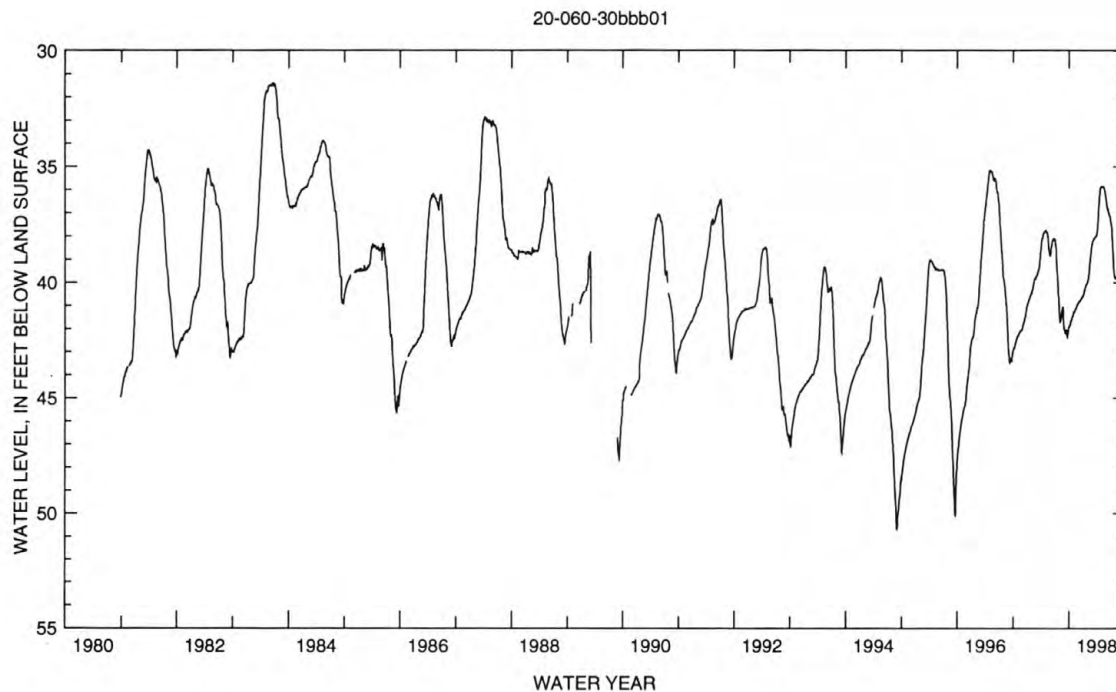
PERIOD OF RECORD.--1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 31.40 ft below land surface, June 18-21, 1983; lowest, 50.70 ft below land surface, Sept. 1, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	41.87	41.27	40.86	40.50	39.80	38.21	37.63	35.87	36.70	37.57	39.80	42.11
10	41.75	41.20	40.79	40.36	39.52	38.13	37.12	35.88	36.85	38.07	39.83	42.39
15	41.69	41.12	40.75	40.20	39.10	38.10	36.57	35.89	36.97	38.73	39.93	42.35
20	41.58	41.03	40.68	40.10	38.78	38.06	36.16	35.99	37.06	39.47	40.25	42.31
25	41.46	40.96	40.65	40.05	38.46	38.00	35.92	36.17	37.14	39.75	40.69	42.02
EOM	41.30	40.89	40.57	39.94	38.36	37.93	35.87	36.49	37.37	39.83	41.53	41.90

WTR YR 1998 HIGHEST 35.86 MAY 01, 02 LOWEST 42.39 SEP 10-12



GROUND-WATER LEVELS

GOSHEN COUNTY

414051104100701. Local number, 20-061-23ccc01. Local name, Curt Meier.

LOCATION.--Lat 41°40'51", long 104°10'07", in SW¹/₄ SW¹/₄ SW¹/₄ sec. 23, T.20 N., R.61 W., Hydrologic Unit 10180012.
Owner: Curt Meier.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Depth of well, 82.0 ft below land surface.

DATUM.--Elevation of land surface is 4,506 ft above sea level, from topographic map. Measuring point: top of casing, 1.00 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

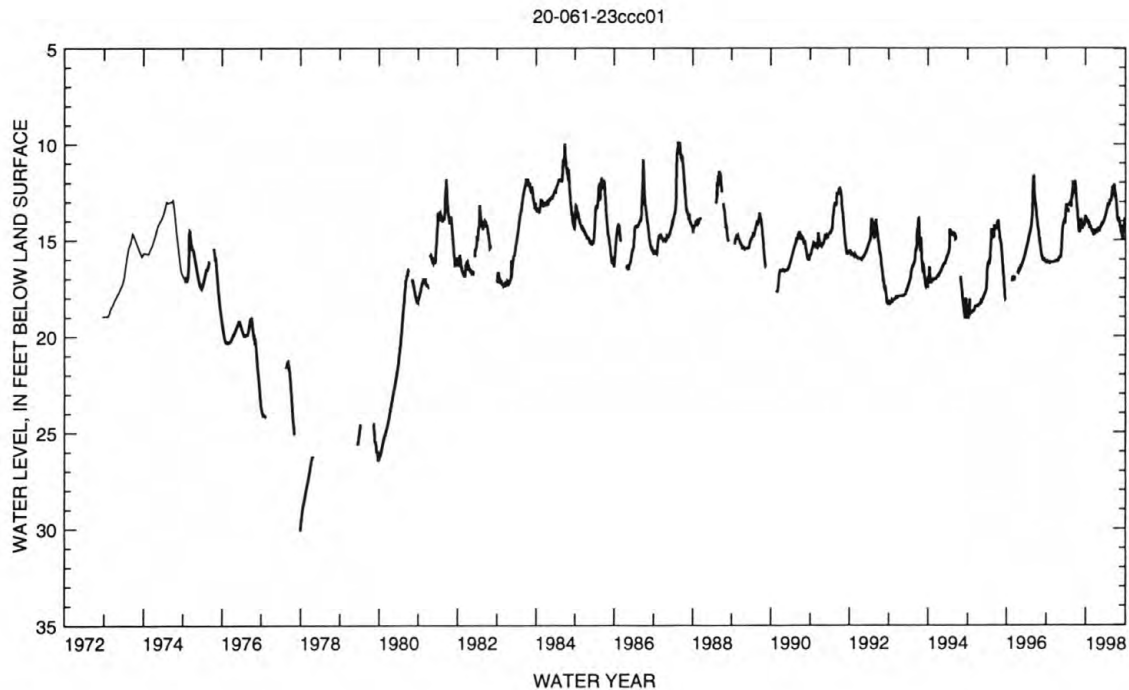
PERIOD OF RECORD.--1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.89 ft below land surface, May 19, 1987; lowest, 32.59 ft below land surface, from hand-measured data, Sept. 18, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.86	14.27	14.57	14.61	14.45	14.17	13.67	13.14	12.36	12.67	13.97	14.82
10	13.92	14.27	14.61	14.57	14.41	14.11	13.59	13.08	12.34	12.86	14.05	14.70
15	14.01	14.32	14.61	14.53	14.34	14.07	13.45	12.97	12.45	13.23	14.26	14.27
20	14.06	14.37	14.61	14.50	14.30	14.01	13.33	12.94	12.51	13.66	14.40	14.52
25	14.04	14.46	14.64	14.49	14.18	13.90	13.23	12.92	12.17	13.92	14.65	14.10
EOM	14.17	14.53	14.60	14.47	14.21	13.79	13.18	12.65	12.60	13.90	14.59	13.86

WTR YR 1998 HIGHEST 12.11 JUN 23, 24 LOWEST 15.00 SEP 08



GROUND-WATER LEVELS

43

GOSHEN COUNTY

422519104095101. Local number, 28-061-02ccd01. Local name, Prairie Center #6.

LOCATION.--Lat 42°25'19", long 104°09'51", in SE¹/₄ SW¹/₄ SW¹/₄ sec. 2, T.28 N., R.61 W., Hydrologic Unit 10180009.
Owner: George Ochsner.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 255 ft below land surface.

DATUM.--Elevation of land surface is 4,795 ft above sea level, from topographic map. Measuring point: top of casing, 1.70 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

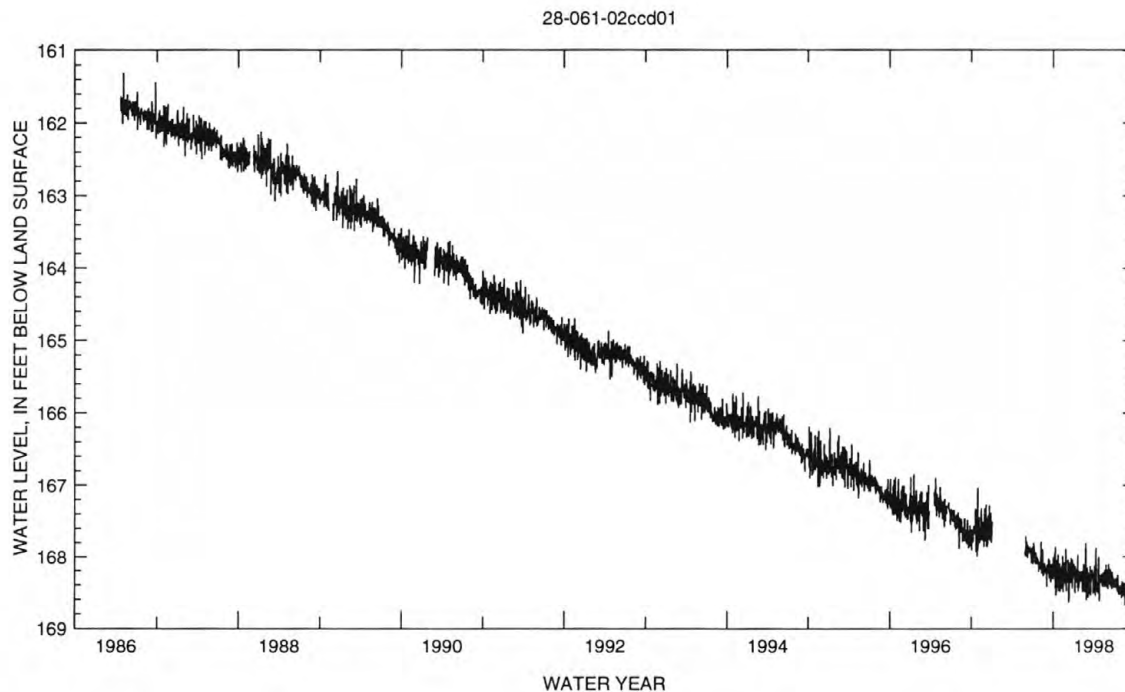
PERIOD OF RECORD.--1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 161.31 ft below land surface, May 4, 1986; lowest, 168.75 ft below land surface, Aug. 28, Sept. 21, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	168.23	168.45	168.36	168.27	168.27	168.43	168.18	168.26	168.46	168.36	168.49	168.62
10	168.12	168.12	168.64	168.25	168.50	168.36	168.35	168.29	168.21	168.39	168.52	168.54
15	168.52	168.50	168.09	168.18	168.11	168.30	168.47	168.43	168.22	168.49	168.37	168.74
20	168.37	168.12	168.07	168.01	168.35	168.35	168.50	168.27	168.33	168.41	168.68	168.63
25	168.49	168.22	168.45	168.28	167.81	168.19	168.11	168.36	168.28	168.47	168.55	168.39
EOM	168.10	168.23	168.21	168.35	168.61	168.42	168.27	168.34	168.44	168.45	168.54	---

WTR YR 1998 HIGHEST 167.81 FEB 25 LOWEST 168.75 AUG 28, SEP 21



GROUND-WATER LEVELS

GOSHEN COUNTY

422512104135501. Local number, 28-061-06aba01. Local name, Goshen County #2.

LOCATION.--Lat 42°25'12", long 104°13'55", in NE¹/₄ NW¹/₄ NE¹/₄ sec. 6, T.28 N., R.61 W., Hydrologic Unit 10180009.
Owner: State of Wyoming.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 220 ft below land surface.

DATUM.--Elevation of land surface is 4,765 ft above sea level, from topographic map. Measuring point: top of casing, 1.60 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

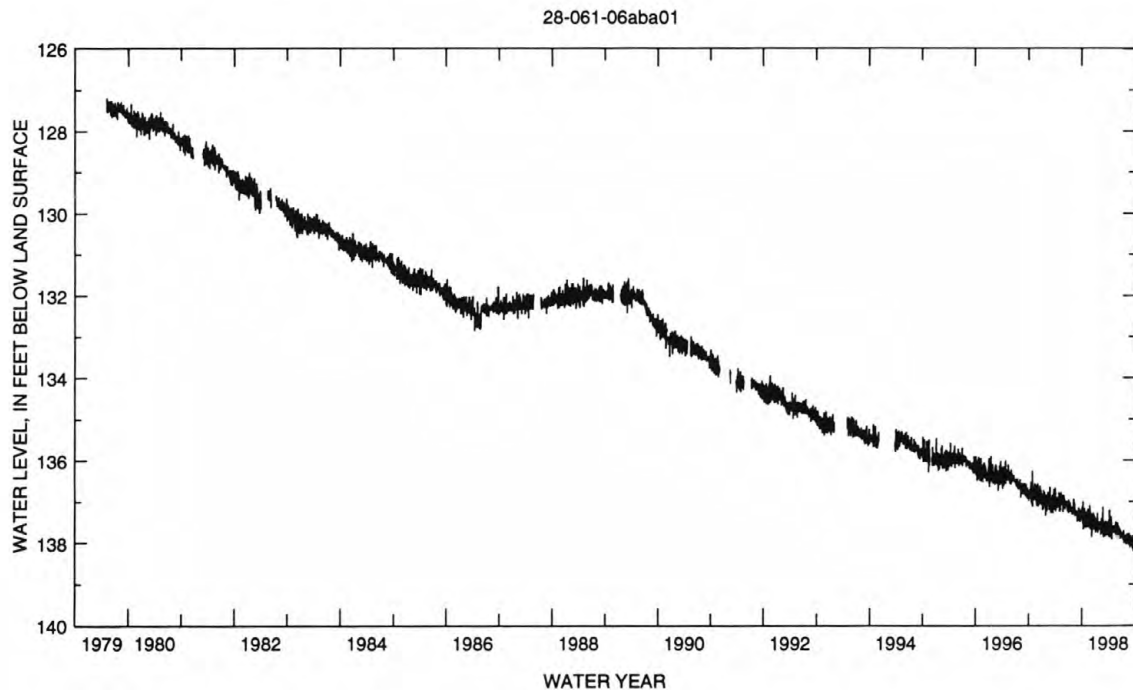
PERIOD OF RECORD.--1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 127.23 ft below land surface, May 4, 1979; lowest, 138.21 ft below land surface, Sept. 21, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	137.35	137.59	137.59	137.54	137.61	137.79	137.58	137.60	137.89	137.80	137.90	138.03
10	137.26	137.29	137.86	137.53	137.81	137.67	137.68	137.64	137.61	137.81	137.93	138.00
15	137.64	137.64	137.36	137.46	137.42	137.64	137.79	137.76	137.64	137.95	137.79	138.14
20	137.52	137.36	137.32	137.36	137.64	137.66	137.87	137.63	137.81	137.84	138.05	138.12
25	137.61	137.42	137.69	137.61	137.14	137.51	137.53	137.71	137.73	137.90	137.93	137.84
EOM	137.26	137.44	137.48	137.66	137.87	137.72	137.62	137.71	137.86	137.87	138.01	---

WTR YR 1998 HIGHEST 137.01 OCT 11 LOWEST 138.21 SEP 21



GOSHEN COUNTY

422928104121401. Local number, 29-061-17aad01. Local name, Prairie Center #4.

LOCATION.--Lat 42°29'28", long 104°12'14", in SE¹/₄ NE¹/₄ NE¹/₄ Sec. 17, T.29 N., R.61 W., Hydrologic Unit 10180009.
Owner: State of Wyoming.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 220 ft below land surface.

DATUM.--Elevation of land surface is 4,790 ft above sea level, from topographic map. Measuring point: top of casing, 1.90 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

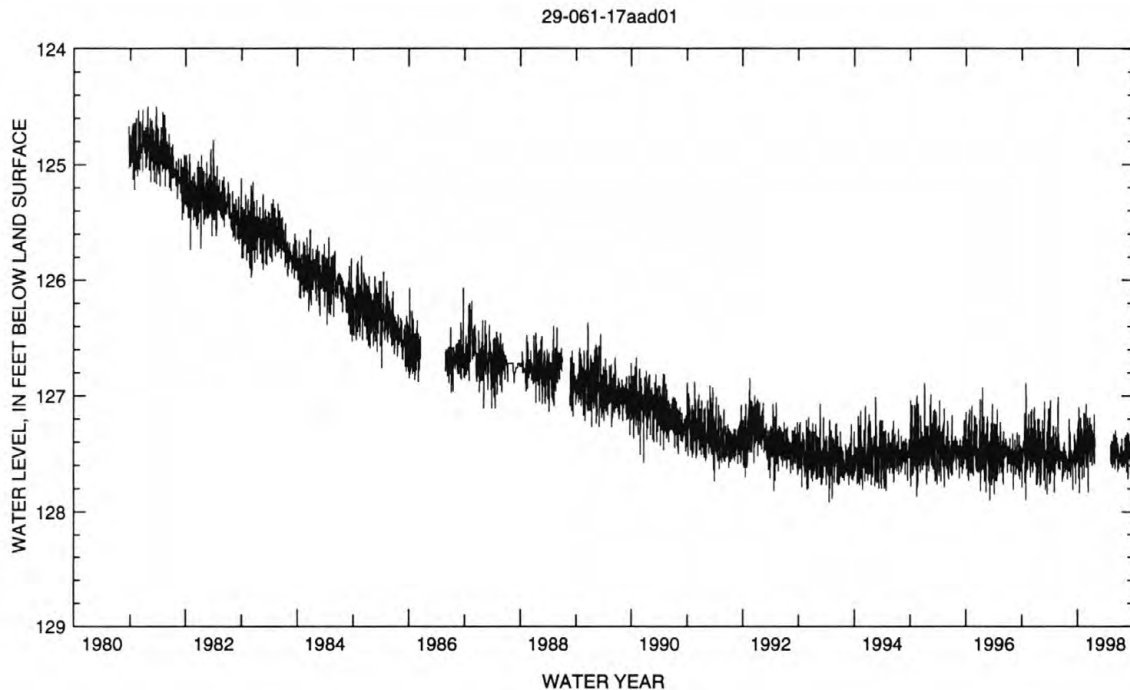
PERIOD OF RECORD.--1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 124.50 ft below land surface, Jan. 24, Mar. 20, 1981; lowest, 127.92 ft below land surface, Apr. 20, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	127.46	127.59	127.56	127.41	---	---	---	127.42	127.63	127.50	127.56	127.51
10	127.44	127.33	127.75	127.41	---	---	---	127.49	127.38	127.51	127.54	127.44
15	127.82	127.70	127.26	127.34	---	---	---	127.60	127.41	127.61	127.34	127.69
20	127.61	127.29	127.26	127.16	---	---	---	127.50	127.53	127.48	127.66	127.54
25	127.61	127.39	127.57	---	---	---	---	127.56	127.46	127.56	127.49	127.30
EOM	127.28	127.43	127.40	---	---	---	---	127.54	127.63	127.51	127.48	---

WTR YR 1998 HIGHEST 127.07 NOV 27 LOWEST 127.84 OCT 14



GROUND-WATER LEVELS

GOSHEN COUNTY

422849104090801. Local number, 29-061-23abb01. Local name, Goshen County #1.

LOCATION.--Lat 42°28'49", long 104°09'08", in NW¹/₄ NW¹/₄ NE¹/₄ sec. 23, T.29 N., R.61 W., Hydrologic Unit 10180009.
Owner: State of Wyoming.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 300 ft below land surface.

DATUM.--Elevation of land surface is 4,870 ft above sea level, from topographic map. Measuring point: top of casing, 1.00 ft above land surface.

REMARKS.--Well was slug tested by instantaneous recharge on June 12, 1987 to test well's connection with aquifer. Water level did not recover properly, so it was flushed in March 1991.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

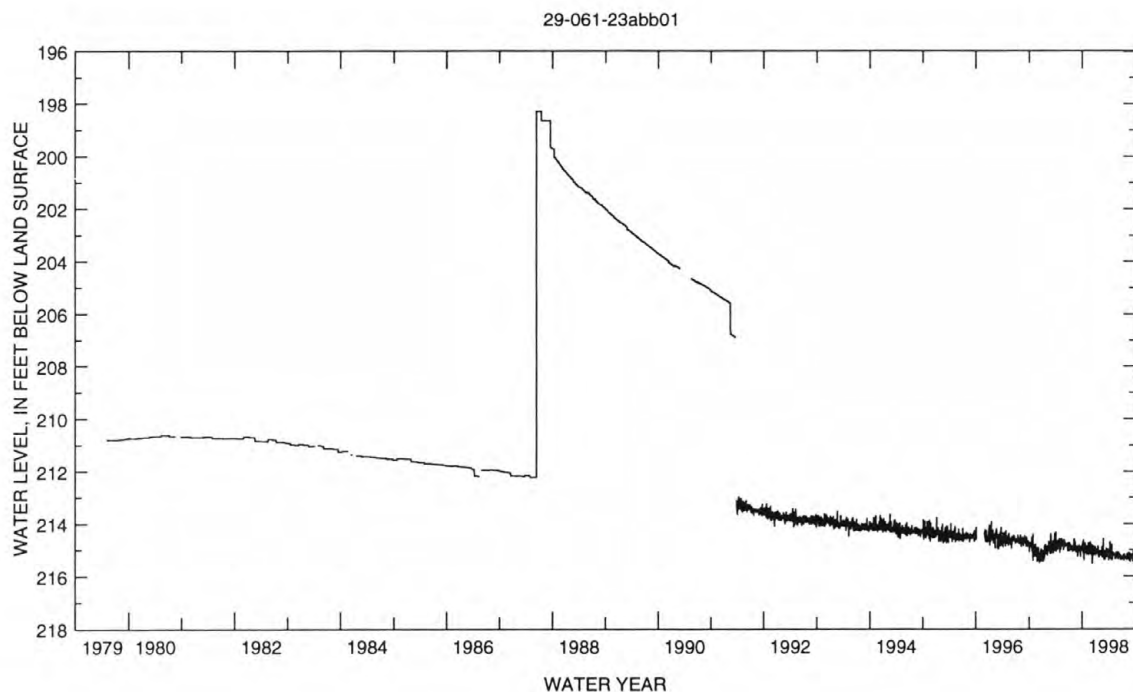
PERIOD OF RECORD.--1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 198.29 ft below land surface, affected by slug test; lowest, 215.54 ft below land surface, Dec. 11, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	214.90	215.15	215.21	215.06	215.03	215.15	215.05	215.15	215.29	215.30	215.36	215.26
10	214.95	214.94	215.27	215.06	215.21	215.30	215.27	215.23	215.14	215.30	215.32	215.21
15	215.40	215.21	214.95	215.02	214.89	215.14	215.23	215.23	215.19	215.31	215.13	215.46
20	215.14	214.95	214.92	214.85	215.22	215.22	215.32	215.29	215.25	215.20	215.41	215.20
25	215.11	215.05	215.15	215.06	214.55	214.97	214.80	215.34	215.21	215.33	215.27	215.05
EOM	214.83	215.08	215.06	215.06	215.34	215.23	215.13	215.26	215.38	215.30	215.27	---

WTR YR 1998 HIGHEST 214.55 FEB 25 LOWEST 215.54 DEC 11



GROUND-WATER LEVELS

47

GOSHEN COUNTY

422730104094801. Local number, 29-061-26cbb01. Local name, Prairie Center #3.

LOCATION.--Lat 42°27'30", long 104°09'48", in NW¹/₄ NW¹/₄ SW¹/₄ sec. 26, T.29 N., R.61 W., Hydrologic Unit 10180009.
OWNER: State of Wyoming.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 200 ft below land surface.

DATUM.--Elevation of land surface is 4,770 ft above sea level, from topographic map. Measuring point: top of casing, 1.50 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

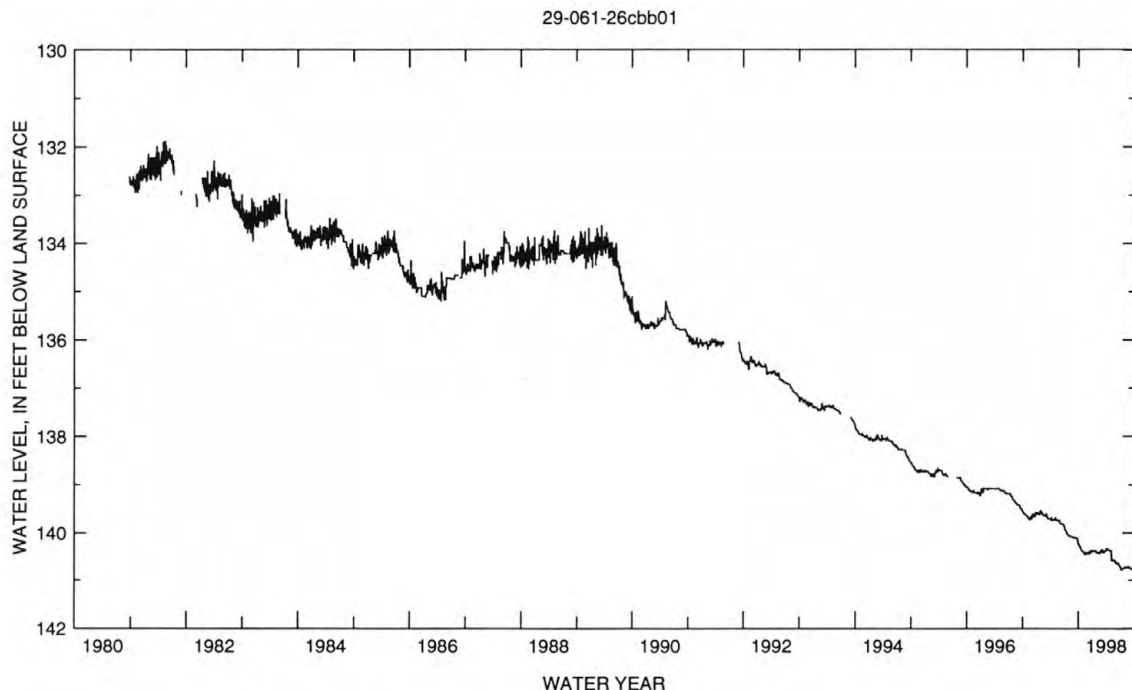
PERIOD OF RECORD.--1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 131.89 ft below land surface, May 15, 16, 1981; lowest, 140.80 ft below land surface, July 7, Sept. 24, 25, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	140.26	140.42	140.45	140.41	140.44	140.37	140.35	140.60	140.64	140.75	140.74	140.75
10	140.30	140.46	140.41	140.39	140.43	140.41	140.36	140.60	140.66	140.79	140.73	140.76
15	140.33	140.42	140.44	140.40	140.45	140.43	140.36	140.58	140.65	140.78	140.75	140.77
20	140.37	140.44	140.41	140.41	140.41	140.40	140.38	140.58	140.65	140.76	140.74	140.78
25	140.39	140.45	140.38	140.40	140.42	140.40	140.39	140.59	140.71	140.75	140.72	140.80
EOM	140.40	140.43	140.40	140.43	140.36	140.39	140.39	140.62	140.71	140.74	140.75	---

WTR YR 1998 HIGHEST 140.24 OCT 01 LOWEST 140.80 JUL 07, SEP 24, 25



GROUND-WATER LEVELS

GOSHEN COUNTY

423549104120901. Local number, 30-061-09bbb01. Local name, Prairie Center #5.

LOCATION.--Lat 42°35'49", long 104°12'09", in NW¹/₄ NW¹/₄ NW¹/₄ sec. 9, T.30 N., R.61 W., Hydrologic Unit 10180009.
Owner: State of Wyoming.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 220 ft below land surface.

DATUM.--Elevation of land surface is 4,850 ft above sea level, from topographic map. Measuring point: top of casing, 1.60 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

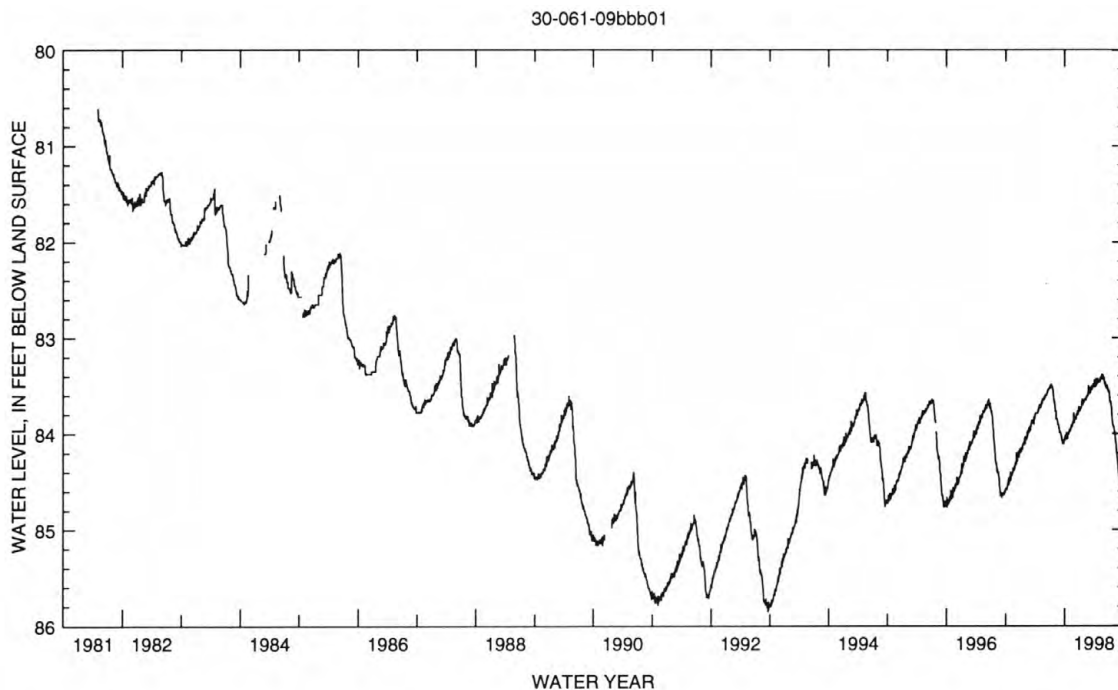
PERIOD OF RECORD.--1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 80.61 ft below land surface, May 1, 1981; lowest, 85.86 ft below land surface, Sept. 21, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	84.02	83.98	83.85	83.74	83.65	83.59	83.46	83.45	83.48	83.59	83.99	84.50
10	84.02	83.93	83.86	83.73	83.66	83.58	83.48	83.42	83.47	83.66	84.06	84.57
15	84.06	83.94	83.80	83.67	83.61	83.54	83.50	83.43	83.50	83.72	84.15	84.64
20	84.05	83.89	83.77	83.65	83.61	83.54	83.48	83.38	83.53	83.82	84.22	84.68
25	84.01	83.86	83.78	83.70	83.51	83.48	83.47	83.42	83.54	83.90	84.32	84.64
EOM	83.96	83.84	83.74	83.67	83.56	83.51	83.45	83.42	83.57	83.93	84.39	---

WTR YR 1998 HIGHEST 83.38 MAY 20 LOWEST 84.68 SEP 20-23, 27



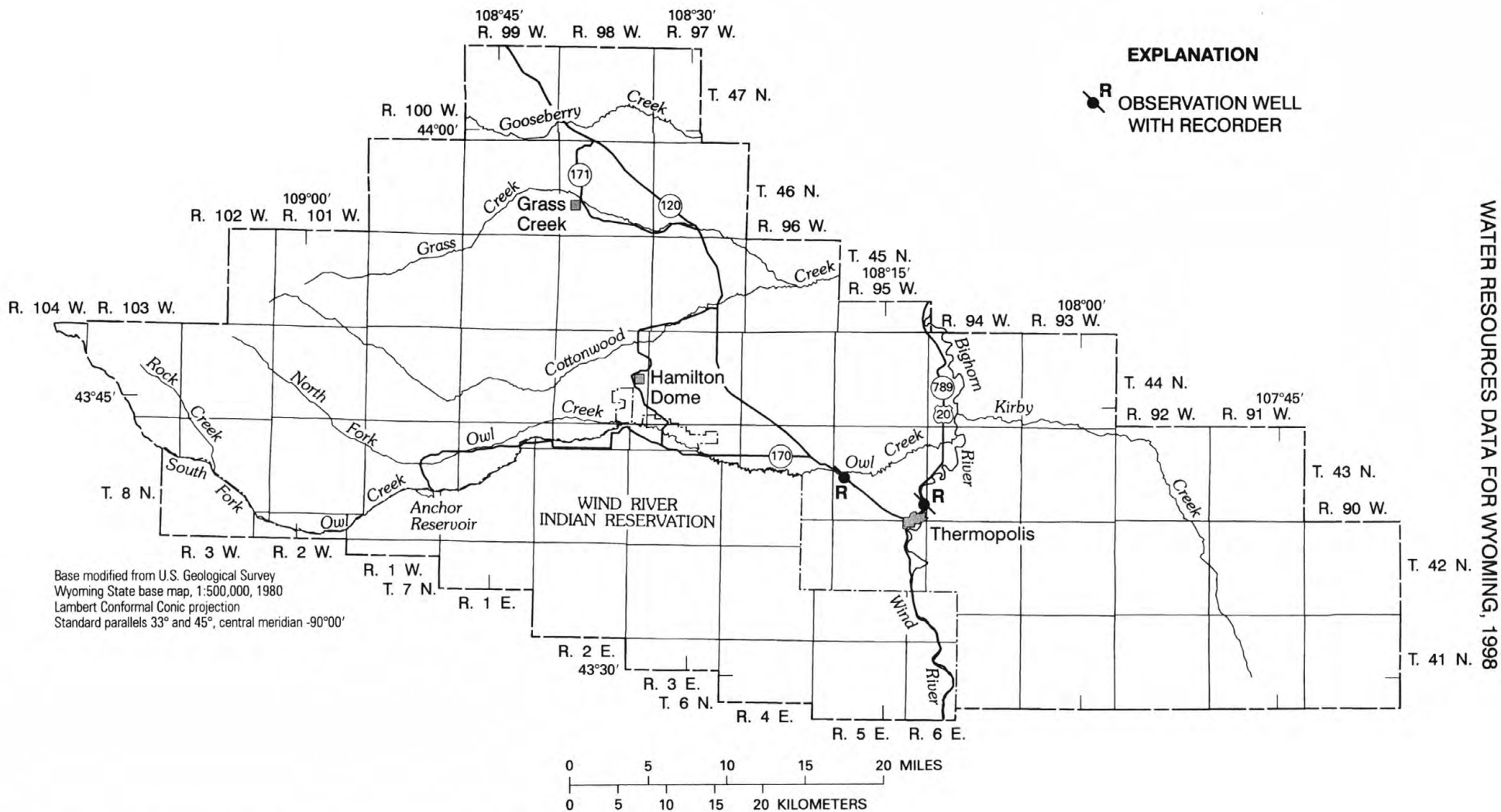


Figure 14. Location of observation wells in Hot Springs County, Wyoming.

GROUND-WATER LEVELS

HOT SPRINGS COUNTY

434136108183301. Local number, 43-095-18cab01. Local name, Thermopolis GTW-1.

LOCATION.--Lat 43°41'36", long 108°18'33", in NW¹/₄ NE¹/₄ SW¹/₄ sec.18, T.43 N., R.95 W., Hydrologic Unit 10080007.
OWNER: Town of Thermopolis and Bureau of Land Management.

AQUIFER.--Tensleep Sandstone.

WELL CHARACTERISTICS.--Depth of well, 354 ft below land surface.

DATUM.--Elevation of land surface is 4,700 ft above sea level, from topographic map. Measuring point: top of casing, 1.40 ft above land surface.

REMARKS.--Water level data from July 14 through Sept. 30 not available at time of publication.

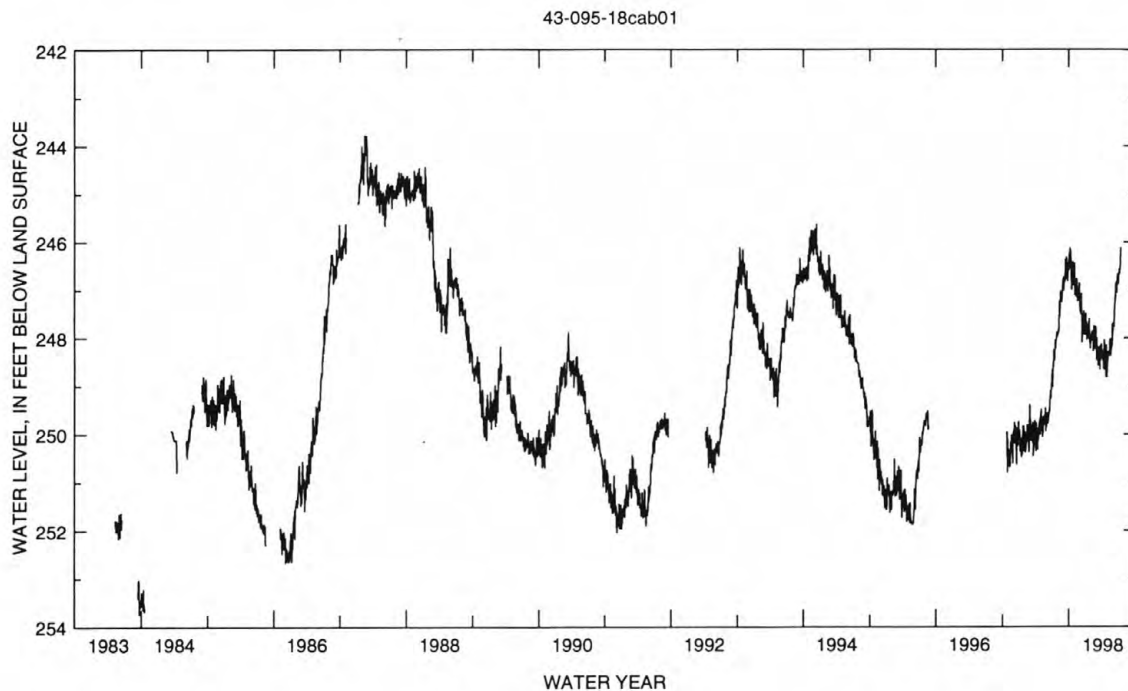
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 243.79 ft below land surface, Feb. 13, 14, 22, 1987, lowest, 253.74 ft below land surface, Sept. 20, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	246.44	247.06	247.51	247.68	247.88	248.32	248.29	248.28	247.77	246.57	---	---
10	246.36	246.92	247.78	247.84	248.28	248.56	248.46	248.34	247.15	246.43	---	---
15	247.00	247.25	247.51	247.81	247.75	248.44	248.44	248.17	246.88	---	---	---
20	246.87	247.02	247.46	247.62	248.07	248.53	248.76	248.19	246.98	---	---	---
25	246.91	247.17	247.93	248.03	247.82	248.18	248.29	247.97	246.68	---	---	---
EOM	246.44	247.27	247.77	248.07	248.42	248.42	248.55	247.86	246.84	---	---	---
WTR YR 1998	HIGHEST 246.12 JUL 13 LOWEST 248.82 APR 21, 27											



GROUND-WATER LEVELS

51

HOT SPRINGS COUNTY

433933108121901. Local number, 43-095-25cdc01. Local name, Thermopolis GTW-3.

LOCATION.--Lat 43°39'33", long 108°12'19", in SW¹/₄ SE¹/₄ SW¹/₄ sec.25, T.43 N., R.95 W., Hydrologic Unit 10080007.
OWNER: Town of Thermopolis.

AQUIFER.--Phosphoria Formation (formerly labeled Park City Formation).

WELL CHARACTERISTICS.--Depth of well, 228 ft below land surface.

DATUM.--Elevation of land surface is 4,700 ft above sea level, from topographic map. Measuring point: top of casing, 1.60 ft above land surface.

REMARKS.--Water level data from July 14 through Sept. 30 not available at time of publication.

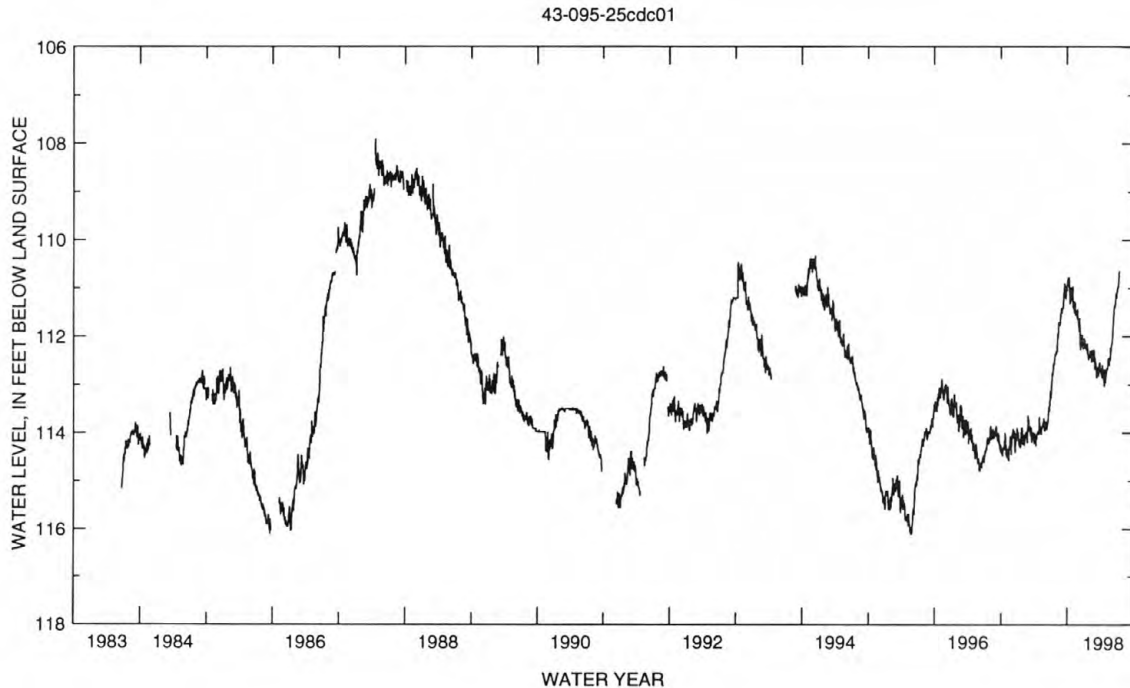
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 107.91 ft below land surface, Apr. 18, 1987; lowest, 116.11 ft below land surface, Sept. 15, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

1DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	110.89	111.43	111.90	112.09	112.32	112.56	112.68	112.66	112.12	110.97	---	---
10	110.86	111.43	111.91	112.21	112.50	112.80	112.82	112.65	111.67	110.86	---	---
15	111.33	111.54	112.04	112.23	112.27	112.75	112.72	112.51	111.44	---	---	---
20	111.29	111.52	112.00	112.18	112.46	112.83	112.97	112.55	111.37	---	---	---
25	111.24	111.59	112.19	112.39	112.29	112.59	112.70	112.40	111.11	---	---	---
EOM	110.97	111.68	112.23	112.44	112.57	112.66	112.87	112.24	111.18	---	---	---
WTR YR 1998	HIGHEST 110.65 JUL 13			LOWEST 113.03 APR 21								



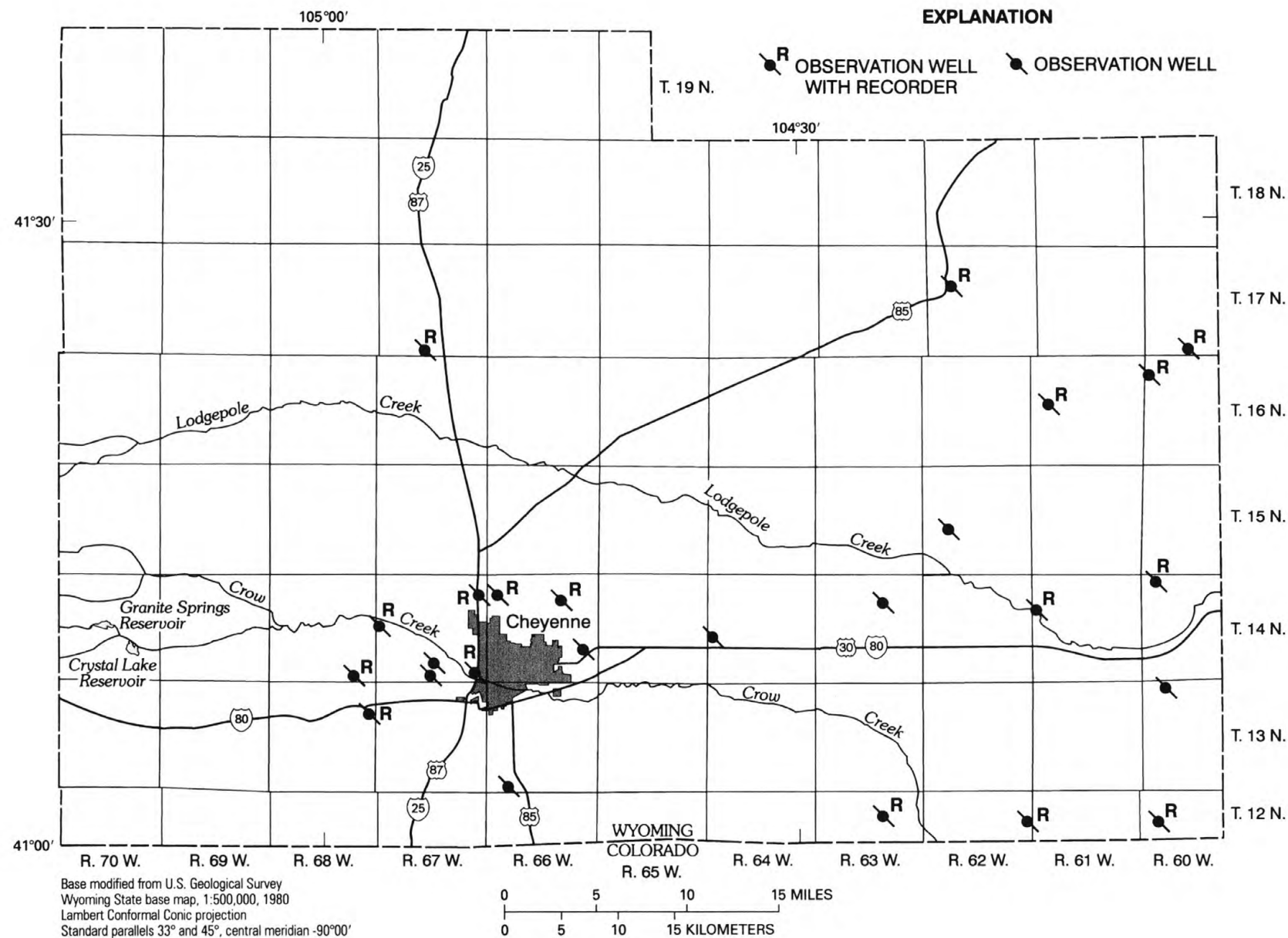


Figure 15. Location of observation wells in Laramie County, Wyoming.

LARAMIE COUNTY

410059104072401. Local number, 12-060-07ddd01. Local name, Laramie County #1.

LOCATION.--Lat 41°00'59", long 104°07'24", in SE¹/₄ SE¹/₄ SE¹/₄ sec.7, T.12 N., R.60 W., Hydrologic Unit 10190015.
OWNER: State of Wyoming.

AQUIFER.--Brule Formation.

WELL CHARACTERISTICS.--Depth of well, 120 ft below land surface.

DATUM.--Elevation of land surface is 5,176 ft above sea level, from topographic map. Measuring point: top of casing, 1.70 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

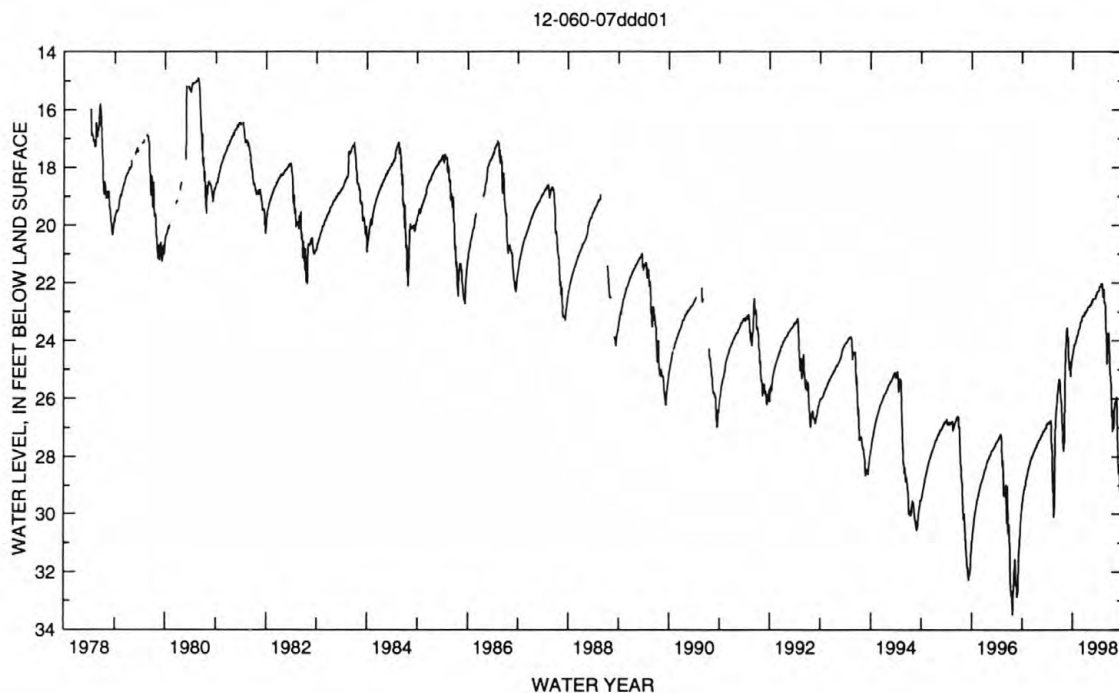
PERIOD OF RECORD.--1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.90 ft below land surface, May 24, 25, 1980; lowest, 33.49 ft below land surface, July 22, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.39	23.82	23.33	23.02	22.78	22.56	22.27	22.24	24.78	25.52	26.16	28.67
10	24.26	23.72	23.18	22.97	22.75	22.56	22.27	22.31	23.98	26.55	26.02	29.17
15	24.15	23.62	23.14	22.91	22.65	22.54	22.14	22.23	23.86	27.02	26.08	28.67
20	24.11	23.56	23.15	22.85	22.66	22.44	22.14	22.69	23.89	26.74	27.50	27.84
25	24.00	23.46	23.12	22.85	22.56	22.37	22.04	22.84	24.73	27.01	28.31	27.40
EOM	23.86	23.35	23.02	22.81	22.56	22.31	22.04	23.80	25.18	26.18	28.39	27.17

WTR YR 1998 HIGHEST 22.03 MAY 03 LOWEST 29.21 SEP 09



LARAMIE COUNTY

410100104160301. Local number, 12-062-13baa01. Local name, USGS southeast of Carpenter.

LOCATION.--Lat 41°01'00", long 104°16'03", in NE¹/₄ NE¹/₄ NW¹/₄ sec.13, T.12 N., R.62 W., Hydrologic Unit 10190009.
OWNER: Clarence Tietmeyer.

AQUIFER.--Terrace Deposits.

WELL CHARACTERISTICS.--Depth of well, 198 ft below land surface datum.

DATUM.--Elevation of land surface is 5,315 ft above sea level, from topographic map. Measuring point: top of casing, 1.70 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

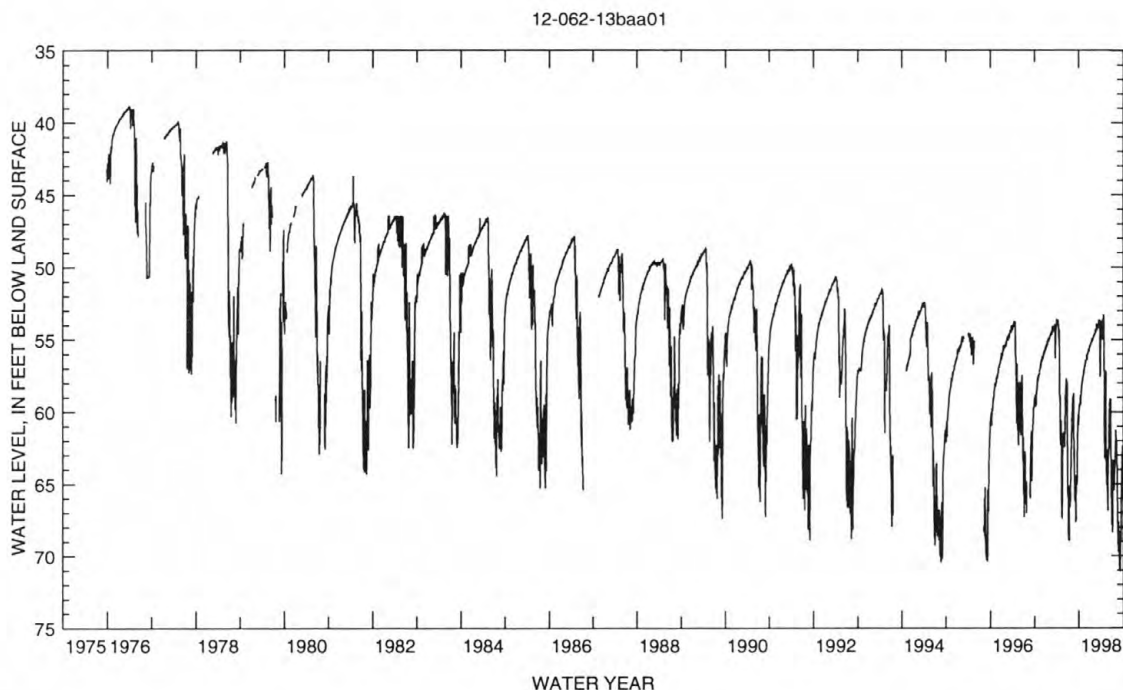
PERIOD OF RECORD.--1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 38.53 ft below land surface, from hand-measured data, May 19, 1975; lowest, 71.09 ft below land surface, Sept. 6, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	59.95	57.81	56.44	55.41	54.66	54.16	53.83	63.19	62.81	67.41	61.75	70.93
10	59.60	57.33	56.35	55.31	54.67	54.12	53.96	58.93	60.43	65.69	62.73	70.96
15	59.29	57.34	55.91	55.14	54.32	53.91	54.12	61.68	59.18	64.36	64.66	68.94
20	59.40	56.90	55.79	54.91	54.44	53.85	53.70	65.05	59.69	65.46	68.52	65.33
25	58.59	56.72	55.79	54.98	53.92	53.64	53.33	63.30	62.90	64.35	69.74	63.00
EOM	57.89	56.51	55.60	54.84	54.38	54.61	56.91	66.87	66.62	63.10	70.16	62.39

WTR YR 1998 HIGHEST 53.29 APR 24 LOWEST 71.09 SEP 06



GROUND-WATER LEVELS

55

LARAMIE COUNTY

410111104223102. Local number, 12-063-15aaa02. Local name, USGS southwest of Carpenter.

LOCATION.--Lat 41°00'59", long 104°24'32", in NE¹/₄ NE¹/₄ NE¹/₄ sec.15, T.12 N., R.63 W., Hydrologic Unit 10190009.
OWNER: Robert Smith.

AQUIFER.--Brule Formation.

WELL CHARACTERISTICS.--Depth of well, 110 ft below land surface.

DATUM.--Elevation of land surface is 5,385 ft above sea level, from topographic map. Measuring point: top of casing, 1.50 ft above land surface.

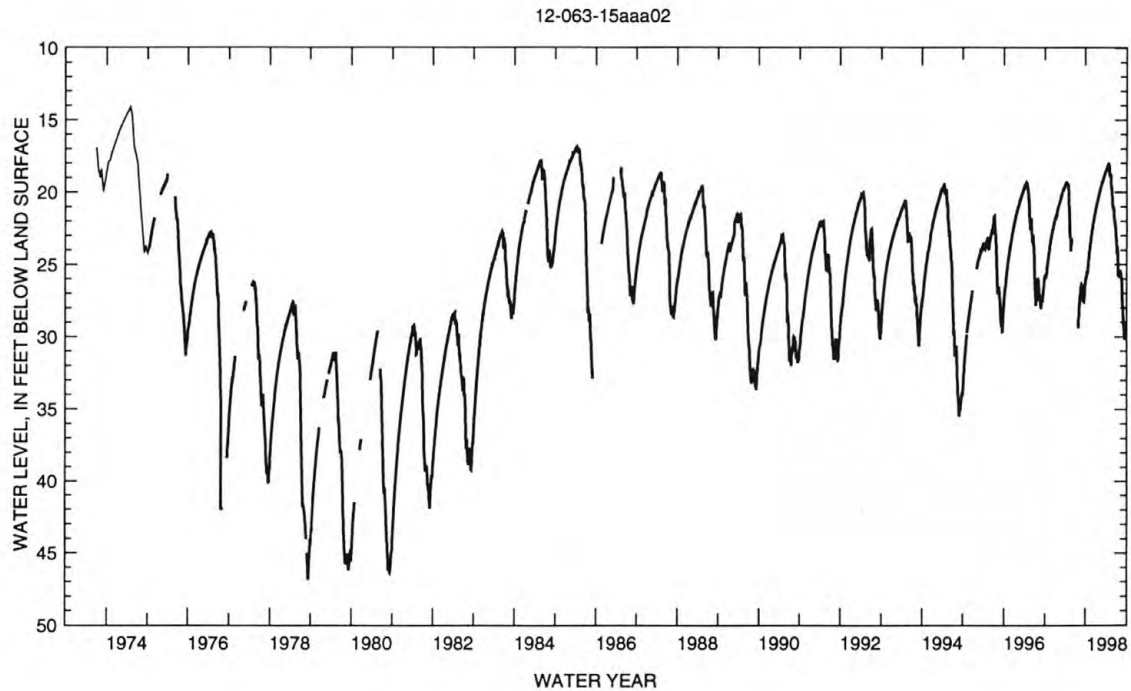
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.12 ft below land surface, May 1, 2, 1974; lowest, 46.86 ft below land surface, Sept. 10, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.00	24.23	22.39	21.02	19.99	19.21	18.45	18.70	21.13	23.28	25.55	28.93
10	25.81	23.86	22.15	20.83	19.85	19.10	18.41	18.76	21.10	24.27	25.40	29.34
15	25.52	23.55	21.92	20.68	19.67	18.97	18.28	18.77	21.73	23.89	25.71	29.80
20	25.57	23.22	21.68	20.51	19.56	18.84	18.20	19.65	22.15	25.28	26.05	30.10
25	25.16	22.94	21.50	20.35	19.38	18.71	18.06	19.85	22.26	25.61	26.67	29.28
EOM	24.60	22.66	21.24	20.15	19.36	18.56	18.12	20.82	22.96	25.81	27.96	29.00
WTR YR 1998	HIGHEST 18.06 APR 25-28			LOWEST 30.19 SEP 19								



GROUND-WATER LEVELS

LARAMIE COUNTY

410703104071201. Local number, 13-060-05ccb01. Local name, Elmer Glantz.

LOCATION.--Lat 41°07'03", long 104°07'12", in NW¹/4 SW¹/4 SW¹/4 sec.5, T.13 N., R.60 W., Hydrologic Unit 10190015.
Owner: Elmer Glantz.

AQUIFER.--Brule Formation.

WELL CHARACTERISTICS.--Depth of well, 100 ft below land surface.

DATUM.--Elevation of land surface is 5,125 ft above sea level, from topographic map. Measuring point: top of casing, at land surface.

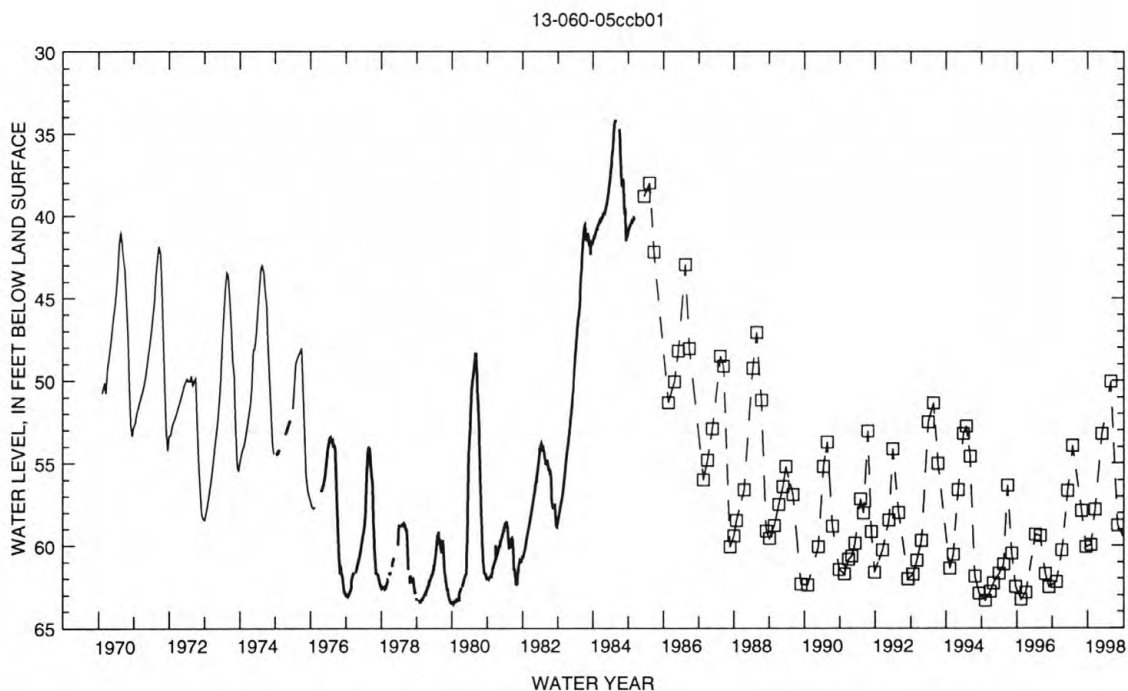
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 34.18 ft below land surface, May 20, 1984; lowest, 63.52 ft below land surface, Oct. 9, 12, 13, 1979.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04	59.95	FEB 23	53.22	AUG 03	58.76
DEC 15	57.81	MAY 26	50.05		



LARAMIE COUNTY

410324104481701. Local number, 13-066-32bbd01. Local name, Laramie County #14.

LOCATION.--Lat 41°03'24", long 104°48'17", in SE¹/₄ NW¹/₄ NW¹/₄ sec.32, T.13 N., R.66 W., Hydrologic Unit 10190009.
OWNER: TFS, LLC.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 160 ft below land surface.

DATUM.--Elevation of land surface is 6,180 ft above sea level, from topographic map. Measuring point: top of casing, 1.3 ft above land surface.

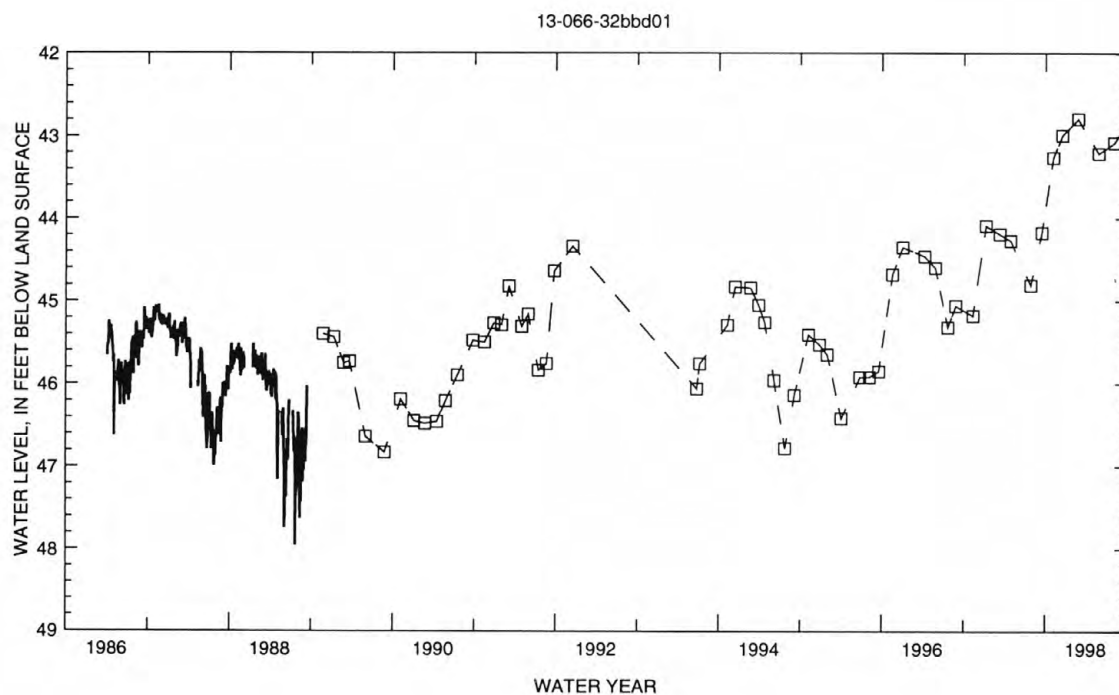
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 42.79 ft below land surface, from hand-measured data, Feb. 23, 1998; lowest, 47.95 ft below land surface, July 23, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04	43.26	FEB 23	42.79	AUG 03	43.08
DEC 15	42.99	MAY 26	43.21		



GROUND-WATER LEVELS

LARAMIE COUNTY

410530104574001. Local number, 13-068-13ccc01. Local name, Borie.

LOCATION.--Lat 41°05'30", long 104°57'40", in SW¹/₄ SW¹/₄ SW¹/₄ sec.13, T.13 N., R.68 W., Hydrologic Unit 10190009.
OWNER: Art King.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, unknown.

DATUM.--Elevation of land surface is 6,528 ft above sea level, from topographic map. Measuring point: top of casing, 0.80 ft above land surface.

REMARKS.--Data collected by U.S. Geological Survey.

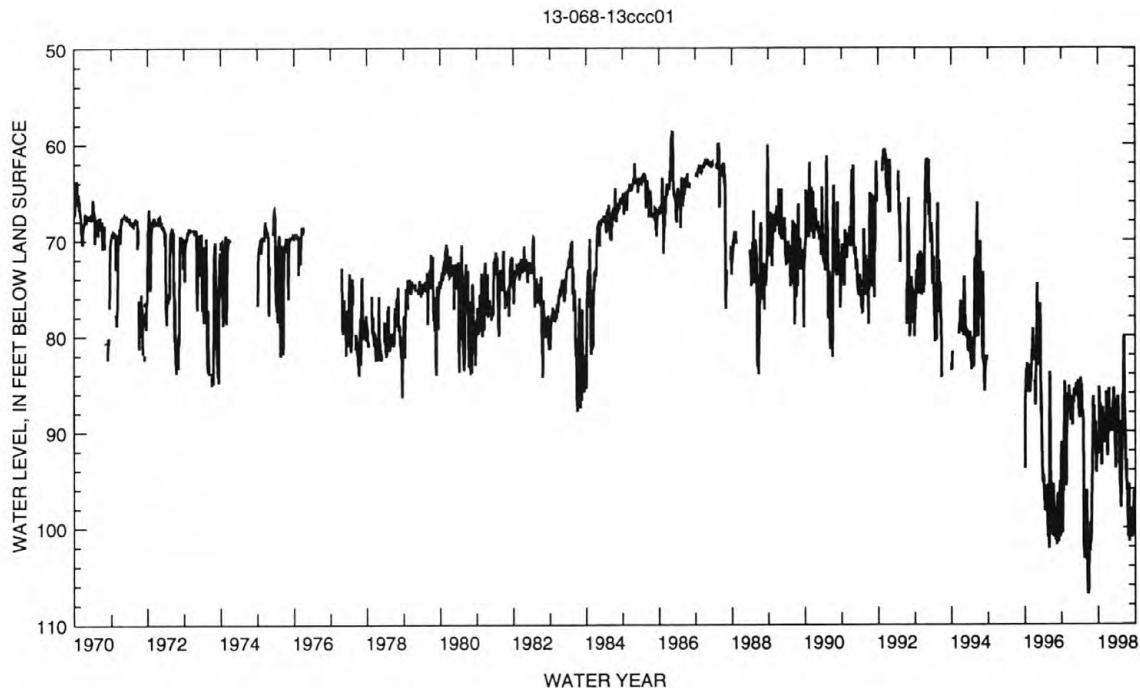
PERIOD OF RECORD.--1942 to 1950, 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.78 ft below land surface, from hand-measured data, Mar. 23, 1945; lowest, 106.91 ft below land surface, June 23, 1997.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	91.71	93.19	90.34	92.19	87.99	86.29	89.63	94.31	86.17	93.22	95.46	100.68
10	90.71	90.05	90.70	89.53	89.09	87.03	86.98	95.54	87.55	93.56	101.45	100.28
15	89.21	87.46	90.04	90.04	89.37	88.33	86.54	96.00	82.79	95.84	98.65	98.25
20	89.58	89.58	86.88	85.59	88.90	91.42	86.87	96.50	83.38	96.09	98.64	98.50
25	87.15	88.71	88.13	89.19	87.93	93.41	89.02	92.99	88.24	99.35	99.68	96.35
EOM	89.28	91.13	88.28	88.18	87.37	88.89	90.14	89.83	90.65	98.40	100.34	98.31

WTR YR 1998 HIGHEST 80.13 JUN 18 LOWEST 101.45 AUG 10



LARAMIE COUNTY

411238104070801. Local number, 14-060-05bcb01. Local name, C.C. Gross.

LOCATION.--Lat 41°12'38", long 104°07'08", in NW¹/₄ SW¹/₄ NW¹/₄ sec.5, T.14 N., R.60 W., Hydrologic Unit 10190015.
OWNER: William Gross.

AQUIFER.--Brule Formation.

WELL CHARACTERISTICS.--Depth of well, 100 ft below land surface.

DATUM.--Elevation of land-surface is 5,082 ft above sea level, from topographic map. Measuring point: top of casing, at land surface.

REMARKS.--The hydrograph for the period November 1957 to August 1962 was plotted using intermittent hand measurements, the period from September 1962 to December 1973 was plotted using one measurement for every 15 days, the period from January 1974 to September 30, 1998 was plotted using continuous data. Continuous data for the period from September 1962 to December 1973 is available in hard copy form.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

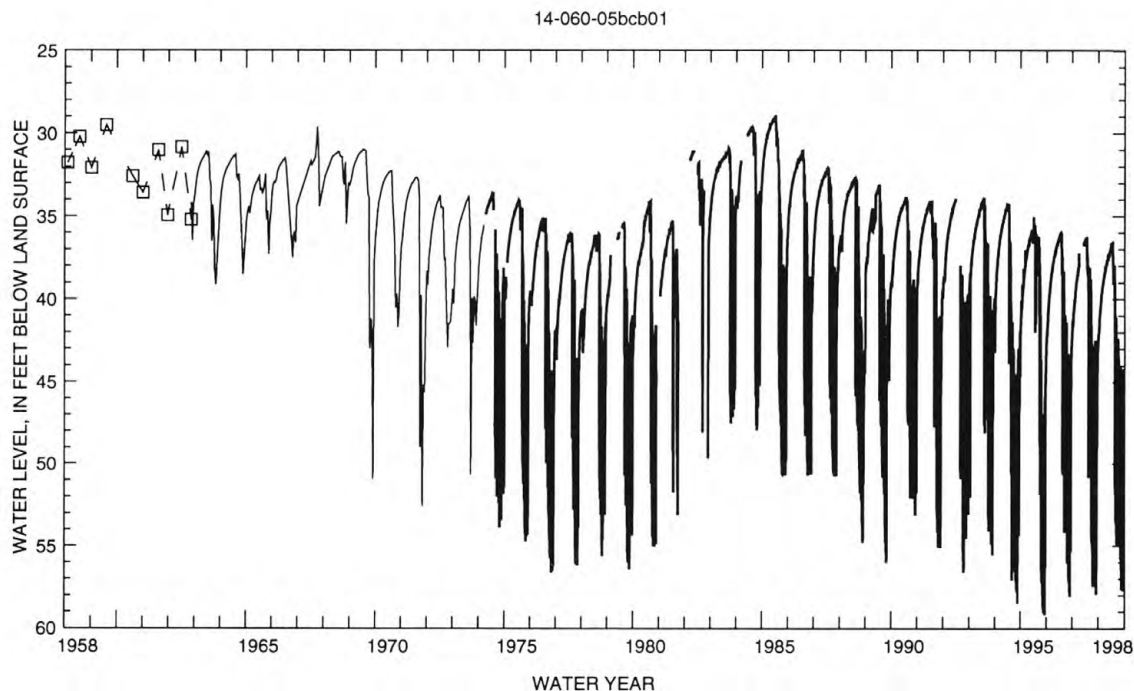
PERIOD OF RECORD.--1957 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 28.96 ft below land surface, Apr. 3, 4, 1985; lowest, 59.18 ft below land surface, Sept. 10, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	42.31	40.41	39.22	38.36	37.74	37.28	36.81	38.65	42.44	42.49	46.59	47.89
10	42.03	40.13	39.10	38.23	37.68	37.21	36.76	38.91	41.80	42.83	44.50	47.74
15	41.81	39.95	38.89	38.10	37.52	37.14	36.69	38.10	44.24	46.16	45.40	46.89
20	41.45	39.72	38.72	38.01	37.48	37.06	36.66	39.47	54.96	48.63	56.43	45.45
25	41.07	39.52	38.64	37.95	37.29	36.94	36.94	39.00	45.12	46.52	46.78	44.38
EOM	40.65	39.35	38.46	37.82	37.37	36.87	37.45	51.80	44.95	44.13	48.00	44.95

WTR YR 1998 HIGHEST 36.55 APR 24 LOWEST 57.70 SEP 12



GROUND-WATER LEVELS

LARAMIE COUNTY

411022104141201. Local number, 14-061-18ddd01. Local name, Laramie County #2.

LOCATION.--Lat 41°10'22", long 104°14'12", in SE¹/₄ SE¹/₄ SE¹/₄ sec.18, T.14 N., R.61 W., Hydrologic Unit 10190015.
Owner: State of Wyoming.

AQUIFER.--Brule Formation.

WELL CHARACTERISTICS.--Depth of well, 90.0 ft below land surface.

DATUM.--Elevation of land surface is 5,264 ft above sea level, from topographic map. Measuring point: top of casing, 1.70 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

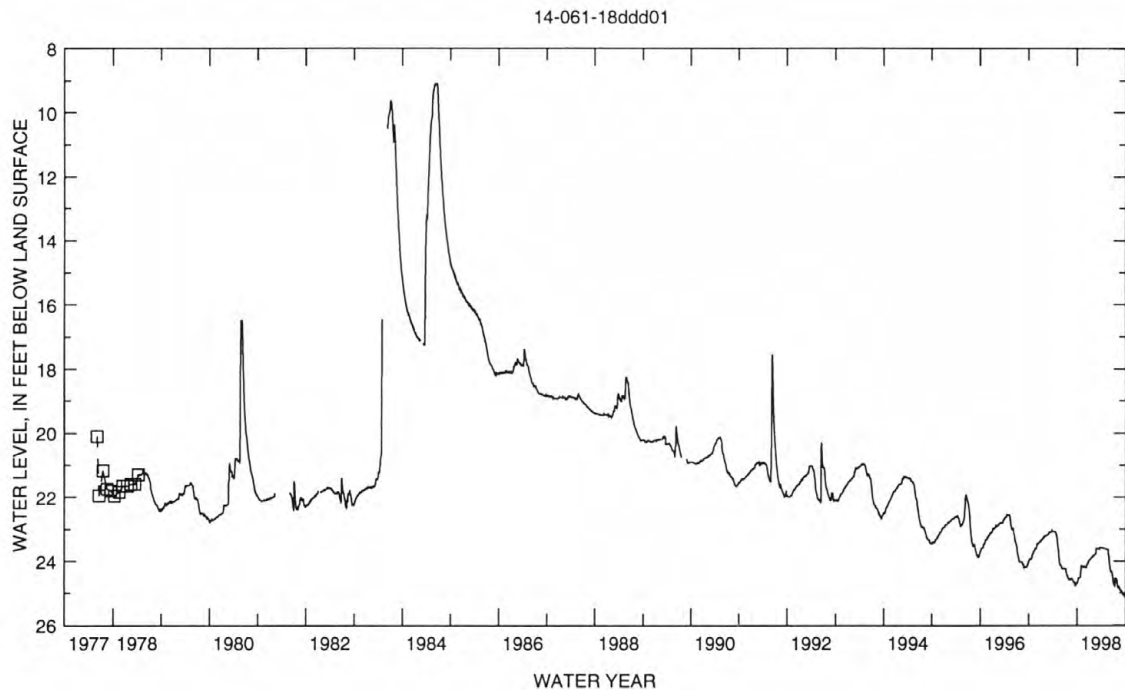
PERIOD OF RECORD.--1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.08 ft below land surface, June 18, 1984; lowest, 25.09 ft below land surface, Sept. 22, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	24.68	24.14	24.19	23.97	23.83	23.61	23.58	23.62	24.12	24.69	24.81	24.97
10	24.60	24.16	24.21	23.95	23.82	23.62	23.59	23.62	24.26	24.76	24.83	25.01
15	24.53	24.18	24.12	23.93	23.80	23.62	23.59	23.63	24.33	24.81	24.82	25.05
20	24.52	24.19	24.10	23.89	23.78	23.63	23.60	23.63	24.32	24.53	24.89	25.07
25	24.51	24.16	24.08	23.88	23.60	23.57	23.61	23.65	24.40	24.57	24.89	25.03
EOM	24.25	24.18	23.99	23.85	23.60	23.58	23.61	23.90	24.58	24.63	24.92	25.00

WTR YR 1998 HIGHEST 23.57 MAR 25-27 LOWEST 25.09 SEP 22



GROUND-WATER LEVELS

61

LARAMIE COUNTY

411114104242501. Local number, 14-063-15aaa01. Local name, Laramie County #3.

LOCATION.--Lat 41°11'14", long 104°24'25", in NE¹/₄ NE¹/₄ NE¹/₄ sec.15, T.14 N., R.63 W., Hydrologic Unit 10190015.
Owner: State of Wyoming.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 165 ft below land surface.

DATUM.--Elevation of land surface is 5,489 ft above sea level, from topographic map. Measuring point: top of casing, 1.3 ft above land surface.

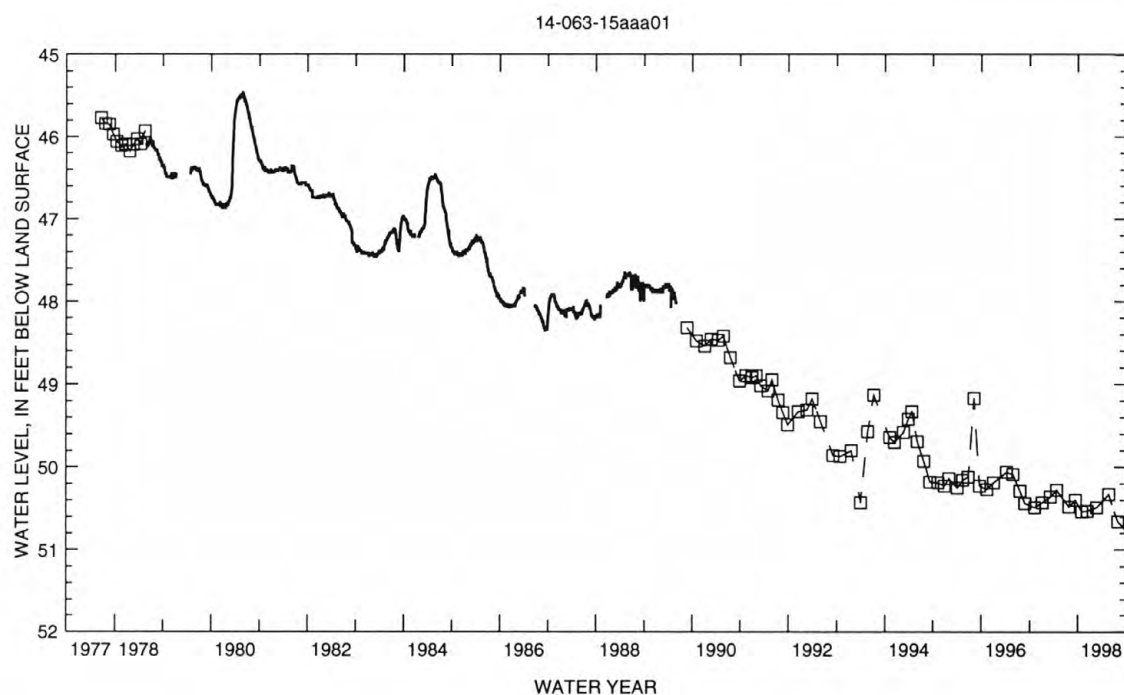
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 45.45 ft below land surface, May 24, 1980; lowest, 50.66 ft below land surface, from hand-measured data, Aug. 3, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04	50.54	FEB 23	50.49	AUG 03	50.66
DEC 15	50.53	MAY 26	50.33		



GROUND-WATER LEVELS

LARAMIE COUNTY

411005104355001. Local number, 14-064-19bcc01. Local name, Laramie County #9.

LOCATION.--Lat 41°10'05", long 104°35'50", in SW¹/₄ SW¹/₄ NW¹/₄ sec.19, T.14 N., R.64 W., Hydrologic Unit 10190015.
Owner: State of Wyoming.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 180 ft below land surface.

DATUM.--Elevation of land surface is 5,880 ft above sea level, from topographic map. Measuring point: top of casing, 1.5 ft above land surface.

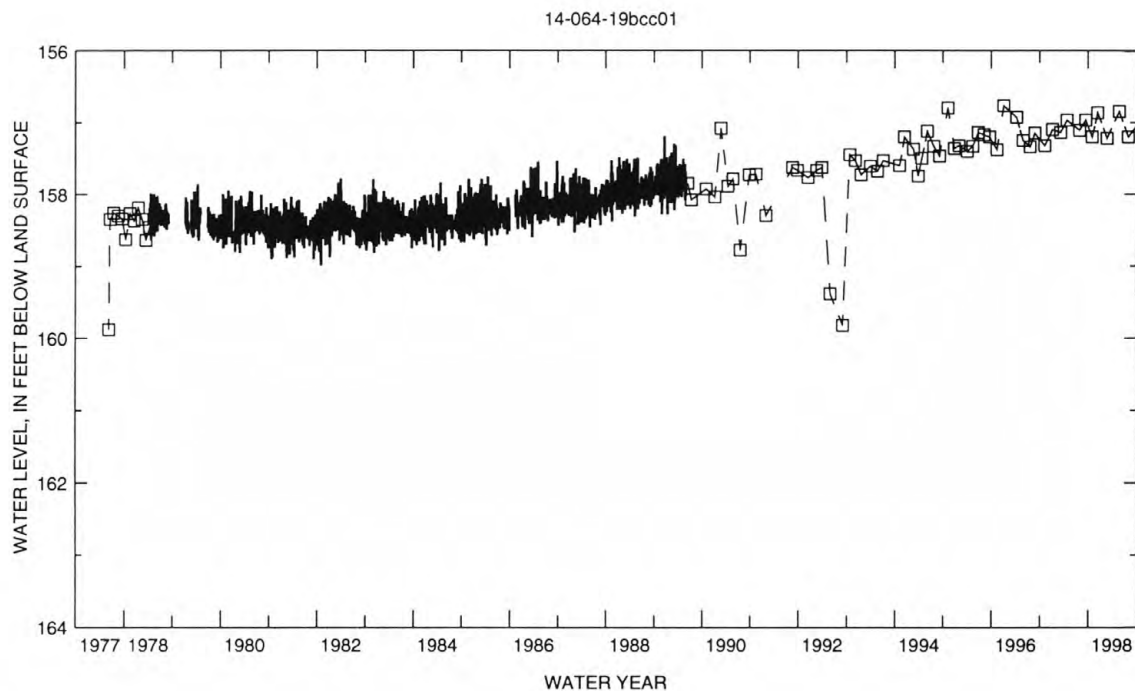
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 156.77 ft below land surface, from hand-measured data, Jan. 3, 1996; lowest, 159.88 ft below land surface, from hand-measured data, June 7, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04	157.20	FEB 23	157.22	AUG 03	157.20
DEC 15	156.87	MAY 26	156.85		



GROUND-WATER LEVELS

63

LARAMIE COUNTY

411147104490501. Local number, 14-066-07add01. Local name, National Land #1.

LOCATION.--Lat 41°11'47", long 104°49'05", in SE¹/₄ SE¹/₄ NE¹/₄ sec.7, T.14 N., R.66 W., Hydrologic Unit 10190009.
Owner: National Land Company.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 350 ft below land surface.

DATUM.--Elevation of land surface is 6,170 ft above sea level, from topographic map. Measuring point: top of casing, 1.70 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

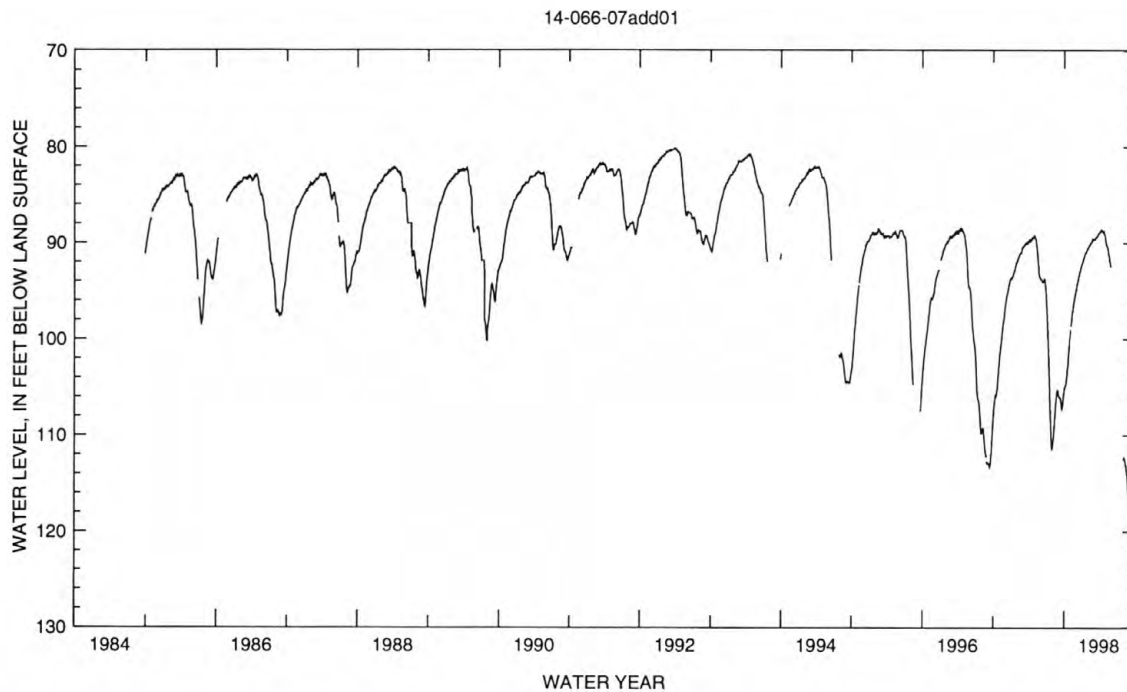
PERIOD OF RECORD.--1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 80.18 ft below land surface, Mar. 28, 1992; lowest, 121.47 ft below land surface, Sept. 21, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	105.00	---	94.72	92.06	90.46	89.64	88.84	89.83	---	---	112.55	117.75
10	104.63	97.98	94.17	91.68	90.32	89.60	88.81	90.31	---	---	112.44	119.71
15	103.80	97.10	93.68	91.35	90.00	89.46	88.73	90.51	---	---	113.01	120.92
20	102.72	96.38	93.19	91.06	89.97	89.40	88.77	91.20	---	---	113.11	121.41
25	101.26	95.79	92.84	90.92	89.63	89.18	88.76	91.92	---	---	114.43	120.74
EOM	99.75	95.20	92.37	90.65	89.74	88.97	89.17	92.47	---	---	116.46	120.02

WTR YR 1998 HIGHEST 88.60 APR 12 LOWEST 121.47 SEP 21



LARAMIE COUNTY

411210104452001. Local number, 14-066-10aba01. Local name, Laramie County #8.

LOCATION.--Lat 41°12'10", long 104°45'20", in NE¹/₄ NW¹/₄ NE¹/₄ sec.10, T.14 N., R.66 W., Hydrologic Unit 10190015.
Owner: Unknown.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 190 ft below land surface.

DATUM.--Elevation of land surface is 6,090 ft above sea level, from topographic map. Measuring point: top of casing, 1.40 ft above land surface.

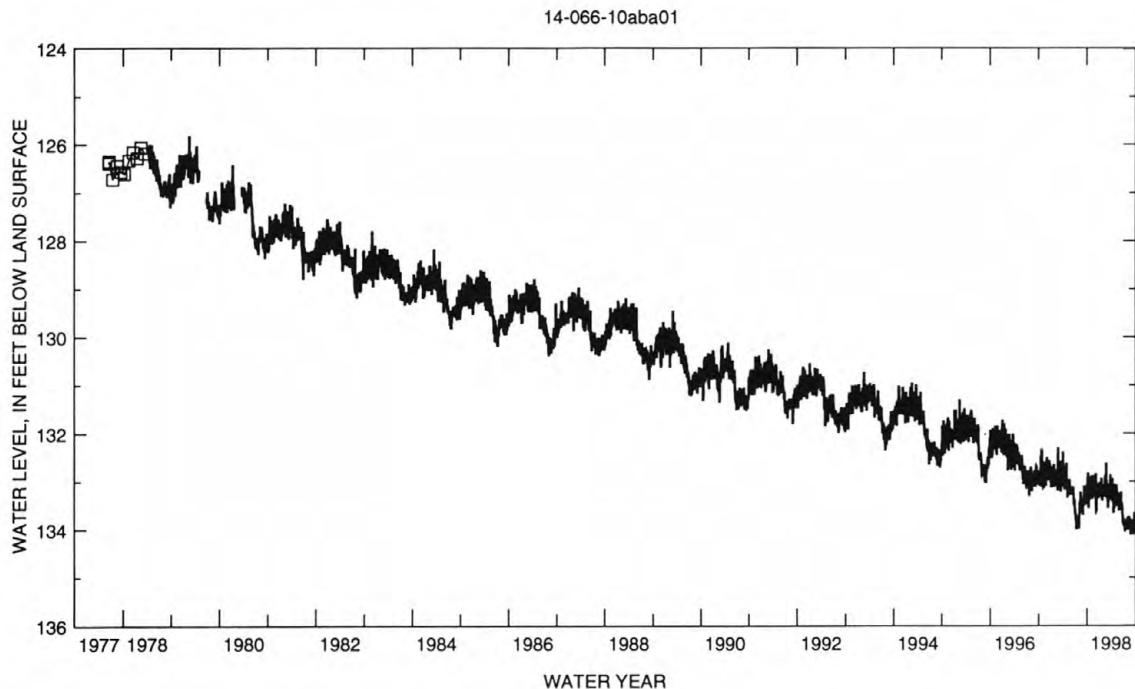
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 125.82 ft below land surface, Feb. 14, 1979; lowest, 134.11 ft below land surface, Aug. 29, Sept. 16, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	133.22	---	133.33	133.08	133.11	133.21	133.15	133.26	133.51	133.80	133.93	133.94
10	133.15	133.16	133.23	133.09	133.26	133.51	133.42	133.25	133.34	133.84	133.92	133.94
15	133.56	133.30	133.27	133.10	132.89	133.38	133.20	133.21	133.34	133.95	133.79	134.10
20	133.40	133.13	133.14	132.93	133.27	133.37	133.50	133.48	133.42	133.89	133.95	133.85
25	133.13	133.22	133.26	133.24	132.62	133.09	133.08	133.47	133.59	133.84	133.86	133.65
EOM	132.98	133.18	133.34	133.24	133.24	133.10	133.41	133.61	133.87	133.84	133.96	134.02
WTR YR 1998	HIGHEST 132.62 FEB 25 LOWEST 134.11 AUG 29, SEP 16											



LARAMIE COUNTY

410940104435701. Local number, 14-066-23ddd01. Local name, Laramie County #15.

LOCATION.--Lat 41°09'40", long 104°43'57", in SE¹/₄ SE¹/₄ SE¹/₄ sec.23, T.14 N., R.66 W., Hydrologic Unit 10190009.
Owner: Laramie County.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 216 ft below land surface.

DATUM.--Elevation of land surface is 6,043 ft above sea level, from topographic map. Measuring point: top of casing, 1.60 ft above land surface.

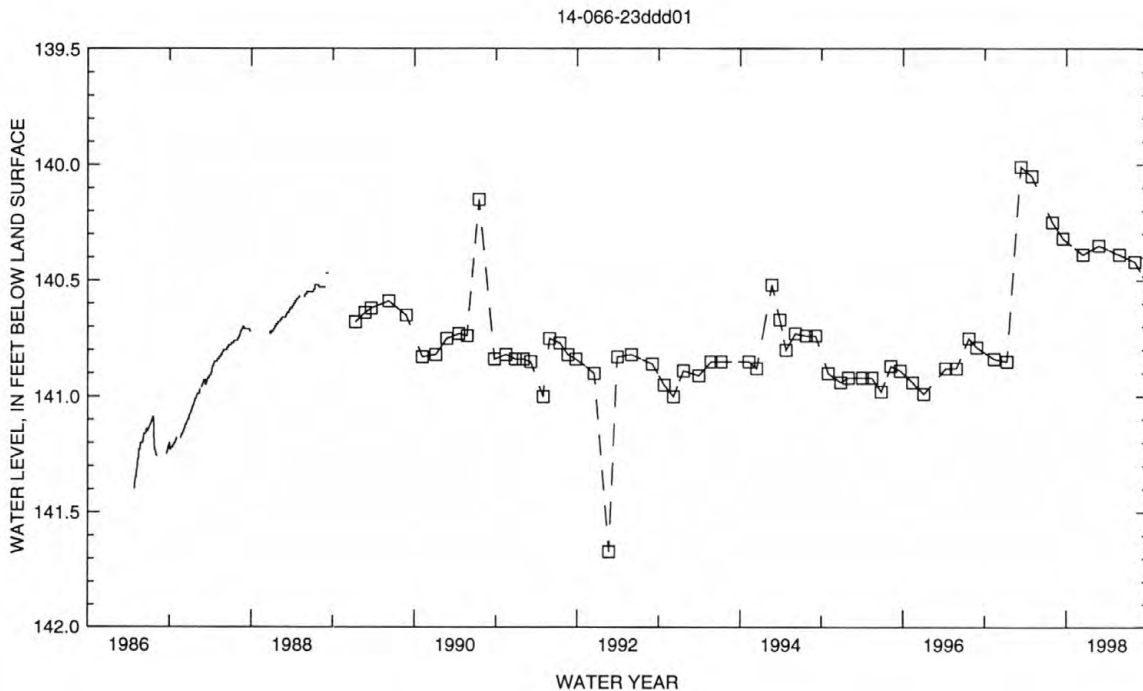
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 140.01 ft below land surface, Mar. 10, 1997; lowest, 141.67 ft below land surface, Feb. 20, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 15	140.39	MAY 26	140.39
FEB 23	140.35	AUG 03	140.42



GROUND-WATER LEVELS

LARAMIE COUNTY

411213104501401. Local number, 14-067-12abb01. Local name, Laramie County #10.

LOCATION.--Lat 41°12'13", long 104°50'14", in NW¹/₄ NW¹/₄ NE¹/₄ sec.12, T.14 N., R.67 W., Hydrologic Unit 10190009.
Owner: State of Wyoming.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 220 ft below land surface.

DATUM.--Elevation of land surface is 6,230 ft above sea level, from topographic map. Measuring point: top of casing, 1.25 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

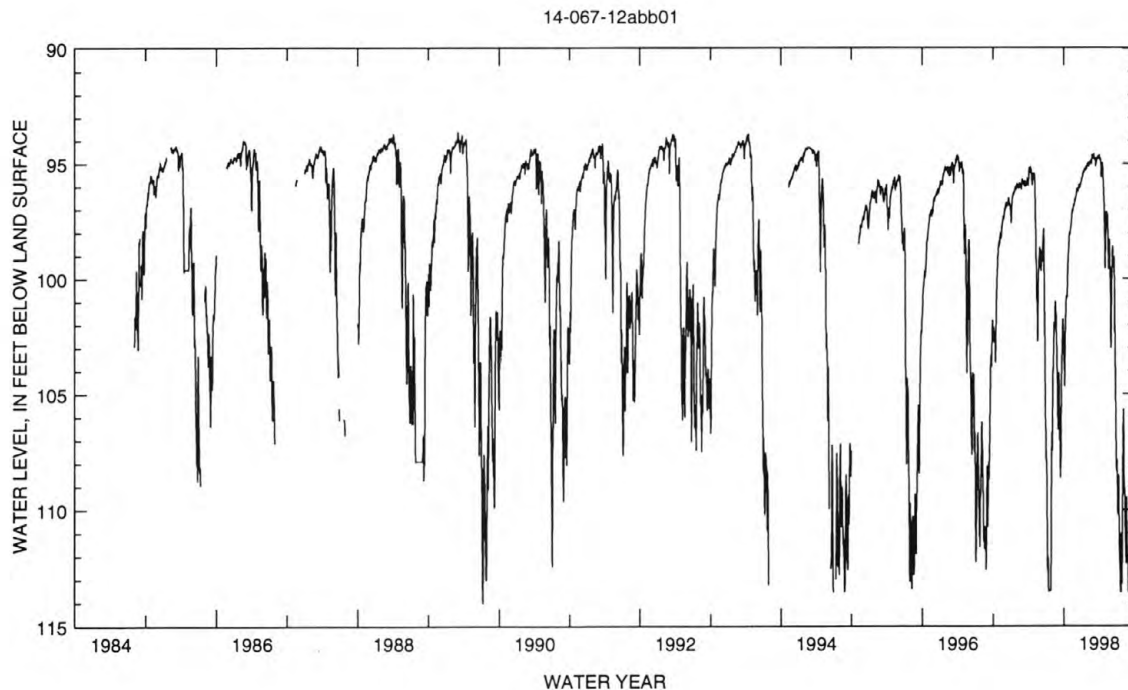
PERIOD OF RECORD.--1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 93.62 ft below land surface, Mar. 3, 1989; lowest, 114.04 ft below land surface, July 9, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	103.84	97.91	96.36	95.63	94.95	94.69	94.70	98.72	100.73	109.14	105.67	113.55
10	102.40	97.53	96.11	95.36	95.09	94.83	94.88	97.13	98.59	108.86	109.34	113.55
15	100.79	97.07	96.17	95.27	94.97	95.13	95.11	97.26	99.35	112.26	110.95	112.62
20	100.48	96.90	95.94	95.22	94.87	94.93	95.02	98.91	100.43	113.54	110.40	112.49
25	98.98	96.78	95.99	95.23	94.61	94.79	95.98	98.36	103.96	111.55	111.43	108.12
EOM	98.01	96.61	95.79	95.06	94.68	94.74	97.64	101.26	108.33	109.53	113.55	108.83

WTR YR 1998 HIGHEST 94.60 MAR 07 LOWEST 113.55 AUG 31, SEP 1, 2, 4-13



LARAMIE COUNTY

411034104554001. Local number, 14-067-18ddc01. Local name, Bell #14.

LOCATION.--Lat 41°10'34", long 104°55'40", in SW¹/₄ SE¹/₄ SE¹/₄ sec.18, T.14 N., R.67 W., Hydrologic Unit 10190009.
Owner: Polo Ranch.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 229 ft below land surface.

DATUM.--Elevation of land surface is 6,248 ft above sea level, from topographic map. Measuring point: top of casing, 1.50 ft above land surface.

REMARKS.--Data collected by U.S. Geological Survey.

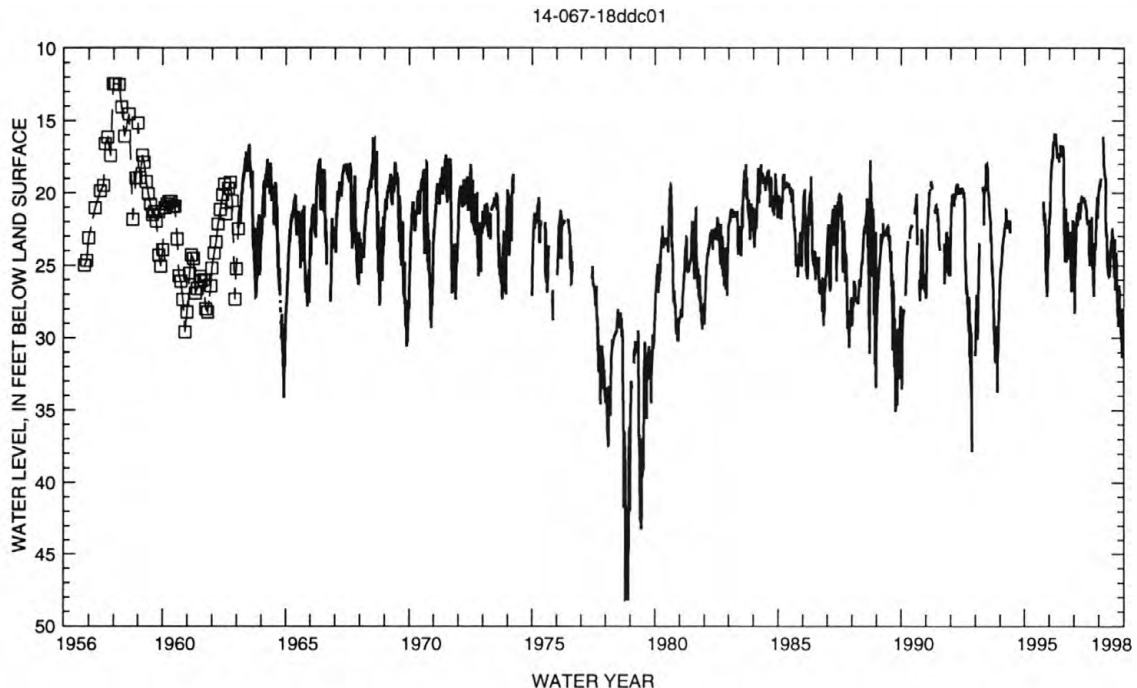
PERIOD OF RECORD.--1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.48 ft below land surface, from hand measured data, Sept. 26, Oct. 28, 1957; lowest, 48.25 ft below land surface, Aug. 31, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.80	19.09	16.28	18.95	24.64	25.70	23.48	23.78	25.55	27.35	26.70	29.90
10	19.62	---	16.92	19.47	25.11	25.75	23.48	24.42	24.26	28.53	27.66	30.71
15	19.74	---	17.73	22.15	25.18	25.46	23.49	25.03	25.14	28.24	28.54	31.06
20	19.59	---	18.32	22.71	25.57	24.76	22.46	25.75	24.47	28.46	28.98	29.36
25	19.58	---	18.68	22.78	25.45	24.05	22.93	23.36	25.14	28.96	29.56	28.20
EOM	19.00	---	18.89	23.23	25.70	23.72	23.32	---	27.12	27.80	29.46	27.97

WTR YR 1998 HIGHEST 16.14 DEC 03 LOWEST 31.38 SEP 17



GROUND-WATER LEVELS

LARAMIE COUNTY

410930104524701. Local number, 14-067-27bac01. Local name, Laramie County #13.

LOCATION.--Lat 41°09'30", long 104°52'47", in SW¹/₄ NE¹/₄ NW¹/₄ sec.27, T.14 N., R.67 W., Hydrologic Unit 10190009.
Owner: Laramie County.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 140 ft below land surface.

DATUM.--Elevation of land surface is 6,180 ft above sea level, from topographic map. Measuring point: top of casing, 1.8 ft above land surface.

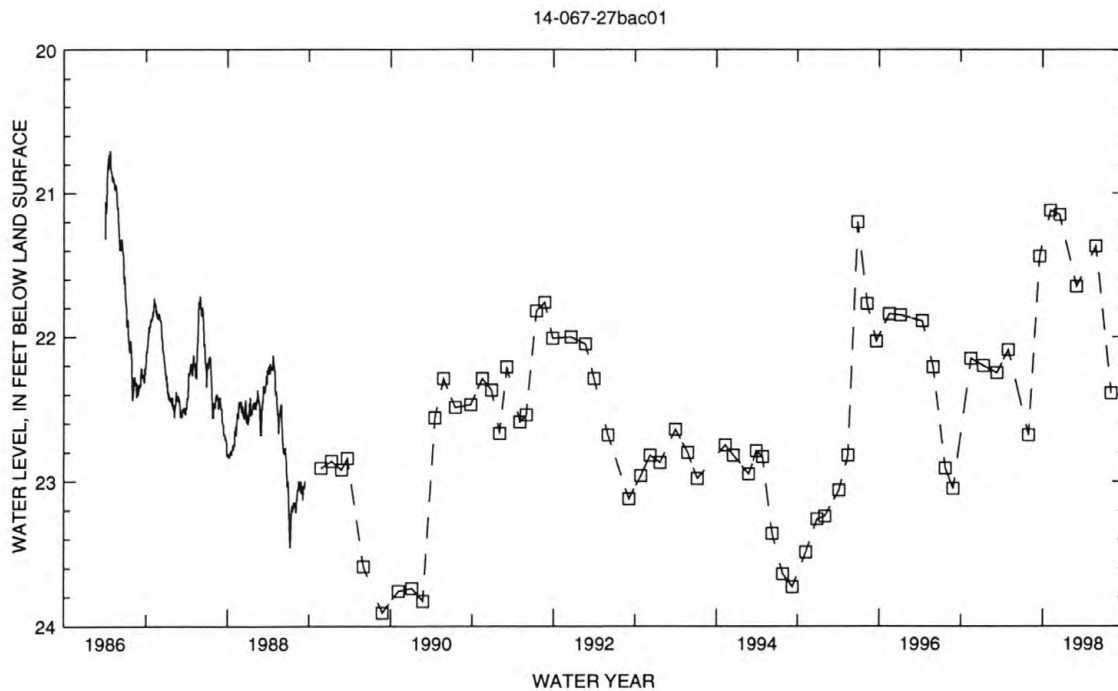
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.71 ft below land surface, Apr. 22, 23, 1986; lowest, 23.91 ft below land surface, Aug. 25, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 05	21.12	MAR 02	21.65	AUG 04	22.39
DEC 16	21.15	MAY 27	21.37		



LARAMIE COUNTY

410838104530401. Local number, 14-067-34bbc01. Local name, Laramie County #11.

LOCATION.--Lat 41°08'38", long 104°53'04", in SW¹/₄ NW¹/₄ NW¹/₄ sec.34, T.14 N., R.67 W., Hydrologic Unit 10190009.
Owner: Laramie County.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 162 ft below land surface.

DATUM.--Elevation of land surface is 6,210 ft above sea level, from topographic map. Measuring point: top of casing, 1.50 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

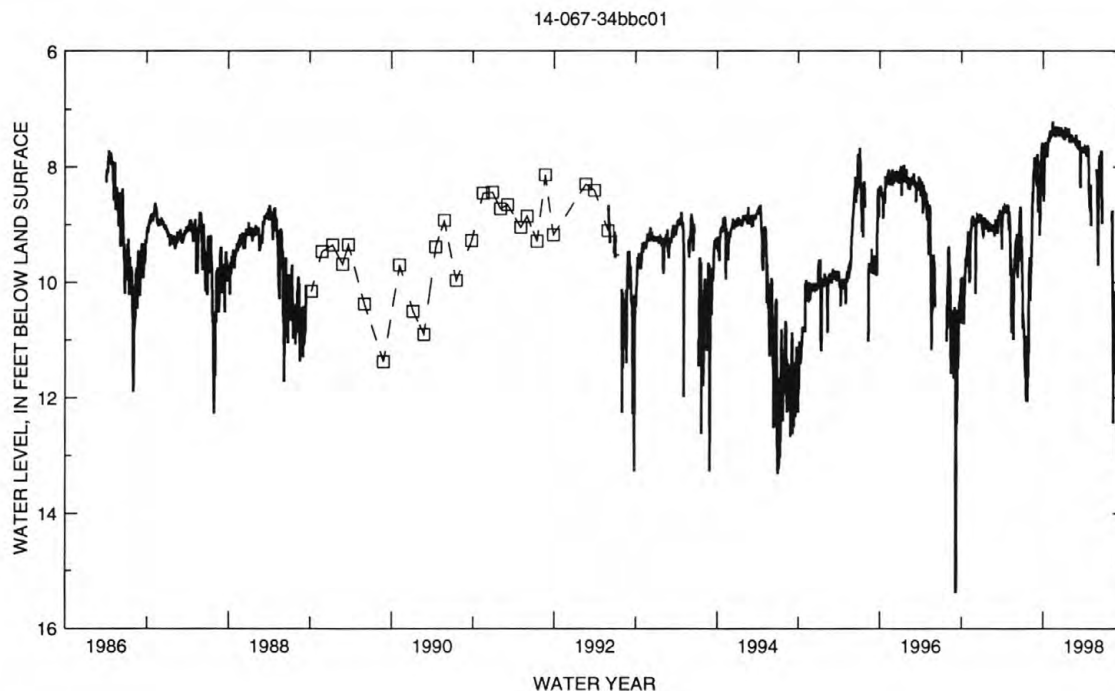
PERIOD OF RECORD.--1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.21 ft below land surface, Nov. 13, 1998; lowest, 15.38 ft below land surface, Sept. 4, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	8.33	---	7.37	7.51	7.45	7.58	7.67	---	8.87	---	8.82	11.61
10	7.68	7.44	7.42	7.35	7.56	7.62	7.74	---	7.82	---	12.44	11.61
15	7.75	7.38	7.45	7.40	7.50	7.68	7.66	---	8.00	---	10.40	11.45
20	7.83	7.35	7.39	7.34	7.55	7.68	7.80	---	8.29	---	10.25	11.60
25	7.50	7.42	7.40	7.40	7.44	7.71	8.46	---	---	---	11.59	11.42
EOM	7.37	7.36	7.50	7.44	7.57	7.67	8.80	8.27	---	---	11.82	11.58

WTR YR 1998 HIGHEST 7.21 NOV 13 LOWEST 13.03 AUG 30



GROUND-WATER LEVELS

LARAMIE COUNTY

410827104501601. Local number, 14-067-36acb01. Local name, Pioneer Park.

LOCATION.--Lat 41°08'27", long 104°50'16", in NW¹/₄ SW¹/₄ NE¹/₄ sec.36, T.14 N., R.67 W., Hydrologic Unit 10190009.
Owner: U.S. Geological Survey.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 24 ft below land surface.

DATUM.--Elevation of land surface is 6,099 ft above sea level, from topographic map. Measuring point: top of casing, 1.00 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

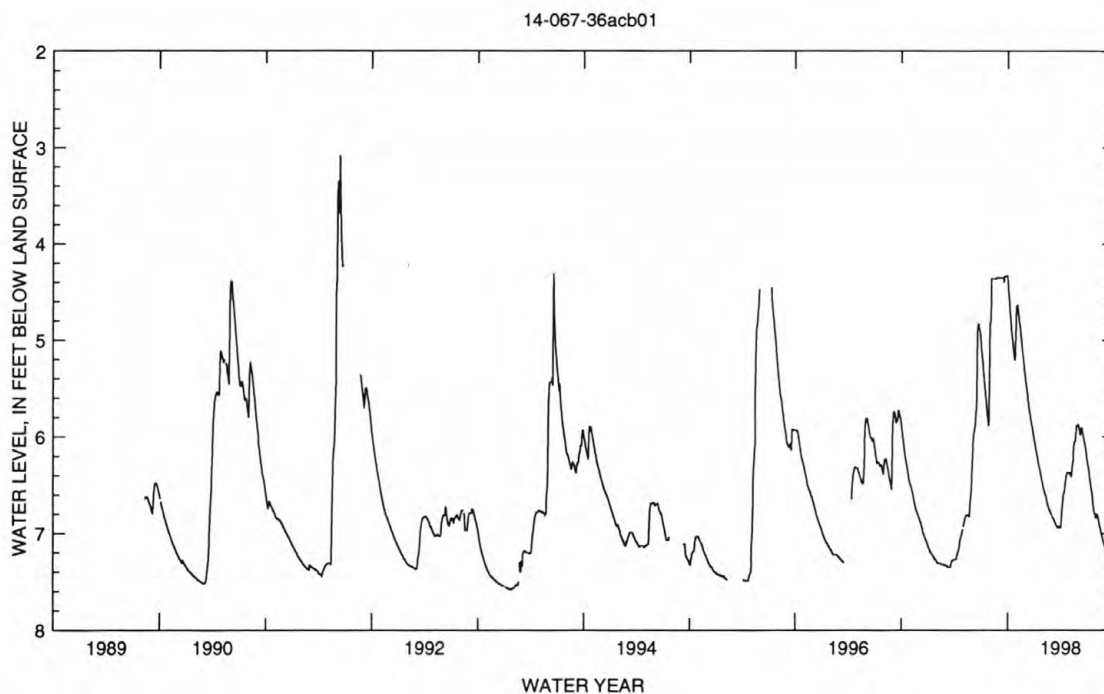
PERIOD OF RECORD.--1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.08 ft below land surface, June 13, 1991; lowest, 7.58 ft below land surface, Jan. 18-20, 23-26, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.54	4.67	5.49	6.11	6.57	6.84	6.78	6.39	5.95	6.31	6.81	7.18
10	4.74	4.82	5.61	6.19	6.62	6.87	6.61	6.32	5.92	6.43	6.89	7.23
15	4.93	4.94	5.72	6.28	6.70	6.90	6.55	6.19	5.95	6.54	6.95	7.28
20	5.08	5.08	5.83	6.34	6.75	6.93	6.41	6.05	6.03	6.67	7.02	7.32
25	5.21	5.22	5.91	6.42	6.78	6.93	6.37	5.90	6.11	6.79	7.08	7.35
EOM	4.67	5.36	6.03	6.52	6.80	6.94	6.37	5.87	6.22	6.84	7.14	7.38

WTR YR 1998 HIGHEST 4.35 OCT 01 LOWEST 7.38 SEP 29, 30



GROUND-WATER LEVELS

71

LARAMIE COUNTY

410757104582302. Local number, 14-068-35ddc02. Local name, King #3.

LOCATION.--Lat 41°07'57", long 104°58'23", in SW¹/₄ SE¹/₄ SE¹/₄ sec.35, T.14 N., R.68 W., Hydrologic Unit 10190009.
Owner: City of Cheyenne.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 230 ft below land surface.

DATUM.--Elevation of land surface is 6,520 ft above sea level, from levels. Measuring point: top of casing, at land surface.

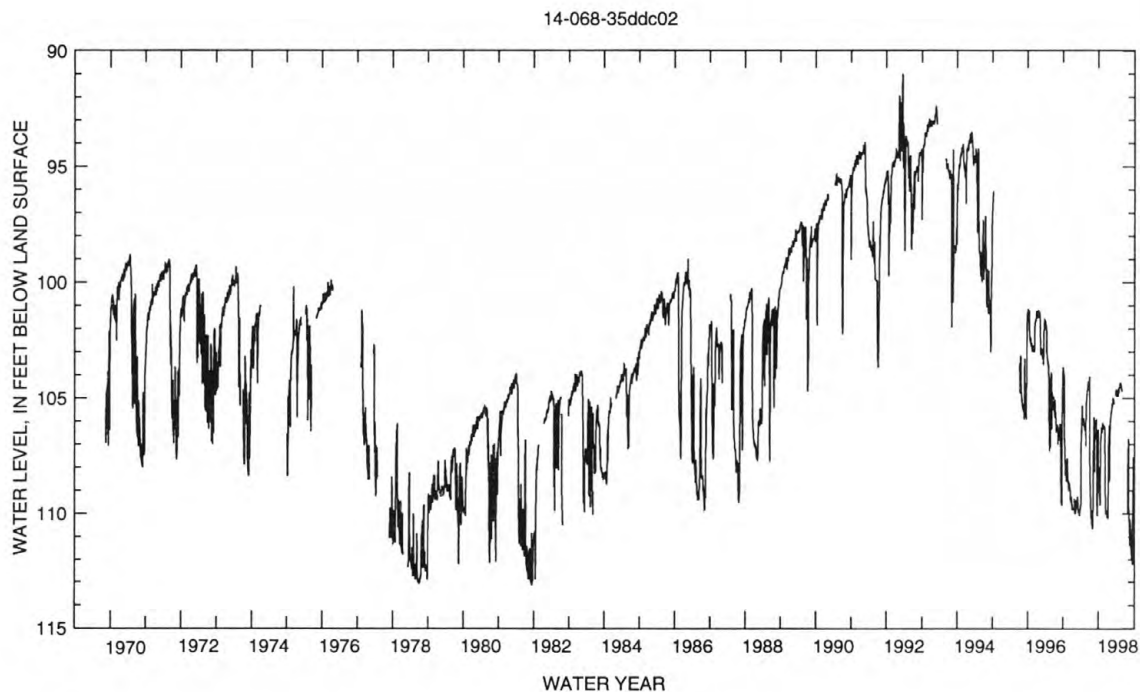
REMARKS.--Data collected by U.S. Geological Survey.

PERIOD OF RECORD.--1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 91.00 ft below land surface, Mar. 15, 1992; lowest, 113.15 ft below land surface, Sept. 13, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	108.91	106.46	106.27	110.12	105.76	105.12	104.86	104.48	---	---	106.83	111.77
10	108.04	106.32	109.00	108.65	105.59	105.26	104.93	104.45	---	---	109.63	111.94
15	109.33	106.15	109.94	106.65	105.30	---	104.67	104.33	---	---	110.60	112.14
20	109.60	106.29	109.95	106.15	105.39	---	104.81	104.54	---	---	110.91	109.81
25	106.81	106.34	109.94	107.42	105.01	104.90	104.56	104.55	---	---	110.73	107.66
EOM	106.28	106.32	110.19	106.10	105.07	104.67	104.67	104.68	---	108.15	111.41	108.48
WTR YR 1998	HIGHEST 104.33		MAY 13-15		LOWEST 112.23		SEP 16					



GROUND-WATER LEVELS

LARAMIE COUNTY

411531104194701. Local number, 15-062-20aaa01. Local name, Laramie County #4.

LOCATION.--Lat 41°15'31", long 104°19'47", in NE¹/₄ NE¹/₄ NE¹/₄ sec.20, T.15 N., R.62 W., Hydrologic Unit 10190015.
Owner: State of Wyoming.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 165 ft below land surface.

DATUM.--Elevation of land surface is 5,510 ft above sea level, from topographic map. Measuring point: top of casing, 1.0 ft above land surface.

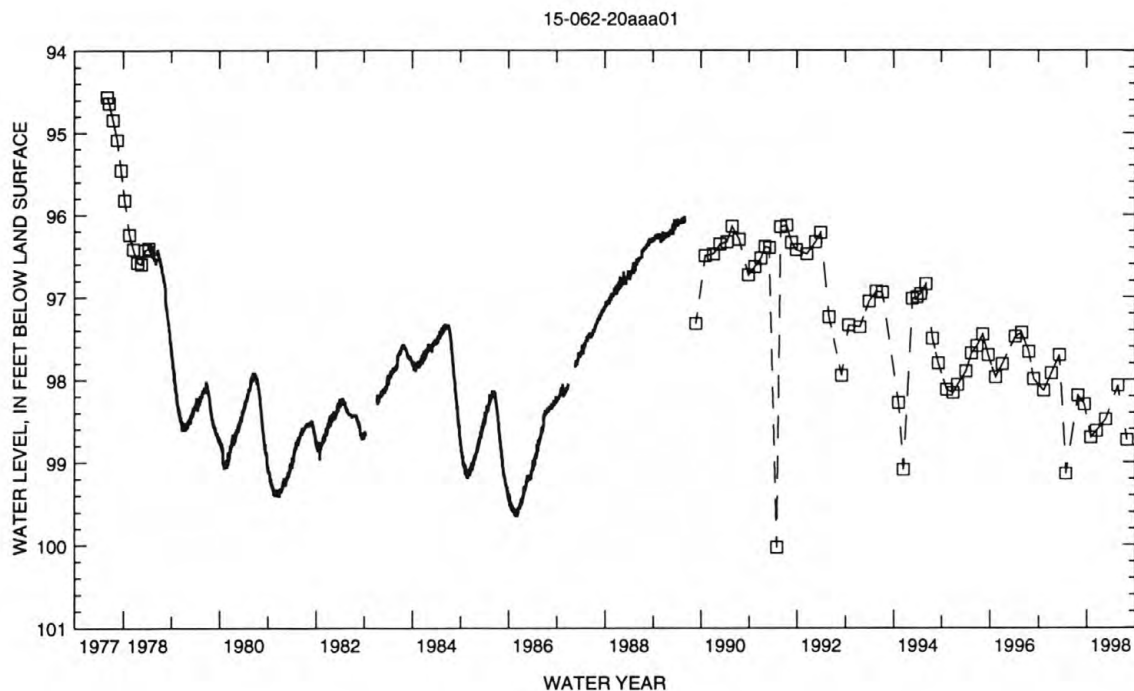
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 94.56 ft below land surface, from hand-measured data, June 1, 1977; lowest, 100.03 ft below land surface, May 1, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04	98.70	FEB 23	98.48	AUG 03	98.73
DEC 15	98.62	MAY 26	98.07		



LARAMIE COUNTY

412227104081402. Local number, 16-060-07bbb02. Local name, USGS southwest of Albin.

LOCATION.--Lat 41°22'27", long 104°08'14", in NW¹/₄ NW¹/₄ NW¹/₄ sec.7, T.16 N., R.60 W., Hydrologic Unit 10190016.
Owner: State of Wyoming.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 215 ft below land surface.

DATUM.--Elevation of land surface is 5,310 ft above sea level, from topographic map. Measuring point: top of casing, 1.10 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

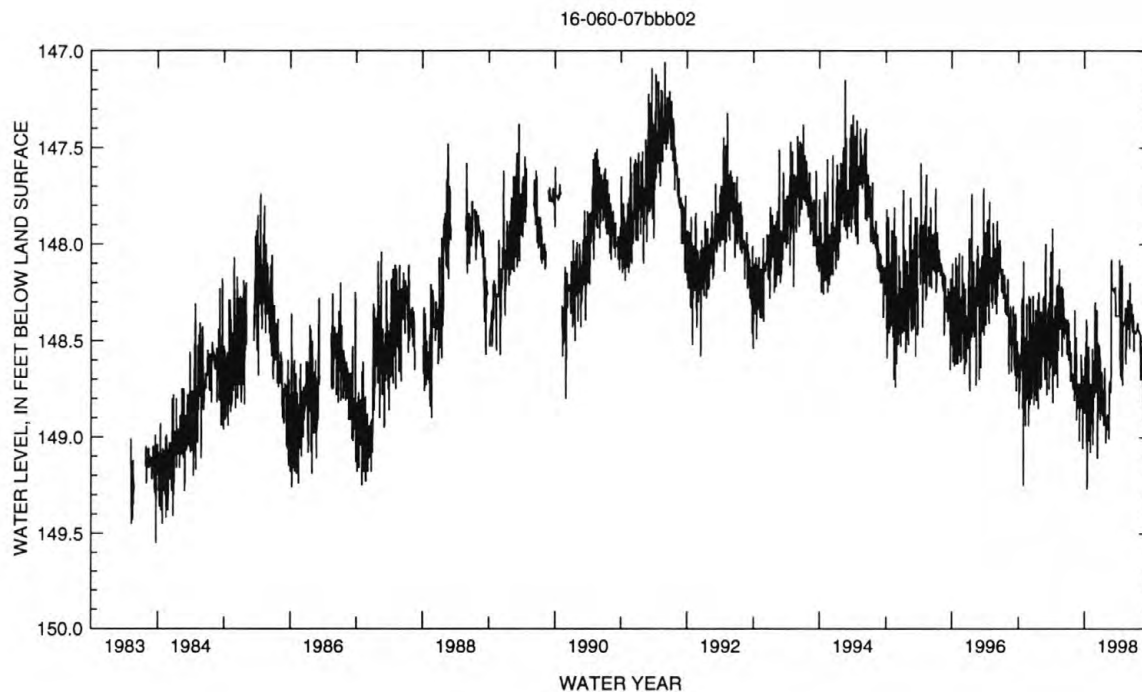
PERIOD OF RECORD.--1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 147.06 ft below land surface, May 30, 31, 1991; lowest, 149.55 ft below land surface, Sept. 20, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	148.79	148.93	148.72	148.67	148.89	148.23	148.37	148.41	148.46	148.45	148.70	148.77
10	148.80	148.73	148.88	148.78	148.95	148.24	148.37	148.39	148.36	148.46	148.69	148.78
15	149.24	149.04	148.51	148.84	148.71	148.24	148.64	148.46	148.39	148.45	148.53	149.00
20	148.93	148.60	148.63	148.64	148.74	148.23	148.62	148.48	148.43	148.41	148.82	148.73
25	148.92	148.70	148.83	148.91	148.08	148.37	148.11	148.36	148.36	148.44	148.67	148.66
OM	148.72	148.68	148.86	148.90	148.18	148.37	148.42	148.40	148.55	148.46	148.72	149.00

WTR YR 1998 HIGHEST 148.08 FEB 25, APR 12 LOWEST 149.27 OCT 14



GROUND-WATER LEVELS

LARAMIE COUNTY

411136104125301. Local number, 16-061-17aaa01. Local name, Laramie County #5.

LOCATION.--Lat 41°11'36", long 104°12'53", in NE¹/₄ NE¹/₄ NE¹/₄ sec.17, T.16 N., R.61 W., Hydrologic Unit 10190016.
Owner: State of Wyoming.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 285 ft below land surface.

DATUM.--Elevation of land surface is 5,451 ft above sea level, from topographic map. Measuring point: top of casing, 1.30 ft above land surface.

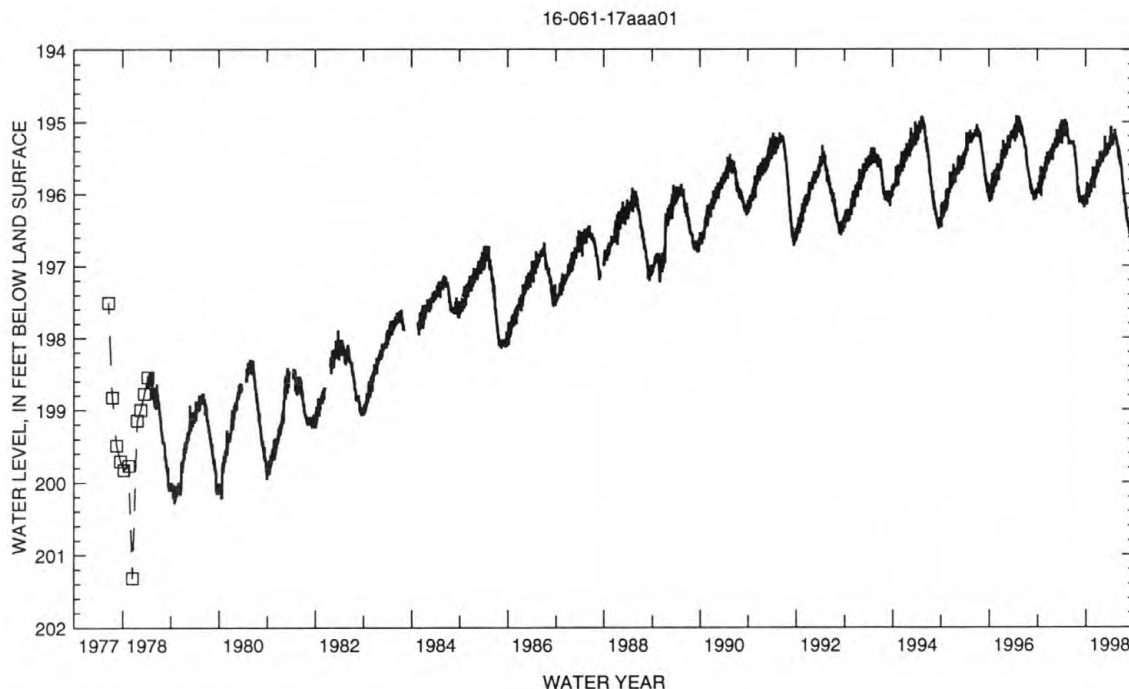
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 194.91 ft below land surface, Apr. 24, 1996; lowest, 201.32 ft below land surface, from hand-measured data, Dec. 16, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	196.03	195.98	195.80	195.66	195.55	195.44	195.25	195.22	195.49	195.74	196.24	196.61
10	195.99	195.80	195.93	195.62	195.56	195.35	195.29	195.12	195.41	195.86	196.34	196.67
15	196.12	195.93	195.68	195.53	195.40	195.36	195.31	195.24	195.42	195.98	196.35	196.70
20	196.05	195.83	195.63	195.53	195.47	195.37	195.31	195.22	195.57	196.03	196.46	196.73
25	196.06	195.80	195.75	195.59	195.20	195.30	195.24	195.31	195.57	196.09	196.46	196.64
EOM	195.88	195.75	195.64	195.55	195.48	195.34	195.24	195.35	195.65	196.18	196.55	196.76
WTR YR 1998	HIGHEST 195.08 APR 11, 12			LOWEST 196.81 SEP 26								



LARAMIE COUNTY

412343104053101. Local number, 17-060-33cbb01. Local name, USGS south of Albin.

LOCATION.--Lat 41°23'43", long 104°05'31", in NW¹/4 NW¹/4 SW¹/4 sec.33, T.17 N., R.60 W., Hydrologic Unit 10190016.
Owner: State of Wyoming.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 275 ft below land surface.

DATUM.--Elevation of land surface is 5,280 ft above sea level, from topographic map. Measuring point: top of casing, 1.00 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

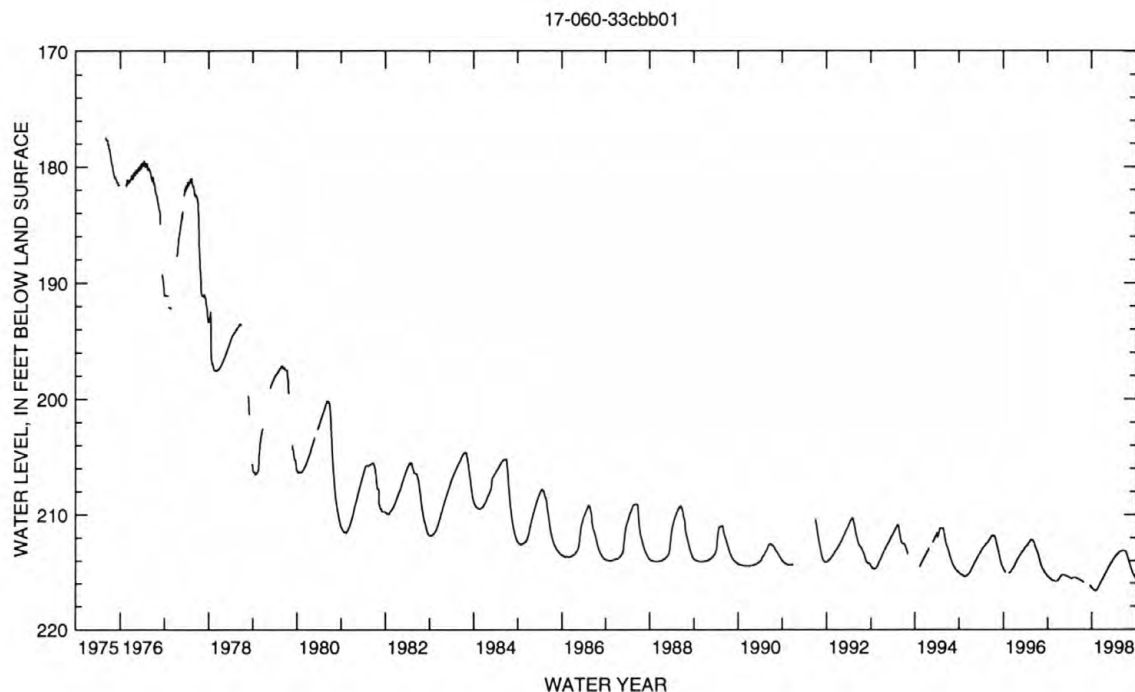
PERIOD OF RECORD.--1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 177.52 ft below land surface, May 30, 31, 1975; lowest, 216.70 ft below land surface, Nov. 3, 4, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	216.44	216.69	216.18	215.54	214.90	214.31	213.78	213.42	213.16	213.14	214.04	215.08
10	216.50	216.62	216.07	215.44	214.78	214.23	213.70	213.33	213.13	213.22	214.22	215.19
15	216.55	216.58	215.94	215.32	214.68	214.17	213.63	213.31	213.12	213.32	214.42	215.30
20	216.60	216.48	215.86	215.23	214.54	214.05	213.58	213.24	213.11	213.47	214.58	215.39
25	216.63	216.38	215.77	215.12	214.45	213.98	213.52	213.22	213.12	213.63	214.74	215.49
EOM	216.68	216.28	215.63	214.99	214.41	213.85	213.45	213.17	213.12	213.86	214.94	215.58

WTR YR 1998 HIGHEST 213.11 JUN 20, 21, 26-28 LOWEST 216.70 NOV 03, 04



GROUND-WATER LEVELS

LARAMIE COUNTY

412605104203001. Local number, 17-062-17ccc01. Local name, Laramie County #6A.

LOCATION.--Lat 41°26'05", long 104°20'30", in SW¹/₄ SW¹/₄ SW¹/₄ sec.17, T.17 N., R.62 W., Hydrologic Unit 10190016.
Owner: State of Wyoming.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 360 ft below land surface.

DATUM.--Elevation of land surface is 5,570 ft above sea level, from topographic map. Measuring point: top of casing, 1.80 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

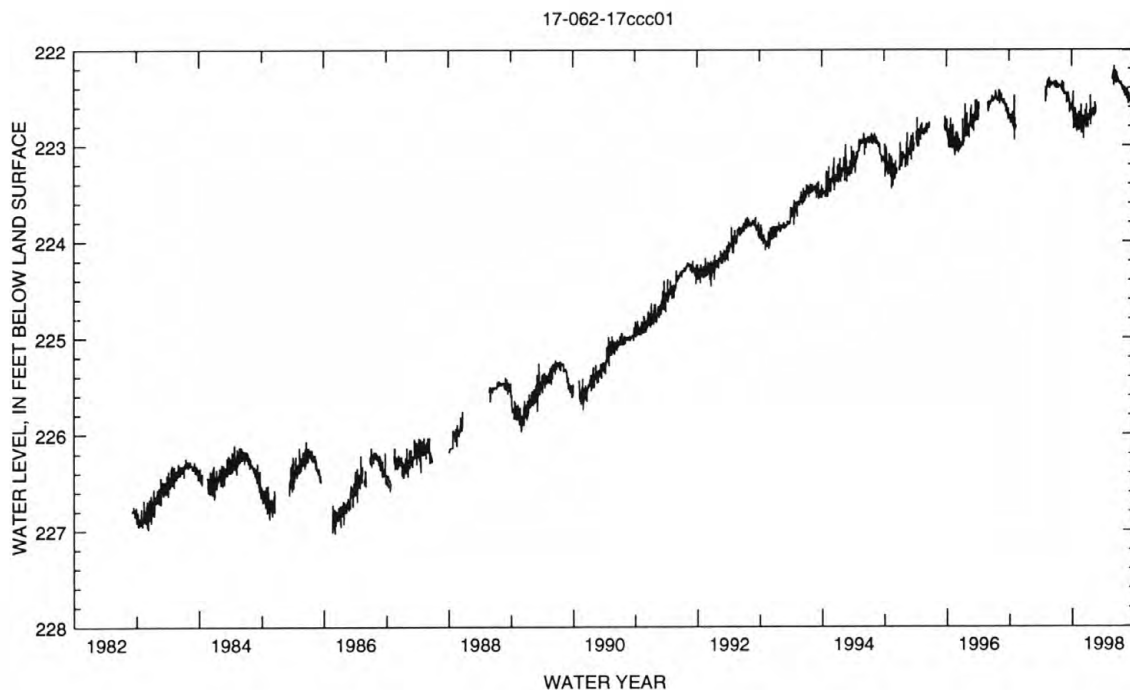
PERIOD OF RECORD.--1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 222.17 ft below land surface, June 7, 1998; lowest, 227.03 ft below land surface, Dec. 4, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	222.62	222.83	222.82	222.70	222.62	---	---	---	222.38	222.33	222.41	222.54
10	222.60	222.67	222.93	222.72	222.70	---	---	---	222.24	222.36	222.45	222.51
15	222.78	222.85	222.70	222.63	222.55	---	---	---	222.22	222.36	222.41	222.61
20	222.77	222.69	222.64	222.56	222.63	---	---	---	222.28	222.37	222.52	222.59
25	222.82	222.74	222.82	222.66	---	---	---	---	222.28	222.39	222.48	222.51
EOM	222.67	222.73	222.72	222.68	---	---	---	222.29	222.32	222.42	222.50	222.64

WTR YR 1998 HIGHEST 222.17 JUN 07 LOWEST 222.93 DEC 10



GROUND-WATER LEVELS

77

LARAMIE COUNTY

412400104533901. Local number, 17-067-33baa01. Local name, MX-North.

LOCATION.--Lat 41°24'00", long 104°53'39", in NE¹/₄ NE¹/₄ NW¹/₄ sec.33, T.17 N., R.67 W., Hydrologic Unit 10190009.
Owner: Unknown.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 200 ft below land surface.

DATUM.--Elevation of land surface is 6,425 ft above sea level, from topographic map. Measuring point: top of casing, 1.40 ft above land surface.

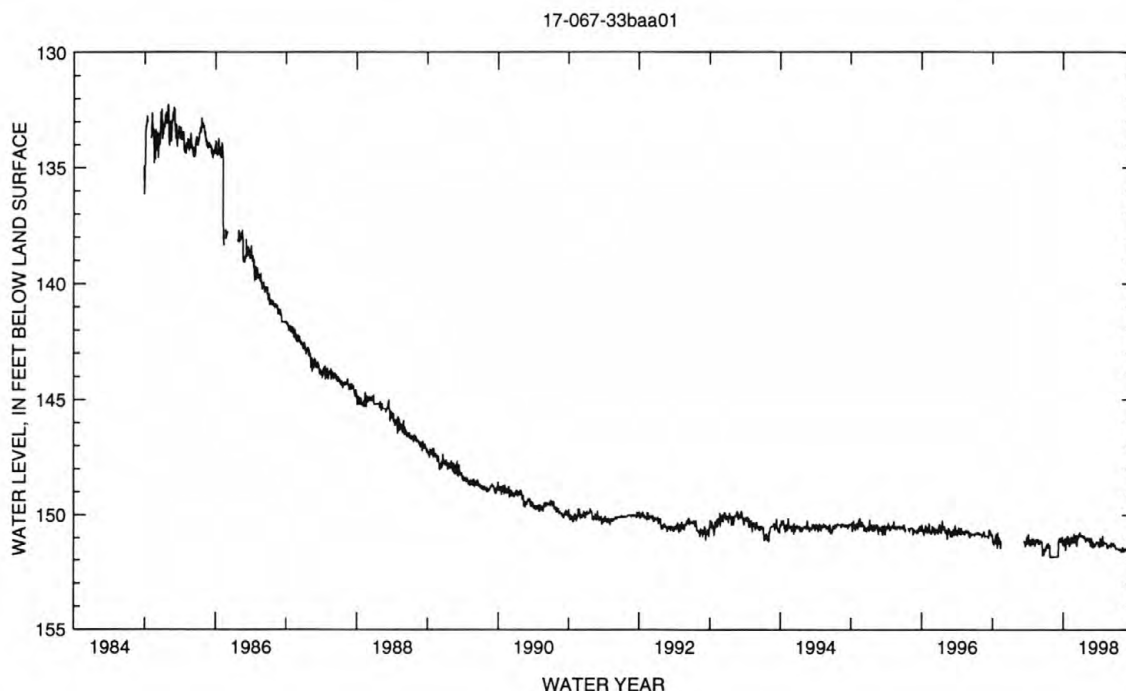
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 132.26 ft below land surface, Jan. 28, 1985; lowest, 151.87 ft below land surface, July 29, Aug 8, 11, 1997.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	151.23	151.37	151.24	150.91	151.01	151.21	151.23	151.26	151.38	151.48	151.63	151.35
10	151.30	151.04	151.14	150.91	151.14	151.41	151.39	151.23	151.30	151.50	151.63	151.42
15	151.54	151.20	151.03	150.97	151.02	151.28	151.21	151.26	151.29	151.50	151.49	151.48
20	151.24	151.10	150.93	150.93	151.39	151.33	151.30	151.44	151.35	151.50	151.53	151.21
25	151.25	151.09	150.92	151.03	151.02	151.18	150.94	151.41	151.34	151.54	151.57	151.21
EOM	151.12	151.14	150.93	151.08	151.42	151.23	151.21	151.39	151.49	151.61	151.45	151.40
WTR YR 1998	HIGHEST 150.78 DEC 27, 28			LOWEST 151.63 AUG 05-11								



WATER RESOURCES DATA FOR WYOMING, 1998

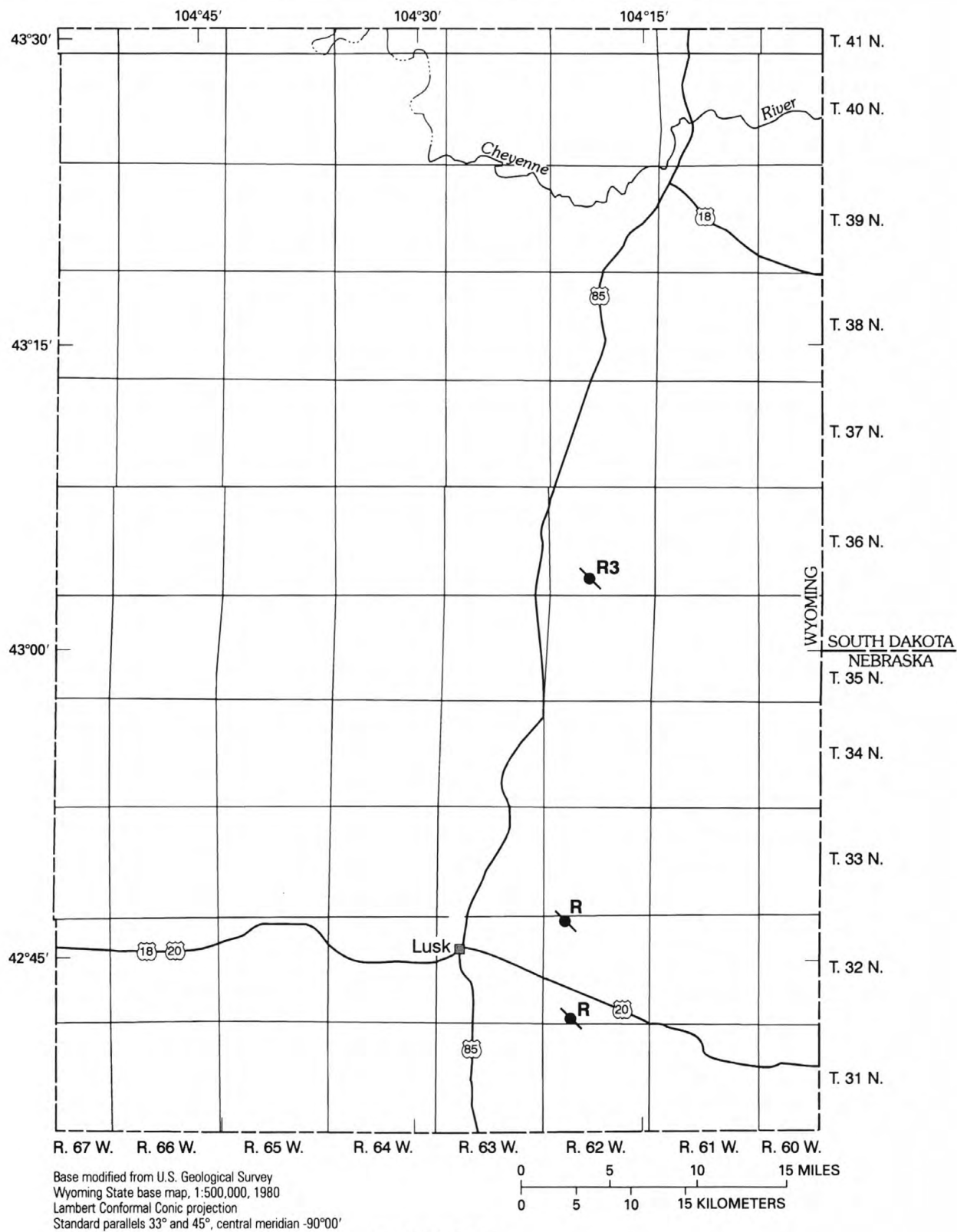


Figure 16. Location of observation wells in Niobrara County, Wyoming.

NIOBRARA COUNTY

424709104194101. Local number, 32-062-05baa01. Local name, Niobrara County #1.

LOCATION.--Lat 42°47'09", long 104°19'41", in NE¹/₄ NE¹/₄ NW¹/₄ sec.5, T.32 N., R.62 W., Hydrologic Unit 10150002.
Owner: State of Wyoming.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 177 ft below land surface.

DATUM.--Elevation of land surface is 4,970 ft above sea level, from topographic map. Measuring point: top of casing, 1.20 ft above land surface.

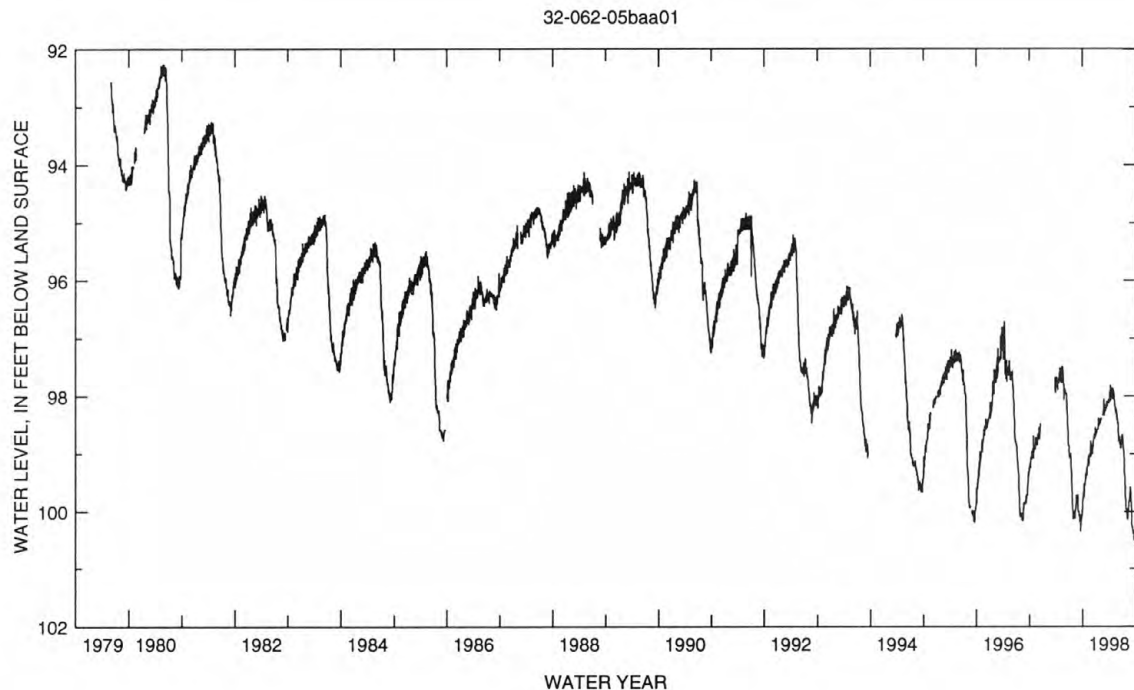
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 92.26 ft below land surface, June 1, 1980; lowest, 100.51 ft below land surface, Sept. 21, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	99.78	99.24	98.91	98.65	98.39	98.26	97.94	97.99	98.79	98.73	100.13	100.24
10	99.58	99.06	99.01	---	---	98.22	97.98	98.16	98.70	98.94	100.05	100.27
15	99.68	99.12	98.79	98.50	98.32	98.20	98.04	98.28	98.83	99.35	99.83	100.38
20	99.52	99.01	98.67	---	98.30	98.16	98.04	98.24	98.84	99.57	99.78	100.49
25	99.43	98.97	98.74	98.47	98.05	98.11	97.87	98.33	98.77	99.83	99.58	100.35
EOM	99.24	98.91	98.66	98.46	98.29	98.08	97.91	98.49	98.73	100.01	99.78	---
WTR YR 1998	HIGHEST 97.82 APR 11, 12			LOWEST 100.51 SEP 21								



GROUND-WATER LEVELS

NIOBRARA COUNTY

424244104202001. Local number, 32-062-32bbb01. Local name, Node Well.

LOCATION.--Lat 42°42'44", long 104°20'20", in NW¹/₄ NW¹/₄ NW¹/₄ sec.32, T.32 N., R.62 W., Hydrologic Unit 10150002.
Owner: Richard G. Pfister.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 485 ft below land surface.

DATUM.--Elevation of land surface is 4,898 ft above sea level, from topographic map. Measuring point: bottom of shelf, 3.00 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

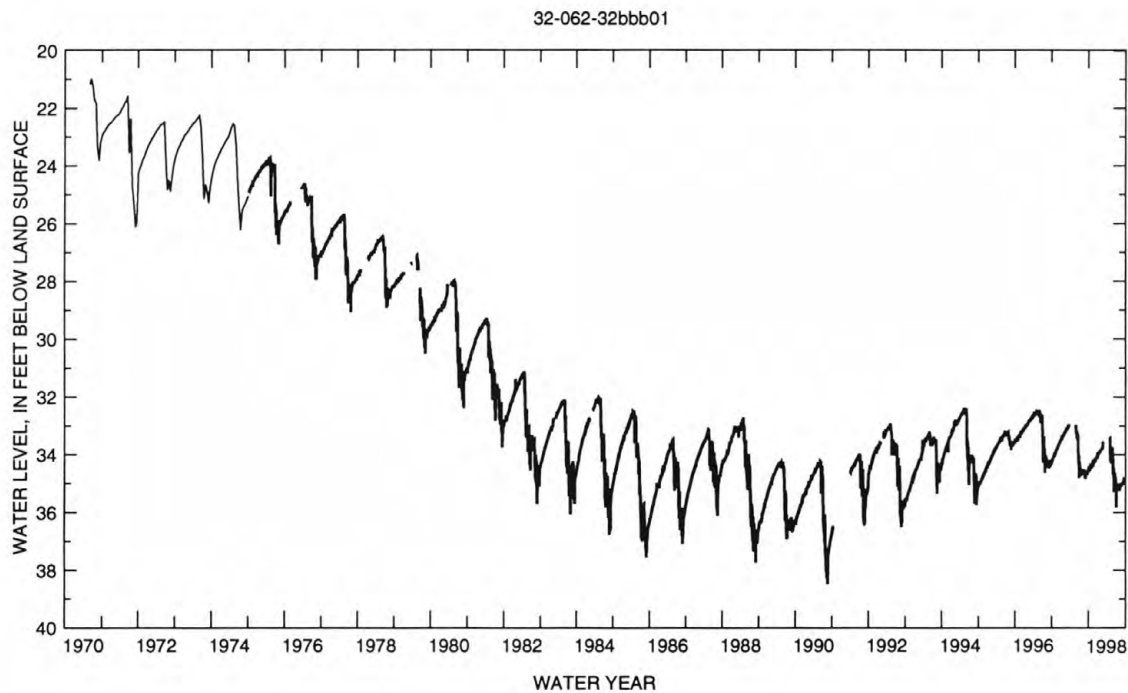
PERIOD OF RECORD.--1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.93 ft below land surface, June 23, 1970; lowest, 38.48 ft below land surface, Aug. 19, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	34.55	34.41	34.21	34.01	33.85	---	---	33.41	34.27	35.56	35.09	35.00
10	34.50	34.32	34.22	33.99	33.84	---	---	33.79	34.54	35.16	35.20	34.97
15	34.57	34.34	34.13	33.92	33.77	---	---	34.04	35.30	35.09	35.11	34.96
20	34.50	34.29	34.08	33.90	33.77	---	---	33.81	34.66	35.09	35.09	34.91
25	34.47	34.25	34.09	33.91	33.54	---	---	33.85	34.82	35.07	35.05	34.85
EOM	34.37	34.22	34.03	33.88	---	---	---	33.82	34.87	35.06	35.04	---

WTR WY 1998 HIGHEST 33.41 MAY 05, 06 LOWEST 35.82 JUL 07



GROUND-WATER LEVELS

81

NIOBRARA COUNTY

430422104183201. Local number, 36-062-28ab01. Local name, ETSI T-2.

LOCATION.--Lat 43°04'22", long 104°18'32", in NW¹/4 NE¹/4 sec.28, T.36 N., R.62 W., Hydrologic Unit 10120104.
Owner: Unknown.

AQUIFER.--Madison Limestone.

WELL CHARACTERISTICS.--Depth of well, 3,120 ft below land surface.

DATUM.--Elevation of land surface is 4,244 ft above sea level, from topographic map. Measuring point: top of casing, at land surface.

REMARKS.--Data from 1974 through March 1980 are unavailable electronically. Data available in reports in the District office.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

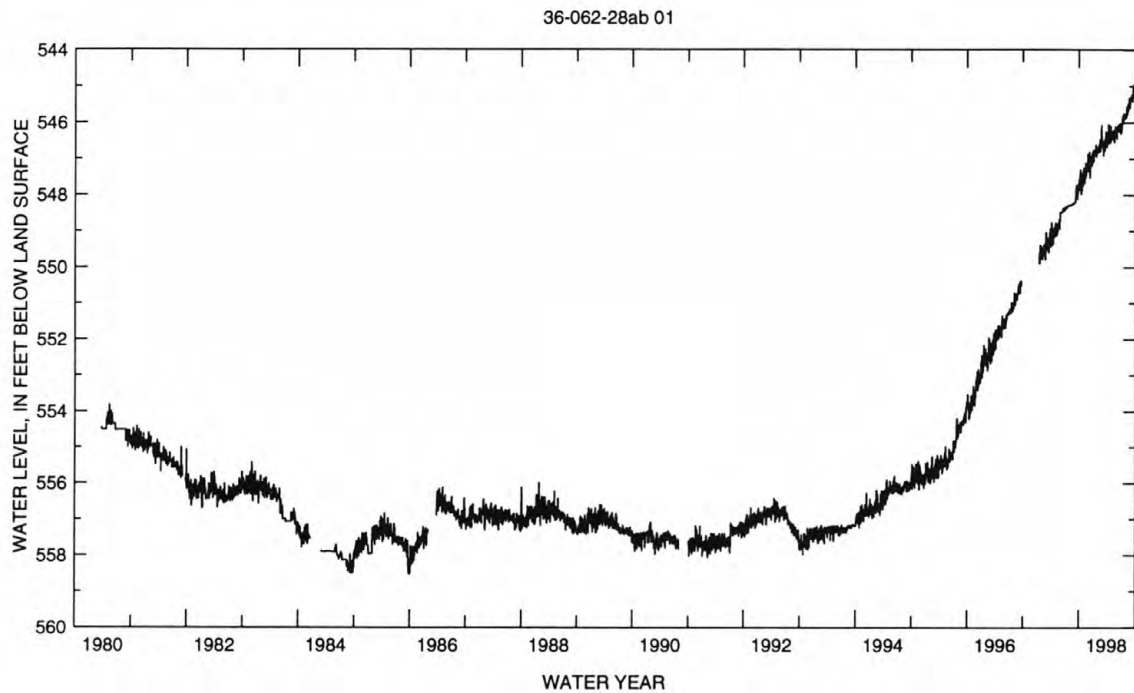
PERIOD OF RECORD.--1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 545.01 ft below land surface, Sept 26, 1998; lowest, 558.54 ft below land surface, Sept. 29, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	547.65	547.74	547.41	546.91	546.84	546.67	546.48	546.36	546.44	546.24	545.85	545.35
10	547.58	547.44	547.36	546.95	546.94	546.94	546.65	546.35	546.08	545.94	545.74	545.25
15	548.01	547.56	547.09	546.80	546.56	546.79	546.55	546.30	546.08	545.89	545.50	545.43
20	547.94	547.34	547.04	546.69	546.83	546.83	546.70	546.46	546.15	545.76	545.66	545.23
25	547.79	547.21	547.20	546.88	546.18	546.41	546.34	546.36	546.02	545.84	545.43	544.92
BOM	547.26	547.21	547.01	546.90	546.67	546.59	546.55	546.37	546.32	545.77	545.48	---

WTR YR 1998 HIGHEST 545.01 SEPT 26 LOWEST 548.01 OCT 15



GROUND-WATER LEVELS

NIOBRARA COUNTY

430422104183202. Local number, 36-062-28ab02. Local name, ETSI O-2.

LOCATION.--Lat 43°04'22", long 104°18'32", in NW¹/4 NE¹/4 sec.28, T.36 N., R.62 W., Hydrologic Unit 10120104.
Owner: Energy Transportation Systems, Inc.

AQUIFER.--Lakota Formation.

WELL CHARACTERISTICS.--Depth of well, 505 ft below land surface.

DATUM.--Elevation of land surface is 4,247 ft above sea level, from topographic map. Measuring point: top of casing, at land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

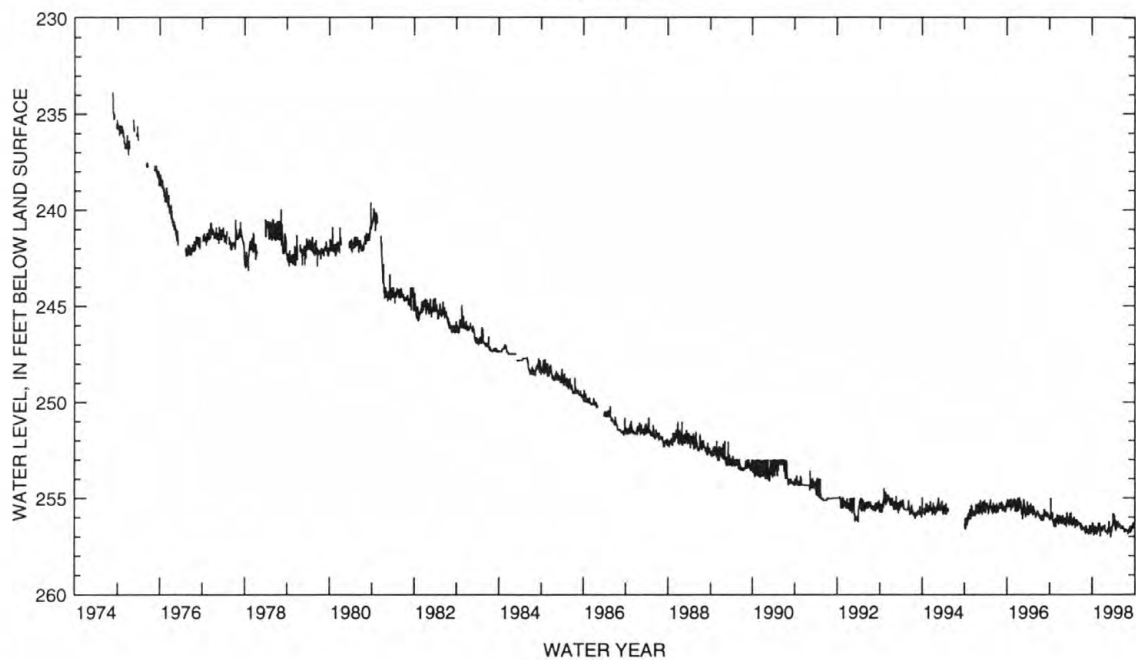
PERIOD OF RECORD.--1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 233.87 ft below land surface, Aug. 19, 1974; lowest, 252.05 ft below land surface, Mar. 11, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	256.44	256.82	256.73	256.52	256.75	256.67	255.91	256.41	256.57	256.63	256.90	256.56
10	256.65	256.87	256.60	256.62	256.76	256.92	256.35	256.44	256.50	256.77	256.74	256.49
15	256.86	256.82	256.59	256.52	256.58	256.75	256.24	256.28	256.54	256.60	256.65	256.54
20	256.79	256.52	256.63	256.43	256.82	256.77	256.50	256.55	256.46	256.64	256.71	256.33
25	256.76	256.50	256.70	256.71	256.22	256.43	256.18	256.48	256.48	256.71	256.55	256.30
EOM	256.46	256.63	256.70	256.71	256.72	256.46	256.53	256.42	256.62	256.69	256.75	---
WTR YR 1998	HIGHEST 255.82 APR 02			LOWEST 257.05 MAR 11								

36-062-28ab 02



GROUND-WATER LEVELS

83

NIOBRARA COUNTY

430421104200701. Local number, 36-062-28bbd01. Local name, ETSI T-1.

LOCATION.--Lat 43°04'21", long 104°20'07", in SE¹/₄ NW¹/₄ NW¹/₄ sec.28, T.36 N., R.62 W., Hydrologic Unit 10120104.
Owner: Energy Transportation Systems, Inc.

AQUIFER.--Minnelusa Formation.

WELL CHARACTERISTICS.--Depth of well, 1,510 ft below land surface.

DATUM.--Elevation of land surface is 5,200 ft above sea level, from topographic map. Measuring point: top of casing, 0.45 ft above land surface.

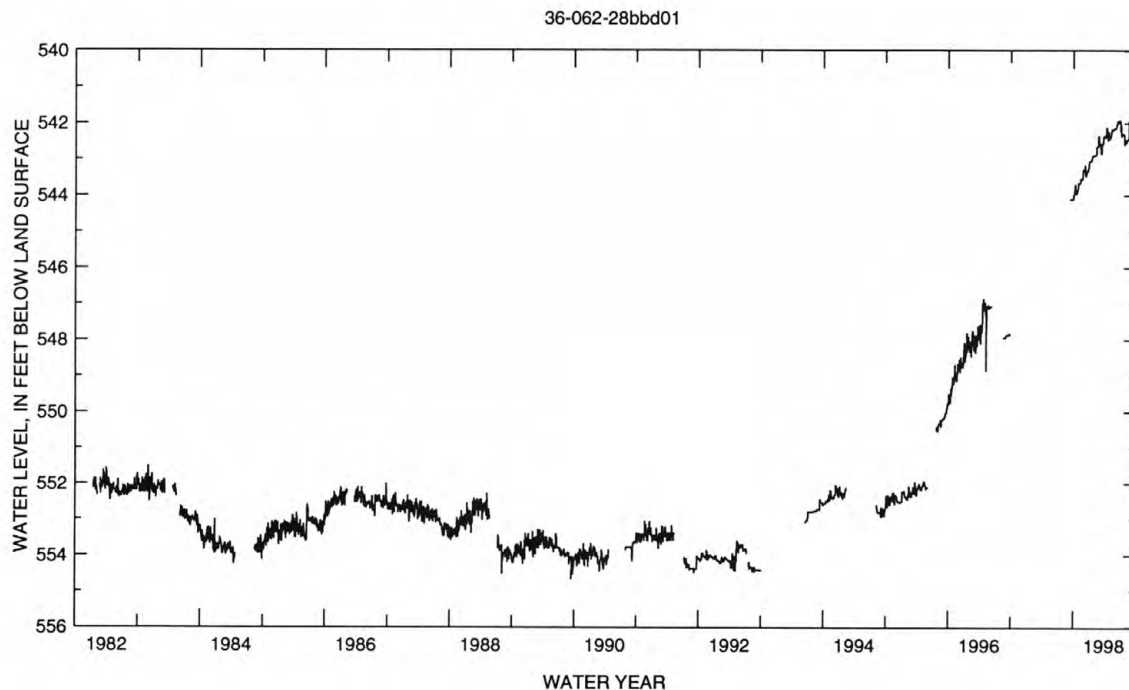
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 541.42 ft below land surface, Sept. 25, 26, 1998; lowest, 554.67 ft below land surface, Sept. 12, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	543.99	543.68	543.31	543.06	542.89	542.60	542.39	542.37	542.14	542.09	542.55	541.88
10	543.87	543.67	543.19	543.05	542.88	542.68	542.39	542.36	542.06	542.35	542.47	541.81
15	543.87	543.54	543.45	543.01	542.66	542.83	542.13	542.17	542.03	542.32	542.46	541.81
20	543.96	543.57	543.37	542.92	542.65	542.58	542.39	542.18	541.93	542.30	542.44	541.55
25	543.88	543.52	543.34	542.91	542.36	542.44	542.25	542.17	541.94	542.32	541.93	541.42
EOM	543.67	543.31	543.25	542.90	542.37	542.35	542.43	542.15	541.93	542.55	541.93	---
WTR YR 1998	HIGHEST 541.42 SEP 25, 26			LOWEST 544.07 OCT 01								



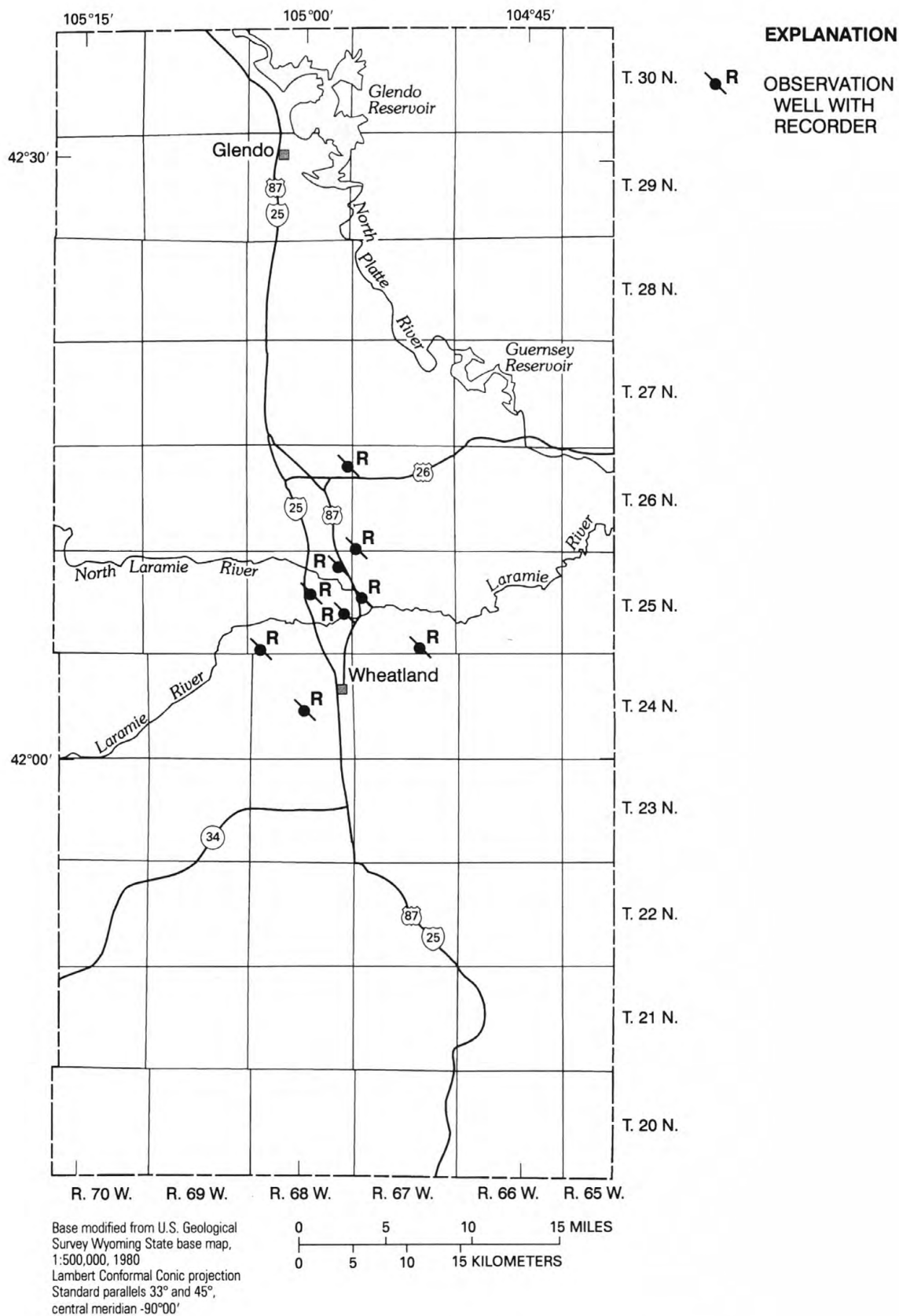


Figure 17. Location of observation wells in Platte County, Wyoming.

PLATTE COUNTY

420246104590302. Local number, 24-068-22aab02. Local name, Platte County #1A.

LOCATION.--Lat 42°02'46", long 104°59'03", in NW¹/4 NE¹/4 NE¹/4 sec.22, T.24 N., R.68 W., Hydrologic Unit 10180011.
Owner: State of Wyoming.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 200 ft below land surface.

DATUM.--Elevation of land surface is 4,860 ft above sea level, from topographic map. Measuring point: top of casing, 1.35 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

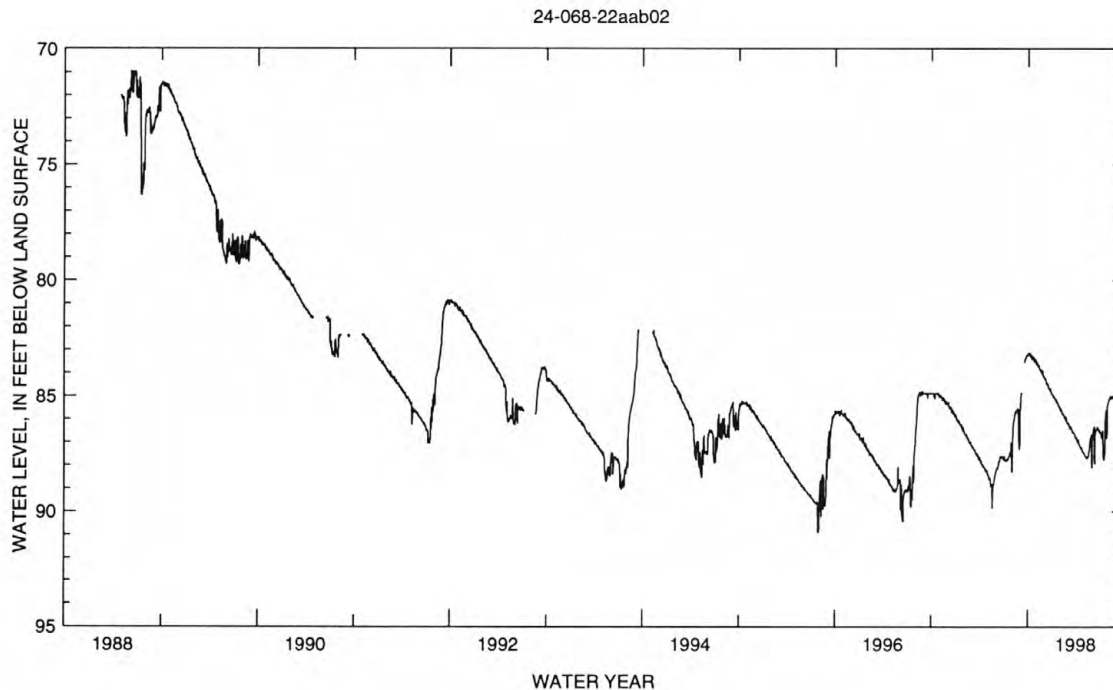
PERIOD OF RECORD.--1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 70.95 ft below land surface, June 5, 1988; lowest, 90.92 ft below land surface, Aug. 1, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	151.91	151.26	150.85	150.43	150.10	149.75	149.55	149.34	149.83	150.24	150.72	151.40
10	151.75	151.22	150.77	150.40	150.09	149.76	149.55	149.37	149.73	150.31	150.79	151.53
15	151.77	151.16	150.68	150.18	149.95	149.77	149.40	149.42	149.85	150.31	150.84	151.86
20	151.61	151.01	150.61	150.17	149.95	149.76	149.43	149.59	149.89	150.30	150.94	151.86
25	151.51	151.00	150.60	150.15	149.72	149.59	149.31	149.85	149.90	150.42	151.04	151.68
EOM	151.24	150.86	150.44	150.13	149.72	149.60	149.41	149.95	149.99	150.60	151.19	151.68

WTR YR 1998 HIGHEST 83.15 OCT 11 LOWEST 88.12 JUN 02



GROUND-WATER LEVELS

PLATTE COUNTY

420718104553901. Local number, 25-067-19dda01. Local name, Ed Wilhelm.

LOCATION.--Lat 42°07'18", long 104°55'39", in NE¹/₄ SE¹/₄ SE¹/₄ sec.19, T.25 N., R.67 W., Hydrologic Unit 10180011.
Owner: Ed Wilhelm.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 760 ft below land surface.

DATUM.--Elevation of land surface is 4,540 ft above sea level, from topographic map. Measuring point: top of casing, 1.50 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

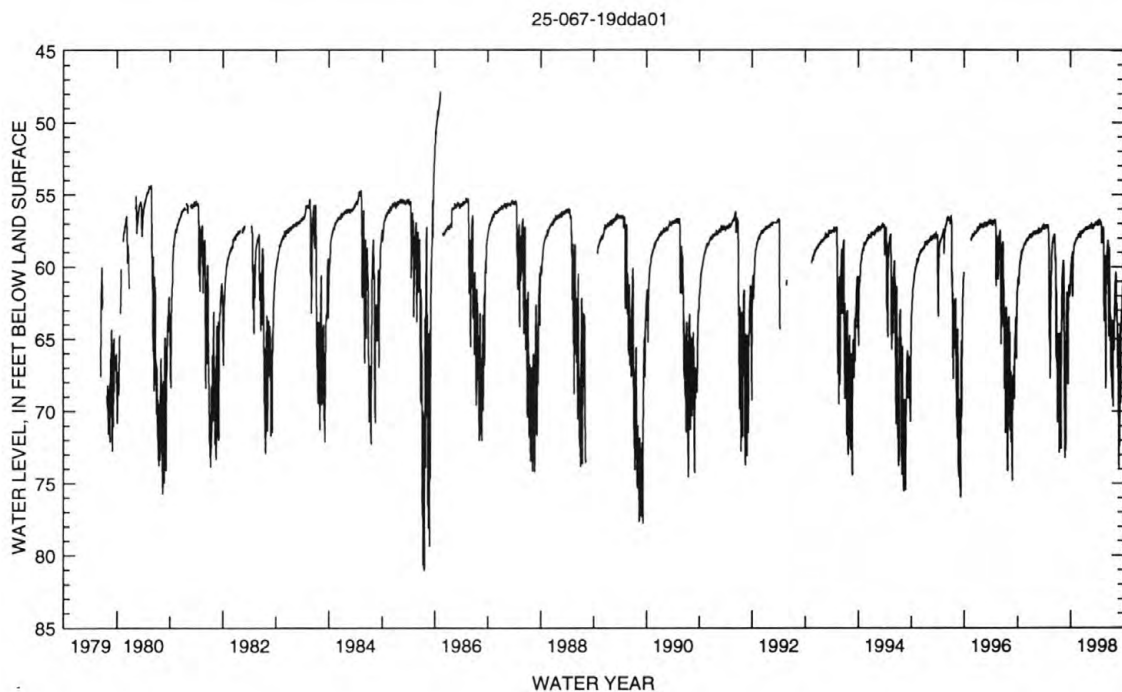
PERIOD OF RECORD.--1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 47.88 ft below land surface, Nov. 8, 1985; lowest, 81.04 ft below land surface, July 19, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	60.36	58.39	57.88	57.48	57.29	57.23	56.96	58.38	60.73	63.21	61.69	70.18
10	59.53	58.15	57.88	57.43	57.36	57.28	57.05	57.76	59.65	67.37	60.65	64.34
15	59.38	58.17	57.66	57.32	57.12	57.15	56.98	57.34	58.52	69.06	62.23	65.86
20	60.97	57.94	57.59	57.22	57.26	57.11	57.01	58.73	58.23	69.69	63.33	62.99
25	59.02	57.90	57.67	57.35	56.95	56.94	56.78	60.13	59.37	64.20	64.71	61.96
EOM	58.34	57.85	57.52	57.35	57.32	57.01	56.96	64.80	60.23	63.84	68.10	61.20

WTR YR 1998 HIGHEST 56.77 APR 24 LOWEST 73.91 AUG 29



GROUND-WATER LEVELS

87

PLATTE COUNTY

420524104530201. Local number, 25-067-34ccd01. Local name, Platte County #2.

LOCATION.--Lat 42°05'24", long 104°53'02", in SE¹/₄ SW¹/₄ SW¹/₄ sec.34, T.25 N., R.67 W., Hydrologic Unit 10180011.
Owner: State of Wyoming.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 380 ft below land surface.

DATUM.--Elevation of land surface is 4,620 ft above sea level, from topographic map. Measuring point: top of casing, 1.60 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

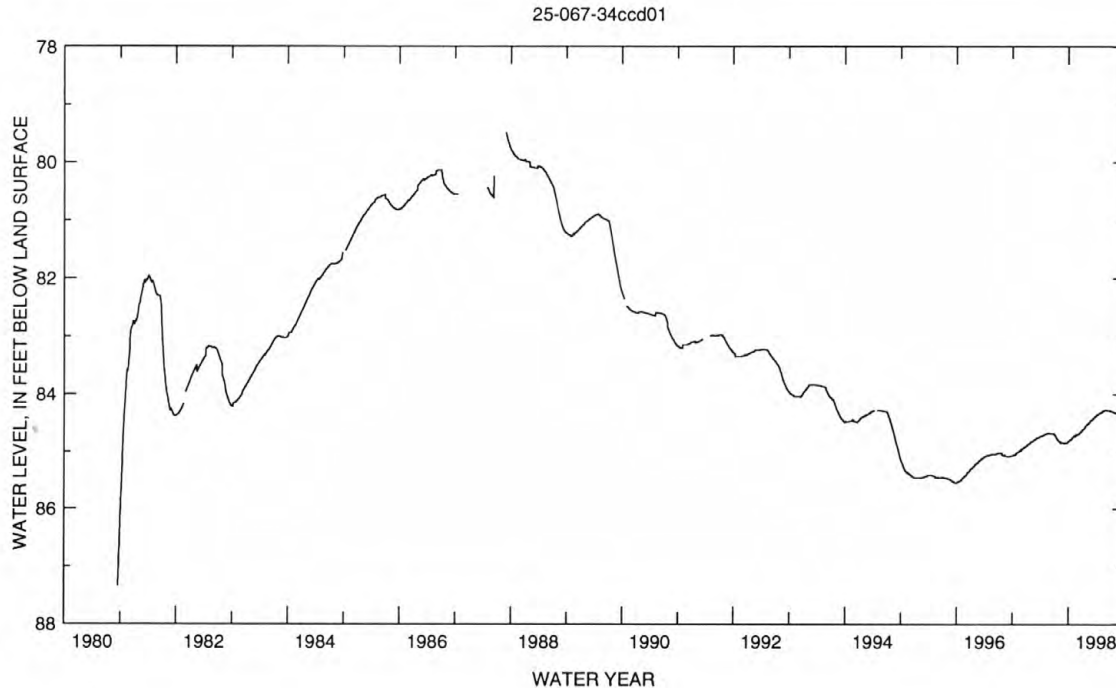
PERIOD OF RECORD.--1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 79.49 ft below land surface, Aug. 27, 28, 29, 1987; lowest, 87.35 ft below land surface, Sept. 16, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	84.81	84.73	84.69	84.61	84.51	84.44	84.36	84.31	84.27	84.29	84.32	84.30
10	84.80	84.73	84.69	84.60	84.50	84.43	84.36	84.31	84.28	84.30	84.33	84.29
15	84.79	84.72	84.67	84.58	84.49	84.41	84.34	84.29	84.28	84.30	84.33	84.27
20	84.78	84.71	84.66	84.56	84.47	84.40	84.33	84.28	84.28	84.30	84.32	84.26
25	84.76	84.70	84.64	84.54	84.45	84.38	84.32	84.28	84.28	84.31	84.31	84.25
EOM	84.74	84.69	84.62	84.52	84.45	84.37	84.32	84.27	84.28	84.32	84.31	84.23

WTR YR 1998 HIGHEST 84.23 SEP 29-30 LOWEST 84.82 OCT 01



GROUND-WATER LEVELS

PLATTE COUNTY

420859104565001. Local number, 25-068-12dda01. Local name, Platte County #4.

LOCATION.--Lat 42°08'59", long 104°56'50", in NE¹/₄ SE¹/₄ SE¹/₄ sec.12, T.25 N., R.68 W., Hydrologic Unit 10180011.
Owner: State of Wyoming.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 100 ft below land surface.

DATUM.--Elevation of land surface is 4,510 ft above sea level, from topographic map. Measuring point: top of casing, 1.60 ft above land surface.

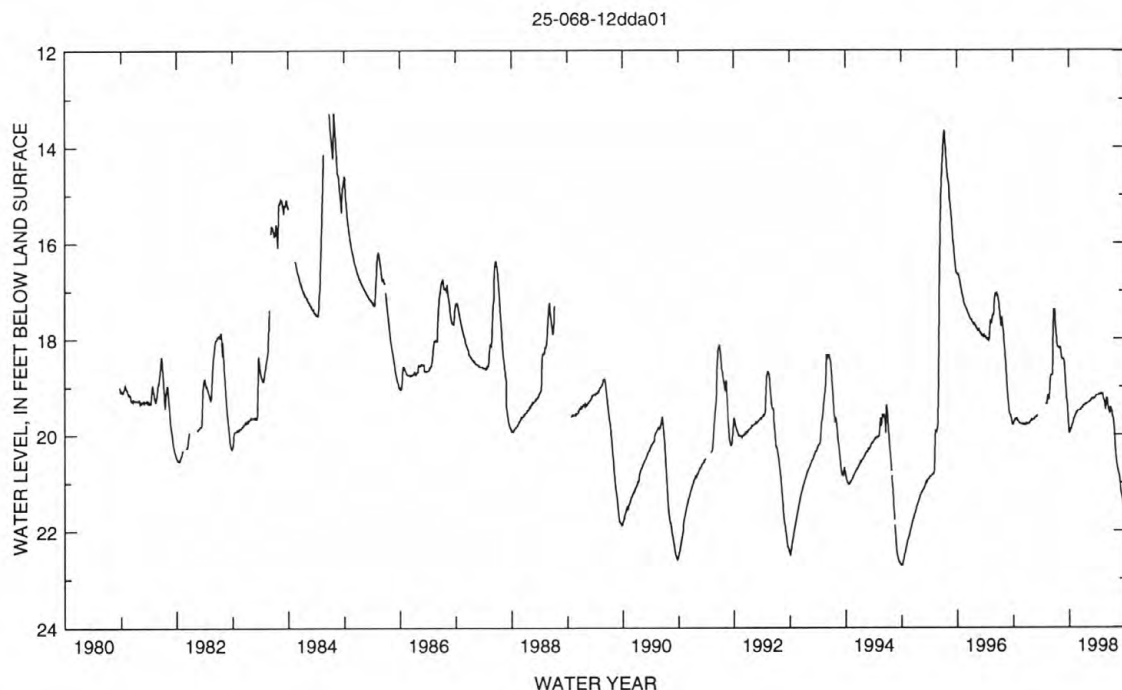
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.30 ft below land surface, June 25, July 25, 26, 1984;
lowest, 22.73 ft below land surface, Oct. 3-5, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	19.95	19.64	19.50	19.39	19.33	19.26	19.18	19.15	19.24	19.51	20.56	21.23
10	19.90	19.60	19.49	19.39	19.32	19.26	19.18	19.23	19.37	19.63	20.67	21.30
15	19.88	19.55	19.47	19.36	19.30	19.24	19.17	19.29	19.49	19.67	20.74	21.39
20	19.82	19.53	19.45	19.36	19.29	19.22	19.17	19.36	19.54	19.85	20.82	21.52
25	19.76	19.51	19.45	19.35	19.25	19.19	19.14	19.43	19.47	20.09	20.90	21.58
EOM	19.67	19.50	19.41	19.34	19.25	19.18	19.15	19.31	19.44	20.38	21.10	21.51
WTR YR 1998	HIGHEST 19.14 APR 24, 25				LOWEST 21.58 SEP 24-26							



GROUND-WATER LEVELS

89

PLATTE COUNTY

420840105000401. Local number, 25-068-15bbd01. Local name, Platte County #6.

LOCATION.--Lat 42°08'40", long 105°00'04", in SE¹/₄ NW¹/₄ NW¹/₄ sec.15, T.25 N., R.68 W., Hydrologic Unit 10180011.
Owner: State of Wyoming.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 220 ft below land surface.

DATUM.--Elevation of land surface is 4,640 ft above sea level, from topographic map. Measuring point: top of casing, 1.30 ft above land surface.

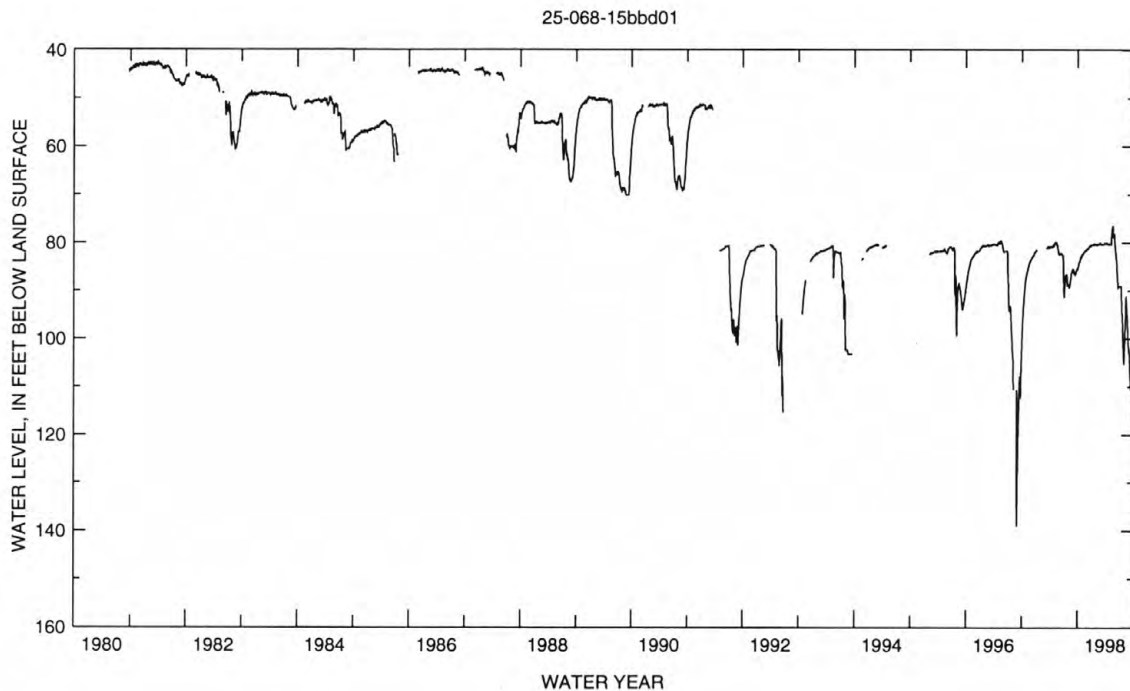
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 42.50 ft below land surface, Feb. 9, Mar. 30, 1981; lowest, 139.04 ft below land surface, Aug. 29, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	85.13	82.46	81.41	80.48	80.33	80.31	80.24	80.29	81.12	89.14	100.75	103.62
10	84.46	82.13	81.23	80.45	80.38	80.39	80.32	79.74	83.32	89.13	94.48	108.56
15	84.06	81.97	80.86	80.37	80.26	80.37	80.23	77.37	85.01	91.84	91.60	109.23
20	83.44	81.72	80.69	80.32	80.34	80.35	80.31	76.64	88.15	95.31	95.80	105.05
25	83.00	81.57	80.68	80.37	80.12	80.22	80.18	78.56	89.22	101.44	99.37	100.58
EOM	82.57	81.44	80.56	80.38	80.32	80.22	80.31	79.19	89.15	105.33	102.56	97.11
WTR YR 1998	HIGHEST 76.64 MAY 19, 20				LOWEST 110.69 SEP 13							



GROUND-WATER LEVELS

PLATTE COUNTY

420748104565001. Local number, 25-068-24aad01. Local name, Platte County #3.

LOCATION.--Lat 42°07'48", long 104°56'50", in SE¹/₄ NE¹/₄ NE¹/₄ sec.24, T.25 N., R.68 W., Hydrologic Unit 10180011.
Owner: State of Wyoming.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 240 ft below land surface.

DATUM.--Elevation of land surface is 4,560 ft above sea level, from topographic map. Measuring point: top of casing, 0.55 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

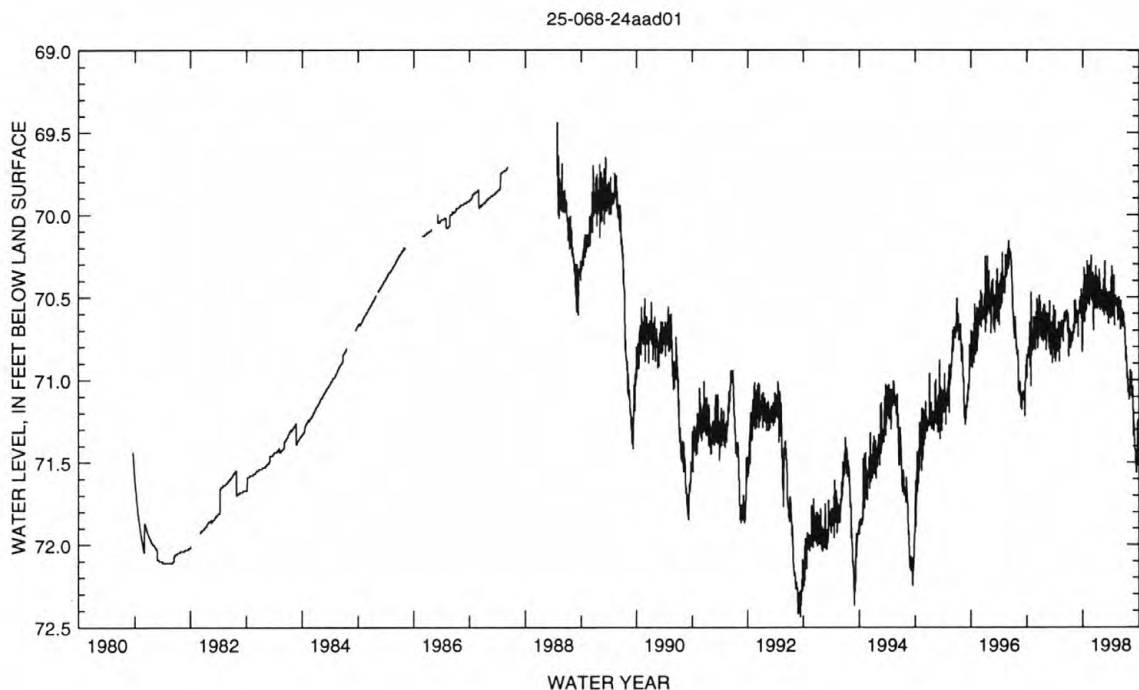
PERIOD OF RECORD.--1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 69.44 ft below land surface, Apr. 28, 29, 1988; lowest, 72.44 ft below land surface, Sept. 10, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	70.59	70.50	70.53	70.48	70.46	70.54	70.38	70.49	70.69	70.74	71.03	71.37
10	70.46	70.39	70.61	70.50	70.59	70.57	70.56	70.55	70.59	70.85	70.98	71.42
15	70.64	70.55	70.45	70.38	70.39	70.55	70.61	70.55	70.59	70.88	70.95	71.55
20	70.59	70.33	70.39	70.33	70.54	70.55	70.59	70.56	70.59	71.00	71.09	71.50
25	70.58	70.42	70.57	70.47	70.28	70.47	70.37	70.61	70.59	71.07	71.15	71.24
EOM	70.28	70.43	70.41	70.52	70.55	70.59	70.52	70.63	70.68	71.12	71.26	71.32

WTR YR 1998 HIGHEST 70.25 NOV 26, 27 LOWEST 71.56 SEP 16, 17



GROUND-WATER LEVELS

91

PLATTE COUNTY

420613105024401. Local number, 25-068-31aaa01. Local name, Platte County #7.

LOCATION.--Lat 42°06'13", long 105°02'44", in NE¹/₄ NE¹/₄ NE¹/₄ sec.31, T.25 N., R.68 W., Hydrologic Unit 10180011.
Owner: State of Wyoming.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 400 ft below land surface.

DATUM.--Elevation of land surface is 4,633 ft above sea level, from topographic map. Measuring point: top of casing, 1.50 ft above land surface.

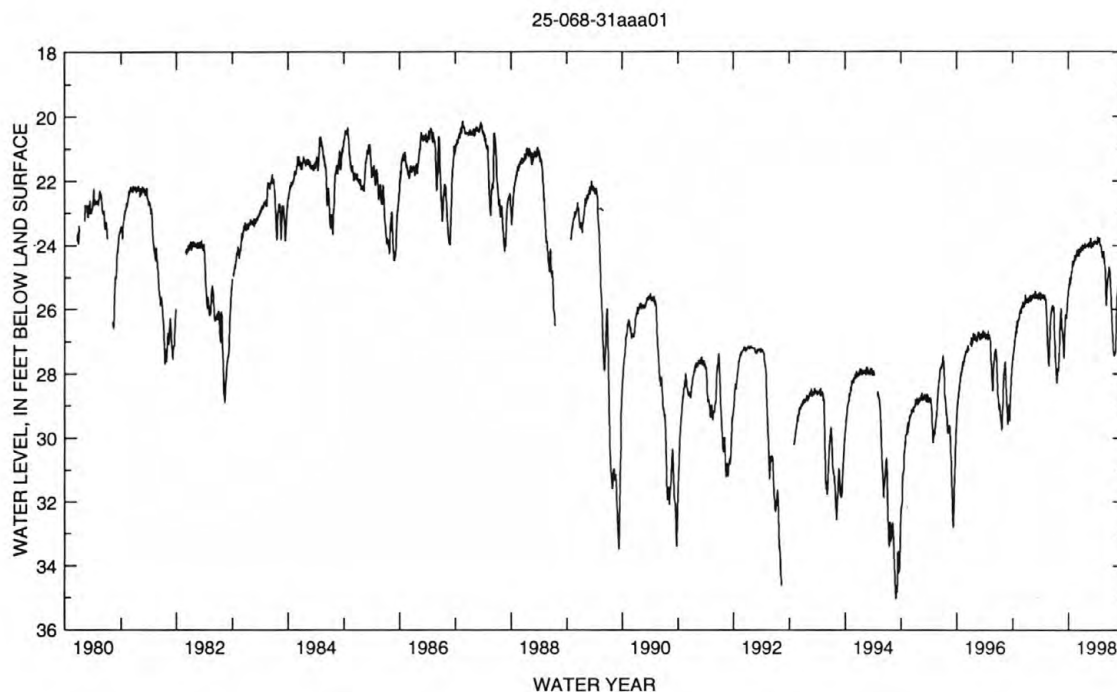
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.13 ft below land surface, Nov. 19, 1986; lowest, 35.04 ft below land surface, Aug. 30, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	25.34	24.61	24.27	24.06	23.98	24.02	23.89	24.11	25.82	25.35	27.30	25.77
10	25.15	24.44	24.31	---	24.08	24.04	23.89	24.32	25.44	26.08	26.54	26.01
15	25.19	24.50	24.15	23.98	23.91	23.96	23.86	24.39	25.05	26.70	25.64	26.32
20	25.05	24.34	24.08	23.94	23.99	23.93	23.89	24.31	24.91	27.06	25.45	26.73
25	24.85	24.30	24.19	24.04	23.78	23.86	23.80	24.57	24.69	27.36	25.31	26.19
EOM	24.48	24.25	24.10	24.02	24.07	23.90	23.99	24.95	24.85	27.37	25.41	25.75
WTR YR 1998	HIGHEST 23.73 APR 11, 12			LOWEST 27.45 JUL 26								



PLATTE COUNTY

421443104574601. Local number, 26-068-12cbd01. Local name, E. Rutherford.

LOCATION.--Lat 42°14'43", long 104°57'46", in SE¹/₄ NW¹/₄ SW¹/₄ sec.12, T.26 N., R.68 W., Hydrologic Unit 10180011.
Owner: State of Wyoming.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 320 ft below land surface.

DATUM.--Elevation of land surface is 4,860 ft above sea level, from topographic map. Measuring point: top of casing, at land surface.

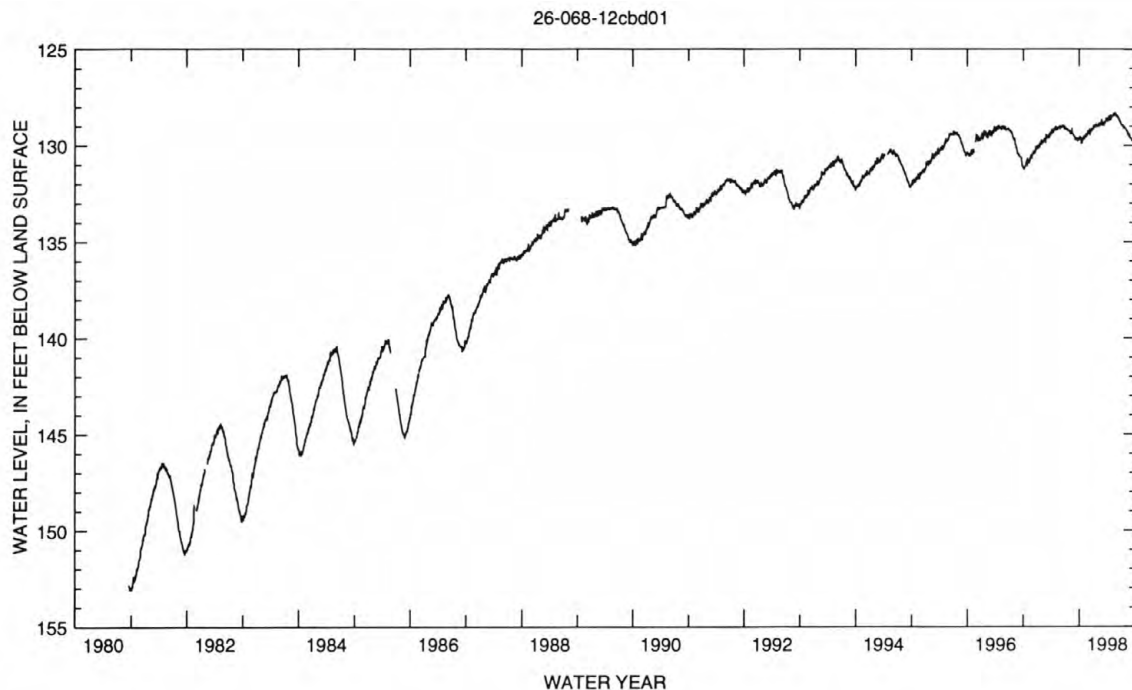
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 128.31 ft below land surface, May 26, 27, 1998; lowest, 153.11 ft below land-surface, Oct. 2, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	129.67	129.67	129.39	129.05	128.91	128.87	128.60	128.46	128.50	128.92	129.20	129.66
10	129.70	129.53	129.31	129.03	128.98	128.95	128.69	128.44	128.49	128.97	129.32	129.69
15	129.92	129.58	129.24	128.93	128.81	128.88	128.56	128.38	128.60	128.99	129.33	129.78
20	129.89	129.43	129.16	128.87	128.92	128.83	128.64	128.43	128.64	129.01	129.47	129.77
25	129.73	129.42	129.22	128.98	128.63	128.61	128.43	128.41	128.73	129.06	129.48	129.70
EOM	129.48	129.35	129.13	128.98	128.90	128.63	128.56	128.43	128.89	129.13	129.62	129.79
WTR YR 1998	HIGHEST 128.31 MAY 26, 27			LOWEST 129.96 SEP 22								



PLATTE COUNTY

421128104575801. Local number, 26-068-36bbb01. Local name, Platte County #5.

LOCATION.--Lat 42°11'28", long 104°57'58", in NW¹/₄ NW¹/₄ NW¹/₄ sec.36, T.26 N., R.68 W., Hydrologic Unit 10180011.
Owner: State of Wyoming.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 200 ft below land surface.

DATUM.--Elevation of land surface is 4,670 ft above sea level, from topographic map. Measuring point: top of casing, 1.40 ft above land surface.

COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

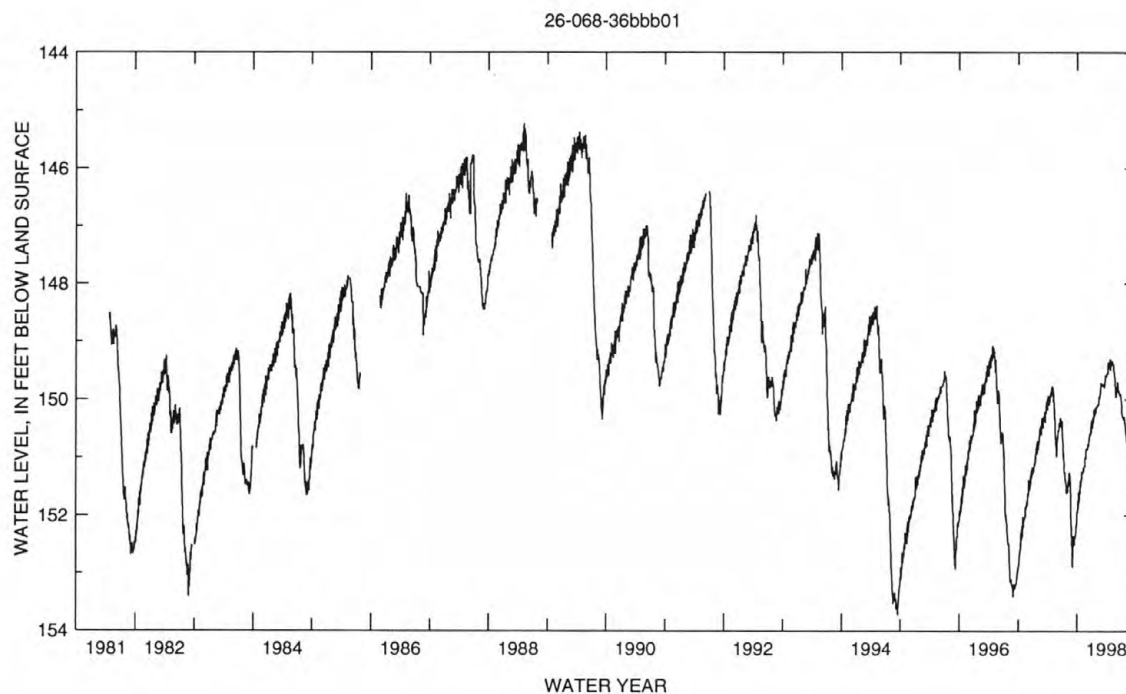
PERIOD OF RECORD.--1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 145.23 ft below land surface, May 7, 1988; lowest, 153.73 ft below land surface, Sept. 16, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	151.91	151.26	150.85	150.43	150.10	149.75	149.55	149.34	149.83	150.24	150.72	151.40
10	151.75	151.22	150.77	150.40	150.09	149.76	149.55	149.37	149.73	150.31	150.79	151.53
15	151.77	151.16	150.68	150.18	149.95	149.77	149.40	149.42	149.85	150.31	150.84	151.86
20	151.61	151.01	150.61	150.17	149.95	149.76	149.43	149.59	149.89	150.30	150.94	151.86
25	151.51	151.00	150.60	150.15	149.72	149.59	149.31	149.85	149.90	150.42	151.04	151.68
EOM	151.24	150.86	150.44	150.13	149.72	149.60	149.41	149.95	149.99	150.60	151.19	151.68

WTR YR 1998 HIGHEST 149.31 APR 24, 25 LOWEST 152.09 OCT 01



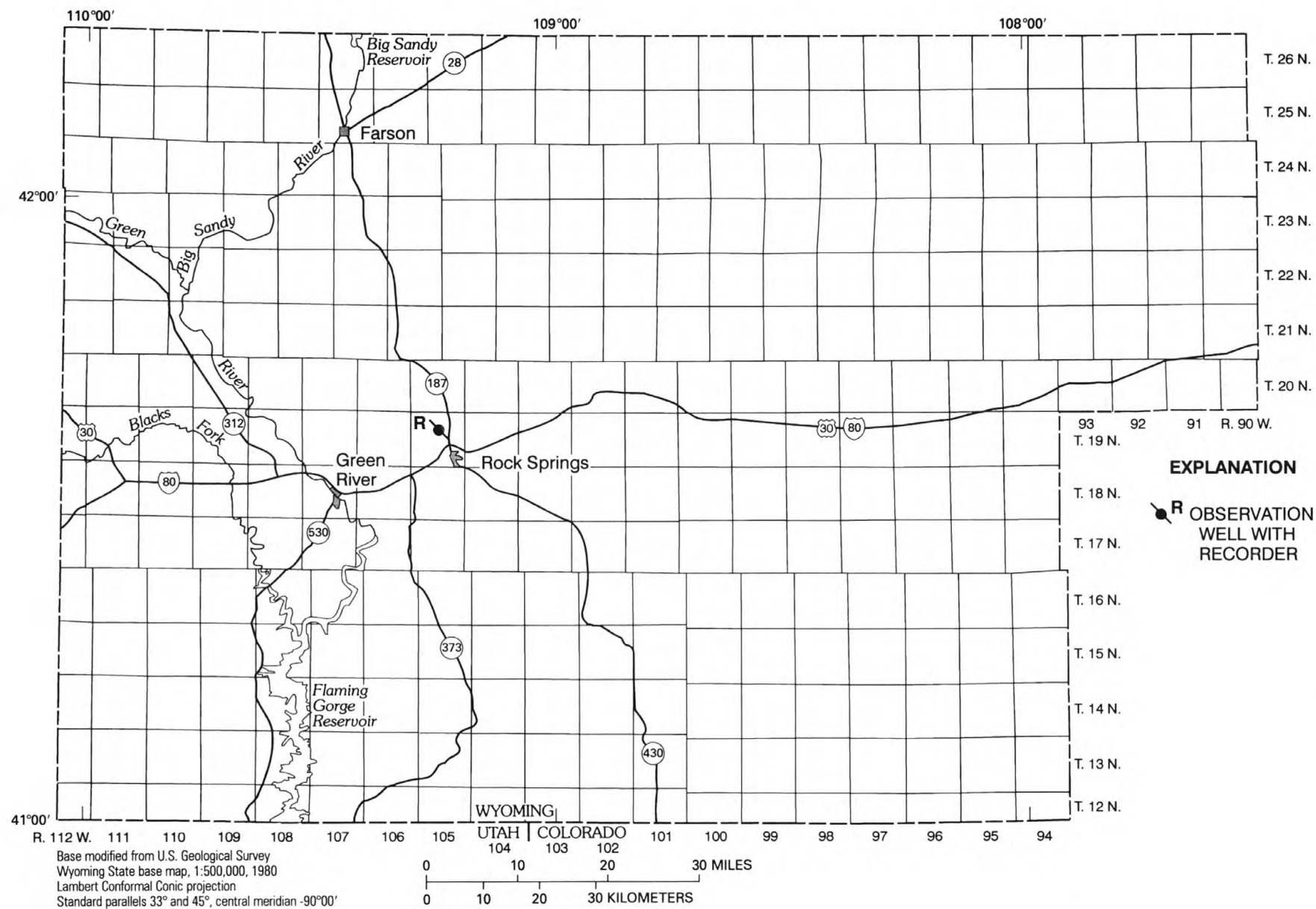


Figure 18. Location of observation well in Sweetwater County, Wyoming.

SWEETWATER COUNTY

413850109150601. Local number, 19-105-10bbb01. Local name, Rock Springs Golf Course.

LOCATION.--Lat 41°38'50", long 109°15'06", in NW¹/₄ NW¹/₄ NW¹/₄ sec.10, T.19 N., R.105 W., Hydrologic Unit 14040105.
Owner: Sweetwater County.

AQUIFER.--Fort Union Formation.

WELL CHARACTERISTICS.--Depth of well, 240 ft below land surface.

DATUM.--Elevation of land surface is 6,430 ft above sea level, from topographic map. Measuring point: top of casing, 0.60 ft above land surface.

REMARKS.--Data collected by U.S. Geological Survey.

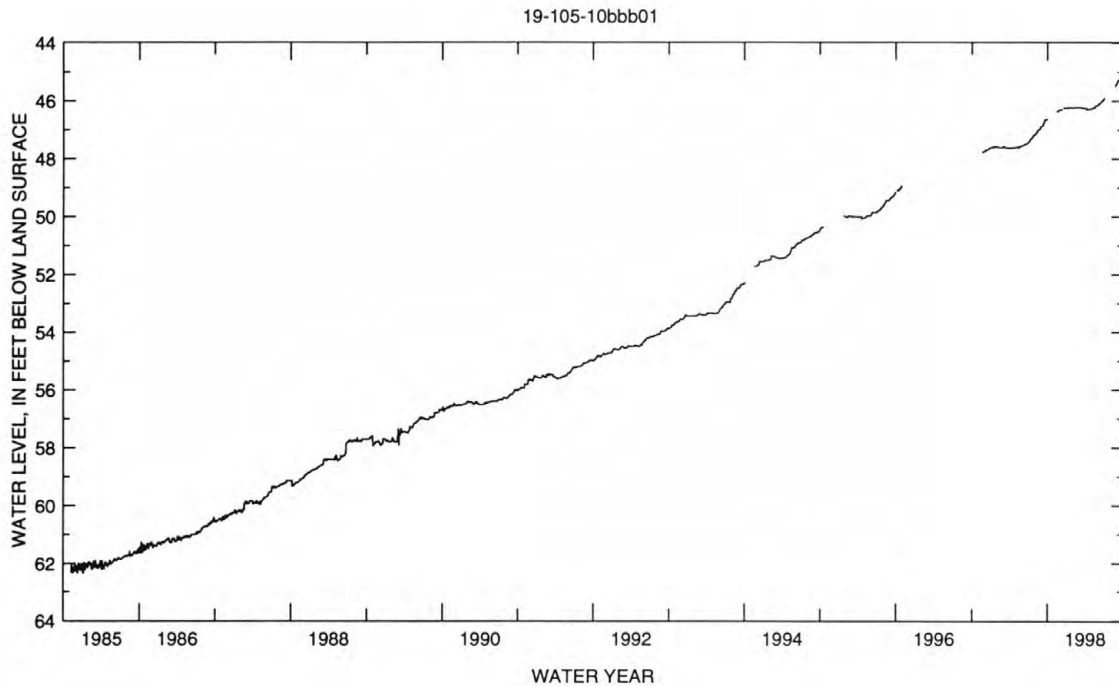
PERIOD OF RECORD.--1984 to curren year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 45.16 ft below land surface, Sept. 25, 1998; lowest, 62.36 ft below land surface, Dec. 6, 1984, Jan. 3, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	46.32	46.25	46.24	46.23	46.26	46.26	46.12	---	---	45.31
10	---	---	46.31	46.24	46.24	46.24	46.30	46.26	46.09	---	---	45.28
15	---	46.38	---	46.24	46.23	46.25	46.29	46.24	46.05	---	---	45.24
20	---	46.35	46.25	46.24	46.23	46.25	46.29	46.19	46.01	---	---	45.21
25	---	46.34	46.25	46.24	46.23	46.26	46.28	46.17	45.98	---	45.47	45.16
EOM	---	46.32	46.25	46.25	46.23	46.26	46.28	46.15	45.94	---	45.39	---

WTR YR 1998 HIGHEST 45.16 SEP 25 LOWEST 46.63 OCT 01



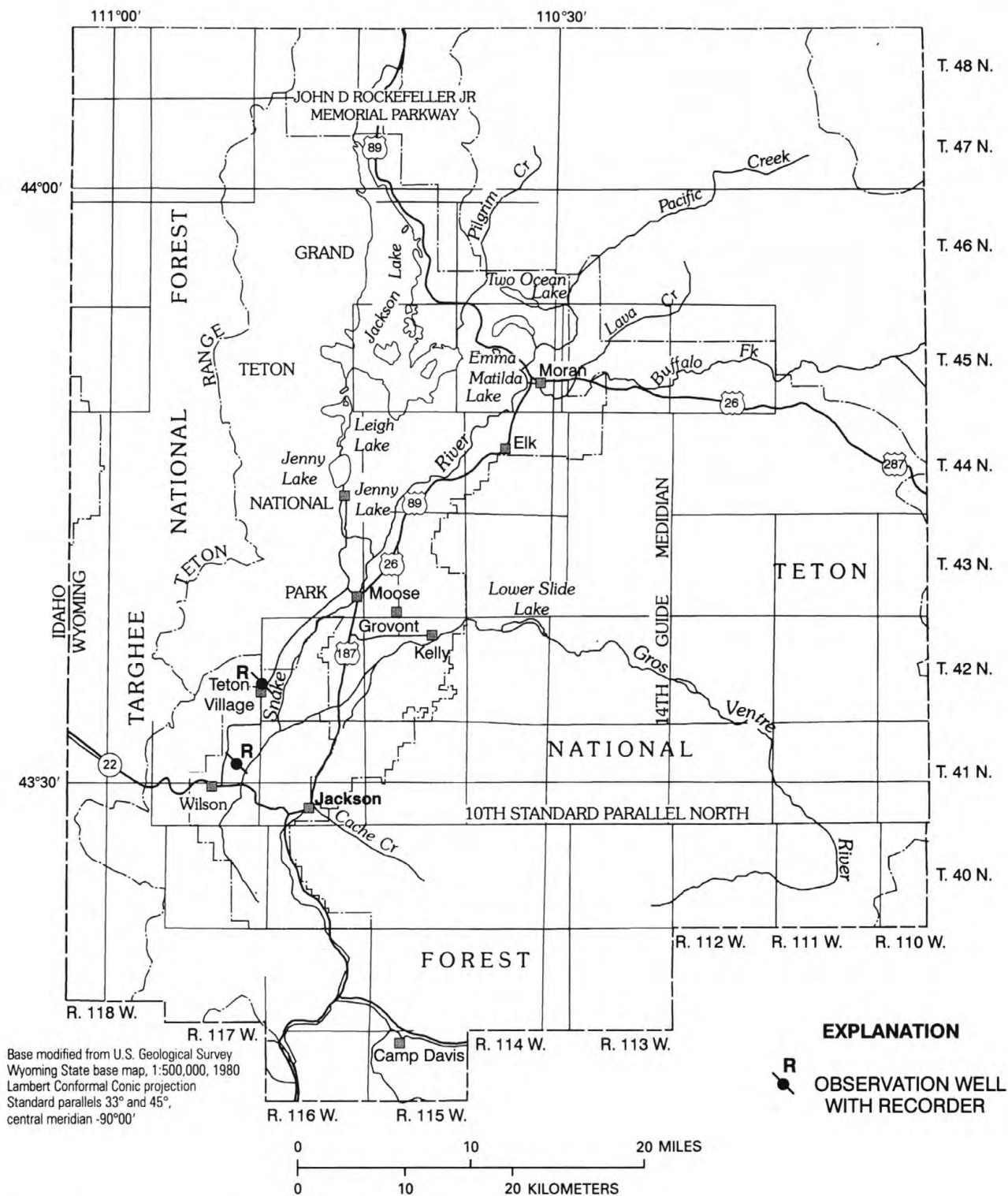


Figure 19. Location of observation wells in Teton County, Wyoming.

GROUND-WATER LEVELS

97

TETON COUNTY

433059110511802. Local number, 41-117-14bdc02. Local name, Teton Pines.

LOCATION.--Lat 43°30'59", long 110°51'18", in SW¹/₄ SE¹/₄ NW¹/₄ sec.14, T.41 N., R.117 W., Hydrologic Unit 17040103.
Owner: Skip Wright-Clark.

AQUIFER.--Holocene alluvium.

WELL CHARACTERISTICS.--Depth of well, 20 ft below land surface.

DATUM.--Elevation of land surface is 6,180 ft above sea level, from topographic map. Measuring point: top of casing, 1.20 ft above land surface.

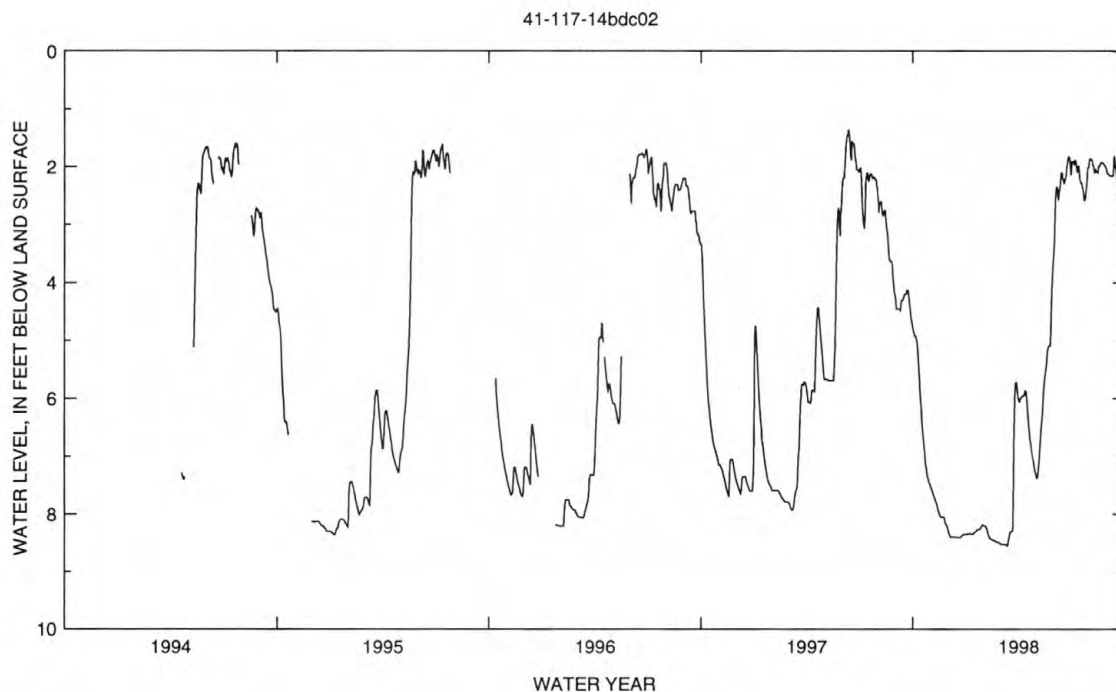
REMARKS.--Data collected by U.S. Geological Survey.

PERIOD OF RECORD.--April 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest recorded water level, 1.37 ft below land surface, June 12, 13, 1997; lowest recorded, 8.55 ft below land surface, Mar. 12, 13, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	4.92	7.64	8.40	8.34	8.26	8.53	6.00	7.27	2.38	1.94	1.88	2.15
10	5.19	7.79	8.40	8.35	8.41	8.53	5.96	6.57	2.48	2.03	2.12	2.15
15	6.02	7.98	8.40	8.33	8.45	8.44	6.02	5.83	2.11	2.16	2.09	1.98
20	6.74	8.05	8.41	8.27	8.48	8.31	6.65	5.36	2.22	2.36	1.94	2.44
25	7.23	8.12	8.37	8.26	8.49	6.29	7.02	5.09	1.86	2.57	1.95	2.53
EOM	7.48	8.26	8.35	8.20	8.51	5.97	7.28	3.64	2.15	2.01	2.11	2.62
WTR YR 1998	HIGHEST	1.82	SEP 13	LOWEST	8.55	MAR 12, 13						



GROUND-WATER LEVELS

TETON COUNTY

433517110493001. Local number, 42-117-24dab01. Local name, Teton Village.

LOCATION.--Lat 43°35'17", long 110°49'30", in NW¹/4 NE¹/4 SE¹/4 sec.24, T.42 N., R.117 W., Hydrologic Unit 17040103.
Owner: Snake River Ranch.

AQUIFER.--Holocene alluvium.

WELL CHARACTERISTICS.--Depth of well, 30 ft below land surface.

DATUM.--Elevation of land surface is 6307.92 above sea level, by survey. Measuring point: top of casing, 1.00 ft above land surface.

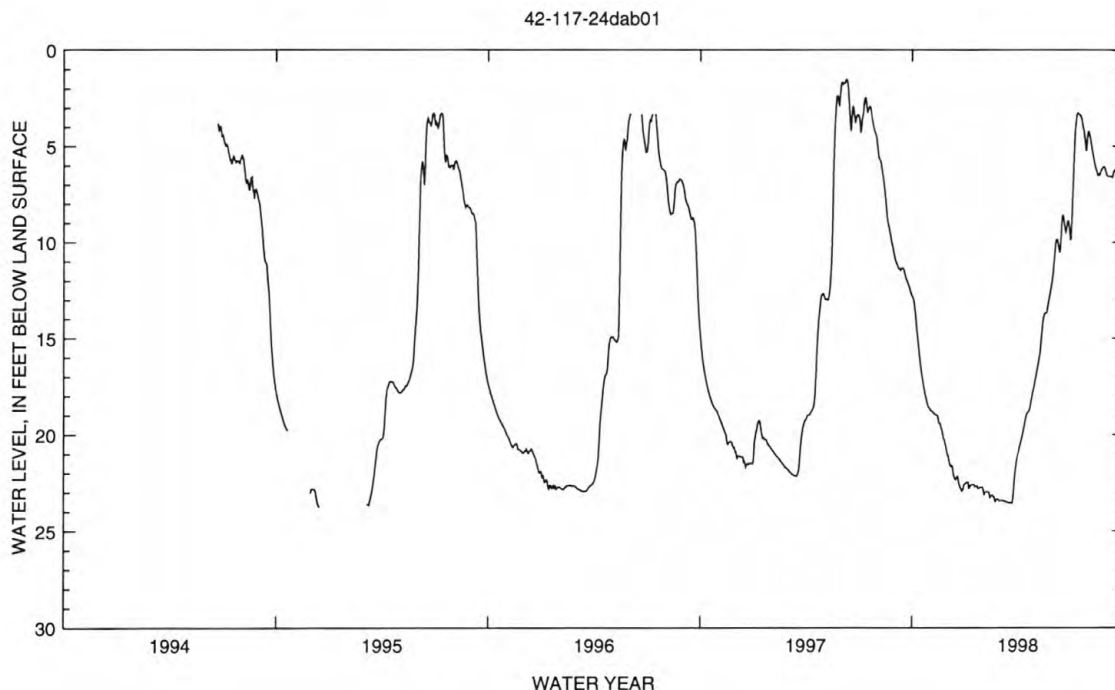
REMARKS.--Data collected by U.S. Geological Survey.

PERIOD OF RECORD.--June 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.53 ft below land surface, June 10, 1997; lowest observed, 24.52 ft below land surface, Jan. 20, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	13.21	18.81	21.53	22.47	22.98	23.41	20.50	16.49	10.00	6.69	4.92	6.57
10	14.77	18.96	21.71	22.64	22.98	23.47	19.85	15.50	10.26	3.64	5.79	6.63
15	16.19	19.16	22.33	22.60	23.16	23.51	19.06	13.96	8.92	3.33	6.39	6.23
20	17.28	19.65	22.40	22.68	23.37	23.54	18.80	13.68	9.20	3.68	6.47	8.14
25	18.08	20.23	22.87	22.76	23.35	22.71	18.05	12.88	8.92	4.66	6.09	9.19
EOM	18.62	20.89	22.57	22.81	23.42	21.16	17.29	11.76	9.89	4.24	6.47	10.27
WTR 1998	HIGHEST	3.26	JUL 13	LOWEST	23.55	MAR 22						



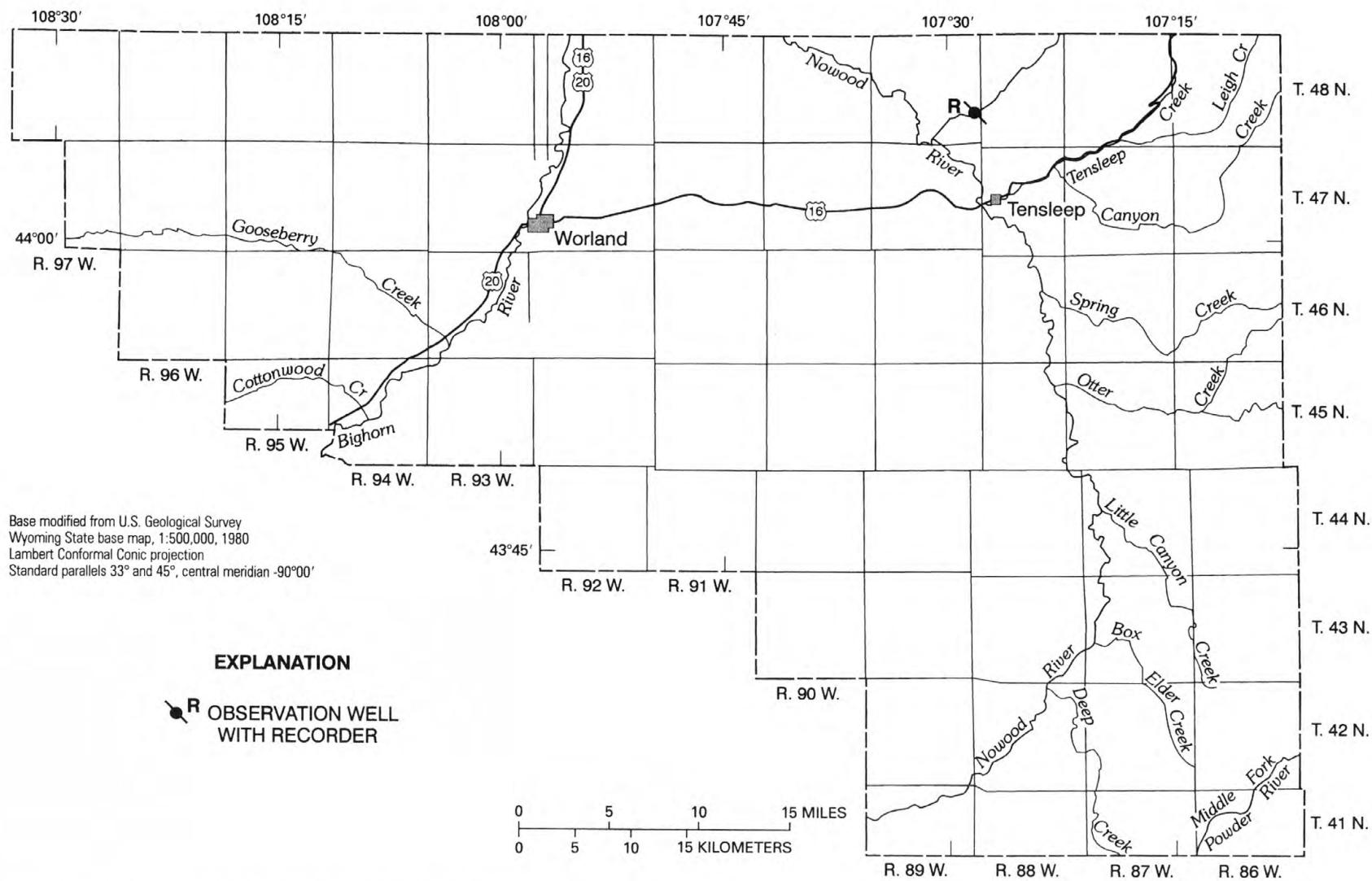


Figure 20. Location of observation well in Washakie County, Wyoming.

GROUND-WATER LEVELS

WASHAKIE COUNTY

440621107273801. Local number, 48-089-25ada01. Local name, Mills.

LOCATION.--Lat 44°06'21", long 107°27'38", in NE¹/₄ SE¹/₄ NE¹/₄ sec.25, T.48 N., R.89 W., Hydrologic Unit 10080008.
Owner: Terril Mills.

AQUIFER.--Flathead Sandstone.

WELL CHARACTERISTICS.--Depth of well, 2,290 ft below land surface.

DATUM.--Elevation of land surface is 4,560 ft above sea level, from topographic map.

REMARKS.--Shut-in pressure was measured by pressure transducer and converted to hydraulic head above land surface for illustration purposes. Hydraulic head, in feet above land surface, was calculated by multiplying the shut-in pressure in pounds per square inch times 2.31. Hydraulic head data from May 13, 1992 to Mar. 24, 1995 were not plotted on the hydrograph because the monitoring equipment was out of calibration during this time. The data and a more detailed explanation of the data were published in Open-File report 96-648 "Ground-Water Levels in Wyoming, January 1986 through September 1995." Hydraulic head data from Mar. 24, 1995 to Apr. 25, 1996 were not collected. The accuracy of the hydraulic head measurements is ± 5.0 ft. Data collected by U.S. Geological Survey.

PERIOD OF RECORD.--1988 to current year.

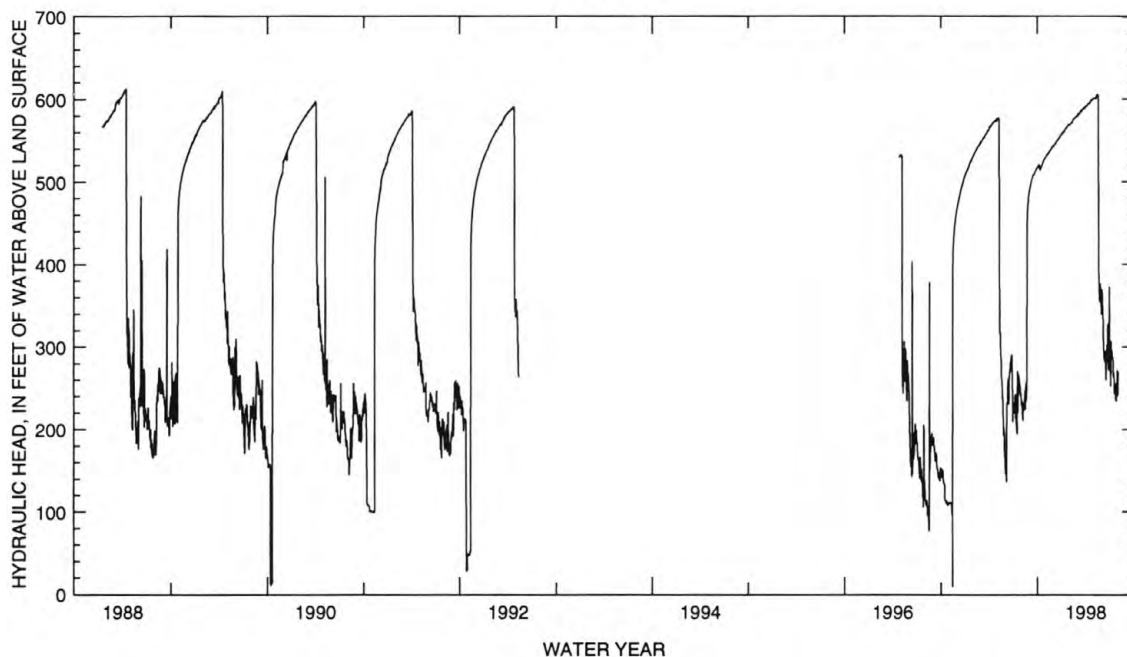
EXTREMES FOR PERIOD OF RECORD.--Highest hydraulic head, 612.20 ft above land surface, Apr. 13, 1988; lowest, 8.78 ft above land surface, Nov. 14, 1997.

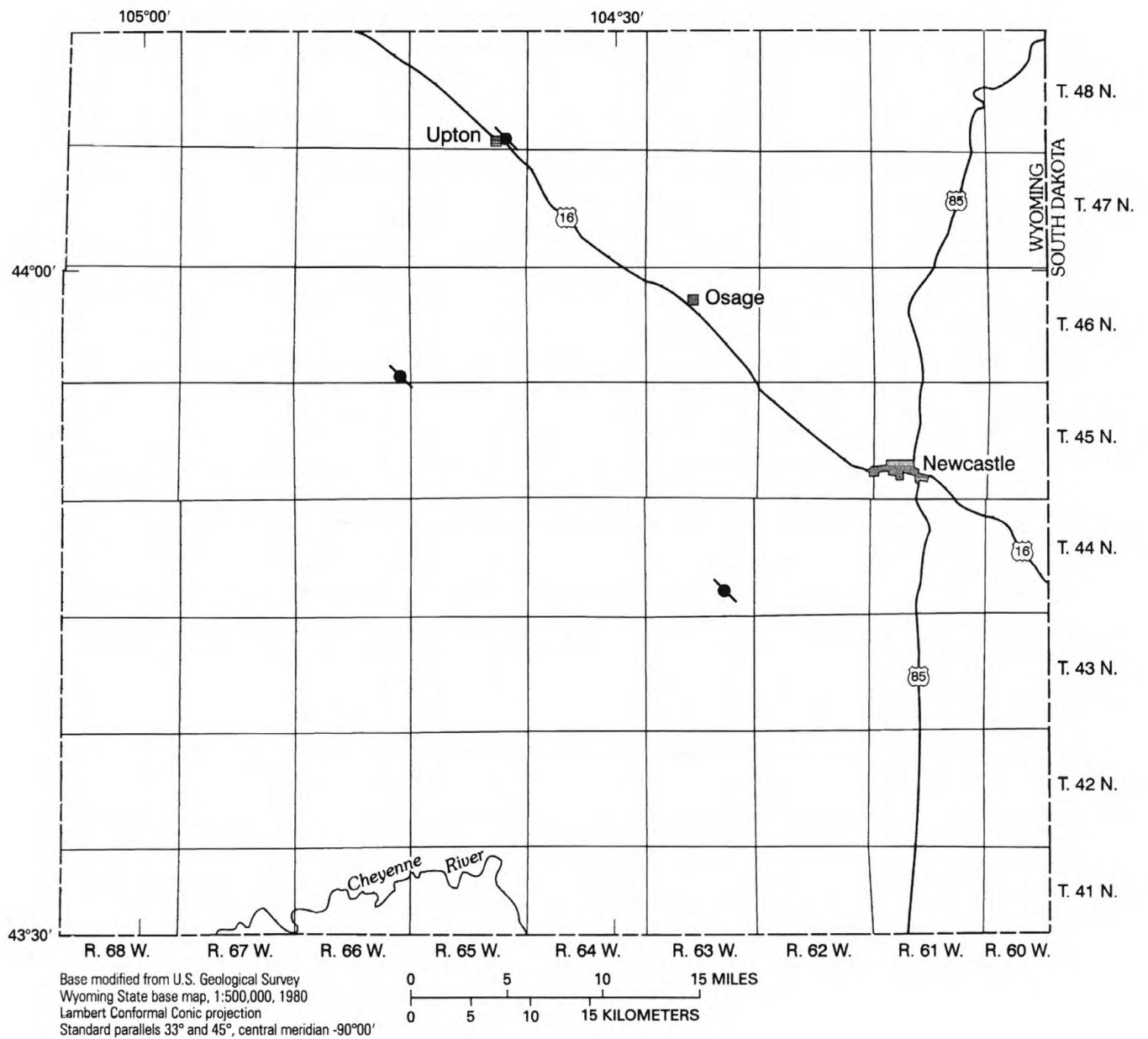
HYDRAULIC HEAD, IN FEET ABOVE LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	518.59	531.30	544.70	558.57	570.59	580.99	591.44	601.12	363.29	261.36	---	---
10	519.97	533.15	546.55	560.65	571.97	582.37	593.29	600.88	286.40	294.72	---	---
15	515.82	535.46	549.79	563.42	575.90	585.15	594.44	603.89	287.08	281.70	---	---
20	519.97	538.00	551.87	565.04	577.29	586.76	596.27	600.85	291.83	242.39	---	---
25	524.83	541.70	554.18	568.04	578.21	588.38	598.13	363.98	324.33	235.23	---	---
EOM	528.53	542.62	556.72	568.51	579.37	590.23	599.96	339.10	325.25	271.83	---	---

WTR YR 1998 HIGHEST 605.53 MAY 18 LOWEST 233.99 JUL 28

48-089-25ada01





EXPLANATION

● OBSERVATION WELL

Figure 21. Location of observation wells in Weston County, Wyoming.

GROUND-WATER LEVELS

WESTON COUNTY

434539104233401. Local number, 44-063-26cac01. Local name, Townsend Well.

LOCATION.--Lat 43°45'39", long 104°23'34", in SW¹/₄ NE¹/₄ SW¹/₄ sec.26, T.44 N., R.63 W., Hydrologic Unit 10120107.
Owner: Townsend Company, Inc.

AQUIFER.--Madison Limestone. Labeled as Pahasapa Limestone, which is equivalent, in some previous reports.

WELL CHARACTERISTICS.--Depth of well, 6,880 ft below land surface.

DATUM.--Elevation of land surface is 3,990 ft above sea level, from topographic map. Measuring point: top of casing, 1.5 ft above land surface.

REMARKS.--Data reflects static and pumping water levels.

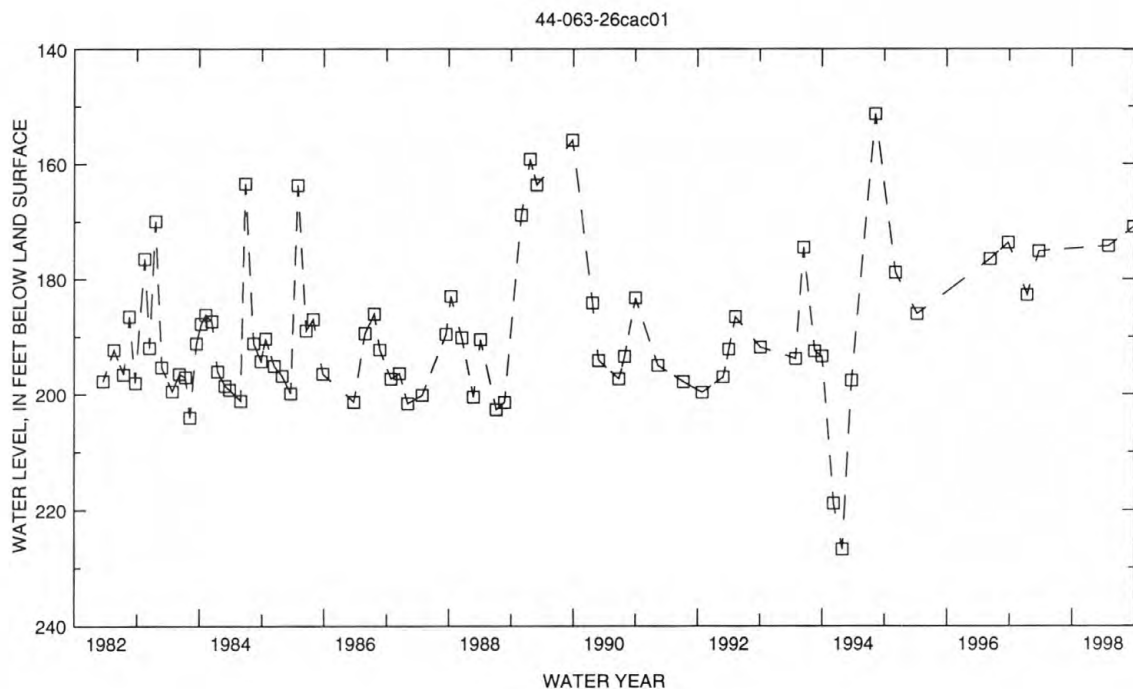
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 151.35 ft below land surface, from hand-measured data, Aug. 9, 1994; lowest, 226.80 ft below land surface, from hand-measured data, Jan. 27, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 05	174.29	SEP 29	170.94



WESTON COUNTY

435610104433001. Local number, 46-066-25dbb01. Local name, Terra Resources.

LOCATION.--Lat 43°56'10", long 104°43'30", in NW¹/₄ NW¹/₄ SE¹/₄ sec.25, T.46 N., R.66 W., Hydrologic Unit 10120103.
Owner: Terra Resources.

AQUIFER.--Madison Limestone. Labeled as Pahasapa Limestone, which is equivalent, in some previous reports.

WELL CHARACTERISTICS.--Depth of well, 8,780 ft below land surface.

DATUM.--Elevation of land surface is 4,200 ft above sea level, from topographic map. Measuring point: top of casing, at land surface.

REMARKS.--Data reflects static condition and pumping of nearby water flood system.

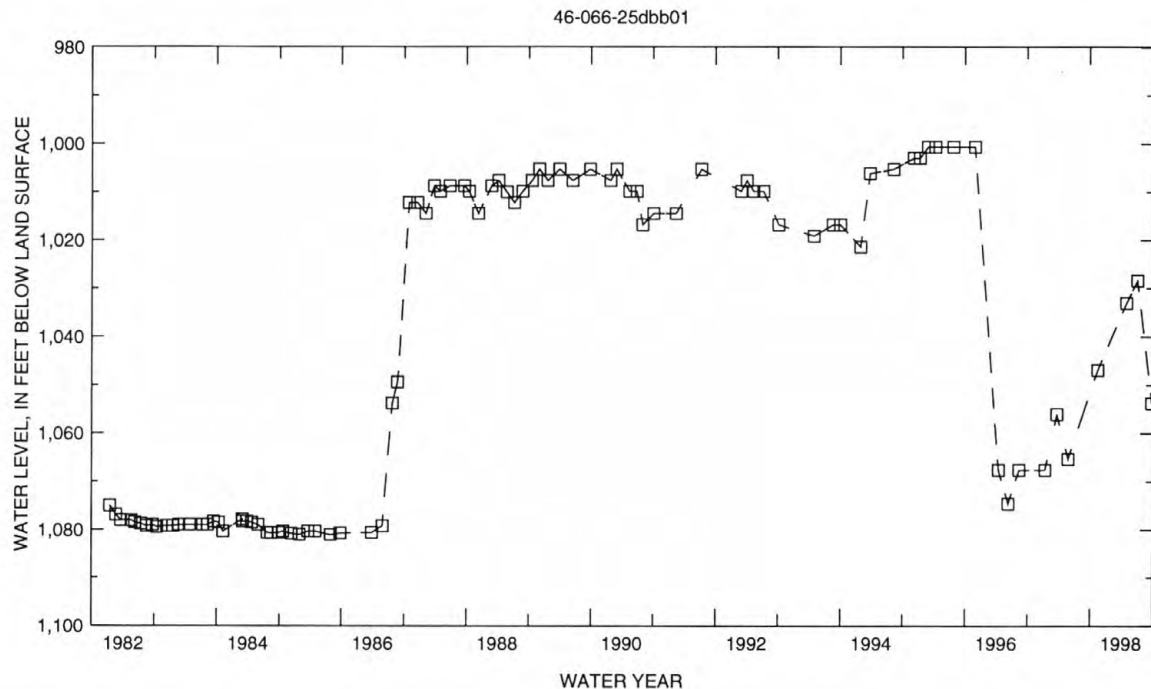
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1,000.67 ft below land surface, from hand-measured data, Feb. 28, Apr. 11, July 25, and Nov. 28, 1995; lowest, 1,081.06 ft below land surface, from-hand measured data, July 30, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 18	1046.87	JUL 07	1028.39
MAY 05	1033.01	SEP 29	1053.80



GROUND-WATER LEVELS

WESTON COUNTY

440530104381001. Local number, 48-065-35ccb01. Local name, Town of Upton #4.

LOCATION.--Lat 44°05'30", long 104°38'10", in NW¹/₄ SW¹/₄ SW¹/₄ sec.35, T.48 N., R.65 W., Hydrologic Unit 10120107.
Owner: Town of Upton.

AQUIFER.--Madison Limestone. Labeled as Pahasapa Limestone, which is equivalent, in some previous reports.

WELL CHARACTERISTICS.--Depth of well, 3,190 ft below land surface.

DATUM.--Elevation of land surface is 4,220 ft above sea level, from topographic map. Measuring point: top of casing, 0.70 ft above land surface.

REMARKS.--Data reflects static and pumping water levels.

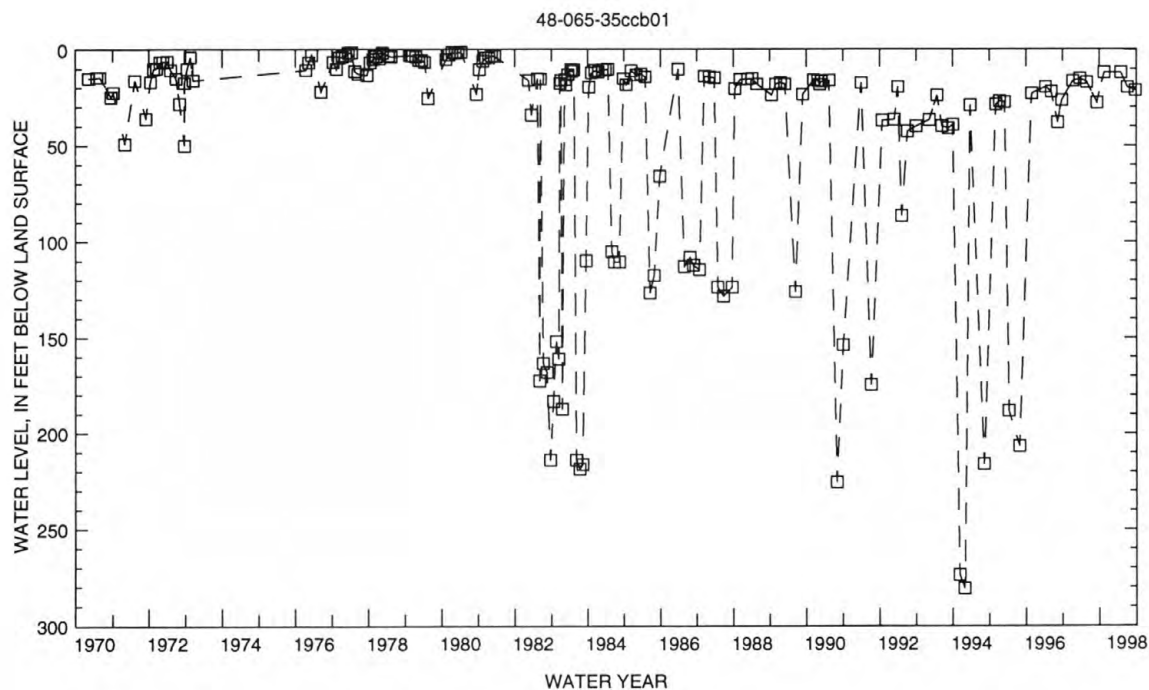
COOPERATION.--Data collected and records provided by the Office of the Wyoming State Engineer and reviewed by U.S. Geological Survey.

PERIOD OF RECORD.--1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.30 ft below land surface, from hand-measured data, Apr. 16, 1980; lowest, 280.67 ft below land surface, from hand-measured data, Jan. 27, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 18	11.93	JUL 07	19.69
MAY 05	11.86	SEP 29	21.38



GROUND-WATER LEVELS

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HIGH PLAINS STUDY
(Water levels are at depth below land surface, in feet)

GOSHEN COUNTY

SITE-ID	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	LOCAL WELL NUMBER	ALTITUDE OF LAND SURFACE (FEET)	WATER- LEVEL DATE	WATER LEVEL (FEET)
413400104382701	413400	1043827	19-065-34dcc01	5520	05-19-98	69.04
413506104163001	413506	1041616	19-062-26dba01	4819	05-19-98	25.04
413629104205001	413629	1042050	19-062-18ddc01	5058	05-19-98	76.13
413716104203401	413716	1042034	19-062-17bbb01	4940	05-19-98	22.22
413951104363801	413951	1043638	20-065-36bca01	5404	05-19-98	107.09
415539104033501	415539	1040335	23-060-34abb01	4070	05-18-98	2.62
415543104033301	415543	1040333	23-060-34aba01	4070	05-18-98	5.54
415925104310801	415925	1043108	23-064-03dda01	4275	05-18-98	23.07
420042104110401	420042	1041104	24-061-34bca01	4217	04-23-98	28.88
420204104294501	420204	1042945	24-064-24ccb01	4305	05-18-98	4.35
420606104251701	420608	1042516	25-063-33aaa01	4330	05-18-98	53.39
420845104122301	420845	1041223	25-061-17aaa01	4310	04-23-98	53.49
421244104175501	421244	1041755	26-062-22bcd01	4290	04-24-98	41.06
421322104111101	421332	1041112	26-061-16daa01	4425.8	04-23-98	48.54
421328104205401	421328	1042054	26-062-18dbd01	4500	04-24-98	61.74
421357104120001	421357	1041200	26-061-16bab01	4445	04-23-98	42.30
421545104181301	421545	1041813	27-062-33ddd02	4329	04-24-98	31.62
421620104312501	421618	1043123	27-064-34abd01	4512.5	05-13-98	98.92
422347104212001	422347	1042120	28-062-18cac01	4470	04-24-98	13.34
422430104243001	422330	1042457	28-063-15acd01	4582.4	04-24-98	25.18
423056104212701	423056	1042127	29-062-06cba01	4700	05-18-98	28.67
423057104212701	423057	1042127	29-062-06cba02	4700	05-18-98	29.13

LARAMIE COUNTY

SITE-ID	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	LOCAL WELL NUMBER	ALTITUDE OF LAND SURFACE (FEET)	WATER- LEVEL DATE	WATER LEVEL (FEET)
411515104480801	411515	1044808	15-066-20cab01	6116	05-05-98	21.52
411904104275201	411903	1042750	16-063-30ddd01	5705	05-05-98	148.02
412304104311001	412304	1043110	16-064-02bcb01	5778	05-05-98	233.42
412321104282801	412321	1042828	16-063-06baa01	5685	05-05-98	194.98
412854104493001	412854	1044930	18-066-31ccb01	5920	05-06-98	111.52
412938104460601	412938	1044606	18-066-28ddd01	5827	05-06-98	108.75
413116104264901	413116	1042949	18-063-17dcd01	5320	05-05-98	137.61
413200104412201	413200	1044122	18-065-17bbc01	5598	05-06-98	47.93
413315104393701	413315	1043937	18-065-04dbc01	5712	05-06-98	187.02
413326104291801	413326	1042918	18-064-01caa01	5307	05-05-98	111.38

GROUND-WATER LEVELS
HIGH PLAINS STUDY--Continued

NIOBRARA COUNTY

SITE-ID	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	LOCAL WELL NUMBER	ALTITUDE OF LAND SURFACE (FEET)	WATER- LEVEL DATE	WATER LEVEL (FEET)
423940104031201	423939	1040310	31-060-15dbc01	4730	05-12-98	35.52
424052104053901	424052	1040539	31-060-08bac01	4830	05-12-98	105.26
424724104293801	424724	1042938	33-064-36cbc01	5200	05-12-98	57.96
424826104283801	424826	1042838	33-064-25add01	5220	05-12-98	87.58
424908104085901	424908	1040859	33-061-23dcb01	5155	05-12-98	262.58

PLATTE COUNTY

SITE-ID	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	LOCAL WELL NUMBER	ALTITUDE OF LAND SURFACE (FEET)	WATER- LEVEL DATE	WATER LEVEL (FEET)
414206104500101	414206	1045001	20-067-13dbd01	5490	05-13-98	40.24
414755104391101	414752	1043914	21-065-16aaa01	5294	05-13-98	74.18
420452104413801	420452	1044138	24-065-06daa02	5070	05-13-98	268.03
420556104432901	420556	1044329	25-066-36adb01	4970	05-13-98	221.32
422355105023401	422355	1050238	28-068-17cbc01	4918	05-12-98	57.57

GROUND-WATER LEVELS

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GROUND WATER NEAR WASTEWATER TREATMENT FACILITIES, GRAND TETON NATIONAL PARK
(Water levels are at depth below land surface, in feet)

SITE-ID	LOCAL WELL NUMBER	AQUIFER CODE	ALTITUDE OF LAND SURFACE (FEET)	DEPTH OF WELL (FEET)	WATER- LEVEL DATE	WATER LEVEL (FEET)
433715110392801	42-115-09bdb01	111ALVM	6590	150	06-08-98 09-17-98	15.23 15.68
434142110440101	43-116-14abc01	111ALVM	6620	160	06-09-98 09-17-98	38.75 38.28
434216110440301	43-116-11dbc01	111ALVM	6660	88	06-09-98 09-17-98	27.08 35.34
434234110434401	43-116-11adb01	111ALVM	6685	151	06-09-98 09-17-98	34.36 44.51
434438110433701	44-116-26ddd01	111ALVM	6770	95	06-09-98 09-17-98	75.91 39.39
434458110433101	44-116-26daa01	111ALVM	6795	250	06-09-98 09-17-98	113.01 115.06
434700110424501	44-116-13abd01	111ALVM	6900	--	06-09-98 09-17-98	220.10 210.16
435018110365601	45-115-25bca01	111ALVM	6780	206	06-09-98 09-17-98	16.90 19.27
435025110362801	45-115-25abb01	111ALVM	6930	301	06-09-98 09-17-98	234.78 228.88
435039110305001	45-114-23ccd01	111ALVM	6730	55	06-09-98 09-17-98	11.76 9.76
435122110351801	45-114-19abb01	112GLCL	6810	216	06-09-98 09-17-98	65.01 66.56
435427110350901	46-114-31ca1	111ALVM	6905	175	06-09-98 09-17-98	13.59 29.28
435512110335801	46-114-29db2	111ALVM	6976.8	250	06-09-98 09-17-98	20.40 62.10
435519110335401	46-114-29db1	111ALVM	6981.5	200	06-09-98 09-17-98	22.15 48.16
435555110382001	46-115-23ccc01	111ALVM	6840	130	06-09-98 09-16-98	63.20 67.80
440018110405201	47-115-32ab01	111ALVM	6810	101	06-09-98 09-16-98	18.23 19.40
440553110401301	48-115-28acb01	111ALVM	6820	101	06-09-98 09-16-98	4.81 7.76
440657110402601	48-115-21bb02	112YLSN	6836	100	06-09-98 09-16-98	3.08 20.68
440659110402001	48-115-21bb01	112YLSN	6846	95	06-09-98 09-16-98	5.68 6.89

QUALITY OF GROUND WATER

GROUND-WATER QUALITY NEAR WASTEWATER-TREATMENT FACILITIES, GRAND TETON NATIONAL PARK

STATION NUMBER	GEO- LOGIC UNIT	LOCAL IDENT- I- FIER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)
433932110430801	111ALVM	43-116-25cca01	06-08-98 09-17-98	1620 0925	8.51 10.42	49.0	91 93
433939110424001	111ALVM	43-116-25dbd01	06-08-98 09-17-98	1440 0750	12.46 14.69	48.6	186 174
433939110425601	111ALVM	43-116-25caa01	06-08-98 09-17-98	1745 1100	12.02 14.18	42.8	132 141
434904110364701	111ALVM	45-115-36cac01	06-03-98 09-15-98	1810 1630	dry 113.78	118.6	-- 256
434920110365601	111ALVM	45-115-36bcd01	06-02-98 09-14-98	1520 1540	115.87 115.00	119.0	206 188
434920110370801	111ALVM	45-115-36bcc01	06-02-98 09-14-98	1240 1350	95.06 90.35	118.0	327 335
434927110370801	111ALVM	45-115-36bcb01	06-02-98 09-14-98	1640 1715	86.67 87.19	120.0	366 523
435354110372401	111ALVM	45-115-02aac02	06-03-98 09-15-98	1315 1245	2.48 4.73	38.0	74 70
435357110374101	111ALVM	45-115-02abc01	06-03-98 09-15-98	1445 1445	2.44 3.34	38.35	291 658
435403110372001	111ALVM	45-115-02aab01	06-03-98 09-15-98	1100 1055	6.18 10.11	32.45	114 92
435407110374001	111ALVM	45-115-02abb01	06-03-98 09-15-98	0915 0850	5.92 10.46	36.3	66 65
440640110401001	111ALVM	48-115-21bca01	06-04-98 09-16-98	1040 1210	25.45 28.39	47.3	325 317
440643110400101	111ALVM	48-115-21bdb01	06-04-98 09-16-98	0910 1000	29.55 32.89	48.0	260 240
440645110401101	111ALVM	48-115-21bc02	06-04-98 09-16-98	1345 1530	23.77 26.87	--	303 278
440645110402001	111ALVM	48-115-21bc01	06-04-98 09-16-98	1200 1330	22.15 24.88	37.3	313 377

QUALITY OF GROUND WATER

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GROUND-WATER QUALITY NEAR WASTEWATER-TREATMENT FACILITIES, GRAND TETON NATIONAL PARK--Continued

STATION	NUMBER	DATE	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	CAR- BONATE WATER DIS IT FIELD CO3 (00452)
433932110430801		06-08-98	8.8	8.5	600	7.4	81	<1	<1	0.0
		09-17-98	8.3	9.0	610	7.2	78	<1	<1	0.0
433939110424001		06-08-98	8.3	10.0	600	3.4	38	<1	<1	0.0
		09-17-98	8.3	10.0	610	3.8	42	<1	<1	0.0
433939110425601		06-08-98	7.8	8.0	600	6.2	67	<1	<1	0.0
		09-17-98	7.7	11.0	610	6.2	70	<1	<1	0.0
434904110364701		06-03-98	--	--	--	--	--	--	--	--
		09-15-98	8.0	8.0	601	10.9	117	<1	<1	0.0
434920110365601		06-02-98	8.0	8.0	--	--	--	<1	<1	0.0
		09-14-98	8.0	10.5	--	--	--	<1	<1	0.0
434920110370801		06-02-98	7.8	8.0	595	8.8	95	<1	<1	0.0
		09-14-98	7.9	8.0	600	13.1	141	<1	<1	0.0
434927110370801		06-02-98	7.1	7.5	595	5.8	62	K2	K3	0.0
		09-14-98	6.9	12.5	600	5.4	65	<1	<1	0.0
435354110372401		06-03-98	6.7	4.5	590	8.1	81	<1	<1	0.0
		09-15-98	6.6	8.0	601	6.9	74	<1	<1	0.0
435357110374101		06-03-98	7.1	7.0	590	.1	1	<1	<1	0.0
		09-15-98	6.9	14.5	601	.2	3	<1	<1	0.0
435403110372001		06-03-98	7.0	5.0	590	5.3	54	<1	<1	0.0
		09-15-98	6.7	9.0	601	2.7	30	<1	<1	0.0
435407110374001		06-03-98	6.5	5.0	590	7.3	74	<1	<1	0.0
		09-15-98	6.6	6.0	601	4.2	43	<1	<1	0.0
440640110401001		06-04-98	7.9	6.5	590	8.8	93	<1	<1	0.0
		09-16-98	7.7	7.0	600	7.2	76	<1	<1	0.0
440643110400101		06-04-98	7.9	6.0	590	9.0	94	<1	<1	0.0
		09-16-98	8.0	7.0	600	9.2	97	<1	<1	0.0
440645110401101		06-04-98	8.2	6.5	590	7.0	74	<1	<1	0.0
		09-16-98	8.0	7.0	600	4.3	45	<1	<1	0.0
440645110402001		06-04-98	7.8	6.5	590	4.6	48	<1	<1	0.0
		09-16-98	7.6	7.0	600	7.4	78	<1	<1	0.0

QUALITY OF GROUND WATER

GROUND-WATER QUALITY NEAR WASTEWATER-TREATMENT FACILITIES, GRAND TETON NATIONAL PARK--Continued

STATION	NUMBER	DATE	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
433932110430801		06-08-98	60	49	--	--	--	--	--
		09-17-98	56	46	--	--	--	--	--
433939110424001		06-08-98	112	92	.01	.24	.04	<.1	.02
		09-17-98	110	90	.01	.08	.04	<.1	.03
433939110425601		06-08-98	81	66	.01	.08	.04	<.1	.02
		09-17-98	90	74	.01	.06	.04	<.1	.02
434904110364701		06-03-98	--	--	--	--	--	--	--
		09-15-98	144	118	--	--	--	--	--
434920110365601		06-02-98	110	90	--	--	--	--	--
		09-14-98	110	90	--	--	--	--	--
434920110370801		06-02-98	142	116	.02	.83	.03	<.1	.05
		09-14-98	183	150	.01	1.6	.05	<.1	.07
434927110370801		06-02-98	149	122	.02	1.5	.02	.2	.38
		09-14-98	185	152	.01	4.1	.03	.6	1.3
435354110372401		06-03-98	33	27	--	--	--	--	--
		09-15-98	51	42	--	--	--	--	--
435357110374101		06-03-98	103	84	.01	<.05	2.4	3.2	2.5
		09-15-98	264	216	<.01	.09	7.1	6.9	.80
435403110372001		06-03-98	57	47	--	--	--	--	--
		09-15-98	41	34	--	--	--	--	--
435407110374001		06-03-98	32	26	.02	.07	.03	<.1	.04
		09-15-98	33	27	<.01	.15	.05	<.1	.03
440640110401001		06-04-98	166	136	--	--	--	--	--
		09-16-98	176	144	--	--	--	--	--
440643110400101		06-04-98	120	98	.02	.07	.02	<.1	.03
		09-16-98	132	108	.01	.10	.04	<.1	.03
440645110401101		06-04-98	176	144	--	--	--	--	--
		09-16-98	171	140	--	--	--	--	--
440645110402001		06-04-98	185	152	.02	1.1	<.02	<.1	.22
		09-16-98	200	164	.01	3.5	.04	.1	.17

QUALITY OF GROUND WATER

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PESTICIDE AND NUTRIENT SAMPLING PROGRAM
(Water levels are at depth below land surface, in feet)

FREMONT COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

WELL NUMBER	STATION NUMBER	GEO- LOGIC UNIT	LOCAL IDENT- I- FIER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)
F4	424627108463201	111ALVM	32-100-03bcd01	08-17-98	1530	5.00	30	5830	344	7.3
F9	424726108460801	111ALVM	33-100-35aca01	08-20-98	1000	3.96	35	5640	448	7.3
F6	424922108460801	217MWRY	33-100-23aba01	08-20-98	1240	10.9	80	5500	756	7.0
F5	425037108431801	111ALVM	33-099-08cbd01	08-19-98	1350	3.22	15	5300	575	7.3
F10	425152108431301	111ALVM	33-099-05bbd01	08-19-98	1600	3.80	32	5300	1270	7.2
F3	425242108465301	111ALVM	34-100-35bca01	08-19-98	1425	5.45	40	5490	825	7.5
F19	430119108225701	111ALVM	1N-4E-34ada01	08-18-98	0945	25.0	60	4945	2390	7.4
F7	430155108230001	124WDRV	1N-4E-27daa02	08-17-98	1210	12.3	38	4965	920	7.4
F13	430225108310101	111ALVM	1N-3E-27bbb02	08-18-98	1245	5.17	38	5080	1110	7.5
F16	430641108323301	124WDRV	2N-3E-32aac01	08-19-98	1020	9.28	55	5350	935	7.4
F8	430648108200301	124WDRV	2N-5E-31bab01	08-17-98	1410	4.71	60	4960	890	7.7
F17	430928108395401	124WDRV	2N-2E-08dcc01	08-18-98	1740	11.8	55	5320	2500	7.5
F11	431016108311201	124WDRV	2N-3E-09aaa01	08-18-98	1530	3.08	60	5320	2830	7.5
F12	431202108254401	124WDRV	3N-4E-33bba01	08-19-98	0930	3.60	50	5080	818	7.3
F18	431300108341501	111ALVM	3N-3E-19cdd01	08-18-98	1520	6.51	40	5280	1040	7.4
F15	431415108403501	124WDRV	3N-2E-17bcb01	08-18-98	1030	6.38	55	5400	1210	7.3
F20	431442108403901	124WDRV	3N-2E-07ddd02	08-18-98	1215	6.79	57	5430	1110	7.4
F21	431824108312801	124WDRV	4N-3E-21dbd01	08-17-98	1750	3.03	50	5217	2680	7.4
F14	431851109134101	111TRRC	4N-4W-22bbb02	08-20-98	1300	18.8	45	6220	430	7.7
F1	433401109440401	111TRRC	42-107-30ddd01	08-20-98	1045	23.0	59	7200	537	7.6

STATION NUMBER	DATE	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L) AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N) (00608)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L) AS P) (00671)	2,4-D, DIS- SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (38746)	ALA- CHLOR, WATER, DISS, REC, (46342)	ALDI- CARB, WATER, FLTRD, GF 0.7U REC (49312)
EPA DRINKING WATER STANDARD (MCL)		--	1	10	--	--	70	--	2	35
424627108463201	08-17-98	12.0	ND(.01)	1.2	0.04	0.02	ND(.15)	ND(.24)	ND(.002)	ND(.55)
424726108460801	08-20-98	15.5	ND(.01)	.13	.07	.01	ND(.15)	ND(.24)	ND(.002)	ND(.55)
424922108460801	08-20-98	12.0	ND(.01)	ND(.05)	.25	.07	ND(.15)	ND(.24)	ND(.002)	ND(.55)
425037108431801	08-19-98	15.5	ND(.01)	.05	.04	ND(.01)	ND(.15)	ND(.24)	ND(.002)	ND(.55)
425152108431301	08-19-98	13.0	ND(.01)	.22	.03	ND(.01)	ND(.15)	ND(.24)	ND(.002)	ND(.55)
425242108465301	08-19-98	9.0	ND(.01)	.62	.03	.01	ND(.15)	ND(.24)	ND(.002)	ND(.55)
430119108225701	08-18-98	14.0	ND(.01)	2.0	.04	.01	ND(.15)	ND(.24)	ND(.002)	ND(.55)
430155108230001	08-17-98	19.5	ND(.01)	2.6	.03	.02	ND(.15)	ND(.24)	ND(.002)	ND(.55)
430225108310101	08-18-98	11.0	.03	2.3	.03	.02	ND(.15)	ND(.24)	ND(.002)	ND(.55)
430641108323301	08-19-98	11.5	ND(.01)	9.4	.03	.02	ND(.15)	ND(.24)	ND(.002)	ND(.55)
430648108200301	08-17-98	12.0	ND(.01)	2.9	.03	.02	ND(.15)	ND(.24)	ND(.002)	ND(.55)
430928108395401	08-18-98	9.5	ND(.01)	2.3	.03	ND(.01)	ND(.15)	ND(.24)	ND(.002)	ND(.55)
431016108311201	08-18-98	13.5	ND(.01)	ND(.05)	.09	.01	ND(.15)	ND(.24)	ND(.002)	ND(.55)
431202108254401	08-19-98	11.5	ND(.01)	2.5	.03	ND(.01)	ND(.15)	ND(.24)	ND(.002)	ND(.55)
431300108341501	08-18-98	11.0	ND(.01)	.22	.05	.01	ND(.15)	ND(.24)	ND(.002)	ND(.55)
431415108403501	08-18-98	13.0	ND(.01)	.91	.04	.07	ND(.15)	ND(.24)	ND(.002)	ND(.55)
431442108403901	08-18-98	12.5	ND(.01)	.92	.03	.01	ND(.15)	ND(.24)	ND(.002)	ND(.55)
431824108312801	08-17-98	10.0	ND(.01)	3.6	.04	.01	ND(.15)	ND(.24)	ND(.002)	ND(.55)
431851109134101	08-20-98	14.5	ND(.01)	.27	.07	.02	ND(.15)	ND(.24)	ND(.002)	ND(.55)
433401109440401	08-20-98	14.0	ND(.01)	.05	.07	ND(.01)	ND(.15)	ND(.24)	ND(.002)	ND(.55)

ND() - Indicates compound not detected. Value in parenthesis is method reporting limit.

GEOLOGIC UNIT (AQUIFER)

111ALVM HOLOCENE ALLUVIUM
111TRRC TERRACE DEPOSITS121OGLL OGALLALA FORMATION
124WDRV WIND RIVER FORMATION124WLWD WILLWOOD FORMATION
217MWRY MOWRY SHALE

QUALITY OF GROUND WATER

PESTICIDE AND NUTRIENT SAMPLING PROGRAM--Continued

FREMONT COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

STATION NUMBER	DATE	ALDI-CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA- RB SUL- FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	BRO- MACIL, WATER, DISS, REC (UG/L) (04029)	CLOPYR- ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DI- AZINON, DIS- SOLVED (UG/L) (39572)
EPA DRINKING WATER STANDARD (MCL)		35	35	3	--	90	--	1	16	--
424627108463201	08-17-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
424726108460801	08-20-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
424922108460801	08-20-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	E.0015	ND(.002)
425037108431801	08-19-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
425152108431301	08-19-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
425242108465301	08-19-98	ND(.1)	ND(.021)	.010	E.0043	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
430119108225701	08-18-98	ND(.1)	ND(.021)	.012	E.0070	ND(.18)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
430155108230001	08-17-98	ND(.1)	ND(.021)	.027	E.020	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
430225108310101	08-18-98	ND(.1)	ND(.021)	.0040	E.0038	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
430641108323301	08-19-98	ND(.1)	ND(.021)	.0062	E.0043	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
430648108200301	08-17-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
430928108395401	08-18-98	ND(.1)	ND(.021)	.011	E.0078	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
431016108311201	08-18-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
431202108254401	08-19-98	ND(.1)	ND(.021)	.0052	E.0044	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
431300108341501	08-18-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
431415108403501	08-18-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
431442108403901	08-18-98	ND(.1)	ND(.021)	.0061	E.0048	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
431824108312801	08-17-98	ND(.1)	ND(.021)	.0063	E.0072	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
431851109134101	08-20-98	ND(.1)	ND(.021)	E.0030	ND(.002)	ND(.035)	ND(.23)	ND(.004)	E.0022	ND(.002)
433401109440401	08-20-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)

E-Estimate.

ND() - Indicates compound not detected. Value in parenthesis is method reporting limit.

STATION NUMBER	DATE	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	PIC- LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)
EPA DRINKING WATER STANDARD (MCL)		200	10	10	70	100	500	--	4	500
424627108463201	08-17-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
424726108460801	08-20-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	.06	E.015	ND(.005)	ND(.010)
424922108460801	08-20-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	E1.7	ND(.018)	ND(.005)	ND(.010)
425037108431801	08-19-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	E.013	ND(.005)	.0133
425152108431301	08-19-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
425242108465301	08-19-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	E.0023	.0107
430119108225701	08-18-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	.078	ND(.005)	.0511
430155108230001	08-17-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	.055	E.0041	.0301
430225108310101	08-18-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
430641108323301	08-19-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	.011	ND(.010)
430648108200301	08-17-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
430928108395401	08-18-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	E.0068	ND(.005)	ND(.010)
431016108311201	08-18-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
431202108254401	08-19-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	E.0034	ND(.010)
431300108341501	08-18-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
431415108403501	08-18-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
431442108403901	08-18-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
431824108312801	08-17-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
431851109134101	08-20-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
433401109440401	08-20-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)

E-Estimate.

ND() - Indicates compound not detected. Value in parenthesis is method reporting limit.

PESTICIDE AND NUTRIENT SAMPLING PROGRAM--Continued

LARAMIE COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

WELL NUMBER	STATION NUMBER	GEO- LOGIC UNIT	LOCAL IDENT I- FIER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)
R4	410108104223501	121OGLL	12-062-12dca01	08-24-98	1145	28.6	80	5372	716	7.5
R1	410156104242901	121OGLL	12-063-02ccc01	08-24-98	1400	35.6	100	5401	369	7.7
R5	410218104184301	121OGLL	12-062-03bcb01	08-24-98	0945	66.5	110	5378	410	7.8
R3	410244104220501	121OGLL	13-062-31ccb01	08-25-98	1245	55.9	100	5437	760	7.5
R2	410327104232301	121OGLL	13-063-26ddd01	08-24-98	1630	61.8	100	5465	420	7.6
R6	410509104071801	121OGLL	13-060-18ddd01	09-01-98	1340	55.1	100	5140	685	7.7
R13	410724104503301	111ALVM	13-067-01cab01	08-28-98	1410	5.75	14	6100	4920	6.6
R10	410735104401201	111ALVM	13-065-04bdb01	08-26-98	0915	--	125	5835	830	7.4
R16	410748104473901	121OGLL	13-066-05aac01	09-02-98	1230	8.81	22	6035	1110	7.0
R11	410834104491601	121OGLL	14-066-31bac01	08-26-98	1530	6.56	20	6093	1030	7.1
R12	410906104515101	111ALVM	410906104515101	08-27-98	1400	11.9	20	6165	970	7.0
R17	410944104492801	121OGLL	14-066-19cca01	09-02-98	1530	16.2	32	6155	490	7.9
R7	411019104051301	121OGLL	14-060-16dcd01	08-25-98	1445	39.6	110	5062	690	7.4
R14	411111104040501	121OGLL	14-060-10dcd01	08-31-98	1430	38.1	40	5035	410	7.5
R15	411331104071601	121OGLL	15-060-31dca01	08-31-98	1630	74.6	130	5108	320	8.1
R9	411839104133601	121OGLL	16-061-32bdd01	08-25-98	1045	78.0	110	5340	320	7.6
STATION NUMBER	DATE	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L) AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N) (00608)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L) AS P) (00671)	2,4-D, DIS- SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALDI- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)
EPA DRINKING WATER STANDARD (MCL)		--	1	10	--	--	70	--	2	35
410108104223501	08-24-98	11.5	.01	5.3	0.08	0.04	ND(.15)	ND(.24)	ND(.002)	ND(.55)
410156104242901	08-24-98	13.5	.01	4.4	.08	.02	ND(.15)	ND(.24)	ND(.002)	ND(.55)
410218104184301	08-24-98	13.0	.01	8.1	.08	.03	ND(.15)	ND(.24)	ND(.002)	ND(.55)
410244104220501	08-25-98	11.5	.01	2.4	.08	.04	ND(.15)	ND(.24)	ND(.002)	ND(.55)
410327104232301	08-24-98	12.5	.01	1.4	.08	.03	ND(.15)	ND(.24)	ND(.002)	ND(.55)
410509104071801	09-01-98	12.0	ND(.01)	2.8	ND(.02)	.02	ND(.15)	ND(.24)	ND(.002)	ND(.55)
410724104503301	08-28-98	22.0	ND(.01)	1.4	.13	.02	ND(.15)	ND(.24)	ND(.002)	ND(.55)
410735104401201	08-26-98	11.5	.01	7.6	.09	.05	ND(.15)	ND(.24)	ND(.002)	ND(.55)
410748104473901	09-02-98	16.0	ND(.01)	14	ND(.02)	.04	ND(.15)	ND(.24)	ND(.002)	ND(.55)
410834104491601	08-26-98	20.0	ND(.01)	5.9	ND(.02)	.02	ND(.15)	ND(.24)	ND(.002)	ND(.55)
410906104515101	08-27-98	15.0	.23	15	ND(.02)	.01	ND(.15)	ND(.24)	ND(.002)	ND(.55)
410944104492801	09-02-98	16.0	ND(.01)	.45	ND(.02)	.01	ND(.15)	ND(.24)	ND(.002)	ND(.55)
411019104051301	08-25-98	12.0	ND(.01)	4.9	.08	.04	ND(.15)	ND(.24)	ND(.002)	ND(.55)
411111104040501	08-31-98	17.0	ND(.01)	1.1	.02	.17	ND(.15)	ND(.24)	ND(.002)	ND(.55)
411331104071601	08-31-98	12.5	ND(.01)	3.5	ND(.02)	.01	ND(.15)	ND(.24)	ND(.002)	ND(.55)
411839104133601	08-25-98	13.0	.01	5.8	.11	.08	ND(.15)	ND(.24)	ND(.002)	ND(.55)

ND() - Indicates compound not detected. Value in parenthesis is method reporting limit.

QUALITY OF GROUND WATER

PESTICIDE AND NUTRIENT SAMPLING PROGRAM--Continued

LARAMIE COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

STATION NUMBER	DATE	ALDI-CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA- RB SUL- FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	BRO- MACIL, WATER, DISS, REC (UG/L) (04029)	CLOPYR- ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DI- AZINON, DIS- SOLVED (UG/L) (39572)
EPA DRINKING WATER STANDARD (MCL)		35	35	3	--	90	--	1	16	--
410108104223501	08-24-98	ND(.1)	ND(.021)	.047	E.052	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
410156104242901	08-24-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
410218104184301	08-24-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
410244104220501	08-25-98	ND(.1)	ND(.021)	.054	E.018	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
410327104232301	08-24-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
410509104071801	09-01-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
410724104503301	08-28-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
410735104401201	08-26-98	ND(.1)	ND(.021)	.0071	E.0026	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
410748104473901	09-02-98	ND(.1)	ND(.021)	.38	E.20	.06	ND(.23)	ND(.004)	ND(.002)	ND(.002)
410834104491601	08-26-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
410906104515101	08-27-98	ND(.1)	ND(.021)	.011	E.011	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
410944104492801	09-02-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
411019104051301	08-25-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
411111104040501	08-31-98	ND(.1)	ND(.021)	.027	E.031	ND(.48)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
411331104071601	08-31-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
411839104133601	08-25-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)

E-Estimate.

ND() - Indicates compound not detected. Value in parenthesis is method reporting limit.

STATION NUMBER	DATE	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	PIC- LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)
EPA DRINKING WATER STANDARD (MCL)		200	10	10	70	100	500	--	4	500
410108104223501	08-24-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	.04	ND(.018)	ND(.005)	ND(.010)
410156104242901	08-24-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
410218104184301	08-24-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
410244104220501	08-25-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
410327104232301	08-24-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
410509104071801	09-01-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	.08	ND(.018)	ND(.005)	ND(.010)
410724104503301	08-28-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
410735104401201	08-26-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	4.3	ND(.018)	ND(.005)	ND(.010)
410748104473901	09-02-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	.15	ND(.005)	.026
410834104491601	08-26-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
410906104515101	08-27-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	.28	ND(.005)	ND(.010)
410944104492801	09-02-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
411019104051301	08-25-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
411111104040501	08-31-98	ND(.035)	ND(1)	ND(1)	.0099	ND(.004)	.24	.076	.0926	.0353
411331104071601	08-31-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
411839104133601	08-25-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)

ND() - Indicates compound not detected. Value in parenthesis is method reporting limit.

PESTICIDE AND NUTRIENT SAMPLING PROGRAM--Continued

LINCOLN COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

WELL NUMBER	STATION NUMBER	GEO- LOGIC UNIT	LOCAL IDENT- I- FIER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WHOLE FIELD (STAND- ARD UNITS) (00400)
L21	414708110135301	111ALVM	21-113-21add01	08-06-98	1215	9.82	65	6580	5230	7.2
L11	415941110561401	111ALVM	23-119-09baa01	08-06-98	1020	16.8	55	6200	1520	7.2
L13	420503110564801	111ALVM	24-119-05dda01	08-06-98	1545	25.1	60	6200	588	7.2
L12	42111511012701	111ALVM	25-119-06bca01	08-06-98	1330	39.4	60	6130	2030	7.4
L20	42144111023001	111ALVM	26-120-13acb01	08-05-98	1520	109	120	6180	979	7.5
L2	424133110574301	111TRRC	31-119-11abb01	08-04-98	1640	39.8	107	6200	384	7.6
L1	424215110585201	111TRRC	31-119-03abc01	08-04-98	1440	12.7	60	6180	519	7.5
L5	424423110570901	111TRRC	32-119-23dad01	08-04-98	1500	32.2	75	6140	382	7.9
L3	424516110595001	111TRRC	32-119-16dbd02	08-04-98	1240	17.8	80	6085	485	7.6
L4	424843110573101	111ALVM	33-118-30dba02	08-05-98	1050	22.2	80	6040	560	7.4
L6	425638111002201	111ALVM	34-119-11cac01	08-05-98	0900	6.27	60	5880	428	7.6
L7	425857111021801	111TRRC	35-119-33aba01	08-04-98	1725	12.9	60	5775	516	7.5
L8	430136111004001	111TRRC	35-119-11ccb01	08-04-98	1220	77.9	100	5820	483	7.4
L9	430331111013301	111TRRC	36-119-34cbd01	08-04-98	1000	20.8	85	5715	396	7.7

STATION NUMBER	DATE	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	2,4-D, DIS- SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALDI- CARR, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)
EPA DRINKING WATER STANDARD (MCL)		--	1	10	--	--	70	--	2	35
414708110135301	08-06-98	11.5	ND(.01)	ND(.05)	0.05	0.01	ND(.15)	ND(.24)	ND(.002)	ND(.55)
415941110561401	08-06-98	10.0	.01	.07	.04	ND(.01)	ND(.15)	ND(.24)	ND(.002)	ND(.55)
420503110564801	08-06-98	16.0	ND(.01)	.79	.03	.01	ND(.15)	ND(.24)	ND(.002)	ND(.55)
42111511012701	08-06-98	11.5	ND(.01)	9.1	.03	.03	ND(.15)	ND(.24)	ND(.002)	ND(.55)
42144111023001	08-05-98	10.5	ND(.01)	45	.05	.01	ND(.15)	ND(.24)	ND(.002)	ND(.55)
424133110574301	08-04-98	9.5	ND(.01)	.82	.05	.02	ND(.15)	ND(.24)	ND(.002)	ND(.55)
424215110585201	08-04-98	10.5	.01	2.1	.05	.02	ND(.15)	ND(.24)	ND(.002)	ND(.55)
424423110570901	08-04-98	7.5	.01	.21	.05	.01	ND(.15)	ND(.24)	ND(.002)	ND(.55)
424516110595001	08-04-98	11.0	ND(.01)	6.1	.04	.06	ND(.15)	ND(.24)	ND(.002)	ND(.55)
424843110573101	08-05-98	9.5	ND(.01)	1.7	.05	.02	ND(.15)	ND(.24)	ND(.002)	ND(.55)
425638111002201	08-05-98	8.5	ND(.01)	1.3	.04	ND(.01)	ND(.15)	ND(.24)	ND(.002)	ND(.55)
425857111021801	08-04-98	10.5	.01	.69	.05	.02	ND(.15)	ND(.24)	ND(.002)	ND(.55)
430136111004001	08-04-98	11.5	ND(.01)	2.9	.05	.01	ND(.15)	ND(.24)	ND(.002)	ND(.55)
430331111013301	08-04-98	9.0	ND(.01)	2.5	.04	ND(.01)	ND(.15)	ND(.24)	ND(.002)	ND(.55)

ND() - Indicates compound not detected. Value in parenthesis is method reporting limit.

QUALITY OF GROUND WATER

PESTICIDE AND NUTRIENT SAMPLING PROGRAM--Continued

LINCOLN COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

STATION NUMBER	DATE	ALDI-CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA- RB SUL- FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	BRO- MACIL, WATER, DISS, REC (UG/L) (04029)	CLOPYR- ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DI- AZINON, DIS- SOLVED (UG/L) (39572)
EPA DRINKING WATER STANDARD (MCL)		35	35	3	--	90	--	1	16	--
414708110135301	08-06-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
415941110561401	08-06-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
420503110564801	08-06-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
421115111012701	08-06-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
421441111023001	08-05-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
424133110574301	08-04-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
424215110585201	08-04-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
424423110570901	08-04-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
424516110595001	08-04-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
424843110573101	08-05-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
425638111002201	08-05-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
425857111021801	08-04-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
430136111004001	08-04-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
430331111013301	08-04-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)

ND() - Indicates compound not detected. Value in parenthesis is method reporting limit.

STATION NUMBER	DATE	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	PIC- LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)
EPA DRINKING WATER STANDARD (MCL)		200	10	10	70	100	500	--	4	500
414708110135301	08-06-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
415941110561401	08-06-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
420503110564801	08-06-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	E.03	ND(.018)	ND(.005)	ND(.010)
421115111012701	08-06-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
421441111023001	08-05-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	.31	ND(.018)	ND(.005)	ND(.010)
424133110574301	08-04-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
424215110585201	08-04-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
424423110570901	08-04-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
424516110595001	08-04-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
424843110573101	08-05-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
425638111002201	08-05-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
425857111021801	08-04-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
430136111004001	08-04-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
430331111013301	08-04-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)

E-Estimate.

ND() - Indicates compound not detected. Value in parenthesis is method reporting limit.

PESTICIDE AND NUTRIENT SAMPLING PROGRAM--Continued

PARK COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

WELL NUMBER	STATION NUMBER	GEO- LOGIC UNIT	LOCAL IDENT- I- FIER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)
P27	441842108433601	111ALVM	50-099-14bad0	04-01-98	1545	--	80	5125	1310	8.4
P28	442222108383101	124WLWD	51-098-21dcc0	04-01-98	1350	28.3	140	4860	1570	7.9
P1	444603108383401	111TRRC	55-098-03dc	03-31-98	0855	9.46	35	4220	734	7.5

STATION NUMBER	DATE	TEMPER-	NITRO-	NITRO-	NITRO-	PHOS-		2,4-DB	ALA-	ALDI-
		ATURE	GEN,	GEN,	GEN,	PHORUS			CHLOR,	CARB,
		WATER	NITRITE	NO2+NO3	AMMONIA	ORTHO,				WATER,
		(DEG C)	DIS-	DIS-	DIS-	DIS-	2,4-D,	FLTRD,	WATER,	FLTRD,
		SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	GF 0.7U	DISS,	REC,	GF 0.7U
		(00010)	(00613)	(00631)	(00608)	(00671)	(39732)	(38746)	(46342)	(49312)
EPA DRINKING WATER STANDARD (MCL)		--	1	10	--	--	70	--	2	35
441842108433601	04-01-98	8.00	ND(.01)	ND(.05)	.85	.02	ND(.15)	ND(.24)	ND(.002)	ND(.55)
442222108383101	04-01-98	9.50	ND(.01)	ND(.05)	.76	.03	ND(.15)	ND(.24)	ND(.002)	ND(.55)
444603108383401	03-31-98	9.50	ND(.01)	6.2	.03	.05	ND(.15)	ND(.24)	ND(.002)	ND(.55)

ND() - Indicates compound not detected. Value in parenthesis is method reporting limit.

STATION NUMBER	DATE	ALDI- CARR SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA- RB SUL- FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	BRO- MACIL, WATER, DISS, REC (UG/L) (04029)	CLOPYR- ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DI- AZINON, DIS- SOLVED (UG/L) (39572)
EPA DRINKING WATER STANDARD (MCL)		35	35	3	--	90	--	1	16	--
441842108433601	04-01-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
442222108383101	04-01-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
444603108383401	03-31-98	E.12	E.13	.0087	E.0060	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)

E-Estimate.

ND() - Indicates compound not detected. Value in parenthesis is method reporting limit.

STATION NUMBER	DATE	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	PIC- LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)
EPA DRINKING WATER STANDARD (MCL)		200	10	10	70	100	500	--	4	500

441842108433601	04-01-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
442222108383101	04-01-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
444603108383401	03-31-98	ND(.035)	--	--	ND(.002)	ND(.004)	ND(.05)	E.014	ND(.005)	ND(.010)

E-Estimate.

ND() - Indicates compound not detected. Value in parenthesis is method reporting limit.

QUALITY OF GROUND WATER

PESTICIDE AND NUTRIENT SAMPLING PROGRAM--Continued

WASHAKIE COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

WELL NUMBER	STATION NUMBER	GEO- LOGIC UNIT	LOCAL IDENT- I- FIER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)
W10	435402108052101	111ALVM	45-094-01bcc01	05-28-98	0930	11.2	27	4148	1480	7.2
W4	435814107580201	111ALVM	46-093-12dbb01	04-01-98	0855	8.59	35	4155	1060	7.6
W13	435819107580601	111ALVM	46-093-11add01	03-31-98	0930	11.1	30	4150	1060	7.5
W8	435844108005601	124WLWD	46-093-03cdc01	04-01-98	1340	23.5	75	4155	995	7.6
W12	435850107574001	124WLWD	46-093-01dcc01	04-02-98	0945	29.5	85	4140	949	7.7
W6	435854107573101	124WLWD	46-093-01dca01	03-31-98	1615	29.7	80	4140	1240	7.6
W5	435935108104601	111ALVM	46-094-06baa01	05-28-98	1150	14.8	55	4455	1600	8.3
W3	440031107573701	111ALVM	47-093-25cdd01	05-27-98	1515	8.77	60	4064	2020	7.2
W1	440035107564801	111ALVM	47-092-30ccc01	04-01-98	1135	16.7	46	4084	2810	7.2
W11	440117107571501	111ALVM	47-093-25aba01	03-31-98	1635	8.48	15	4055	3030	7.3
W7	440232107561201	124WLWD	47-092-18dbc01	03-31-98	1250	11.0	125	4035	2080	8.6
W9	440558107551101	124WLWD	48-092-29cad01	04-01-98	1015	3.29	150	3995	2540	7.5
W2	440821107550901	111ALVM	48-092-08cdd01	04-01-98	1600	6.84	30	3960	4750	7.4

STATION NUMBER	DATE	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	2,4-D, DIS- SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALDI- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)
EPA DRINKING WATER STANDARD (MCL)		--	1	10	--	--	70	--	2	35
435402108052101	05-28-98	10.5	0.01	6.5	0.09	0.03	ND(.15)	ND(.24)	ND(.002)	ND(.55)
435814107580201	04-01-98	10.0	ND(.01)	12	.03	.01	ND(.15)	ND(.24)	ND(.002)	ND(.55)
435819107580601	03-31-98	9.5	ND(.01)	6.5	.03	.03	ND(.15)	ND(.24)	ND(.002)	ND(.55)
435844108005601	04-01-98	13.0	ND(.01)	1.1	.03	.02	ND(.15)	ND(.24)	ND(.002)	ND(.55)
435850107574001	04-02-98	12.5	ND(.01)	2.5	.03	ND(.01)	ND(.15)	ND(.24)	ND(.002)	ND(.55)
435854107573101	03-31-98	11.0	ND(.01)	1.2	.03	.01	ND(.15)	ND(.24)	ND(.002)	ND(.55)
435935108104601	05-28-98	11.0	.01	ND(.05)	1.1	ND(.01)	ND(.15)	ND(.24)	ND(.002)	ND(.55)
440031107573701	05-27-98	11.0	.03	6.1	.03	.02	ND(.15)	ND(.24)	ND(.002)	ND(.55)
440035107564801	04-01-98	12.5	ND(.01)	5.3	.04	.03	ND(.15)	ND(.24)	ND(.002)	ND(.55)
440117107571501	03-31-98	9.5	.10	1.8	.04	.04	ND(.15)	ND(.24)	ND(.002)	ND(.55)
440232107561201	03-31-98	11.0	ND(.01)	ND(.05)	1.4	.02	ND(.15)	ND(.24)	ND(.002)	ND(.55)
440558107551101	04-01-98	9.0	ND(.01)	4.0	.04	.05	ND(.15)	ND(.24)	ND(.002)	ND(.55)
440821107550901	04-01-98	6.5	.12	54	.04	.02	ND(.15)	ND(.24)	ND(.002)	ND(.55)

ND() - Indicates compound not detected. Value in parenthesis is method reporting limit.

QUALITY OF GROUND WATER

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PESTICIDE AND NUTRIENT SAMPLING PROGRAM--Continued

WASHAKIE COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

STATION NUMBER	DATE	ALDI-CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA-RB SUL- FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	CLOPYR- ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DI- AZINON, DIS- SOLVED (UG/L) (39572)
EPA DRINKING WATER STANDARD (MCL)		35	35	3	--	90	--	1	16	--
435402108052101	05-28-98	ND(.1)	ND(.021)	.013	E.0059	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
435814107580201	04-01-98	ND(.1)	ND(.021)	.0073	E.0056	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
435819107580601	03-31-98	ND(.1)	ND(.021)	.0067	E.0060	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
435844108005601	04-01-98	ND(.1)	ND(.021)	E.0024	E.0037	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
435850107574001	04-02-98	E.17	E.52	.0047	E.0043	ND(.035)	ND(.23)	ND(.004)	E.0007	ND(.002)
435854107573101	03-31-98	ND(.1)	ND(.021)	E.0037	E.0039	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
435935108104601	05-28-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
440031107573701	05-27-98	ND(.1)	ND(.021)	E.0035	E.003	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
440035107564801	04-01-98	ND(.1)	ND(.021)	.0052	E.012	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
440117107571501	03-31-98	ND(.1)	ND(.021)	.0078	E.018	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
440232107561201	03-31-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
440558107551101	04-01-98	ND(.1)	ND(.021)	ND(.001)	ND(.002)	ND(.035)	ND(.23)	ND(.004)	ND(.002)	ND(.002)
440821107550901	04-01-98	ND(.1)	ND(.021)	E.0030	E.0025	ND(.035)	ND(.23)	.0075	ND(.002)	ND(.002)

E-Estimate.

ND() - Indicates compound not detected. Value in parenthesis is method reporting limit.

STATION NUMBER	DATE	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	CIS 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34704)	TRANS- 1,3-DI- CHLORO- PROPENE TOTAL (UG/L) (34699)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN WATER DISSOLV (UG/L) (82630)	PIC- LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO- METON, WATER, DISS, REC (UG/L) (04037)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)
EPA DRINKING WATER STANDARD (MCL)		200	10	10	70	100	500	--	4	500
435402108052101	05-28-98	ND(.035)	ND(1)	ND(1)	.0290	ND(.004)	ND(.05)	E.0041	ND(.005)	ND(.010)
435814107580201	04-01-98	ND(.035)	ND(1)	ND(1)	E.0033	ND(.004)	ND(.05)	E.0060	ND(.005)	ND(.010)
435819107580601	03-31-98	ND(.035)	ND(1)	ND(1)	E.0036	ND(.004)	ND(.05)	E.012	E.0034	ND(.010)
435844108005601	04-01-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	E.0068	ND(.005)	ND(.010)
435850107574001	04-02-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	E.0030	ND(.010)
435854107573101	03-31-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
435935108104601	05-28-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
440031107573701	05-27-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	.18	.0058	E.0048
440035107564801	04-01-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	E.014	ND(.005)	ND(.010)
440117107571501	03-31-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	.071	E.0024	ND(.010)
440232107561201	03-31-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
440558107551101	04-01-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	ND(.018)	ND(.005)	ND(.010)
440821107550901	04-01-98	ND(.035)	ND(1)	ND(1)	ND(.002)	ND(.004)	ND(.05)	E.0067	ND(.005)	ND(.010)

E-Estimate.

ND() - Indicates compound not detected. Value in parenthesis is method reporting limit.

QUALITY OF GROUND WATER

TOWN OF TORRINGTON WELLHEAD PROTECTION SAMPLING PROGRAM
(Water levels are depth below land surface, in feet)

GOSHEN COUNTY

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

WELL NUMBER	STATION NUMBER	GEO- LOGIC UNIT	LOCAL IDENT- I- FIER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)
56	420302104095901	111ALVM	24-061-14cbc01	11-11-97 02-26-98 05-13-98 09-01-98	1000 1605 0840 0825	8.70 9.09 7.92 6.64	18
55	420309104094101	111ALVM	24-061-14cab01	11-07-97 02-24-98 05-12-98 08-31-98	0744 1252 1718 1206	11.1 12.0 10.2 8.33	100
68	420312104130201	111ALVM	24-061-17bdd01	11-12-97 02-27-98 05-13-98 09-02-98	0900 1015 1355 1315	5.57 6.02 4.94 4.29	22
54	420327104090001	111ALVM	24-061-14bbc01	11-10-97 02-23-98 05-11-98 09-01-98	1315 1125 1050 1705	16.0 17.0 14.7 14.0	32
61	420334104113201	111ALVM	24-061-16aab01	11-11-97 02-26-98 05-13-98 09-02-98	0835 1135 1155 1515	20.5 21.0 19.9 19.2	33
62	420335104122701	111ALVM	24-061-16bbb01	11-10-97 02-26-98 05-13-98 09-02-98	1640 0905 1505 1415	9.47 8.30 7.00 5.51	24
64	420335104130201	111ALVM	24-061-17abb01	11-10-97 03-03-98 05-13-98 09-02-98	1535 0831 1300 1205	10.4 10.6 10.1 9.12	24.5
47	420344104110001	111ALVM	24-061-10cca01	11-10-97 02-23-98 05-13-98 09-01-98	1500 1250 0945 1810	22.1 22.8 21.4 21.4	35
49	420358104113201	111ALVM	24-061-09dab01	11-05-97 02-24-98 05-12-98 09-02-98	1255 1425 1730 0815	22.8 23.8 22.4 21.6	35
43	420401104104401	111ALVM	24-061-10caa01	11-10-97 02-24-98 05-11-98 09-01-98	1715 1735 1820 1600	22.4 23.3 21.3 22.2	30
50	420402104113409	111ALVM	24-061-09adc09	11-11-97 02-24-98 05-12-98 09-02-98	1335 1315 1535 1030	24.2 25.3 23.8 22.9	30
42	420412104104201	111ALVM	24-061-10acb01	11-10-97 02-25-98 05-11-98 09-01-98	1610 0820 1215 1500	20.9 22.4 20.7 21.5	35
51	420414104112801	111ALVM	24-061-09adb01	11-06-97 02-24-98 05-12-98 08-31-98	1645 1630 1825 1730	24.6 26.1 24.6 23.9	38
71	420414104115401	111ALVM	24-061-09bda01	11-06-97 02-24-98 05-12-98 08-31-98	1535 1205 1430 1620	22.6 24.3 22.9 21.7	32
39	420419104102901	111ALVM	24-061-10abd01	11-07-97 02-26-98 05-11-98 09-01-98	1055 1300 1715 1355	30.2 31.2 30.7 31.1	45
53	420422104132201	111ALVM	24-061-08bba01	11-11-97 02-24-98 05-12-98 08-31-98	1425 0815 1055 1510	13.0 14.5 13.0 11.6	25

QUALITY OF GROUND WATER

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TOWN OF TORRINGTON WELLHEAD PROTECTION SAMPLING PROGRAM--Continued

GOSHEN COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

WELL NUMBER	STATION NUMBER	DATE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
56	420302104095901	11-11-97	4078	1350	7.2	12.0	0.03	12
		02-26-98		1170	7.2	8.5	.01	18
		05-13-98		1380	7.2	12.5	.01	10
		09-01-98		1380	7.2	16.5	.01	12
55	420309104094101	11-07-97	4080	1040	7.3	13.3	.01	11
		02-24-98		1030	7.6	13.3	<.01	10
		05-12-98		1100	7.4	13.5	<.01	9.9
		08-31-98		1080	7.3	14.5	<.01	10
68	420312104130201	11-12-97	4092	950	8.0	11.0	.05	2.5
		02-27-98		930	7.4	8.0	.05	3.0
		05-13-98		930	7.4	11.0	.04	2.8
		09-02-98		970	7.3	14.0	.05	2.9
54	420327104090001	11-10-97	4085	1100	7.4	12.5	.02	14
		02-23-98		1120	7.4	13.0	<.01	15
		05-11-98		1210	7.3	12.5	<.01	16
		09-01-98		1120	7.3	15.5	<.01	15
61	420334104113201	11-11-97	4100	1190	7.3	11.5	.02	15
		02-26-98		1240	7.2	10.5	<.01	19
		05-13-98		1250	7.2	12.5	<.01	16
		09-02-98		1250	7.2	14.5	<.01	19
62	420335104122701	11-10-97	4093	986	7.5	12.0	.02	5.5
		02-26-98		1110	7.2	10.0	<.01	7.1
		05-13-98		990	7.2	13.5	<.01	3.7
		09-02-98		974	7.1	16.0	<.01	5.9
64	420335104130201	11-10-97	4099	1135	7.5	12.5	.02	12
		03-03-98		1280	7.0	9.5	<.01	14
		05-13-98		800	7.3	13.0	<.01	6.1
		09-02-98		984	7.3	15.0	<.01	7.9
47	420344104110001	11-10-97	4100	1270	7.2	13.0	.02	17
		02-23-98		1220	7.2	14.0	<.01	16
		05-13-98		1230	7.2	12.5	<.01	15
		09-01-98		1230	7.1	16.5	<.01	12
49	420358104113201	11-05-97	4105	1280	7.1	14.0	.03	16
		02-24-98		1150	7.1	14.0	.03	12
		05-12-98		1330	7.1	14.0	.18	18
		09-02-98		1200	7.2	13.5	<.01	10
43	420401104104401	11-10-97	4105	1450	7.2	13.5	.02	14
		02-24-98		1340	7.2	13.5	<.01	12
		05-11-98		1380	7.2	13.0	<.01	13
		09-01-98		1760	7.2	16.0	<.01	10
50	420402104113409	11-11-97	4108	1075	7.0	12.0	.02	9.5
		02-24-98		1270	6.6	12.5	<.01	14
		05-12-98		1230	6.8	15.0	.01	12
		09-02-98		--	--	--	<.01	13
42	420412104104201	11-10-97	4108	1180	7.3	12.5	.02	14
		02-25-98		1170	7.3	9.0	<.01	16
		05-11-98		1180	7.2	13.5	<.01	13
		09-01-98		1240	7.3	16.0	<.01	14
51	420414104112801	11-06-97	4109	905	7.4	13.5	.01	5.3
		02-24-98		970	7.4	14.0	<.01	6.4
		05-12-98		1060	7.4	14.0	<.01	11
		08-31-98		1160	7.6	14.5	<.01	13
71	420414104115401	11-06-97	4111	1250	7.2	13.0	.01	13
		02-24-98		1220	7.2	12.5	<.01	14
		05-12-98		1340	7.3	13.5	<.01	17
		08-31-98		1320	7.3	14.0	<.01	15
39	420419104102901	11-07-97	4124	1100	7.3	13.5	.01	13
		02-26-98		1090	7.4	11.5	<.01	15
		05-11-98		1080	7.4	14.0	<.01	13
		09-01-98		1090	7.4	15.5	<.01	13
53	420422104132201	11-11-97	4108	1240	7.2	12.0	.15	12
		02-24-98		1090	7.3	11.0	<.01	7.3
		05-12-98		1040	7.3	12.5	.01	4.9
		08-31-98		1050	7.2	13.5	<.01	6.3

QUALITY OF GROUND WATER
TOWN OF TORRINGTON WELLHEAD PROTECTION SAMPLING PROGRAM--Continued
GOSHEN COUNTY--Continued
WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

WELL NUMBER	STATION NUMBER	GEO- LOGIC UNIT	LOCAL IDENT- I- FIER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)
40	420427104104901	111TRRC	24-061-10baa01	11-07-97 02-23-98 05-11-98 09-01-98	0945 1535 1610 0955	29.8 30.4 30.4 30.9	44
26	420434104103501	111TRRC	24-061-03dcb01	11-06-97 02-23-98 05-11-98 09-01-98	1035 1705 1455 1140	39.0 39.0 40.4 41.6	55
70	420441104122901	111ALVM	24-061-05dad01	11-12-97 02-24-98 05-12-98 08-31-98	1650 1100 1320 1010	21.2 21.2 20.1 17.9	28
34	420447104132401	111ALVM	24-061-05cba01	11-06-97 02-23-98 05-13-98 08-31-98	1638 1545 1055 1330	24.9 27.5 14.6 26.3	80
27	420448104104501	111TRRC	24-061-03caa01	11-07-97 02-23-98 05-12-98 09-02-98	1305 1420 1517 1610	68.1 68.0 69.7 71.0	78
32	420457104121001	111TRRC	24-061-04bdc02	11-05-97 02-24-98 05-12-98 08-31-98	1655 0950 1215 1130	35.9 37.0 37.8 38.1	50
29	420459104105601	111TRRC	24-061-03bdc01	11-10-97 12-16-97 02-24-98 04-23-98 05-13-98 07-09-98 09-03-98	1311 0946 1518 1134 1156 1510 1133	90.6 89.1 89.2 90.3 91.0 92.4 91.9	150
65	420504104120401	111TRRC	24-061-04bdb03	11-05-97 12-16-97 02-23-98 04-23-98 05-11-98 07-09-98 09-01-98	1348 1146 1427 1012 1356 1555 1454	86.5 86.5 87.4 88.2 88.5 88.2 89.1	--
36	420511104140301	111ALVM	24-061-06abc01	11-06-97 02-23-98 05-08-98 08-31-98	1518 1636 1222 1602	10.1 12.3 10.7 9.34	60
30	420513104112301	111ALVM	24-061-04aad01	03-03-98 05-12-98 09-02-98	1341 1424 1520	92.5 94.8 96.5	105
35	420516104133601	111ALVM	24-061-06aaa01	11-07-97 02-24-98 05-08-98 08-31-98	0931 1653 1130 1435	22.4 25.1 24.1 22.8	60
21	420521104121701	111TRRC	25-061-33ccc01	11-06-97 02-24-98 05-11-98 09-01-98	1421 1600 1303 1338	90.2 92.8 94.2 94.3	135
19	420522104095901	111TRRC	25-061-35ccc01	11-06-97 02-24-98 05-11-98 09-01-98	1053 1416 1708 1726	31.8 33.2 33.8 30.8	98
22	420526104145401	111TRRC	25-062-36ddb01	11-07-97 02-24-98 05-11-98 09-03-98	0845 0809 1451 0826	7.27 9.64 7.95 6.99	124
69	420531104100201	111TRRC	25-061-34dda01	11-06-97 12-17-97 02-26-98 04-23-98 05-13-98	0845 0855 1415 1254 0650	4.95 5.36 6.02 6.63 6.24	23

QUALITY OF GROUND WATER

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TOWN OF TORRINGTON WELLHEAD PROTECTION SAMPLING PROGRAM--Continued

GOSHEN COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

WELL NUMBER	STATION NUMBER	DATE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
40	420427104104901	11-07-97 02-23-98 05-11-98 09-01-98	4133	1470 1830 1840 1550	7.2 7.2 7.1 7.2	13.5 13.5 14.0 15.5	0.01 <.01 <.01 <.01	7.4 6.1 6.7 7.2
26	420434104103501	11-06-97 02-23-98 05-11-98 09-01-98	4141	1400 1430 1390 1460	7.4 7.4 7.3 7.3	12.0 12.0 14.0 18.5	.01 <.01 <.01 <.01	14 13 16 17
70	420441104122901	11-12-97 02-24-98 05-12-98 08-31-98	4116	1230 1030 1130 1030	7.4 7.3 7.4 7.4	12.5 13.0 13.5 13.5	.01 <.01 <.01 <.01	9.8 7.4 9.0 6.9
34	420447104132401	11-06-97 02-23-98 05-13-98 08-31-98	4125	917 967 1000 936	7.4 7.5 7.4 7.3	14.5 14.5 15.0 15.0	.01 <.01 <.01 <.01	1.2 3.3 2.8 1.5
27	420448104104501	11-07-97 02-23-98 05-12-98 09-02-98	4194	1060 1160 1010 862	7.4 7.5 7.3 7.5	18.0 9.5 15.5 17.0	.01 <.01 <.01 .01	13 14 8.4 5.2
32	420457104121001	11-05-97 02-24-98 05-12-98 08-31-98	4148	1125 1090 1110 1100	7.6 7.4 7.5 7.4	13.0 12.0 14.0 15.0	.03 <.01 .01 <.01	13 11 11 12
29	420459104105601	11-10-97 12-16-97 02-24-98 04-23-98 05-13-98 07-09-98 09-03-98	4215	1300 1292 1270 1310 1300 1290 1340	7.3 7.2 7.5 7.4 7.3 7.3 7.3	16.0 15.5 15.5 16.5 16.0 16.0 16.0	.02 <.01 <.01 <.01 <.01 <.01 <.01	31 31 32 31 30 29 31
65	420504104120401	11-05-97 12-16-97 02-23-98 04-23-98 05-11-98 07-09-98 09-01-98	4190	1049 1042 1090 1080 1060 1060 1100	7.3 8.0 7.8 7.5 7.7 7.5 7.5	13.5 12.5 13.0 13.0 13.0 14.0 14.0	.03 <.01 <.01 <.01 <.01 <.01 <.01	15 14 16 15 14 14 15
36	420511104140301	11-06-97 02-23-98 05-08-98 08-31-98	4113	925 973 938 865	7.5 7.2 7.4 7.4	16.5 15.5 15.5 16.0	.02 .01 <.01 <.01	2.2 1.5 .55 .96
30	420513104112301	03-03-98 05-12-98 09-02-98	4217	999 1100 984	7.4 7.6 7.4	15.0 16.5 19.0	<.01 <.01 <.01	12 11 11
35	420516104133601	11-07-97 02-24-98 05-08-98 08-31-98	4127	820 828 803 830	8.1 7.7 7.5 7.6	14.0 14.0 14.0 15.0	.01 <.01 <.01 <.01	4.5 4.4 3.9 4.3
21	420521104121701	11-06-97 02-24-98 05-11-98 09-01-98	4212	860 739 758 923	7.6 7.7 7.5 7.5	13.5 13.5 13.5 14.0	.01 <.01 <.01 <.01	4.2 2.9 3.9 7.3
19	420522104095901	11-06-97 02-24-98 05-11-98 09-01-98	4200	621 622 616 725	7.9 8.0 7.8 7.8	13.5 13.5 14.0 14.5	.01 <.01 <.01 <.01	3.0 3.0 2.9 4.1
22	420526104145401	11-07-97 02-24-98 05-11-98 09-03-98	4115	1083 1130 1090 1100	7.9 7.4 7.3 7.4	14.0 13.5 14.0 14.5	.16 .15 .16 .17	13 12 13 13
69	420531104100201	11-06-97 12-17-97 02-26-98 04-23-98 05-13-98	4175	1650 1412 1460 1780 2500	7.1 7.2 7.1 7.3 7.1	11.0 11.0 8.5 11.5 9.0	.02 .01 .02 .03 .13	25 11 8.9 5.3 3.6

QUALITY OF GROUND WATER

TOWN OF TORRINGTON WELLHEAD PROTECTION SAMPLING PROGRAM--Continued

GOSHEN COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

WELL NUMBER	STATION NUMBER	GEO- LOGIC UNIT	LOCAL IDENT- I- FIER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)
69 (Cont)	420531104100201	111TRRC	25-061-34dda01	07-09-98	1030	5.90	23
				08-14-98	1035	6.55	
				09-01-98	1245	4.32	
				09-10-98	1320	4.45	
24	420549104154901	111ALVM	25-062-36bcc01	11-07-97	0815	7.56	25
				02-27-98	0845	10.2	
				05-12-98	0820	8.30	
				08-31-98	1405	6.67	
23	420603104151601	111TRRC	25-062-36bad01	11-10-97	1435	37.2	100
				02-24-98	1115	41.2	
				05-11-98	1552	40.0	
				09-03-98	0943	37.7	
20	420605104120601	111TRRC	25-061-33bba01	11-05-97	1247	73.8	154
				02-23-98	1323	75.1	
				05-11-98	1200	76.7	
				09-01-98	1246	78.5	
14	420611104130901	111TRRC	25-061-29cdc01	11-07-97	1102	74.3	137
				02-23-98	1215	73.9	
				05-11-98	1112	74.7	
				09-01-98	1153	74.0	
20A	420612104121901	111TRRC	25-061-28ccc01	11-12-97	1600	56.3	72
				03-03-98	1518	58.1	
				05-12-98	1318	59.6	
				09-02-98	0925	60.6	
15	420615104143801	111TRRC	25-061-30ccc01	11-07-97	1201	53.2	120
				02-26-98	1558	52.8	
				05-08-98	1023	54.0	
18	420617104164501	111ALVM	25-062-26cca01	11-06-97	1216	31.3	60
				02-24-98	0914	34.2	
				05-08-98	0925	32.8	
				09-01-98	1605	31.0	
17	420621104155301	111TRRC	25-062-26dda01	11-06-97	1315	59.8	100
				02-24-98	1016	60.8	
				05-08-98	0830	61.7	
				08-31-98	1721	61.9	
10	420626104111101	111TRRC	25-061-28dad01	11-11-97	1230	34.8	85
				05-12-98	1620	40.5	
				09-02-98	0833	35.4	
12	420653104122801	111TRRC	24-061-29aad01	11-10-97	1110	79.8	180
				02-23-98	1110	81.3	
				05-11-98	1021	82.3	
				09-01-98	1027	82.8	
13A	420703104133001	111TRRC	25-061-29bbb01	11-05-97	1141	85.7	140
				02-23-98	0934	85.1	
				05-11-98	0845	85.1	
				09-01-98	0906	86.7	
13	420703104133002	111TRRC	25-061-29bbb02	11-06-97	1340	85.4	95
				12-16-97	1420	85.1	
				03-03-98	1235	84.7	
				04-24-98	0804	84.8	
				05-12-98	1232	85.3	
				07-09-98	1345	85.7	
				08-14-98	1220	86.5	
				09-02-98	1115	86.7	
				09-10-98	1445	86.3	
8	420705104155201	111TRRC	25-062-23ddd01	11-07-97	1510	56.5	72
				03-03-98	1027	59.6	
				05-12-98	0830	60.6	
				09-02-98	1405	58.8	
67	420710104121901	111TRRC	25-061-21-ccb01	11-12-97	1500	51.8	65
				03-03-98	1427	51.8	
				05-12-98	1145	51.6	
				09-02-98	1020	51.8	

QUALITY OF GROUND WATER

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TOWN OF TORRINGTON WELLHEAD PROTECTION SAMPLING PROGRAM--Continued

GOSHEN COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

WELL NUMBER	STATION NUMBER	DATE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
69(Cont)	420531104100201	07-09-98	4175	2400	7.1	12.0	0.04	--
		08-14-98		2500	7.1	12.5	.07	6.7
		09-01-98		2120	7.0	12.5	.19	43
		09-10-98		1980	7.0	12.5	.11	41
24	420549104154901	11-07-97	4125	1230	7.2	13.0	.02	6.9
		02-27-98		1110	7.3	8.5	.01	7.9
		05-12-98		1110	7.3	11.0	.01	7.0
		08-31-98		1070	7.2	15.5	.03	11
23	420603104151601	11-10-97	4151	866	7.5	15.0	.02	3.5
		02-24-98		858	7.8	15.0	<.01	4.1
		05-11-98		862	7.4	15.5	<.01	3.9
		09-03-98		836	7.5	16.0	<.01	2.5
20	420605104120601	11-05-97	4243	752	7.4	13.5	.02	2.0
		02-23-98		775	7.8	13.5	<.01	2.0
		05-11-98		752	7.8	14.0	<.01	2.3
		09-01-98		787	7.6	14.5	<.01	2.5
14	420611104130901	11-07-97	4218	915	7.9	14.0	.01	10
		02-23-98		940	7.8	13.5	<.01	9.5
		05-11-98		906	7.6	14.5	<.01	8.9
		09-01-98		971	7.5	15.0	<.01	10
20A	420612104121901	11-12-97	4225	960	7.6	11.5	.01	4.0
		03-03-98		973	7.3	12.5	<.01	4.2
		05-12-98		978	7.4	14.5	.01	4.2
		09-02-98		935	7.4	16.0	<.01	4.6
15	420615104143801	11-07-97	4199	891	7.6	14.0	.01	7.9
		02-26-98		933	7.3	13.5	<.01	9.4
		05-08-98		933	7.3	14.0	<.01	9.0
18	420617104164501	11-06-97	4151	940	8.0	13.5	.02	11
		02-24-98		1140	7.7	11.0	<.01	12
		05-08-98		1020	7.6	11.5	<.01	11
		09-01-98		1000	7.7	16.5	<.01	11
17	420621104155301	11-06-97	4201	995	7.7	13.5	.01	8.0
		02-24-98		1010	7.7	13.0	<.01	6.7
		05-08-98		976	7.5	13.5	<.01	7.0
		08-31-98		1030	7.5	14.0	<.01	8.5
10	420626104111101	11-11-97	4212	586	7.6	13.5	.02	1.9
		05-12-98		681	7.6	16.0	<.01	3.6
		09-02-98		630	7.6	15.5	.01	1.7
12	420653104122801	11-10-97	4246	660	7.8	15.5	.02	1.6
		02-23-98		647	8.0	16.0	<.01	2.9
		05-11-98		625	7.8	16.0	<.01	2.5
		09-01-98		685	7.7	17.0	<.01	2.9
13A	420703104133001	11-05-97	4085	800	7.4	13.5	.02	2.3
		02-23-98		888	7.7	13.0	<.01	4.6
		05-11-98		945	7.8	13.5	<.01	4.8
		09-01-98		1060	7.6	14.5	<.01	5.9
13	420703104133002	11-06-97	4246	1230	7.7	14.5	.01	20
		12-16-97		1242	8.2	12.0	<.01	19
		03-03-98		1460	7.7	14.5	<.01	20
		04-24-98		1650	7.6	15.0	<.01	20
		05-12-98		1640	7.7	16.0	<.01	21
		07-09-98		1800	7.7	17.0	<.01	21
		08-14-98		2030	7.7	16.0	.01	20
		09-02-98		1920	7.6	17.0	<.01	19
		09-10-98		1920	7.7	16.0	<.01	19
8	420705104155201	11-07-97	4225	790	7.4	16.0	.01	10
		03-03-98		672	7.4	--	<.01	7.1
		05-12-98		620	7.9	13.5	<.01	5.3
		09-02-98		837	7.4	16.5	<.01	7.8
67	420710104121901	11-12-97	4247	590	7.8	11.5	<.01	9.5
		03-03-98		604	7.4	12.5	<.01	11
		05-12-98		600	7.7	14.5	<.01	10
		09-02-98		603	7.5	16.0	<.01	11

QUALITY OF GROUND WATER

TOWN OF TORRINGTON WELLHEAD PROTECTION SAMPLING PROGRAM--Continued

GOSHEN COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

WELL NUMBER	STATION	NUMBER	GEO- LOGIC UNIT	LOCAL IDENT- I- FIER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)
4	420754104134001	111TRRC	25-061-19aab01		11-10-97 05-12-98 09-02-98	0930 1058 1205	115 115 119	124
5	420758104151601	111TRRC	25-062-13cdd01		11-12-97 03-03-98 05-12-98 09-02-98	1245 1127 0931 1307	61.5 72.5 70.7 55.2	85
1	420846104133001	111TRRC	25-061-18aaa01		11-06-97 02-26-98 05-13-98 09-03-98	0940 1420 0810 1320	96.2 95.7 95.2 94.5	78
2	420849104151001	111TRRC	25-062-12dcc01		11-06-97 02-26-98 05-13-98 09-03-98	0845 1320 0845 1200	135 134 133 132	140
66	420849104165901	111TRRC	25-062-11ccc01		11-05-97 02-26-98 05-13-98 09-03-98	1640 1228 0935 0830	130 129 130 131	137

WELL NUMBER	STATION NUMBER	DATE	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
4	420754104134001	11-10-97 05-12-98 09-02-98	4272 960 944	918 7.2 7.5	7.2 15.0 17.5	8.0 15.0 17.5	0.02 <.01 <.01	23 24 27
5	420758104151601	11-12-97 03-03-98 05-12-98 09-02-98	4242 935 845 614	770 7.5 7.6 7.6	7.7 7.5 7.6 7.6	14.5 14.5 16.5 19.0	<.01 <.01 <.01 <.01	7.5 16 9.9 .72
1	420846104133001	11-06-97 02-26-98 05-13-98 09-03-98	4328 514 533 532	515 7.8 8.1 8.0	7.9 7.8 8.1 8.0	11.0 9.5 12.5 17.5	.03 <.01 <.01 <.01	11 11 11 11
2	420849104151001	11-06-97 02-26-98 05-13-98 09-03-98	4314 568 564 572 600	568 7.9 7.9 7.8 8.1	7.9 7.9 7.8 8.1	11.5 10.5 13.5 16.0	.01 <.01 <.01 <.01	7.8 9.1 7.1 13
66	420849104165901	11-05-97 02-26-98 05-13-98 09-03-98	4302 674 664 682 685	674 7.5 7.7 7.7 7.8	7.5 7.5 7.7 7.8	13.0 12.5 15.0 16.0	.03 <.01 <.01 <.01	2.7 3.1 4.2 3.4

SURFACE WATER SAMPLING SITES

SITE NUMBER	STATION	NUMBER	DATE	TIME	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
59	420328104113501		11-05-97 02-26-98 05-13-98 09-02-98	1505 1000 1030 1545	4089 4089 4089 4089	838 820 700 630	8.2 8.2 8.2 8.3	13.0 1.0 13.0 22.0	.07 .04 .01 .01	1.9 2.1 .66 .53
38	420452104160101		11-05-97 02-26-98 05-12-98 08-31-98	1520 1050 0915 1240	4120 4120 4120 4120	823 803 696 610	8.0 8.2 8.2 8.4	12.4 3.0 11.0 22.0	.07 .03 .02 <.01	1.5 1.7 .55 .37

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
<i>Length</i>		
inch (in.)	2.54×10^1	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^0	kilometer
<i>Area</i>		
acre	4.047×10^3	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi ²)	2.590×10^0	square kilometer
<i>Volume</i>		
gallon (gal)	3.785×10^0	liter
	3.785×10^0	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^3	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft ³)	2.832×10^1	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft ³ /s) d]	2.447×10^3	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^3	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
<i>Flow</i>		
cubic foot per second (ft ³ /s)	2.832×10^1	liter per second
	2.832×10^1	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^1	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
<i>Mass</i>		
ton (short)	9.072×10^{-1}	megagram or metric ton

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment for the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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