SELECTED CHEMICAL ANALYSES OF WATER FROM FORMATIONS OF MESOZOIC AND PALEOZOIC AGE IN PARTS OF OKLAHOMA, NORTHERN TEXAS, AND UNION COUNTY, NEW MEXICO

By Renee S. Parkhurst and Scott C. Christenson

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CONTENTS

ILLUSTRATIONS

TABLES

CONVERSION FACTORS

For use of readers who prefer to use International System (SI) units, rather than the inch-pound terms used in this report, the following conversion factors may be used:

Multiply	By	To obtain
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)
square mile (mi^2)	2.590	square kilometer (km^2)

Temperature in degrees Fahrenheit (°F) as follows:

$$°C=5/9\ (°F-32)$$

The following terms and abbreviations also are used in this report:

microsiemens per centimeter (μs/cm)
milliequivalents per liter (meq/L)
milligrams per liter (mg/L)

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ABSTRACT

Hydrochemical data were compiled into a data base as part of the Central Midwest Regional Aquifer System Analysis project. The data consist of chemical analyses of water samples collected from wells that are completed in formations of Mesozoic and Paleozoic age. The data base includes data from the National Water Data Storage and Retrieval System, the Petroleum Data System, the National Uranium Resource Evaluation, and selected publications. Chemical analyses were selected for inclusion within the hydrochemical data base if the total concentration of the cations differed from the total concentration of the anions, both expressed in milliequivalents per liter, by 10 percent or less of the total concentration of all ions. Those analyses which lacked the necessary data for an ionic balance were included if the ratios of dissolved-solids concentration to specific conductance were between 0.55 and 0.75. The tabulated chemical analyses, grouped by county, and a statistical summary of the analyses, listed by geologic unit, are presented.

INTRODUCTION

The U.S. Geological Survey began the Regional Aquifer System Analysis (RASA) program in 1978 after a congressional mandate required development of quantitative appraisals of the major aquifer systems of the United States. Twenty-eight aquifer systems have been identified for this program. These 28 aquifer systems are the source of most of the usable ground water in the United States. The Central Midwest Regional Aquifer System Analysis (CM RASA) is a project that studies one of these aquifer systems.

The overall purpose of the RASA program is to compile hydrologic information, to develop an understanding of the aquifer systems, and to develop predictive capabilities that will contribute to the effective management of the Nation's ground-water resources. The specific objectives of the program are to: (1) Assemble available geologic, hydrologic, and water-quality information, and collect additional data that may be required for aquifer-system definition; (2) synthesize that information into an understanding of the dynamics of the ground-water flow; (3) develop, test, and establish the validity of models that simulate hydrologic systems; (4) support research that will contribute to a more comprehensive understanding of the flow dynamics; (5) analyze and interpret the hydrology of the aquifer systems, and describe the hydraulic implications of alternative management practices; and (6) report the results of these studies, including the hydrologic data, the simulation models, and the final conclusions.

The CM RASA is a study of the regional ground-water flow system in formations of Paleozoic and Mesozoic age in the central United States (table 1). The study area is located between the foothills of the Rocky Mountains in Colorado and New Mexico and the valley of the Mississippi River in eastern Missouri, and from southern South Dakota to northern Texas (figure 1). As part of a multistate group participating in the CM RASA, personnel of the U.S. Geological Survey in Oklahoma are responsible for studying the northern two-thirds of Oklahoma, the Texas Panhandle, and Union County, New Mexico, which is the northeastern-most county in New Mexico.

Purpose and Scope

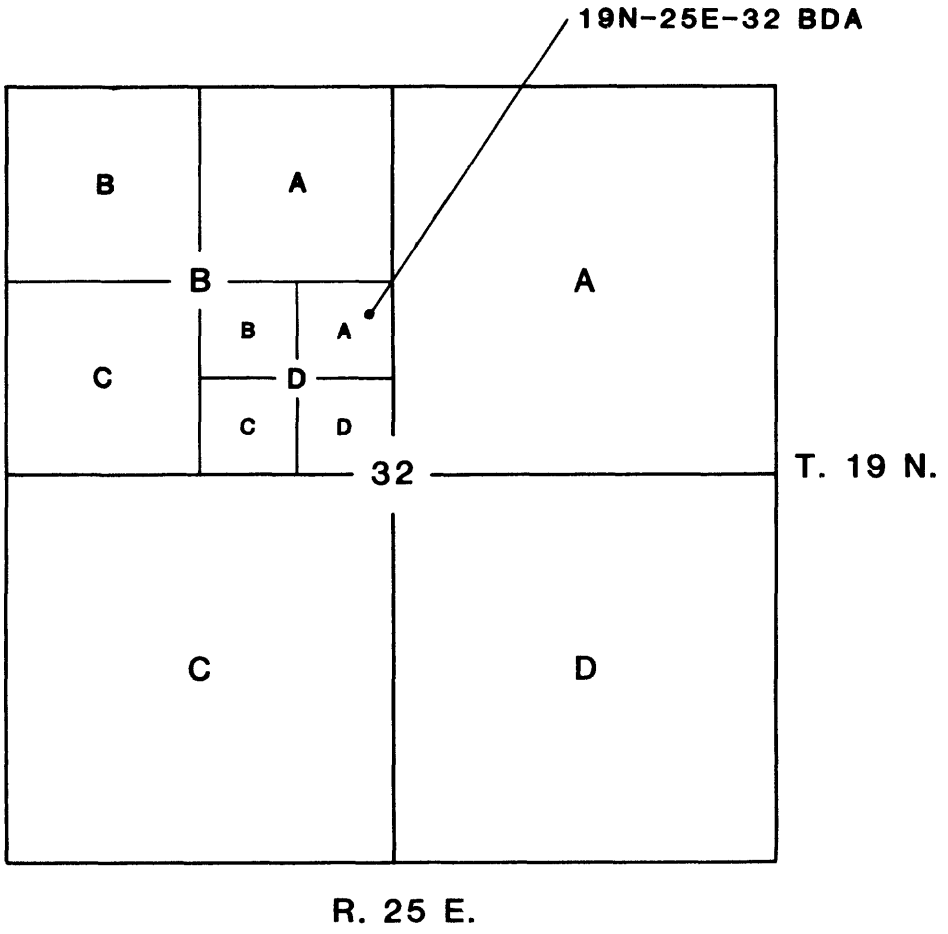
The purpose of this report is to present the chemical analyses of samples collected from wells in parts of Oklahoma, northern Texas, and Union County, New Mexico that were selected for use in the CM RASA project, and to explain the selection process. A statistical summary of the analyses, grouped by geologic unit, is included. No further interpretations of the data, such as maps or cross sections, are presented in this report.

The issue addressed by this report is how to select a relatively small number of representative chemical analyses from a large number of available analyses of variable quality and distribution without sacrificing valuable information. Use of a standardized hydrochemical data base decreased the quantity of data, and insured that CM RASA personnel in different States used the same data for all work.

During the early phases of the CM RASA project, about 34,000 chemical analyses were compiled, partially edited, and stored in computer files. A subset of about 12,000 of these analyses pertained to sites within the study area of this report, and for this project 1,761 analyses were selected for inclusion in the hydrochemical data base. Although some of the subsequent work done by the project used supplemental data in addition to the data in the hydrochemical data base, the additional data were consistent with the information in the data base.

Explanation of the Site-Numbering System

The location of all data-collection sites is delineated by latitude and longitude to the nearest second. For some of the sites, the location also is described by a local number. This number indicates quarter-section subdivisions (where available) by letters, from largest to smallest. As illustrated in the following diagram, the location of the site indicated by the dot is 19N-25E-32 BDA.



The local number is similar to the standard system of land description, except that it uses letters and reverses the order of the quarter-section subdivisions. Texas does not use the standard system of land description; therefore, no local numbers are given for wells located in Texas. In Oklahoma and New Mexico, the local numbers are not based on the same meridians. In the Oklahoma Panhandle, the meridian used is the Cimarron Meridian, and in the rest of Oklahoma the Indian Meridian is used. In New Mexico, the meridian used is the New Mexico Principal Meridian.

Table 1.--Chronostratigraphic units in the stratigraphic section of the Central Midwest Regional Aquifer System Analysis study unit

Erathem	System	Series	Provincial series
Mesozoic	Cretaceous	Upper	Gulfian
			Comanchean
		Lower	Coahuilan
	Jurassic	Upper	
		Middle	
		Lower	
	Triassic	Upper	
		Middle	
		Lower	
Paleozoic	Permian	Upper	Ochoan
			Guadalupian
		Lower	Leonardian
			Wolfcampian
	Pennsylvanian	Upper	Virgilian
			Missourian
		Middle	Desmoinesian
			Atokan
		Lower	Morrowan
	Mississippian	Upper	Chesterian
			Meramecian
		Lower	Osagean
			Kinderhookian
	Devonian	Upper	
		Middle	
		Lower	
	Silurian	Upper	
		Middle	
		Lower	
	Ordovician	Upper	
		Middle	
		Lower	
	Cambrian	Upper	
Precambrian			

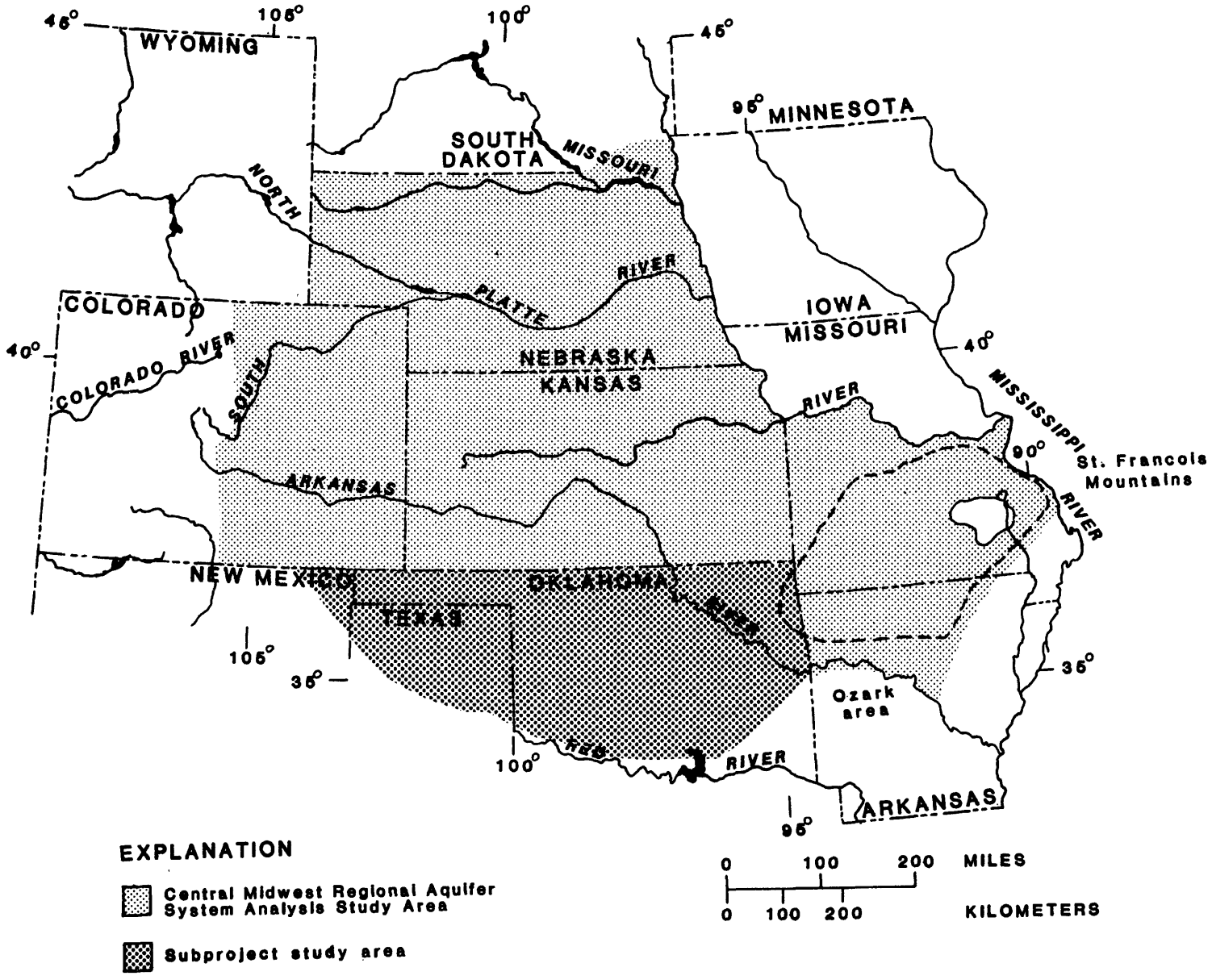


Figure 1.--Location of the Central Midwest Region Aquifer System Analysis study area and the subproject area.

SOURCES, DESCRIPTION, AND SELECTION OF DATA

Hydrochemical data were compiled from several different sources. Most of the data came from three computerized data files: The National Water Data Storage and Retrieval (WATSTORE) System, the Petroleum Data System (PDS), and the National Uranium Resources Evaluation (NURE). WATSTORE is operated by the U.S. Geological Survey, and most of the ground-water quality data contained in the WATSTORE system are for shallow (less than 1,500 ft) wells that are used for water-supply purposes. Data in the PDS file generally contains analyses of samples of oil-field brines collected by the petroleum industry. Data in the NURE file were collected as part of a national effort by the U.S. Department of Energy to evaluate domestic uranium resources and to identify favorable areas for uranium exploration in the shallow subsurface.

Data from published literature were added to the computerized data files. A major source of data was a report on oil-field brines of Oklahoma (Wright and others, 1957). Water-quality data for the Oklahoma Panhandle were obtained from a report by Hart, Hoffman, and Goemaat (1976). Data for Dallam County, Texas, were obtained from a report by the Work Progress Administration (1937). Some chemical analyses for Union County, New Mexico, were obtained from a report by Cooper and Davis (1967).

Data from all sources were compiled in 1981. Water samples analyzed subsequent to 1981 are not included in the hydrochemical data base. All analyses not already stored in the WATSTORE system were given a geologic-unit code corresponding to the geologic unit from which the water was sampled. The geologic-unit codes and geologic units, along with the corresponding chronostratigraphic units, are shown in table 2. Because the stratigraphic nomenclature used in this report is from many sources, it may not follow the current usage of the U.S. Geological Survey.

Each analysis from the previously described sources was evaluated and the most accurate and complete analyses and associated data were included in the hydrochemical data base. The criteria for selection of data and inclusion in the hydrochemical data base were:

(1) Some of the chemical analyses contained errors. Checks were used to identify those analyses containing errors in the reported concentration of the major-dissolved constituents. In an accurate and complete chemical analyses of a water sample, the sum of the concentrations of the positive ions (cations) is equal to the sum of the concentrations of the negative ions (anions), both expressed in milliequivalents per liter. Each chemical analysis containing all of the major dissolved constituents (calcium, magnesium, sodium, potassium, chloride, sulfate, and alkalinity or bicarbonate) was tested for the ionic balance. With few exceptions only those analyses for which the concentration of cations and the concentration of anions, differed by 10 percent or less of the total concentration of ions were included in the hydrochemical data base.

Table 2.--Geologic-unit codes, geologic units, and chronostratigraphic units

[The geologic units have been retrieved from the WATSTORE data file and may not follow the current usage of stratigraphic nomenclature of the U.S. Geological Survey]

Geologic-unit code	Geologic unit	Chronostratigraphic units		
		Erathem	System	Series
211DKOT	Dakota Formation	Mesozoic	Cretaceous	Upper
221ENRD	Entrada Sandstone	Mesozoic	Jurassic	Middle
221MRSN	Morrison Formation	Mesozoic	Jurassic	Upper
230TCPM	Triassic and Permian Systems, undifferentiated			
231DCKM	Dockum Group	Mesozoic	Triassic	Upper
310PRMN	Permian System, undifferentiated	Paleozoic	Permian	
310WLNG	Wellington Formation	Paleozoic	Permian	Lower
310WTRS	Whitehorse Group	Paleozoic	Permian	Upper
312CDCF	Cloud Chief Formation	Paleozoic	Permian	Upper
312DOXY	Doxy Member of Quartermaster Formation	Paleozoic	Permian	Upper
312ELKC	Elk City Member of Quartermaster Formation	Paleozoic	Permian	Upper
312WRFD	Weatherford Member of Cloud Chief Formation	Paleozoic	Permian	Upper
313BLIN	Blaine Gypsum	Paleozoic	Permian	Lower
313BRWN	Brown Limestone Member of U-Bar Formation	Mesozoic	Cretaceous	Lower
313DGCK	Dog Creek Shale	Paleozoic	Permian	Lower
313ELRN	El Reno Group	Paleozoic	Permian	Lower
313FLRP	Flowerpot Shale	Paleozoic	Permian	Lower
313GDLP	Guadalupian Series, undifferentiated	Paleozoic	Permian	Upper
313MRLW	Marlow Formation	Paleozoic	Permian	Upper
313RSPG	Rush Springs Formation	Paleozoic	Permian	Upper
317HRNG	Herington Limestone	Paleozoic	Permian	Lower
317KRDR	Krider Limestone Member of Nolans Limestone	Paleozoic	Permian	Lower
317NEVA	Neva Limestone Member of Grenola Limestone	Paleozoic	Permian	Lower
317SMNR	Sumner Group	Paleozoic	Permian	Lower
318BSON	Bison Banded Member of Hennessey Shale	Paleozoic	Permian	Lower
318CDHL	Cedar Hills Sandstone Member of Hennessey Shale	Paleozoic	Permian	Lower
318FRMN	Fairmont Shale Member of Hennessey Shale	Paleozoic	Permian	Lower
318GRBR	Garber Sandstone	Paleozoic	Permian	Lower
318HNSS	Hennessey Shale	Paleozoic	Permian	Lower

Table 2.--Geologic-unit codes, geologic units, and chronostratigraphic units--Continued

Geologic-unit code	Geologic unit	Chronostratigraphic units		
		Erathem	System	Series
318OSCR	Oscar Sandstone	Paleozoic	Pennsylvanian	Upper
318PRCL	Purcell Sandstone Lens in Hennessey Shale	Paleozoic	Permian	Lower
318PSOK	Post Oak Conglomerate	Paleozoic	Permian	Lower
318SLPL	Salt Plains Formation	Paleozoic	Permian	Lower
318WCHT	Wichita Group	Paleozoic	Permian	Lower
319CCGV	Council Grove Group	Paleozoic	Permian	Lower
319CHSE	Chase Group	Paleozoic	Permian	Lower
319EKDG	Eskridge Shale	Paleozoic	Permian	Lower
319PNTC	Pontotoc Group	Paleozoic	Permian	Lower
320GRWS	Granite wash	Paleozoic	Pennsylvanian	
320PSLV	Pennsylvanian System, undifferentiated	Paleozoic	Pennsylvanian	
321CSCO	Cisco Group	Paleozoic	Pennsylvanian	Upper
321TFGM	Thrifty and Graham Formations	Paleozoic	Pennsylvanian	Upper
322ADA	Ada Formation	Paleozoic	Pennsylvanian	Upper
322DGLS	Douglas Group	Paleozoic	Pennsylvanian	Upper
322SHWN	Shawnee Group	Paleozoic	Pennsylvanian	Upper
322VMOS	Vamoosa Formation	Paleozoic	Pennsylvanian	Upper
322VNSS	Vanoss Formation	Paleozoic	Pennsylvanian	Upper
322VRGL	Virgilian Series, undifferentiated	Paleozoic	Pennsylvanian	Upper
322WBNS	Wabaunsee Group	Paleozoic	Pennsylvanian	Upper
323BRDL	Barnsdall Formation	Paleozoic	Pennsylvanian	Upper
323CCKB	Checkerboard Limestone	Paleozoic	Pennsylvanian	Upper
323CFVL	Coffeyville Formation	Paleozoic	Pennsylvanian	Upper
323CHNT	Chanute Formation	Paleozoic	Pennsylvanian	Upper
323DEWY	Dewey Limestone	Paleozoic	Pennsylvanian	Upper
323HGSR	Hogshooter Limestone	Paleozoic	Pennsylvanian	Upper
323HXBR	Hoxbar Formation	Paleozoic	Pennsylvanian	Upper
323IOLA	Iola Limestone	Paleozoic	Pennsylvanian	Upper
323KSSC	Kansas City Group	Paleozoic	Pennsylvanian	Upper
323LNSG	Lansing Group	Paleozoic	Pennsylvanian	Upper
323MSSR	Missourian Series, undifferentiated	Paleozoic	Pennsylvanian	Upper

Table 2.--Geologic-unit codes, geologic units, and chronostratigraphic units--Continued

Geologic-unit code	Geologic unit	Chronostratigraphic units		
		Erathem	System	Series
323NLBL	Nellie Bly Formation	Paleozoic	Pennsylvanian	Upper
323ROWE	Rowe Formation	Paleozoic	Pennsylvanian	Middle
323SMNL	Seminole Formation	Paleozoic	Pennsylvanian	Upper
324BRKA	Broken Arrow Coal	Paleozoic	Pennsylvanian	Middle
324CHAT	Chat	Paleozoic	Pennsylvanian	Middle
324DSMS	Desmoinesian Series, undifferentiated	Paleozoic	Pennsylvanian	Middle
324GRRN	Garner Formation	Paleozoic	Pennsylvanian	Middle
324HLTP	Hilltop Formation	Paleozoic	Pennsylvanian	Upper
324PRFM	Perry Farm Shale Member of Lenapah Limestone	Paleozoic	Pennsylvanian	Middle
324STRN	Strawn Group	Paleozoic	Pennsylvanian	Middle
325BGGY	Boggy Shale	Paleozoic	Pennsylvanian	Middle
325CHRK	Cherokee Group	Paleozoic	Pennsylvanian	Middle
325CLVN	Calvin Sandstone	Paleozoic	Pennsylvanian	Middle
325DEES	Deese Formation	Paleozoic	Pennsylvanian	Middle
325FRSC	Fort Scott Limestone	Paleozoic	Pennsylvanian	Middle
325HRRS	Hartshorne Sandstone	Paleozoic	Pennsylvanian	Middle
325LBTT	Labette Shale	Paleozoic	Pennsylvanian	Middle
325MCAL	McAlester Shale	Paleozoic	Pennsylvanian	Middle
325MRMN	Marmaton Group	Paleozoic	Pennsylvanian	Middle
325SNOR	Senora Formation	Paleozoic	Pennsylvanian	Middle
325SVNN	Savanna Sandstone	Paleozoic	Pennsylvanian	Middle
325TRMN	Thurman Sandstone	Paleozoic	Pennsylvanian	Middle
325WWOK	Wewoka Formation	Paleozoic	Pennsylvanian	Middle
326ATOK	Atoka Formation	Paleozoic	Pennsylvanian	Middle
327UNVL	Union Valley Formation	Paleozoic	Pennsylvanian	Lower
328MRRW	Morrowan Series, undifferentiated	Paleozoic	Pennsylvanian	Lower
328SPRG	Springer Group	Paleozoic	Pennsylvanian	Lower
328WPCK	Wapanucka Limestone	Paleozoic	Pennsylvanian	Lower
330MSSP	Mississippian System, undifferentiated	Paleozoic	Mississippian	
331BOON	Boone Formation	Paleozoic	Mississippian	Upper
332CKCK	Chickasaw Creek Formation	Paleozoic	Mississippian	Upper

Table 2.--Geologic-unit codes, geologic units, and chronostratigraphic units--Continued

Geologic-unit code	Geologic unit	Chronostratigraphic units		
		Erathem	System	Series
332CSTR	Chesterian Series, undifferentiated	Paleozoic	Mississippian	Upper
332FTVL	Fayetteville Shale	Paleozoic	Mississippian	Upper
333MRMC	Meramecian Series, undifferentiated	Paleozoic	Mississippian	Upper
333SPRG	Spergen Formation	Paleozoic	Mississippian	Upper
338SCMR	Sycamore Limestone	Paleozoic	Mississippian	Lower
340HNTN	Hunton Group	Paleozoic	Devonian	Lower
340MSNR	Misener Sandstone Member of Chattanooga Shale	Paleozoic	Devonian	Lower
344HNTN	Bois d' Arc Limestone of Hunton Group	Paleozoic	Devonian	Lower
357CMNL	Chimneyhill Dolomite	Paleozoic	Silurian	Lower
361VIOL	Viola Limestone	Paleozoic	Ordovician	Upper
364BRMD	Bromide Formation	Paleozoic	Ordovician	Middle
364JONS	Joins Formation	Paleozoic	Ordovician	Middle
364MCLS	McLish Formation	Paleozoic	Ordovician	Middle
3640LCK	Oil Creek Formation	Paleozoic	Ordovician	Middle
364SMPS	Simpson Group	Paleozoic	Ordovician	Middle
364TPCK	Tulip Creek Formation	Paleozoic	Ordovician	Middle
364TYNR	Tyner Formation	Paleozoic	Ordovician	Middle
365CLLR	Collier Formation	Paleozoic	Ordovician	Lower
367ABCK	Arbuckle Group	Paleozoic	Ordovician	Lower
367CTTR	Cotter Dolomite	Paleozoic	Ordovician	Lower
367ELBG	Ellenberger Group	Paleozoic	Ordovician	Lower
367KDBD	Kindblade Formation	Paleozoic	Ordovician	Lower
367RBDX	Roubidoux Formation	Paleozoic	Ordovician	Lower
371GRNT	Granite wash	Paleozoic	Cambrian	

(2) In areas where many analyses with an acceptable ionic balance from a single geologic unit were grouped into a small geographical area, only a few representative analyses were selected for inclusion in the hydrochemical data base. This decreased the total quantity of data to be handled and simplified the task of plotting data points on maps, without adversely affecting the information needed for regional mapping and interpretation.

(3) Some of the analyses provided insufficient information to evaluate the accuracy of the data by ionic balance. However, the lack of data for some geographic areas necessitated that all incomplete analyses for those areas be tested further using the following criteria to determine their acceptability for the hydrochemical data base:

(A) If values for potassium, sulfate, or bicarbonate concentrations were missing from an analysis of water that had a specific conductance of less than 15,000 μS/cm, the analysis was not included in the hydrochemical data base. However, if values for potassium, sulfate, or bicarbonate concentrations were missing from the analysis but the specific conductance was greater than 15,000 μS/cm and the remaining cations and anions balanced, the analysis was included in the hydrochemical data base. Within the study area, the dominant cation and anion in water that contains large dissolved-solids concentrations (indicated by a large specific-conductance value) are principally sodium and chloride. Therefore, for waters containing large dissolved-solids concentrations, an acceptable cation-anion balance can be obtained without values for potassium, sulfate, or bicarbonate concentrations. Unfortunately, the test of cation-anion balance does not adequately evaluate the accuracy of the concentrations determined for the constituents that occur at smaller concentrations relative to the dominant ions (Hem, 1985).

(B) If a value for chloride concentration was missing from an analysis and the specific conductance was greater than 15,000 μS/cm, the analysis was not included in the hydrochemical data base. Chloride is a major component of water in the study area, with specific conductances of greater than 15,000 μS/cm, therefore the accuracy of the analysis could not be tested. However, in some parts of the study area where additional data were needed to give more complete coverage, some chemical analyses that did not have a value for chloride concentration, but which had a specific-conductance value less than 15,000 μS/cm were included in the hydrochemical data base, after a test other than an ionic balance was applied. All those analyses that had a missing value for chloride concentration were from the NURE file. If the NURE file analysis did not have a value for the chloride concentration but the specific conductance was available, the following test was used. A value for chloride concentration was calculated as the difference between the total concentrations of cations and anions. This calculated value for chloride concentration was used in computing a value for dissolved-solids concentration. If the ratio of dissolved-solids concentration to specific conductance was not

in the range from 0.55 to 0.75 (Hem, 1985), the analysis was rejected. Estimated values for chloride and dissolved-solids concentrations were calculated for use in the above test only. The accuracy of the estimated values could not be tested and therefore are not included in the hydrochemical data base.

(C) If values for concentrations of calcium, magnesium or both concentrations were missing, the analysis was tested for ionic balance if a total hardness value was given. Hardness expressed as milliequivalents per liter = Ca (meq/L) + Mg (meq/L) + Ba (meq/L) + Sr (meq/L) (Brown, Skougstad and Fishman, 1970). Barium and strontium concentrations rarely were determined, but barium and strontium concentrations commonly are small with respect to calcium and magnesium. Therefore, hardness may be used in place of these cations in calculating ionic balance. If hardness values were also missing, an ionic balance was not calculated and the analysis was not included in the hydrochemical data base.

The location of the wells from which chemical analyses were included in the hydrochemical data base are shown in figure 2. The selected chemical analyses are presented in table 3 in the Hydrochemical Data section at the back of the report. Statistical summaries for the chemical analyses are presented in table 4 in the Hydrochemical Data section at the back of the report.

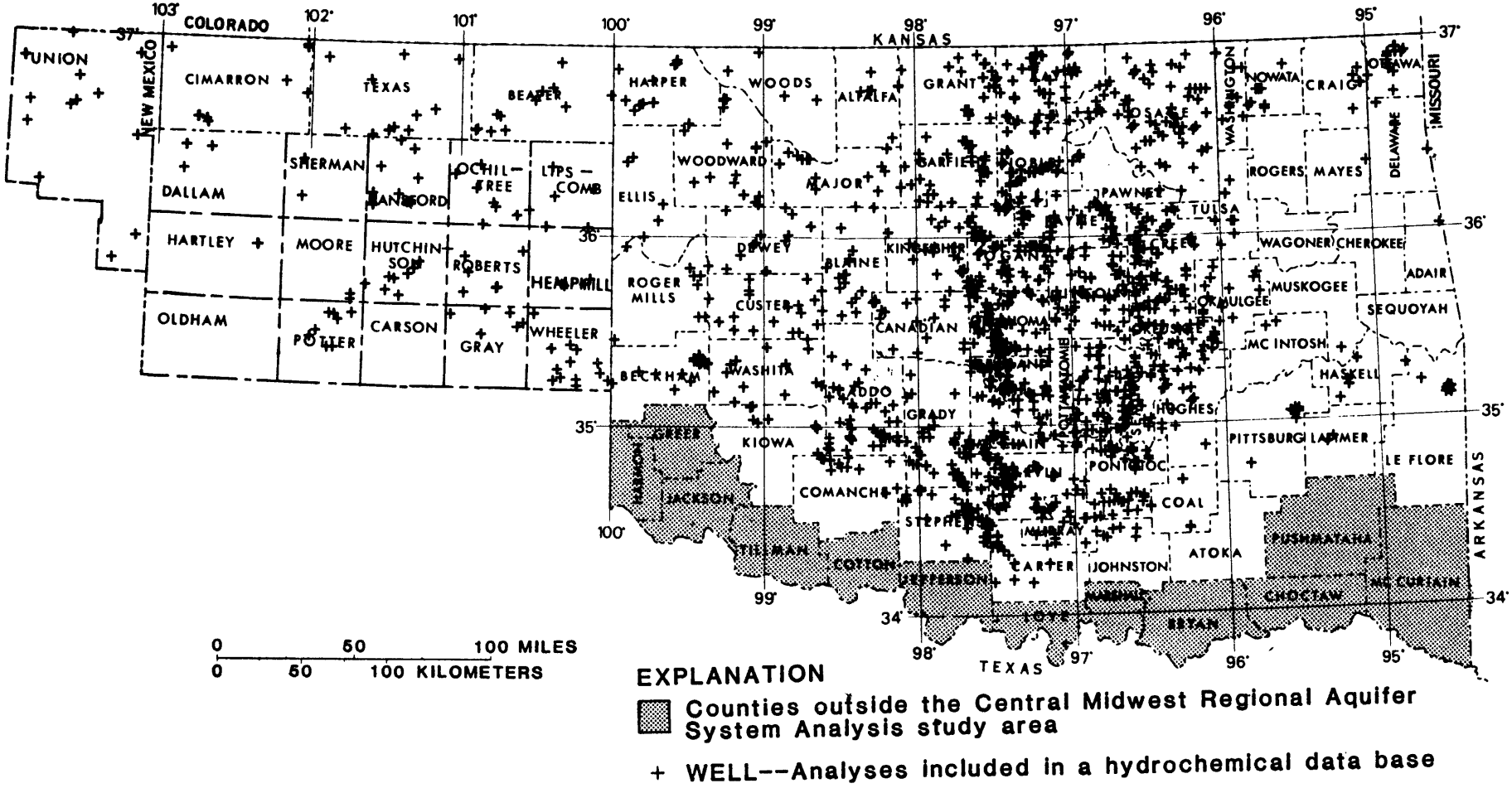


Figure 2.--Location of wells for which chemical analyses were included in the hydrochemical data base.

REFERENCES

Brown, Eugene, Skougstad, M.W., and Fishman, M.J., 1970, Methods for collection and analysis of water samples for dissolved minerals and gases: U.S. Geological Survey Techniques of Water-Resources Investigations, Book 5, Chapter A1, 160 p.

Cooper, J.B., and Davis, L.V., 1967, General occurrence and quality of ground water in Union County, New Mexico: New Mexico State Bureau of Mines and Mineral Resources Ground-Water Report 8, 168 p.

Hart, D.L., Hoffman, G.L., and Goemaat, R.L., 1976, Geohydrology of the Oklahoma Panhandle, Beaver, Cimarron, and Texas Counties: U.S. Geological Survey Water Resources Investigation 25-75, 62 p.

Hem, J.D., 1985, Study and interpretation of the chemical characteristics of natural water (3d ed): U.S. Geological Survey Water-Supply Paper 2254, 263 p.

Work Progress Administration, 1937, Records of wells and springs, drillers' logs, water analyses, and map showing location of wells and springs in Dallam County, Texas: Texas Board of Water Engineers, County report, 48 p.

Wright, Jack, Pearson, Cynthia, Kurt, E.T., and Watkins, J.W., 1957, Analyses of brines from oil-productive formations in Oklahoma: U.S. Bureau of Mines Report of Investigations 5326, 71 p.

HYDROCHEMICAL DATA

Selected chemical analyses of water samples that were included in the hydrochemical data base are shown in table 3. Only the major-chemical constituents and selected hydrochemical data are included in the table. The number of additional constituents for each analysis varies depending on the source of the analysis. The data in tables 3 and 4 are reported to 3 significant figures. However, because the data were obtained from several different sources, this does not necessarily reflect the true precision of these data.

A statistical summary of the water-quality analyses are presented in table 4. The data in table 4 are grouped by geologic unit. Because the statistical summaries are grouped by geologic unit, the number of data values may represent information for more than one well in the study area. Entries with single values are included for completeness, but are not statistically significant.

(1) Number of values (n) = the number of data values used to compute the descriptive statistics;

(2) Minimum = the smallest value in a group of values;

(3) Maximum = the largest value in a group of values;

(4) Mean = the sum of the values divided by the total number of values (n);

(5) Standard deviation = the measure of the dispersion about the mean. The standard deviation is the square root of the sum of the squares of deviations from the mean of all values in a group of values divided by the total number of values (n); and

(6) Median = the value of the middle observation of an uneven number of ranked observations or the mean of the two middle observations for an even number of ranked observations.

Table 3.--Selected chemical analyses of water samples collected from wells in the study area

[ft, feet; °C, degrees Celsius; mg/L, milligrams per liter; Spec. cond., specific conductance; µS/cm, microsiemens per centimeter at 25 degrees Celsius; Alk., alkalinity; --, no data]

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
		Adair County, Oklahoma				
360225	943440	18N-26E-18 BD	367RBDX	1,670	--	10/28/1981
		Alfalfa County, Oklahoma				
362901	981234	--	330MSSP	7,260	6,530	1/24/1967
363228	981023	24N-09W-21 C	318CDHL	46	--	4/ 5/1961
364716	982306	--	325CHRK	5,270	5,210	9/21/1967
364728	982008	--	325CHRK	5,290	--	9/10/1960
364742	981848	--	325CHRK	5,300	--	10/14/1963
364853	980756	--	325CHRK	5,390	3,900	10/ 7/1965
364914	980802	--	325CHRK	5,360	3,930	10/ 4/1965
365335	981848	--	333SPRG	5,080	--	9/18/1964
365417	980642	--	328MRRW	5,090	4,970	9/21/1967
		Beaver County, Oklahoma				
3632421004930		--	328MRRW	7,990	7,000	10/ 6/1961
3632591005534		--	328MRRW	7,510	7,090	9/20/1956
3633101004353		--	328MRRW	8,130	7,880	3/11/1970
3633221005457		--	328MRRW	7,210	7,140	6/26/1959
3637411004601		--	319CCGV	7,330	3,960	6/22/1966
3638101004724		--	328MRRW	7,250	7,160	11/29/1971
3641151002011		--	322DGLS	7,860	5,630	7/23/1959
3643031003206		--	325FRSC	6,540	6,420	12/10/1959
3645111000152		--	321TFGM	7,400	4,350	2/ 5/1958
3646021002939		--	319CCGV	7,280	3,300	6/29/1962
3647091002518		--	325FRSC	7,270	6,100	10/27/1959
3655231002200		05N-25E-04 CCC	310PRMN	150	--	7/25/1979
		Beckham County, Oklahoma				
351120	993513	--	310WTRS	--	61	8/17/1978
351258	995924	09N-26W-31 ABC	313DGCK	112	--	11/ 2/1951
351400	992900	09N-22W-25	313RSPG	198	--	7/30/1951
351616	994238	--	319PNTC	7,680	3,750	3/ 8/1945
351618	993219	--	324GRNR	--	8,220	8/12/1959
351618	993219	--	325DEES	--	8,800	8/12/1959
351657	994916	--	371GRNT	6,600	3,700	5/17/1936
351936	992233	10N-21W-24	323HXBR	--	8,870	9/22/1953
351936	992337	10N-21W-23	323HXBR	--	9,910	8/20/1953

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec. cond (μS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Adair County, Oklahoma								
360225	943440	18.7	7.3	268	459	88	1.9	--
Alfalfa County, Oklahoma								
362901	981234	--	6.3	193,000	204,000	12,700	1,090	--
363228	981023	--	7.4	323	571	59	17	220
364716	982306	--	5.2	196,000	196,000	12,900	1,970	--
364728	982008	--	4.5	69,600	100,000	4,500	644	--
364742	981848	--	5.5	221,000	222,000	13,000	2,030	--
364853	980756	--	4.7	220,000	204,000	15,300	2,030	--
364914	980802	--	4.9	225,000	208,000	15,800	2,150	--
365335	981848	--	4.7	224,000	208,000	12,600	4,220	--
365417	980642	--	5.8	271,000	--	16,900	787	--
Beaver County, Oklahoma								
3632421004930		--	7.3	33,300	52,600	378	110	--
3632591005534		--	4.4	80,100	100,000	732	1,660	--
3633101004353		--	7.3	12,700	25,200	237	80	--
3633221005457		--	6.5	62,100	78,700	2,400	365	--
3637411004601		--	7.2	230,000	250,000	7,670	2,450	--
3638101004724		--	--	32,300	50,000	267	91	--
3641151002011		--	5.9	167,000	175,000	12,100	2,160	--
3643031003206		--	6.3	130,000	80,000	7,680	1,650	--
3645111000152		--	5.9	233,000	192,000	18,000	3,120	--
3646021002939		--	6.1	255,000	204,000	10,500	3,910	--
3647091002518		--	6.7	170,000	156,000	8,480	2,040	--
3655231002200		17.1	7.6	421	635	29	12	120
Beckham County, Oklahoma								
351120	993513	25.0	7.5	544	720	88.7	24.3	--
351258	995924	16.0	7.1	3,260	3,640	614	155	2,200
351400	992900	--	7.3	1,170	1,530	225	62	820
351616	994238	--	--	93,900	--	11,000	176	--
351618	993219	--	6.6	55,200	86,200	2,370	353	--
351618	993219	--	6.1	50,500	78,700	4,490	328	--
351657	994916	--	--	186,000	--	20,400	3,270	--
351936	992233	--	--	30,200	50,200	777	144	--
351936	992337	--	--	69,200	82,600	14,100	2,610	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Adair County, Oklahoma									
360225	943440	7.7	--	1.0	10.0	15.0	270	--	--
Alfalfa County, Oklahoma									
362901	981234	58,200	--	714	120,000	412	21.3	26.0	--
363228	981023	32.0	--	1.4	20.0	18.0	213	260	23.0
364716	982306	56,600	--	101	124,000	255	30.3	37.0	--
364728	982008	20,300	--	93.0	42,900	1,100	23.0	28.0	--
364742	981848	69,900	--	--	136,000	240	66.4	81.0	--
364853	980756	66,800	--	--	136,000	184	19.7	24.0	--
364914	980802	68,000	--	--	139,000	200	33.6	41.0	--
365335	981848	67,700	--	--	139,000	125	8.2	10.0	--
365417	980642	81,400	--	417	170,000	1,070	37.7	46.0	--
Beaver County, Oklahoma									
3632421004930		12,500	--	--	20,000	--	454	554	--
3632591005534		28,100	--	--	49,200	378	88.6	108	--
3633101004353		4,600	--	--	7,300	308	303	369	--
3633221005457		21,200	--	--	37,200	756	250	305	--
3637411004601		78,800	--	--	142,000	--	45.1	55.0	--
3638101004724		12,200	--	26.0	19,500	63.0	266	324	--
3641151002011		49,200	--	--	103,000	289	148	180	--
3643031003206		39,700	--	--	78,700	1,300	403	--	--
3645111000152		67,200	--	--	145,000	172	73.0	89.0	--
3646021002939		82,000	--	761	157,000	1,380	68.9	84.0	--
3647091002518		54,200	--	--	104,000	225	646	--	--
3655231002200		100	100	2.2	27.0	120	164	200	0.8
Beckham County, Oklahoma									
351120	993513	58.5	--	2.8	10.0	213	244	--	--
351258	995924	177	--	8.0	171	1,930	217	265	60.0
351400	992900	44.0	--	1.0	46.0	651	155	189	26.0
351616	994238	24,500	--	--	56,800	1,300	51.7	63.0	--
351618	993219	18,500	--	--	33,600	6.0	423	516	--
351618	993219	14,400	--	--	30,900	64.0	453	552	--
351657	994916	46,000	--	--	116,000	499	23.8	29.0	--
351936	992233	10,700	--	--	18,100	37.8	326	398	--
351936	992337	7,620	--	--	43,200	775	710	866	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
		Beckham County, Oklahoma				
351936	992544	10N-21W-21	323HXBR	--	9,850	8/20/1953
351946	992508	--	323HXBR	10,700	10,400	9/23/1953
351947	992230	--	323HXBR	10,100	9,220	9/22/1953
352028	992337	10N-21W-14	323HXBR	--	9,340	9/22/1953
352028	992440	10N-21W-15	323HXBR	--	9,370	9/22/1953
352028	992647	10N-21W-17	323HXBR	--	10,000	9/22/1953
352028	992751	10N-21W-18	323HXBR	--	11,000	9/23/1953
352120	992751	10N-21W-07	323HXBR	--	9,440	9/22/1953
352213	992544	10N-21W-04	323HXBR	--	10,000	8/20/1953
352225	992554	--	323HXBR	10,500	10,000	8/20/1953
		Blaine County, Oklahoma				
353535	983032	--	313RSPG	--	54.9	11/11/1978
353632	982440	--	313RSPG	--	97.5	10/22/1978
353640	981330	13N-12W-08 CCC	313RSPG	117	--	9/21/1971
353940	982638	--	322DGLS	12,000	7,950	5/24/1966
354107	982457	14N-11W-18 CCB	313RSPG	41	--	9/20/1971
354318	982230	14N-11W-04 BAB	313DGCK	25	--	5/25/1942
354417	983124	--	325FRSC	10,200	9,500	11/ 1/1968
354601	982917	--	313RSPG	--	36.6	8/12/1978
354736	983139	15N-13W-12 ACC	313RSPG	135	--	10/ 5/1971
354824	982949	--	328MRRW	10,500	9,960	2/ 9/1967
354840	982859	--	313DGCK	--	94.5	8/13/1978
355047	983636	16N-13W-20 CBB	313RSPG	115	--	11/ 2/1971
355250	982736	--	328MRRW	9,380	9,090	11/14/1966
355343	982736	--	328MRRW	9,260	--	3/18/1967
355621	982612	17N-12W-24	313BLIN	--	--	7/12/1945
360341	983057	--	325DSMS	8,520	7,740	1/14/1967
		Caddo County, Oklahoma				
345230	982835	05N-12W-28 CBC	318PSOK	--	--	4/19/1964
345240	983505	05N-13W-29 DAA	367ABCK	--	--	8/ 3/1971
345310	983545	05N-13W-20 CDC	367ABCK	60	--	8/ 3/1971
345353	981807	--	313RSPG	--	18.3	7/28/1978
345356	981504	--	313RSPG	--	168	7/28/1978
345445	983520	05N-13W-17 ABB	367ABCK	--	--	8/ 3/1971
345518	980809	05N-09W-10	323HXBR	--	6,990	6/24/1953
345525	980848	--	323HXBR	6,850	6,340	8/26/1954

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Beckham County, Oklahoma								
351936	992544	--	--	23,900	37,000	885	191	--
351946	992508	--	--	7,010	9,740	505	119	--
351947	992230	--	--	29,700	37,300	564	326	--
352028	992337	--	--	10,600	18,300	202	39	--
352028	992440	--	--	25,700	42,400	552	30	--
352028	992647	--	--	17,300	29,200	162	30	--
352028	992751	--	--	22,600	38,000	1,020	136	--
352120	992751	--	--	25,600	43,700	816	140	--
352213	992544	--	--	16,800	27,300	138	41	--
352225	992554	--	--	16,200	21,200	137	41	--
Blaine County, Oklahoma								
353535	983032	19.0	6.7	--	320	37	17.3	--
353632	982440	26.0	7.5	--	350	56.8	22.3	--
353640	981330	--	8.1	395	527	--	--	240
353940	982638	--	6.6	106,000	143,000	4,640	659	--
354107	982457	--	8.2	287	482	--	--	170
354318	982230	--	--	2,840	--	426	96	1,500
354417	983124	--	7.2	28,600	46,100	622	166	--
354601	982917	21.0	8.3	295	470	62.6	15.6	--
354736	983139	--	--	169	263	--	--	98
354824	982949	--	7.5	18,600	30,200	236	44	--
354840	982859	23.0	6.6	--	450	73.8	12.3	--
355047	983636	18.5	7.6	638	954	--	--	380
355250	982736	--	7.3	18,600	30,100	204	41	--
355343	982736	--	6.7	21,900	35,800	1,500	137	--
355621	982612	--	--	2,390	--	554	48	1,600
360341	983057	--	7.8	59,000	84,800	1,220	281	--
Caddo County, Oklahoma								
345230	982835	--	7.4	716	1,210	--	--	240
345240	983505	18.0	7.9	322	565	--	--	310
345310	983545	19.5	8.0	480	770	--	--	280
345353	981807	24.0	7.2	484	770	153	5.1	--
345356	981504	24.0	7.0	--	3,040	479	82.2	--
345445	983520	19.0	7.9	1,450	1,730	--	--	800
345518	980809	--	--	53,400	75,200	947	21	--
345525	980848	--	7.8	44,200	64,500	536	275	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Beckham County, Oklahoma									
351936	992544	7,990	--	--	13,900	98.6	620	757	--
351946	992508	2,030	--	--	3,820	185	583	711	--
351947	992230	10,500	--	--	17,800	450	194	236	--
352028	992337	3,840	--	--	6,150	45.4	308	375	--
352028	992440	9,480	--	--	14,300	210	464	566	--
352028	992647	6,400	--	--	9,540	78.9	921	1,120	--
352028	992751	7,520	--	--	13,500	49.8	305	372	--
352120	992751	8,900	--	--	15,200	182	357	435	--
352213	992544	6,180	--	--	9,040	172	1,010	1,230	--
352225	992554	6,180	--	--	9,040	171	1,010	1,230	--
Blaine County, Oklahoma									
353535	983032	26.5	--	1.4	12.0	11.0	180	--	--
353632	982440	20.7	--	1.0	12.0	7.0	250	--	--
353640	981330	8.8	--	--	30.0	29.0	138	168	67.0
353940	982638	35,100	--	320	64,500	220	190	232	--
354107	982457	42.0	--	--	25.0	36.0	180	220	0.2
354318	982230	311	--	9.0	98.0	1,790	144	175	14.0
354417	983124	9,850	--	92.0	17,000	530	581	708	--
354601	982917	34.0	--	0.8	23.0	27.0	220	--	--
354736	983139	16.0	--	--	6.5	12.0	87.0	106	32.0
354824	982949	6,950	--	19.0	10,200	570	943	1,150	--
354840	982859	27.2	--	0.7	11.0	--	240	--	--
355047	983636	42.0	--	--	85.0	46.0	157	192	170
355250	982736	6,960	--	21.0	10,100	650	951	1,160	--
355343	982736	6,760	--	--	12,600	490	731	891	--
355621	982612	--	69.0	--	51.0	1,510	75.4	92.0	13.0
360341	983057	21,000	--	348	34,900	920	510	622	--
Caddo County, Oklahoma									
345230	982835	--	171	--	196	98.0	236	288	--
345240	983505	--	2.0	--	3.0	17.0	292	356	0.1
345310	983545	--	64.0	--	4.5	140	262	320	0.2
345353	981807	3.9	--	0.4	10.0	203	180	--	--
345356	981504	46.6	--	2.5	10.0	1,350	80.0	--	--
345445	983520	--	120	--	24.0	770	207	252	0.3
345518	980809	19,800	--	--	32,000	277	291	355	--
345525	980848	16,300	--	89.0	26,500	189	514	578	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Lati-tude	Longi-tude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
	Caddo County, Oklahoma					
345546	982621	--	364BRMD	3,920	--	1/ 6/1949
345604	982648	--	364SMPS	3,970	--	7/14/1947
345615	982701	--	364SMPS	3,970	3,970	3/12/1947
345617	981316	--	323HXBR	4,860	--	4/23/1948
345622	981326	--	324GRNR	6,090	--	9/ 2/1951
345622	981326	--	323ROWE	6,090	--	9/ 7/1951
345622	981326	--	323HXBR	6,090	--	9/13/1951
345625	983515	05N-13W-05 ABD	367ABCK	--	--	8/ 4/1971
345627	982713	--	364SMPS	1,330	--	7/14/1947
345628	981146	--	313RSPG	--	67.1	8/10/1978
345630	981332	--	323HXBR	6,110	--	2/ 4/1946
345630	981332	--	323HXBR	6,110	--	4/23/1948
345630	981332	--	323HXBR	6,110	--	2/26/1958
345636	981423	--	317SMNR	3,460	--	2/10/1960
345639	981439	--	323HXBR	6,110	--	10/18/1951
345639	981439	--	323HXBR	6,110	--	2/26/1958
345654	982720	--	364SMPS	4,030	4,030	3/12/1947
345656	980838	--	313RSPG	--	76.2	8/10/1978
345702	981532	06N-10W-33	323HXBR	--	5,640	6/24/1953
345709	981412	--	323ROWE	3,410	--	10/16/1959
345717	981437	--	323ROWE	3,390	3,350	10/16/1959
345722	981518	--	323HXBR	3,480	--	4/23/1948
345722	981518	--	323HXBR	3,480	--	2/26/1958
345735	981511	--	324GRNR	3,450	3,440	3/12/1947
345741	981359	--	328SPRG	4,460	4,440	3/21/1938
345820	981700	06N-10W-20 CCC	313RSPG	108	--	7/10/1973
345917	981804	--	313RSPG	--	85.3	7/28/1978
345920	982635	06N-12W-15 DDD	313ELRN	55	--	6/19/1973
350050	982808	--	313ELRN	--	73.1	11/ 3/1978
350125	983116	--	364BRMD	9,400	8,380	5/ 2/1957
350137	981149	--	313RSPG	--	30.5	9/27/1978
350144	980842	--	313RSPG	--	45.7	9/27/1978
350215	982708	07N-12W-34 ADD	313RSPG	57	--	3/17/1948
350455	981328	10N-14W-07	313RSPG	100	--	2/ 4/1969
350600	982050	07N-11W-30	313RSPG	--	--	8/22/1949
350600	982100	07N-12W-02	313RSPG	--	--	2/ 7/1957
350618	982552	07N-12W-02 DD	313RSPG	--	--	8/23/1951
350658	981019	--	313MRLW	--	73.1	10/25/1978
350721	982625	08N-12W-35 CBA	313RSPG	170	--	7/31/1970
350730	981900	08N-11W-36 DDB	313RSPG	200	--	7/31/1970

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
	Caddo County, Oklahoma							
345546	982621	--	6.3	170,000	133,000	8,830	1,700	--
345604	982648	--	6.0	175,000	189,000	8,480	1,690	--
345615	982701	--	6.3	184,000	154,000	9,020	1,830	--
345617	981316	--	--	106,000	--	4,000	740	--
345622	981326	--	--	166,000	--	9,520	1,870	--
345622	981326	--	--	158,000	--	9,210	1,650	--
345622	981326	--	--	146,000	--	8,730	1,050	--
345625	983515	27.0	7.8	195	364	--	--	120
345627	982713	--	6.1	19,400	34,200	545	278	--
345628	981146	20.5	--	326	570	87.2	16.9	--
345630	981332	--	--	101,000	--	3,730	752	--
345630	981332	--	--	103,000	--	3,860	735	--
345630	981332	--	6.8	107,000	--	3,920	736	--
345636	981423	--	6.0	181,000	179,000	9,570	1,990	--
345639	981439	--	--	116,000	--	4,360	838	--
345639	981439	--	6.4	112,000	--	4,280	775	--
345654	982720	--	6.4	173,000	147,000	8,280	1,650	--
345656	980838	25.0	--	820	1,470	194	21.4	--
345702	981532	--	--	153,000	170,000	9,410	1,860	--
345709	981412	--	6.4	170,000	152,000	9,910	1,800	--
345717	981437	--	6.5	51,600	55,900	2,900	558	--
345722	981518	--	--	116,000	--	5,070	965	--
345722	981518	--	6.7	87,200	--	2,730	565	--
345735	981511	--	5.8	193,000	154,000	10,900	2,160	--
345741	981359	--	--	144,000	--	7,880	1,530	--
345820	981700	20.0	7.7	590	856	140	18	420
345917	981804	20.5	7.1	200	320	56.8	5.4	--
345920	982635	20.0	7.9	478	820	67	50	370
350050	982808	20.5	7.5	397	590	56.8	32.8	--
350125	983116	--	6.9	92,000	111,000	5,860	1,080	--
350137	981149	20.5	6.0	224	350	67.5	7.8	--
350144	980842	19.0	5.8	2,070	2,560	540	52.2	--
350215	982708	15.5	--	154	222	21	0.3	54
350455	981328	21.0	8.3	975	1,370	--	--	680
350600	982050	--	--	986	1,200	246	6.6	640
350600	982100	--	7.7	186	310	37	7.7	120
350618	982552	--	7.5	307	477	74	8.5	220
350658	981019	18.0	7.5	995	1,180	232	41.2	--
350721	982625	18.0	7.8	263	409	--	--	170
350730	981900	18.0	7.8	273	383	--	--	170

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
	Caddo County, Oklahoma								
345546	982621	54,500	--	--	104,000	137	51.7	63.0	--
345604	982648	56,900	--	--	107,000	406	33.6	41.0	--
345615	982701	59,800	--	--	113,000	5.0	79.5	97.0	--
345617	981316	36,000	--	--	64,500	361	170	207	--
345622	981326	52,200	--	--	103,000	31.0	12.3	15.0	--
345622	981326	49,300	--	--	97,300	28.0	27.1	33.0	--
345622	981326	46,200	--	--	89,800	47.0	41.8	51.0	--
345625	983515	--	26.0	--	25.0	32.0	115	140	0.2
345627	982713	6,600	--	--	11,800	98.0	202	246	--
345628	981146	12.6	--	0.7	31.0	52.0	210	--	--
345630	981332	34,600	--	--	61,500	362	586	714	--
345630	981332	35,100	--	--	62,700	353	321	391	--
345630	981332	36,500	--	--	65,000	326	401	489	--
345636	981423	57,500	--	--	111,000	135	23.8	29.0	--
345639	981439	39,400	--	--	70,700	315	257	313	--
345639	981439	38,000	--	--	68,000	330	286	349	--
345654	982720	56,400	--	--	106,000	2.0	177	216	--
345656	980838	63.4	--	0.8	365	84.0	154	--	--
345702	981532	46,900	--	--	93,200	1,560	60.2	73.4	--
345709	981412	53,200	--	--	105,000	16.0	68.9	84.0	--
345717	981437	16,000	--	--	29,400	2,790	63.1	77.0	--
345722	981518	38,700	--	--	71,200	241	145	177	--
345722	981518	30,400	--	--	53,000	251	403	492	--
345735	981511	60,500	--	--	118,000	703	55.8	68.0	--
345741	981359	45,600	--	--	88,500	310	156	190	--
345820	981700	--	20.0	--	26.0	150	194	237	80.0
345917	981804	8.7	--	0.4	10.0	33.0	140	--	--
345920	982635	--	35.0	--	21.0	20.0	358	436	53.0
350050	982808	44.8	--	2.0	20.0	71.0	282	--	--
350125	983116	28,100	--	--	56,500	422	170	207	--
350137	981149	8.0	--	0.6	10.0	22.0	180	--	--
350144	980842	23.9	--	1.1	10.0	1,360	130	--	--
350215	982708	--	49.0	--	10.0	12.0	130	158	--
350455	981328	--	45.0	--	40.0	268	468	562	0.1
350600	982050	--	39.0	--	8.0	476	177	216	50.0
350600	982100	--	16.0	--	3.3	9.5	108	132	50.0
350618	982552	13.0	--	1.1	7.2	79.0	155	189	0.7
350658	981019	20.5	--	0.7	10.0	595	158	--	--
350721	982625	--	18.0	--	7.1	28.0	139	170	29.0
350730	981900	--	12.0	--	3.1	35.0	141	172	20.0

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
		Caddo County, Oklahoma				
350732	981701	08N-10W-32 BCC	313RSPG	172	--	7/31/1970
350855	982953	08N-12W-19 DAC	313RSPG	2,560	--	8/25/1965
350930	983525	08N-13W-20 ABA	313RSPG	300	--	8/26/1965
351150	983130	08N-13W-01 AB	313RSPG	40	--	3/17/1948
351230	983350	09N-13W-34 CDA	313RSPG	--	--	8/19/1970
351257	982530	09N-12W-36 BAC	313RSPG	290	--	8/26/1965
351405	982352	09N-12W-24 DD	313RSPG	120	--	3/24/1948
351810	982108	10N-11W-33 BA	313RSPG	--	--	5/24/1956
351950	982822	10N-12W-23 B	313RSPG	288	--	4/13/1956
352220	983430	10N-13W-04 AD	313RSPG	--	--	3/17/1948
		Canadian County, Oklahoma				
352331	980040	11N-08W-26 BD	313DGCK	70	--	10/13/1964
352439	981013	11N-09W-20 DA	313MRLW	110	--	6/17/1953
352441	974233	--	344HNTN	8,450	--	4/ 5/1956
352642	974229	11N-05W-10 ADA	313ELRN	28	--	4/14/1948
352823	975708	12N-07W-33 BD	313DGCK	50	--	5/24/1960
353335	980057	13N-08W-29 AAA	313ELRN	17	--	4/15/1943
353437	981536	--	313DGCK	--	30.5	10/29/1978
353448	975360	--	313GDLP	--	152	11/ 5/1977
353710	981449	--	325FRSC	11,000	9,600	8/10/1966
353824	974955	--	318GRBR	--	51.8	11/ 7/1977
353929	980447	14N-08W-29 CBC	313ELRN	27	--	2/20/1954
353940	981807	--	328MRRW	10,800	10,500	8/16/1967
353940	981807	--	328MRRW	10,800	10,400	8/24/1967
353947	981716	--	328MRRW	10,800	10,100	7/10/1968
354025	981725	--	328MRRW	10,600	10,300	4/17/1967
354025	981725	--	328MRRW	10,600	10,200	4/21/1967
354034	974952	--	318GRBR	--	79.3	11/ 7/1977
354051	980105	14N-08W-23 ABB	313ELRN	31	--	11/24/1971
354151	974031	--	344HNTN	7,010	--	8/31/1945
354319	974753	--	318GRBR	--	104	11/ 7/1977
		Carter County, Oklahoma				
340956	971624	04S-01W-35	323HXBR	--	4,970	9/28/1954
340956	973107	04S-03W-33	340HNTN	--	6,410	9/30/1954
341048	972345	04S-02W-27	323HXBR	--	2,080	9/28/1954
341557	971006	03S-01E-26	340HNTN	--	4,580	8/18/1953

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
	Caddo County, Oklahoma							
350732	981701	18.0	8.0	281	437	--	--	190
350855	982953	18.0	7.8	307	446	--	--	210
350930	983525	18.0	7.7	1,270	1,480	--	--	800
351150	983130	17.0	--	273	393	27	13	120
351230	983350	18.0	8.0	311	513	--	--	210
351257	982530	18.5	7.8	310	450	--	--	220
351405	982352	--	--	448	742	36	16	160
351810	982108	--	8.0	270	414	53	2.9	140
351950	982822	17.2	7.4	207	325	48	7.3	150
352220	983430	15.0	--	154	268	37	5.2	110
	Canadian County, Oklahoma							
352331	980040	--	8.0	844	1,290	--	--	600
352439	981013	17.0	7.9	555	994	143	17	430
352441	974233	--	--	212,000	196,000	7,660	1,320	--
352642	974229	17.0	--	525	809	--	--	220
352823	975708	14.5	7.5	723	1,160	94	33	370
353335	980057	--	--	1,160	1,730	130	72	620
353437	981536	21.5	6.1	363	560	59.1	19.7	--
353448	975360	16.5	7.4	--	1,600	282	38.7	--
353710	981449	--	6.3	62,900	97,100	2,740	342	--
353824	974955	17.5	7.2	--	1,460	66.5	30.2	--
353929	980447	17.5	6.8	233	373	43	12	160
353940	981807	--	7.7	8,900	15,300	172	37	--
353940	981807	--	7.4	17,300	28,500	180	29	--
353947	981716	--	7.6	18,100	28,500	166	26	--
354025	981725	--	7.3	21,600	34,800	768	83	--
354025	981725	--	7.4	19,200	31,200	584	83	--
354034	974952	17.0	6.6	--	2,230	196	55.5	--
354051	980105	10.5	7.7	992	1,450	--	--	570
354151	974031	--	--	181,000	--	7,740	1,680	--
354319	974753	18.5	6.2	--	680	27.4	13.1	--
	Carter County, Oklahoma							
340956	971624	--	--	207,000	213,000	16,800	3,400	--
340956	973107	--	--	155,000	175,000	17,400	2,320	--
341048	972345	--	--	139,000	170,000	10,600	2,870	--
341557	971006	--	--	53,500	74,100	1,540	275	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
	Caddo County, Oklahoma								
350732	981701	--	18.0	--	4.1	19.0	189	230	17.0
350855	982953	--	12.0	--	4.0	37.0	180	220	16.0
350930	983525	--	46.0	--	17.0	705	141	172	0.1
351150	983130	--	29.0	--	11.0	16.0	90.2	110	75.0
351230	983350	--	29.0	--	8.0	64.0	197	240	0.2
351257	982530	--	9.0	--	6.2	93.0	125	152	0.7
351405	982352	--	108	--	49.0	21.0	259	316	10.0
351810	982108	21.0	--	0.8	6.4	38.0	139	170	0.8
351950	982822	10.0	--	1.4	5.0	13.0	152	185	0.1
352220	983430	--	16.0	--	14.0	7.8	119	145	--
	Canadian County, Oklahoma								
352331	980040	77.0	--	3.0	48.0	262	430	524	0.4
352439	981013	--	23.0	--	73.0	203	160	195	--
352441	974233	73,000	--	--	130,000	48.0	214	261	--
352642	974229	--	76.0	--	50.0	100	192	234	20.0
352823	975708	--	89.0	--	136	164	202	246	--
353335	980057	--	184	--	82.0	404	481	586	0.2
353437	981536	57.4	--	2.1	52.0	46.0	210	--	--
353448	975360	96.1	--	--	--	618	182	--	--
353710	981449	21,100	--	140	38,100	330	310	378	--
353824	974955	249	--	--	--	80.0	346	--	--
353929	980447	15.0	--	1.4	7.5	29.0	116	142	36.0
353940	981807	3,270	--	--	4,890	120	670	817	--
353940	981807	6,590	--	--	9,720	150	1,030	1,260	--
353947	981716	6,900	--	17.0	10,100	240	1,070	1,310	--
354025	981725	7,490	--	23.0	12,400	320	781	952	--
354025	981725	6,770	--	35.0	10,900	350	869	1,060	--
354034	974952	245	--	--	--	360	250	--	--
354051	980105	--	120	--	53.0	290	456	556	0.4
354151	974031	60,200	--	--	111,000	542	134	163	--
354319	974753	113	--	--	--	40.0	236	--	--
	Carter County, Oklahoma								
340956	971624	57,800	--	--	129,000	53.1	19.4	23.7	--
340956	973107	38,400	--	--	96,700	74.9	36.1	44.0	--
341048	972345	38,800	--	--	87,100	--	21.5	26.2	--
341557	971006	18,900	--	--	32,300	231	249	304	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Lati-tude	Longi-tude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
		Carter County, Oklahoma				
341602	972345	03S-02W-27	319PNTC	--	870	1/25/1955
341840	972551	03S-02W-08	325SNOR	--	3,240	6/11/1953
342015	972746	--	321CSCO	10,600	2,160	3/12/1947
342015	972746	--	367ABCK	10,600	10,300	6/19/1962
342015	972746	--	367ABCK	10,600	9,120	8/ 6/1962
342015	972746	--	367ABCK	10,600	10,200	10/ 0/1962
342015	972746	--	367ABCK	10,600	10,300	10/ 0/1962
342117	973004	02S-03W-27	325DSMS	--	2,270	6/11/1953
342117	973004	02S-03W-27	340HNTN	--	5,190	6/22/1953
342117	973210	02S-03W-29	325DEES	--	2,150	3/20/1953
342148	971108	02S-01E-22 DCC	364SMPS	72	--	8/31/1978
342209	973004	02S-03W-22	325DSMS	--	2,630	6/10/1953
342301	973004	02S-03W-15	320PSLV	--	3,130	6/10/1953
342446	973004	02S-03W-03	310PRMN	--	1,960	6/11/1953
342446	973004	02S-03W-03	323LNSG	--	1,380	6/23/1953
342446	973313	02S-03W-06	324STRN	--	4,310	1/26/1955
342504	973010	--	310PRMN	1,980	1,960	6/11/1953
342816	973210	01S-03W-17	325DEES	--	3,440	1/26/1955
342908	973313	01S-03W-07	328SPRG	--	5,720	1/26/1955
		Cimarron County, Oklahoma				
3632271024145		01N-03E-23 D	211DKOT	470	--	10/15/1963
3633281024215		01N-03E-14 ABB	211DKOT	590	--	4/25/1967
3634051024547		01N-03E-08 B	230TCPM	703	--	4/25/1967
3634071024529		01N-03E-08 ACB	211DKOT	700	--	4/25/1967
3642501020307		--	328MRRW	4,790	4,620	9/10/1963
3646371021128		04N-08E-27 C	231DCKM	280	--	2/ 0/1963
3655391025726		02N-01E-04	221MRSN	29	--	8/12/1959
3657301020320		06N-09E-26	328MRRW	--	4,660	6/ 5/1955
3658161020332		--	328MRRW	4,910	4,160	6/ 5/1955
3658201020320		06N-09E-23	328MRRW	--	4,160	6/ 5/1955
		Cleveland County, Oklahoma				
345740	971341	06N-01E-30 DAD	318GRBR	60	--	9/ 9/1965
350055	971254	--	318PSOK	--	--	4/17/1944
350055	971254	06N-01E-05 DDC	318GRBR	435	--	4/17/1944
350239	971350	--	364SMPS	8,320	6,840	9/25/1939
350239	971350	--	367ABCK	--	8,320	7/24/1940

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Carter County, Oklahoma								
341602	972345	--	--	163,000	179,000	11,800	2,270	--
341840	972551	--	--	145,000	156,000	8,300	1,960	--
342015	972746	--	6.3	85,800	--	6,180	1,370	--
342015	972746	--	8.0	84,800	115,000	2,200	461	--
342015	972746	--	7.4	74,100	93,500	4,250	178	--
342015	972746	--	7.3	108,000	92,600	4,790	1,400	--
342015	972746	--	8.5	83,000	78,100	2,650	486	--
342117	973004	--	--	136,000	149,000	11,000	2,350	--
342117	973004	--	--	73,500	103,000	1,260	208	--
342117	973210	--	--	170,000	170,000	13,300	3,460	--
342148	971108	22.0	7.2	352	570	110	7.4	310
342209	973004	--	--	132,000	120,000	9,260	1,860	--
342301	973004	--	--	164,000	141,000	13,100	2,320	--
342446	973004	--	--	77,300	101,000	3,200	258	--
342446	973004	--	--	57,100	79,400	1,760	693	--
342446	973313	--	--	171,000	189,000	9,410	2,660	--
342504	973010	--	--	77,200	78,700	3,200	258	--
342816	973210	--	--	167,000	185,000	9,050	2,830	--
342908	973313	--	--	118,000	145,000	3,980	916	--
Cimarron County, Oklahoma								
3632271024145		--	--	284	457	32	24	180
3633281024215		15.0	8.0	295	469	--	--	190
3634051024547		--	--	338	543	91.4	--	--
3634071024529		14.5	8.1	338	543	--	--	230
3642501020307		--	8.0	59,000	86,200	1,900	733	--
3646371021128		--	--	384	640	--	--	140
3655391025726		--	--	1,750	2,320	99	89	620
3657301020320		--	--	102,000	125,000	4,370	1,060	--
3658161020332		--	--	67,600	94,300	2,390	659	--
3658201020320		--	--	67,800	94,300	2,390	659	--
Cleveland County, Oklahoma								
345740	971341	19.5	8.0	293	472	--	--	220
350055	971254	--	--	1,550	2,390	--	--	57
350055	971254	18.5	--	1,550	2,390	--	--	57
350239	971350	--	--	230,000	--	12,700	2,890	--
350239	971350	--	--	164,000	--	10,800	2,070	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Carter County, Oklahoma									
341602	972345	47,800	--	--	101,000	52.8	--	--	--
341840	972551	45,100	--	--	90,000	--	54.6	66.6	--
342015	972746	24,900	--	--	53,300	18.0	52.5	64.0	--
342015	972746	30,100	--	33.0	47,700	4,020	534	651	--
342015	972746	23,600	--	512	42,800	2,620	394	481	--
342015	972746	34,300	--	440	63,400	2,870	535	652	--
342015	972746	28,200	--	610	47,100	3,310	1,060	139	--
342117	973004	37,900	--	--	84,800	--	10.7	13.0	--
342117	973004	27,200	--	--	44,700	--	147	180	--
342117	973210	46,900	--	--	106,000	--	89.0	108	--
342148	971108	15.0	--	0.7	5.3	16.0	312	380	--
342209	973004	38,800	--	--	81,700	77.9	--	--	--
342301	973004	46,600	--	--	102,000	--	28.0	34.2	--
342446	973004	26,500	--	--	47,100	128	121	148	--
342446	973004	19,400	--	--	35,000	--	198	241	--
342446	973313	53,000	--	--	106,000	69.7	--	--	--
342504	973010	26,500	--	--	47,100	127	120	147	--
342816	973210	51,600	--	--	104,000	120	55.2	67.3	--
342908	973313	40,400	--	--	71,700	210	243	296	--
Cimarron County, Oklahoma									
3632271024145		--	25.0	--	10.0	42.0	177	216	--
3633281024215		28.0	--	4.1	10.0	42.0	185	226	0.8
3634051024547		--	33.0	--	18.0	56.0	210	256	0.4
3634071024529		30.0	--	4.7	18.0	56.0	210	256	0.4
3642501020307		19,700	--	--	33,600	2,850	339	413	--
3646371021128		--	86.0	--	9.0	68.0	241	294	0.8
3655391025726		--	349	--	72.0	867	369	450	0.1
3657301020320		33,300	--	--	60,600	1,910	141	172	--
3658161020332		22,800	--	--	40,100	1,490	282	344	--
3658201020320		22,800	--	--	40,100	1,490	282	344	--
Cleveland County, Oklahoma									
345740	971341	--	18.0	--	5.9	25.0	226	276	--
350055	971254	--	510	--	400	360	220	250	0.2
350055	971254	--	508	--	400	360	219	247	0.2
350239	971350	72,300	--	--	142,000	270	37.7	46.0	--
350239	971350	49,300	--	--	101,000	426	78.7	96.0	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Lati-tude	Longi-tude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
Cleveland County, Oklahoma						
350335	971043	07N-01E-22 DDA	310WLNG	116	--	10/18/1954
350509	971549	07N-01W-13 BBB	318GRBR	100	--	4/20/1954
350516	972148	--	364SMPS	7,680	--	5/26/1938
350753	971548	08N-01W-25 CCC	318GRBR	69	--	10/18/1954
350823	972141	08N-02W-25	364TPCK	--	7,940	9/ 1/1954
350824	972337	08N-02W-27 ACD	318GRBR	461	--	3/ 9/1943
350824	972337	08N-02W-27 ACD	318GRBR	461	--	2/ 8/1952
350937	970955	--	364SMPS	6,520	6,220	9/ 1/1954
350944	971703	--	325CHRK	7,190	6,500	1/ 6/1966
350957	971647	--	364SMPS	7,160	7,100	11/22/1963
350958	971703	--	325CHRK	7,250	--	12/ 2/1965
350959	971211	08N-01E-16	364SMPS	--	6,430	9/ 1/1954
351000	971550	08N-01W-13 CBB	318GRBR	100	--	12/ 9/1970
351005	971709	--	325CHRK	8,010	--	11/21/1963
351025	971733	--	325CHRK	6,650	6,500	1/ 6/1966
351032	971741	--	325CHRK	--	6,500	1/ 6/1966
351039	972657	08N-02W-07 DCB	318HNSS	--	--	9/12/1958
351039	972657	08N-02W-07 DCB	318HNSS	--	--	12/26/1958
351115	971039	08N-01E-10 AAA	310WLNG	63	--	10/20/1954
351118	972518	08N-02W-09 BBB	318HNSS	237	--	3/11/1943
351118	972518	08N-02W-09 BBB	318HNSS	225	--	3/29/1943
351138	972036	08N-02W-05 DB	318GRBR	562	--	3/11/1943
351139	972537	08N-02W-05 DAC	318HNSS	635	--	4/15/1944
351142	972840	08N-03W-02 DAD	318GRBR	48	--	5/01/1958
351145	972544	08N-02W-05 DBA	318GRBR	562	--	6/ 9/1955
351211	972411	--	318GRBR	--	125	2/25/1978
351212	971123	--	319PNTC	1,600	--	8/ 9/1960
351213	972600	08N-02W-05 BAA	318GRBR	567	--	3/ 6/1943
351216	972735	09N-03W-36 DDD	318HNSS	260	--	9/ 8/1945
351230	972631	09N-02W-31 DAD	318GRBR	661	--	3/10/1943
351232	971128	--	364SMPS	6,310	6,300	9/ 1/1954
351233	971107	09N-01E-34	364SMPS	--	6,300	9/ 1/1954
351233	971113	--	364SMPS	6,280	--	8/ 9/1960
351304	972505	09N-02W-33 BAB	318GRBR	205	--	3/29/1943
351330	972647	09N-02W-30 ACB	318GRBR	591	--	3/ 8/1943
351339	971919	--	364SMPS	7,250	7,240	3/22/1960
351339	971919	--	364BRMD	7,250	7,240	9/ 7/1960
351401	972523	09N-02W-21 CCC	318GRBR	650	--	3/ 5/1958
351429	973138	--	364BRMD	10,600	9,480	11/ 2/1951
351429	973138	--	3640LCK	10,600	10,200	12/ 5/1951

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Cleveland County, Oklahoma								
350335	971043	16.5	7.2	409	738	76	44	370
350509	971549	16.5	7.5	355	611	58	36	290
350516	972148	--	--	259,000	--	13,000	2,500	--
350753	971548	19.0	7.5	679	1,190	100	58	490
350823	972141	--	--	254,000	227,000	16,400	2,660	--
350824	972337	--	8.0	539	848	3.9	1.4	16
350824	972337	--	8.5	528	843	3.8	1.5	16
350937	970955	--	--	223,000	167,000	13,500	2,860	--
350944	971703	--	5.3	245,000	213,000	13,700	2,260	--
350957	971647	--	6.6	208,000	204,000	11,100	2,510	--
350958	971703	--	5.0	245,000	204,000	14,100	2,380	--
350959	971211	--	--	229,000	222,000	13,100	3,100	--
351000	971550	17.0	7.3	271	482	--	--	250
351005	971709	--	5.9	213,000	208,000	11,000	2,340	--
351025	971733	--	5.0	203,000	196,000	11,300	1,710	--
351032	971741	--	4.6	229,000	204,000	13,100	1,950	--
351039	972657	19.5	8.2	279	411	32	21	170
351039	972657	--	8.0	326	500	45	25	220
351115	971039	19.5	7.1	129	207	35	0.1	88
351118	972518	--	--	612	917	26	13	120
351118	972518	--	--	2,750	3,640	126	51	530
351138	972036	--	--	1,410	2,020	35	15	150
351139	972537	19.0	--	1,110	1,670	29	14	130
351142	972840	18.0	8.5	250	464	56	11	190
351145	972544	18.0	7.6	1,650	2,410	34	15	150
351211	972411	18.0	7.0	--	1,000	4.6	2.2	--
351212	971123	--	6.4	228,000	222,000	13,000	2,770	--
351213	972600	--	7.9	--	1,510	10	4	41
351216	972735	18.0	--	5,900	--	179	52	660
351230	972631	17.0	7.9	--	1,630	--	--	27
351232	971128	--	--	221,000	170,000	13,400	3,520	--
351233	971107	--	--	221,000	213,000	13,400	3,520	--
351233	971113	--	7.2	54,200	82,000	2,380	582	--
351304	972505	--	--	936	1,450	12	4.4	48
351330	972647	--	8.6	666	1,060	2	0.8	8
351339	971919	--	5.3	199,000	--	12,300	2,250	--
351339	971919	--	6.0	225,000	175,000	12,000	2,020	--
351401	972523	18.0	8.9	411	662	2	--	5
351429	973138	--	6.3	283,000	208,000	22,700	2,150	--
351429	973138	--	6.3	295,000	204,000	21,000	3,530	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Lati-tude	Longi-tude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Cleveland County, Oklahoma									
350335	971043	14.0	--	2.4	15.0	11.0	376	458	0.1
350509	971549	28.0	--	1.6	14.0	8.7	308	376	0.8
350516	972148	83,700	--	--	158,000	1,110	189	230	--
350753	971548	58.0	--	2.4	104	58.0	353	430	62.0
350823	972141	78,100	--	--	157,000	272	11.3	13.8	--
350824	972337	197	--	1.8	21.0	106	311	318	0.2
350824	972337	200	--	1.9	19.0	110	305	353	0.4
350937	970955	68,600	--	--	138,000	642	52.5	64.0	--
350944	971703	77,900	--	--	151,000	15.0	30.3	37.0	--
350957	971647	65,800	--	--	128,000	570	80.4	98.0	--
350958	971703	77,200	--	--	151,000	4.0	22.1	27.0	--
350959	971211	70,900	--	--	141,000	610	--	--	--
351000	971550	--	7.4	--	7.0	7.0	251	306	0.2
351005	971709	68,200	--	--	131,000	645	50.0	61.0	--
351025	971733	64,800	--	--	125,000	33.0	27.9	34.0	--
351032	971741	72,600	--	--	141,000	123	4.1	5.0	--
351039	972657	25.0	--	1.9	15.0	39.0	116	142	48.0
351039	972657	25.0	--	2.4	18.0	41.0	141	172	65.0
351115	971039	5.0	--	1.7	4.5	7.6	89.4	109	0.1
351118	972518	--	188	--	18.0	140	331	404	27.0
351118	972518	--	703	--	78.0	1,600	238	290	41.0
351138	972036	--	439	--	63.0	667	314	358	0.1
351139	972537	--	343	--	34.0	518	281	343	0.8
351142	972840	--	26.0	--	7.0	14.0	204	232	14.0
351145	972544	--	495	--	54.0	736	404	492	0.7
351211	972411	224	--	0.6	--	22.0	475	--	--
351212	971123	70,500	--	670	140,000	572	62.3	76.0	--
351213	972600	--	371	--	45.0	357	386	410	0.1
351216	972735	--	1,580	--	150	3,600	136	148	--
351230	972631	--	391	--	29.0	459	350	356	0.1
351232	971128	66,700	--	--	136,000	802	34.4	42.0	--
351233	971107	66,700	--	--	136,000	802	34.4	42.0	--
351233	971113	17,300	--	218	29,900	3,760	79.5	97.0	--
351304	972505	--	325	--	89.0	202	337	348	100
351330	972647	244	--	1.4	14.0	175	352	342	0.1
351339	971919	63,700	--	--	120,000	617	19.7	24.0	--
351339	971919	72,300	--	--	138,000	597	36.9	45.0	--
351401	972523	161	--	0.6	5.0	39.0	309	322	0.6
351429	973138	83,000	--	--	174,000	1,200	79.5	97.0	--
351429	973138	87,700	--	--	182,000	363	81.2	99.0	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
Cleveland County, Oklahoma						
351500	973247	09N-03W-17 DAC	318GRBR	625	--	10/17/1944
351558	972522	09N-02W-09 CBC	318GRBR	408	--	1/25/1951
351559	972838	09N-03W-11 DAD	318GRBR	671	--	7/19/1945
351601	972550	09N-02W-08 DB	318GRBR	580	--	3/ 9/1943
351641	972856	09N-03W-02 DCA	318GRBR	723	--	4/21/1954
351816	972929	10N-03W-35 BBA	318HNSS	313	--	7/23/1945
351819	973223	10N-03W-29 CDD	318GRBR	317	--	4/22/1944
351826	972918	10N-03W-26 CD	318GRBR	600	--	7/23/1945
351842	973207	--	325CHRK	8,900	--	3/27/1947
351844	972557	10N-02W-29	364SMPS	--	7,420	9/ 1/1954
351847	972620	--	364SMPS	7,500	7,410	9/ 1/1954
351856	973018	--	325CHRK	8,310	7,830	11/19/1945
351856	973018	--	320PSLV	8,310	--	11/24/1945
351859	973712	10N-04W-28 AAB	313ELRN	56	--	11/ 9/1966
351907	971916	10N-01W-29 AAB	318GRBR	72	--	10/25/1954
351911	971245	10N-01E-20 DDD	318GRBR	100	--	10/19/1954
351914	972426	--	364SMPS	7,300	--	8/20/1938
351914	972538	--	364SMPS	7,530	7,530	9/ 1/1954
351916	973230	--	344HNTN	8,100	8,030	4/ 5/1946
351922	973222	--	364SMPS	9,290	8,560	8/15/1944
351930	973713	--	344HNTN	8,320	8,160	4/ 5/1960
351932	972428	--	364SMPS	7,270	7,270	4/17/1952
351936	972453	10N-02W-21	364SMPS	--	7,230	9/ 1/1954
351942	972431	--	364MCLS	7,960	7,500	3/26/1952
351942	972431	--	364MCLS	7,960	7,630	3/26/1952
351943	973641	--	344HNTN	8,250	8,110	8/ 7/1959
351943	973714	--	344HNTN	8,280	8,130	5/25/1960
351944	973639	--	344HNTN	8,640	8,140	9/ 7/1959
351959	972436	--	364SMPS	7,270	7,230	9/ 1/1954
351959	972649	--	325SNOR	8,960	--	5/18/1945
352009	973816	--	344HNTN	8,390	8,310	4/15/1957
352025	972900	10N-03W-14 DBB	318GRBR	501	--	3/ 6/1943
352025	972909	10N-03W-14 CAA	310WLNG	204	--	3/13/1943
352028	971004	10N-01E-14	364SMPS	--	6,100	9/ 1/1954
352053	974001	--	318FRMN	--	113	1/ 8/1978
352151	972844	10N-03W-03 DC	318GRBR	300	--	11/ 1/1957
Coal County, Oklahoma						
342703	961524	01S-10E-21 DCA	325MCAL	500	--	8/ 3/1979

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Cleveland County, Oklahoma								
351500	973247	--	8.3	618	--	11	3.7	43
351558	972522	--	--	320	546	38	32	230
351559	972838	18.0	--	369	--	6	4.2	32
351601	972550	17.0	7.9	560	862	--	--	26
351641	972856	18.5	8.4	363	584	2	1.5	11
351816	972929	17.0	--	439	--	7.8	4.1	36
351819	973223	--	--	2,250	3,460	--	--	44
351826	972918	18.0	--	246	--	16	21	130
351842	973207	--	4.7	31,800	40,600	3,680	337	--
351844	972557	--	--	256,000	233,000	17,400	3,350	--
351847	972620	--	--	256,000	182,000	17,400	3,350	--
351856	973018	--	--	142,000	--	4,120	896	--
351856	973018	--	--	133,000	--	3,860	781	--
351859	973712	16.5	7.8	1,050	1,570	--	--	530
351907	971916	17.0	7.5	383	672	72	45	370
351911	971245	21.0	7.1	200	349	29	8.1	110
351914	972426	--	--	270,000	--	12,200	2,490	--
351914	972538	--	--	254,000	179,000	17,400	2,940	--
351916	973230	--	--	59,900	--	15,800	2,020	--
351922	973222	--	--	230,000	--	15,400	2,520	--
351930	973713	--	7.4	64,800	88,500	180	65	--
351932	972428	--	6.7	252,000	200,000	14,300	2,510	--
351936	972453	--	--	256,000	233,000	17,000	3,240	--
351942	972431	--	--	253,000	189,000	14,700	2,520	--
351942	972431	--	--	251,000	192,000	14,600	2,690	--
351943	973641	--	7.4	98,100	116,000	153	292	--
351943	973714	--	7.7	23,800	32,800	372	72	--
351944	973639	--	5.6	90,900	116,000	1,700	365	--
351959	972436	--	--	256,000	179,000	17,000	3,240	--
351959	972649	--	--	158,000	--	6,940	1,620	--
352009	973816	--	7.1	108,000	135,000	575	165	--
352025	972900	17.0	7.6	313	540	44	36	260
352025	972909	--	7.7	1,140	1,810	43	29	230
352028	971004	--	--	226,000	196,000	12,900	3,770	--
352053	974001	12.5	7.1	--	600	80.1	36.7	--
352151	972844	--	7.6	345	613	59	41	320
Coal County, Oklahoma								
342703	961524	19.5	8.4	357	690	6.7	3.6	32

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Lati-tude	Longi-tude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Cleveland County, Oklahoma									
351500	973247	--	227	--	20.0	134	369	346	0.2
351558	972522	--	42.0	--	8.5	9.4	294	359	0.1
351559	972838	--	136	--	7.0	18.0	298	278	0.1
351601	972550	--	222	--	30.0	24.0	439	486	0.2
351641	972856	146	--	1.0	7.2	17.0	294	340	0.1
351816	972929	--	153	--	16.0	43.0	299	314	0.2
351819	973223	--	805	--	26.0	1,450	247	261	0.8
351826	972918	--	48.0	--	10.0	7.0	207	208	0.2
351842	973207	7,960	--	--	19,500	390	38.0	47.0	--
351844	972557	76,400	--	--	158,000	448	59.9	72.7	--
351847	972620	76,400	--	--	158,000	447	59.0	72.0	--
351856	973018	49,900	--	--	86,100	605	408	498	--
351856	973018	46,800	--	--	81,100	154	198	242	--
351859	973712	--	167	--	84.0	292	471	574	--
351907	971916	12.0	--	2.4	11.0	16.0	349	425	0.1
351911	971245	20.0	--	9.1	21.0	31.0	72.2	88.0	28.0
351914	972426	89,000	--	--	166,000	573	72.2	88.0	--
351914	972538	76,100	--	--	156,000	1,320	45.9	56.0	--
351916	973230	3,280	--	--	38,200	224	713	869	--
351922	973222	69,900	--	--	142,000	640	180	220	--
351930	973713	24,600	--	156	37,600	846	2,130	2,600	--
351932	972428	79,500	--	--	155,000	554	144	175	--
351936	972453	77,200	--	--	158,000	687	112	137	--
351942	972431	79,600	--	--	156,000	397	138	168	--
351942	972431	78,800	--	--	155,000	397	150	183	--
351943	973641	38,000	--	120	57,400	98.0	3,360	4,100	--
351943	973714	8,900	--	89.0	13,800	197	562	685	--
351944	973639	33,300	--	250	54,100	95.0	1,720	2,100	--
351959	972436	77,200	--	--	158,000	687	112	137	--
351959	972649	52,000	--	--	97,200	52.0	134	164	--
352009	973816	41,400	--	--	64,700	259	650	793	--
352025	972900	22.0	--	2.0	8.0	4.9	294	359	0.8
352025	972909	--	331	--	230	295	271	310	53.0
352028	971004	69,200	--	--	140,000	609	97.1	118	--
352053	974001	20.6	--	--	--	8.0	330	--	--
352151	972844	--	16.0	--	11.0	4.1	335	408	0.2
Coal County, Oklahoma									
342703	961524	130	130	1.5	53.0	24.0	210	--	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Lati-tude	Longi-tude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
		Coal County, Oklahoma				
342726	961532	01S-10E-21 ACB	325MCAL	365	--	8/ 3/1979
343358	963037	--	364MCLS	--	4,640	9/12/1962
343412	963046	--	320PSLV	1,660	990	7/ 0/1965
344223	961815	--	327UNVL	7,500	4,120	2/18/1957
344223	961815	--	364OLCK	7,500	6,430	3/26/1957
344223	961815	--	327UNVL	7,500	--	5/19/1957
		Comanche County, Oklahoma				
343843	981312	02N-10W-14	371GRNT	--	1,210	2/ 8/1955
344020	980840	02N-09W-04 DDB	318GRBR	575	--	5/ 6/1971
344601	983437	--	318HNSS	--	6.1	7/21/1978
344620	982325	04N-11W-31 DCA	367ABCK	19	--	7/21/1971
344700	982815	04N-12W-33 BBA	367ABCK	500	--	7/15/1971
344700	983035	04N-13W-36 AAA	367ABCK	432	--	7/26/1971
344805	983135	04N-13W-23 DAD	318PSOK	17	--	7/27/1971
344850	981135	--	313RSPG	--	91.4	8/12/1978
344910	983455	04N-13W-17 DAC	367ABCK	--	--	7/21/1971
344912	983500	04N-13W-23 DBA	318PSOK	--	--	7/27/1971
344930	983730	04N-13W-27 AAC	318PSOK	85	--	9/21/1971
344945	983820	04N-14W-11 DCD	367ABCK	61	--	4/27/1971
345005	982750	04N-12W-09 ACD	318PSOK	175	--	8/ 4/1971
		Craig County, Oklahoma				
363930	950715	25N-20E-12 C	367RBDX	--	--	5/29/1950
364755	950410	--	367RBDX	--	--	4/12/1947
364808	950435	27N-21E-20 DCD	367RBDX	1,080	--	2/ 4/1981
365000	950101	27N-21E-12 CCB	367RBDX	1,350	--	7/ 9/1981
365016	950705	27N-20E-12 BDD	367RBDX	1,090	--	6/ 8/1981
365240	950515	28N-21E-29 CBD	367RBDX	1,250	--	6/ 9/1981
		Creek County, Oklahoma				
353931	963005	--	364SMPS	4,040	--	2/18/1931
353937	962330	14N-09E-30	324STRN	--	3,220	3/16/1954
353937	962641	14N-08E-27	325CHRK	--	2,460	3/16/1954
353959	962328	--	324STRN	3,865	3,220	3/16/1954
354029	962537	14N-08E-23	324STRN	--	2,480	3/16/1954
354059	961546	--	364SMPS	3,427	3,300	12/17/1960

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
	Coal County, Oklahoma							
342726	961532	19.0	8.2	295	490	9	4.8	42
343358	963037	--	6.0	169,000	175,000	10,700	2,010	--
343412	963046	--	5.4	67,300	92,600	2,820	1,360	--
344223	961815	--	7.5	139,000	143,000	8,420	1,040	--
344223	961815	--	7.0	185,000	179,000	12,500	1,700	--
344223	961815	--	--	150,000	154,000	7,220	2,040	--
	Comanche County, Oklahoma							
343843	981312	--	--	90,300	133,000	8,180	877	--
344020	980840	--	8.5	2,680	3,840	--	--	88
344601	983437	21.5	7.0	300	550	52.5	25.3	--
344620	982325	19.2	7.6	754	1,120	--	--	440
344700	982815	19.0	8.9	940	1,640	--	--	9
344700	983035	28.0	9.3	2,940	5,030	--	--	76
344805	983135	20.0	8.8	722	1,280	--	--	10
344850	981135	21.5	7.1	530	900	153	6.5	--
344910	983455	19.4	7.8	284	474	--	--	250
344912	983500	--	8.0	2,880	4,580	--	--	330
344930	983730	17.5	7.7	460	750	--	--	230
344945	983820	17.5	7.8	327	558	--	--	270
345005	982750	23.5	8.2	827	1,300	--	--	20
	Craig County, Oklahoma							
363930	950715	--	7.3	1,490	2,750	68	31	300
364755	950410	--	--	600	930	18	8	78
364808	950435	--	--	468	--	18	7.6	76
365000	950101	23.4	7.9	286	542	29	12	120
365016	950705	27.8	7.8	826	1,500	34	15	150
365240	950515	25.2	7.9	986	1,720	50	23	220
	Creek County, Oklahoma							
353931	963005	--	--	202,000	--	13,400	2,600	--
353937	962330	--	--	196,000	189,000	13,700	2,480	--
353937	962641	--	--	186,000	182,000	10,700	2,240	--
353959	962328	--	--	196,000	152,000	13,700	2,480	--
354029	962537	--	--	188,000	182,000	11,000	2,140	--
354059	961546	--	7.9	170,000	159,000	8,300	1,820	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
	Coal County, Oklahoma								
342726	961532	100	100	1.6	14.0	24.0	210	--	--
343358	963037	51,600	--	--	104,000	460	36.1	44.0	--
343412	963046	21,300	--	--	41,800	46.0	27.9	34.0	--
344223	961815	43,800	--	--	85,200	215	226	275	--
344223	961815	56,600	--	--	114,000	512	44.3	54.0	--
344223	961815	47,800	--	--	92,000	356	271	330	--
	Comanche County, Oklahoma								
343843	981312	25,400	--	--	56,200	128	32.2	39.2	--
344020	980840	--	900	--	340	1,100	356	418	0.6
344601	983437	26.8	--	0.8	10.0	38.0	245	--	--
344620	982325	--	86.0	--	26.0	210	363	442	0.6
344700	982815	--	360	--	300	79.0	201	188	0.4
344700	983035	--	1,100	--	1,400	410	23.0	24.0	--
344805	983135	--	280	--	190	86.0	204	208	0.6
344850	981135	7.9	--	0.5	10.0	276	126	--	--
344910	983455	--	3.9	--	5.0	20.0	233	284	0.3
344912	983500	--	920	--	950	730	180	220	--
344930	983730	--	73.0	--	48.0	34.0	238	290	38.0
344945	983820	--	12.0	--	18.0	16.0	244	298	14.0
345005	982750	--	330	--	54.0	10.0	633	772	0.4
	Craig County, Oklahoma								
363930	950715	452	--	25.0	780	28.0	146	178	0.2
364755	950410	--	180	--	200	15.0	180	210	--
364808	950435	150	--	4.9	170	7.3	156	--	--
365000	950101	65.0	--	4.3	78.0	14.0	168	--	--
365016	950705	290	--	7.9	389	14.0	194	--	--
365240	950515	300	--	8.4	476	23.0	188	--	--
	Creek County, Oklahoma								
353931	963005	60,700	--	--	124,000	576	87.7	107	--
353937	962330	58,400	--	--	121,000	491	56.1	68.4	--
353937	962641	58,000	--	--	115,000	97.9	111	136	--
353959	962328	58,400	--	--	121,000	491	55.8	68.0	--
354029	962537	58,400	--	--	116,000	37.8	145	177	--
354059	961546	55,200	--	--	105,000	123	64.8	79.0	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Lati-tude	Longi-tude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
	Creek County, Oklahoma					
354121	963509	14N-07E-17	325CHRK	--	2,840	3/18/1954
354146	962154	--	323CHNT	--	201	12/31/1977
354223	963455	14N-07E-09 BCB	322VMOS	236	--	3/ 3/1980
354236	963542	--	325CHRK	3,010	--	1/19/1972
354255	961732	--	324STRN	2,900	2,800	11/18/1954
354305	961606	14N-10E-05	340MSNR	--	3,260	11/18/1954
354305	961710	14N-10E-06	324STRN	--	2,800	11/18/1954
354305	961917	14N-09E-02	325CHRK	--	2,400	11/18/1954
354317	963154	--	325CHRK	3,020	3,010	4/24/1950
354358	962227	15N-09E-32	324STRN	--	2,260	11/18/1954
354434	963249	15N-07E-26 CCB	322VMOS	59	--	3/ 4/1980
354450	963055	15N-07E-25	364SMPS	--	3,800	9/ 2/1953
354520	963606	15N-07E-19 DDD	322VMOS	140	--	4/ 3/1980
354535	962304	--	364SMPS	3,660	3,640	3/15/1954
354542	962227	15N-09E-20	364SMPS	--	3,640	3/15/1954
354613	962711	15N-08E-15 CDC	322VMOS	134	--	3/12/1980
354634	963302	15N-07E-15	364SMPS	--	3,920	9/ 2/1953
354655	963330	--	364SMPS	3,970	--	9/ 9/1957
354724	963245	15N-07E-02 BCC	322VMOS	118	--	4/ 3/1980
354726	961503	15N-10E-09	324STRN	--	2,600	9/ 2/1953
354726	962848	15N-08E-08	364SMPS	--	3,750	3/17/1954
354819	962641	15N-08E-03	323KSSC	--	1,550	3/17/1955
354911	961503	16N-10E-33	324STRN	--	2,670	9/ 2/1953
354941	961513	--	324STRN	2,600	--	10/22/1940
355102	963022	16N-08E-19 BDC	322VMOS	101	--	4/ 2/1980
355128	963518	16N-07E-17 DCD	322VMOS	178	--	4/ 1/1980
355147	962848	16N-08E-17	325CHRK	--	2,850	11/19/1954
355219	963307	16N-07E-10 DDC	322VMOS	59	--	4/ 2/1980
355332	963405	16N-07E-04	340MSNR	--	2,970	1/15/1953
355402	963447	--	340MSNR	3,040	2,970	1/ 2/1953
355402	963455	--	364SMPS	3,490	3,080	9/24/1952
355430	[illegible]2630	17N-08E-34	325CHRK	--	2,320	11/19/1954
355438	[illegible]2555	17N-08E-35 BDA	322VMOS	121	--	1/29/1975
355522	[illegible]3356	28N-07E-17	325CHRK	--	2,600	1/ 8/1953
355540	[illegible]3405	17N-07E-28 AAA	322VMOS	108	--	5/ 9/1980
355613	[illegible]3137	--	361VIOL	3,550	3,550	3/28/1960
355613	963137	--	340MSNR	3,550	3,520	11/18/1962
355614	962008	17N-09E-22	325CHRK	--	2,460	11/19/1954
355621	962831	17N-08E-21 BCB	322VMOS	79	--	3/19/1980
355707	961138	17N-10E-13	325CHRK	--	2,490	11/18/1954

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (μS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
	Creek County, Oklahoma							
354121	963509	--	--	193,000	196,000	9,080	3,000	--
354146	962154	17.5	7.4	--	760	43.1	14.5	--
354223	963455	17.0	7.6	393	720	39	24	200
354236	963542	--	6.8	--	125,000	4,580	1,380	--
354255	961732	--	--	192,000	149,000	13,000	2,300	--
354305	961606	--	--	172,000	167,000	14,100	1,680	--
354305	961710	--	--	192,000	196,000	13,000	2,300	--
354305	961917	--	--	182,000	182,000	11,900	2,180	--
354317	963154	--	6.2	189,000	170,000	9,860	2,870	--
354358	962227	--	--	182,000	192,000	11,300	2,450	--
354434	963249	15.5	7.1	274	520	57	24	240
354450	963055	--	--	204,000	196,000	9,770	2,410	--
354520	963606	18.0	7.3	342	615	46	35	260
354535	962304	--	--	185,000	152,000	8,150	1,880	--
354542	962227	--	--	185,000	189,000	8,150	1,880	--
354613	962711	11.0	6.8	259	471	28	14	130
354634	963302	--	--	208,000	200,000	9,650	2,180	--
354655	963330	--	5.9	186,000	192,000	8,540	2,030	--
354724	963245	11.0	7.3	551	1,000	80	45	390
354726	961503	--	--	111,000	130,000	5,960	1,630	--
354726	962848	--	--	204,000	192,000	10,100	2,370	--
354819	962641	--	--	156,000	172,000	7,280	2,430	--
354911	961503	--	--	176,000	175,000	11,700	1,860	--
354941	961513	--	--	167,000	--	11,300	1,840	--
355102	963022	17.5	6.0	83	141	12	5.2	51
355128	963518	21.0	7.5	244	459	47	18	190
355147	962848	--	--	192,000	185,000	13,400	2,750	--
355219	963307	20.0	6.4	147	285	26	6.7	93
355332	963405	--	--	208,000	196,000	10,600	1,360	--
355402	963447	--	6.7	197,000	189,000	9,510	2,070	--
355402	963455	--	6.8	202,000	192,000	9,710	2,620	--
355430	962630	--	--	178,000	182,000	11,000	2,420	--
355438	962555	16.0	7.0	242	510	19	8.5	82
355522	963356	--	--	218,000	200,000	14,200	2,820	--
355546	963405	18.0	6.2	329	610	43	19	190
355613	963137	--	5.9	201,000	200,000	9,190	2,520	--
355613	963137	--	5.4	215,000	179,000	19,400	2,860	--
355614	962008	--	--	188,000	196,000	13,800	2,000	--
355621	962831	20.0	6.6	124	232	17	8.8	79
355707	961138	--	--	159,000	172,000	10,800	2,240	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
	Creek County, Oklahoma								
354121	963509	61,400	--	--	120,000	93.8	55.0	67.0	--
354146	962154	111	--	--	--	78.0	220	--	--
354223	963455	71.0	78.0	6.9	19.0	27.0	310	--	--
354236	963542	28,600	--	89.0	55,000	217	91.8	112	--
354255	961732	57,700	--	--	118,000	192	25.4	31.0	--
354305	961606	49,400	--	--	106,000	625	71.6	87.3	--
354305	961710	57,700	--	--	118,000	192	25.7	31.3	--
354305	961917	55,300	--	--	113,000	34.6	74.0	90.3	--
354317	963154	59,000	--	--	116,000	615	14.8	18.0	--
354358	962227	55,300	--	--	112,000	61.2	46.5	56.7	--
354434	963249	12.0	13.0	1.4	13.0	3.5	240	--	--
354450	963055	65,900	--	--	126,000	260	47.0	57.3	--
354520	963606	29.0	--	2.0	30.0	54.0	210	--	--
354535	962304	61,000	--	--	114,000	220	66.4	81.0	--
354542	962227	61,000	--	--	114,000	221	66.7	81.4	--
354613	962711	46.0	--	1.6	68.0	30.0	98.0	--	--
354634	963302	68,100	--	--	128,000	77.7	34.2	41.7	--
354655	963330	60,600	--	--	114,000	57.0	26.2	32.0	--
354724	963245	52.0	--	7.1	98.0	47.0	330	--	--
354726	961503	34,700	--	--	68,500	260	47.5	57.9	--
354726	962848	65,700	--	--	126,000	207	72.8	88.7	--
354819	962641	49,600	--	--	96,000	522	76.5	93.3	--
354911	961503	53,500	--	--	108,000	273	16.3	19.9	--
354941	961513	50,500	--	--	103,000	344	125	152	--
355102	963022	4.7	--	1.4	4.0	21.0	35.0	--	--
355128	963518	14.0	--	1.8	7.6	29.0	180	--	--
355147	962848	56,300	--	--	119,000	184	111	136	--
355219	963307	14.0	--	0.8	23.0	18.0	69.0	--	--
355332	963405	68,200	--	--	128,000	294	34.1	41.6	--
355402	963447	63,600	--	450	121,000	16.0	55.8	68.0	--
355402	963455	64,700	--	286	125,000	361	91.8	112	--
355430	962630	54,200	--	--	110,000	178	97.5	119	--
355438	962555	8.8	--	1.8	16.0	11.0	62.3	76.0	--
355522	963356	66,100	--	--	135,000	31.8	284	346	--
355546	963405	39.0	--	3.4	110	59.0	58.0	--	--
355613	963137	64,500	--	936	124,000	213	64.0	78.0	--
355613	963137	58,800	--	326	133,000	640	33.6	41.0	--
355614	962008	55,700	--	--	116,000	176	79.7	97.2	--
355621	962831	12.0	--	1.3	4.2	0.2	96.0	--	--
355707	961138	47,200	--	--	98,100	159	176	215	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Lati-tude	Longi-tude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
		Creek County, Oklahoma				
355707	963356	17N-07E-16	325CHRK	--	2,730	1/15/1953
355744	963532	17N-07E-08 CBD	322VMOS	425	--	11/19/1975
355759	963500	17N-07E-08	323KSSC	--	1,370	1/16/1953
355839	963307	--	367ABCK	2,400	--	11/ 2/1966
355910	961348	--	323DEWY	--	186	12/10/1977
355921	963716	18N-06E-36 DAD	322VMOS	538	--	10/30/1975
355943	961242	18N-10E-35	324STRN	--	2,290	11/19/1954
360027	963458	--	344HNTN	3,200	692	5/15/1961
360036	962423	18N-08E-25	325CHRK	--	2,710	5/27/1954
360036	963356	18N-07E-28	364SMPS	--	2,680	1/16/1953
360036	963500	18N-07E-29	367ABCK	--	2,940	1/ 8/1953
360154	962449	18N-08E-24 ABB	322VMOS	120	--	7/16/1980
360225	963040	18N-08E-18 BCC	322VMOS	120	--	11/14/1972
360305	962155	18N-09E-09 CDB	323BRDL	355	--	8/ 3/1973
360312	963252	18N-07E-10	324STRN	--	2,610	10/ 6/1953
360405	962111	18N-09E-04	324STRN	--	2,180	5/27/1954
360405	962215	18N-09E-05	325CHRK	--	2,520	5/23/1954
360457	963149	19N-07E-35	325CHRK	--	2,650	5/25/1954
360525	962758	19N-08E-28 DCC	322VMOS	112	--	7/18/1980
360734	963356	19N-07E-16	325CHRK	--	2,720	5/25/1954
360826	961904	19N-09E-11	323IOLA	--	2,380	5/27/1954
360826	962215	19N-09E-08	325CHRK	--	2,320	5/27/1954
360855	963330	19N-07E-03 CDD	322VMOS	180	--	2/23/1973
360918	962008	19N-09E-03	364SMPS	--	2,070	5/27/1954
360940	963611	--	3180SCR	--	140	6/22/1978
		Custer County, Oklahoma				
353000	984717	--	312CDCF	--	79.3	9/23/1978
353000	984941	--	313RSPG	--	116	9/23/1978
353029	990452	--	312CDCF	--	70.1	11/10/1978
353040	991222	--	312CDCF	--	73.1	11/ 9/1978
353314	991810	13N-20W-35 CCA	312DOXY	91	--	9/14/1971
353332	985653	--	313RSPG	--	85.3	9/23/1978
353452	991226	13N-19W-22 DCC	312CDCF	82	--	9/14/1971
353622	984630	--	310WTRS	--	9.1	9/23/1978
353702	983810	13N-14W-12 AAD	312WRFD	70	--	10/ 7/1971
353806	985136	--	313RSPG	--	216	9/17/1978
353846	984731	--	313RSPG	--	70.1	9/17/1978
354023	984106	--	313RSPG	--	70.1	11/11/1978

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
	Creek County, Oklahoma							
355707	963356	--	--	207,000	192,000	10,200	1,240	--
355744	963532	--	--	630	1,020	100	34	390
355759	963500	--	--	110,000	135,000	5,730	1,940	--
355839	963307	--	7.0	222,000	128,000	12,600	2,850	--
355910	961348	11.0	7.2	--	950	61.8	40.5	--
355921	963716	--	--	405	654	11	1.2	32
355943	961242	--	--	190,000	172,000	10,800	1,970	--
360027	963458	--	5.0	43,300	85,500	2,360	754	--
360036	962423	--	--	146,000	156,000	10,300	1,640	--
360036	963356	--	--	193,000	189,000	10,900	2,130	--
360036	963500	--	--	206,000	200,000	12,600	2,820	--
360154	962449	31.0	6.6	117	192	21	8.4	88
360225	963040	--	7.7	207	376	40	16	170
360305	962155	--	7.3	214	371	35	13	140
360312	963252	--	--	150,000	159,000	10,600	1,840	--
360405	962111	--	--	167,000	170,000	10,800	2,260	--
360405	962215	--	--	186,000	182,000	12,700	2,160	--
360457	963149	--	--	145,000	156,000	10,700	1,750	--
360525	962758	31.5	5.7	79	114	7.7	2.7	31
360734	963356	--	--	194,000	192,000	15,500	2,360	--
360826	961904	--	--	188,000	185,000	13,500	1,980	--
360826	962215	--	--	161,000	161,000	11,400	1,970	--
360855	963330	--	7.7	960	1,530	110	72	560
360918	962008	--	--	192,000	189,000	10,100	2,280	--
360940	963611	18.5	6.9	--	730	80.3	15.6	--
	Custer County, Oklahoma							
353000	984717	21.0	6.9	2,500	3,400	520	96	--
353000	984941	21.5	6.9	2,050	2,830	477	54.8	--
353029	990452	14.0	7.9	976	1,300	220	52	--
353040	991222	13.0	7.2	2,380	2,690	519	118	--
353314	991810	20.5	8.1	344	590	--	--	280
353332	985653	22.0	7.1	1,200	1,830	272	47.8	--
353452	991226	20.0	7.9	1,120	1,370	--	--	750
353622	984630	17.5	6.8	488	720	85.5	33.3	--
353702	983810	--	7.7	232	382	--	--	160
353806	985136	22.5	7.8	2,000	2,310	440	75.6	--
353846	984731	25.0	7.5	2,150	2,620	438	69.7	--
354023	984106	13.0	7.7	330	610	55.2	9.9	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
	Creek County, Oklahoma								
355707	963356	68,500	--	--	127,000	169	39.5	48.2	--
355744	963532	69.0	--	2.9	33.0	210	252	307	--
355759	963500	33,900	--	--	67,600	455	118	144	--
355839	963307	69,000	--	620	137,000	16.0	67.2	82.0	--
355910	961348	83.1	--	--	--	96.0	338	--	--
355921	963716	140	--	1.7	16.0	79.0	224	273	--
355943	961242	58,900	--	--	118,000	196	83.0	101	--
360027	963458	12,900	--	61.0	25,000	2,200	19.7	24.0	--
360036	962423	43,500	--	--	89,900	94.2	76.3	93.1	--
360036	963356	60,700	--	--	119,000	412	28.5	34.7	--
360036	963500	62,900	--	--	128,000	129	28.7	35.0	--
360154	962449	6.2	--	0.7	6.3	7.7	82.0	--	--
360225	963040	17.0	--	--	5.0	11.0	190	232	--
360305	962155	16.0	--	--	47.0	23.0	86.1	105	--
360312	963252	44,700	--	--	92,900	313	60.1	73.3	--
360405	962111	50,400	--	--	103,000	191	89.8	110	--
360405	962215	56,000	--	--	115,000	158	89.7	109	--
360457	963149	42,700	--	--	90,000	65.7	--	--	--
360525	962758	11.0	--	0.4	13.0	13.0	24.0	--	--
360734	963356	55,900	--	--	120,000	361	90.2	110	--
360826	961904	56,100	--	--	116,000	6.7	50.4	61.5	--
360826	962215	47,900	--	--	99,700	--	57.9	70.6	--
360855	963330	130	--	--	140	180	399	486	--
360918	962008	61,200	--	--	119,000	10.1	50.5	61.6	--
360940	963611	56.1	--	0.9	--	90.0	177	--	--
	Custer County, Oklahoma								
353000	984717	65.7	--	3.1	31.0	1,670	180	--	--
353000	984941	50.5	--	1.8	25.0	1,350	146	--	--
353029	990452	21.3	--	1.1	35.0	539	180	--	--
353040	991222	33.7	--	2.5	39.0	1,610	87.0	--	--
353314	991810	--	24.0	--	13.0	16.0	295	360	0.2
353332	985653	19.1	--	1.0	27.0	725	170	--	--
353452	991226	--	30.0	--	32.0	540	177	216	0.2
353622	984630	26.1	--	1.1	28.0	211	172	--	--
353702	983810	--	17.0	--	12.0	12.0	154	188	17.0
353806	985136	73.5	--	2.0	36.0	1,310	78.0	--	--
353846	984731	154	--	2.4	14.0	1,370	160	--	--
354023	984106	68.2	--	0.6	21.0	7.0	280	--	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
		Custer County, Oklahoma				
354037	992212	--	310WTRS	--	27.4	8/25/1978
354202	990633	14N-18W-10 CBB	313RSPG	38	--	11/ 3/1971
354319	990636	--	313RSPG	--	73.1	11/ 8/1978
354323	983820	--	313RSPG	--	131	11/11/1978
354655	990636	--	310WTRS	--	152	9/17/1978
354705	984409	15N-14W-07 CBC	313RSPG	97	--	9/16/1971
		Delaware County, Oklahoma				
362535	943815	--	367RBDX	--	--	12/18/1968
363357	945037	24N-23E-15 BBC	367RBDX	1,140	--	6/11/1981
		Dewey County, Oklahoma				
354934	990000	--	313RSPG	--	30.5	9/10/1978
355010	991529	--	313RSPG	--	107	8/24/1978
355107	992234	--	312CDCF	--	91.4	8/21/1978
355436	991008	--	312CDCF	--	116	10/15/1978
355758	990509	--	328MRRW	14,500	10,700	6/ 1/1956
355758	990509	--	325FRSC	14,500	9,280	12/ 4/1956
355758	990509	--	325FRSC	14,500	9,160	1/ 9/1957
355836	990407	--	322DGLS	9,200	--	8/28/1961
355925	985245	18N-16W-35 CDD	313RSPG	116	--	12/ 1/1971
360109	985136	--	325FRSC	9,700	8,340	11/20/1968
360112	990214	--	328MRRW	10,500	10,300	1/27/1964
360401	984240	18N-14W-05 ADD	313RSPG	78	--	10/ 6/1972
360759	985003	19N-15W-07 DDA	313RSPG	32	--	10/ 5/1972
360860	991553	--	328MRRW	10,200	9,900	2/ 8/1965
		Ellis County, Oklahoma				
355653	995454	--	312CDCF	--	30.5	8/15/1978
360010	994808	18N-24W-30 CAC	313RSPG	40	--	2/13/1965
360533	994232	--	322DGLS	8,400	7,720	10/ 2/1967
361047	994043	--	361VIOL	14,100	14,000	2/15/1967
362403	995504	--	328MRRW	9,370	9,150	9/11/1966
362533	995256	--	332CSTR	9,060	--	10/16/1966

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (μS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Custer County, Oklahoma								
354037	992212	23.5	8.0	1,880	2,680	460	78.7	--
354202	990633	18.0	7.9	800	1,110	--	--	610
354319	990636	12.5	7.6	2,500	3,000	471	182	--
354323	983820	18.5	7.7	--	700	39.6	6.1	--
354655	990636	22.0	7.0	2,470	3,080	542	97.8	--
354705	984409	--	8.0	221	361	--	--	100
Delaware County, Oklahoma								
362535	943815	--	7.9	167	311	--	--	160
363357	945037	23.1	8.0	518	951	27	11	110
Dewey County, Oklahoma								
354934	990000	21.5	6.8	2,530	3,610	583	118	--
355010	991529	24.0	6.5	2,460	3,230	553	89.6	--
355107	992234	25.0	6.8	1,920	3,120	429	91.5	--
355436	991008	17.5	7.3	1,820	2,270	486	48.5	--
355758	990509	--	8.4	15,000	25,800	130	79	--
355758	990509	--	6.6	146,000	147,000	11,100	1,490	--
355758	990509	--	5.9	49,900	59,500	11,800	1,240	--
355836	990407	--	6.5	121,000	137,000	6,290	878	--
355925	985245	18.0	8.0	399	629	--	--	210
360109	985136	--	6.6	60,800	87,000	2,920	746	--
360112	990214	--	7.2	17,800	25,000	104	22	--
360401	984240	16.0	8.0	248	418	54	14	190
360759	985003	17.0	8.2	473	754	92	23	320
360860	991553	--	7.1	15,600	24,500	72	18	--
Ellis County, Oklahoma								
355653	995454	18.5	7.4	2,100	3,110	399	108	--
360010	994808	--	7.8	933	1,300	--	--	620
360533	994232	--	6.1	81,000	108,000	4,280	659	--
361047	994043	--	5.7	214,000	208,000	18,800	1,910	--
362403	995504	--	6.8	22,200	37,600	392	88	--
362533	995256	--	6.1	51,200	76,900	8,720	415	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Custer County, Oklahoma									
354037	992212	14.9	--	1.8	10.0	1,250	100	--	--
354202	990633	--	25.0	--	17.0	280	317	386	43.0
354319	990636	45.7	--	2.8	64.0	1,680	87.0	--	--
354323	983820	105	--	1.1	27.0	20.0	320	--	--
354655	990636	40.6	--	2.1	28.0	1,660	160	--	--
354705	984409	--	37.0	--	9.0	18.0	157	192	0.1
Delaware County, Oklahoma									
362535	943815	--	3.2	--	1.6	0.3	160	190	0.2
363357	945037	160	--	4.0	220	10.0	176	--	--
Dewey County, Oklahoma									
354934	990000	48.7	--	4.1	65.0	1,670	70.0	--	--
355010	991529	23.4	--	2.5	18.0	1,730	62.0	--	--
355107	992234	60.8	--	1.5	81.0	1,160	150	--	--
355436	991008	21.9	--	1.6	10.0	1,180	122	--	--
355758	990509	5,650	--	--	8,320	55.0	1,220	1,210	--
355758	990509	42,800	--	--	89,500	756	186	227	--
355758	990509	4,750	--	--	31,200	770	208	254	--
355836	990407	38,600	--	446	74,000	201	376	459	--
355925	985245	--	62.0	--	8.8	120	203	248	0.1
360109	985136	19,500	--	73.0	37,200	140	360	439	--
360112	990214	6,900	--	--	9,930	144	1,210	1,480	--
360401	984240	--	15.0	--	9.0	13.0	195	238	0.8
360759	985003	--	42.0	--	14.0	170	207	252	0.7
360860	991553	6,060	--	--	8,550	82.0	1,300	1,580	--
Ellis County, Oklahoma									
355653	995454	118	--	1.6	75.0	1,300	160	--	--
360010	994808	--	61.0	--	50.0	350	313	382	--
360533	994232	26,100	--	85.0	49,600	160	250	305	--
361047	994043	58,800	--	1,800	132,000	210	340	415	--
362403	995504	8,150	--	46.0	12,800	410	590	720	--
362533	995256	9,960	--	--	31,600	390	164	200	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
Garfield County, Oklahoma						
361039	975106	20N-06W-28 CCB	318HNSS	--	--	3/22/1972
361110	973719	--	318GRBR	--	30.5	6/25/1978
361112	972943	20N-03W-26 BBC	318GRBR	--	--	3/10/1972
361153	974652	--	318PRCL	--	30.5	6/ 9/1978
361203	975627	--	330MSSP	7,880	7,170	8/30/1966
361229	975942	--	330MSSP	8,000	--	12/13/1966
361325	973643	20N-04W-10	323KSSC	--	4,560	2/ 1/1954
361325	973643	20N-04W-10	325FRSC	--	5,090	2/ 1/1954
361325	973643	20N-04W-10	364SMPS	--	5,900	2/ 1/1954
361424	975631	--	318BSON	--	45.7	6/ 7/1978
361424	975405	--	330MSSP	7,550	6,850	11/11/1966
361642	980702	21N-09W-24 CD	318HNSS	195	--	2/17/1950
361724	975533	21N-07W-23 BBC	318HNSS	52	--	12/13/1950
361736	980252	--	330MSSP	7,650	7,010	11/26/1966
361833	973529	21N-04W-11 D	318GRBR	--	--	8/24/1951
361919	975928	--	318BSON	--	61	6/ 8/1978
362114	973245	22N-04W-27	319CCGV	--	1,860	9/21/1955
362122	973412	--	322WBNS	4,840	2,080	10/15/1955
362130	973354	--	364MCLS	4,560	--	4/11/1957
362157	973545	--	364SMPS	--	5,100	11/23/1936
362207	973438	22N-04W-24	319EKDG	--	1,490	9/21/1953
362259	973438	22N-04W-13	323KSSC	--	4,210	2/ 4/1954
362320	980533	22N-08W-18 A	318CDHL	40	--	12/13/1950
362443	973855	22N-04W-05	330MSSP	--	5,660	6/24/1954
362512	975938	--	318CDHL	--	91.4	6/ 7/1978
362514	973336	--	323KSSC	5,220	4,020	12/16/1952
362627	973334	23N-03W-30	330MSSP	--	5,080	8/21/1953
362627	973855	23N-04W-29	330MSSP	--	5,470	6/24/1954
362719	974833	23N-06W-23	330MSSP	--	6,140	6/25/1954
362725	975949	--	318CDHL	--	51.8	6/ 7/1978
362904	973959	23N-04W-07	364SMPS	--	6,140	2/16/1954
362956	973855	23N-04W-05	332FTVL	--	6,120	6/25/1954
362956	973855	23N-04W-05	340MSNR	--	5,980	6/25/1954
363048	974104	24N-05W-36	364SMPS	--	6,160	9/ 2/1954
363117	974107	--	361VIOL	6,310	6,140	12/ 1/1949
363117	974107	--	361VIOL	6,310	6,120	1/ 4/1952
363117	974107	--	361VIOL	6,310	6,130	1/22/1953
363117	974107	--	361VIOL	6,310	6,130	10/ 1/1953
363126	974224	24N-05W-26 CBC	318GRBR	--	--	3/15/1972
363245	975645	24N-07W-21 ADD	318SLPL	--	--	3/28/1972

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Garfield County, Oklahoma								
361039	975106	16.5	7.8	1,800	3,080	--	--	300
361110	973719	20.5	7.1	--	3,060	260	112	--
361112	972943	16.0	7.7	278	486	--	--	180
361153	974652	20.0	7.1	--	2,310	127	76.7	--
361203	975627	--	5.3	134,000	172,000	9,590	976	--
361229	975942	--	5.8	127,000	145,000	7,450	1,790	--
361325	973643	--	--	266,000	222,000	21,900	3,330	--
361325	973643	--	--	295,000	233,000	23,900	3,840	--
361325	973643	--	--	311,000	238,000	21,200	3,100	--
361424	975631	19.5	7.3	--	920	50.9	22.9	--
361424	975405	--	6.6	39,500	70,400	1,040	337	--
361642	980702	17.0	7.7	432	718	63	24	260
361724	975533	--	7.3	1,870	2,350	298	66	1,000
361736	980252	--	7.3	80,500	104,000	2,300	192	--
361833	973529	--	8.3	659	1,100	47	25	220
361919	975928	20.0	7.4	--	1,450	61.3	40.9	--
362114	973245	--	--	340,000	227,000	21,900	5,220	--
362122	973412	--	7.1	298,000	204,000	18,500	3,440	--
362130	973354	--	5.8	261,000	196,000	24,200	3,720	--
362157	973545	--	7.5	54,900	--	3,860	549	--
362207	973438	--	--	319,000	227,000	20,300	4,050	--
362259	973438	--	--	271,000	222,000	22,800	3,070	--
362320	980533	--	--	1,040	1,760	89	59	470
362443	973855	--	--	144,000	156,000	10,400	1,740	--
362512	975938	17.5	7.2	--	645	32.6	19.9	--
362514	973336	--	5.5	302,000	222,000	20,400	3,330	--
362627	973334	--	--	179,000	182,000	12,300	1,580	--
362627	973855	--	--	210,000	196,000	13,900	2,910	--
362719	974833	--	--	237,000	233,000	16,900	2,760	--
362725	975949	19.0	7.0	--	890	66	15.6	--
362904	973959	--	--	296,000	227,000	20,100	2,670	--
362956	973855	--	--	248,000	200,000	18,400	2,580	--
362956	973855	--	--	296,000	233,000	20,800	2,910	--
363048	974104	--	--	276,000	222,000	19,900	3,580	--
363117	974107	--	4.2	287,000	213,000	21,000	1,780	--
363117	974107	--	4.8	289,000	208,000	21,600	2,430	--
363117	974107	--	5.0	231,000	233,000	16,600	2,000	--
363117	974107	--	4.8	240,000	196,000	16,400	2,470	--
363126	974224	14.0	7.9	4,020	6,330	--	--	920
363245	975645	15.0	7.8	2,500	3,080	--	--	1,200

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Garfield County, Oklahoma									
361039	975106	--	560	--	680	290	236	288	29.0
361110	973719	188	--	2.6	--	840	258	--	--
361112	972943	--	38.0	--	25.0	19.0	194	236	12.0
361153	974652	234	--	1.6	--	250	450	--	--
361203	975627	37,900	--	475	84,100	494	37.7	46.0	--
361229	975942	40,600	--	268	76,200	680	90.2	110	--
361325	973643	75,600	--	--	165,000	450	64.7	78.9	--
361325	973643	84,400	--	--	183,000	166	52.9	64.5	--
361325	973643	94,500	--	--	192,000	271	23.2	28.3	--
361424	975631	143	--	1.0	--	75.0	375	--	--
361424	975405	13,700	--	85.0	23,900	393	220	268	--
361642	980702	56.0	--	2.6	61.0	29.0	223	272	40.0
361724	975533	194	--	8.8	111	1,030	212	259	0.5
361736	980252	28,500	--	186	48,900	400	73.0	89.0	--
361833	973529	169	--	1.0	146	51.0	302	368	0.8
361919	975928	329	--	1.7	--	232	196	--	--
362114	973245	109,000	--	--	211,000	282	--	--	--
362122	973412	91,700	--	--	184,000	53.0	13.9	17.0	--
362130	973354	70,500	--	--	162,000	365	45.9	56.0	--
362157	973545	16,500	--	--	33,600	391	96.4	81.0	--
362207	973438	97,100	--	--	197,000	442	11.6	14.2	--
362259	973438	76,800	--	--	167,000	518	46.7	56.9	--
362320	980533	--	211	--	270	80.0	379	462	100
362443	973855	42,700	--	--	89,100	232	172	210	--
362512	975938	75.5	--	1.6	--	28.0	152	--	--
362514	973336	91,200	--	188	186,000	407	56.6	69.0	--
362627	973334	54,500	--	--	110,000	316	21.8	26.6	--
362627	973855	63,000	--	--	130,000	432	116	141	--
362719	974833	70,500	--	--	146,000	317	--	--	--
362725	975949	113.2	--	3.2	--	34.0	348	--	--
362904	973959	90,400	--	--	182,000	393	111	136	--
362956	973855	73,500	--	--	153,000	421	100	122	--
362956	973855	89,500	--	--	183,000	226	104	127	--
363048	974104	81,500	--	--	171,000	416	--	--	--
363117	974107	87,400	--	--	177,000	363	4.9	6.0	--
363117	974107	86,500	--	--	178,000	361	23.8	29.0	--
363117	974107	69,700	--	--	142,000	332	131	160	--
363117	974107	72,600	--	--	148,000	359	22.1	27.0	--
363126	974224	--	1,100	--	1,600	780	253	308	0.1
363245	975645	--	300	--	310	1,200	192	234	15.0

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
		Garvin County, Oklahoma				
343040	971312	--	367ABCK	7,400	7,270	4/28/1958
343227	971234	--	319PNTC	1,510	1,010	9/ 2/1954
343237	971212	01N-01E-21	319PNTC	--	1,010	9/ 2/1954
343314	971002	--	364OLCK	4,260	3,940	9/ 2/1954
343320	972936	--	324BRKA	1,910	1,730	2/ 2/1955
343329	971006	01N-01E-14	364OLCK	--	3,980	9/ 2/1954
343330	971521	01N-01W-13	323HXBR	--	3,330	9/ 2/1954
343330	973004	01N-03W-15	324BRKA	--	1,730	2/ 2/1955
343332	971510	--	325DEES	4,830	4,050	10/23/1957
343348	971517	--	323HXBR	3,430	3,330	9/ 2/1954
343351	973022	--	320PSLV	1,520	1,500	10/ 0/1962
343353	971556	--	324STRN	5,300	3,100	2/ 2/1955
343354	971422	--	323HGSR	3,750	--	8/ 1/1957
343407	971446	--	325DEES	4,680	--	8/ 1/1957
343422	972655	01N-02W-07	364MCLS	--	8,760	3/ 5/1953
343455	973310	--	367ABCK	3,640	3,600	7/15/1953
343502	973316	--	322VRGL	4,970	3,650	6/10/1953
343522	972722	--	364BRMD	11,900	10,800	12/22/1970
343535	973343	--	318PRCL	--	152	4/ 8/1978
343637	971510	--	325DEES	4,600	4,540	9/ 2/1954
343659	971521	02N-01W-25	325DEES	--	4,540	9/ 2/1954
343740	972520	02N-02W-21 CCA	318WCHT	140	--	11/26/1958
343740	972520	02N-02W-21 CCA	318WCHT	140	--	1/27/1959
343748	973155	--	325BGGY	--	24.4	4/ 2/1978
343816	972750	--	325DEES	7,640	--	4/ 2/1957
343930	965930	02N-03E-09 DBD	310WLNG	140	--	10/14/1965
343952	972448	--	320PSLV	6,780	--	5/23/1949
344006	972448	--	320PSLV	6,700	--	1/31/1949
344007	972415	--	319PNTC	7,140	--	7/23/1948
344044	972107	--	318FRMN	--	110	4/ 2/1978
344112	972652	--	320PSLV	6,960	--	5/10/1949
344118	972954	--	319PNTC	8,100	--	11/21/1949
344120	972449	03N-02W-33	310PRMN	--	2,500	2/ 5/1953
344137	973025	--	319PNTC	8,270	--	8/17/1949
344145	972955	--	319PNTC	7,880	--	7/ 1/1950
344147	972802	--	320PSLV	7,290	--	2/ 1/1949
344210	965627	03N-03E-25	324BRKA	1,450	1,450	2/ 2/1955
344211	972954	--	319PNTC	7,790	--	11/21/1949
344211	972954	--	319PNTC	7,790	--	8/ 9/1950
344212	973108	03N-03W-28	319PNTC	--	8,310	3/17/1953

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Garvin County, Oklahoma								
343040	971312	--	5.7	116,000	125,000	13,600	4,000	--
343227	971234	--	--	108,000	109,000	6,310	2,300	--
343237	971212	--	--	108,000	135,000	6,310	2,300	--
343314	971002	--	--	58,000	67,100	2,110	897	--
343320	972936	--	--	122,000	114,000	15,200	1,660	--
343329	971006	--	--	58,300	82,000	2,110	897	--
343330	971521	--	--	192,000	196,000	11,800	2,510	--
343330	973004	--	--	122,000	133,000	15,200	1,660	--
343332	971510	--	10.8	--	119,000	8,400	--	--
343348	971517	--	--	192,000	159,000	11,800	2,510	--
343351	973022	--	5.9	--	88,500	6,160	2,550	--
343353	971556	--	--	169,000	137,000	8,760	955	--
343354	971422	--	5.0	151,000	--	9,000	2,520	--
343407	971446	--	5.0	146,000	--	9,100	2,700	--
343422	972655	--	--	215,000	196,000	13,700	2,150	--
343455	973310	--	--	--	152,000	27,700	3,100	--
343502	973316	--	--	195,000	145,000	13,800	2,800	--
343522	972722	--	6.2	227,000	217,000	17,800	2,440	--
343535	973343	19.5	7.7	--	1,090	81.9	76.8	--
343637	971510	--	--	186,000	159,000	10,700	2,920	--
343659	971521	--	--	186,000	192,000	10,700	2,920	--
343740	972520	--	7.8	8,240	9,390	428	42	1,200
343740	972520	--	7.7	--	8,690	440	49	1,300
343748	973155	18.0	7.5	--	2,870	113	192	--
343816	972750	--	5.3	181,000	182,000	11,300	2,150	--
343930	965930	--	8.1	1,540	2,710	--	--	250
343952	972448	--	--	189,000	--	10,800	1,730	--
344006	972448	--	--	203,000	--	11,800	2,030	--
344007	972415	--	--	138,000	--	8,320	1,150	--
344044	972107	21.0	7.7	--	560	38.4	13.8	--
344112	972652	--	--	173,000	--	10,100	1,430	--
344118	972954	--	--	191,000	--	10,600	1,880	--
344120	972449	--	--	177,000	185,000	10,900	2,680	--
344137	973025	--	--	192,000	--	10,700	1,860	--
344145	972955	--	--	200,000	--	11,300	1,920	--
344147	972802	--	--	95,200	--	5,007	671	--
344210	965627	--	--	15,200	--	310	90	--
344211	972954	--	--	201,000	--	11,400	2,030	--
344211	972954	--	--	227,000	--	12,800	2,350	--
344212	973108	--	--	190,000	182,000	9,460	1,720	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Garvin County, Oklahoma									
343040	971312	23,500	--	460	73,100	705	334	408	--
343227	971234	31,900	--	--	66,900	113	116	141	--
343237	971212	31,900	--	--	66,900	114	116	142	--
343314	971002	19,200	--	--	35,600	51.0	390	476	--
343320	972936	28,900	--	--	75,700	370	129	157	--
343329	971006	19,200	--	--	35,600	51.0	391	477	--
343330	971521	58,800	--	--	119,000	106	70.6	86.2	--
343330	973004	28,900	--	--	75,700	370	130	158	--
343332	971510	31,600	--	--	63,400	206	--	--	--
343348	971517	58,800	--	--	119,000	106	70.5	86.0	--
343351	973022	29,300	--	47.0	63,600	--	23.8	29.0	--
343353	971556	55,100	--	--	104,000	393	116	141	--
343354	971422	45,800	--	--	93,800	20.0	266	324	--
343407	971446	43,200	--	--	90,400	220	49.2	60.0	--
343422	972655	66,200	--	--	133,000	--	--	--	--
343455	973310	40,400	--	--	120,000	788	--	--	--
343502	973316	57,400	--	--	121,000	92.0	55.8	68.0	--
343522	972722	63,800	--	1,060	142,000	52.0	122	149	--
343535	973343	86.5	--	4.3	--	15.0	290	--	--
343637	971510	57,000	--	--	115,000	73.0	66.4	81.0	--
343659	971521	57,000	--	--	115,000	73.8	66.9	81.6	--
343740	972520	--	2,130	--	350	5,080	92.0	112	0.4
343740	972520	--	1,960	--	280	4,870	89.0	108	0.4
343748	973155	231	--	1.6	--	738	595	--	--
343816	972750	55,300	--	--	112,000	22.0	60.7	74.0	--
343930	965930	--	492	--	630	15.0	418	510	--
343952	972448	59,600	--	--	116,000	49.0	35.3	43.0	--
344006	972448	63,800	--	--	125,000	14.0	150	183	--
344007	972415	43,600	--	--	85,400	45.0	47.6	58.0	--
344044	972107	90.4	--	1.6	--	8.0	300	--	--
344112	972652	54,800	--	--	106,000	82.0	121	148	--
344118	972954	60,700	--	--	118,000	20.0	124	151	--
344120	972449	53,500	--	--	110,000	--	--	--	--
344137	973025	60,800	--	--	118,000	45.0	18.0	22.0	--
344145	972955	63,500	--	--	124,000	4.0	139	170	--
344147	972802	30,800	--	--	57,300	1,310	156	190	--
344210	965627	5,340	--	--	8,470	--	1,650	--	--
344211	972954	63,400	--	--	124,000	32.0	82.8	101	--
344211	972954	71,600	--	--	140,000	24.0	29.5	36.0	--
344212	973108	62,000	--	--	117,000	--	--	--	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Lati-tude	Longi-tude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
	Garvin County, Oklahoma					
344216	973010	--	319PNTC	7,860	--	7/24/1950
344220	972550	--	319PNTC	6,590	--	2/ 4/1947
344232	972604	--	364BRMD	6,460	--	3/ 4/1947
344232	973251	--	328SPRG	9,590	7,380	5/20/1955
344252	970041	--	320PSLV	2,020	1,260	10/18/1944
344252	970041	--	364BRMD	2,020	1,880	2/13/1947
344323	972429	--	318FRMN	--	152	3/ 1/1978
344337	972654	--	325DEES	6,670	--	6/25/1947
344343	970831	--	364OLCK	3,110	2,960	9/ 2/1954
344350	970911	--	364OLCK	3,870	3,800	9/ 2/1954
344354	970800	03N-02E-18	364BRMD	--	3,010	9/ 2/1954
344354	970903	03N-01E-13	364OLCK	--	3,810	9/ 2/1954
344356	970900	--	364MCLS	3,060	--	2/12/1947
344357	972655	03N-02W-18	310PRMN	--	2,290	2/ 5/1953
344357	973314	03N-03W-18	310PRMN	--	2,300	2/ 5/1953
344415	972257	--	364BRMD	5,820	5,630	1/12/1948
344415	972257	--	361VIOL	5,830	5,470	1/27/1948
344429	972257	--	364BRMD	6,190	5,760	6/26/1953
344441	972739	--	364OLCK	6,820	--	7/23/1948
344449	972243	03N-02W-11	364BRMD	--	5,770	6/26/1953
344455	973751	--	319PNTC	9,250	9,220	7/ 3/1956
344529	971760	--	318GRBR	--	192	3/16/1978
344541	972655	03N-02W-06	364OLCK	--	8,330	3/17/1953
344602	972645	--	364OLCK	8,620	--	6/19/1959
344613	972733	--	364BRMD	8,800	--	1/26/1960
344614	971435	--	364BRMD	4,070	4,070	2/13/1947
344626	972648	--	364BRMD	8,700	--	8/17/1951
344626	972648	--	364OLCK	8,700	8,320	1/11/1953
344626	972648	--	364BRMD	8,700	7,340	3/11/1963
344628	973101	--	319PNTC	7,670	7,540	7/ 7/1961
344630	971418	04N-01E-31	364BRMD	--	3,910	8/18/1953
344633	971428	--	364BRMD	--	4,070	2/13/1947
344633	972346	04N-02W-34	364BRMD	--	6,290	2/ 7/1955
344640	971420	--	320PSLV	4,050	--	2/13/1947
344654	972408	--	364BRMD	6,300	6,290	2/ 7/1955
344701	971511	--	364BRMD	4,040	3,150	10/29/1964
344713	971604	--	320PSLV	4,130	4,020	9/ 2/1954
344746	972833	--	364BRMD	7,560	7,540	12/ 6/1953
344905	973307	--	364MCLS	11,200	--	11/22/1955
344917	973308	--	364MCLS	11,100	10,200	1/17/1951

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)	
Garvin County, Oklahoma									
344216	973010	--	--	207,000	--	11,800	2,060	--	
344220	972550	--	--	184,000	--	10,600	1,770	--	
344232	972604	--	--	153,000	139,000	7,320	1,020	--	
344232	973251	--	6.5	98,000	132,000	3,420	649	--	
344252	970041	--	--	11,500	--	160	78	--	
344252	970041	--	7.7	5,010	--	79	26	--	
344323	972429	17.5	7.3	--	530	64.5	29.5	--	
344337	972654	--	4.8	255,000	189,000	15,600	3,230	--	
344343	970831	--	--	113,000	114,000	4,550	2,030	--	
344350	970911	--	--	75,900	87,000	2,730	1,160	--	
344354	970800	--	--	33,800	56,000	726	371	--	
344354	970903	--	--	76,200	109,000	2,730	1,160	--	
344356	970900	--	7.1	52,800	--	586	387	--	
344357	972655	--	--	187,000	189,000	11,700	2,790	--	
344357	973314	--	--	191,000	185,000	11,600	2,590	--	
344415	972257	--	6.6	225,000	159,000	14,100	2,220	--	
344415	972257	--	6.3	94,700	115,000	6,190	909	--	
344429	972257	--	--	230,000	154,000	14,200	2,740	--	
344441	972739	--	--	169,000	--	9,370	1,330	--	
344449	972243	--	--	230,000	200,000	14,200	2,740	--	
344455	973751	--	6.5	119,000	141,000	2,640	551	--	
344529	971760	16.0	7.3	--	550	58.1	22.7	--	
344541	972655	--	--	253,000	213,000	16,900	2,360	--	
344602	972645	--	6.0	221,000	170,000	13,900	2,260	--	
344613	972733	--	5.5	196,000	185,000	10,200	1,700	--	
344614	971435	--	6.4	171,000	--	8,100	2,840	--	
344626	972648	--	7.6	267,000	200,000	14,900	2,350	--	
344626	972648	--	6.7	263,000	222,000	15,200	1,670	--	
344626	972648	--	6.6	259,000	156,000	16,000	2,680	--	
344628	973101	--	5.8	213,000	213,000	12,500	2,860	--	
344630	971418	--	--	129,000	145,000	5,120	1,980	--	
344633	971428	--	6.8	182,000	--	5,310	2,060	--	
344633	972346	--	--	223,000	200,000	13,300	2,870	--	
344640	971420	--	6.0	190,000	--	10,300	2,820	--	
344654	972408	--	--	223,000	149,000	13,300	2,870	--	
344701	971511	--	6.4	146,000	170,000	6,240	2,150	--	
344713	971604	--	--	192,000	154,000	10,700	3,490	--	
344746	972833	--	6.4	262,000	213,000	13,700	2,220	--	
344905	973307	--	6.3	111,000	137,000	5,420	1,250	--	
344917	973308	--	6.5	150,000	132,000	5,260	959	--	

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Garvin County, Oklahoma									
344216	973010	65,500	--	--	128,000	17.0	76.3	93.0	--
344220	972550	58,000	--	--	113,000	41.0	13.9	17.0	--
344232	972604	50,600	--	--	93,800	117	82.8	101	--
344232	973251	33,600	--	213	59,400	491	341	416	--
344252	970041	4,230	--	--	6,530	90.0	605	492	--
344252	970041	1,920	--	--	1,710	21.0	2,050	2,500	--
344323	972429	28.7	--	1.5	--	8.0	300	--	--
344337	972654	78,400	--	--	158,000	316	68.9	84.0	--
344343	970831	36,200	--	--	69,800	130	53.3	65.0	--
344350	970911	25,100	--	--	46,400	79.0	617	752	--
344354	970800	11,800	--	--	20,000	--	776	946	--
344354	970903	25,100	--	--	46,400	79.8	617	753	--
344356	970900	19,600	--	--	31,900	60.0	536	654	--
344357	972655	56,500	--	--	116,000	--	16.5	20.1	--
344357	973314	58,500	--	--	118,000	--	8.2	10.0	--
344415	972257	69,600	--	--	138,000	583	56.6	69.0	--
344415	972257	29,100	--	--	58,100	342	54.1	66.0	--
344429	972257	71,000	--	--	141,000	836	10.7	13.0	--
344441	972739	54,200	--	--	104,000	82.0	125	152	--
344449	972243	71,000	--	--	141,000	836	11.2	13.7	--
344455	973751	43,200	--	--	72,800	63.0	180	219	--
344529	971760	37.4	--	1.0	--	9.0	220	--	--
344541	972655	77,200	--	--	155,000	666	34.9	42.6	--
344602	972645	68,400	--	--	136,000	579	27.9	34.0	--
344613	972733	63,400	--	--	120,000	705	36.9	45.0	--
344614	971435	54,100	--	--	106,000	143	202	246	--
344626	972648	84,700	--	1,090	163,000	779	137	167	--
344626	972648	83,800	--	563	161,000	637	43.5	53.0	--
344626	972648	79,300	--	1,210	159,000	668	68.9	84.0	--
344628	973101	65,600	--	127	132,000	3.0	45.1	55.0	--
344630	971418	42,200	--	--	79,600	--	271	330	--
344633	971428	62,400	--	--	111,000	4.0	399	487	--
344633	972346	68,800	--	--	138,000	870	3.7	4.5	--
344640	971420	59,200	--	--	118,000	158	83.6	102	--
344654	972408	68,800	--	--	138,000	870	3.3	4.0	--
344701	971511	47,300	--	--	90,100	36.0	136	166	--
344713	971604	58,500	--	--	119,000	641	112	136	--
344746	972833	84,300	--	497	161,000	611	34.4	42.0	--
344905	973307	35,900	--	--	68,300	462	58.2	71.0	--
344917	973308	51,500	--	770	91,300	139	174	212	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
		Garvin County, Oklahoma				
344930	973340	--	320PSLV	10,400	7,380	9/16/1964
344931	973029	--	364MCLS	7,030	--	11/ 8/1951
344939	972944	--	364BRMD	8,040	8,000	8/27/1964
344952	972944	--	364BRMD	9,040	8,070	11/28/1949
344952	972944	--	3640LCK	9,040	--	12/27/1949
345002	973314	04N-03W-07	364BRMD	--	10,200	3/17/1953
345055	973417	04N-04W-01	364BRMD	--	10,200	3/17/1953
345126	973501	--	330MSSP	11,300	7,530	7/30/1951
345127	973415	--	364BRMD	11,300	--	8/12/1957
345127	973518	--	364BRMD	10,900	--	6/ 2/1960
345128	973359	--	364SMPS	10,300	--	11/ 2/1948
345153	973500	--	3640LCK	11,600	11,500	6/30/1960
		Grady County, Oklahoma				
344145	974245	--	319CCGV	1,470	1,460	3/ 3/1947
344212	974242	03N-05W-27	310PRMN	--	1,810	6/10/1953
344250	974518	--	313RSPG	--	128	4/ 9/1978
344331	974422	--	310PRMN	4,270	4,200	6/10/1953
344357	974448	03N-05W-17	328SPRG	--	4,210	6/10/1953
344449	974654	03N-06W-12	323HXBR	--	4,820	2/ 9/1955
344451	974518	--	310PRMN	4,100	4,030	2/ 7/1955
344500	975430	03N-07W-26 CCC	313RSPG	200	--	7/28/1948
344503	974502	--	319PNTC	2,920	2,400	3/ 3/1947
344509	974637	--	323HXBR	4,880	4,810	2/ 9/1955
344722	975726	04N-07W-29 ACC	313RSPG	21	--	8/ 1/1951
344728	975734	04N-07W-29 BD	313RSPG	20	--	4/ 5/1946
344749	974731	--	313GDLP	--	131	4/ 9/1978
344753	980231	--	313RSPG	--	54.9	7/29/1978
344755	980100	04N-08W-23 CC	313RSPG	32	--	4/ 4/1946
344900	980400	04N-08W-17 CBB	313RSPG	50	--	4/ 5/1946
344952	974203	--	364BRMD	14,000	13,400	8/22/1966
345033	974017	--	319PNTC	9,170	--	9/ 2/1955
345055	975932	04N-08W-01	310PRMN	--	2,200	2/ 8/1955
345138	974246	--	328SPRG	10,200	--	2/10/1960
345138	974435	--	328SPRG	11,200	10,200	1/17/1955
345148	980045	05N-08W-35	310PRMN	--	2,890	2/ 8/1955
345327	980128	--	320PSLV	4,200	3,180	9/25/1939
345349	974157	--	364BRMD	12,300	--	8/ 4/1955
345400	974035	--	3640LCK	13,600	12,500	1/ 3/1964

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
	Garvin County, Oklahoma							
344930	973340	--	4.6	274,000	222,000	17,500	1,780	--
344931	973029	--	5.4	294,000	233,000	17,600	2,380	--
344939	972944	--	5.9	296,000	208,000	15,000	3,110	--
344952	972944	--	6.0	281,000	192,000	16,000	2,660	--
344952	972944	--	--	235,000	147,000	14,300	2,230	--
345002	973314	--	--	127,000	145,000	5,200	912	--
345055	973417	--	--	180,000	175,000	10,800	2,070	--
345126	973501	--	5.9	247,000	204,000	12,300	2,560	--
345127	973415	--	6.3	136,000	156,000	6,980	1,060	--
345127	973518	--	5.8	117,000	147,000	4,660	1,050	--
345128	973359	--	9.4	146,000	116,000	7,900	660	--
345153	973500	--	6.7	153,000	167,000	6,850	1,280	--
	Grady County, Oklahoma							
344145	974245	--	6.5	96,800	101,000	8,640	1,500	--
344212	974242	--	--	124,000	145,000	7,260	1,540	--
344250	974518	18.5	7.3	--	620	81.6	40.3	--
344331	974422	--	--	67,800	73,000	1,090	313	--
344357	974448	--	--	68,200	92,600	1,090	313	--
344449	974654	--	--	178,000	189,000	7,600	2,140	--
344451	974518	--	--	62,200	64,500	1,530	2,640	--
344500	975430	16.0	--	429	706	62	27	270
344503	974502	--	6.1	134,000	127,000	4,820	1,820	--
344509	974637	--	--	178,000	149,000	7,600	2,140	--
344722	975726	--	7.3	385	616	86	18	290
344728	975734	--	--	603	--	100	46	440
344749	974731	19.0	6.8	--	1,100	105	42.1	--
344753	980231	25.0	6.9	1,050	1,640	284	24.7	--
344755	980100	15.0	--	1,060	--	144	20	440
344900	980400	16.5	--	1,490	--	299	57	980
344952	974203	--	7.5	49,700	70,400	2,250	70	--
345033	974017	--	--	162,000	--	7,420	1,340	--
345055	975932	--	--	164,000	152,000	6,880	2,290	--
345138	974246	--	7.0	57,800	79,400	982	219	--
345138	974435	--	7.3	25,600	39,200	196	69	--
345148	980045	--	--	190,000	189,000	10,200	2,850	--
345327	980128	--	--	149,000	--	8,530	1,700	--
345349	974157	--	--	16,700	--	28	26	--
345400	974035	--	6.3	152,300	141,000	7,210	1,190	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
	Garvin County, Oklahoma								
344930	973340	85,700	--	194	169,000	8.0	4.9	6.0	--
344931	973029	92,800	--	543	181,000	11.0	93.5	114	--
344939	972944	94,100	--	1,520	182,000	553	48.4	59.0	--
344952	972944	89,000	--	--	173,000	433	18.0	22.0	--
344952	972944	73,400	--	--	144,000	729	105	128	--
345002	973314	42,800	--	--	77,700	371	--	--	--
345055	973417	55,900	--	--	111,000	124	--	--	--
345126	973501	79,900	--	--	152,000	3.0	45.9	56.0	--
345127	973415	44,000	--	--	83,200	382	138	168	--
345127	973518	39,200	--	262	71,800	194	107	131	--
345128	973359	47,600	--	--	88,500	844	178	217	--
345153	973500	49,600	--	1,460	93,400	349	155	189	--
	Grady County, Oklahoma								
344145	974245	26,400	--	--	60,200	12.0	79.5	97.0	--
344212	974242	38,400	--	--	76,400	--	69.8	85.2	--
344250	974518	17.7	--	1.6	--	11.0	300	--	--
344331	974422	25,000	--	--	40,900	111	644	786	--
344357	974448	25,000	--	--	40,900	111	644	786	--
344449	974654	58,600	--	--	110,000	236	103	125	--
344451	974518	18,700	--	--	38,600	798	3.3	4.0	--
344500	975430	--	40.0	--	109	14.0	127	155	70.0
344503	974502	44,800	--	--	82,900	14.0	54.1	66.0	--
344509	974637	58,600	--	--	110,000	236	102	125	--
344722	975726	20.0	--	0.8	23.0	77.0	199	243	12.0
344728	975734	--	3.2	--	54.0	176	170	207	21.0
344749	974731	70.0	--	3.4	--	57.0	304	--	--
344753	980231	24.1	--	1.0	43.0	576	162	--	--
344755	980100	--	163	--	43.0	532	112	137	86.0
344900	980400	--	78.0	--	183	449	157	192	330
344952	974203	16,800	--	214	30,100	188	212	258	--
345033	974017	53,700	--	--	99,800	57.0	152	185	--
345055	975932	52,800	--	--	101,000	--	3.6	4.4	--
345138	974246	21,300	--	--	34,900	191	362	441	--
345138	974435	9,720	--	40.0	15,200	161	435	530	--
345148	980045	59,700	--	--	117,000	144	56.8	69.3	--
345327	980128	46,600	--	--	91,800	45.0	13.9	17.0	--
345349	974157	6,440	--	--	7,200	1,620	2,340	2,490	--
345400	974035	49,100	--	1,380	93,000	289	114	139	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
	Grady County, Oklahoma					
345400	974035	--	364BRMD	13,600	11,200	6/19/1964
345420	974625	05N-05W-18 BBB	313ELRN	300	--	7/13/1950
345505	974639	05N-06W-12 DA	313RSPG	105	--	9/ 4/1951
345518	974042	05N-05W-12	364SMPS	--	12,900	6/26/1953
345518	980459	05N-08W-07	317SMNR	--	3,110	2/ 9/1955
345537	974040	--	364BRMD	13,200	12,800	6/26/1953
345613	974619	--	313DGCK	--	140	4/15/1978
345635	975837	--	313RSPG	--	384	4/16/1978
345637	975609	06N-07W-33 DD	313RSPG	300	--	7/29/1950
345800	974440	06N-05W-16 BD	313ELRN	80	--	7/30/1950
345816	975906	--	313RSPG	--	341	4/16/1978
345920	975630	06N-07W-04 DDC	313ELRN	204	--	12/ 2/1958
350021	975413	06N-07W-11 CBB	313DGCK	150	--	7/ 7/1965
350300	975439	--	313RSPG	--	--	6/10/1947
350925	980502	--	313DGCK	--	36.6	10/25/1978
351026	974605	--	313GDLP	--	162	1/ 9/1978
351029	980305	08N-08W-09 CDC	313DGCK	27	--	12/21/1971
351627	980327	09N-08W-09 BBC	313RSPG	36	--	6/ 6/1947
	Grant County, Oklahoma					
363846	973132	25N-03W-16	364SMPS	--	5,350	5/17/1954
363938	974009	25N-04W-07	364SMPS	--	5,810	5/17/1954
363947	973947	--	324CHAT	7,500	5,160	5/14/1956
364031	974009	25N-04W-06	332FTVL	--	5,820	5/17/1954
364123	974009	26N-04W-31	330MSSP	--	5,160	5/17/1954
364123	974114	26N-05W-36	364SMPS	--	5,780	5/17/1954
364522	973358	--	318GRBR	--	36.6	6/ 6/1978
364840	973152	--	318GRBR	--	51.8	6/ 6/1978
364842	972950	--	325CHRK	4,110	--	2/ 3/1953
364913	972922	27N-03W-14	325CHRK	--	4,110	2/ 3/1953
365057	972922	27N-03W-02	324CHAT	--	4,210	6/12/1953
365057	972922	27N-03W-02	364SMPS	--	4,320	2/ 5/1953
365109	972925	--	330MSSP	4,290	4,200	2/ 5/1953
365144	972844	--	364SMPS	4,350	4,350	2/ 5/1953
365147	973412	--	318GRBR	--	51.8	6/ 6/1978
365338	974247	--	318GRBR	--	61	6/13/1978
365346	973040	--	318GRBR	--	36.6	6/13/1978
365518	974742	28N-06W-12	323KSSC	--	4,000	11/20/1955
365610	973341	28N-03W-06	364SMPS	--	5,000	2/ 3/1953

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
	Grady County, Oklahoma							
345400	974035	--	7.5	121,000	137,000	3,370	1,290	--
345420	974625	18.0	--	310	510	29	40	240
345505	974639	--	7.5	689	1,130	102	84	600
345518	974042	--	--	313,000	233,000	17,600	2,250	--
345518	980459	--	--	199,000	204,000	12,000	2,280	--
345537	974040	--	--	313,000	192,000	17,600	2,250	--
345613	974619	19.0	7.4	--	590	64.5	31	--
345635	975837	18.0	8.3	--	1,410	18.5	17.2	--
345637	975609	22.0	--	1,330	1,800	98	36	390
345800	974440	20.0	--	386	625	50	45	310
345816	975906	18.5	8.2	--	1,980	20.5	8.1	--
345920	975630	--	7.6	284	520	50	23	220
350021	975413	10.5	7.8	515	860	--	--	360
350300	975439	--	--	547	998	31	24	180
350925	980502	20.0	7.8	358	450	60.1	21.6	--
351026	974605	16.0	7.3	--	700	59.6	35.4	--
351029	980305	--	8.0	870	1,370	--	--	520
351627	980327	--	--	796	1,060	122	37	460
	Grant County, Oklahoma							
363846	973132	--	--	264,000	227,000	19,200	3,230	--
363938	974009	--	--	281,000	233,000	19,900	3,280	--
363947	973947	--	5.2	260,000	213,000	22,700	2,030	--
364031	974009	--	--	281,000	233,000	19,600	2,750	--
364123	974009	--	--	296,000	227,000	19,300	3,280	--
364123	974114	--	--	280,000	233,000	19,200	3,730	--
364522	973358	19.0	7.0	--	3,040	209	114	--
364840	973152	16.5	7.1	--	850	124	42.1	--
364842	972950	--	--	248,000	170,000	21,900	3,000	--
364913	972922	--	--	248,000	213,000	21,900	3,000	--
365057	972922	--	--	267,000	217,000	18,300	2,450	--
365057	972922	--	--	245,000	217,000	18,800	2,780	--
365109	972925	--	--	267,000	172,000	18,300	2,450	--
365144	972844	--	--	240,000	172,000	19,600	2,750	--
365147	973412	17.5	7.8	--	2,340	79.7	39.4	--
365338	974247	22.5	7.2	--	2,140	120	71.4	--
365346	973040	20.0	7.2	--	990	79.2	42.1	--
365518	974742	--	--	268,000	238,000	20,400	3,980	--
365610	973341	--	--	265,000	222,000	18,900	2,850	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
	Grady County, Oklahoma								
345400	974035	41,300	--	756	74,200	126	324	395	--
345420	974625	29.0	--	--	8.8	35.0	248	286	0.2
345505	974639	32.0	--	3.4	63.0	65.0	495	604	16.0
345518	974042	100,000	--	--	192,000	392	53.1	64.8	--
345518	980459	61,800	--	--	123,000	--	--	--	--
345537	974040	100,000	--	--	192,000	392	52.5	64.0	--
345613	974619	44.3	--	1.1	--	10.0	280	--	--
345635	975837	296	--	1.1	--	466	118	--	--
345637	975609	--	279	--	130	640	148	180	0.2
345800	974440	--	8.7	--	38.0	29.0	217	240	36.0
345816	975906	411	--	1.3	--	546	246	--	--
345920	975630	--	31.0	--	3.0	7.8	274	334	0.1
350021	975413	--	58.0	--	31.0	114	318	388	0.1
350300	975439	--	140	--	73.0	160	210	220	--
350925	980502	23.2	--	7.2	21.0	138	144	--	--
351026	974605	48.9	--	--	--	17.0	310	--	--
351029	980305	--	130	--	42.0	240	472	576	0.4
351627	980327	--	16.0	--	18.0	393	55.2	49.0	0.2
	Grant County, Oklahoma								
363846	973132	78,000	--	--	163,000	617	24.7	30.1	--
363938	974009	83,800	--	--	174,000	501	45.8	55.9	--
363947	973947	74,200	--	--	161,000	252	22.1	27.0	--
364031	974009	85,100	--	--	173,000	522	22.9	27.9	--
364123	974009	90,300	--	--	183,000	335	7.7	9.4	--
364123	974114	83,600	--	--	173,000	592	46.7	57.0	--
364522	973358	485	--	0.9	--	577	270	--	--
364840	973152	79.4	--	1.5	--	57.2	290	--	--
364842	972950	68,900	--	--	153,000	521	40.2	49.0	--
364913	972922	68,900	--	--	153,000	522	40.6	49.5	--
365057	972922	81,300	--	--	165,000	340	28.5	34.8	--
365057	972922	71,600	--	--	152,000	498	40.5	49.4	--
365109	972925	81,300	--	--	165,000	339	27.9	34.0	--
365144	972844	68,600	--	--	148,000	505	22.1	27.0	--
365147	973412	416	--	1.4	--	902	142	--	--
365338	974247	309	--	1.0	--	303	250	--	--
365346	973040	84.4	--	0.1	--	76.0	259	--	--
365518	974742	76,700	--	--	166,000	371	29.5	36.0	--
365610	973341	79,200	--	--	164,000	432	--	--	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
	Grant County, Oklahoma					
365616	973312	--	364SMPS	4,980	4,970	2/ 3/1953
365808	974341	--	318GRBR	--	48.8	6/ 7/1978
365859	973622	--	318GRBR	--	79.3	6/13/1978
	Harper County, Oklahoma					
363636	993059	--	332CSTR	8,050	7,720	6/18/1960
364030	995248	--	321TFGM	7,310	4,280	2/11/1974
364218	995038	--	321TFGM	7,160	4,150	2/ 2/1959
364218	995039	--	321TFGM	7,160	4,150	12/ 2/1959
364247	994926	--	332CSTR	7,250	7,140	2/23/1959
364309	994511	--	322DGLS	7,120	5,550	1/11/1967
364309	994511	--	321TFGM	7,120	4,320	1/11/1967
364349	995616	--	332CSTR	7,240	7,050	2/20/1958
365015	994532	--	367ABCK	8,790	8,520	12/ 3/1969
365342	995909	28N-26W-22 ABD	310WTRS	108	--	4/ 8/1959
365525	993648	--	323LNSG	7,800	4,630	8/23/1959
365525	993648	--	361VIOL	7,800	7,300	2/24/1969
365525	993648	--	325FRSC	7,800	5,390	9/22/1959
365525	993648	--	364SMPS	7,800	7,530	10/ 7/1959
365538	993630	--	323KSSC	7,750	4,610	1/16/1959
365550	993558	--	323LNSG	7,710	4,620	9/ 8/1959
365550	993558	--	323LNSG	7,710	5,110	9/11/1959
365550	993558	--	361VIOL	7,710	7,230	10/15/1959
365550	993558	--	367ABCK	7,710	7,610	12/18/1959
365651	993555	--	322DGLS	7,780	--	2/11/1959
	Haskell County, Oklahoma					
350717	951622	--	327UNVL	6,400	6,300	1/30/1963
351131	951248	--	325SVNN	7,500	6,900	9/ 5/1964
351131	951248	--	325SVNN	7,500	7,000	9/30/1964
351259	951319	--	327UNVL	5,860	--	11/10/1957
351259	951319	--	325SVNN	5,860	--	11/12/1957
351757	945013	--	344HNTN	6,650	6,480	2/15/1969
351939	950923	--	325SVNN	4,100	2,190	4/10/1963
351939	950923	--	367ABCK	4,100	3,900	5/ 7/1963

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Grant County, Oklahoma								
365616	973312	--	--	--	179,000	18,900	2,850	--
365808	974341	20.0	7.8	--	2,080	25.2	11.7	--
365859	973622	19.0	7.6	--	1,170	49.5	30.7	--
Harper County, Oklahoma								
363636	993059	--	7.3	44,700	64,100	2,210	360	--
364030	995248	--	5.9	212,000	200,000	13,300	2,380	--
364218	995038	--	5.3	207,000	200,000	13,600	2,350	--
364218	995039	--	5.3	208,000	200,000	13,600	2,350	--
364247	994926	--	7.0	50,100	76,900	3,850	340	--
364309	994511	--	5.8	215,000	170,000	11,900	2,520	--
364309	994511	--	5.9	200,000	170,000	12,900	2,070	--
364349	995616	--	7.1	58,800	80,000	3,550	456	--
365015	994532	--	5.9	227,000	217,000	23,400	3,270	--
365342	995909	--	7.8	326	555	22	20	140
365525	993648	--	6.0	210,000	217,000	11,400	2,620	--
365525	993648	--	6.5	209,000	172,000	12,800	2,670	--
365525	993648	--	6.7	207,000	200,000	11,100	2,200	--
365525	993648	--	6.3	249,000	217,000	17,800	2,920	--
365538	993630	--	5.7	271,000	204,000	12,300	2,940	--
365550	993558	--	6.2	233,000	222,000	10,600	2,820	--
365550	993558	--	6.0	183,000	196,000	9,600	2,040	--
365550	993558	--	5.5	231,000	196,000	15,900	2,880	--
365550	993558	--	6.1	--	152,000	14,900	2,430	--
365651	993555	--	6.4	124,000	135,000	6,580	1,100	--
Haskell County, Oklahoma								
350717	951622	--	6.0	--	--	17,700	1,700	--
351131	951248	--	5.1	217,000	179,000	19,400	2,000	--
351131	951248	--	6.1	210,000	192,000	19,000	2,410	--
351259	951319	--	9.4	--	119,000	10,700	26	--
351259	951319	--	5.8	124,000	143,000	11,500	1,440	--
351757	945013	--	6.3	119,000	147,000	7,120	1,320	--
351939	950923	--	6.9	134,000	71,400	10,000	2,330	--
351939	950923	--	6.7	214,000	149,000	17,000	2,640	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
	Grant County, Oklahoma								
365616	973312	79,200	--	--	164,000	431	--	--	--
365808	974341	424	--	0.8	--	538	190	--	--
365859	973622	141	--	0.1	--	125	220	--	--
	Harper County, Oklahoma								
363636	993059	14,400	--	--	24,100	2,500	1,750	2,140	--
364030	995248	65,000	--	--	131,000	--	83.6	102	--
364218	995038	63,200	--	--	128,000	--	17.2	21.0	--
364218	995039	63,200	--	--	128,000	204	17.2	21.0	--
364247	994926	15,200	--	--	30,600	--	215	262	--
364309	994511	67,400	--	677	132,000	338	67.2	82.0	--
364309	994511	61,200	--	403	123,000	257	44.3	54.0	--
364349	995616	18,400	--	1.0	34,700	1,200	610	744	--
365015	994532	57,200	--	1,380	141,000	310	82.0	100	--
365342	995909	--	70.0	--	25.0	16.0	231	282	0.6
365525	993648	66,000	--	--	129,000	170	105	--	--
365525	993648	64,300	--	--	129,000	544	90.2	110	--
365525	993648	65,700	--	--	127,000	146	134	164	--
365525	993648	73,900	--	--	154,000	335	100	122	--
365538	993630	88,700	--	--	167,000	490	41.8	51.0	--
365550	993558	75,800	--	--	144,000	274	89.9	--	--
365550	993558	58,100	--	--	112,000	240	203	--	--
365550	993558	68,900	--	--	142,000	479	78.7	96.0	--
365550	993558	58,200	--	--	123,000	340	223	--	--
365651	993555	39,600	--	--	74,400	2,110	141	172	--
	Haskell County, Oklahoma								
350717	951622	31,900	--	501	87,500	--	171	208	--
351131	951248	60,500	--	652	134,000	137	19.7	24.0	--
351131	951248	57,400	--	718	130,000	108	128	156	--
351259	951319	26,100	--	--	58,900	439	93.2	--	--
351259	951319	33,800	--	--	76,700	121	67.2	82.0	--
351757	945013	37,000	--	--	73,100	4.0	482	588	--
351939	950923	38,200	--	20.0	83,200	307	120	146	--
351939	950923	60,200	--	1,770	132,000	542	90.2	110	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
		Hughes County, Oklahoma				
345328	960857	05N-11E-21	327UNVL	--	5,300	9/ 4/1953
345841	962549	06N-08E-23	325CHRK	--	2,650	12/ 1/1954
345933	962032	06N-09E-15	325CHRK	--	2,800	12/ 1/1954
350025	962549	06N-08E-11	325CLVN	--	710	12/ 1/1954
350446	962136	07N-09E-16	325SNOR	--	1,230	12/ 1/1954
350630	962342	07N-09E-06	325CHRK	--	2,830	12/ 1/1954
350723	961413	08N-10E-34	327UNVL	--	3,360	11/30/1954
350723	961413	08N-10E-34	325HRSR	--	2,560	11/30/1954
350811	961311	--	326ATCK	2,550	--	10/10/1946
351114	961718	--	364SMPS	3,820	--	2/ 5/1959
351133	962512	--	344HNTN	4,210	4,050	11/30/1954
351143	961413	08N-10E-03	327UNVL	--	3,100	12/ 1/1954
351143	962445	08N-08E-01	340HNTN	--	4,160	11/30/1954
351238	962330	09N-09E-31	340MSNR	--	4,050	11/30/1954
351423	962434	09N-08E-24	340MSNR	--	3,980	11/30/1954
351655	962514	--	327UNVL	3,600	3,420	10/21/1964
351655	962514	--	327UNVL	3,600	3,530	10/21/1964
351659	961049	09N-11E-06	327UNVL	--	2,980	12/ 1/1954
351659	961917	09N-09E-02	327UNVL	--	3,350	9/ 4/1953
351747	961407	--	344HNTN	3,970	2,460	6/14/1959
		Johnston County, Oklahoma				
342414	963647	02S-07E-07 BAB	367ABCK	--	--	11/ 4/1977
342417	964801	02S-05E-08 ABB	364SMPS	107	--	12/ 5/1977
342445	964930	02S-05E-06 BCD	364SMPS	110	--	10/ 4/1956
342613	965211	01S-04E-27 DCA	367ABCK	--	--	10/20/1977
342654	964540	01S-05E-27 AAB	367ABCK	267	--	11/18/1977
342657	963627	01S-07E-23 DDD	364SMPS	140	--	11/17/1977
342718	964257	01S-06E-19 CAA	367ABCK	90	--	11/17/1977
		Kay County, Oklahoma				
363509	970854	27N-01E-12	325CHRK	--	3,590	4/15/1954
363649	972145	--	330MSSP	4,420	--	5/ 0/1964
363711	971340	--	325CHRK	4,340	--	8/29/1967
363717	971404	--	324CHAT	4,340	--	9/ 2/1967
363723	971341	--	323KSSC	4,340	--	8/29/1967
363724	971309	--	325CHRK	4,330	--	8/29/1967
363754	972045	25N-01W-19	324CHAT	--	4,320	2/ 5/1953

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
	Hughes County, Oklahoma							
345328	960857	--	--	19,000	32,400	1,160	218	--
345841	962549	--	--	165,000	172,000	7,250	1,700	--
345933	962032	--	--	192,000	141,000	8,390	1,950	--
350025	962549	--	--	33,900	56,500	817	294	--
350446	962136	--	--	112,000	139,000	6,720	2,270	--
350630	962342	--	--	169,000	179,000	10,400	2,120	--
350723	961413	--	--	207,000	145,000	11,000	2,200	--
350723	961413	--	--	122,000	149,000	8,190	2,300	--
350811	961311	--	--	159,000	--	7,350	1,290	--
351114	961718	--	6.1	207,000	196,000	12,000	1,780	--
351133	962512	--	--	220,000	170,000	11,100	1,940	--
351143	961413	--	--	208,000	145,000	13,300	1,980	--
351143	962445	--	--	220,000	208,000	11,100	1,940	--
351238	962330	--	--	192,000	189,000	10,500	2,130	--
351423	962434	--	--	184,000	192,000	10,300	1,800	--
351655	962514	--	4.9	159,000	179,000	9,920	1,660	--
351655	962514	--	5.6	154,000	170,000	9,600	1,570	--
351659	961049	--	--	181,000	189,000	9,340	1,880	--
351659	961917	--	--	185,000	189,000	10,300	1,630	--
351747	961407	--	6.9	79,900	109,000	4,900	1,100	--
	Johnston County, Oklahoma							
342414	963647	18.0	7.3	344	600	73	41	350
342417	964801	15.5	7.4	345	580	78	38	350
342445	964930	13.0	7.9	251	471	40	38	260
342613	965211	17.5	7.3	324	640	80	27	310
342654	964540	17.0	7.3	332	580	74	40	350
342657	963627	17.5	7.1	345	600	110	18	350
342718	964257	17.5	7.2	423	725	85	46	400
	Kay County, Oklahoma							
363509	970854	--	--	266,000	217,000	20,600	3,700	--
363649	972145	--	5.2	221,000	208,000	19,000	2,510	--
363711	971340	--	5.6	252,000	--	21,600	2,160	--
363717	971404	--	4.9	245,000	--	17,900	2,980	--
363723	971341	--	5.2	251,000	--	19,800	2,640	--
363724	971309	--	5.6	253,000	--	17,200	1,680	--
363754	972045	--	--	283,000	222,000	24,100	2,460	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
	Hughes County, Oklahoma								
345328	960857	5,830	--	--	11,600	--	76.4	93.2	--
345841	962549	54,000	--	--	102,000	--	102	125	--
345933	962032	63,200	--	--	117,000	73.7	61.4	74.8	--
350025	962549	12,000	--	--	20,700	--	77.3	94.3	--
350446	962136	33,400	--	--	69,900	--	75.9	92.5	--
350630	962342	52,000	--	--	105,000	--	10.9	13.3	--
350723	961413	66,000	--	--	128,000	243	56.2	68.5	--
350723	961413	35,400	--	--	75,700	--	--	--	--
350811	961311	52,600	--	--	97,800	117	126	153	--
351114	961718	65,500	--	--	127,000	707	90.2	110	--
351133	962512	71,400	--	--	135,000	797	56.6	69.0	--
351143	961413	64,400	--	--	128,000	388	--	--	--
351143	962445	71,400	--	--	135,000	798	56.7	69.1	--
351238	962330	60,500	--	--	118,000	817	89.9	110	--
351423	962434	59,500	--	--	113,000	935	72.3	88.2	--
351655	962514	49,000	--	--	97,900	160	9.8	12.0	--
351655	962514	47,800	--	--	95,000	315	130	159	--
351659	961049	58,200	--	--	111,000	540	147	179	--
351659	961917	58,900	--	--	113,000	587	41.9	51.1	--
351747	961407	24,500	--	85.0	49,100	140	130	159	--
	Johnston County, Oklahoma								
342414	963647	3.6	--	0.9	6.3	7.3	340	410	--
342417	964801	4.2	--	0.8	4.4	9.8	330	400	--
342445	964930	6.1	--	1.0	11.0	12.0	251	306	--
342613	965211	4.4	--	1.3	5.4	7.3	312	380	--
342654	964540	2.8	--	0.7	7.4	10.0	312	380	--
342657	963627	2.2	--	1.0	5.6	11.0	312	380	--
342718	964257	15.0	--	0.4	22.0	18.0	380	460	--
	Kay County, Oklahoma								
363509	970854	76,300	--	--	165,000	292	87.5	107	--
363649	972145	62,500	--	--	137,000	315	26.2	32.0	--
363711	971340	72,000	--	--	156,000	170	100	122	--
363717	971404	72,100	--	--	152,000	65.0	50.0	61.0	--
363723	971341	72,800	--	--	155,000	250	79.5	97.0	--
363724	971309	78,000	--	--	156,000	135	59.9	73.0	--
363754	972045	81,200	--	--	175,000	456	5.7	7.0	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
	Kay County, Oklahoma					
363837	970750	25N-02E-18	324CHAT	--	3,820	2/ 4/1953
363846	972359	25N-02W-15	364SMPS	--	4,030	2/ 5/1953
363911	972508	--	324CHAT	4,460	--	10/26/1965
363929	970645	25N-02E-08	364SMPS	--	3,940	2/ 4/1953
363929	970645	25N-02E-08	364SMPS	--	3,940	2/ 4/1953
363929	970750	25N-02E-07	324CHAT	--	3,790	2/ 4/1953
363938	972504	25N-02W-09	324CHAT	--	4,130	2/ 5/1953
363947	971213	--	364SMPS	4,700	--	8/10/1951
364323	970817	--	310WLNG	--	45.7	6/29/1978
364452	972150	26N-02W-12	367ABCK	--	3,670	2/ 5/1953
364452	972150	26N-02W-12	323KSSC	--	2,870	2/ 5/1953
364453	970137	--	310WLNG	--	36.6	7/ 6/1978
364519	972153	--	367ABCK	3,710	3,700	6/ 9/1961
364627	970750	27N-02E-31	364SMPS	--	4,080	4/15/1954
364627	970959	27N-01E-35	364SMPS	--	4,010	4/15/1954
364633	971028	--	364SMPS	4,130	4,010	4/15/1954
364648	972722	--	310WLNG	--	9.1	6/13/1978
364719	971208	27N-01E-28	325CHRK	--	3,670	2/ 3/1953
364832	970148	--	310WLNG	--	33.5	7/ 6/1978
364852	964804	--	325CHRK	--	2,990	7/29/1941
364903	964515	27N-05E-15	325CHRK	--	3,000	4/13/1954
365038	972216	--	310WLNG	--	27.4	6/12/1978
365042	971334	--	310WLNG	--	27.4	7/ 8/1978
365047	970750	27N-02E-06	325CHRK	--	3,540	6/18/1953
365232	965914	28N-03E-28	322ADA	--	960	10/25/1954
365324	965705	28N-03E-23	324STRN	--	2,960	4/13/1954
365331	970459	--	310WLNG	--	33.5	7/11/1978
365349	970202	--	310WLNG	--	91.4	7/11/1978
365416	965809	28N-03E-15	325CHRK	--	3,090	4/13/1954
365416	970018	28N-03E-17	324CHAT	--	3,030	4/13/1954
365416	971417	28N-01E-18	364SMPS	--	3,350	4/15/1954
365426	971836	28N-01W-16	364SMPS	--	3,630	6/18/1953
365439	965752	--	325CHRK	3,100	3,090	4/13/1954
365508	971417	28N-01E-37	322SHWN	--	2,040	4/15/1954
365508	971417	28N-01E-37	322SHWN	--	2,040	4/15/1954
365552	972429	--	310WLNG	--	30.5	6/14/1978
365613	971334	--	310WLNG	--	54.9	8/10/1978
365748	971417	29N-01E-30	367ABCK	--	3,030	4/15/1954
365755	971522	29N-01W-25	322SHWN	--	1,980	4/15/1954
365755	971522	29N-01W-25	322SHWN	--	1,980	4/15/1954

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
	Kay County, Oklahoma							
363837	970750	--	--	272,000	217,000	25,200	3,660	--
363846	972359	--	--	258,000	227,000	21,800	3,150	--
363911	972508	--	5.4	223,000	200,000	19,300	2,320	--
363929	970645	--	--	251,000	213,000	20,600	2,940	--
363929	970645	--	--	251,000	213,000	20,600	2,940	--
363929	970750	--	--	182,000	189,000	14,700	2,010	--
363938	972504	--	--	270,000	222,000	22,500	2,120	--
363947	971213	--	6.7	248,000	192,000	16,900	3,130	--
364323	970817	20.5	6.8	--	4,240	517	123	--
364452	972150	--	--	225,000	208,000	17,300	2,730	--
364452	972150	--	--	281,000	233,000	19,000	2,950	--
364453	970137	18.5	7.3	--	620	64.4	18	--
364519	972153	--	7.0	180,000	200,000	11,300	2,000	--
364627	970750	--	--	243,000	213,000	18,800	3,080	--
364627	970959	--	--	257,000	217,000	20,300	3,450	--
364633	971028	--	--	257,000	175,000	20,300	3,450	--
364648	972722	22.0	6.9	--	930	131	33.4	--
364719	971208	--	--	246,000	200,000	17,200	2,300	--
364832	970148	19.5	7.0	--	1,020	98.8	39.9	--
364852	964804	--	--	190,000	--	11,500	4,610	--
364903	964515	--	--	240,000	208,000	18,600	2,660	--
365038	972216	20.5	7.7	--	2,830	271	84.8	--
365042	971334	15.5	6.7	840	1,470	69.3	52.7	--
365047	970750	--	--	282,000	227,000	22,800	1,590	--
365232	965914	--	--	133,000	161,000	4,250	2,110	--
365324	965705	--	--	196,000	192,000	18,100	3,580	--
365331	970459	17.5	6.8	--	850	108	28.6	--
365349	970202	23.5	6.2	--	1,030	82.7	45	--
365416	965809	--	--	280,000	222,000	23,300	2,920	--
365416	970018	--	--	285,000	227,000	26,200	2,920	--
365416	971417	--	--	190,000	189,000	12,800	2,450	--
365426	971836	--	--	184,000	182,000	11,400	2,110	--
365439	965752	--	--	280,000	175,000	23,300	2,920	--
365508	971417	--	--	290,000	233,000	18,600	3,320	--
365508	971417	--	--	290,000	233,000	18,600	3,320	--
365552	972429	20.5	7.1	--	4,170	338	207	--
365613	971334	23.5	6.9	--	3,450	554	81.9	--
365748	971417	--	--	144,000	159,000	7,880	1,870	--
365755	971522	--	--	285,000	222,000	17,600	3,460	--
365755	971522	--	--	285,000	222,000	17,600	3,460	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
	Kay County, Oklahoma								
363837	970750	73,600	--	--	169,000	398	--	--	--
363846	972359	73,000	--	--	160,000	498	74.1	90.3	--
363911	972508	63,000	--	--	138,000	330	48.4	59.0	--
363929	970645	71,800	--	--	155,000	450	17.0	20.7	--
363929	970645	71,800	--	--	155,000	450	17.0	20.7	--
363929	970750	52,400	--	--	113,000	171	--	--	--
363938	972504	77,100	--	--	165,000	364	22.8	27.8	--
363947	971213	74,100	--	--	153,000	488	79.5	97.0	--
364323	970817	160	--	4.4	--	1,630	240	--	--
364452	972150	65,300	--	--	139,000	412	16.8	20.5	--
364452	972150	85,400	--	--	174,000	93.3	32.5	39.6	--
364453	970137	42.7	--	0.1	--	27.9	265	--	--
364519	972153	54,500	--	980	111,000	332	82.8	101	--
364627	970750	70,300	--	--	150,000	580	46.1	56.2	--
364627	970959	73,600	--	--	159,000	20.8	27.5	33.5	--
364633	971028	73,600	--	--	159,000	20.0	27.1	33.0	--
364648	972722	24.8	--	0.9	--	31.0	380	--	--
364719	971208	74,400	--	--	152,000	96.6	57.5	70.1	--
364832	970148	58.2	--	0.1	--	48.2	316	--	--
364852	964804	--	55,100	--	119,000	194	46.7	57.0	--
364903	964515	70,200	--	--	149,000	--	37.6	45.8	--
365038	972216	170	--	2.4	--	433	210	--	--
365042	971334	151	--	9.8	202	205	248	--	--
365047	970750	83,500	--	--	173,000	431	22.9	27.9	--
365232	965914	44,300	--	--	82,000	--	90.9	111	--
365324	965705	52,000	--	--	122,000	295	39.6	48.3	--
365331	970459	59.2	--	0.6	--	152	252	--	--
365349	970202	124	--	0.3	--	108	390	--	--
365416	965809	80,200	--	--	173,000	102	29.6	36.0	--
365416	970018	79,000	--	--	176,000	304	70.0	85.3	--
365416	971417	57,100	--	--	117,000	800	44.9	54.7	--
365426	971836	56,900	--	--	114,000	468	55.7	67.9	--
365439	965752	80,200	--	--	173,000	102	29.5	36.0	--
365508	971417	88,700	--	--	179,000	592	32.6	39.8	--
365508	971417	88,700	--	--	179,000	592	32.6	39.8	--
365552	972429	165	--	2.6	--	576	232	--	--
365613	971334	133	--	3.7	--	1,560	262	--	--
365748	971417	45,100	--	--	88,200	1,020	93.2	114	--
365755	971522	87,600	--	--	176,000	164	1.0	1.2	--
365755	971522	87,600	--	--	176,000	164	1.0	1.2	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
		Kay County, Oklahoma				
365834	971034	--	325LBTT	3,550	3,080	4/15/1954
365841	971102	29N-01E-22	325LBTT	--	3,090	4/15/1954
365860	970037	--	325CHRK	3,220	--	9/14/1951
365860	970037	--	325CHRK	3,220	--	10/ 1/1953
365933	970011	29N-03E-17	325CHRK	--	3,330	4/13/1954
365933	971312	29N-01E-17	324CHAT	--	3,410	6/18/1953
365933	971312	29N-01E-17	322DGLS	--	2,320	6/18/1953
		Kingfisher County, Oklahoma				
354454	974027	--	325CHRK	6,600	6,570	12/ 0/1952
354613	974047	--	344HNTN	7,010	--	2/12/1946
354627	974103	--	344HNTN	7,040	--	9/ 1/1945
354840	975252	--	318BSON	--	64	11/12/1977
354911	974303	16N-05W-34	340HNTN	--	7,120	6/22/1955
354932	974241	--	344HNTN	7,390	7,080	6/22/1953
354944	974344	--	344HNTN	7,870	--	2/22/1945
354944	974344	--	325CHRK	7,870	--	4/ 7/1945
355011	974225	--	344HNTN	7,130	--	8/23/1945
355011	974225	--	344HNTN	7,130	--	8/24/1945
355011	974225	--	344HNTN	7,130	--	3/29/1954
355326	980212	--	364SMPS	9,700	9,620	3/ 8/1965
355349	974431	--	318FRMN	--	51.8	11/20/1977
355443	974616	--	325FRSC	6,990	6,330	1/26/1966
355548	975425	--	318PRCL	--	101	11/18/1977
355624	975729	--	318BSON	--	30.5	11/18/1977
355731	975353	--	325FRSC	6,780	6,620	4/ 4/1967
355732	974559	--	325FRSC	6,380	6,320	1/26/1966
355755	980131	--	344HNTN	--	8,600	7/17/1967
355831	980344	17N-08W-04 C	318CDHL	12	--	4/12/1967
360203	981212	--	330MSSP	8,880	8,290	5/14/1965
360203	981212	--	324CHAT	8,880	8,290	6/15/1965
360345	974352	--	330MSSP	6,230	6,200	12/29/1966
360358	975210	--	333MRMC	7,150	--	8/28/1964
360546	974926	--	325FRSC	7,030	6,270	1/13/1979
360628	975503	19N-07W-23 CA	318SLPL	60	--	7/ 9/1945
		Kiowa County, Oklahoma				
345136	983943	--	318HNSS	--	61	7/22/1978

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (S/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
	Kay County, Oklahoma							
365834	971034	--	--	269,000	175,000	20,400	4,930	--
365841	971102	--	--	269,000	222,000	20,400	4,930	--
365860	970037	--	5.2	213,000	185,000	11,700	2,760	--
365860	970037	--	6.0	212,000	189,000	14,300	3,790	--
365933	970011	--	--	196,000	192,000	13,000	2,520	--
365933	971312	--	--	235,000	208,000	16,800	2,280	--
365933	971312	--	--	270,000	222,000	15,900	2,320	--
	Kingfisher County, Oklahoma							
354454	974027	--	6.6	4,490	6,760	206	26	--
354613	974047	--	--	54,200	--	1,810	281	--
354627	974103	--	--	101,000	--	9,040	722	--
354840	975252	17.5	7.0	--	2,460	251	66.9	--
354911	974303	--	--	228,000	204,000	6,540	861	--
354932	974241	--	--	228,000	164,000	6,540	861	--
354944	974344	--	--	168,000	--	4,640	891	--
354944	974344	--	--	5,210	--	717	94	--
355011	974225	--	--	27,100	--	372	93	--
355011	974225	--	--	30,700	--	258	89	--
355011	974225	--	--	243,000	--	14,700	2,330	--
355326	980212	--	6.9	236,000	170,000	14,500	1,540	--
355349	974431	17.0	6.7	--	2,040	115	69.3	--
355443	974616	--	5.2	245,000	204,000	15,500	2,010	--
355548	975425	15.5	7.3	--	580	46.1	29.1	--
355624	975729	15.0	7.1	--	5,590	524	127	--
355731	975353	--	5.9	164,000	--	8,310	262	--
355732	974559	--	5.6	206,000	208,000	14,500	1,650	--
355755	980131	--	6.8	128,000	161,000	5,960	1,100	--
355831	980344	--	8.2	816	1,410	--	--	360
360203	981212	--	7.0	141,000	130,000	7,350	1,260	--
360203	981212	--	6.9	144,000	141,000	7,330	1,060	--
360345	974352	--	5.8	188,000	208,000	9,850	1,930	--
360358	975210	--	5.1	169,000	182,000	9,040	1,520	--
360546	974926	--	4.7	240,000	143,000	20,200	2,350	--
360628	975503	--	--	1,960	--	160	96	790
	Kiowa County, Oklahoma							
345136	983943	20.0	7.2	277	450	68.1	23.5	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
	Kay County, Oklahoma								
365834	971034	75,900	--	--	167,000	313	8.2	10.0	--
365841	971102	75,900	--	--	167,000	314	8.6	10.5	--
365860	970037	66,700	--	--	132,000	68.0	16.4	20.0	--
365860	970037	62,200	--	--	132,000	214	30.3	37.0	--
365933	970011	58,800	--	--	121,000	70.6	--	--	--
365933	971312	70,700	--	--	145,000	486	16.9	20.6	--
365933	971312	85,600	--	--	167,000	--	22.8	27.8	--
	Kingfisher County, Oklahoma								
354454	974027	1,490	--	--	2,420	209	226	276	--
354613	974047	18,900	--	--	32,700	569	78.7	96.0	--
354627	974103	28,700	--	--	61,800	722	63.1	77.0	--
354840	975252	170	--	--	--	625	162	--	--
354911	974303	81,100	--	--	138,000	1,020	56.7	69.2	--
354932	974241	81,100	--	--	138,000	1,010	56.6	69.0	--
354944	974344	59,600	--	--	102,000	1,540	198	242	--
354944	974344	906	--	--	1,140	2,200	253	308	--
355011	974225	10,000	--	--	15,300	765	772	941	--
355011	974225	11,600	--	--	17,600	790	681	831	--
355011	974225	76,000	--	--	150,000	204	102	125	--
355326	980212	73,400	--	1,440	144,000	395	422	514	--
355349	974431	185	--	--	--	371	500	--	--
355443	974616	76,600	--	--	151,000	347	9.8	12.0	--
355548	975425	59.4	--	--	--	14.0	280	--	--
355624	975729	440	--	--	--	960	190	--	--
355731	975353	56,200	--	180	98,300	178	40.2	49.0	--
355732	974559	62,500	--	188	127,000	130	17.2	21.0	--
355755	980131	41,200	--	920	78,000	960	130	159	--
355831	980344	175	--	0.9	195	95.0	344	420	0.7
360203	981212	44,700	--	1,060	86,200	351	243	296	--
360203	981212	46,100	--	1,070	88,000	605	152	186	--
360345	974352	60,900	--	16.0	115,000	413	574	700	--
360358	975210	54,300	--	--	104,000	160	200	244	--
360546	974926	69,100	--	--	148,000	--	9.8	12.0	--
360628	975503	421	--	17.0	690	272	473	577	0.2
	Kiowa County, Oklahoma								
345136	983943	2.5	--	0.6	10	15.0	260	--	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Lati-tude	Longi-tude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
	Kiowa County, Oklahoma					
345925	984000	06N-14W-15 CDA	367ABCK	--	--	8/ 3/1971
350000	984045	06N-14W-16 AAC	318HNSS	212	--	8/ 3/1971
350020	984040	06N-14W-09 CCD	318HNSS	--	--	8/ 3/1971
350105	990251	06N-18W-01 D	318HNSS	--	--	2/ 6/1967
350200	990437	07N-18W-34 DA	318HNSS	27	--	2/27/1967
350216	985850	07N-17W-34	367ABCK	--	1,110	4/26/1955
350604	990549	--	313ELRN	--	18.3	10/ 8/1978
350618	990458	07N-18W-03 C	313FLRP	72	--	8/27/1965
	Latimer County, Oklahoma					
345340	952145	--	327UNVL	--	9,470	3/ 9/1964
345515	951932	--	325SVNN	12,600	12,400	2/25/1966
	Leflore County, Oklahoma					
350754	943241	08N-26E-15 ABA	325MCAL	89	--	8/24/1976
350756	943449	08N-27E-16 AAB	325MCAL	21	--	8/24/1976
350831	943338	08N-26E-12 BBD	325MCAL	80	--	8/24/1976
350850	943343	08N-27E-05 CDD	325MCAL	--	--	8/24/1976
350902	943433	08N-27E-03 CBC	325MCAL	105	--	8/24/1976
350933	943322	08N-26E-22 BBB	325MCAL	78	--	8/24/1976
350948	943243	08N-26E-15 DCA	325MCAL	109	--	8/25/1976
350959	943353	08N-26E-14 DAA	325MCAL	62	--	8/24/1976
351224	944416	--	344HNTN	6,290	5,740	8/16/1966
	Lincoln County, Oklahoma					
353002	964233	12N-06E-19	364SMPS	--	4,670	5/28/1954
353055	970136	12N-03E-18	364SMPS	--	5,500	12/ 2/1954
353147	964543	12N-05E-10	325CHRK	--	3,380	9/ 2/1953
353147	964543	12N-05E-10	332FTVL	--	3,380	9/ 2/1953
353147	964543	12N-05E-10	332FTVL	--	4,590	9/ 2/1953
353147	964750	12N-05E-08	324STRN	--	4,220	12/ 2/1954
353239	965101	12N-04E-02	324STRN	--	4,140	12/ 2/1954
353256	964005	--	322VNSS	--	204	1/13/1978
353327	965920	13N-03E-33	324STRN	--	2,560	5/26/1954
353327	970649	13N-02E-32	324STRN	--	5,040	12/ 2/1954
353419	970649	13N-02E-29	324STRN	--	5,030	5/28/1954
353542	970225	--	324STRN	4,900	4,710	9/18/1952

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Kiowa County, Oklahoma								
345925	984000	24.5	8.1	460	840	--	--	260
350000	984045	20.0	8.0	932	1,700	--	--	210
350020	984040	22.0	8.2	9,160	14,800	--	--	1,300
350105	990251	--	7.4	10,400	14,200	--	--	3,700
350200	990437	--	7.7	5,100	6,940	--	--	2,200
350216	985850	--	--	119,000	132,000	6,580	1,950	--
350604	990549	19.5	7.0	2,660	4,100	353	156	--
350618	990458	--	8.0	3,360	4,650	--	--	1,200
Latimer County, Oklahoma								
345340	952145	--	6.0	--	5,460	--	66	--
345515	951932	--	7.3	11,100	19,300	48	23	--
Leflore County, Oklahoma								
350754	943241	23.0	7.0	1,140	1,620	76	85	540
350756	943449	23.0	8.7	470	780	19	19	130
350831	943338	19.5	8.4	404	634	32	20	160
350850	943343	19.0	7.5	573	1,100	24	20	140
350902	943433	20.0	7.3	1,290	1,900	75	40	350
350933	943322	21.0	6.2	293	460	14	15	97
350948	943243	18.5	8.7	524	930	5.1	2.8	24
350959	943353	19.0	6.8	384	635	23	16	120
351224	944416	--	6.5	89,600	127,000	5,200	927	--
Lincoln County, Oklahoma								
353002	964233	--	--	197,000	182,000	10,300	2,400	--
353055	970136	--	--	252,000	208,000	15,500	2,700	--
353147	964543	--	--	218,000	208,000	13,200	2,640	--
353147	964543	--	--	193,000	--	11,700	2,330	--
353147	964543	--	--	204,000	208,000	10,800	2,800	--
353147	964750	--	--	267,000	167,000	15,600	3,590	--
353239	965101	--	--	226,000	238,000	12,500	2,390	--
353256	964005	21.5	8.7	--	910	2	0.5	--
353327	965920	--	--	258,000	208,000	15,400	3,480	--
353327	970649	--	--	266,000	227,000	16,100	1,670	--
353419	970649	--	--	262,000	227,000	16,000	2,700	--
353542	970225	--	--	263,000	200,000	13,400	2,800	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Kiowa County, Oklahoma									
345925	984000	--	64.0	--	79.0	61.0	226	276	0.2
350000	984045	--	280	--	350	62.0	244	298	0.2
350020	984040	--	2,900	--	5,000	90.0	221	270	--
350105	990251	2,240	--	7.8	4,030	2,250	71.0	86.0	0.6
350200	990437	894	--	2.7	1,500	1,550	422	514	0.5
350216	985850	36,200	--	--	71,000	2,030	750	915	--
350604	990549	408	--	4.3	1,100	507	220	--	--
350618	990458	--	638	--	740	950	389	474	160
Latimer County, Oklahoma									
345340	952145	1,110	--	8.0	1,680	7.0	321	391	--
345515	951932	4,330	--	21.0	5,910	12.0	1,280	1,570	--
Leflore County, Oklahoma									
350754	943241	180	--	1.0	27.0	600	268	327	--
350756	943449	120	--	3.1	29.0	160	178	217	--
350831	943338	95.0	--	0.6	11.0	9.8	340	414	--
350850	943343	180	--	0.6	37.0	68.0	381	465	--
350902	943433	310	--	1.0	110	490	408	498	--
350933	943322	59.0	--	0.3	46.0	88.0	67.2	82.0	--
350948	943243	200	--	0.4	91.0	4.3	342	417	--
350959	943353	97.0	--	0.6	26.0	57.0	236	288	--
351224	944416	27,300	--	901	55,000	26.0	476	581	--
Lincoln County, Oklahoma									
353002	964233	62,300	--	--	121,000	428	61.6	75.1	--
353055	970136	78,100	--	--	155,000	814	2.8	3.4	--
353147	964543	67,200	--	--	135,000	106	45.5	55.5	--
353147	964543	59,400	--	--	119,000	94.0	40.2	49.0	--
353147	964543	64,200	--	--	126,000	451	--	--	--
353147	964750	82,600	--	--	165,000	31.2	--	--	--
353239	965101	71,600	--	--	139,000	--	--	--	--
353256	964005	204	--	1.3	--	54.0	368	--	--
353327	965920	79,200	--	--	159,000	158	90.9	111	--
353327	970649	84,400	--	--	163,000	192	52.2	63.7	--
353419	970649	81,700	--	--	162,000	102	--	--	--
353542	970225	84,400	--	122	162,000	37.0	86.1	105	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
Lincoln County, Oklahoma						
353655	964007	13N-06E-09	364SMPS	--	4,170	5/25/1954
353655	964735	13N-05E-08	325CHRK	--	3,580	12/ 2/1954
353655	970024	13N-03E-08	325CHRK	--	4,660	5/26/1954
353655	970232	13N-02E-12	324STRN	--	4,590	3/17/1954
353738	970545	--	344HNTN	5,440	5,100	2/28/1950
353738	970545	--	364SMPS	5,440	5,400	3/20/1950
353747	965920	13N-03E-04	324STRN	--	4,420	5/26/1954
353932	965920	14N-03E-28	323CFVL	--	3,450	5/26/1954
354024	964527	14N-05E-22	323CFVL	--	2,720	3/16/1954
354024	970649	14N-02E-20	323CCKB	--	3,920	5/28/1954
354048	964605	--	322VNSS	--	116	1/ 5/1978
354105	965404	--	344HNTN	5,120	--	1/25/1942
354108	970505	--	364SMPS	5,250	5,230	9/30/1952
354113	970801	--	344HNTN	5,200	5,160	9/25/1950
354116	964319	14N-05E-13	325CHRK	--	3,750	3/16/1954
354116	964735	14N-05E-17	325CHRK	--	4,050	2/17/1954
354116	965151	14N-04E-15	325CHRK	--	4,220	3/17/1954
354116	965151	14N-04E-15	364SMPS	--	5,050	3/17/1954
354208	965504	14N-04E-07	364SMPS	--	4,930	2/17/1954
354208	965608	14N-03E-12	364SMPS	--	4,950	3/ 6/1953
354218	965622	--	364SMPS	4,980	4,950	3/ 6/1953
354230	965651	--	364SMPS	5,050	5,000	3/ 6/1953
354300	964215	14N-06E-06	325CHRK	--	3,250	3/16/1954
354300	965608	14N-03E-01	324STRN	--	4,240	3/ 6/1953
354300	965712	14N-03E-02	325FRSC	--	3,920	3/17/1954
354300	965920	14N-03E-04	340HNTN	--	4,810	1/29/1954
354305	970617	--	325CHRK	5,330	4,660	12/10/1951
354440	964010	15N-06E-28 DBD	322VMOS	408	--	7/ 7/1975
354660	965240	--	325CHRK	4,900	4,080	6/ 7/1954
354721	963758	15N-06E-11	364SMPS	--	3,700	3/18/1954
354721	965256	15N-04E-09	325CHRK	--	4,090	6/ 7/1954
354721	965504	15N-04E-07	325CHRK	--	4,150	2/17/1954
354805	964259	15N-05E-01 DAD	322VNSS	92	--	3/20/1980
354813	964111	15N-06E-05	325CHRK	--	3,140	3/18/1954
354813	964215	15N-06E-06	340HNTN	--	4,130	3/18/1954
354813	970024	15N-03E-05	324STRN	--	4,340	2/17/1954
354905	964111	16N-06E-32	340MSNR	--	4,000	3/18/1954
354910	965720	--	344HNTN	4,990	4,720	8/ 7/1951
355050	964359	16N-05E-24 CBB	322VNSS	30	--	3/17/1980
355114	964359	--	322VNSS	--	222	11/19/1977

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Lincoln County, Oklahoma								
353655	964007	--	--	208,000	196,000	10,400	2,620	--
353655	964735	--	--	241,000	154,000	13,900	2,600	--
353655	970024	--	--	248,000	208,000	14,200	2,820	--
353655	970232	--	--	265,000	222,000	15,200	2,870	--
353738	970545	--	6.7	224,000	164,000	11,400	2,710	--
353738	970545	--	--	228,000	189,000	10,200	2,880	--
353747	965920	--	--	251,000	208,000	15,800	3,680	--
353932	965920	--	--	246,000	204,000	13,200	3,210	--
354024	964527	--	--	210,000	192,000	10,700	2,910	--
354024	970649	--	--	269,000	227,000	14,500	3,020	--
354048	964605	8.5	7.1	--	610	55	28.7	--
354105	965404	--	--	122,000	--	6,640	1,320	--
354108	970505	--	6.4	221,000	196,000	10,700	2,430	--
354113	970801	--	6.8	247,000	196,000	21,300	3,510	--
354116	964319	--	--	228,000	208,000	12,500	2,560	--
354116	964735	--	--	237,000	213,000	14,000	2,620	--
354116	965151	--	--	239,000	217,000	13,500	2,900	--
354116	965151	--	--	221,000	208,000	11,400	3,120	--
354208	965504	--	--	218,000	208,000	11,200	2,680	--
354208	965608	--	--	223,000	200,000	11,400	2,740	--
354218	965622	--	--	223,000	149,000	11,400	2,740	--
354230	965651	--	--	219,000	170,000	10,800	2,640	--
354300	964215	--	--	266,000	222,000	13,600	3,540	--
354300	965608	--	--	234,000	196,000	12,700	2,460	--
354300	965712	--	--	242,000	222,000	13,000	2,780	--
354300	965920	--	--	226,000	208,000	12,800	2,590	--
354305	970617	--	6.4	256,000	200,000	15,600	2,630	--
354440	964010	25.0	7.9	455	720	23	5	78
354660	965240	--	--	230,000	161,000	15,800	2,570	--
354721	963758	--	--	211,000	200,000	10,500	2,700	--
354721	965256	--	--	231,000	213,000	15,800	2,570	--
354721	965504	--	--	235,000	208,000	14,500	2,540	--
354805	964259	14.0	7.7	296	562	43	26	210
354813	964111	--	--	178,000	189,000	9,070	2,240	--
354813	964215	--	--	211,000	196,000	11,500	2,770	--
354813	970024	--	--	244,000	217,000	15,400	2,510	--
354905	964111	--	--	189,000	192,000	12,400	1,580	--
354910	965720	--	7.5	133,000	141,000	6,410	1,470	--
355050	964359	18.0	7.3	858	1,590	130	72	620
355114	964359	16.5	7.9	--	610	20.2	7.1	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Lincoln County, Oklahoma									
353655	964007	66,600	--	--	128,000	340	45.2	55.2	--
353655	964735	75,600	--	--	148,000	260	68.4	83.4	--
353655	970024	77,600	--	--	153,000	226	109	133	--
353655	970232	83,200	--	--	163,000	323	66.4	81.0	--
353738	970545	71,300	--	--	137,000	994	25.4	31.0	--
353738	970545	73,900	--	--	140,000	709	23.0	28.0	--
353747	965920	76,000	--	--	156,000	195	100	122	--
353932	965920	77,200	--	--	151,000	452	95.9	117	--
354024	964527	66,600	--	--	130,000	477	102	124	--
354024	970649	85,400	--	--	166,000	336	--	--	--
354048	964605	35.3	--	--	--	11.0	226	--	--
354105	965404	38,600	--	--	74,600	680	175	213	--
354108	970505	71,000	--	417	136,000	59.0	58.2	71.0	--
354113	970801	68,500	--	--	154,000	36.0	43.5	53.0	--
354116	964319	72,300	--	--	141,000	55.7	102	124	--
354116	964735	73,900	--	--	146,000	83.4	154	188	--
354116	965151	74,800	--	--	148,000	40.0	100	122	--
354116	965151	69,600	--	--	136,000	982	76.0	92.7	--
354208	965504	69,600	--	--	135,000	302	104	127	--
354208	965608	70,900	--	--	137,000	336	45.6	55.6	--
354218	965622	70,900	--	--	137,000	335	45.1	55.0	--
354230	965651	70,200	--	--	135,000	252	85.3	104	--
354300	964215	84,400	--	--	164,000	34.7	93.1	114	--
354300	965608	74,200	--	--	144,000	202	97.4	119	--
354300	965712	76,500	--	--	149,000	288	97.7	119	--
354300	965920	70,800	--	--	139,000	1,070	78.3	95.5	--
354305	970617	79,900	--	--	158,000	24.0	109	133	--
354440	964010	140	--	3.5	12.0	93.0	275	335	--
354660	965240	69,500	--	--	142,000	169	130	158	--
354721	963758	67,200	--	--	130,000	316	45.4	55.3	--
354721	965256	69,500	--	--	142,000	170	130	158	--
354721	965504	72,600	--	--	145,000	86.8	40.3	49.1	--
354805	964259	31.0	--	0.7	19.0	47.0	190	--	--
354813	964111	56,800	--	--	110,000	6.7	61.9	75.5	--
354813	964215	66,200	--	--	130,000	699	37.0	45.2	--
354813	970024	75,300	--	--	151,000	94.3	46.2	56.3	--
354905	964111	57,400	--	--	117,000	264	44.9	54.8	--
354910	965720	43,100	--	--	81,400	820	84.5	103	--
355050	964359	98.0	--	1.6	180	110	420	--	--
355114	964359	119	--	--	--	20.0	220	--	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
		Lincoln County, Oklahoma				
355130	964430	16N-05E-23 DDD	322VMOS	196	--	2/13/1975
355234	970753	16N-02E-07	325CHRK	--	4,640	2/17/1954
355326	970128	16N-03E-06	364SMPS	--	4,820	5/18/1954
355347	970118	--	364SMPS	4,870	4,820	5/18/1954
355357	964048	17N-06E-32 DDD	322ADA	177	--	4/ 9/1980
355413	964356	17N-05E-35 AAD	322VNSS	105	--	4/ 9/1980
355418	965505	17N-04E-31	323CFVL	--	3,140	3/18/1954
355418	970129	17N-03E-31	325CHRK	--	4,290	5/18/1954
355602	970545	17N-02E-21	323KSSC	--	3,650	10/10/1955
355615	965954	--	324STRN	4,030	--	6/19/1947
		Logan County, Oklahoma				
354338	971727	--	330MSSP	5,990	--	8/30/1962
354407	973107	15N-03W-33 ACA	318GRBR	--	--	11/13/1974
354416	973855	--	344HNTN	6,870	--	7/11/1944
354416	973855	--	344HNTN	6,870	--	7/14/1944
354416	973958	--	344HNTN	7,220	--	4/16/1945
354416	973958	--	344HNTN	7,220	--	10/19/1945
354416	973958	--	344HNTN	7,220	--	5/21/1947
354416	974102	--	344HNTN	7,100	--	4/26/1946
354428	973840	--	323KSSC	7,070	--	5/ 1/1945
354429	973943	--	344HNTN	6,950	--	8/11/1946
354442	973943	--	325CHRK	6,940	6,530	9/ 1/1953
354450	973639	15N-04W-27	323HGSR	--	5,440	5/18/1954
354450	973951	15N-04W-30	325CHRK	--	6,530	9/ 1/1953
354511	973706	--	323HGSR	6,480	5,440	5/18/1954
354614	972517	--	325CHRK	6,240	--	4/12/1944
354629	971313	15N-01E-17	325CHRK	--	5,000	9/ 1/1953
354634	973535	15N-04W-14	364SMPS	--	6,470	5/18/1954
354641	971248	--	325CHRK	5,000	--	10/ 8/1948
354647	971257	--	325CHRK	5,050	5,000	9/ 1/1953
354651	973928	--	357CMNL	7,620	--	1/20/1945
354746	971760	--	318GRBR	--	183	12/ 4/1977
354754	973604	--	320PSLV	2,500	1,900	6/22/1953
354760	972427	--	325CHRK	6,140	5,520	11/15/1954
354819	972456	15N-02W-04	325CHRK	--	5,520	11/15/1954
354846	970903	--	344HNTN	5,320	4,950	11/19/1966
354847	972743	--	318GRBR	--	204	11/ 6/1977
354916	971912	16N-01W-29 AAA	310WLNG	138	--	12/12/1974

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Lincoln County, Oklahoma								
355130	964430	16.0	7.8	478	790	57	28	260
355234	970753	--	--	262,000	227,000	17,500	3,000	--
355326	970128	--	--	214,000	208,000	11,300	3,260	--
355347	970118	--	--	214,000	161,000	11,300	3,260	--
355357	964048	18.5	7.5	332	604	51	30	250
355413	964356	17.5	7.9	770	1,220	28	6.6	98
355418	965505	--	--	217,000	200,000	11,500	2,580	--
355418	970129	--	--	243,000	222,000	17,000	3,330	--
355602	970545	--	--	257,000	244,000	17,100	3,790	--
355615	965954	--	5.4	237,000	200,000	14,900	2,610	--
Logan County, Oklahoma								
354338	971727	--	6.8	--	7,020	2,740	--	--
354407	973107	--	--	268	466	52	22	220
354416	973855	--	--	42,200	--	1,250	180	--
354416	973855	--	--	62,200	--	703	199	--
354416	973958	--	--	67,300	--	4,390	611	--
354416	973958	--	--	53,800	--	1,450	236	--
354416	973958	--	--	146,000	--	5,440	911	--
354416	974102	--	--	229,000	--	7,860	1,940	--
354428	973840	--	--	13,100	--	824	127	--
354429	973943	--	--	45,600	--	1,770	270	--
354442	973943	--	--	214,000	164,000	12,500	2,190	--
354450	973639	--	--	303,000	238,000	16,700	3,520	--
354450	973951	--	--	214,000	222,000	12,500	2,190	--
354511	973706	--	--	303,000	189,000	16,700	3,520	--
354614	972517	--	--	123,000	--	6,590	1,200	--
354629	971313	--	--	266,000	222,000	16,500	2,470	--
354634	973535	--	--	268,000	233,000	16,400	2,510	--
354641	971248	--	--	228,000	--	14,400	2,180	--
354647	971257	--	--	266,000	170,000	16,500	2,470	--
354651	973928	--	--	45,900	--	1,800	267	--
354746	971760	15.5	7.5	--	560	58.6	26.9	--
354754	973604	--	--	256,000	175,000	16,000	3,330	--
354760	972427	--	--	306,000	172,000	15,500	3,100	--
354819	972456	--	--	306,000	238,000	15,500	3,100	--
354846	970903	--	6.1	203,000	208,000	11,600	2,290	--
354847	972743	17.0	7.5	--	890	89.4	32	--
354916	971912	16.5	--	496	809	1.9	0.5	7

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Lincoln County, Oklahoma									
355130	964430	100	--	2.1	110	22.0	272	332	--
355234	970753	79,400	--	--	162,000	137	57.9	70.6	--
355326	970128	67,000	--	--	132,000	420	53.8	65.7	--
355347	970118	67,000	--	--	132,000	419	53.3	65.0	--
355357	964048	30.0	--	2.5	14.0	24.0	270	--	--
355413	964356	240	--	3.1	20.0	290	280	--	--
355418	965505	68,700	--	--	132,000	2,250	45.4	55.4	--
355418	970129	71,900	--	--	150,000	207	104	126	--
355602	970545	76,600	--	--	159,000	360	3.8	4.6	--
355615	965954	72,900	--	--	146,000	598	68.1	83.0	--
Logan County, Oklahoma									
354338	971727	16,800	--	146	30,800	72.0	294	358	--
354407	973107	22.0	--	--	10.0	7.2	235	287	--
354416	973855	14,900	--	--	25,100	574	243	296	--
354416	973855	23,300	--	--	37,200	549	279	340	--
354416	973958	20,700	--	--	41,000	590	102	125	--
354416	973958	19,100	--	--	32,000	754	352	429	--
354416	973958	49,900	--	--	89,000	237	189	231	--
354416	974102	78,300	--	--	140,000	169	55.8	68.0	--
354428	973840	4,040	--	--	7,920	173	44.6	26.0	--
354429	973943	15,500	--	--	26,700	799	838	1,020	--
354442	973943	67,300	--	--	132,000	241	45.1	55.0	--
354450	973639	95,500	--	--	187,000	241	55.9	68.1	--
354450	973951	67,300	--	--	132,000	242	45.4	55.3	--
354511	973706	95,500	--	--	187,000	240	55.8	68.0	--
354614	972517	39,400	--	--	75,800	334	63.1	77.0	--
354629	971313	82,900	--	--	164,000	161	40.8	49.7	--
354634	973535	83,700	--	--	165,000	546	52.4	63.8	--
354641	971248	70,500	--	--	141,000	154	16.4	20.0	--
354647	971257	82,900	--	--	164,000	160	40.2	49.0	--
354651	973928	15,700	--	--	27,600	299	489	596	--
354746	971760	27.8	--	--	--	15.0	250	--	--
354754	973604	78,200	--	--	158,000	971	4.9	6.0	--
354760	972427	98,400	--	--	188,000	394	64.0	78.0	--
354819	972456	98,400	--	--	188,000	395	64.5	78.7	--
354846	970903	63,500	--	--	125,000	230	40.2	49.0	--
354847	972743	54.6	--	--	--	22.0	260	--	--
354916	971912	200	--	--	17.0	22.0	372	453	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
	Logan County, Oklahoma					
354950	972740	16N-03W-25 DAD	318GRBR	200	--	6/11/1970
354956	972608	16N-02W-29 CA	318GRBR	235	--	5/19/1970
355009	972448	16N-02W-28 AC	318GRBR	176	--	12/ 6/1949
355015	971058	--	364SMPS	5,290	5,290	6/26/1946
355108	971050	15N-01W-20 BAA	318GRBR	31	--	12/ 8/1974
355148	973301	16N-03W-18 ADD	318GRBR	125	--	11/ 6/1970
355229	972655	--	364SMPS	5,760	5,590	6/22/1953
355240	972704	16N-02W-07	364SMPS	--	5,660	6/22/1953
355418	971001	17N-01E-35	340HNTN	--	4,830	2/19/1954
355510	973643	17N-04W-27	323KSSC	--	4,880	7/14/1953
355520	973625	--	323KSSC	4,950	4,920	6/14/1952
355555	970916	--	344HNTN	5,190	4,750	2/18/1954
355559	971823	17N-01W-21 CBB	318GRBR	--	--	11/21/1974
355602	970857	17N-01E-24	340HNTN	--	4,750	2/18/1954
355602	971001	17N-01E-23	324STRN	--	4,520	2/18/1954
355602	971105	17N-01E-22	364SMPS	--	5,110	7/13/1953
355602	973539	17N-04W-23	323KSSC	--	4,990	7/14/1953
355610	972107	--	318GRBR	--	91.4	12/ 3/1977
355655	973018	17N-03W-15	323KSSC	--	4,710	7/14/1953
355713	971400	17N-01E-18 A	310WLNG	--	--	4/14/1952
355725	971603	--	340MSNR	5,090	4,860	7/13/1953
355726	971624	--	340MSNR	5,120	4,890	7/13/1953
355730	973053	--	323LNSG	6,300	4,260	3/22/1955
355730	973053	--	322SHWN	6,300	3,300	3/22/1955
355732	972943	--	361VIOL	6,210	6,120	5/18/1954
355737	972027	--	325CHRK	5,440	5,030	7/13/1953
355738	971420	--	325CHRK	5,200	4,620	2/18/1954
355747	971417	17N-01E-07	325CHRK	--	4,620	2/18/1954
355747	971521	17N-01W-12	325CHRK	--	4,670	7/13/1953
355747	971625	17N-01W-11	340MSNR	--	4,870	7/13/1953
355747	971625	17N-01W-11	340MSNR	--	4,890	7/13/1953
355747	972042	17N-01W-07	325CHRK	--	5,030	7/13/1953
355747	972914	17N-03W-11	364SMPS	--	6,120	5/18/1954
355748	972730	17N-03W-07 CBB	318GRBR	90	--	2/10/1971
355927	973447	--	323KSSC	4,890	4,820	9/ 1/1953
355931	973435	18N-04W-36	323KSSC	--	4,820	9/ 1/1953
355933	973744	--	323KSSC	6,230	--	5/19/1958
355935	972422	--	318GRBR	--	67.1	11/18/1977
355941	973444	--	323KSSC	4,860	--	10/19/1944
355957	973412	--	323KSSC	4,810	--	1/14/1960

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
	Logan County, Oklahoma							
354950	972740	18.0	8.0	378	647	--	--	260
354956	972608	--	8.1	315	544	--	--	230
355009	972448	--	--	215	361	38	15	160
355015	971058	--	--	226,000	--	20,400	2,790	--
355108	971050	16.5	--	396	658	95	23	330
355148	973301	--	8.1	301	502	--	--	230
355229	972655	--	--	262,000	170,000	16,400	2,700	--
355240	972704	--	--	265,000	227,000	15,800	2,850	--
355418	971001	--	--	256,000	217,000	17,600	3,310	--
355510	973643	--	--	225,000	200,000	14,200	2,090	--
355520	973625	--	5.4	290,000	227,000	17,600	3,060	--
355555	970916	--	--	251,000	170,000	17,400	3,140	--
355559	971823	--	--	386	661	47	24	220
355602	970857	--	--	251,000	227,000	17,400	3,140	--
355602	971001	--	--	260,000	227,000	18,300	2,890	--
355602	971105	--	--	238,000	204,000	13,100	2,470	--
355602	973539	--	--	266,000	213,000	19,800	3,130	--
355610	972107	17.5	6.8	--	1,560	225	51.2	--
355655	973018	--	--	320,000	227,000	21,400	2,760	--
355713	971400	--	7.3	564	896	112	31	410
355725	971603	--	--	136,000	128,000	7,870	1,460	--
355726	971624	--	--	286,000	185,000	21,400	3,080	--
355730	973053	--	6.3	287,000	217,000	17,800	3,530	--
355730	973053	--	6.6	233,000	204,000	13,700	3,450	--
355732	972943	--	--	265,000	175,000	16,900	2,940	--
355737	972027	--	--	257,000	170,000	16,100	2,600	--
355738	971420	--	--	281,000	175,000	19,900	2,960	--
355747	971417	--	--	281,000	233,000	19,900	2,960	--
355747	971521	--	--	266,000	213,000	17,300	3,180	--
355747	971625	--	--	136,000	154,000	7,870	1,460	--
355747	971625	--	--	286,000	217,000	21,400	3,080	--
355747	972042	--	--	257,000	208,000	16,100	2,600	--
355747	972914	--	--	265,000	233,000	16,900	2,940	--
355748	972730	16.0	7.9	262	435	--	--	190
355927	973447	--	--	196,000	152,000	12,200	1,700	--
355931	973435	--	--	196,000	192,000	12,200	1,700	--
355933	973744	--	6.9	142,000	--	5,300	1,550	--
355935	972422	18.0	5.8	--	920	97.4	42	--
355941	973444	--	--	251,000	--	16,100	2,450	--
355957	973412	--	5.5	161,000	161,000	7,000	1,810	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
	Logan County, Oklahoma								
354950	972740	--	43.0	--	30.0	21.0	284	346	0.8
354956	972608	--	34.0	--	8.4	22.0	264	322	0.3
355009	972448	--	16.0	--	4.8	19.0	164	200	0.1
355015	971058	62,400	--	--	140,000	387	56.6	69.0	--
355108	971050	20.0	--	--	6.6	67.0	293	357	--
355148	973301	--	20.0	--	8.0	17.0	228	278	18.0
355229	972655	81,200	--	--	162,000	495	28.7	35.0	--
355240	972704	82,500	--	--	163,000	503	40.8	49.8	--
355418	971001	76,200	--	--	158,000	473	53.9	65.7	--
355510	973643	69,800	--	--	139,000	209	--	--	--
355520	973625	90,100	--	74.0	179,000	73.0	31.2	38.0	--
355555	970916	75,000	--	--	155,000	302	63.1	77.0	--
355559	971823	65.0	--	--	37.0	30.0	272	332	--
355602	970857	75,000	--	--	155,000	302	63.2	77.0	--
355602	971001	78,000	--	--	161,000	177	46.5	56.7	--
355602	971105	75,400	--	--	146,000	576	29.0	35.4	--
355602	973539	78,300	--	--	165,000	255	17.1	20.9	--
355610	972107	67.1	--	--	--	568	210	--	--
355655	973018	98,900	--	--	197,000	205	23.2	28.3	--
355713	971400	41.0	--	1.4	37.0	84.0	318	388	45.0
355725	971603	42,500	--	--	83,500	149	27.1	33.0	--
355726	971624	84,500	--	--	177,000	145	41.0	50.0	--
355730	973053	88,100	--	--	178,000	235	23.0	28.0	--
355730	973053	71,500	--	--	144,000	240	50.0	61.0	--
355732	972943	81,100	--	--	163,000	554	77.1	94.0	--
355737	972027	79,300	--	--	158,000	570	86.9	106	--
355738	971420	84,200	--	--	174,000	180	41.0	50.0	--
355747	971417	84,200	--	--	174,000	181	41.1	50.1	--
355747	971521	81,100	--	--	165,000	322	29.5	35.9	--
355747	971625	42,500	--	--	83,600	150	27.6	33.6	--
355747	971625	84,500	--	--	177,000	146	41.1	50.1	--
355747	972042	79,300	--	--	158,000	571	87.0	106	--
355747	972914	81,100	--	--	163,000	554	77.8	94.9	--
355748	972730	--	19.0	--	16.0	13.0	184	224	0.9
355927	973447	61,300	--	--	121,000	229	55.8	68.0	--
355931	973435	61,300	--	--	121,000	229	56.0	68.3	--
355933	973744	47,300	--	--	85,100	2,460	50.0	61.0	--
355935	972422	39.7	--	--	--	22.0	333	--	--
355941	973444	77,400	--	--	155,000	288	150	183	--
355957	973412	52,800	--	--	97,800	1,800	31.2	38.0	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
	Logan County, Oklahoma					
360033	973735	--	322SHWN	4,240	3,140	10/ 2/1953
360058	973159	18N-03W-20 DDD	318GRBR	--	--	3/ 9/1972
360109	973651	18N-04W-22	323KSSC	--	4,650	10/17/1955
360113	973650	--	323KSSC	5,100	4,830	11/22/1954
360144	972053	--	310WLNG	--	54.9	6/ 1/1978
360201	973859	18N-04W-17	323KSSC	--	4,610	5/18/1954
360207	973539	18N-04W-14	323KSSC	--	4,810	5/18/1954
360231	973522	--	323KSSC	4,820	4,810	5/18/1954
360352	973747	18N-04W-04	322DGLS	--	4,020	5/18/1954
360527	974011	--	364SMPS	5,980	5,940	5/18/1954
360720	973851	19N-04W-17	364SMPS	--	6,130	7/14/1953
360905	972602	19N-02W-05	364SMPS	--	4,900	12/ 3/1953
360909	972830	--	364SMPS	5,900	5,800	1/16/1958
360927	972535	--	364SMPS	5,040	4,900	12/ 3/1953
	McClain County, Oklahoma					
345259	973432	--	364SMPS	9,710	10,400	9/14/1948
345259	973432	--	361VIOL	--	9,800	9/23/1948
345320	965909	--	361VIOL	3,560	--	5/14/1943
345320	965925	--	364SMPS	3,960	--	6/ 9/1944
345328	965932	05N-03E-21	361VIOL	--	3,460	9/28/1954
345335	970452	--	320PSLV	5,790	4,290	5/23/1951
345346	965909	--	361VIOL	3,550	--	5/ 7/1942
345406	972138	--	361VIOL	7,960	7,190	1/10/1947
345413	973917	--	364MCLS	11,600	11,350	6/12/1953
345416	972723	--	364BRMD	9,460	8,470	11/11/1949
345425	972348	05N-02W-15	364JONS	--	7,060	6/12/1953
345435	965913	--	361VIOL	3,620	--	5/ 9/1942
345443	972812	--	319PNTC	9,700	7,380	3/21/1958
345522	971209	--	361VIOL	6,400	--	12/20/1957
345536	971222	--	361VIOL	6,330	--	11/27/1957
345536	973360	--	364OLCK	12,200	11,200	8/12/1959
345552	971212	--	361VIOL	6,300	--	12/11/1956
345603	973125	--	320PSLV	9,970	9,620	12/13/1956
345640	972730	06N-02W-30 BCD	318HNSS	100	--	8/15/1958
345643	973226	--	344HNTN	10,300	9,070	5/21/1958
345719	972945	--	344HNTN	9,340	8,220	12/11/1945
345802	972711	--	364MCLS	10,100	9,090	1/17/1952
345828	973126	--	364BRMD	10,100	10,000	6/ 4/1959

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
	Logan County, Oklahoma							
360033	973735	--	5.7	272,000	204,000	17,300	2,940	--
360058	973159	17.0	7.8	327	574	--	--	240
360109	973651	--	--	310,000	244,000	21,200	3,780	--
360113	973650	--	--	226,000	170,000	15,400	2,100	--
360144	972053	22.0	7.2	--	620	56.6	27.3	--
360201	973859	--	--	302,000	238,000	19,200	3,490	--
360207	973539	--	--	311,000	238,000	21,000	4,530	--
360231	973522	--	--	310,000	192,000	21,000	4,530	--
360352	973747	--	--	295,000	238,000	19,300	3,680	--
360527	974011	--	--	269,000	175,000	18,400	3,590	--
360720	973851	--	--	277,000	217,000	18,900	2,810	--
360905	972602	--	--	262,000	213,000	16,000	2,520	--
360909	972830	--	6.1	253,000	213,000	19,800	3,370	--
360927	972535	--	--	262,000	172,000	16,000	2,520	--
	McClain County, Oklahoma							
345259	973432	--	6.4	159,000	154,000	6,010	986	--
345259	973432	--	6.1	164,000	170,000	7,970	1,330	--
345320	965909	--	--	51,200	--	3,160	543	--
345320	965925	--	--	27,900	--	510	262	--
345328	965932	--	--	158,000	182,000	9,030	2,050	--
345335	970452	--	6.4	208,000	179,000	14,600	2,900	--
345346	965909	--	--	37,600	--	918	402	--
345406	972138	--	6.6	225,000	164,000	12,100	2,800	--
345413	973917	--	6.7	140,000	152,000	5,800	901	--
345416	972723	--	6.1	276,000	182,000	10,700	4,160	--
345425	972348	--	--	303,000	233,000	19,200	3,920	--
345435	965913	--	--	33,000	--	804	316	--
345443	972812	--	5.0	288,000	222,000	20,300	3,990	--
345522	971209	--	5.5	198,000	192,000	12,600	2,410	--
345536	971222	--	5.1	188,000	192,000	12,800	2,370	--
345536	973360	--	6.3	232,000	217,000	16,900	2,570	--
345552	971212	--	--	200,000	204,000	12,300	2,560	--
345603	973125	--	6.4	290,000	204,000	18,200	3,310	--
345640	972730	--	8.0	1,640	2,180	160	71	690
345643	973226	--	5.7	43,000	84,000	1,550	344	--
345719	972945	--	--	271,000	--	16,600	2,920	--
345802	972711	--	7.8	257,000	204,000	13,300	2,010	--
345828	973126	--	6.8	160,000	167,000	8,120	1,070	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
	Logan County, Oklahoma								
360033	973735	83,500	--	167	168,000	19.0	29.5	36.0	--
360058	973159	--	42.0	--	16.0	13.0	279	340	0.4
360109	973651	93,000	--	--	192,000	313	40.5	49.4	--
360113	973650	68,400	--	--	138,000	2,060	22.1	27.0	--
360144	972053	52.8	--	1.3	--	21.0	300	--	--
360201	973859	92,500	--	--	187,000	183	44.3	54.0	--
360207	973539	92,000	--	--	192,000	362	36.8	44.8	--
360231	973522	92,300	--	--	192,000	362	36.1	44.0	--
360352	973747	89,500	--	--	183,000	137	--	--	--
360527	974011	80,200	--	--	166,000	477	57.4	70.0	--
360720	973851	83,900	--	--	171,000	372	81.0	98.8	--
360905	972602	81,900	--	--	161,000	514	98.3	120	--
360909	972830	74,000	--	--	156,000	479	52.5	64.0	--
360927	972535	82,000	--	--	161,000	514	97.6	119	--
	McClain County, Oklahoma								
345259	973432	54,600	--	--	97,500	212	18.9	23.0	--
345259	973432	53,800	--	--	101,000	209	123	150	--
345320	965909	15,900	--	--	31,400	103	346	422	--
345320	965925	10,000	--	--	16,800	22.0	435	530	--
345328	965932	49,100	--	--	97,600	123	76.7	93.6	--
345335	970452	61,600	--	--	129,000	97.0	83.6	102	--
345346	965909	13,200	--	--	22,900	111	145	177	--
345406	972138	71,000	--	--	138,000	722	48.4	59.0	--
345413	973917	47,000	--	567	85,500	426	239	292	--
345416	972723	90,400	--	--	170,000	856	32.8	40.0	--
345425	972348	92,300	--	--	188,000	136	61.6	75.1	--
345435	965913	11,700	--	--	20,100	20.0	484	590	--
345443	972812	85,000	--	--	179,000	4.0	69.7	85.0	--
345522	971209	60,400	--	--	122,000	210	85.3	104	--
345536	971222	56,200	--	--	116,000	154	45.9	56.0	--
345536	973360	68,800	--	--	143,000	275	103	126	--
345552	971212	61,600	--	--	124,000	193	105	128	--
345603	973125	89,000	--	--	179,000	337	58.2	71.0	--
345640	972730	--	263	--	190	784	169	206	12.0
345643	973226	14,800	--	--	26,100	179	123	150	--
345719	972945	84,100	--	--	167,000	546	86.9	106	--
345802	972711	83,500	--	--	158,000	595	132	161	--
345828	973126	52,400	--	--	97,800	551	126	154	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
McClain County, Oklahoma						
350001	972230	06N-02W-12 CC	318HNSS	60	--	10/25/1951
350110	973133	--	364BRMD	11,300	11,200	10/19/1959
350711	972904	--	364JONS	10,200	10,200	6/12/1953
350730	972905	08N-03W-35	364JONS	--	10,200	6/12/1953
350760	973135	--	364BRMD	11,000	10,700	6/12/1953
350823	973111	08N-03W-28	364BRMD	--	10,700	6/12/1953
350920	973730	08N-04W-20 DAD	313BLIN	22	--	4/ 9/1948
350943	973537	--	364SMPS	11,200	10,200	11/ 6/1953
351148	972245	08N-03W-02 D	313ELRN	48	--	10/ 5/1959
351233	973244	--	344HNTN	9,010	8,930	6/26/1953
351238	973219	09N-03W-32	340HNTN	--	8,930	6/26/1953
351720	974001	--	318FRMN	--	101	1/ 6/1978
351724	973452	--	344HNTN	9,150	--	2/ 4/1955
351736	973453	--	344HNTN	8,380	--	2/ 4/1955
McIntosh County, Oklahoma						
353205	954022	--	364SMPS	3,580	--	1/ 1/1945
353205	954022	--	364SMPS	3,580	--	1/ 9/1945
353205	954022	--	367ABCK	3,580	--	1/10/1945
Major County, Oklahoma						
361003	985241	--	332CSTR	8,590	8,370	2/24/1959
361017	981738	20N-10W-32 B	318CDHL	--	--	3/ 8/1967
361033	982504	--	344HNTN	8,900	8,650	7/16/1968
361531	981600	--	330MSSP	8,070	7,250	8/19/1966
361558	984055	--	344HNTN	--	8,960	6/ 9/1966
361939	984056	--	344HNTN	8,930	8,510	6/14/1967
362008	981955	--	323KSSC	6,970	--	4/14/1952
362155	981328	22N-10W-22 CC	318CDHL	--	--	11/15/1923
362320	981441	22N-10W-14 B	318CDHL	184	--	12/14/1950
362360	985508	--	344HNTN	8,810	8,500	9/ 8/1962
362531	984621	23N-15W-35 D	313ELRN	33	--	1/ 3/1967
362532	984322	--	344HNTN	8,250	7,930	10/ 8/1969
362533	984424	--	344HNTN	8,220	7,460	5/ 9/1969
362637	984812	--	333MRMC	8,150	7,020	8/10/1967
362741	985144	23N-16W-24 A	313ELRN	--	--	2/20/1963

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
McClain County, Oklahoma								
350001	972230	--	7.2	706	1,100	132	49	530
350110	973133	--	6.0	301,000	--	17,500	2,290	--
350711	972904	--	--	288,000	182,000	17,500	3,130	--
350730	972905	--	--	288,000	233,000	17,500	3,130	--
350760	973135	--	--	321,000	179,000	26,500	1,150	--
350823	973111	--	--	321,000	238,000	26,500	1,150	--
350920	973730	--	--	725	1,210	40	145	700
350943	973537	--	6.2	232,000	208,000	16,300	1,900	--
351148	972245	--	8.2	235	394	45	13	160
351233	973244	--	--	221,000	164,000	13,000	2,110	--
351238	973219	--	--	221,000	200,000	13,000	2,110	--
351720	974001	12.5	6.5	--	1,170	120	45.5	--
351724	973452	--	--	63,400	--	28	41	--
351736	973453	--	--	60,500	--	57	37	--
McIntosh County, Oklahoma								
353205	954022	--	--	195,000	--	13,100	1,680	--
353205	954022	--	--	206,000	--	12,500	2,050	--
353205	954022	--	--	210,000	--	13,900	2,030	--
Major County, Oklahoma								
361003	985241	--	6.6	54,000	70,900	1,120	252	--
361017	981738	--	8.6	446	770	--	--	230
361033	982504	--	6.8	149,000	170,000	7,120	1,320	--
361531	981600	--	7.1	66,000	79,400	1,200	62	--
361558	984055	--	5.7	190,000	208,000	12,000	1,880	--
361939	984056	--	6.2	189,000	196,000	10,700	1,760	--
362008	981955	--	5.4	152,000	137,000	34,600	2,080	--
362155	981328	--	--	312	--	70	15	240
362320	981441	--	--	4,880	7,700	254	131	1,200
362360	985508	--	6.2	204,000	143,000	11,200	2,920	--
362531	984621	--	8.1	4,430	4,890	--	--	2,100
362532	984322	--	6.7	167,000	182,000	9,000	1,420	--
362533	984424	--	6.5	73,100	99,000	3,040	830	--
362637	984812	--	7.1	85,400	122,000	3,520	830	--
362741	985144	--	7.7	723	1,100	--	--	160

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
McClain County, Oklahoma									
350001	972230	29.0	--	3.2	61.0	136	247	301	150
350110	973133	95,800	--	--	185,000	235	73.0	89.0	--
350711	972904	89,300	--	--	178,000	267	41.0	50.0	--
350730	972905	89,300	--	--	178,000	268	41.2	50.3	--
350760	973135	95,200	--	--	198,000	166	46.7	57.0	--
350823	973111	95,200	--	--	198,000	167	47.5	58.0	--
350920	973730	--	12.0	--	20.0	44.0	629	607	25.0
350943	973537	70,500	--	--	143,000	406	68.1	83.0	--
351148	972245	--	26.0	--	4.6	17.0	197	240	0.7
351233	973244	69,400	--	--	136,000	97.0	22.1	27.0	--
351238	973219	69,400	--	--	136,000	97.5	22.3	27.2	--
351720	974001	109	--	--	--	153	220	--	--
351724	973452	25,000	--	--	35,800	122	3,950	4,820	--
351736	973453	23,800	--	--	34,500	84.0	3,350	3,290	--
McIntosh County, Oklahoma									
353205	954022	59,600	--	--	120,000	456	82.8	101	--
353205	954022	64,200	--	--	127,000	360	50.8	62.0	--
353205	954022	64,300	--	--	130,000	337	68.9	84.0	--
Major County, Oklahoma									
361003	985241	19,600	--	--	32,500	259	519	633	--
361017	981738	74.0	--	1.3	82.0	33.0	233	260	10.0
361033	982504	47,200	--	1,510	90,800	960	140	171	--
361531	981600	24,200	--	242	39,400	744	290	353	--
361558	984055	56,800	--	1,980	117,000	520	44.3	54.0	--
361939	984056	58,300	--	1,630	116,000	630	120	146	--
362008	981955	19,000	--	--	95,900	597	118	144	--
362155	981328	--	27.0	--	69.0	30.0	164	200	0.2
362320	981441	--	1,320	--	1,880	1,240	97.0	118	0.1
362360	985508	62,200	--	1,540	126,000	22.0	139	169	--
362531	984621	448	--	6.5	430	2,200	249	304	0.4
362532	984322	52,500	--	1,190	102,000	880	300	366	--
362533	984424	23,900	--	--	42,200	2,900	440	537	--
362637	984812	27,900	--	420	51,100	1,500	240	293	--
362741	985144	--	240	--	38.0	284	335	408	0.2

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Lati-tude	Longi-tude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
		Mayes County, Oklahoma				
362310	950300	22N-21E-15 CAC	367CTTR	--	--	10/15/1969
		Murray County, Oklahoma				
342230	965620	02S-03E-24 ABA	367ABCK	66	--	10/18/1977
342234	970804	02S-02E-18 BDD	367ABCK	220	--	9/ 1/1978
342400	970803	02S-02E-07 BDA	367ABCK	4,240	--	9/ 7/1978
342513	971517	01S-01W-36 DCC	367ABCK	100	--	9/ 7/1978
342528	970809	01S-02E-31 CAC	367ABCK	225	--	9/ 1/1978
342612	971147	01S-01E-28 DDA	367ABCK	1,070	--	8/31/1978
342838	970034	--	319PNTC	2,210	317	8/ 3/1959
342913	970448	--	364SMPS	4,400	4,150	11/12/1937
343017	965617	01S-03E-01 ABA	322ADA	430	--	8/ 3/1972
343020	965650	01S-03E-01 B	322VNSS	--	--	4/16/1968
343031	965601	01N-03E-36 DD	322ADA	850	--	4/13/1950
343036	965248	--	322VNSS	--	30.5	5/22/1978
343058	970210	--	322VNSS	--	15.2	4/ 1/1978
343236	970320	--	364OLCK	1,560	1,490	3/ 6/1953
343237	970245	01N-02E-24	364OLCK	--	1,500	3/ 6/1953
343316	970954	--	367ABCK	4,390	4,200	7/23/1964
343411	970856	--	324STRN	4,000	2,300	5/14/1969
343448	965244	--	322VNSS	--	213	4/29/1978
343530	970741	--	361VIOL	5,790	--	11/23/1953
343802	965712	02N-03E-23 AAC	318OSCR	123	--	4/ 9/1964
343810	970322	--	364OLCK	2,190	2,050	4/22/1969
		Muskogee County, Oklahoma				
352302	951515	--	367ABCK	4,490	--	4/20/1957
352302	951515	--	325SVNN	4,490	--	6/ 4/1957
		Noble County, Oklahoma				
360957	972458	20N-02W-33	323KSSC	--	3,950	2/18/1954
360957	972458	20N-02W-33	324PRFM	--	3,670	2/17/1954
360957	972458	20N-02W-33	322DGLS	--	3,150	2/18/1954
360957	972602	20N-02W-32	323LNSG	--	3,610	2/18/1954
361020	972551	--	364SMPS	5,200	3,610	2/18/1954
361049	972458	20N-04W-28	364SMPS	--	4,950	2/18/1954
361141	972042	20N-01W-19	323KSSC	--	4,580	2/ 2/1954

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
	Mayes County, Oklahoma							
362310	950300	19.5	8.0	114	211	37	1.4	98
	Murray County, Oklahoma							
342230	965620	18.0	7.1	317	570	78	30	320
342234	970804	25.0	7.5	326	530	100	13	300
342400	970803	21.0	7.6	333	570	73	37	330
342513	971517	19.0	7.1	284	460	98	5.2	270
342528	970809	18.5	7.1	348	600	120	6.1	320
342612	971147	17.0	7.1	367	600	130	7	350
342838	970034	--	8.0	--	17,300	110	96	--
342913	970448	--	7.2	101,000	--	6,120	1,090	--
343017	965617	--	8.1	384	668	36	43	270
343020	965650	18.0	8.3	263	485	--	--	260
343031	965601	--	7.5	725	1,320	68	32	300
343036	965248	22.0	7.0	--	560	65.4	36.2	--
343058	970210	18.0	7.1	--	960	160	12.9	--
343236	970320	--	--	1,960	2,870	37	13	--
343237	970245	--	--	2,290	4,400	56.1	23	--
343316	970954	--	6.9	169,000	179,000	8,240	1,440	--
343411	970856	--	5.7	92,800	125,000	5,070	1,520	--
343448	965244	20.0	7.9	--	620	77.1	31	--
343530	970741	--	--	189,000	--	9,400	2,120	--
343802	965712	--	8.4	572	--	--	--	12
343810	970322	--	8.1	4,930	9,170	12	34	--
	Muskogee County, Oklahoma							
352302	951515	--	7.3	173,000	185,000	12,300	1,890	--
352302	951515	--	4.9	194,000	192,000	16,000	2,180	--
	Noble County, Oklahoma							
360957	972458	--	--	305,000	238,000	21,900	3,520	--
360957	972458	--	--	296,000	233,000	20,500	3,280	--
360957	972458	--	--	296,000	233,000	21,300	3,110	--
360957	972602	--	--	292,000	238,000	19,900	3,470	--
361020	972551	--	--	292,000	182,000	19,900	3,470	--
361049	972458	--	--	257,000	222,000	16,100	2,670	--
361141	972042	--	--	239,000	217,000	18,000	2,260	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
	Mayes County, Oklahoma								
362310	950300	3.2	--	1.4	6.0	0.6	95.1	116	--
	Murray County, Oklahoma								
342230	965620	2.5	--	1.0	2.6	5.8	312	380	--
342234	970804	4.4	--	0.8	3.6	12.0	303	370	--
342400	970803	5.1	--	0.8	8.5	14.0	312	380	--
342513	971517	4.2	--	0.4	3.2	10.0	254	310	--
342528	970809	3.6	--	0.8	2.4	10.0	330	400	--
342612	971147	3.7	--	0.3	2.7	11.0	340	410	--
342838	970034	4,500	--	34.0	6,300	--	1,170	1,400	--
342913	970448	31,200	--	--	62,100	85.0	76.3	93.0	--
343017	965617	--	48.0	--	18.0	43.0	307	374	--
343020	965650	4.2	--	1.8	4.2	17.0	249	300	--
343031	965601	161	--	10.0	242	24.0	295	360	0.5
343036	965248	2.8	--	1.0	--	5.0	115	--	--
343058	970210	27.0	--	6.9	--	65.0	115	--	--
343236	970320	726	--	--	842	30.0	507	576	--
343237	970245	702	--	--	822	27.0	576	617	--
343316	970954	55,300	--	--	104,000	100	102	124	--
343411	970856	28,500	--	74.0	57,400	150	37.7	46.0	--
343448	965244	38.7	--	3.8	--	18.0	315	--	--
343530	970741	60,800	--	--	116,000	352	118	144	--
343802	965712	--	218	--	17.0	43.0	417	508	--
343810	970322	1,880	--	15.0	2,610	6.0	610	744	--
	Muskogee County, Oklahoma								
352302	951515	51,800	--	--	107,000	390	150	182	--
352302	951515	55,500	--	--	120,000	30.0	8.2	10.0	--
	Noble County, Oklahoma								
360957	972458	90,700	--	--	188,000	442	94.6	115	--
360957	972458	88,900	--	--	183,000	234	52.8	64.4	--
360957	972458	88,200	--	--	183,000	192	29.8	36.3	--
360957	972602	87,700	--	--	180,000	530	35.5	43.3	--
361020	972551	87,700	--	--	180,000	529	35.3	43.0	--
361049	972458	80,400	--	--	158,000	553	93.6	114	--
361141	972042	71,000	--	--	148,000	180	93.9	114	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
	Noble County, Oklahoma					
361141	972042	20N-01W-19	324STRN	--	5,090	2/ 2/1954
361211	971348	--	310WLNG	--	64	6/24/1978
361233	971313	20N-01E-17	323CFVL	--	4,210	2/ 2/1954
361233	972354	20N-02W-15	324PRFM	--	3,720	2/18/1954
361322	971936	--	324PRFM	3,510	3,500	2/ 2/1954
361325	971938	20N-01W-08	324PRFM	--	3,500	2/ 2/1954
361416	972528	--	364SMPS	5,400	5,400	2/ 1/1954
361510	972708	21N-02W-31	364SMPS	--	5,390	2/ 1/1954
361654	972355	21N-02W-22	340MSNR	--	5,100	6/ 9/1954
361746	972355	21N-02W-15	330MSSP	--	4,860	2/ 4/1954
361817	972122	--	340MSNR	5,250	5,050	10/26/1949
361838	971938	21N-01W-08	332FTVL	--	5,170	2/ 2/1954
361838	972043	21N-01W-07	332FTVL	--	5,200	12/ 4/1953
361850	971942	--	332FTVL	5,180	5,170	2/ 1/1954
361930	971938	21N-01W-05	323KSSC	--	3,800	2/ 1/1954
362114	970541	22N-02E-28	364SMPS	--	4,580	2/ 3/1954
362114	971417	22N-01E-30	330MSSP	--	4,670	2/ 2/1954
362114	971626	22N-01W-26	324CHAT	--	4,770	2/ 2/1954
362114	972251	22N-02W-26	324CHAT	--	4,800	12/ 4/1953
362114	972355	22N-02W-27	323KSSC	--	3,760	12/ 4/1953
362114	972355	22N-02W-27	364SMPS	--	4,800	12/ 4/1953
362127	971608	--	330MSSP	5,100	4,760	2/ 2/1954
362128	971429	--	330MSSP	4,770	4,760	2/ 2/1954
362144	970514	--	361VIOL	4,630	4,570	4/21/1952
362144	970514	--	364SMPS	4,630	4,580	2/ 3/1954
362207	971104	22N-01E-22	323KSSC	--	3,310	2/ 2/1954
362207	971104	22N-01E-22	323KSSC	--	3,310	2/ 2/1954
362207	971208	22N-01E-21	323KSSC	--	3,370	2/ 2/1954
362207	971938	22N-01W-20	324CHAT	--	4,780	12/ 4/1953
362234	971131	--	310WLNG	--	30.5	6/28/1978
362259	970855	22N-01E-13	323KSSC	--	3,200	2/ 3/1954
362259	970959	22N-01E-14	324PRFM	--	2,890	2/ 3/1954
362334	970756	--	364SMPS	4,740	--	10/17/1943
362351	972708	22N-02W-07	319EKDG	--	1,390	2/ 2/1954
362416	972716	--	319EKDG	1,500	1,390	2/ 2/1954
362443	970437	22N-02E-03	332FTVL	--	4,500	2/ 3/1954
362719	972500	23N-02E-21	364SMPS	--	4,280	2/ 2/1954
362719	972708	03N-02W-19	367ABCK	--	4,740	2/ 2/1954
362729	972431	--	364SMPS	5,040	--	11/17/1945
362812	972500	23N-02W-16	364SMPS	--	4,220	2/ 2/1954

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)	
	Noble County, Oklahoma								
361141	972042	--	--	171,000	182,000	12,000	1,040	--	
361211	971348	24.0	6.8	--	890	48.7	26.4	--	
361233	971313	--	--	289,000	227,000	20,500	2,830	--	
361233	972354	--	--	311,000	244,000	21,700	3,370	--	
361322	971936	--	--	311,000	189,000	21,700	3,340	--	
361325	971938	--	--	311,000	233,000	21,700	3,340	--	
361416	972528	--	--	263,000	179,000	18,300	3,130	--	
361510	972708	--	--	267,000	222,000	19,500	2,930	--	
361654	972355	--	--	273,000	222,000	19,100	3,030	--	
361746	972355	--	--	298,000	233,000	25,200	2,920	--	
361817	972122	--	5.2	255,000	175,000	19,900	4,150	--	
361838	971938	--	--	260,000	217,000	18,600	3,310	--	
361838	972043	--	--	256,000	213,000	18,200	3,010	--	
361850	971942	--	--	260,000	172,000	18,600	3,310	--	
361930	971938	--	--	306,000	233,000	22,000	3,810	--	
362114	970541	--	--	250,000	217,000	15,800	2,500	--	
362114	971417	--	--	270,000	222,000	21,000	3,970	--	
362114	971626	--	--	289,000	222,000	23,300	3,920	--	
362114	972251	--	--	306,000	227,000	26,600	3,400	--	
362114	972355	--	--	311,000	227,000	21,800	3,510	--	
362114	972355	--	--	263,000	222,000	18,900	2,990	--	
362127	971608	--	--	289,000	175,000	23,300	3,920	--	
362128	971429	--	--	270,000	175,000	21,000	3,970	--	
362144	970514	--	6.4	214,000	185,000	13,900	2,230	--	
362144	970514	--	--	250,000	170,000	15,800	2,500	--	
362207	971104	--	--	309,000	222,000	21,300	3,750	--	
362207	971104	--	--	309,000	222,000	21,300	3,750	--	
362207	971208	--	--	308,000	227,000	22,700	3,480	--	
362207	971938	--	--	258,000	217,000	20,000	3,190	--	
362234	971131	20.0	6.8	--	1,560	83.8	60.9	--	
362259	970855	--	--	271,000	222,000	19,400	3,200	--	
362259	970959	--	--	288,000	233,000	12,000	3,140	--	
362334	970756	--	--	205,000	--	16,400	2,470	--	
362351	972708	--	--	332,000	238,000	20,900	4,230	--	
362416	972716	--	--	332,000	196,000	20,900	4,230	--	
362443	970437	--	--	245,000	217,000	19,100	2,780	--	
362719	972500	--	--	258,000	227,000	21,400	3,120	--	
362719	972708	--	--	260,000	227,000	22,400	3,160	--	
362729	972431	--	5.9	232,000	--	17,400	2,400	--	
362812	972500	--	--	262,000	222,000	21,800	3,120	--	

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
	Noble County, Oklahoma								
361141	972042	52,600	--	--	105,000	495	77.2	94.1	--
361211	971348	113	--	1.6	--	69.0	390	--	--
361233	971313	87,000	--	--	178,000	250	69.8	85.1	--
361233	972354	93,600	--	--	192,000	388	43.5	53.0	--
361322	971936	93,500	--	--	192,000	475	36.1	44.0	--
361325	971938	93,500	--	--	192,000	476	36.7	44.8	--
361416	972528	78,500	--	--	162,000	532	49.2	60.0	--
361510	972708	78,900	--	--	165,000	496	70.4	85.8	--
361654	972355	81,800	--	--	168,000	325	18.1	22.1	--
361746	972355	85,200	--	--	184,000	354	23.1	28.1	--
361817	972122	72,000	--	--	158,000	460	4.9	6.0	--
361838	971938	65,400	--	--	161,000	518	123	--	--
361838	972043	76,200	--	--	158,000	525	69.1	84.2	--
361850	971942	76,900	--	--	161,000	518	60.7	74.0	--
361930	971938	90,600	--	--	190,000	512	43.4	53.0	--
362114	970541	77,200	--	--	154,000	546	51.8	63.1	--
362114	971417	77,100	--	--	167,000	440	122	149	--
362114	971626	82,100	--	--	179,000	269	46.0	56.2	--
362114	972251	86,200	--	--	189,000	439	41.5	50.6	--
362114	972355	93,300	--	--	192,000	474	85.1	104	--
362114	972355	78,000	--	--	162,000	511	67.4	82.2	--
362127	971608	82,100	--	--	179,000	269	45.9	56.0	--
362128	971429	77,100	--	--	167,000	440	121	148	--
362144	970514	65,700	--	--	132,000	546	42.6	52.0	--
362144	970514	77,100	--	--	154,000	546	51.7	63.0	--
362207	971104	92,400	--	--	191,000	470	25.1	30.6	--
362207	971104	92,400	--	--	191,000	470	25.1	30.6	--
362207	971208	91,100	--	--	190,000	353	46.3	56.4	--
362207	971938	74,700	--	--	160,000	467	35.1	42.8	--
362234	971131	167	--	4.0	--	282	320	--	--
362259	970855	80,300	--	--	167,000	464	6.7	8.1	--
362259	970959	86,600	--	--	178,000	569	--	--	--
362334	970756	58,800	--	--	127,000	488	62.3	76.0	--
362351	972708	104,000	--	--	202,000	642	5.8	7.1	--
362416	972716	104,000	--	--	201,000	642	5.7	7.0	--
362443	970437	71,400	--	--	152,000	527	22.6	27.5	--
362719	972500	73,300	--	--	160,000	506	56.9	69.4	--
362719	972708	72,800	--	--	161,000	492	17.1	20.8	--
362729	972431	68,500	--	--	143,000	391	29.5	36.0	--
362812	972500	74,400	--	--	162,000	444	52.2	63.6	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
		Noble County, Oklahoma				
363343	971357	--	324STRN	4,560	4,220	8/ 1/1951
363422	971404	--	325CHRK	4,600	4,360	9/26/1951
363422	972451	--	324CHAT	4,880	4,520	11/12/1958
		Nowata County, Oklahoma				
364040	954226	25N-15E-04	325CHRK	--	1,200	6/11/1954
364132	954226	26N-15E-33	367ABCK	--	1,510	5/24/1954
364224	954747	26N-14E-27	325CHRK	--	1,150	10/20/1955
364645	954330	27N-15E-32	325CHRK	--	930	12/30/1952
364645	954434	27N-15E-31	367ABCK	--	1,720	12/30/1952
364645	954539	27N-14E-36	325CHRK	--	1,030	4/27/1954
365436	953458	28N-16E-15	367ABCK	--	1,190	12/29/1952
		Okfuskee County, Oklahoma				
351844	962434	10N-08E-25	325SNOR	--	1,830	11/16/1954
352028	960842	10N-11E-16	325CHRK	--	2,090	11/16/1954
352120	961813	10N-09E-12	326ATCK	--	2,970	12/ 1/1954
352155	961606	--	326ATCK	3,450	3,090	11/17/1954
352213	961606	10N-10E-05	326ATCK	--	3,090	11/17/1954
352305	960945	11N-11E-32	364SMPS	--	3,870	11/29/1954
352357	960531	11N-11E-25	325CHRK	1,970	1,970	11/26/1954
352357	961710	11N-10E-30	326ATCK	--	2,860	12/ 1/1955
352449	960842	11N-11E-21	328WPCK	--	2,830	11/30/1954
352521	963043	--	327UNVL	3,710	3,610	8/ 6/1943
352521	963043	--	327UNVL	3,710	3,620	8/10/1943
352541	962227	11N-09E-17	325CHRK	--	2,970	11/17/1954
352543	962107	--	344HNTN	4,120	--	9/12/1944
352543	962107	--	344HNTN	4,120	--	3/16/1945
352543	962107	--	344HNTN	4,120	--	8/21/1945
352543	962107	--	344HNTN	4,120	2,900	9/ 2/1953
352624	961900	--	344HNTN	4,140	--	9/15/1942
352634	960531	11N-11E-12	320PSLV	--	1,260	11/16/1954
352656	961313	--	327UNVL	3,180	--	4/ 3/1943
352726	960531	11N-11E-01	325CHRK	--	1,520	11/16/1954
352726	962641	11N-08E-03	327UNVL	--	3,570	9/ 2/1953
352910	962537	12N-08E-26	327UNVL	--	3,680	9/ 2/1953
353002	961503	12N-10E-21	327UNVL	--	3,040	11/30/1954
353002	961813	12N-09E-24	325CHRK	--	2,810	11/30/1954

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Noble County, Oklahoma								
363343	971357	--	7.9	279,000	217,000	21,800	2,720	--
363422	971404	--	7.0	161,000	196,000	12,800	1,600	--
363422	972451	--	6.0	142,000	152,000	10,400	1,060	--
Nowata County, Oklahoma								
364040	954226	--	--	113,000	137,000	7,160	1,520	--
364132	954226	--	--	72,000	94,300	3,290	1,140	--
364224	954747	--	--	115,000	141,000	6,990	1,500	--
364645	954330	--	--	106,000	132,000	6,250	1,380	--
364645	954434	--	--	83,800	106,000	4,020	1,250	--
364645	954539	--	--	111,000	128,000	6,700	1,600	--
365436	953458	--	--	20,200	33,600	360	156	--
Okfuskee County, Oklahoma								
351844	962434	--	--	122,000	145,000	8,440	2,310	--
352028	960842	--	--	167,000	185,000	10,700	1,950	--
352120	961813	--	--	135,000	152,000	8,880	1,540	--
352155	961606	--	--	182,000	149,000	10,900	2,110	--
352213	961606	--	--	182,000	192,000	10,900	2,110	--
352305	960945	--	--	201,000	196,000	28,700	1,610	--
352357	960531	--	--	162,000	170,000	9,340	1,970	--
352357	961710	--	--	185,000	196,000	11,500	2,010	--
352449	960842	--	--	182,000	132,000	17,800	2,000	--
352521	963043	--	--	111,000	--	7,030	1,090	--
352521	963043	--	--	113,000	--	6,500	1,060	--
352541	962227	--	--	191,000	200,000	12,100	2,000	--
352543	962107	--	--	154,000	--	7,660	1,370	--
352543	962107	--	--	159,000	--	7,980	1,410	--
352543	962107	--	6.8	155,000	--	8,020	1,490	--
352543	962107	--	--	176,000	147,000	8,530	1,640	--
352624	961900	--	--	138,000	--	7,470	1,350	--
352634	960531	--	--	126,000	152,000	8,370	1,740	--
352656	961313	--	--	180,000	--	12,300	1,820	--
352726	960531	--	--	130,000	159,000	8,780	1,980	--
352726	962641	--	--	192,000	185,000	12,500	1,980	--
352910	962537	--	--	206,000	196,000	13,400	2,220	--
353002	961503	--	--	185,000	189,000	9,690	1,890	--
353002	961813	--	--	204,000	143,000	13,100	2,240	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
	Noble County, Oklahoma								
363343	971357	81,900	--	--	172,000	281	123	150	--
363422	971404	46,700	--	--	98,600	1,110	73.8	90.0	--
363422	972451	42,700	--	--	86,700	830	94.3	115	--
	Nowata County, Oklahoma								
364040	954226	34,300	--	--	69,600	307	138	169	--
364132	954226	22,800	--	--	43,800	452	335	409	--
364224	954747	35,100	--	--	70,600	221	199	243	--
364645	954330	32,700	--	--	65,500	27.8	123	150	--
364645	954434	26,600	--	--	51,600	30.6	179	219	--
364645	954539	34,100	--	--	68,900	35.5	91.7	112	--
365436	953458	7,250	--	--	12,000	186	253	309	--
	Okfuskee County, Oklahoma								
351844	962434	35,000	--	--	75,700	44.3	70.0	85.4	--
352028	960842	50,800	--	--	103,000	13.3	16.3	19.9	--
352120	961813	41,100	--	--	83,100	603	33.1	40.3	--
352155	961606	56,500	--	--	112,000	279	41.0	50.0	--
352213	961606	56,500	--	--	112,000	279	41.1	50.1	--
352305	960945	45,300	--	--	125,000	574	22.1	27.0	--
352357	960531	50,400	--	--	99,900	--	95.5	--	--
352357	961710	57,100	--	--	114,000	507	78.7	96.0	--
352449	960842	49,200	--	--	113,000	456	120	146	--
352521	963043	--	34,400	--	68,200	414	106	129	--
352521	963043	--	35,700	--	69,300	473	106	129	--
352541	962227	58,700	--	--	118,000	42.6	118	144	--
352543	962107	50,000	--	--	94,400	447	36.1	44.0	--
352543	962107	51,500	--	--	97,300	439	91.8	112	--
352543	962107	49,900	--	--	95,100	479	95.9	117	--
352543	962107	57,400	--	--	108,000	458	95.9	117	--
352624	961900	44,100	--	--	84,900	390	112	136	--
352634	960531	37,600	--	--	77,800	--	64.8	79.1	--
352656	961313	54,500	--	--	111,000	332	57.4	70.0	--
352726	960531	38,800	--	--	79,900	--	63.2	77.0	--
352726	962641	58,900	--	--	118,000	303	87.0	106	--
352910	962537	62,900	--	--	127,000	271	105	128	--
353002	961503	59,000	--	--	113,000	1,260	42.1	51.3	--
353002	961813	62,300	--	--	126,000	198	4.6	5.6	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
Okfuskee County, Oklahoma						
353002	963612	12N-07E-19	325CHRK	--	3,360	12/ 2/1954
353009	961517	--	327UNVL	3,740	3,040	11/30/1954
353054	961856	--	344HNTN	3,920	--	5/31/1942
353139	962510	--	344HNTN	3,980	3,960	11/17/1954
353139	962805	--	327UNVL	3,720	3,710	12/ 2/1954
353147	961049	12N-11E-07	361VIOL	--	3,400	11/17/1954
353147	961359	12N-10E-10	364SMPS	--	3,580	11/17/1954
353147	962434	12N-08E-12	340HNTN	--	3,970	11/12/1954
353147	962744	12N-08E-09	327UNVL	--	3,720	12/ 2/1954
353147	963302	12N-07E-10	327UNVL	--	3,740	12/ 2/1954
353201	963341	--	327UNVL	4,560	3,740	12/ 2/1954
353203	963341	--	361VIOL	4,380	--	9/15/1944
353221	963014	--	344HNTN	4,250	4,240	1/ 6/1950
353239	960842	12N-11E-04	325CHRK	--	2,290	11/17/1954
353423	963405	13N-07E-28	324STRN	--	3,660	12/ 2/1954
353618	961951	--	340MSNR	3,810	--	10/ 4/1941
353618	961951	--	364SMPS	3,810	--	10/10/1941
353630	963640	13N-07E-18 BAA	322VMOS	89	--	7/26/1979
353657	963358	13N-07E-09 DAA	322VMOS	105	--	8/16/1979
353700	961359	13N-10E-10	364SMPS	--	3,440	11/30/1954
353700	962744	13N-08E-09	327UNVL	--	3,530	11/17/1954
353700	962951	13N-08E-07	325CHRK	--	2,470	11/17/1954
353750	963457	--	364SMPS	4,130	2,850	1/ 5/1961
353752	963158	13N-07E-02	325CHRK	--	2,590	11/17/1954
Oklahoma County, Oklahoma						
352254	972638	--	321TFGM	4,090	4,090	8/ 2/1947
352305	972701	11N-02W-31	364SMPS	--	6,300	9/ 1/1953
352326	972646	--	364SMPS	6,380	6,300	9/ 1/1953
352326	972701	--	321TFGM	6,400	6,360	9/ 1/1953
352330	972643	11N-02W-31 AAB	318GRBR	765	--	4/16/1943
352333	971249	--	344HNTN	6,620	5,820	9/ 1/1954
352333	972900	--	364SMPS	6,600	6,530	3/ 2/1953
352350	973140	11N-03W-28 CBB	318GRBR	281	--	5/21/1975
352357	971314	11N-01E-29	340HNTN	--	5,850	9/ 1/1954
352357	972701	11N-02W-30	364SMPS	--	6,260	3/ 2/1953
352357	972804	11N-03W-25	322SHWN	--	4,060	9/ 1/1953
352357	972804	11N-03W-25	322SHWN	--	4,060	9/ 1/1953
352357	972908	11N-03W-26	364SMPS	--	6,530	3/ 2/1953

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Okfuskee County, Oklahoma								
353002	963612	--	--	212,000	204,000	14,000	2,890	--
353009	961517	--	--	185,000	152,000	9,690	1,890	--
353054	961856	--	--	117,000	--	5,890	1,120	--
353139	962510	--	--	--	--	13,400	2,960	--
353139	962805	--	--	208,000	159,000	12,100	1,940	--
353147	961049	--	--	192,000	196,000	12,600	1,780	--
353147	961359	--	--	198,000	200,000	12,200	2,830	--
353147	962434	--	--	199,000	141,000	13,400	2,960	--
353147	962744	--	--	158,000	204,000	12,100	1,940	--
353147	963302	--	--	207,000	204,000	13,200	2,310	--
353201	963341	--	--	207,000	159,000	13,200	2,310	--
353203	963341	--	--	188,000	--	12,000	2,080	--
353221	963014	--	6.9	182,000	133,000	10,600	1,900	--
353239	960842	--	--	185,000	196,000	11,600	2,390	--
353423	963405	--	--	195,000	200,000	10,800	2,240	--
353618	961951	--	--	170,000	--	9,670	1,580	--
353618	961951	--	--	174,000	--	9,540	1,680	--
353630	963640	25.5	7.2	325	548	63	33	290
353657	963358	23.0	6.6	193	356	30	15	140
353700	961359	--	--	193,000	189,000	10,500	2,220	--
353700	962744	--	--	200,000	200,000	12,500	2,370	--
353700	962951	--	--	162,000	182,000	9,260	2,230	--
353750	963457	--	8.5	125,000	159,000	8,970	292	--
353752	963158	--	--	177,000	189,000	9,110	2,800	--
Oklahoma County, Oklahoma								
352254	972638	--	8.6	212,000	204,000	12,800	1,660	--
352305	972701	--	--	259,000	217,000	16,200	2,730	--
352326	972646	--	--	259,000	172,000	16,200	2,730	--
352326	972701	--	--	255,000	--	14,600	3,130	--
352330	972643	--	--	312	548	50	30	250
352333	971249	--	--	278,000	185,000	18,900	3,890	--
352333	972900	--	--	267,000	182,000	15,500	2,890	--
352350	973140	20.5	7.5	427	800	39	25	200
352357	971314	--	--	278,000	238,000	18,900	3,890	--
352357	972701	--	--	259,000	227,000	16,500	2,420	--
352357	972804	--	--	262,000	213,000	14,300	2,920	--
352357	972804	--	--	262,000	213,000	14,300	2,920	--
352357	972908	--	--	267,000	228,000	15,500	2,890	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Okfuskee County, Oklahoma									
353002	963612	63,500	--	--	131,000	93.8	67.6	82.5	--
353009	961517	59,000	--	--	113,000	1,260	41.8	51.0	--
353054	961856	37,600	--	--	71,200	740	75.4	92.0	--
353139	962510	59,200	--	--	123,000	166	--	--	--
353139	962805	65,400	--	--	128,000	358	10.7	13.0	--
353147	961049	59,000	--	--	118,000	751	115	140	--
353147	961359	60,200	--	--	122,000	648	9.2	11.2	--
353147	962434	59,200	--	--	123,000	166	--	--	--
353147	962744	65,400	--	--	128,000	358	11.1	13.6	--
353147	963302	63,400	--	--	128,000	576	28.7	35.0	--
353201	963341	63,400	--	--	128,000	575	28.7	35.0	--
353203	963341	57,400	--	--	116,000	293	81.2	99.0	--
353221	963014	57,100	--	--	112,000	1,120	62.3	76.0	--
353239	960842	56,400	--	--	114,000	754	--	--	--
353423	963405	61,400	--	--	120,000	227	72.7	88.6	--
353618	961951	54,000	--	--	105,000	618	65.6	80.0	--
353618	961951	55,500	--	--	107,000	515	36.1	44.0	--
353630	963640	9.8	12.0	2.2	12.0	8.9	300	--	--
353657	963358	18.0	19.0	1.1	17.0	20.0	120	--	--
353700	961359	61,000	--	--	119,000	590	62.4	76.1	--
353700	962744	61,500	--	--	124,000	217	36.9	45.0	--
353700	962951	50,200	--	--	100,000	66.2	68.8	83.9	--
353750	963457	38,600	--	235	76,300	300	160	98.0	--
353752	963158	55,300	--	--	109,000	212	145	176	--
Oklahoma County, Oklahoma									
352254	972638	66,800	--	--	130,000	155	44.9	--	--
352305	972701	80,000	--	--	160,000	870	87.3	106	--
352326	972646	80,000	--	--	160,000	418	86.9	106	--
352326	972701	79,700	--	--	158,000	146	28.7	35.0	--
352330	972643	--	31.0	--	17.0	19	266	284	0.4
352333	971249	82,800	--	--	171,000	1,500	99.2	121	--
352333	972900	83,500	--	--	164,000	453	150	183	--
352350	973140	81.0	--	2.3	52.0	38.0	271	330	--
352357	971314	82,800	--	--	171,000	1,500	99.3	121	--
352357	972701	80,000	--	--	159,000	363	104	127	--
352357	972804	82,900	--	--	162,000	111	45.4	55.4	--
352357	972804	82,900	--	--	162,000	111	45.4	55.4	--
352357	972908	83,500	--	--	164,000	454	151	184	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
Oklahoma County, Oklahoma						
352357	973011	11N-03W-27	364SMPS	--	6,490	3/ 2/1953
352359	972707	--	321TFGM	4,200	4,110	7/15/1937
352403	972218	11N-02W-26 ADD	318HNSS	764	--	10/10/1951
352410	972219	11N-02W-26 AAD	318HNSS	770	--	10/10/1951
352426	972659	--	323KSSC	6,480	4,800	8/ 5/1935
352428	970922	11N-01E-24 CC	318GRBR	132	--	10/22/1954
352430	971753	11N-01W-22 CCC	318GRBR	121	--	4/21/1954
352434	972231	11N-02W-23 DCA	318GRBR	800	--	10/17/1951
352437	972734	--	322SHWN	6,530	2,950	3/ 2/1953
352447	973010	--	323CFVL	6,580	5,750	9/24/1953
352448	972229	11N-02W-23 DAB	318GRBR	1,070	--	10/10/1951
352449	973011	11N-03W-22	323CFVL	--	5,750	9/24/1953
352450	972417	11N-02W-22 BCC	318GRBR	792	--	10/10/1951
352509	972419	11N-02W-22 BBB	318GRBR	755	--	10/10/1951
352515	972232	11N-02W-14 DDC	318GRBR	879	--	10/10/1951
352520	972244	11N-02W-14 DCB	318GRBR	837	--	10/17/1951
352526	972240	11N-02W-14 DAB	310WLNG	1,050	--	10/10/1951
352535	972247	11N-02W-14 DBB	318GRBR	1,100	--	10/17/1951
352544	973031	--	364SMPS	6,520	--	2/22/1956
352549	973025	--	364SMPS	6,530	--	9/ 1/1944
352549	973025	--	364SMPS	6,530	--	2/ 3/1946
352549	973025	--	364SMPS	6,530	6,450	9/24/1953
352549	973025	--	364SMPS	6,530	--	2/22/1956
352549	973025	--	364SMPS	6,530	--	10/ 9/1956
352549	973025	--	364SMPS	6,530	--	9/ 4/1957
352630	973845	--	344HNTN	7,950	--	6/ 9/1945
352634	972804	11N-03W-12	322SHWN	--	3,030	9/24/1953
352634	973011	11N-03W-10	364SMPS	--	6,340	8/31/1953
352637	972559	11N-02W-08 CBC	318GRBR	325	--	3/ 4/1958
352654	972831	--	322SHWN	5,060	--	6/ 5/1944
352654	972831	--	321TFGM	5,060	--	7/ 3/1944
352654	972831	--	322SHWN	5,060	--	7/ 9/1944
352654	972831	--	322SHWN	5,060	--	9/ 1/1944
352654	972831	--	322SHWN	5,060	3,020	9/24/1953
352701	972823	--	321TFGM	4,650	--	4/25/1945
352710	972913	--	364SMPS	6,590	6,140	9/24/1953
352730	973011	--	364SMPS	6,410	--	9/11/1944
352730	973011	--	364SMPS	6,410	--	3/10/1950
352748	972959	--	364SMPS	6,480	--	9/10/1943
352748	972959	--	364SMPS	6,480	--	8/ 9/1944

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Oklahoma County, Oklahoma								
352357	973011	--	--	176,000	179,000	7,580	2,340	--
352359	972707	--	6.3	245,000	--	12,600	3,140	--
352403	972218	--	7.6	248	438	52	23	220
352410	972219	--	7.7	241	422	49	23	220
352426	972659	--	--	291,000	--	16,300	3,540	--
352428	970922	16.5	6.7	92	138	12	1.5	36
352430	971753	18.0	7.4	170	297	38	14	150
352434	972231	--	7.6	229	404	48	22	210
352437	972734	--	--	--	164,000	11,200	2,530	--
352447	973010	--	--	287,000	192,000	17,100	3,130	--
352448	972229	--	7.6	233	411	49	22	210
352449	973011	--	--	287,000	227,000	17,100	3,130	--
352450	972417	--	8.2	201	336	9.6	7.3	54
352509	972419	--	7.8	209	364	32	21	170
352515	972232	--	7.6	240	418	45	21	200
352520	972244	--	7.5	240	422	49	23	220
352526	972240	--	7.5	236	416	48	22	210
352535	972247	--	7.6	238	420	49	22	210
352544	973031	--	--	244,000	--	14,000	2,440	--
352549	973025	--	--	234,000	--	13,200	2,240	--
352549	973025	--	--	233,000	--	13,100	2,230	--
352549	973025	--	--	221,000	164,000	11,600	2,420	--
352549	973025	--	--	202,000	--	10,600	2,110	--
352549	973025	--	--	243,000	--	14,100	2,500	--
352549	973025	--	--	243,000	--	14,200	2,400	--
352630	973845	--	--	146,000	--	16,900	1,010	--
352634	972804	--	--	222,000	217,000	11,400	2,770	--
352634	973011	--	--	259,000	227,000	16,100	3,320	--
352637	972559	--	7.8	248	424	48	22	210
352654	972831	--	--	197,000	--	10,400	2,560	--
352654	972831	--	--	163,000	--	8,880	1,660	--
352654	972831	--	--	174,000	--	9,280	2,060	--
352654	972831	--	--	161,000	--	8,950	1,410	--
352654	972831	--	--	--	167,000	11,400	2,770	--
352701	972823	--	--	63,300	--	3,310	21	--
352710	972913	--	--	266,000	172,000	17,800	2,260	--
352730	973011	--	--	8,760	--	402	111	--
352730	973011	--	--	221,000	--	12,600	2,780	--
352748	972959	--	--	229,000	--	13,400	2,200	--
352748	972959	--	--	236,000	--	13,300	2,710	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Oklahoma County, Oklahoma									
352357	973011	57,300	--	--	108,000	444	--	--	--
352359	972707	77,600	--	--	151,000	209	22.1	27.0	--
352403	972218	9.6	--	1.4	7.8	7.4	224	273	0.7
352410	972219	9.4	--	1.3	8.5	6.6	217	265	0.8
352426	972659	90,800	--	--	180,000	118	10.7	13.0	--
352428	970922	17.0	--	1.0	7.5	11.0	52.0	63.0	0.6
352430	971753	4.5	--	1.0	7.5	5.7	144	175	0.8
352434	972231	6.2	--	1.4	9.5	6.5	205	250	0.1
352437	972734	68,100	--	--	132,000	--	44.3	54.0	--
352447	973010	89,500	--	--	177,000	382	58.2	71.0	--
352448	972229	7.0	--	1.4	9.0	6.8	209	255	0.7
352449	973011	89,500	--	--	177,000	382	58.3	71.1	--
352450	972417	58.0	--	1.6	5.8	6.8	167	204	0.1
352509	972419	15.0	--	2.2	12.0	7.2	176	214	0.2
352515	972232	15.0	--	1.4	11.0	7.7	210	256	0.7
352520	972244	9.7	--	1.8	8.5	6.3	215	262	0.8
352526	972240	10.0	--	1.4	8.5	8.1	208	254	0.7
352535	972247	8.9	--	1.5	8.2	7.4	214	261	0.5
352544	973031	77,000	--	--	151,000	10.0	27.9	34.0	--
352549	973025	74,100	--	--	144,000	346	51.7	63.0	--
352549	973025	73,800	--	--	143,000	317	68.1	83.0	--
352549	973025	70,600	--	--	136,000	755	28.7	35.0	--
352549	973025	64,600	--	--	124,000	385	13.9	17.0	--
352549	973025	76,100	--	--	150,000	13.0	22.1	27.0	--
352549	973025	76,100	--	--	150,000	37.0	24.6	30.0	--
352630	973845	37,200	--	--	90,000	564	16.4	20.0	--
352634	972804	70,500	--	--	137,000	--	39.9	48.7	--
352634	973011	83,600	--	--	167,000	255	--	--	--
352637	972559	11.0	--	0.8	6.0	7.4	220	268	0.1
352654	972831	62,000	--	--	122,000	27.0	22.1	27.0	--
352654	972831	51,800	--	--	100,000	191	64.8	79.0	--
352654	972831	55,000	--	--	107,000	30.0	26.2	32.0	--
352654	972831	51,500	--	--	99,300	76.0	43.5	53.0	--
352654	972831	70,500	--	--	137,000	--	39.4	48.0	--
352701	972823	21,200	--	--	38,400	268	42.6	52.0	--
352710	972913	81,800	--	--	164,000	285	34.4	42.0	--
352730	973011	2,840	--	--	5,300	39.0	126	153	--
352730	973011	68,700	--	--	136,000	28.0	11.5	14.0	--
352748	972959	71,900	--	--	141,000	325	48.4	59.0	--
352748	972959	73,900	--	--	146,000	13.0	8.2	10.0	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Lati-tude	Longi-tude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
Oklahoma County, Oklahoma						
352749	972859	--	322SHWN	6,540	--	12/ 9/1944
352754	972955	--	364SMPS	6,430	--	10/20/1942
352754	972958	--	310PRMN	6,500	--	2/ 3/1942
352818	973200	12N-03W-32 ACD	310WLNG	822	--	4/13/1944
352823	973006	--	364SMPS	6,520	--	12/ 3/1941
352838	973024	--	364SMPS	6,580	--	2/27/1941
352838	973024	--	364SMPS	6,580	--	3/ 6/1941
352838	973024	--	364SMPS	6,580	--	3/31/1943
352838	973024	--	364SMPS	6,580	6,450	9/24/1953
352846	973023	--	364SMPS	6,560	--	7/31/1941
352909	972958	--	323CFVL	6,490	--	10/19/1945
352910	972908	12N-03W-26	364SMPS	--	6,370	8/31/1953
352910	973011	12N-03W-27	364SMPS	--	6,480	3/ 2/1953
352919	972941	--	364SMPS	6,380	6,370	8/31/1953
352932	972934	--	325FRSC	6,420	--	9/17/1942
352938	971429	12N-01E-07 BAB	310WLNG	120	--	8/27/1972
352942	973657	--	344HNTN	7,590	--	8/ 9/1945
352942	973657	--	344HNTN	7,590	--	8/29/1945
352942	973657	--	344HNTN	7,590	--	5/21/1947
352942	973657	--	344HNTN	7,590	7,260	9/ 1/1953
352950	973020	--	364SMPS	6,500	6,420	8/31/1953
352954	973005	--	364SMPS	6,440	6,370	3/ 2/1953
352955	973007	--	364SMPS	6,500	6,370	9/24/1953
352956	973024	--	364SMPS	6,540	6,530	4/21/1960
353002	973011	12N-03W-22	364SMPS	--	6,370	9/24/1953
353002	973633	12N-04W-22	340HNTN	--	7,260	9/ 1/1953
353021	972953	--	321TFGM	6,470	--	12/ 9/1941
353021	972953	--	321TFGM	6,470	--	3/31/1943
353024	971940	12N-01W-20 CDD	318GRBR	72	--	4/21/1954
353026	973450	12N-04W-24 BCC	318GRBR	760	--	5/22/1973
353047	973008	--	321TFGM	6,460	--	12/ 8/1941
353047	973008	--	321TFGM	6,460	--	1/25/1943
353052	971107	12N-01E-15 ACC	310WLNG	412	--	12/18/1974
353104	973651	12N-04W-15 BCA	318GRBR	608	--	4/16/1943
353151	973818	--	322SHWN	7,600	--	9/ 3/1945
353151	973818	--	322SHWN	7,600	--	9/ 7/1945
353151	973818	--	321TFGM	7,600	--	9/12/1945
353205	973819	--	344HNTN	7,250	--	8/10/1945
353205	973819	--	344HNTN	7,250	--	8/25/1945
353221	973153	12N-03W-05 DD	318HNSS	800	--	4/16/1943

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Oklahoma County, Oklahoma								
352749	972859	--	--	165,000	--	8,810	2,020	--
352754	972955	--	--	21,300	--	1,440	284	--
352754	972958	--	--	164,000	--	9,170	1,960	--
352818	973200	18.5	--	574	978	53	25	240
352823	973006	--	--	178,000	--	10,200	1,750	--
352838	973024	--	--	219,000	--	12,200	2,090	--
352838	973024	--	--	229,000	--	12,900	2,230	--
352838	973024	--	5.3	231,000	--	13,100	2,250	--
352838	973024	--	--	267,000	182,000	15,400	2,530	--
352846	973023	--	--	38,500	--	2,120	403	--
352909	972958	--	--	81,600	--	4,060	798	--
352910	972908	--	--	269,000	222,000	16,200	2,980	--
352910	973011	--	--	263,000	233,000	15,400	2,510	--
352919	972941	--	--	268,000	182,000	16,200	2,980	--
352932	972934	--	--	189,000	--	11,000	2,260	--
352938	971429	25.0	8.2	780	1,330	70	26	280
352942	973657	--	--	205,000	--	9,780	1,710	--
352942	973657	--	--	218,000	--	10,700	1,790	--
352942	973657	--	--	233,000	--	10,500	2,010	--
352942	973657	--	--	267,000	182,000	12,000	2,680	--
352950	973020	--	--	258,000	164,000	15,100	2,780	--
352954	973005	--	--	238,000	170,000	13,700	2,060	--
352955	973007	--	--	258,000	161,000	14,800	2,720	--
352956	973024	--	6.5	--	250,000	13,000	3,300	--
353002	973011	--	--	258,000	217,000	14,800	2,720	--
353002	973633	--	--	267,000	227,000	12,000	2,670	--
353021	972953	--	--	236,000	--	13,900	2,570	--
353021	972953	--	--	236,000	--	13,800	2,580	--
353024	971940	16.5	6.1	282	469	35	19	170
353026	973450	--	7.7	375	671	33	26	190
353047	973008	--	--	218,000	--	12,600	2,330	--
353047	973008	--	--	233,000	--	13,800	2,510	--
353052	971107	--	7.8	473	836	52	31	260
353104	973651	20.0	7.8	738	1,130	39	12	150
353151	973818	--	--	233,000	--	13,300	2,400	--
353151	973818	--	--	215,000	--	13,000	2,290	--
353151	973818	--	--	224,000	--	13,100	2,090	--
353205	973819	--	--	200,000	--	8,260	1,900	--
353205	973819	--	--	202,000	--	8,260	1,940	--
353221	973153	--	8.7	1,080	1,830	3.8	1.2	14

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Oklahoma County, Oklahoma									
352749	972859	52,200	--	--	102,000	59.0	5.7	7.0	--
352754	972955	6,290	--	--	12,200	836	431	526	--
352754	972958	51,700	--	--	102,000	144	92.7	113	--
352818	973200	--	137	--	67.0	74.0	362	441	0.6
352823	973006	55,900	--	--	109,000	286	95.9	117	--
352838	973024	69,400	--	--	134,000	339	113	138	--
352838	973024	72,500	--	--	141,000	490	71.3	87.0	--
352838	973024	73,000	--	--	142,000	329	47.6	58.0	--
352838	973024	84,300	--	--	164,000	398	43.5	53.0	--
352846	973023	12,200	--	--	23,600	104	87.7	107	--
352909	972958	26,400	--	--	49,800	486	134	163	--
352910	972908	83,300	--	--	166,000	269	52.3	63.7	--
352910	973011	82,900	--	--	162,000	365	63.6	77.6	--
352919	972941	83,300	--	--	166,000	268	51.7	63.0	--
352932	972934	58,700	--	--	116,000	94.0	91.0	111	--
352938	971429	--	180	--	220	76.0	279	340	0.4
352942	973657	67,300	--	--	126,000	214	221	270	--
352942	973657	71,400	--	--	134,000	153	212	258	--
352942	973657	77,200	--	--	143,000	90.0	79.5	97.0	--
352942	973657	87,700	--	--	164,000	143	144	176	--
352950	973020	80,900	--	--	159,000	373	28.7	35.0	--
352954	973005	75,600	--	--	147,000	326	76.3	93.0	--
352955	973007	81,200	--	--	159,000	140	45.9	56.0	--
352956	973024	70,500	--	354	138,000	--	41.0	50.0	--
353002	973011	81,200	--	--	159,000	141	46.4	56.5	--
353002	973633	87,700	--	--	164,000	143	145	177	--
353021	972953	73,600	--	--	146,000	23.0	31.2	38.0	--
353021	972953	73,500	--	--	145,000	191	28.7	35.0	--
353024	971940	26.0	--	1.1	48.0	34.0	70.0	85.0	55.0
353026	973450	--	70.0	--	81.0	38.0	187	228	--
353047	973008	68,200	--	--	134,000	64.0	41.0	50.0	--
353047	973008	72,600	--	--	144,000	21.0	33.6	41.0	--
353052	971107	76.0	--	3.6	80.0	50.0	275	335	--
353104	973651	204	--	3.0	46.0	260	262	319	0.2
353151	973818	73,300	--	--	144,000	239	22.1	27.0	--
353151	973818	66,900	--	--	133,000	30.0	71.3	87.0	--
353151	973818	70,700	--	--	138,000	121	72.2	88.0	--
353205	973819	66,900	--	--	123,000	221	239	291	--
353205	973819	67,500	--	--	124,000	171	130	158	--
353221	973153	413	--	4.4	296	93.0	416	436	0.9

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Lati-tude	Longi-tude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
Oklahoma County, Oklahoma						
353233	973230	12N-03W-05 CAB	318GRBR	816	--	12/26/1951
353239	972350	12N-02W-03	340HNTN	--	6,300	12/ 3/1953
353239	972557	12N-02W-05	340HNTN	--	6,310	12/ 3/1953
353243	972419	--	344HNTN	6,380	6,300	12/ 3/1953
353243	972626	--	344HNTN	6,350	6,310	12/ 3/1953
353251	972904	12N-03W-02 ABD	318GRBR	756	--	1/ 8/1964
353308	972716	--	344HNTN	6,360	6,330	5/28/1954
353309	972749	--	323CFVL	6,440	5,650	12/ 3/1953
353331	972808	13N-03W-36	323CFVL	--	5,660	12/ 3/1953
353346	972734	--	344HNTN	6,360	6,290	12/ 3/1953
353411	973208	13N-03W-29 DCA	310WLNG	751	--	7/23/1945
353413	972805	--	344HNTN	6,460	--	3/29/1948
353423	972808	13N-03W-25	323CFVL	--	5,660	9/ 1/1953
353449	973254	13N-03W-20 CCC	318GRBR	650	--	4/13/1944
353507	973706	--	323CCKB	6,930	--	11/21/1957
353557	973229	--	361VIOL	6,690	6,690	7/28/1936
353638	973403	13N-04W-12 D	318HNSS	600	--	3/ 5/1947
353722	973132	13N-03W-09 BAB	318GRBR	147	--	11/14/1974
353807	973310	--	364SMPS	6,690	6,690	7/ 8/1937
353823	974013	--	344HNTN	6,970	--	5/18/1944
353844	972704	14N-02W-31	325CHRK	--	5,990	5/28/1954
353844	972710	--	325CHRK	6,000	5,990	5/28/1954
353852	972526	--	325SNOR	6,130	5,830	9/30/1941
353860	973340	--	364SMPS	6,710	6,700	6/10/1963
353905	972900	14N-03W-35 ABA	318GRBR	731	--	12/ 1/1949
353921	973344	14N-03W-31 BBA	310WLNG	600	--	4/15/1943
353937	972456	14N-02W-28	364SMPS	--	6,380	5/28/1954
353947	971139	14N-01E-28 ADA	310WLNG	172	--	10/22/1954
353954	972523	--	364SMPS	6,380	6,380	5/28/1954
354015	971150	--	324STRN	5,060	5,020	5/28/1954
354024	971209	14N-01E-21	324STRN	--	5,020	5/28/1954
354112	973722	--	324STRN	6,900	--	11/24/1944
354121	972352	14N-02W-15	364SMPS	--	6,200	7/14/1953
354126	973810	--	344HNTN	6,750	--	10/19/1944
354139	972351	--	364SMPS	6,200	6,200	7/14/1953
354147	972511	14N-02W-09 CCD	318GRBR	90	--	4/22/1954
354154	971608	14N-01W-11 DDB	310WLNG	116	--	11/13/1974
354218	972814	--	325CHRK	6,520	--	4/27/1944
354238	971702	--	323HGSR	6,020	--	8/21/1956
354244	973855	--	361VIOL	7,080	--	8/ 3/1944

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Oklahoma County, Oklahoma								
353233	973230	--	8.9	634	1,030	3.8	2.7	20
353239	972350	--	--	96,900	125,000	6,160	1,000	--
353239	972557	--	--	267,000	227,000	14,100	2,670	--
353243	972419	--	--	96,000	98,000	6,160	1,000	--
353243	972626	--	--	267,000	182,000	14,100	2,670	--
353251	972904	18.0	8.0	280	440	4.5	2.9	23
353308	972716	--	--	306,000	182,000	14,300	2,960	--
353309	972749	--	--	267,000	175,000	15,200	2,710	--
353331	972808	--	--	267,000	217,000	15,200	2,710	--
353346	972734	--	--	186,000	147,000	10,800	979	--
353411	973208	19.0	--	498	--	18	18	120
353413	972805	--	--	132,000	--	12,100	1,390	--
353423	972808	--	--	389,000	244,000	19,600	3,910	--
353449	973254	18.0	--	850	1,300	28	18	140
353507	973706	--	4.1	261,000	217,000	15,100	2,390	--
353557	973229	--	--	289,000	--	21,200	5,000	--
353638	973403	--	--	423	692	11	7	56
353722	973132	20.0	7.7	558	992	55	36	290
353807	973310	--	5.4	282,000	--	15,000	3,080	--
353823	974013	--	--	175,000	--	8,410	1,610	--
353844	972704	--	--	284,000	233,000	17,200	2,660	--
353844	972710	--	--	284,000	179,000	17,200	2,660	--
353852	972526	--	--	322,000	--	9,570	2,200	--
353860	973340	--	6.1	213,000	200,000	13,000	1,810	--
353905	972900	--	8.2	699	1,220	20	7.9	82
353921	973344	--	--	405	625	8	2.6	30
353937	972456	--	--	248,000	213,000	13,700	2,940	--
353947	971139	20.5	7.2	550	972	88	41	390
353954	972523	--	--	248,000	172,000	13,700	2,940	--
354015	971150	--	--	281,000	185,000	16,000	3,210	--
354024	971209	--	--	281,000	227,000	16,000	3,210	--
354112	973722	--	--	3,420	--	543	129	--
354121	972352	--	--	249,000	222,000	13,000	2,690	--
354126	973810	--	--	26,800	--	4,200	326	--
354139	972351	--	--	249,000	175,000	13,000	2,690	--
354147	972511	16.0	6.8	165	286	30	15	140
354154	971608	19.0	7.6	367	652	64	42	330
354218	972814	--	--	42,800	--	1,250	301	--
354238	971702	--	7.1	203,000	192,000	11,800	1,660	--
354244	973855	--	--	2,140	--	255	86	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Oklahoma County, Oklahoma									
353233	973230	247	--	2.2	50.0	65.0	418	445	0.1
353239	972350	29,500	--	--	59,300	66.0	1.7	2.1	--
353239	972557	85,600	--	--	164,000	306	46.5	56.7	--
353243	972419	29,500	--	--	59,300	65.0	1.6	2.0	--
353243	972626	85,600	--	--	164,000	305	45.9	56.0	--
353251	972904	--	104	--	10.0	13.0	221	270	0.2
353308	972716	100,000	--	--	188,000	299	5.7	7.0	--
353309	972749	84,300	--	--	165,000	154	36.9	45.0	--
353331	972808	84,300	--	--	165,000	154	37.1	45.2	--
353346	972734	59,700	--	--	113,000	787	38.5	47.0	--
353411	973208	--	146	--	128	51.0	202	218	0.8
353413	972805	36,400	--	--	81,600	155	56.6	69.0	--
353423	972808	125,000	--	--	239,000	205	--	--	--
353449	973254	--	230	--	176	189	199	243	0.8
353507	973706	82,500	--	--	161,000	187	18.9	23.0	--
353557	973229	82,400	--	--	180,000	533	32.0	39.0	--
353638	973403	--	147	--	25.0	75.0	261	267	0.1
353722	973132	--	100	--	140	20.0	278	339	0.1
353807	973310	89,700	--	--	174,000	705	103	126	--
353823	974013	57,200	--	--	107,000	548	114	139	--
353844	972704	88,700	--	--	175,000	339	41.1	50.1	--
353844	972710	88,700	--	--	175,000	339	41.0	50.0	--
353852	972526	113,000	--	--	197,000	458	44.3	54.0	--
353860	973340	66,800	--	--	131,000	350	36.1	44.0	--
353905	972900	243	--	2.4	150	68.0	335	409	0.3
353921	973344	--	146	--	6.0	58.0	279	292	0.2
353937	972456	78,100	--	--	153,000	444	54.6	66.6	--
353947	971139	40.0	--	3.6	69.0	47.0	262	319	83.0
353954	972523	78,100	--	--	153,000	444	54.1	66.0	--
354015	971150	88,200	--	--	173,000	232	60.7	74.0	--
354024	971209	88,200	--	--	173,000	233	61.1	74.5	--
354112	973722	321	--	--	66.0	2,300	102	124	--
354121	972352	80,400	--	--	153,000	208	19.8	24.1	--
354126	973810	5,380	--	--	16,000	748	216	263	--
354139	972351	80,400	--	--	153,000	207	19.7	24.0	--
354147	972511	5.8	--	1.3	11.0	19.0	107	130	0.6
354154	971608	--	22.0	--	13.0	20.0	327	399	--
354218	972814	15,000	--	--	25,800	334	182	222	--
354238	971702	64,300	--	--	125,000	296	44.3	54.0	--
354244	973855	319	--	--	144	1,200	238	290	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
Oklahoma County, Oklahoma						
354245	972239	--	325CHRK	6,250	5,670	7/14/1953
354251	971719	--	364SMPS	6,020	6,000	9/ 1/1953
354305	971729	14N-01W-03	364SMPS	--	6,010	9/ 1/1953
354305	971750	--	364SMPS	5,960	5,930	3/18/1961
354305	972238	--	340MSNR	6,220	5,840	7/14/1953
354305	972248	14N-02W-02	325CHRK	--	5,670	7/14/1953
354305	972248	14N-02W-02	340MSNR	--	5,840	7/14/1953
354324	973926	--	344HNTN	7,270	--	11/28/1944
Okmulgee County, Oklahoma						
352541	960324	11N-12E-17	325CHRK	--	1,600	6/ 1/1954
352818	960428	12N-12E-31	325SNOR	--	1,180	6/23/1954
352910	960428	12N-12E-31	325SNOR	--	1,210	6/23/1954
353055	954422	12N-15E-17	364SMPS	--	2,970	6/23/1954
353239	960221	12N-12E-04	325CHRK	--	1,880	6/23/1954
353331	955703	13N-13E-32	324STRN	--	1,850	6/23/1954
353516	960842	13N-11E-21	340MSNR	--	3,190	6/23/1954
353608	960842	13N-11E-16	324STRN	--	2,550	6/23/1954
353700	960117	13N-12W-10	325CHRK	--	1,800	6/24/1954
354029	960635	14N-11E-23	325CHRK	--	1,900	9/ 2/1954
354213	954629	14N-14E-12	324STRN	--	1,740	6/22/1954
354305	955807	14N-13E-06	325CHRK	--	1,490	6/22/1954
354358	960738	15N-11E-34	364SMPS	--	2,660	6/22/1954
354634	954836	15N-14E-15	324STRN	--	1,700	6/22/1954
354634	960531	15N-11E-13	325CHRK	--	1,770	6/23/1954
354819	954732	15N-14E-02	324STRN	--	1,440	6/22/1954
355003	960428	16N-12E-30	325CHRK	--	1,350	6/21/1954
Osage County, Oklahoma						
361450	961615	21N-10E-31 DCC	323BRDL	176	--	7/13/1973
362154	961111	22N-10E-24	325CHRK	--	1,730	1/ 7/1953
362235	962210	22N-09E-17 CCC	322VMOS	200	--	1/18/1973
362328	962432	22N-08E-11 DDC	322VMOS	152	--	4/ 8/1975
362719	960742	23N-11E-21	325CHRK	--	1,670	4/ 7/1954
362719	960742	23N-11E-21	324CHAT	--	1,920	4/ 7/1954
362812	960533	23N-11E-14	367ABCK	--	1,990	4/ 6/1954
362830	963350	23N-07E-09 BDA	322VMOS	87	--	1/18/1973
362956	961513	23N-10E-05	325CHRK	--	2,120	4/ 7/1954

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Oklahoma County, Oklahoma								
354245	972239	--	--	252,000	167,000	13,000	2,680	--
354251	971719	--	--	237,000	170,000	12,400	2,680	--
354305	971729	--	--	237,000	217,000	12,400	2,680	--
354305	971750	--	6.6	253,000	192,000	12,600	3,000	--
354305	972238	--	--	270,000	175,000	15,800	3,420	--
354305	972248	--	--	252,000	208,000	13,000	2,680	--
354305	972248	--	--	270,000	208,000	15,800	3,420	--
354324	973926	--	--	85,500	--	9,880	652	--
Okmulgee County, Oklahoma								
352541	960324	--	--	141,000	164,000	8,920	1,950	--
352818	960428	--	--	128,000	147,000	8,360	2,240	--
352910	960428	--	--	157,000	152,000	10,600	2,310	--
353055	954422	--	--	209,000	196,000	13,600	2,530	--
353239	960221	--	--	164,000	170,000	8,370	2,260	--
353331	955703	--	--	49,000	70,900	2,830	617	--
353516	960842	--	--	186,000	189,000	10,500	2,250	--
353608	960842	--	--	162,000	170,000	7,400	2,190	--
353700	960117	--	--	166,000	179,000	9,850	1,890	--
354029	960635	--	--	170,000	175,000	8,870	2,100	--
354213	954629	--	--	171,000	175,000	7,980	2,200	--
354305	955807	--	--	129,000	149,000	7,560	1,810	--
354358	960738	--	--	190,000	182,000	9,530	2,480	--
354634	954836	--	--	146,000	161,000	7,680	2,110	--
354634	960531	--	--	161,000	170,000	10,600	2,050	--
354819	954732	--	--	150,000	161,000	6,670	2,390	--
355003	960428	--	--	126,000	147,000	8,710	1,550	--
Osage County, Oklahoma								
361450	961615	18.0	7.7	272	475	49	16	190
362154	961111	--	--	158,000	172,000	8,800	2,540	--
362235	962210	17.5	8.0	466	770	6	8	48
362328	962432	17.0	--	1,020	1,550	5.4	2.4	23
362719	960742	--	--	154,000	164,000	8,740	2,450	--
362719	960742	--	--	173,000	172,000	11,100	2,280	--
362812	960533	--	--	190,000	189,000	13,100	2,430	--
362830	963350	17.5	8.0	454	740	22	13	110
362956	961513	--	--	222,000	200,000	17,100	2,740	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Oklahoma County, Oklahoma									
354245	972239	80,800	--	--	155,000	191.0	34.4	42.0	--
354251	971719	75,500	--	--	146,000	222.0	85.3	104	--
354305	971729	75,500	--	--	146,000	222.5	86.1	105	--
354305	971750	79,600	--	1,840	156,000	133.0	111	135	--
354305	972238	83,900	--	--	167,000	112.0	43.5	53.0	--
354305	972248	80,800	--	--	155,000	191.9	34.9	42.5	--
354305	972248	83,900	--	--	167,000	112.5	43.8	53.4	--
354324	973926	21,800	--	--	52,400	576.0	339	413	--
Okmulgee County, Oklahoma									
352541	960324	42,600	--	--	87,100	--	68.0	83.0	--
352818	960428	38,000	--	--	79,900	--	70.3	85.7	--
352910	960428	46,500	--	--	97,000	82.4	107	131	--
353055	954422	63,300	--	--	129,000	449	28.7	35.0	--
353239	960221	51,700	--	--	101,000	104	176	215	--
353331	955703	15,200	--	--	30,100	--	157	192	--
353516	960842	58,000	--	--	114,000	1,060	39.3	47.9	--
353608	960842	52,300	--	--	99,900	334	--	--	--
353700	960117	51,800	--	--	103,000	182	129	157	--
354029	960635	54,000	--	--	105,000	69.7	71.7	87.4	--
354213	954629	55,000	--	--	105,000	433	77.2	94.1	--
354305	955807	39,700	--	--	79,800	--	43.6	53.1	--
354358	960738	60,500	--	--	117,000	--	120	146	--
354634	954836	45,800	--	--	90,300	118	72.6	88.5	--
354634	960531	48,600	--	--	99,500	101	62.3	76.0	--
354819	954732	47,800	--	--	92,200	325	93.4	114	--
355003	960428	37,600	--	--	77,900	42.3	81.0	98.7	--
Osage County, Oklahoma									
361450	961615	29.0	--	--	14.0	16.0	227	277	--
362154	961111	48,600	--	--	97,600	--	314	384	--
362235	962210	180	--	--	25.0	38.0	341	416	0.4
362328	962432	380	--	2.1	200	130	462	421	--
362719	960742	47,300	--	--	95,500	--	63.0	76.9	--
362719	960742	52,400	--	--	107,000	54.4	139	170	--
362812	960533	52,200	--	--	122,000	28.0	80.0	97.6	--
362830	963350	140	--	--	16.0	59.0	317	386	0.2
362956	961513	64,500	--	--	138,000	62.4	63.3	77.2	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
	Osage County, Oklahoma					
363048	962806	24N-08E-32	325CHRK	--	2,270	2/19/1953
363048	962806	24N-08E-32	325FRSC	--	1,950	2/19/1953
363048	963015	24N-07E-36	324CHAT	--	2,530	2/19/1953
363220	962259	--	323BRDL	--	137	6/26/1978
363301	961626	--	325CHRK	2,100	--	3/16/1967
363324	962453	24N-08E-14	325CHRK	--	2,230	4/29/1954
363417	961055	24N-10E-12	325CHRK	--	1,880	1/ 8/1953
363509	960951	24N-11E-06	325CHRK	--	1,670	4/ 7/1954
363509	961513	24N-10E-05	367ABCK	--	2,530	1/25/1953
363509	963537	24N-07E-06	325CHRK	--	2,620	4/ 9/1954
363510	961830	24N-09E-03 DAA	322VMOS	260	--	4/ 2/1975
363601	962554	25N-08E-34	324CHAT	--	2,480	4/ 8/1954
363601	963430	25N-07E-32	325CHRK	--	2,690	4/ 9/1954
363610	961825	25N-09E-35 BAD	322VMOS	255	--	2/22/1973
363653	962136	25N-09E-29	325CHRK	--	2,320	4/29/1954
363653	962803	25N-08E-29	325CHRK	--	2,490	4/29/1954
363653	962803	25N-08E-29	364SMPS	--	2,680	4/29/1954
363745	970018	25N-03E-20	323KSSC	--	2,850	6/18/1953
363750	961715	25N-09E-24 BAD	322VMOS	260	--	11/16/1972
363815	965215	--	364SMPS	4,050	--	11/ 5/1944
363837	963639	25N-06E-13	330MSSP	--	2,820	4/ 9/1954
363929	960529	25N-11E-11	367ABCK	--	2,180	4/ 7/1954
363929	961927	25N-09E-10	325CHRK	--	1,870	4/ 8/1954
363929	964057	25N-06E-08	330MSSP	--	2,840	4/ 9/1954
364022	963639	25N-06E-01	325CHRK	--	2,710	4/15/1954
364022	964724	25N-05E-05	325CHRK	--	2,830	4/ 9/1954
364022	964933	25N-04E-01	323KSSC	--	2,300	2/18/1953
364022	965247	25N-04E-04	324CHAT	--	3,460	2/18/1953
364022	965705	25N-03E-02	323KSSC	--	2,580	6/18/1953
364114	961927	26N-09E-34	330MSSP	--	2,080	4/29/1954
364114	964829	26N-05E-31	324CHAT	--	3,290	2/18/1953
364240	963826	--	325CHRK	3,070	--	12/18/1969
364350	960842	26N-11E-17	325CHRK	--	1,680	4/ 9/1954
364350	964933	26N-04E-13	324STRN	--	3,110	4/15/1954
364401	963741	--	325CHRK	2,980	--	2/17/1953
364403	963619	--	330MSSP	3,020	2,940	1/10/1956
364450	961230	26N-10E-09 ADA	322VMOS	130	--	3/13/1975
364450	961230	26N-10E-09 ADA	322VMOS	130	--	3/13/1975
364541	964619	--	325CHRK	3,140	2,000	12/ 1/1942
364619	964151	--	325CHRK	2,900	--	6/30/1958

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
	Osage County, Oklahoma							
363048	962806	--	--	199,000	179,000	14,700	2,520	--
363048	962806	--	--	132,000	152,000	7,600	2,640	--
363048	963015	--	--	196,000	189,000	15,000	1,970	--
363220	962259	22.5	8.9	--	670	1.9	0.5	--
363301	961626	--	5.2	161,000	--	11,200	2,100	--
363324	962453	--	--	168,000	170,000	9,830	1,010	--
363417	961055	--	--	142,000	156,000	8,610	1,030	--
363509	960951	--	--	128,000	149,000	7,510	1,250	--
363509	961513	--	--	214,000	192,000	15,800	2,400	--
363509	963537	--	--	222,000	208,000	18,000	2,690	--
363510	961830	15.0	--	627	1,060	5.1	3.1	26
363601	962554	--	--	200,000	200,000	14,600	2,670	--
363601	963430	--	--	178,000	185,000	14,200	2,000	--
363610	961825	--	7.0	658	1,090	120	34	430
363653	962136	--	--	208,000	196,000	14,400	2,520	--
363653	962803	--	--	206,000	196,000	14,300	2,650	--
363653	962803	--	--	212,000	196,000	14,500	2,590	--
363745	970018	--	--	290,000	217,000	19,800	3,180	--
363750	961715	--	8.0	582	978	33	28	200
363815	965215	--	--	223,000	--	18,000	2,480	--
363837	963639	--	--	233,000	208,000	16,100	3,920	--
363929	960529	--	--	186,000	200,000	12,400	2,040	--
363929	961927	--	--	200,000	196,000	11,900	2,660	--
363929	964057	--	--	238,000	217,000	19,300	2,590	--
364022	963639	--	--	218,000	200,000	17,600	3,040	--
364022	964724	--	--	247,000	217,000	20,600	2,690	--
364022	964933	--	--	236,000	222,000	16,500	2,930	--
364022	965247	--	--	259,000	227,000	21,500	3,050	--
364022	965705	--	--	266,000	238,000	20,200	2,660	--
364114	961927	--	--	116,000	137,000	7,120	1,590	--
364114	964829	--	--	251,000	222,000	21,800	2,940	--
364240	963826	--	7.4	91,800	125,000	6,400	945	--
364350	960842	--	--	151,000	170,000	9,430	1,760	--
364350	964933	--	--	247,000	217,000	21,500	2,890	--
364401	963741	--	--	19,400	--	1,250	226	--
364403	963619	--	6.6	200,000	167,000	13,700	2,760	--
364450	961230	15.0	7.8	1,490	2,700	11	2.8	39
364450	961230	15.0	7.8	1,490	2,700	11	2.8	39
364541	964619	--	--	280,000	--	10,700	7,060	--
364619	964151	--	6.4	32,100	--	1,580	439	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
	Osage County, Oklahoma								
363048	962806	58,500	--	--	123,000	--	45.1	55.0	--
363048	962806	39,400	--	--	81,800	109	136	166	--
363048	963015	57,700	--	--	121,000	226	16.6	20.2	--
363220	962259	150	--	1.1	--	53.0	220	--	--
363301	961626	47,700	--	--	100,000	100	80.4	98.0	--
363324	962453	53,700	--	--	103,000	32.1	51.7	63.1	--
363417	961055	44,700	--	--	87,100	162	16.1	19.6	--
363509	960951	40,300	--	--	79,100	21.7	21.3	26.0	--
363509	961513	63,000	--	--	132,000	23.8	34.3	41.9	--
363509	963537	63,500	--	--	138,000	75.0	21.4	26.1	--
363510	961830	240	--	1.5	54.0	53.0	423	420	--
363601	962554	58,500	--	--	124,000	150	59.0	72.0	--
363601	963430	51,600	--	--	110,000	286	122	149	--
363610	961825	67.0	--	--	110	150	215	262	58.0
363653	962136	62,400	--	--	129,000	--	77.8	94.9	--
363653	962803	61,200	--	--	127,000	98.0	61.9	75.5	--
363653	962803	63,600	--	--	131,000	65.5	44.5	54.2	--
363745	970018	87,600	--	--	179,000	--	5.7	7.0	--
363750	961715	160	--	--	43.0	86.0	394	480	0.1
363815	965215	64,100	--	--	138,000	85.0	64.8	79.0	--
363837	963639	68,100	--	--	145,000	108	42.1	51.3	--
363929	960529	56,500	--	--	115,000	--	149	182	--
363929	961927	61,400	--	--	123,000	414	107	131	--
363929	964057	68,600	--	--	147,000	85.7	62.8	76.6	--
364022	963639	61,700	--	--	135,000	264	45.6	55.6	--
364022	964724	70,600	--	--	153,000	290	92.4	113	--
364022	964933	70,500	--	--	146,000	--	47.8	58.3	--
364022	965247	73,900	--	--	161,000	128	37.9	46.2	--
364022	965705	78,300	--	--	164,000	--	14.2	17.3	--
364114	961927	35,400	--	--	71,700	88.3	108	131	--
364114	964829	70,400	--	--	156,000	218	5.7	6.9	--
364240	963826	26,700	--	143	57,500	7.0	142	173	--
364350	960842	46,300	--	--	93,000	160	33.2	40.5	--
364350	964933	69,100	--	--	153,000	140	57.5	70.1	--
364401	963741	5,910	--	--	11,800	14.0	284	346	--
364403	963619	59,500	--	--	124,000	118	41.8	51.0	--
364450	961230	600	--	--	640	17.0	358	437	--
364450	961230	600	--	3.8	640	17.0	367	447	--
364541	964619	87,200	--	--	173,000	1,310	42.6	52.0	--
364619	964151	10,200	--	--	19,800	18.0	73.8	90.0	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
		Osage County, Oklahoma				
364719	960529	27N-11E-26	325MRMN	--	1,060	2/16/1953
364719	960738	27N-11E-28	325CHRK	--	1,710	4/ 8/1954
364719	960947	27N-11E-30	324CHAT	--	1,840	4/29/1954
364719	961156	27N-10E-26	325CHRK	--	1,920	4/ 9/1954
364811	961927	27N-09E-22	325CHRK	--	2,120	10/ 6/1953
364903	962803	27N-08E-17	330MSSP	--	2,360	4/13/1954
365006	964358	--	325CHRK	3,090	2,200	1/ 5/1953
365047	963012	27N-07E-01	325FRSC	--	2,440	4/ 9/1954
365230	963420	28N-07E-29 DDA	322VMOS	900	--	3/26/1975
365257	962641	--	367ABCK	2,970	--	3/23/1942
365324	963326	28N-07E-21	324CHAT	--	2,720	4/13/1954
365334	963334	--	324CHAT	3,100	--	6/ 4/1958
365414	961540	--	322VMOS	--	45.7	7/ 5/1978
365510	961900	28N-09E-15 DAC	322VMOS	160	--	3/12/1975
365510	961900	28N-09E-15 DAC	322VMOS	160	--	3/12/1975
365516	962726	28N-08E-08 DDA	322VMOS	500	--	3/ 6/1975
365736	963641	--	324CHAT	--	2,900	10/ 9/1955
365817	961320	--	324CHAT	1,930	1,910	4/10/1956
365829	960112	--	324CHAT	2,030	1,620	5/ 8/1965
365829	960112	--	324CHAT	2,030	1,920	5/11/1965
		Ottawa County, Oklahoma				
364110	945801	--	367RBDX	--	--	7/29/1944
364500	945050	--	367RBDX	--	--	9/ 6/1951
365100	945030	--	367RBDX	--	--	5/ 1/1948
365206	945222	28N-23E-31 BAC	367RBDX	1,260	--	7/15/1981
365323	945307	--	367ABCK	--	--	9/ 3/1942
365326	945250	--	367RBDX	--	--	3/30/1959
365326	945314	--	367RBDX	--	--	3/30/1959
365326	945314	--	367RBDX	--	--	3/30/1959
365600	945300	--	367ABCK	--	--	9/ 6/1951
365610	945303	--	367RBDX	--	--	3/30/1959
365710	944710	--	367RBDX	--	--	4/15/1947
365710	945245	--	367ABCK	--	--	9/12/1942
365719	944935	29N-23E-33 BBD	331BOON	--	--	2/27/1981
365800	944617	29N-23E-25 BDB	367RBDX	1,350	--	7/ 7/1981
365900	945000	--	367ABCK	--	--	9/ 6/1951
365900	945000	29N-23E-21 BBC	367RBDX	1,080	--	9/ 6/1951
365901	945003	--	367RBDX	--	--	4/28/1948

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
	Osage County, Oklahoma							
364719	960529	--	--	116,000	139,000	6,240	2,080	--
364719	960738	--	--	168,000	179,000	11,000	1,910	--
364719	960947	--	--	149,000	164,000	6,950	2,170	--
364719	961156	--	--	165,000	175,000	9,940	1,780	--
364811	961927	--	--	177,000	167,000	10,600	2,160	--
364903	962803	--	--	196,000	196,000	12,700	2,590	--
365006	964358	--	--	50,800	--	1,290	541	--
365047	963012	--	--	189,000	192,000	11,700	2,490	--
365230	963420	12.5	--	2,290	4,000	8.1	3.4	34
365257	962641	--	--	162,000	--	9,940	2,150	--
365324	963326	--	--	168,000	175,000	9,980	2,160	--
365334	963334	--	7.0	151,000	--	8,870	1,930	--
365414	961540	23.5	7.2	--	450	55.9	25	--
365510	961900	18.0	9.0	542	893	1.8	0.1	5
365510	961900	18.0	9.0	542	893	1.8	0.1	5
365516	962726	12.0	8.5	1,140	2,070	4.7	2	20
365736	963641	--	--	124,000	137,000	6,310	1,560	--
365817	961320	--	6.9	122,000	141,000	6,350	1,800	--
365829	960112	--	7.0	141,000	139,000	5,630	1,480	--
365829	960112	--	7.4	114,000	120,000	4,190	1,460	--
	Ottawa County, Oklahoma							
364110	945801	--	8.2	795	--	43	20	190
364500	945050	--	8.1	387	613	32	15	140
365100	945030	--	--	338	541	30	16	140
365206	945222	22.4	7.9	360	705	33	15	140
365323	945307	--	--	311	--	37	16	160
365326	945250	--	7.8	379	625	38	12	140
365326	945314	--	7.7	231	308	29	11	120
365326	945314	--	7.7	251	316	31	12	130
365600	945300	--	7.9	207	277	28	13	120
365610	945303	--	7.8	171	300	32	12	130
365710	944710	--	--	548	920	40	20	180
365710	945245	--	--	203	--	29	14	130
365719	944935	17.0	8.2	--	525	93	10	270
365800	944617	21.2	7.0	1,170	1,430	170	76	740
365900	945000	--	8.1	171	300	29	14	130
365900	945000	--	8.1	171	300	29	14	130
365901	945003	--	--	222	303	30	16	140

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
	Osage County, Oklahoma								
364719	960529	35,800	--	--	72,200	--	69.8	85.1	--
364719	960738	51,000	--	--	104,000	292	16.3	19.8	--
364719	960947	47,700	--	--	92,200	--	121	148	--
364719	961156	51,300	--	--	102,000	188	31.6	38.5	--
364811	961927	54,900	--	--	110,000	107	60.8	74.1	--
364903	962803	59,200	--	--	121,000	94.3	141	172	--
365006	964358	17,700	--	--	30,900	274	91.0	111	--
365047	963012	57,900	--	--	117,000	17.8	100	123	--
365230	963420	860	--	3.2	860	220	459	560	--
365257	962641	49,500	--	--	100,000	53.0	51.7	63.0	--
365324	963326	52,000	--	--	104,000	182	74.4	90.8	--
365334	963334	46,900	--	--	93,600	51.0	137	167	--
365414	961540	76.3	--	3.7	32.0	136	210	--	--
365510	961900	210	--	--	63.0	56.0	317	386	--
365510	961900	210	--	1.1	63.0	56.0	317	386	--
365516	962726	440	--	2.7	440	20.0	340	411	--
365736	963641	--	40,900	--	74,900	33.0	54.1	66.0	--
365817	961320	38,400	--	--	75,500	3.0	300	366	--
365829	960112	46,800	--	190	86,500	6.0	184	224	--
365829	960112	37,600	--	349	70,000	5.0	217	265	--
	Ottawa County, Oklahoma								
364110	945801	--	220	--	360	16.0	140	170	0.2
364500	945050	--	71.0	4.1	100	15.0	140	170	0.2
365100	945030	--	61.0	--	94.0	15.0	123	150	0.4
365206	945222	86.0	--	3.4	130	16.0	158	--	--
365323	945307	--	42.0	--	78.0	12.0	130	150	0.2
365326	945250	--	68.0	3.2	110	13.0	123	150	--
365326	945314	--	22.0	2.9	12.0	14.0	131	160	0.1
365326	945314	--	19.0	2.9	14.0	30.0	131	160	0.1
365600	945300	--	9.6	2.2	8.0	16.0	123	150	0.2
365610	945303	15.0	--	2.8	12.0	13.0	130	150	0.2
365710	944710	--	120	--	210	19.0	131	160	--
365710	945245	--	12.0	--	16.0	13.0	120	140	0.1
365719	944935	10.0	--	2.0	10.0	184	--	170	0.1
365800	944617	50.0	--	3.7	78.0	560	240	--	--
365900	945000	12.0	--	1.9	16.0	16.0	123	150	0.2
365900	945000	12.0	--	1.9	16.0	16.0	119	145	0.2
365901	945003	--	14.0	--	23.0	18.0	123	150	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
		Ottawa County, Oklahoma				
365905	944946	29N-23E-21 BBC	367RBDX	1,125	--	4/28/1948
		Pawnee County, Oklahoma				
360624	963000	20N-07E-01 DAD	322VMOS	90	--	4/ 9/1975
360905	964737	19N-05E-05	325CHRK	--	3,240	5/19/1954
360957	964633	20N-05E-33	325CHRK	--	3,270	7/13/1953
360957	964633	20N-05E-33	323KSSC	--	2,770	7/13/1953
360957	964633	20N-05E-33	364SMPS	--	3,670	7/13/1953
361356	962954	20N-08E-06 CCC	322VMOS	--	--	4/10/1975
361510	962453	21N-08E-35	323KSSC	--	1,240	2/15/1954
362240	963205	22N-07E-15 DDD	322ADA	160	--	8/ 1/1973
362443	965915	22N-03E-04	323KSSC	--	2,740	2/ 3/1954
362443	965915	22N-03E-04	364SMPS	--	3,850	2/ 3/1954
362556	965629	--	364SMPS	3,900	--	8/19/1943
362627	965706	23N-03E-26	325CHRK	--	3,500	2/ 3/1954
362633	965653	--	364TYNR	3,940	--	5/22/1945
362646	965630	--	364SMPS	3,890	--	10/14/1942
		Payne County, Oklahoma				
355655	965505	17N-04E-18	364SMPS	--	4,340	3/18/1954
355700	965443	--	361VIOL	4,390	4,350	10/20/1952
355700	965443	--	364SMPS	4,390	4,340	12/ 8/1952
355700	965443	--	361VIOL	4,390	4,340	11/10/1953
355700	965443	--	361VIOL	4,390	4,340	3/18/1954
355747	971209	17N-01E-09	364SMPS	--	5,110	2/16/1954
355747	971234	--	361VIOL	5,180	5,110	2/16/1954
355758	964159	17N-06E-07 DDC	322VNSS	203	--	4/10/1980
355855	964510	17N-05E-03 ACB	322VMOS	697	--	10/15/1975
355931	964344	--	322VNSS	--	186	12/28/1977
355931	964737	18N-05E-32	324STRN	--	3,250	5/20/1954
355949	970838	--	361VIOL	5,090	--	4/ 4/1942
355949	970838	--	344HNTN	5,090	--	4/11/1942
355950	964356	18N-05E-35 AAD	322VNSS	180	--	4/10/1980
360023	971105	18N-01E-27	325CHRK	--	4,740	2/16/1954
360101	964243	--	322VNSS	--	238	6/19/1978
360205	970806	--	364SMPS	4,730	4,700	2/16/1954
360205	970822	--	364SMPS	4,890	--	9/29/1969
360207	970753	18N-02E-18	364SMPS	--	4,700	1/18/1955

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
	Ottawa County, Oklahoma							
365905	944946	--	--	178	303	30	16	140
	Pawnee County, Oklahoma							
360624	963000	17.0	--	2,220	2,880	390	130	1,500
360905	964737	--	--	220,000	208,000	17,500	3,360	--
360957	964633	--	--	210,000	196,000	11,300	2,380	--
360957	964633	--	--	214,000	196,000	13,000	2,610	--
360957	964633	--	--	215,000	196,000	11,300	2,040	--
361356	962954	15.0	--	1,200	1,650	140	110	800
361510	962453	--	--	118,000	149,000	5,870	2,320	--
362240	963205	--	8.4	745	1,320	3.7	1.2	14
362443	965915	--	--	244,000	213,000	17,400	2,620	--
362443	965915	--	--	244,000	208,000	16,200	2,590	--
362556	965629	--	--	214,000	--	14,200	2,210	--
362627	965706	--	--	267,000	217,000	21,600	2,710	--
362633	965653	--	--	214,000	--	13,800	2,410	--
362646	965630	--	--	214,000	--	13,900	2,360	--
	Payne County, Oklahoma							
355655	965505	--	--	209,000	200,000	10,200	2,650	--
355700	965443	--	6.3	185,000	179,000	8,610	2,000	--
355700	965443	--	6.6	186,000	294,000	7,720	2,080	--
355700	965443	--	6.7	182,000	185,000	8,790	2,350	--
355700	965443	--	--	209,000	161,000	10,200	2,650	--
355747	971209	--	--	240,000	217,000	12,800	2,570	--
355747	971234	--	--	240,000	167,000	12,800	2,570	--
355758	964159	20.5	8.3	296	539	7.4	1.4	24
355855	964510	20.0	--	370	575	37	3.8	110
355931	964344	12.5	7.1	--	1,640	113	70.1	--
355931	964737	--	--	204,000	204,000	13,600	2,960	--
355949	970838	--	--	206,000	--	10,800	2,380	--
355949	970838	--	--	119,000	--	7,620	1,440	--
355950	964356	22.5	7.3	548	990	63	26	270
360023	971105	--	--	281,000	175,000	19,900	2,900	--
360101	964243	24.0	7.6	--	1,710	136	31.9	--
360205	970806	--	--	235,000	167,000	13,400	2,760	--
360205	970822	--	5.8	196,000	--	10,600	2,110	--
360207	970753	--	--	235,000	213,800	13,400	2,760	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
	Ottawa County, Oklahoma								
365905	944946	--	14.0	--	23.0	18.0	121	147	--
	Pawnee County, Oklahoma								
360624	963000	110	--	4.5	270	970	339	413	--
360905	964737	62,100	--	--	136,000	241	40.1	48.8	--
360957	964633	66,700	--	--	130,000	288	22.2	27.0	--
360957	964633	65,900	--	--	132,000	--	37.1	45.2	--
360957	964633	69,000	--	--	132,000	258	39.8	48.6	--
361356	962954	74.0	--	3.5	80.0	450	399	487	--
361510	962453	36,300	--	--	72,700	554	72.4	88.3	--
362240	963205	290	--	--	220	53.0	281	326	--
362443	965915	72,700	--	--	150,000	520	60.2	73.4	--
362443	965915	74,300	--	--	150,000	642	63.0	76.8	--
362556	965629	65,100	--	--	132,000	462	85.3	104	--
362627	965706	77,100	--	--	165,000	393	78.9	96.3	--
362633	965653	65,500	--	--	132,000	270	29.5	36.0	--
362646	965630	65,100	--	--	132,000	629	62.3	76.0	--
	Payne County, Oklahoma								
355655	965505	67,000	--	--	129,000	388	50.9	62.1	--
355700	965443	60,100	--	--	114,000	298	82.0	100	--
355700	965443	61,300	--	--	114,000	313	92.7	113	--
355700	965443	58,400	--	--	112,000	432	58.2	71.0	--
355700	965443	67,000	--	--	129,000	388	50.8	62.0	--
355747	971209	76,600	--	--	147,000	516	106	129	--
355747	971234	76,600	--	--	147,000	515	106	129	--
355758	964159	110	--	1.5	6.5	18.0	230	--	--
355855	964510	90.0	--	2.6	6.5	98.0	182	222	--
355931	964344	180	--	--	--	260	314	--	--
355931	964737	60,800	--	--	126,000	250	85.0	104	--
355949	970838	65,400	--	--	127,000	382	82.8	101	--
355949	970838	36,100	--	--	73,200	311	95.9	117	--
355950	964356	95.0	--	1.9	38.0	140	280	--	--
360023	971105	84,400	--	--	174,000	178	53.5	65.3	--
360101	964243	242	--	4.0	--	38.0	162	--	--
360205	970806	73,600	--	--	145,000	379	73.8	90.0	--
360205	970822	62,200	--	--	121,000	225	34.4	42.0	--
360207	970753	73,600	--	--	145,000	380	73.9	90.1	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
		Payne County, Oklahoma				
360300	964425	18N-05E-11	325CHRK	--	2,910	5/20/1944
360300	964633	18N-05E-09	364SMPS	--	3,550	6/ 7/1954
360316	964352	18N-05E-12 BCB	322VNSS	81	--	4/16/1980
360329	964404	18N-05E-11 AAB	322VNSS	140	--	4/16/1980
360350	970822	--	361VIOL	5,020	4,900	2/16/1954
360352	970753	18N-02E-06	361VIOL	--	4,920	2/16/1954
360437	971858	--	310WLNG	--	73.1	6/ 1/1978
360444	965609	19N-03E-36	325CHRK	--	3,770	5/20/1954
360536	964425	19N-05E-26	325CHRK	--	3,210	5/20/1954
360628	964425	19N-05E-23	325LBTT	--	2,810	5/20/1954
360628	970649	19N-02E-20	364SMPS	--	4,740	2/ 5/1954
360628	971938	19N-01W-20	325CHRK	--	4,890	2/ 5/1954
360633	971909	--	325CHRK	4,910	4,890	2/ 5/1954
360720	964737	19N-05E-17	364SMPS	--	3,870	2/20/1953
360720	965609	19N-03E-13	325CHRK	--	3,740	2/ 5/1954
360720	970649	19N-02E-17	340HNTN	--	4,520	2/ 5/1954
360720	971625	19N-01W-14	364SMPS	--	4,960	2/16/1954
360729	971653	--	361VIOL	5,080	4,960	2/16/1954
360812	964529	19N-05E-10	364SMPS	--	3,580	7/13/1953
360817	971844	--	325CHRK	4,950	4,880	2/16/1954
360823	971938	--	340MSNR	5,010	4,830	2/ 4/1953
360843	971852	--	364SMPS	4,990	4,930	2/16/1954
360905	964841	19N-05E-06	325MRMN	--	2,870	5/19/1954
360905	965921	19N-03E-04	325CHRK	--	4,000	5/19/1954
360957	965257	20N-04E-33	325CHRK	--	3,620	5/19/1954
361049	964945	20N-04E-25	324STRN	--	3,530	5/19/1954
361112	965010	--	324STRN	4,010	3,530	5/19/1954
361141	965049	20N-04E-23	340MSNR	--	3,930	5/19/1954
361348	970551	--	323KSSC	5,940	--	10/ 1/1957
		Pittsburg County, Oklahoma				
344660	955129	--	327UNVL	12,600	12,600	3/ 7/1963
344660	955129	--	327UNVL	12,600	10,300	6/12/1963
350104	953336	06N-16E-01 DDA	325BGGY	74	--	8/23/1976
350304	953403	07N-16E-25 ACC	325BGGY	72	--	8/18/1976
350328	953248	07N-17E-30 AAB	325BGGY	46	--	8/19/1976
350329	953411	07N-16E-25 BAA	325BGGY	97	--	8/18/1976
350330	953230	07N-17E-20 CCC	325BGGY	102	--	8/19/1976
350331	953449	07N-16E-26 ABA	325BGGY	30	--	8/20/1976

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Payne County, Oklahoma								
360300	964425	--	--	200,000	192,000	12,500	2,480	--
360300	964633	--	--	207,000	200,000	11,000	2,790	--
360316	964352	24.0	7.0	1,070	2,100	220	56	780
360329	964404	22.0	6.9	7,480	12,900	690	190	2,500
360350	970822	--	--	199,000	156,000	12,600	1,920	--
360352	970753	--	--	199,000	200,000	12,600	1,920	--
360437	971858	25.0	7.5	--	1,180	51.5	22	--
360444	965609	--	--	245,000	213,000	19,100	2,610	--
360536	964425	--	--	178,000	179,000	12,800	1,770	--
360628	964425	--	--	129,000	152,000	8,140	1,530	--
360628	970649	--	--	244,000	208,000	15,100	2,990	--
360628	971938	--	--	256,000	222,000	19,900	2,550	--
360633	971909	--	--	256,000	175,000	19,900	2,550	--
360720	964737	--	--	198,000	189,000	12,300	2,460	--
360720	965609	--	--	242,000	213,000	18,900	2,570	--
360720	970649	--	--	242,000	208,000	15,000	2,860	--
360720	971625	--	--	246,000	217,000	14,700	2,790	--
360729	971653	--	--	246,000	175,000	14,700	2,790	--
360812	964529	--	--	213,000	196,000	11,600	2,250	--
360817	971844	--	--	263,000	179,000	17,200	2,900	--
360823	971938	--	6.1	264,000	213,000	15,000	2,700	--
360843	971852	--	--	252,000	170,000	15,700	2,790	--
360905	964841	--	--	202,000	204,000	12,000	2,810	--
360905	965921	--	--	210,000	200,000	16,900	2,480	--
360957	965257	--	--	238,000	222,000	18,900	2,920	--
361049	964945	--	--	263,000	227,000	20,400	3,500	--
361112	965010	--	--	263,000	175,000	20,400	3,500	--
361141	965049	--	--	212,000	208,000	11,400	3,660	--
361348	970551	--	4.8	243,000	208,000	17,500	2,700	--
Pittsburg County, Oklahoma								
344660	955129	--	6.2	21,100	32,900	2,010	172	--
344660	955129	--	6.5	3,880	5,200	312	19	--
350104	953336	19.5	7.0	574	970	68	36	320
350304	953403	25.0	8.8	290	470	3.7	0.7	12
350328	953248	24.0	7.2	313	520	31	19	160
350329	953411	19.5	7.8	560	930	2.6	1.8	14
350330	953230	19.0	7.9	398	660	18	5.9	69
350331	953449	18.5	7.6	1,810	2,690	120	120	790

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
	Payne County, Oklahoma								
360300	964425	61,400	--	--	124,000	375	72.8	88.8	--
360300	964633	65,000	--	--	128,000	456	25.0	30.5	--
360316	964352	110	--	1.5	540	--	190	--	--
360329	964404	1,800	--	3.6	4,600	16.0	200	--	--
360350	970822	61,500	--	--	122,000	543	66.4	81.0	--
360352	970753	61,500	--	--	122,000	544	67.1	81.8	--
360437	971858	179	--	1.6	--	99.0	378	--	--
360444	965609	71;600	--	--	152,000	93.1	82.0	100	--
360536	964425	53,300	--	--	110,000	186	44.7	54.5	--
360628	964425	40,000	--	--	80,200	406	48.1	58.7	--
360628	970649	74,600	--	--	150,000	680	62.9	76.7	--
360628	971938	75,100	--	--	158,000	212	17.0	20.8	--
360633	971909	75,100	--	--	158,000	212	16.4	20.0	--
360720	964737	60,700	--	--	122,000	310	28.5	34.8	--
360720	965609	70,800	--	--	150,000	--	38.5	47.0	--
360720	970649	74,300	--	--	149,000	544	65.8	80.2	--
360720	971625	76,500	--	--	152,000	540	29.2	35.6	--
360729	971653	76,500	--	--	152,000	539	28.7	35.0	--
360812	964529	67,500	--	--	131,000	253	22.2	27.1	--
360817	971844	80,100	--	--	162,000	473	25.4	31.0	--
360823	971938	83,200	--	367	163,000	345	45.9	56.0	--
360843	971852	77,900	--	--	156,000	484	63.1	77.0	--
360905	964841	62,000	--	--	125,000	373	36.9	45.0	--
360905	965921	60,300	--	--	130,000	343	38.0	46.3	--
360957	965257	68,600	--	--	148,000	--	--	--	--
361049	964945	75,900	--	--	163,000	223	43.6	53.2	--
361112	965010	75,900	--	--	163,000	223	43.5	53.0	--
361141	965049	65,000	--	--	131,000	200	45.4	55.4	--
361348	970551	71,000	--	315	151,000	590	55.8	68.0	--
	Pittsburg County, Oklahoma								
344660	955129	5,580	--	310	12,900	30.0	157	192	--
344660	955129	1,150	--	16.0	2,110	35.0	381	465	--
350104	953336	82.0	--	1.6	30.0	140	327	399	--
350304	953403	110	--	0.4	3.4	7.8	240	292	--
350328	953248	61.0	--	1.5	11.0	14.0	257	313	--
350329	953411	220	--	0.7	47.0	18.0	417	509	--
350330	953230	130	--	1.0	41.0	14.0	279	340	--
350331	953449	330	--	3.5	190	870	276	337	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
Pittsburg County, Oklahoma						
350347	953541	07N-16E-23 CBB	325BGGY	65	--	8/19/1976
350426	953231	07N-17E-17 CCC	325BGGY	84	--	8/19/1976
350431	953359	07N-16E-13 DCB	325BGGY	123	--	8/19/1976
Pontotoc County, Oklahoma						
343100	965030	01N-04E-36 BBA	367ABCK	2,300	--	9/23/1956
343120	964545	01N-05E-27 DCC	367ABCK	2,500	--	2/ 6/1959
343235	963950	--	367KDBD	--	152	4/29/1978
343241	963602	01N-07E-19 ADA	364SMPS	--	--	11/15/1977
343525	964210	01N-06E-05 BBC	367ABCK	668	--	10/ 3/1956
343530	964700	01N-05E-04 BAA	367ABCK	300	--	10/ 3/1956
343530	964915	01N-05E-06 BAA	367ABCK	300	--	10/ 3/1956
343537	963348	--	326ATCK	4,140	546	7/ 0/1964
343538	964128	--	322VNSS	--	213	4/29/1978
343555	964505	02N-05E-35 CAB	367ABCK	300	--	10/ 3/1956
343600	963930	02N-06E-34 ACA	364SMPS	520	--	5/ 3/1951
343605	964320	02N-05E-36 DAD	367ABCK	2,050	--	9/23/1956
343657	963321	02N-07E-27	364BRMD	--	4,090	3/20/1953
343657	963321	02N-07E-27	327UNVL	--	2,470	3/20/1953
343749	963321	02N-07E-22	340HNTN	--	3,440	3/20/1953
343749	963321	02N-07E-22	325MCAL	--	1,360	3/20/1953
343802	964420	--	325BGGY	--	9.1	4/29/1978
343815	963820	02N-06E-14 DCD	364SMPS	995	--	9/23/1956
343815	965005	02N-04E-13 DCC	364SMPS	500	--	9/23/1956
343827	963618	--	325MCAL	2,180	--	3/12/1969
343827	963618	--	325MCAL	2,180	--	3/31/1969
343929	964626	--	322ADA	--	213	4/30/1978
344538	963630	03N-07E-06	320PSLV	--	1,160	10/28/1954
344630	963630	04N-07E-31	324STRN	--	1,300	6/ 3/1954
344814	963527	04N-07E-20	326ATCK	--	1,570	6/ 3/1954
344814	963630	04N-07E-19	325SNOR	--	1,300	6/ 3/1954
344832	963654	--	323SMNL	--	232	5/ 4/1978
344906	963115	04N-07E-13	326ATCK	--	1,500	6/ 3/1954
344906	964042	04N-06E-16	325CLVN	--	1,070	6/ 2/1954
344958	963115	04N-07E-12	326ATCK	--	1,940	6/ 3/1954
344958	964557	04N-05E-10	325CLVN	--	1,330	6/ 2/1954
345144	963208	05N-07E-35	326ATCK	--	2,400	6/13/1954
345144	963724	05N-06E-36	326ATCK	--	2,030	6/ 3/1954
345144	963724	05N-06E-36	325TRMN	--	1,530	6/ 3/1954

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Pittsburg County, Oklahoma								
350347	953541	20.0	6.9	366	620	51	9.5	170
350426	953231	19.5	7.2	442	740	33	14	140
350431	953359	19.5	7.0	923	1,390	100	90	620
Pontotoc County, Oklahoma								
343100	965030	10.0	7.9	356	614	72	41	350
343120	964545	--	8.2	279	511	42	47	300
343235	963950	19.5	7.6	--	910	120	74.7	--
343241	963602	18.0	7.3	461	790	85	40	380
343525	964210	10.0	7.5	368	652	86	40	380
343530	964700	13.0	7.8	308	575	72	37	330
343530	964915	13.0	7.8	292	541	68	35	320
343537	963348	--	7.4	6,550	9,800	25	28	--
343538	964128	19.0	7.4	--	650	83.9	49.5	--
343555	964505	13.0	7.9	246	464	42	37	260
343600	963930	--	7.9	357	608	81	39	360
343605	964320	13.0	8.0	332	596	78	34	340
343657	963321	--	--	168,000	170,000	8,600	2,170	--
343657	963321	--	--	114,000	135,000	4,880	1,490	--
343749	963321	--	--	177,000	192,000	9,360	2,050	--
343749	963321	--	--	101,000	120,000	4,680	1,640	--
343802	964420	23.0	7.0	--	570	87.2	21	--
343815	963820	15.5	8.0	340	577	16	11	84
343815	965005	16.0	7.9	316	553	72	32	310
343827	963618	--	7.4	35,200	53,500	1,390	596	--
343827	963618	--	6.4	--	70,400	1,860	832	--
343929	964626	18.5	7.7	--	520	88.6	16.8	--
344538	963630	--	--	65,400	69,000	1,990	970	--
344630	963630	--	--	72,200	98,000	2,270	992	--
344814	963527	--	--	92,800	112,000	4,130	1,670	--
344814	963630	--	--	96,100	120,000	4,390	1,660	--
344832	963654	14.5	8.2	--	1,660	7.6	4.7	--
344906	963115	--	--	94,000	120,000	4,270	1,630	--
344906	964042	--	--	53,900	75,200	1,550	607	--
344958	963115	--	--	112,000	135,000	5,580	2,170	--
344958	964557	--	--	26,800	46,300	392	282	--
345144	963208	--	--	120,000	145,000	5,540	2,600	--
345144	963724	--	--	92,900	122,000	3,990	1,360	--
345144	963724	--	--	78,500	108,000	3,240	1,220	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Pittsburg County, Oklahoma									
350347	953541	67.0	--	1.0	35.0	56.0	215	262	--
350426	953231	110	--	1.7	49.0	32.0	298	363	--
350431	953359	88.0	--	2.9	9.3	400	354	431	--
Pontotoc County, Oklahoma									
343100	965030	3.6	--	1.2	11.0	7.4	312	380	--
343120	964545	7.0	--	1.4	1.7	4.5	282	344	--
343235	963950	3.9	--	1.0	--	13.0	595	--	--
343241	963602	31.0	--	2.6	62.0	30.0	330	400	--
343525	964210	3.9	--	1.5	5.9	10.0	367	448	--
343530	964700	5.2	--	1.8	3.7	7.2	331	404	--
343530	964915	2.6	--	1.0	5.2	3.9	308	376	--
343537	963348	2,590	--	--	2,520	24.0	2,240	2,730	--
343538	964128	2.5	--	0.8	--	8.0	410	--	--
343555	964505	4.1	--	1.2	4.4	6.2	266	324	--
343600	963930	4.3	--	0.8	5.5	8.6	343	418	--
343605	964320	7.2	--	1.5	3.6	8.0	341	416	--
343657	963321	53,300	--	--	104,000	279	41.6	50.7	--
343657	963321	37,100	--	--	70,000	--	271	330	--
343749	963321	56,300	--	--	109,000	376	116	142	--
343749	963321	32,000	--	--	62,500	28.8	42.9	52.3	--
343802	964420	6.9	--	--	--	5.0	305	--	--
343815	963820	108	--	3.3	4.6	8.2	323	394	--
343815	965005	15.0	--	1.6	4.4	16.0	312	380	--
343827	963618	11,300	--	--	21,800	3.0	188	229	--
343827	963618	15,600	--	--	30,000	--	278	339	--
343929	964626	9.0	--	2.5	--	7.0	280	--	--
344538	963630	22,000	--	--	40,300	--	52.3	63.8	--
344630	963630	24,400	--	--	44,500	--	42.1	51.3	--
344814	963527	29,400	--	--	57,600	--	29.6	36.1	--
344814	963630	30,500	--	--	59,500	--	92.7	113	--
344832	963654	355	--	--	--	371	410	--	--
344906	963115	29,800	--	--	58,300	--	27.1	33.0	--
344906	964042	18,500	--	--	33,000	--	145	177	--
344958	963115	34,800	--	--	69,900	--	72.3	88.1	--
344958	964557	9,510	--	--	15,500	--	961	1,170	--
345144	963208	37,300	--	--	74,600	41.0	224	273	--
345144	963724	30,100	--	--	57,400	--	95.9	117	--
345144	963724	25,500	--	--	48,500	--	73.3	89.4	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
Pontotoc County, Oklahoma						
345144	963931	05N-06E-34	325TRMN	--	1,740	6/ 2/1954
345144	964447	05N-05E-35	361VIOL	--	2,920	6/ 2/1954
345144	964447	05N-05E-35	361VIOL	--	2,920	6/ 2/1954
345144	964550	05N-05E-34	361VIOL	--	2,860	6/ 2/1954
345144	964550	05N-05E-34	361VIOL	--	2,860	6/ 2/1954
345144	965003	05N-04E-36	361VIOL	--	2,560	6/ 2/1954
345205	964814	--	364SMPS	2,590	--	7/14/1971
345236	963724	05N-06E-25	325TRMN	--	1,630	6/ 3/1954
345236	964344	05N-05E-25	361VIOL	--	2,350	6/ 2/1954
345236	965313	05N-04E-28	340HNTN	--	2,410	6/ 2/1954
345328	964550	05N-05E-22	340HNTN	--	2,350	6/ 2/1954
345328	964653	05N-05E-21	361VIOL	--	2,560	6/ 2/1954
345513	965003	05N-04E-12	361VIOL	--	2,450	6/ 2/1954
345638	965548	--	3180SCR	--	82.3	4/21/1978
Pottawatomie County, Oklahoma						
345657	970758	06N-02E-31	364SMPS	--	5,380	9/ 3/1954
345706	970741	--	364SMPS	5,790	5,380	9/ 3/1954
345746	970018	--	361VIOL	4,420	4,020	10/ 4/1937
345749	964757	06N-05E-29	340HNTN	--	3,200	6/ 9/1954
345749	965003	06N-04E-25	364SMPS	--	3,370	6/ 9/1954
345749	965932	06N-03E-28	361VIOL	--	3,840	6/ 9/1954
345749	970035	06N-03E-29	323KSSC	--	3,100	6/ 9/1954
345807	965922	--	361VIOL	4,070	3,840	6/ 9/1954
345827	964731	--	325WWOK	2,800	--	12/30/1942
345841	964757	06N-05E-20	324STRN	--	2,750	6/ 9/1954
345841	965313	06N-04E-21	310PRMN	--	3,080	6/ 9/1954
345841	965519	06N-04E-19	361VIOL	--	3,600	6/ 9/1954
350113	965533	--	361VIOL	5,460	4,190	6/ 5/1952
350113	965533	--	361VIOL	5,460	4,190	8/14/1953
350118	964757	06N-05E-05	325CLVN	--	2,810	6/ 9/1954
350141	965942	--	310WLNG	--	162	1/ 3/1978
350210	964653	07N-05E-33	364SMPS	--	3,980	9/ 3/1953
350210	970139	07N-03E-31	325CLVN	--	4,240	6/ 9/1954
350302	965106	07N-04E-26	340HNTN	--	3,920	7/17/1953
350335	965908	--	364SMPS	5,000	4,820	6/ 9/1954
350354	964900	07N-05E-19	364SMPS	--	3,970	9/ 3/1953
350354	965106	07N-04E-23	325CLVN	--	3,120	9/ 3/1953
350354	965829	07N-03E-22	361VIOL	--	4,860	6/ 9/1954

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)	
Pontotoc County, Oklahoma									
345144	963931	--	--	89,600	112,000	3,930	1,450		--
345144	964447	--	--	24,600	40,500	481	244		--
345144	964447	--	--	24,600	40,500	481	244		--
345144	964550	--	--	12,800	20,600	212	93		--
345144	964550	--	--	12,800	20,600	212	93		--
345144	965003	--	--	13,100	22,500	260	113		--
345205	964814	--	8.2	6,650	12,200	56	29		--
345236	963724	--	--	98,600	128,000	4,290	1,520		--
345236	964344	--	--	8,530	14,400	153	60		--
345236	965313	--	--	58,700	82,600	5,090	915		--
345328	964550	--	--	12,300	19,800	159	93		--
345328	964653	--	--	30,200	51,800	2,840	410		--
345513	965003	--	--	67,400	94,300	3,230	1,060		--
345638	965548	18.5	7.3	--	530	75.2	30.6		--
Pottawatomie County, Oklahoma									
345657	970758	--	--	211,000	196,000	10,600	2,530		--
345706	970741	--	--	211,000	161,000	10,600	2,530		--
345746	970018	--	7.7	101,000	--	3,880	1,750		--
345749	964757	--	--	16,900	27,100	343	80		--
345749	965003	--	--	14,000	23,500	281	103		--
345749	965932	--	--	146,000	161,000	6,310	1,900		--
345749	970035	--	--	226,000	208,000	14,000	3,770		--
345807	965922	--	--	146,000	133,000	6,310	1,900		--
345827	964731	--	--	87,700	--	3,920	1,200		--
345841	964757	--	--	150,000	167,000	9,600	2,630		--
345841	965313	--	--	174,000	182,000	10,800	2,900		--
345841	965519	--	--	61,400	87,700	2,190	795		--
350113	965533	--	7.7	124,000	143,000	6,420	1,840		--
350113	965533	--	7.3	120,000	137,000	6,300	1,740		--
350118	964757	--	--	171,000	175,000	11,100	2,910		--
350141	965942	11.0	7.5	--	550	49.6	31.2		--
350210	964653	--	--	158,000	175,000	8,030	2,030		--
350210	970139	--	--	286,000	217,000	17,200	4,170		--
350302	965106	--	--	180,000	185,000	10,200	2,330		--
350335	965908	--	--	206,000	161,000	12,300	3,310		--
350354	964900	--	--	187,000	179,000	10,100	2,390		--
350354	965106	--	--	187,000	189,000	11,800	2,840		--
350354	965829	--	--	206,000	196,000	12,000	3,220		--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Pontotoc County, Oklahoma									
345144	963931	28,700	--	--	55,300	124	64.3	78.4	--
345144	964447	8,680	--	--	14,500	322	250	305	--
345144	964447	8,680	--	--	14,500	322	250	305	--
345144	964550	4,540	--	--	7,070	177	626	628	--
345144	964550	4,540	--	--	7,070	177	626	628	--
345144	965003	4,570	--	--	7,380	16.1	636	775	--
345205	964814	2,490	--	48.0	3,520	2.0	839	885	--
345236	963724	31,800	--	--	60,900	--	70.9	86.4	--
345236	964344	2,930	--	--	4,370	71.3	770	940	--
345236	965313	16,100	--	--	36,400	--	72.5	88.5	--
345328	964550	4,340	--	--	6,610	50.4	843	1,030	--
345328	964653	8,040	--	--	18,100	534	219	268	--
345513	965003	21,300	--	--	41,500	143	163	198	--
345638	965548	20.2	--	0.4	--	8.0	310	--	--
Pottawatomie County, Oklahoma									
345657	970758	67,300	--	--	130,000	361	107	131	--
345706	970741	67,300	--	--	130,000	360	107	130	--
345746	970018	32,900	--	--	62,400	337	101	123	--
345749	964757	6,040	--	--	9,680	--	661	671	--
345749	965003	4,920	--	--	7,880	173	527	642	--
345749	965932	47,400	--	--	89,500	305	186	226	--
345749	970035	67,700	--	--	140,000	314	28.9	35.3	--
345807	965922	47,400	--	--	89,500	304	185	226	--
345827	964731	28,400	--	--	54,200	58.0	27.1	33.0	--
345841	964757	44,600	--	--	93,300	170	--	--	--
345841	965313	52,400	--	--	108,000	118	10.0	12.2	--
345841	965519	20,500	--	--	37,700	--	176	215	--
350113	965533	39,200	--	--	76,900	135	77.1	94.0	--
350113	965533	40,700	--	--	70,700	83.0	202	246	--
350118	964757	50,800	--	--	106,000	89.8	44.5	54.3	--
350141	965942	52.8	--	--	--	13.0	264	--	--
350210	964653	50,100	--	--	97,200	246	159	121	--
350210	970139	87,500	--	--	177,000	113	--	--	--
350302	965106	56,000	--	--	111,000	357	54.7	66.7	--
350335	965908	62,500	--	--	127,000	620	61.5	75.0	--
350354	964900	58,800	--	--	115,000	821	50.3	61.3	--
350354	965106	56,300	--	--	116,000	116	50.2	61.3	--
350354	965829	62,800	--	--	127,000	439	77.5	94.5	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Lati-tude	Longi-tude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
Pottawatomie County, Oklahoma						
350538	970035	07N-03E-08	340HNTN	--	4,550	6/ 8/1954
350723	965003	08N-04E-36	364SMPS	--	4,210	6/ 9/1954
350735	964700	08N-05E-33 AAB	322VMOS	668	--	11/15/1974
350815	965519	08N-04E-30	340HNTN	--	4,340	6/ 9/1954
350815	965829	08N-03E-27	340HNTN	--	4,640	6/ 8/1954
350907	970345	08N-02E-23	364SMPS	--	5,680	6/ 8/1954
350959	964757	08N-05E-17	364SMPS	--	4,220	9/ 3/1953
350959	964900	08N-05E-18	340MSNR	--	4,070	7/17/1953
350959	965106	08N-04E-14	324STRN	--	3,830	6/ 9/1954
351051	964757	08N-05E-08	340MSNR	--	4,080	7/17/1953
351120	965757	--	364SMPS	5,360	--	1/13/1943
351143	970345	08N-02E-02	340HNTN	--	4,480	6/ 8/1954
351214	970353	--	344HNTN	5,770	4,860	6/ 8/1954
351238	970136	09N-03E-31	340HNTN	--	4,910	6/ 8/1954
351352	964740	09N-05E-29 ABA	322VNSS	41	--	10/ 1/1979
351413	965740	--	361VIOL	5,420	5,300	6/ 8/1954
351439	965031	--	364SMPS	4,550	--	5/10/1945
351447	965635	--	364SMPS	5,460	5,290	9/28/1954
351515	965618	09N-03E-13	364SMPS	--	5,290	9/28/1954
351607	970239	09N-02E-12	324STRN	--	4,990	6/ 8/1954
351718	965453	--	364SMPS	5,230	5,220	6/ 4/1954
351810	965017	--	361VIOL	4,510	--	12/15/1933
351815	964952	--	364SMPS	4,430	4,400	6/ 4/1956
351844	964957	10N-04E-25	364SMPS	--	4,410	6/ 4/1955
352213	964957	10N-04E-01	325WWOK	--	3,290	9/ 3/1953
352213	965049	--	364SMPS	4,850	4,850	9/ 3/1953
352213	965101	10N-04E-02	364SMPS	--	4,850	9/ 3/1953
352213	965411	10N-04E-05	324STRN	--	4,420	9/ 3/1953
352219	965009	--	325CHRK	4,160	4,120	9/ 3/1953
352220	965354	--	324STRN	4,460	4,420	9/ 3/1953
352443	965354	--	324STRN	5,590	5,590	11/ 5/1965
352448	964935	--	361VIOL	4,890	--	3/14/1951
352448	964935	--	361VIOL	4,890	4,010	5/19/1952
352502	964917	--	361VIOL	4,800	--	10/25/1949
352502	964917	--	361VIOL	4,800	4,600	5/19/1952
352516	965913	--	310WLNG	--	104	11/27/1977
352520	964923	--	361VIOL	5,010	4,740	10/12/1949
352520	964923	--	361VIOL	5,010	4,740	5/19/1952
352714	963954	--	322VNSS	--	152	1/ 5/1978

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Pottawatomie County, Oklahoma								
350538	970035	--	--	232,000	217,000	14,000	3,010	--
350723	965003	--	--	86,900	114,000	5,910	1,260	--
350735	964700	--	--	1,260	2,090	2	0.8	8
350815	965519	--	--	208,000	196,000	12,100	2,440	--
350815	965829	--	--	228,000	208,000	13,200	3,760	--
350907	970345	--	--	214,000	204,000	13,600	3,260	--
350959	964757	--	--	192,000	192,000	9,940	2,500	--
350959	964900	--	--	98,700	103,000	4,860	1,200	--
350959	965106	--	--	210,000	204,000	14,700	2,820	--
351051	964757	--	--	194,000	189,000	11,000	2,620	--
351120	965757	--	--	167,000	--	9,460	1,950	--
351143	970345	--	--	228,000	213,000	14,700	3,280	--
351214	970353	--	--	228,000	164,000	14,700	3,280	--
351238	970136	--	--	222,000	204,000	14,300	3,660	--
351352	964740	--	7.1	678	1,260	83	45	390
351413	965740	--	--	214,000	161,000	13,200	3,180	--
351439	965031	--	--	172,000	--	9,110	2,050	--
351447	965635	--	--	213,000	159,000	13,200	2,190	--
351515	965618	--	--	213,000	217,000	13,200	2,190	--
351607	970239	--	--	244,000	227,000	18,600	2,070	--
351718	965453	--	--	212,000	164,000	12,200	3,090	--
351810	965017	--	--	168,000	--	11,000	78	--
351815	964952	--	--	173,000	145,000	8,980	2,870	--
351844	964957	--	--	185,000	189,000	9,370	2,550	--
352213	964957	--	--	230,000	200,000	14,800	2,970	--
352213	965049	--	--	208,000	159,000	11,500	2,650	--
352213	965101	--	--	208,000	200,000	11,500	2,650	--
352213	965411	--	--	270,000	222,000	17,900	3,120	--
352219	965009	--	--	239,000	164,000	15,900	2,710	--
352220	965354	--	--	270,000	175,000	17,900	3,120	--
352443	965354	--	6.8	84,400	109,000	5,440	878	--
352448	964935	--	7.0	212,000	172,000	11,700	2,650	--
352448	964935	--	6.6	184,000	185,000	8,670	2,320	--
352502	964917	--	7.6	208,000	159,000	11,200	2,510	--
352502	964917	--	6.9	156,000	175,000	10,600	2,380	--
352516	965913	15.0	7.7	--	543	11.4	5.5	--
352520	964923	--	7.2	212,000	175,000	11,500	2,870	--
352520	964923	--	6.9	182,000	182,000	10,800	1,790	--
352714	963954	16.5	7.5	--	710	7	3	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Lati-tude	Longi-tude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Pottawatomie County, Oklahoma									
350538	970035	71,500	--	--	144,000	194	--	--	--
350723	965003	25,800	--	--	53,900	--	--	--	--
350735	964700	520	--	--	100	190	797	895	--
350815	965519	65,000	--	--	129,000	168	21.3	25.9	--
350815	965829	69,400	--	--	141,000	209	34.5	42.1	--
350907	970345	64,400	--	--	132,000	608	19.5	23.8	--
350959	964757	60,800	--	--	118,000	455	34.8	42.4	--
350959	964900	31,400	--	--	59,100	2,050	45.4	55.4	--
350959	965106	62,300	--	--	130,000	253	51.9	63.3	--
351051	964757	60,200	--	--	120,000	282	5.5	6.7	--
351120	965757	52,400	--	--	103,000	808	34.4	42.0	--
351143	970345	68,600	--	--	141,000	153	20.6	25.1	--
351214	970353	68,600	--	--	141,000	152	20.5	25.0	--
351238	970136	66,000	--	--	138,000	236	37.3	45.5	--
351352	964740	96.0	98.0	1.8	230	44.0	260	--	--
351413	965740	64,900	--	--	132,000	624	55.8	68.0	--
351439	965031	54,400	--	--	106,000	179	43.5	53.0	--
351447	965635	66,000	--	--	131,000	544	13.1	16.0	--
351515	965618	66,000	--	--	131,000	545	13.9	16.9	--
351607	970239	72,300	--	--	150,000	138	--	--	--
351718	965453	65,300	--	--	131,000	434	73.0	89.0	--
351810	965017	53,900	--	--	102,000	479	430	--	--
351815	964952	53,700	--	--	107,000	522	15.6	19.0	--
351844	964957	58,400	--	--	114,000	583	62.1	75.8	--
352213	964957	69,800	--	--	142,000	72.8	48.5	59.2	--
352213	965049	65,300	--	--	129,000	337	32.0	39.0	--
352213	965101	65,300	--	--	129,000	337	32.4	39.5	--
352213	965411	82,100	--	--	167,000	67.3	1.9	2.3	--
352219	965009	72,400	--	--	148,000	93.0	76.3	93.0	--
352220	965354	82,100	--	--	167,000	67.0	1.6	2.0	--
352443	965354	25,900	--	--	51,800	270	130	159	--
352448	964935	66,500	--	--	130,000	969	111	135	--
352448	964935	59,400	--	--	114,000	274	63.1	77.0	--
352502	964917	65,900	--	--	128,000	302	219	267	--
352502	964917	46,200	--	--	96,800	291	36.1	44.0	--
352516	965913	102	--	--	--	7.0	210	--	--
352520	964923	66,500	--	--	131,000	412	81.2	99.0	--
352520	964923	57,100	--	--	112,000	344	57.4	70.0	--
352714	963954	183	--	--	--	6.0	276	--	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
Roger Mills County, Oklahoma						
352660	995859	--	312DOXY	--	45.7	9/30/1978
353444	992613	--	312CDCF	--	64	9/ 9/1978
353448	992335	--	312CDCF	--	94.5	9/ 9/1978
354501	992646	15N-21W-28 B	312ELKC	55	--	4/17/1967
354749	992816	--	313RSPG	--	165	8/21/1978
354753	992534	--	312CDCF	--	6.1	8/22/1978
355020	992953	--	313RSPG	--	45.7	8/21/1978
Seminole County, Oklahoma						
345225	963810	05N-05E-25 DAD	322VMOS	236	--	11/12/1974
345605	963931	05N-06E-03	325TRMN	--	1,840	10/29/1954
345819	964156	--	327UNVL	4,360	--	4/13/1972
345902	964305	--	322VNSS	--	91.4	5/11/1978
345905	964348	06N-05E-24 ABB	322VNSS	78	--	1/30/1980
345930	964030	06N-06E-16 DDD	322VMOS	--	--	11/13/1974
345933	963105	06N-07E-13	364SMPS	--	4,090	7/16/1953
350014	963958	--	324STRN	3,880	2,500	10/29/1954
350025	963931	06N-06E-10	324STRN	--	2,500	10/29/1955
350141	963238	--	323NLBL	--	122	1/ 6/1978
350149	964058	07N-06E-33 CDC	322VNSS	235	--	10/ 4/1979
350210	963002	07N-08E-31	364SMPS	--	4,190	7/16/1953
350216	963900	--	326ATCK	3,220	--	12/ 4/1968
350220	964030	07N-06E-33 BDD	322VMOS	--	--	11/14/1974
350330	963835	07N-06E-23 BCB	322VMOS	321	--	11/15/1974
350426	964116	07N-06E-17 DDD	322VNSS	117	--	10/ 3/1979
350502	963840	--	364SMPS	6,180	4,170	9/10/1951
350509	963840	--	364SMPS	5,760	4,330	6/ 7/1962
350538	963827	07N-06E-11	327UNVL	--	3,140	7/16/1953
350538	963827	07N-06E-11	364SMPS	--	4,200	7/15/1953
350559	963724	08N-06E-13	364SMPS	--	4,340	3/ 4/1953
350602	963342	07N-07E-10 BBB	324HLTP	59	--	9/26/1979
350606	964114	07N-06E-04 CCC	322VNSS	240	--	10/ 2/1979
350748	963455	08N-07E-32 AAA	322VMOS	94	--	9/20/1979
350830	964030	08N-06E-21 DAA	322VMOS	550	--	11/22/1974
350930	963755	08N-06E-14 DDD	322VMOS	500	--	12/15/1975
351048	964308	08N-06E-07 CBA	322VNSS	53	--	2/19/1980
351051	964344	08N-05E-12	364SMPS	--	4,200	10/29/1954
351059	964016	08N-06E-09 ADA	322ADA	178	--	2/ 1/1980
351100	964010	08N-06E-10 BBC	322VMOS	178	--	3/10/1964

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Roger Mills County, Oklahoma								
352660	995859	19.5	7.0	1,670	2,630	250	89.7	--
353444	992613	22.5	7.5	1,720	2,840	370	89.5	--
353448	992335	21.5	7.0	2,060	3,330	508	74	--
354501	992646	--	7.8	4,590	--	--	--	3,200
354749	992816	22.5	7.2	2,620	3,150	503	116	--
354753	992534	26.0	6.6	2,700	4,310	395	247	--
355020	992953	20.5	7.0	2,310	2,990	399	138	--
Seminole County, Oklahoma								
345225	963810	--	--	788	1,220	76	22	280
345605	963931	--	--	110,000	133,000	5,480	1,760	--
345819	964156	--	6.6	--	125,000	7,140	1,940	--
345902	964305	19.0	7.3	--	1,090	101	34.6	--
345905	964348	7.0	7.2	436	703	22	24	150
345930	964030	--	--	--	670	4.8	4.2	29
345933	963105	--	--	209,000	204,000	12,900	2,660	--
350014	963958	--	--	140,000	132,000	8,560	2,320	--
350025	963931	--	--	140,000	156,000	8,560	2,320	--
350141	963238	16.0	8.2	--	1,190	62.2	101	--
350149	964058	--	8.9	679	1,070	-- 9	0.4	4
350210	963002	--	--	217,000	--	13,700	2,140	--
350216	963900	--	7.1	129,000	--	8,080	1,750	--
350220	964030	--	--	652	1,110	99	59	490
350330	963835	--	--	785	1,340	8.1	3.6	35
350426	964116	--	8.5	659	1,070	2	1.6	12
350502	963840	--	7.0	206,000	179,000	11,700	2,730	--
350509	963840	--	6.6	190,000	182,000	10,400	2,390	--
350538	963827	--	--	168,000	170,000	9,380	2,200	--
350538	963827	--	--	202,000	200,000	12,400	2,240	--
350559	963724	--	--	180,000	185,000	9,740	1,820	--
350602	963342	--	6.8	582	900	100	63	510
350606	964114	--	6.9	357	609	73	38	340
350748	963455	--	5.3	152	269	9.8	4.3	42
350830	964030	--	--	474	770	1.7	0.2	5
350930	963755	12.0	8.6	406	650	3.6	2	17
351048	964308	20.0	--	1,630	3,150	180	97	850
351051	964344	--	--	189,000	192,000	10,700	2,510	--
351059	964016	10.5	7.8	463	726	8.4	3.4	35
351100	964010	--	7.9	1,300	2,080	12	35	200

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Roger Mills County, Oklahoma									
352660	995859	175	--	2.2	53.0	945	258	--	--
353444	992613	54.2	--	1.5	12.0	1,080	190	--	--
353448	992335	38.7	--	1.6	36.0	1,270	210	--	--
354501	992646	119	--	3.1	68.0	2,850	399	486	0.5
354749	992816	69.8	--	2.8	12.0	1,900	32.0	--	--
354753	992534	64.7	--	1.7	23.0	1,690	460	--	--
355020	992953	91.2	--	3.0	60.0	1,520	164	--	--
Seminole County, Oklahoma									
345225	963810	180	--	--	64.0	180	349	426	--
345605	963931	34,800	--	--	68,400	--	107	131	--
345819	964156	38,000	--	77.0	77,100	280	94.3	115	--
345902	964305	79.7	--	0.4	--	46.0	310	--	--
345905	964348	110	110	2.3	21.0	42.0	330	--	--
345930	964030	150	--	--	15.0	27.0	314	336	--
345933	963105	64,000	--	--	129,000	735	73.1	89.2	--
350014	963958	42,200	--	--	87,100	75.0	69.7	85.0	--
350025	963931	42,200	--	--	87,100	75.3	69.8	85.1	--
350141	963238	29.9	--	1.8	--	261	345	--	--
350149	964058	280	280	0.9	42.0	37.0	510	--	--
350210	963002	67,200	--	--	134,000	752	62.1	75.8	--
350216	963900	39,200	--	--	80,000	25.0	180	219	--
350220	964030	67.0	--	--	98.0	52.0	412	502	--
350330	963835	280	--	--	210	110	230	281	--
350426	964116	270	270	1.0	22.0	23.0	550	--	--
350502	963840	64,200	--	--	127,000	387	73.8	90.0	--
350509	963840	58,700	--	1,170	117,000	1,030	72.2	88.0	--
350538	963827	52,600	--	--	104,000	56.3	171	209	--
350538	963827	62,700	--	--	125,000	545	53.4	65.1	--
350559	963724	57,400	--	--	110,000	697	77.4	94.4	--
350602	963342	11.0	14.0	2.6	21.0	140	390	--	--
350606	964114	6.6	7.7	1.1	8.8	15.0	330	--	--
350748	963455	35.0	36.0	1.1	57.0	24.0	11.0	--	--
350830	964030	190	--	--	9.2	18.0	394	454	--
350930	963755	160	--	0.8	16.0	32.0	320	346	--
351048	964308	290	290	2.1	880	28.0	190	--	--
351051	964344	58,800	--	--	117,000	475	--	--	--
351059	964016	160	160	2.4	35.0	68.0	290	--	--
351100	964010	390	--	--	320	215	371	452	0.1

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
Seminole County, Oklahoma						
351115	963630	08N-07E-07 ADD	322VMOS	600	--	11/22/1974
351238	963716	09N-06E-36	325CLVN	--	2,340	7/15/1953
351314	963806	09N-06E-25 CCB	322VMOS	235	--	1/29/1980
351331	963819	09N-06E-26	364SMPS	--	3,800	7/15/1953
351450	964200	09N-06E-20 AA	322VMOS	753	--	12/10/1947
351503	963814	--	344HNTN	4,060	--	3/ 8/1970
351508	963702	09N-07E-18 CBB	322VMOS	119	--	8/14/1979
351511	963820	--	364SMPS	4,410	--	5/20/1969
351511	963820	--	344HNTN	4,410	--	3/ 8/1970
351515	962951	09N-08E-18	327UNVL	--	3,270	9/ 2/1953
351530	963830	09N-06E-26 CA	322VMOS	450	--	9/25/1947
351537	964627	09N-05E-15 BBB	322VNSS	114	--	9/19/1979
351607	962951	09N-08E-07	324STRN	--	2,750	9/ 2/1953
351636	963330	09N-07E-03 CDC	322VMOS	150	--	8/13/1979
351659	964337	09N-05E-01	364SMPS	--	4,270	7/16/1953
351726	963909	10N-06E-35 CCC	322ADA	129	--	8/22/1980
351819	963458	10N-07E-29 DDD	322VMOS	41	--	9/19/1979
351840	962832	--	361VIOL	4,190	--	4/28/1937
351840	962832	--	364SMPS	4,190	4,160	5/10/1937
351959	963600	10N-07E-20 BBB	322VMOS	83	--	8/14/1979
352153	963600	10N-07E-05 CCB	322VMOS	119	--	8/14/1979
352207	962741	--	327UNVL	3,530	--	1/25/1969
352236	962933	10N-08E-05 BBB	324HLTP	84	--	9/21/1979
Stephens County, Oklahoma						
341747	974137	03S-05W-14	310PRMN	--	860	9/29/1954
342209	975002	02S-06W-21	319PNTC	--	2,510	1/ 5/1955
342301	973416	02S-04W-13	340HNTN	--	3,610	6/23/1953
342301	973519	02S-04W-14	338SCMR	--	4,030	2/ 1/1955
342446	973416	02S-04W-01	324STRN	--	4,810	8/18/1953
342446	973519	02S-04W-02	324STRN	--	4,620	3/19/1953
342723	973416	01S-04W-24	325SNOR	--	2,790	6/ 9/1953
342723	974137	01S-05W-23	323LNSG	--	1,320	3/18/1953
342726	973432	--	323HXBR	5,610	5,110	2/ 7/1955
342816	973416	01S-04W-13	325SNOR	--	2,810	6/ 9/1953
342908	973416	01S-04W-12	325DEES	--	2,690	6/ 9/1953
343004	973420	--	325DEES	7,880	--	1/16/1959
343022	973950	--	318PRCL	--	183	4/ 9/1978
343024	974049	--	325DEES	5,000	4,860	12/12/1962

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Seminole County, Oklahoma								
351115	963630	--	--	221	398	48	21	210
351238	963716	--	--	158,000	164,000	11,000	2,770	--
351314	963806	7.0	7.0	282	457	58	22	240
351331	963819	--	--	209,000	192,000	13,300	3,150	--
351450	964200	18.5	--	990	1,360	186	33	600
351503	963814	--	6.8	157,000	--	9,040	1,180	--
351508	963702	26.0	7.3	322	593	57	35	290
351511	963820	--	6.5	163,000	--	10,600	1,200	--
351511	963820	--	6.6	147,000	--	8,560	1,300	--
351515	962951	--	--	192,000	189,000	12,500	2,080	--
351530	963830	--	--	1,540	2,260	146	12	410
351537	964627	--	6.4	467	656	53	18	210
351607	962951	--	--	190,000	182,000	13,000	2,290	--
351636	963330	27.0	6.8	136	271	25	12	110
351659	964337	--	--	182,000	175,000	9,260	2,070	--
351726	963909	23.0	7.1	372	656	64	34	300
351819	963458	--	5.4	140	236	16	5.6	63
351840	962832	--	4.9	200,000	--	15,200	3,700	--
351840	962832	--	6.0	197,000	--	12,800	2,270	--
351959	963600	27.0	7.0	413	664	48	67	400
352153	963600	27.0	6.7	297	441	62	25	260
352207	962741	--	6.8	111,000	--	7,120	2,210	--
352236	962933	--	6.0	134	205	11	3.8	43
Stephens County, Oklahoma								
341747	974137	--	--	75,100	109,000	3,100	785	--
342209	975002	--	--	197,000	182,000	15,600	4,760	--
342301	973416	--	--	93,800	125,000	3,780	855	--
342301	973519	--	--	86,200	109,000	1,150	125	--
342446	973416	--	--	172,000	179,000	8,450	2,110	--
342446	973519	--	--	172,000	172,000	8,130	1,860	--
342723	973416	--	--	164,000	170,000	12,400	2,430	--
342723	974137	--	--	105,000	128,000	3,020	1,900	--
342726	973432	--	--	120,000	112,000	3,460	375	--
342816	973416	--	--	191,000	182,000	8,820	2,750	--
342908	973416	--	--	151,000	164,000	7,070	1,970	--
343004	973420	--	6.3	146,000	152,000	6,900	1,910	--
343022	973950	18.0	7.6	--	2,820	311	95.1	--
343024	974049	--	7.6	136,000	154,000	8,520	2,010	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Seminole County, Oklahoma									
351115	963630	8.3	--	--	8.4	14.0	190	232	--
351238	963716	46,000	--	--	98,400	--	60.4	73.7	--
351314	963806	10.0	14.0	3.6	17.0	23.0	230	--	--
351331	963819	62,600	--	--	129,000	907	34.2	41.7	--
351450	964200	79.0	--	--	25.0	601	108	132	0.1
351503	963814	50,800	--	--	96,000	430	54.9	67.0	--
351508	963702	11.0	13.0	1.9	37.0	8.6	270	--	--
351511	963820	50,500	--	--	100,000	550	59.9	73.0	--
351511	963820	46,500	--	--	90,000	920	150	183	--
351515	962951	58,600	--	--	118,000	--	61.4	74.9	--
351530	963830	356	--	--	175	796	111	135	--
351537	964627	72.0	73.0	0.8	68.0	150	140	--	--
351607	962951	56,900	--	--	117,000	48.0	61.3	74.8	--
351636	963330	5.8	6.8	1.0	9.3	4.1	110	--	--
351659	964337	58,500	--	--	112,000	--	66.6	81.2	--
351726	963909	22.0	--	2.3	23.0	35.0	290	--	--
351819	963458	20.0	21.0	0.5	35.0	16.0	35.0	--	--
351840	962832	56,300	--	--	124,000	897	100	122	--
351840	962832	59,800	--	--	121,000	755	60.7	74.0	--
351959	963600	23.0	25.0	1.7	10.0	24.0	380	--	--
352153	963600	14.0	17.0	2.8	16.0	26.0	230	--	--
352207	962741	32,400	--	--	69,000	300	90.2	110	--
352236	962933	25.0	26.0	0.6	20.0	20.0	44.0	--	--
Stephens County, Oklahoma									
341747	974137	25,000	--	--	46,200	--	40.5	49.3	--
342209	975002	53,100	--	--	123,000	82.9	--	--	--
342301	973416	31,400	--	--	57,000	3.2	383	467	--
342301	973519	32,400	--	--	52,200	--	269	328	--
342446	973416	55,000	--	--	106,000	--	216	263	--
342446	973519	55,800	--	--	106,000	--	88.9	108	--
342723	973416	47,200	--	--	102,000	--	33.5	40.8	--
342723	974137	34,800	--	--	64,500	89.8	224	274	--
342726	973432	43,100	--	--	72,700	141	269	328	--
342816	973416	61,300	--	--	118,000	--	--	--	--
342908	973416	48,700	--	--	93,300	81.1	21.6	26.3	--
343004	973420	46,900	--	--	90,000	19.0	150	183	--
343022	973950	233	--	5.4	--	732	210	--	--
343024	974049	41,100	--	--	84,000	270	132	161	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
Stephens County, Oklahoma						
343029	973600	--	328SPRG	7,910	--	4/30/1952
343030	975725	01N-07W-32 BAB	318BSON	802	--	12/13/1944
343053	973726	01N-04W-33	328SPRG	--	5,400	3/19/1953
343053	974139	01N-05W-35	323HXBR	--	5,190	2/ 7/1955
343120	974745	--	323HXBR	6,700	4,510	7/ 4/1965
343120	974745	--	325CHRK	6,700	5,520	7/14/1965
343145	974551	01N-05W-30	328SPRG	--	2,920	2/ 8/1955
343237	973933	01N-04W-19	328SPRG	--	6,270	3/18/1953
343237	974036	01N-05W-24	325DEES	--	6,750	3/17/1953
343256	974312	--	318BSON	--	253	4/ 9/1978
343305	974251	--	323HXBR	5,900	5,860	10/10/1967
343335	973740	--	328SPRG	6,450	6,360	4/19/1963
343422	974139	01N-05W-11	320PSLV	--	6,010	6/24/1953
343514	974139	01N-05W-02	325DEES	--	5,870	3/19/1953
343514	974345	01N-05W-04	328SPRG	--	7,230	3/18/1953
343604	980507	--	323CFVL	6,490	5,460	2/15/1966
343604	980507	--	323CFVL	6,490	5,840	2/18/1966
343606	980654	02N-09W-35	310PRMN	--	1,760	2/ 8/1955
343649	980528	--	323HXBR	6,580	5,490	5/ 3/1965
343649	980528	--	323CFVL	6,580	--	10/13/1966
343658	974621	--	323HXBR	15,950	7,960	8/ 9/1965
343810	975516	--	313RSPG	--	122	4/ 8/1978
343810	980510	--	318HNSS	--	64	7/30/1978
343928	975940	--	323HXBR	9,100	7,360	6/24/1953
343935	974139	02N-05W-11	320PSLV	--	1,150	6/24/1953
343935	975932	02N-08W-12	323HXBR	--	7,360	6/24/1953
343935	980035	02N-08W-11	323HXBR	--	6,090	6/23/1953
343953	973615	--	319PNTC	9,440	--	4/16/1957
344048	974312	--	313GDLP	--	104	4/ 2/1978
Texas County, Oklahoma						
3630261013631		--	364SMPS	2,970	--	7/14/1944
3630261013631		--	317KRDR	2,970	--	3/15/1946
3631591014735		--	325CHRK	7,000	5,630	7/23/1973
3631591014735		--	325FRSC	7,000	5,640	7/31/1973
3632031012958		--	317KRDR	3,500	--	5/22/1952
3632111012208		--	332CSTR	8,440	--	3/21/1960
3633011012739		--	325FRSC	6,250	--	11/ 5/1959
3637081011916		--	323LNSG	6,430	4,850	9/18/1976

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Stephens County, Oklahoma								
343029	973600	--	5.9	132,000	149,000	5,840	1,630	--
343030	975725	--	--	1,130	2,000	11	2.9	40
343053	973726	--	--	142,000	152,000	5,650	1,330	--
343053	974139	--	--	214,000	200,000	15,800	1,740	--
343120	974745	--	6.7	214,000	167,000	16,400	3,930	--
343120	974745	--	7.9	205,000	152,000	13,200	2,690	--
343145	974551	--	--	190,000	189,000	13,600	2,740	--
343237	973933	--	--	141,000	156,000	6,810	1,490	--
343237	974036	--	--	157,000	286,000	8,940	1,860	--
343256	974312	18.5	7.4	--	1,180	69.3	63	--
343305	974251	--	7.1	164,000	141,000	13,100	2,060	--
343335	973740	--	6.2	141,000	122,000	5,920	1,740	--
343422	974139	--	--	218,000	196,000	17,000	3,180	--
343514	974139	--	--	233,000	204,000	13,100	2,960	--
343514	974345	--	--	132,000	141,000	6,520	1,150	--
343604	980507	--	6.7	196,000	167,000	24,400	1,880	--
343604	980507	--	5.9	237,000	179,000	44,100	702	--
343606	980654	--	--	98,400	120,000	6,420	1,340	--
343649	980528	--	7.4	225,000	147,000	20,100	3,430	--
343649	980528	--	5.1	218,000	152,000	19,900	3,380	--
343658	974621	--	6.7	243,000	189,000	20,000	3,150	--
343810	975516	20.0	7.2	--	1,600	311	44.2	--
343810	980510	27.5	6.6	1,760	3,180	395	44.9	--
343928	975940	--	--	239,000	167,000	21,800	2,400	--
343935	974139	--	--	54,600	69,000	1,760	638	--
343935	975932	--	--	239,000	200,000	21,800	2,400	--
343935	980035	--	--	265,000	213,000	23,200	3,660	--
343953	973615	--	3.3	--	147,000	8,690	1,460	--
344048	974312	18.0	7.0	--	1,500	163	90.2	--
Texas County, Oklahoma								
3630261013631		--	--	185,000	--	1,180	1,650	--
3630261013631		--	7.1	23,400	--	1,890	645	--
3631591014735		--	--	--	250,000	15,100	3,760	--
3631591014735		--	--	142,000	200,000	1,260	722	--
3632031012958		--	--	185,000	--	910	488	--
3632111012208		--	6.1	170,000	192,000	10,400	1,490	--
3633011012739		--	--	179,000	--	18,200	2,080	--
3637081011916		--	--	106,000	111,000	3,840	830	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Stephens County, Oklahoma									
343029	973600	43,000	--	--	81,200	111	215	262	--
343030	975725	397	--	13.0	235	270	303	337	0.2
343053	973726	47,500	--	--	86,900	104	104	126	--
343053	974139	64,400	--	--	132,000	340	--	--	--
343120	974745	60,100	--	306	133,000	4.0	49.2	60.0	--
343120	974745	61,600	--	253	127,000	158	144	175	--
343145	974551	55,600	--	--	118,000	12.3	--	--	--
343237	973933	45,900	--	--	87,000	74.1	109	133	--
343237	974036	49,300	--	--	97,200	68.0	--	--	--
343256	974312	140	--	4.3	--	155	385	--	--
343305	974251	47,200	--	--	102,000	253	149	182	--
343335	973740	46,400	--	87.0	86,900	160	184	225	--
343422	974139	62,000	--	--	135,000	255	34.4	42.0	--
343514	974139	72,900	--	--	144,000	252	154	188	--
343514	974345	43,100	--	--	81,200	82.4	124	152	--
343604	980507	47,100	--	765	122,000	1.0	45.1	55.0	--
343604	980507	43,400	--	750	148,000	68.0	51.7	63.0	--
343606	980654	29,600	--	--	55,400	215	36.7	44.8	--
343649	980528	60,800	--	394	140,000	46.0	88.6	108	--
343649	980528	58,500	--	692	136,000	86.0	39.4	48.0	--
343658	974621	69,100	--	135	151,000	31.0	45.1	55.0	--
343810	975516	23.0	--	0.9	--	650	300	--	--
343810	980510	102	--	2.3	67.0	987	278	--	--
343928	975940	66,500	--	--	148,000	96.0	51.7	63.0	--
343935	974139	18,300	--	--	31,000	2,860	36.6	44.7	--
343935	975932	66,500	--	--	148,000	96.3	51.7	63.1	--
343935	980035	73,300	--	--	165,000	--	--	--	--
343953	973615	39,800	--	--	81,100	90.0	--	--	--
344048	974312	42.6	--	3.7	--	155	376	--	--
Texas County, Oklahoma									
3630261013631		67,800	--	--	103,000	11,500	168	205	--
3630261013631		5,900	--	--	12,500	2,410	124	151	--
3631591014735		69,800	--	--	145,000	--	41.8	51.0	--
3631591014735		56,200	--	--	83,700	--	140	171	--
3632031012958		69,700	--	--	99,800	14,500	112	137	--
3632111012208		53,000	--	--	104,000	536	273	333	--
3633011012739		47,300	--	--	111,000	253	150	183	--
3637081011916		36,300	--	--	64,900	--	305	372	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
		Texas County, Oklahoma				
3639121011136		--	317HRNG	6,700	--	2/ 9/1959
3647591013726		--	328MRRW	6,600	6,520	4/29/1958
3654451015447		--	325CHRK	5,100	4,020	5/21/1955
3655261010256		--	328MRRW	6,830	6,420	3/ 7/1970
3656241012447		--	328MRRW	6,680	6,570	8/22/1966
		Tulsa County, Oklahoma				
355707	960101	17N-12E-15	325CHRK	--	1,410	4/28/1954
360036	955542	18N-13E-28	325CHRK	--	1,510	4/28/1954
360457	955542	19N-13E-33	325CHRK	--	1,190	1/ 7/1953
360457	955646	19N-13E-32	367ABCK	--	2,090	1/ 7/1953
360457	960308	19N-12E-32	325CHRK	--	1,790	6/21/1955
361339	955853	20N-12E-12	325CHRK	--	1,270	1/ 7/1953
361749	955656	--	325CHRK	1,340	1,260	3/16/1978
		Washington County, Oklahoma				
363708	955913	--	325CHRK	1,340	1,340	8/25/1955
363803	955059	25N-14E-19	325LBTT	--	488	4/ 3/1953
364132	954851	26N-14E-33	367ABCK	--	1,800	11/20/1955
364132	955619	26N-13E-32	325CHRK	--	1,240	4/27/1954
364409	955307	26N-13E-14	367ABCK	--	1,830	12/30/1952
364501	955515	26N-13E-09	367ABCK	--	2,450	12/30/1952
365343	955059	28N-14E-19	325CHRK	--	1,270	12/29/1952
365343	955411	28N-13E-22	367ABCK	--	1,880	5/ 7/1953
365343	955411	28N-13E-36	367ABCK	--	2,520	5/ 7/1953
		Washita County, Oklahoma				
350734	991156	--	313RSPG	--	36.6	10/ 7/1978
351002	985222	08N-16W-15 ACC	313RSPG	--	--	7/ 1/1959
351049	991953	--	371GRNT	9,970	5,540	8/19/1953
351232	990824	--	313RSPG	--	61	10/ 8/1978
351257	983820	09N-14W-36 BBD	312CDCF	320	--	8/25/1965
351359	984030	--	312CDCF	--	54.9	11/18/1978
351659	991508	09N-19W-06	325DSMS	--	10,100	8/20/1953
351934	991342	10N-19W-36 D	312ELKC	185	--	12/ 3/1956
351948	985216	--	312CDCF	--	18.3	12/ 3/1978
352043	991129	10N-19W-15 ADC	312ELKC	145	--	12/17/1958

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Texas County, Oklahoma								
3639121011136		--	--	272,000	--	6,800	1,860	--
3647591013726		--	4.4	209,000	179,000	14,800	2,310	--
3654451015447		--	6.8	142,000	164,000	5,100	1	--
3655261010256		--	4.9	26,800	41,700	1,420	275	--
3656241012447		--	5.6	224,000	213,000	22,000	1,170	--
Tulsa County, Oklahoma								
355707	960101	--	--	68,400	90,900	3,020	993	--
360036	955542	--	--	164,000	170,000	7,960	2,080	--
360457	955542	--	--	214,000	196,000	13,900	2,920	--
360457	955646	--	--	90,900	116,000	3,550	1,810	--
360457	960308	--	--	210,000	208,000	12,200	2,890	--
361339	955853	--	--	140,000	161,000	7,120	2,160	--
361749	955656	--	6.0	102,000	100,000	6,000	1,700	--
Washington County, Oklahoma								
363708	955913	--	--	138,000	122,000	9,370	1,020	--
363803	955059	--	--	36,700	56,500	1,260	607	--
364132	954851	--	--	89,800	128,000	7,290	3,130	--
364132	955619	--	--	89,400	112,000	5,620	994	--
364409	955307	--	--	107,000	130,000	4,920	1,360	--
364501	955515	--	--	153,000	167,000	6,150	1,640	--
365343	955059	--	--	126,000	137,000	8,350	1,640	--
365343	955411	--	--	161,000	170,000	9,640	2,120	--
365343	955411	--	--	141,000	159,000	7,480	1,880	--
Washita County, Oklahoma								
350734	991156	21.0	7.2	190	270	36.8	11.4	--
351002	985222	18.0	8.1	337	518	93	9.2	270
351049	991953	--	--	101,000	100,000	8,310	1,250	--
351232	990824	20.0	7.0	2,190	3,290	430	103	--
351257	983820	19.5	7.8	1,260	1,440	--	--	850
351359	984030	10.5	7.3	--	2,310	530	66.6	--
351659	991508	--	--	35,400	56,500	929	41	--
351934	991342	17.0	7.3	393	638	67	27	280
351948	985216	9.5	6.4	1,810	2,270	320	105	--
352043	991129	18.0	7.8	326	535	25	31	190

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Texas County, Oklahoma									
363912	1011136	96,400	--	--	165,000	1,280	135	165	--
364759	1013726	62,500	--	--	129,000	439	33.6	41.0	--
365445	1015447	49,000	--	--	88,000	91.0	173	211	--
365526	1010256	8,620	--	--	16,500	--	66.4	81.0	--
365624	1012447	59,500	--	147	140,000	263	57.4	70.0	--
Tulsa County, Oklahoma									
355707	960101	22,100	--	--	42,300	--	72.9	88.9	--
360036	955542	52,300	--	--	101,000	320	136	166	--
360457	955542	64,400	--	--	132,000	--	51.0	62.2	--
360457	955646	29,100	--	--	56,400	--	27.0	32.9	--
360457	960308	64,800	--	--	130,000	140	28.7	35.0	--
361339	955853	44,100	--	--	87,000	--	73.3	89.4	--
361749	955656	31,100	--	--	63,400	--	350	427	--
Washington County, Oklahoma									
363708	955913	42,400	--	--	84,600	317	80.4	98.0	--
363803	955059	12,100	--	--	22,500	50.2	144	175	--
364132	954851	26,700	--	--	62,500	80.0	651	794	--
364132	955619	27,500	--	--	55,200	--	71.2	86.8	--
364409	955307	34,400	--	--	65,400	75.9	331	404	--
364501	955515	51,100	--	--	94,300	81.1	170	207	--
365343	955059	37,900	--	--	77,800	228	35.5	43.3	--
365343	955411	49,600	--	--	99,700	--	182	222	--
365343	955411	44,300	--	--	86,800	--	185	225	--
Washita County, Oklahoma									
350734	991156	17.8	--	1.5	10.0	37.0	125	--	--
351002	985222	--	6.0	--	4.0	54.0	215	262	0.8
351049	991953	28,700	--	--	62,500	33.0	162	197	--
351232	990824	107	--	2.6	37.0	1,310	330	--	--
351257	983820	--	24.0	--	12.0	720	133	162	0.3
351359	984030	28.8	--	2.6	15.0	1,400	102	--	--
351659	991508	12,800	--	--	21,100	--	472	575	--
351934	991342	37.0	--	1.5	12.0	7.8	344	420	0.3
351948	985216	59.0	--	1.3	230	967	208	--	--
352043	991129	52.0	--	1.6	12.0	16.0	258	314	0.1

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
		Washita County, Oklahoma				
352043	991129	10N-19W-15 ADC	312ELKC	145	--	12/ 8/1959
352443	984337	--	310WTRS	--	158	12/ 2/1978
352505	985935	--	312CDCF	--	64	12/21/1978
352750	984359	--	312CDCF	--	137	12/ 2/1978
		Woods County, Oklahoma				
364435	984038	--	330MSSP	6,470	5,670	2/21/1969
364548	985315	--	322DGLS	5,000	4,500	3/31/1964
365338	991535	28N-19W-20 ADD	313ELRN	80	--	3/28/1967
365937	990332	--	364SMPS	6,190	5,820	9/20/1955
		Woodward County, Oklahoma				
361056	990321	--	332CSTR	8,790	8,640	1/21/1966
361147	990427	--	332CSTR	8,930	8,710	5/13/1966
361341	990258	20N-17W-07 ABD	313RSPG	70	--	9/10/1956
361405	990906	20N-18W-05 CBC	310WTRS	87	--	8/19/1965
361753	991251	21N-19W-15 ADC	313BLIN	--	--	9/10/1956
361756	992830	--	328MRRW	9,510	9,310	7/ 2/1966
361939	992219	21N-20W-06 DAA	313BLIN	--	--	8/31/1956
362025	991207	22N-19W-35 CCA	313RSPG	60	--	9/19/1956
362856	990419	--	344HNTN	8,670	8,420	9/ 1/1968
362923	990421	--	344HNTN	8,600	8,410	5/23/1970
363020	991547	--	364BRMD	9,860	9,830	2/20/1958
363101	990022	23N-17W-08 ABB	313BLIN	75	--	9/11/1956
363418	993246	24N-22W-10 CAB	310WTRS	90	--	10/ 8/1952
364157	991725	--	328MRRW	6,500	6,340	5/11/1959
364406	991724	--	328MRRW	6,160	6,070	7/12/1971
364435	991619	--	328MRRW	6,170	5,960	11/ 8/1971
364442	991713	--	328MRRW	7,530	5,950	6/ 1/1972
		Dallam County, Texas				
3617301025010		--	230TCPM	180	--	2/ 1/1937
3624351023940		--	230TCPM	200	--	3/11/1939
3624551024945		--	230TCPM	112	--	2/ 3/1937

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Washita County, Oklahoma								
352043	991129	17.0	7.8	399	610	58	19	220
352443	984337	15.5	7.3	2,000	2,280	490	67.3	--
352505	985935	14.0	7.4	571	1,000	67.2	49.2	--
352750	984359	14.5	7.1	2,040	2,300	519	55.9	--
Woods County, Oklahoma								
364435	984038	--	8.3	146,000	139,000	5,000	630	--
364548	985315	--	5.4	190,000	196,000	11,800	1,960	--
365338	991535	4.5	7.7	2,700	2,760	--	--	1,800
365937	990332	--	--	223,000	172,000	13,400	3,390	--
Woodward County, Oklahoma								
361056	990321	--	7.4	13,700	21,600	260	76	--
361147	990427	--	5.9	69,600	92,600	22,400	683	--
361341	990258	17.0	7.2	614	882	128	34	460
361405	990906	19.4	8.2	916	1,240	--	--	530
361753	991251	18.0	7.3	11,400	17,300	714	102	2,200
361756	992830	--	7.1	1,690	3,360	192	38	--
361939	992219	19.0	7.0	6,000	7,950	750	104	2,300
362025	991207	16.5	7.4	862	1,430	110	35	420
362856	990419	--	5.8	199,000	204,000	13,700	2,340	--
362923	990421	--	6.3	184,000	196,000	13,200	2,150	--
363020	991547	--	6.2	228,000	196,000	25,700	3,010	--
363101	990022	19.5	7.2	2,790	2,910	660	98	2,100
363418	993246	--	7.6	1,100	1,550	160	57	630
364157	991725	--	7.7	19,200	30,500	211	49	--
364406	991724	--	6.1	23,000	--	1,760	139	--
364435	991619	--	7.3	3,300	6,800	88	16	--
364442	991713	--	8.3	19,800	33,300	66	23	--
Dallam County, Texas								
3617301025010		--	--	320	--	15	44	220
3624351023940		--	--	590	--	13	19	110
3624551024945		--	--	493	--	33	68	360

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Washita County, Oklahoma									
352043	991129	49.0	--	1.7	8.9	14.0	308	376	0.1
352443	984337	19.3	--	3.2	11.0	1,310	172	--	--
352505	985935	52.6	--	0.3	21.0	292	148	--	--
352750	984359	16.1	--	2.5	10.0	1,300	220	--	--
Woods County, Oklahoma									
364435	984038	50,700	--	--	87,200	1,980	206	225	--
364548	985315	58,700	--	--	117,000	150	73.8	90.0	--
365338	991535	69.0	--	3.1	80.0	1,570	164	200	0.5
365937	990332	68,000	--	--	138,000	191	85.3	104	--
Woodward County, Oklahoma									
361056	990321	5,020	--	--	7,380	280	1,190	1,450	--
361147	990427	1,930	--	--	44,300	230	178	217	--
361341	990258	32.0	--	1.2	14.0	193	284	346	0.7
361405	990906	--	73.0	--	80.0	340	213	260	12.0
361753	991251	3,210	--	5.8	5,340	1,800	121	147	--
361756	992830	388	--	13.0	824	62.0	280	342	--
361939	992219	1,070	--	5.8	1,650	2,120	66.0	80.0	--
362025	991207	151	--	2.0	200	162	282	344	0.8
362856	990419	57,900	--	1,930	123,000	420	54.9	67.0	--
362923	990421	52,800	--	1,580	113,000	630	162	198	--
363020	991547	56,900	--	--	142,000	280	76.3	93.0	--
363101	990022	65.0	--	2.6	36.0	1,570	423	516	28.0
363418	993246	100	--	2.6	131	392	274	334	0.1
364157	991725	7,230	--	--	10,600	406	1,100	1,340	--
364406	991724	6,380	--	121	14,500	--	260	317	--
364435	991619	1,210	--	25.0	1,890	8.0	102	124	--
364442	991713	7,830	--	12.0	11,400	--	810	988	--
Dallam County, Texas									
3617301025010		--	49.0	--	11.0	42.0	265	323	--
3624351023940		--	188	--	43.0	135	320	390	--
3624551024945		--	61.0	--	12.0	85.0	390	476	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
	Gray County, Texas					
3527471005118		--	320GRWS	3,080	2,790	10/19/1976
3530221003726		--	367ELBG	13,600	13,590	8/10/1972
3531371003506		--	320GRWS	12,100	8,810	3/ 6/1967
3533561010330		--	313BRWN	3,700	3,380	8/20/1968
3534471004018		--	371GRNT	9,570	9,560	5/13/1955
3535521004958		--	320GRWS	9,300	5,340	12/10/1966
	Hansford County, Texas					
3608081013529		--	364SMPS	6,820	3,180	3/ 5/1954
3608081013529		--	364SMPS	6,820	3,180	11/17/1954
3608561012017		--	323MSSR	6,180	5,970	8/ 9/1961
3609181012154		--	323CFVL	7,200	6,030	8/ 9/1961
3611481012513		--	328MRRW	7,220	--	2/ 2/1962
3611561013528		--	325MRMN	6,100	5,770	8/12/1973
3616591011748		--	322DGLS	6,340	5,360	11/20/1958
3620181013232		--	364SMPS	8,450	3,220	11/13/1945
3626181011923		--	365CLLR	7,260	4,750	1/13/1955
3626181011923		--	365CLLR	7,260	5,130	1/18/1955
3628551012501		--	317NEVA	6,670	6,050	12/20/1977
	Hartley County, Texas					
3554071021959		--	325MRMN	8,210	6,730	6/16/1974
3554071022017		--	325CHRK	8,210	7,230	6/15/1974
	Hemphill County, Texas					
3543551001919		--	320GRWS	13,500	11,000	1/21/1974
3544201002024		--	320GRWS	12,000	10,900	1/ 5/1974
3544281001124		--	320GRWS	16,400	11,200	9/ 5/1974
3546061000912		--	322DGLS	8,900	7,930	0/ 0/1907
3546061000912		--	322DGLS	8,900	7,980	0/ 0/1907
3602421001030		--	322DGLS	7,780	7,650	1/13/1958
3602421001030		--	322DGLS	7,780	7,650	5/ 6/1958
3602421002704		--	361VIOL	15,600	15,000	12/ 4/1974
3602421002704		--	367ABCK	15,600	15,400	12/11/1974
3602601005148		--	328MRRW	9,140	8,100	10/ 1/1963

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
	Gray County, Texas							
3527471005118	--		4.4	208,000	200,000	13,300	2,890	--
3530221003726	--		--	145,000	167,000	11,800	1,540	--
3531371003506	--		5.7	215,000	200,000	13,100	2,730	--
3533561010330	--		5.1	166,000	164,000	24,800	12,800	--
3534471004018	--		--	212,000	213,000	14,900	2,130	--
3535521004958	--		6.7	215,000	--	4,800	1,700	--
	Hansford County, Texas							
3608081013529	--		--	126,000	--	2,060	1,800	--
3608081013529	--		--	129,000	--	1,380	760	--
3608561012017	--		6.0	72,900	111,000	3,950	543	--
3609181012154	--		6.0	175,000	200,000	11,000	2,130	--
3611481012513	--		6.9	3,720	6,850	144	20	--
3611561013528	--		--	211,000	250,000	12,200	2,390	--
3616591011748	--		5.6	242,000	185,000	12,100	2,000	--
3620181013232	--		--	106,000	--	1,780	170	--
3626181011923	--		5.5	185,000	200,000	5,790	1,680	--
3626181011923	--		4.5	214,000	213,000	7,930	1,790	--
3628551012501	--		--	239,000	250,000	12,100	2,970	--
	Hartley County, Texas							
3554071021959	--		--	146,000	200,000	5,080	927	--
3554071022017	--		--	184,000	200,000	12,100	1,910	--
	Hemphill County, Texas							
3543551001919	--		--	21,500	38,500	3	4	--
3544201002024	--		--	25,700	43,500	440	68	--
3544281001124	--		6.6	27,900	38,500	1,070	75	--
3546061000912	--		6.3	92,300	116,000	5,120	948	--
3546061000912	--		6.4	65,300	87,700	2,520	566	--
3602421001030	--		6.2	103,000	143,000	3,760	703	--
3602421001030	--		6.3	104,000	143,000	3,770	747	--
3602421002704	--		--	165,000	200,000	17,000	1,420	--
3602421002704	--		--	70,600	100,000	8,160	660	--
3602601005148	--		6.4	1,070	1,830	56	23	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
	Gray County, Texas								
3527471005118		62,900	--	--	128,000	--	--	--	--
3530221003726		41,800	--	--	89,400	--	312	381	--
3531371003506		66,100	--	--	133,000	--	40.2	49.0	--
3533561010330		18,600	--	--	109,000	870	252	307	--
3534471004018		63,900	--	--	131,000	474	27.9	34.0	--
3535521004958		76,600	--	--	131,000	305	220	268	--
	Hansford County, Texas								
3608081013529		44,000	--	--	71,800	6,500	166	147	--
3608081013529		47,000	--	--	69,600	9,920	309	377	--
3608561012017		23,600	--	--	44,800	--	40.2	49.0	--
3609181012154		53,700	--	--	108,000	--	78.7	96.0	--
3611481012513		1,280	--	--	2,150	51.0	126	153	--
3611561013528		66,100	--	--	130,000	--	93.5	114	--
3616591011748		79,000	--	--	149,000	114	48.4	59.0	--
3620181013232		38,900	--	--	60,000	4,960	86.1	105	--
3626181011923		63,400	--	--	114,000	83.0	210	256	--
3626181011923		72,600	--	--	131,000	103	85.3	104	--
3628551012501		76,200	--	--	148,000	--	118	144	--
	Hartley County, Texas								
3554071021959		50,900	--	--	89,400	--	206	251	--
3554071022017		56,300	--	--	114,000	--	141	172	--
	Hemphill County, Texas								
3543551001919		8,730	--	--	12,300	--	829	12.0	--
3544201002024		9,560	--	--	15,200	--	631	769	--
3544281001124		9,680	--	--	16,800	--	372	453	--
3546061000912		29,200	--	--	56,200	685	218	266	--
3546061000912		22,100	--	--	39,600	489	192	234	--
3602421001030		34,700	--	160	62,600	573	220	268	--
3602421001030		35,200	--	159	63,700	659	77.9	95.0	--
3602421002704		44,100	--	--	102,000	--	196	239	--
3602421002704		18,000	--	--	43,400	--	619	755	--
3602601005148		326	--	1.0	610	4.0	82.0	100	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
Hutchinson County, Texas						
3539141012360		--	310WTRS	--	27.4	10/18/1978
3540521012924		--	310WTRS	--	323	10/ 5/1978
3544381012559		--	310WTRS	--	152	10/18/1978
3545041012801		--	310WTRS	--	244	10/18/1978
3546121012042		--	310WTRS	--	152	10/20/1978
3548041011822		--	310WTRS	--	79.3	10/20/1978
3550201011612		--	310WTRS	--	201	10/24/1978
Lipscomb County, Texas						
3612341002348		--	328MRRW	10,800	10,400	1/27/1960
3615111000835		--	323MSSR	8,860	6,660	5/14/1957
3621541002453		--	322DGLS	6,650	5,840	1/ 7/1958
Moore County, Texas						
3539111014308		--	310WTRS	--	305	10/ 3/1978
3542361013719		--	310WTRS	--	381	10/ 2/1978
Ochiltree County, Texas						
3606101003825		--	322DGLS	11,000	6,260	10/15/1959
3607551003340		--	319CCGV	10,800	4,280	8/12/1975
3608381004655		--	322DGLS	9,140	5,880	8/ 1/1957
3608411004655		--	322DGLS	9,140	5,880	11/26/1957
3609581004746		--	328MRRW	9,520	9,320	5/31/1972
3614311005429		--	325DSMS	9,000	7,030	9/25/1958
3618491010259		--	322DGLS	8,150	5,470	10/15/1959
3621571005304		--	328MRRW	8,640	--	2/ 2/1962
Potter County, Texas						
3521581015154		--	231DCKM	--	222	9/15/1978
3522011014926		--	231DCKM	--	152	9/15/1978
3525161015848		--	231DCKM	--	91.4	9/15/1978
3527141015628		--	231DCKM	--	122	9/28/1978
3531011014753		--	310WTRS	--	91.4	10/19/1978
3532381014923		--	310WTRS	--	387	9/26/1978
3532531015125		--	310WTRS	--	393	9/26/1978
3533181014222		--	310WTRS	--	396	10/ 4/1978

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)	
Hutchinson County, Texas									
3539141012360		20.0	7.3	--	950	91	37.9	--	
3540521012924		19.5	7.0	--	2,000	251	95.8	--	
3544381012559		17.0	7.4	--	1,170	106	25.1	--	
3545041012801		17.5	7.5	--	1,000	107	25.5	--	
3546121012042		21.0	7.8	--	1,150	72.2	50.1	--	
3548041011822		18.5	7.6	--	1,620	123	60.3	--	
3550201011612		19.0	8.3	--	400	22.2	20.3	--	
Lipscomb County, Texas									
3612341002348		--	7.8	18,900	31,200	144	58	--	
3615111000835		--	6.2	139,000	167,000	7,900	1,340	--	
3621541002453		--	6.8	--	189,000	13,800	2,200	--	
Moore County, Texas									
3539111014308		19.0	7.5	--	2,490	361	125	--	
3542361013719		19.5	6.4	--	2,870	400	61	--	
Ochiltree County, Texas									
3606101003825		--	8.5	224,000	179,000	11,300	1,900	--	
3607551003340		--	--	33,200	55,600	1,040	273	--	
3608381004655		--	6.5	207,000	250,000	11,400	2,090	--	
3608411004655		--	6.5	207,000	204,000	11,400	2,090	--	
3609581004746		--	7.1	38,200	55,600	820	156	--	
3614311005429		--	5.7	68,600	90,900	1,330	805	--	
3618491010259		--	4.5	218,000	172,000	9,960	1,620	--	
3621571005304		--	7.5	5,810	10,100	166	23	--	
Potter County, Texas									
3521581015154		21.0	8.2	--	720	30.1	17.5	--	
3522011014926		21.5	8.1	--	940	17.7	10.2	--	
3525161015848		22.0	7.5	--	2,080	215	44.7	--	
3527141015628		20.0	6.9	--	3,540	492	92.3	--	
3531011014753		20.0	7.4	--	4,500	438	284	--	
3532381014923		20.0	7.2	--	3,000	503	89.1	--	
3532531015125		20.0	7.7	--	2,580	369	76.4	--	
3533181014222		18.0	6.8	--	2,020	247	86	--	

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Hutchinson County, Texas									
3539141012360		59.9	--	4.6	111	108	290	--	--
3540521012924		122	--	3.2	152	936	84.0	--	--
3544381012559		63.2	--	4.9	191	118	150	--	--
3545041012801		64.8	--	5.1	191	108	158	--	--
3546121012042		89.8	--	3.3	108	288	184	--	--
3548041011822		149	--	3.1	136	597	150	--	--
3550201011612		35.9	--	3.7	10.0	30.0	182	--	--
Lipscomb County, Texas									
3612341002348		7,230	--	--	10,900	23.0	897	1,080	--
3615111000835		44,000	--	259	85,600	--	97.6	119	--
3621541002453		61,300	--	--	126,000	--	22.1	27.0	--
Moore County, Texas									
3539111014308		40.1	--	2.5	29.0	1,300	130	--	--
3542361013719		35.2	--	2.1	17.0	1,200	95.0	--	--
Ochiltree County, Texas									
3606101003825		72,900	--	--	138,000	114	83.6	102	--
3607551003340		12,300	--	--	19,000	--	859	1,050	--
3608381004655		65,200	--	459	127,000	34.0	63.1	77.0	--
3608411004655		65,200	--	459	127,000	96.0	63.1	77.0	--
3609581004746		13,900	--	28.0	22,900	125	402	490	--
3614311005429		24,500	--	--	41,900	--	163	198	--
3618491010259		72,300	--	--	134,000	90.0	92.7	113	--
3621571005304		2,060	--	--	3,310	139	188	229	--
Potter County, Texas									
3521581015154		92.4	--	4.1	28.0	56.0	286	--	--
3522011014926		157	--	2.5	50	113	222	--	--
3525161015848		116	--	2.7	48.0	568	289	--	--
3527141015628		60.7	--	1.5	16.0	1,630	122	--	--
3531011014753		52.9	--	2.6	14.0	1,960	250	--	--
3532381014923		26.4	--	2.1	37.0	1,230	221	--	--
3532531015125		63.2	--	2.9	27.0	1,160	180	--	--
3533181014222		137	--	3.5	24.0	1,010	102	--	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
Potter County, Texas						
3537341014312		--	310WTRS	--	122	9/21/1978
Roberts County, Texas						
3540601005838		--	367ABCK	9,930	9,800	12/ 5/1967
3542331004601		--	319CHSE	4,100	4,080	4/ 3/1953
3542601004528		--	318WCHT	4,150	4,080	11/ 5/1959
3547281005656		--	313BRWN	4,280	3,880	10/20/1972
3552331005827		--	371GRNT	9,300	7,720	3/13/1957
3554361003546		--	325CHRK	12,000	10,000	2/21/1975
Sherman County, Texas						
3610051020338		--	322VRGL	4,010	3,910	10/10/1941
3621551020317		--	364SMPS	4,580	2,760	10/29/1944
Wheeler County, Texas						
3511561001352		--	313BLIN	--	125	11/16/1978
3513301002310		--	310WTRS	--	51.8	11/ 9/1978
3513481000126		--	313BLIN	--	61	11/15/1978
3513591001359		--	313BLIN	--	73.1	11/14/1978
3514281002006		--	310WTRS	--	45.7	11/ 8/1978
351608100043 4		--	310WTRS	--	64	10/10/1978
3517021002129		--	310WTRS	--	64	11/ 8/1978
3519191000535		--	310WTRS	--	54.9	11/11/1978
3519301001612		--	313BLIN	--	61	12/ 1/1978
3523281001355		--	344HNTN	15,200	15,000	9/13/1975
3523421002349		--	310WTRS	--	45.7	11/ 9/1978
3524581001630		--	320GRWS	15,600	11,400	6/13/1975
3534441003101		--	367ABCK	13,900	13,600	1/19/1972
3534441003101		--	367ABCK	13,900	6,300	1/24/1972
Union County, New Mexico						
3547301031715		18N-34E-15 DAA	211DKOT	174	--	9/18/1953
3555101030815		20N-36E-31 CAC	231DCKM	500	--	11/13/1953
3611301034740		23N-29E-25 DDD	211DKOT	208	--	5/14/1955
3626551030930		26N-35E-36 BDC	211DKOT	374	--	11/ 7/1962
3629351035335		26N-29E-18 BBA	211DKOT	154	--	9/27/1955

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Potter County, Texas								
3537341014312		16.0	5.7	--	2,590	371	96.8	--
Roberts County, Texas								
3540601005838		--	5.5	214,000	222,000	11,900	2,240	--
3542331004601		--	7.4	260,000	204,000	7,390	2,360	--
3542601004528		--	5.9	241,000	154,000	13,800	4,480	--
3547281005656		--	7.4	184,000	167,000	8,940	2,390	--
3552331005827		--	5.7	233,000	196,000	17,100	3,350	--
3554361003546		--	--	21,800	35,700	384	63	--
Sherman County, Texas								
3610051020338		--	--	141,000	161,000	1,250	635	--
3621551020317		--	--	139,000	--	3,560	48	--
Wheeler County, Texas								
3511561001352		14.5	6.8	--	3,000	603	63.2	--
3513301002310		19.0	7.5	--	615	62.9	21	--
3513481000126		15.0	7.1	--	3,110	454	132	--
3513591001359		16.0	6.7	--	3,170	537	67.6	--
3514281002006		18.0	6.9	--	2,980	557	42.5	--
3516081000434		16.5	7.5	--	780	82.9	24.7	--
3517021002129		17.0	7.5	--	715	94.8	11.6	--
3519191000535		16.5	7.0	--	1,540	254	55.1	--
3519301001612		17.5	7.0	--	3,120	563	59.9	--
3523281001355		--	--	38,200	62,500	1,700	360	--
3523421002349		15.5	7.2	--	2,840	424	132	--
3524581001630		--	--	173,000	200,000	36,200	342	--
3534441003101		--	--	206,000	250,000	14,100	2,050	--
3534441003101		--	--	29,800	47,600	1,320	391	--
Union County, New Mexico								
3547301031715		--	--	381	613	34	28	--
3555101030815		--	--	2,670	3,930	16	19	120
3611301034740		14.0	7.3	362	638	40	40	260
3626551030930		--	7.4	245	402	42	--	180
3629351035335		--	7.1	246	420	45	17	180

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
Potter County, Texas									
3537341014312		30.0	--	2.3	11.0	1,340	103	--	--
Roberts County, Texas									
3540601005838		66,800	--	1,080	132,000	270	85.3	104	--
3542331004601		90,200	--	231	158,000	1,990	86.9	106	--
3542601004528		72,700	--	--	149,000	920	37.7	46.0	--
3547281005656		58,900	--	429	113,000	167	38.5	47.0	--
3552331005827		67,800	--	--	144,000	216	115	140	--
3554361003546		8,150	--	--	12,600	--	990	1,210	--
Sherman County, Texas									
3610051020338		--	52,300	--	78,300	8,350	254	310	--
3621551020317		50,300	--	--	81,400	3,510	96.8	118	--
Wheeler County, Texas									
3511561001352		38.5	--	2.1	112	1,270	224	--	--
3513301002310		32.6	--	2.6	29.0	74.0	206	--	--
3513481000126		144	--	4.4	112	1,500	260	--	--
3513591001359		68.4	--	2.9	111	1,300	246	--	--
3514281002006		57.1	--	2.3	116	1,200	196	--	--
3516081000434		63.0	--	1.6	52.0	78.0	298	--	--
3517021002129		30.1	--	0.7	54.0	70.0	188	--	--
3519191000535		14.6	--	1.5	10.0	654	200	--	--
3519301001612		41.5	--	1.9	178	1,400	182	--	--
3523281001355		12,700	--	--	23,000	--	720	878	--
3523421002349		82.4	--	0.7	74.0	1,360	238	--	--
3524581001630		27,900	--	--	108,000	--	155	189	--
3534441003101		62,400	--	--	127,000	--	135	165	--
3534441003101		9,790	--	--	17,400	--	1,340	1,630	--
Union County, New Mexico									
3547301031715		--	56.0	--	35.0	61.0	194	236	--
3555101030815		--	999	--	116	615	1,480	1,810	0.1
3611301034740		--	39.0	--	7.0	91.0	238	290	--
3626551030930		16.0	20.0	3.9	7.4	18.0	183	223	0.5
3629351035335		--	20.0	--	7.5	6.0	189	230	--

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Local number	Geologic unit	Well depth (ft)	Sample depth (ft)	Date
		Union County, New Mexico				
3635351033700		27N-31E-10 ADA	211DKOT	270	--	7/29/1955
3636451035255		28N-29E-31 CCB	211DKOT	553	--	10/ 4/1955
3636551033440		28N-32E-30 CCB	211DKOT	175	--	7/22/1955
3639251032600		28N-33E-17 DDD	211DKOT	165	--	7/15/1955
3645051033340		29N-32E-18 ACD	211DKOT	120	--	10/14/1955
3650351035550		30N-28E-14 BBD	211DKOT	100	--	11/ 8/1955
3650401035600		30N-28E-14 BBB	221ENRD	432	--	11/ 8/1955
3653101030940		31N-35E-35 BAD	211DKOT	455	--	6/27/1955
3658301033730		32N-31E-34 AAD	231DCKM	54	--	11/10/1955

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Temperature (°C)	pH	Dissolved solids (mg/L)	Spec cond (µS/cm)	Ca (mg/L)	Mg (mg/L)	Hardness (mg/L)
Union County, New Mexico								
3635351033700		--	7.3	195	299	28	15	130
3636451035255		--	7.4	566	935	56	36	290
3636551033440		14.0	7.5	270	442	48	22	210
3639251032600		--	7.1	324	546	45	16	220
3645051033340		--	7.5	391	634	21	12	100
3650351035550		--	7.3	252	415	33	--	160
3650401035600		--	7.3	245	409	31	19	160
3653101030940		--	7.6	1,120	1,680	50	87	480
3658301033730		--	7.6	1,070	1,470	107	68	550

Table 3.--Selected chemical analyses of water samples collected from wells in the study area--Continued

Latitude	Longitude	Na (mg/L)	Na+K (mg/L)	K (mg/L)	Cl (mg/L)	SO4 (mg/L)	Alk. (mg/L)	HCO3 (mg/L)	NO3 (mg/L)
	Union County, New Mexico								
3635351033700		--	12.0	--	7.0	10.0	133	162	0.4
3636451035255		--	115	--	--	57.0	450	549	0.1
3636551033440		--	7.0	--	16.0	18.0	166	203	21.0
3639251032600		--	36.0	--	6.0	58.0	225	274	0.1
3645051033340		--	115	--	8.0	55.0	277	338	0.1
3650351035550		--	30.0	--	6.0	37.0	175	213	0.2
3650401035600		--	30.0	--	6.0	33.0	175	213	0.2
3653101030940		--	246	--	7.0	294	702	856	0.4
3658301033730		--	138	--	20.0	492	260	317	56.0

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico

[n, number of data values; St. Dev., standard deviation; °C, degrees Celsius; ft, feet; mg/L, milligrams per liter; µS/cm, microsiemens per centimeter; *, statistical analysis was not calculated; --, no data to calculate statistics. The geologic-unit codes and geologic units have been retrieved from the WATSTORE data file and may not follow the current usage of the stratigraphic nomemclature of the U.S. Geological Survey.]

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Ada Formation--322ADA						
Well depth (ft)	6	129	850	321	281	178
Sample depth (ft)	2	213	960	587	528	587
Temperature (°C)	4	10.5	23.0	17.6	5.2	18.5
pH	7	7.1	8.4	*	*	*
Dissolved solids (mg/L)	7	332	133,000	19,400	50,000	463
Specific conductance (µS/cm)	8	520	161,000	20,900	56,700	697
Calcium (mg/L)	8	3.7	4,250	571	1,480	57.5
Magnesium (mg/L)	8	1.2	2,110	283	736	31.0
Hardness (mg/L)	6	14.0	300	195	133	260
Sodium (mg/L)	7	9.0	44,300	6,430	16,700	160
Sodium + potassium (mg/L)	2	48.0	160	104	79.2	104
Potassium (mg/L)	5	2.3	10.0	3.9	3.4	2.5
Chloride (mg/L)	7	14.0	82,000	11,800	31,000	35.0
Sulfate (mg/L)	7	7.0	68.0	36.3	20.4	35.0
Alkalinity (mg/L)	8	90.9	307	263	70.4	286
Bicarbonate (mg/L)	4	111	374	293	123	343
Nitrate (mg/L)	1	0.5	0.5	*	*	*
Geologic unit: Arbuckle Group--367ABCK						
Well depth (ft)	39	19.0	15,600	4,220	4,650	2,500
Sample depth (ft)	33	1,110	15,400	5,190	3,890	3,670
Temperature (°C)	26	10.0	28.0	18.1	4.6	18.0
pH	42	5.5	9.3	*	*	*
Dissolved solids (mg/L)	66	171	260,000	78,500	86,600	50,200
Specific conductance (µS/cm)	63	277	250,000	81,300	84,100	78,100
Calcium (mg/L)	58	28.0	27,700	6,580	7,040	4,520
Magnesium (mg/L)	58	5.2	4,000	1,240	1,180	1,300
Hardness (mg/L)	31	9.0	800	288	139	310
Sodium (mg/L)	55	2.5	72,800	30,000	25,600	29,100
Sodium + Potassium (mg/L)	13	2.0	1,100	146	302	42.0
Potassium (mg/L)	29	0.3	1,770	272	479	1.5
Chloride (mg/L)	68	1.7	161,000	50,440	54,300	43,100
Sulfate (mg/L)	61	3.9	4,020	400	830	61.0
Alkalinity (mg/L)	67	16.8	1,340	262	229	233
Bicarbonate (mg/L)	66	20.5	1,630	302	255	280
Nitrate (mg/L)	13	0.1	14.0	1.3	3.8	0.2

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Atoka Formation--326ATOK						
Well depth (ft)	4	2,550	4,140	3,340	657	3,330
Sample depth (ft)	10	546	3,090	2,200	841	2,220
Temperature (°C)	0	--	--	--	--	--
pH	2	7.1	7.4	*	*	*
Dissolved solids (mg/L)	12	6,550	185,000	124,000	51,100	125,000
Specific conductance (µS/cm)	10	9,800	196,000	133,000	51,800	140,000
Calcium (mg/L)	12	25.0	11,500	6,760	3,460	6,460
Magnesium (mg/L)	12	28.0	2,600	1,690	646	1,710
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	12	2,590	57,100	38,900	15,800	38,200
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	12	2,520	114,000	76,600	31,700	77,300
Sulfate (mg/L)	8	24.0	603	234	225	198
Alkalinity (mg/L)	12	27.1	2,240	265	624	75.5
Bicarbonate (mg/L)	12	33.0	2,730	324	762	92.0
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Barnsdall Formation--323BRDL						
Well depth (ft)	2	176	355	266	127	266
Sample depth (ft)	1	137	137	*	*	*
Temperature (°C)	2	18.0	22.5	20.2	3.2	20.2
pH	3	7.3	8.9	*	*	*
Dissolved solids (mg/L)	2	214	272	243	41.0	243
Specific conductance (µS/cm)	3	371	670	505	152	475
Calcium (mg/L)	3	1.9	49.0	28.6	24.2	35.0
Magnesium (mg/L)	3	0.5	16.0	9.8	8.2	13.0
Hardness (mg/L)	2	140	190	165	35.4	165
Sodium (mg/L)	3	16.0	150	65.1	74.1	29.0
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	1	1.1	1.1	*	*	*
Chloride (mg/L)	2	14.0	47.0	30.5	23.3	30.5
Sulfate (mg/L)	3	16.0	53.0	30.7	19.7	23.0
Alkalinity (mg/L)	3	86.1	227	178	79.5	220
Bicarbonate (mg/L)	2	105	277	191	122	191
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Bison Banded Member of the Hennessey Shale--318BSON						
Well depth (ft)	1	802	802	*	*	*
Sample depth (ft)	5	30.5	253	90.8	91.6	61.0
Temperature (°C)	5	15.0	20.0	18.1	2.0	18.5
pH	5	7.0	7.4	*	*	*
Dissolved solids (mg/L)	1	1,130	1,130	*	*	*
Specific conductance (µS/cm)	6	920	5,590	2,270	1,720	1,720
Calcium (mg/L)	6	11.0	524	161	197	65.3
Magnesium (mg/L)	6	2.9	127	54.0	43.3	51.9
Hardness (mg/L)	1	40.0	40.0	*	*	*
Sodium (mg/L)	6	140	440	270	135	250
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	4	1.0	13.0	5.0	5.5	3.0
Chloride (mg/L)	1	235	235	*	*	*
Sulfate (mg/L)	6	75.0	960	386	339	251
Alkalinity (mg/L)	6	162	385	268	98.9	250
Bicarbonate (mg/L)	1	337	337	*	*	*
Nitrate (mg/L)	1	0.2	0.2	*	*	*
Geologic unit: Blaine Gypsum--313BLIN						
Well depth (ft)	2	22.0	75.0	48.5	37.5	48.5
Sample depth (ft)	4	61.0	125	80.0	30.5	67.0
Temperature (°C)	7	14.5	19.5	17.1	1.9	17.5
pH	7	6.7	7.3	*	*	*
Dissolved solids (mg/L)	5	725	11,400	4,660	4,220	2,790
Specific conductance (µS/cm)	8	1,210	17,300	5,220	5,250	3,110
Calcium (mg/L)	9	40.0	750	542	209	563
Magnesium (mg/L)	9	48.0	145	91.1	33.7	98.0
Hardness (mg/L)	5	700	2,300	1,780	661	2,100
Sodium (mg/L)	7	38.5	3,210	662	1,180	68.4
Sodium + potassium (mg/L)	2	12.0	69.0	40.5	40.3	40.5
Potassium (mg/L)	7	1.9	5.8	3.6	1.7	2.9
Chloride (mg/L)	9	20.0	5,340	846	1,760	112
Sulfate (mg/L)	9	44.0	2,120	1,390	570	1,500
Alkalinity (mg/L)	9	66.0	629	247	180	224
Bicarbonate (mg/L)	5	80.0	607	288	253	147
Nitrate (mg/L)	3	13.0	28.0	22.0	7.9	25.0

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Boggy Shale--325BGGY						
Well depth (ft)	9	30.0	123	77.0	28.6	74.0
Sample depth (ft)	2	9.1	24.4	16.7	10.8	16.7
Temperature (°C)	11	18.0	25.0	20.5	2.4	19.5
pH	11	6.9	8.8	*	*	*
Dissolved solids (mg/L)	9	290	1,810	631	482	442
Specific conductance (μS/cm)	11	470	2,870	1,130	857	740
Calcium (mg/L)	11	2.6	120	57.1	43.1	51.0
Magnesium (mg/L)	11	0.7	192	46.3	61.7	19.0
Hardness (mg/L)	9	12.0	790	255	275	160
Sodium (mg/L)	11	6.9	330	130	93.3	110
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	10	0.4	3.5	1.6	1.0	1.5
Chloride (mg/L)	9	3.4	190	46.2	56.5	35.0
Sulfate (mg/L)	11	5.0	870	209	317	32.0
Alkalinity (mg/L)	11	215	595	324	106	298
Bicarbonate (mg/L)	9	262	509	361	75.9	340
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Bois d' Arc Limestone of Hunton Group--344HNTN						
Well depth (ft)	74	3,200	15,200	6,860	1,920	7,070
Sample depth (ft)	40	692	15,000	6,780	2,440	7,170
Temperature (°C)	0	--	--	--	--	--
pH	27	5.0	7.7	*	*	*
Dissolved solids (mg/L)	75	23,800	306,000	147,000	73,900	149,000
Specific conductance (μS/cm)	38	32,800	208,000	149,000	43,400	163,000
Calcium (mg/L)	76	28.0	21,300	7,940	5,130	7,920
Magnesium (mg/L)	76	37.0	3,890	1,400	946	1,340
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	76	3,280	100,000	46,900	23,500	49,900
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	15	61.0	1,980	929	740	920
Chloride (mg/L)	76	13,800	188,000	90,200	45,800	92,600
Sulfate (mg/L)	75	4.0	2,900	525	485	447
Alkalinity (mg/L)	75	1.6	3,950	370	742	123
Bicarbonate (mg/L)	75	2.0	4,820	440	866	150
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Boone Formation--331BOON						
Well depth (ft)	0	--	--	--	--	--
Sample depth (ft)	0	--	--	--	--	--
Temperature (°C)	1	17.0	17.0	*	*	*
pH	1	8.2	8.2	*	*	*
Dissolved solids (mg/L)	0	--	--	--	--	--
Specific conductance (µS/cm)	1	525	525	*	*	*
Calcium (mg/L)	1	93.0	93.0	*	*	*
Magnesium (mg/L)	1	10.0	10.0	*	*	*
Hardness (mg/L)	1	270	270	*	*	*
Sodium (mg/L)	1	10.0	10.0	*	*	*
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	1	2.0	2.0	*	*	*
Chloride (mg/L)	1	10.0	10.0	*	*	*
Sulfate (mg/L)	1	184	184	*	*	*
Alkalinity (mg/L)	0	--	--	--	--	--
Bicarbonate (mg/L)	1	170	170	*	*	*
Nitrate (mg/L)	1	0.1	0.1	*	*	*
Geologic unit: Broken Arrow Coal--324BRKA						
Well depth (ft)	2	1,450	1,910	1,680	325	1,680
Sample depth (ft)	3	1,450	1,730	1,640	162	1,730
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	3	15,200	122,000	86,400	61,600	122,000
Specific conductance (µS/cm)	2	114,000	133,000	123,000	13,900	123,000
Calcium (mg/L)	3	310	15,200	10,200	8,570	15,200
Magnesium (mg/L)	3	90.0	1,660	1,130	904	1,660
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	3	5,340	28,900	21,000	13,600	28,900
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	3	8,470	75,700	53,300	38,800	75,700
Sulfate (mg/L)	2	370	370	370	0.	370
Alkalinity (mg/L)	3	129	1,640	635	876	130
Bicarbonate (mg/L)	2	157	158	158	0.7	158
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Bromide Formation--364BRMD						
Well depth (ft)	29	2,020	14,000	8,820	3,080	9,040
Sample depth (ft)	31	1,880	13,400	7,730	3,080	8,000
Temperature (°C)	0	--	--	--	--	--
pH	24	5.5	7.7	*	*	*
Dissolved solids (mg/L)	38	5,010	321,000	193,000	85,000	210,000
Specific conductance (µS/cm)	33	56,500	238,000	167,000	39,100	170,000
Calcium (mg/L)	38	28.0	26,500	11,300	7,020	10,700
Magnesium (mg/L)	38	26.0	4,160	1,890	948	2,110
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	38	1,920	100,000	60,600	25,800	62,900
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	8	214	1,520	826	471	906
Chloride (mg/L)	38	1,710	198,000	119,000	52,600	129,000
Sulfate (mg/L)	36	4.0	1,620	456	366	387
Alkalinity (mg/L)	36	3.3	2,340	234	505	74.6
Bicarbonate (mg/L)	36	4.0	2,500	275	573	91.0
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Brown Limestone Member of the U-Bar Formation--313BRWN						
Well depth (ft)	2	3,700	4,280	3,990	410	3,990
Sample depth (ft)	2	3,380	3,880	3,630	351	3,630
Temperature (°C)	0	--	--	--	--	--
pH	2	5.1	7.4	*	*	*
Dissolved solids (mg/L)	2	166,000	184,000	175,000	12,600	175,000
Specific conductance (µS/cm)	2	164,000	167,000	165,000	1,980	165,000
Calcium (mg/L)	2	8,940	24,800	16,900	11,200	16,900
Magnesium (mg/L)	2	2,390	12,800	7,590	7,360	7,590
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	2	18,600	58,900	38,700	28,500	38,700
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	1	429	429	*	*	*
Chloride (mg/L)	2	109,000	113,000	111,000	3,040	111,000
Sulfate (mg/L)	2	167	870	518	497	518
Alkalinity (mg/L)	2	38.5	252	145	151	145
Bicarbonate (mg/L)	2	47.0	307	177	184	177
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Calvin Sandstone--325CLVN						
Well depth (ft)	0	--	--	--	--	--
Sample depth (ft)	7	710	4,240	2,230	1,270	2,340
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	7	26,800	286,000	131,000	96,400	158,000
Specific conductance (µS/cm)	7	46,300	217,000	132,000	70,300	164,000
Calcium (mg/L)	7	392	17,200	7,690	6,670	11,000
Magnesium (mg/L)	7	282	4,170	1,980	1,560	2,770
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	7	9,510	87,500	40,100	28,400	46,000
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	7	15,500	177,000	81,000	60,100	98,400
Sulfate (mg/L)	3	89.8	116	106	14.4	113
Alkalinity (mg/L)	6	44.5	961	223	363	68.8
Bicarbonate (mg/L)	6	54.3	1,170	272	443	84.0
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Cedar Hills Sandstone Member of the Hennessey Shale--318CDHL						
Well depth (ft)	4	12.0	184	70.5	77.1	43.0
Sample depth (ft)	2	51.8	91.4	71.6	28.0	71.6
Temperature (°C)	2	17.5	19.0	18.2	--	--
pH	5	7.0	8.6	*	*	*
Dissolved solids (mg/L)	6	312	4,880	1,300	1,780	631
Specific conductance (µS/cm)	7	571	7,700	1,960	2,570	890
Calcium (mg/L)	6	32.6	254	95.1	80.0	68.0
Magnesium (mg/L)	6	15.0	131	42.9	46.4	18.4
Hardness (mg/L)	6	220	1,200	453	378	300
Sodium (mg/L)	5	32.0	175	93.9	53.7	75.5
Sodium + potassium (mg/L)	3	27.0	1,320	519	700	211
Potassium (mg/L)	5	0.9	3.2	1.7	0.9	1.4
Chloride (mg/L)	6	20.0	1,880	419	721	138
Sulfate (mg/L)	8	18.0	1,240	195	423	33.5
Alkalinity (mg/L)	8	97.0	379	241	105	223
Bicarbonate (mg/L)	6	118	462	287	131	260
Nitrate (mg/L)	6	0.1	100	22.3	39.1	5.3

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Chanute Formation--323CHNT						
Well depth (ft)	0	--	--	--	--	--
Sample depth (ft)	1	201	201	*	*	*
Temperature (°C)	1	17.5	17.5	*	*	*
pH	1	7.4	7.4	*	*	*
Dissolved solids (mg/L)	0	--	--	--	--	--
Specific conductance (µS/cm)	1	760	760	*	*	*
Calcium (mg/L)	1	43.1	43.1	*	*	*
Magnesium (mg/L)	1	14.5	14.5	*	*	*
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	1	111	111	*	*	*
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	0	--	--	--	--	--
Sulfate (mg/L)	1	78.0	78.0	*	*	*
Alkalinity (mg/L)	1	220	220	*	*	*
Bicarbonate (mg/L)	0	--	--	--	--	--
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Chase Group--319CHSE						
Well depth (ft)	1	4,100	4,100	*	*	*
Sample depth (ft)	1	4,080	4,080	*	*	*
Temperature (°C)	0	--	--	--	--	--
pH	1	7.4	7.4	*	*	*
Dissolved solids (mg/L)	1	260,000	260,000	*	*	*
Specific conductance (µS/cm)	1	204,000	204,000	*	*	*
Calcium (mg/L)	1	7,390	7,390	*	*	*
Magnesium (mg/L)	1	2,360	2,360	*	*	*
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	1	90,200	90,200	*	*	*
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	1	231	231	*	*	*
Chloride (mg/L)	1	158,000	158,000	*	*	*
Sulfate (mg/L)	1	1,990	1,990	*	*	*
Alkalinity (mg/L)	1	86.9	86.9	*	*	*
Bicarbonate (mg/L)	1	106	106	*	*	*
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Chat--324CHAT						
Well depth (ft)	9	1,930	8,880	4,350	2,470	4,340
Sample depth (ft)	24	1,620	8,290	3,570	1,480	3,440
Temperature (°C)	0	--	--	--	--	--
pH	9	4.9	7.4	*	*	*
Dissolved solids (mg/L)	27	114,000	306,000	211,000	61,200	223,000
Specific conductance (µS/cm)	25	120,000	227,000	190,000	35,000	200,000
Calcium (mg/L)	27	4,190	26,600	15,800	7,190	16,800
Magnesium (mg/L)	27	1,060	3,920	2,340	738	2,280
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	26	37,600	86,200	63,000	15,200	66,700
Sodium + potassium (mg/L)	1	40,900	40,900	*	*	*
Potassium (mg/L)	3	190	1,070	537	471	349
Chloride (mg/L)	27	70,000	189,000	130,000	38,100	138,000
Sulfate (mg/L)	26	3.0	830	263	207	239
Alkalinity (mg/L)	25	5.7	300	79.2	73.5	50.0
Bicarbonate (mg/L)	25	6.9	366	96.6	89.7	61.0
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Checkerboard Limestone--323CCKB						
Well depth (ft)	1	6,930	6,930	*	*	*
Sample depth (ft)	1	3,920	3,920	*	*	*
Temperature (°C)	0	--	--	--	--	--
pH	1	4.1	4.1	*	*	*
Dissolved solids (mg/L)	2	261,000	269,000	265,000	5,660	265,000
Specific conductance (µS/cm)	2	217,000	227,000	222,000	7,000	222,000
Calcium (mg/L)	2	14,500	15,100	14,800	438	14,800
Magnesium (mg/L)	2	2,390	3,020	2,700	445	2,700
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	2	82,500	85,400	83,900	2,060	83,900
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	2	161,000	166,000	163,000	3,540	163,000
Sulfate (mg/L)	2	187	336	262	106	262
Alkalinity (mg/L)	1	18.9	18.9	*	*	*
Bicarbonate (mg/L)	1	23.0	23.0	*	*	*
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Cherokee Group--325CHRK						
Well depth (ft)	51	1,340	12,000	5,180	2,090	5,200
Sample depth (ft)	133	930	10,000	3,360	1,640	2,990
Temperature (°C)	0	--	--	--	--	--
pH	26	4.5	7.9	*	*	*
Dissolved solids (mg/L)	150	4,490	305,000	193,000	64,000	202,000
Specific conductance (µS/cm)	139	6,760	250,000	181,000	37,400	185,000
Calcium (mg/L)	152	206	23,300	12,400	5,040	12,600
Magnesium (mg/L)	152	1.0	7,060	2,220	888	2,280
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	151	906	98,400	58,700	19,500	61,400
Sodium + potassium (mg/L)	1	55,100	55,100	*	*	*
Potassium (mg/L)	5	89.0	253	136	69.0	101
Chloride (mg/L)	152	1,140	188,000	119,000	39,800	124,000
Sulfate (mg/L)	130	4.0	2,200	237	273	179
Alkalinity (mg/L)	148	4.1	990	84.8	99.3	63.1
Bicarbonate (mg/L)	147	5.0	1,210	103	122	77.0
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Chesterian Series, undifferentiated--332CSTR						
Well depth (ft)	8	7,240	9,060	8,300	718	8,520
Sample depth (ft)	6	7,050	8,710	7,940	741	8,040
Temperature (°C)	0	--	--	--	--	--
pH	8	5.9	7.4	*	*	*
Dissolved solids (mg/L)	8	13,700	170,000	64,000	45,600	52,600
Specific conductance (µS/cm)	8	21,600	192,000	84,400	48,400	76,900
Calcium (mg/L)	8	260	22,400	6,560	7,320	3,700
Magnesium (mg/L)	8	76.0	1,490	509	433	388
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	8	1,930	53,000	17,200	15,800	14,800
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	1	1.0	1.0	*	*	*
Chloride (mg/L)	8	7,380	104,000	38,600	28,400	32,000
Sulfate (mg/L)	7	230	2,500	771	834	390
Alkalinity (mg/L)	8	164	1,750	613	574	396
Bicarbonate (mg/L)	8	200	2,140	747	700	483
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Chimneyhill Dolomite--357CMNL						
Well depth (ft)	1	7,620	7,620	*	*	*
Sample depth (ft)	0	--	--	--	--	--
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	1	45,900	45,900	*	*	*
Specific conductance (μS/cm)	0	--	--	--	--	--
Calcium (mg/L)	1	1,800	1,800	*	*	*
Magnesium (mg/L)	1	267	267	*	*	*
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	1	15,700	15,700	*	*	*
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	1	27,600	27,600	*	*	*
Sulfate (mg/L)	1	299	299	*	*	*
Alkalinity (mg/L)	1	489	489	*	*	*
Bicarbonate (mg/L)	1	596	596	*	*	*
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Cisco Group--321CSCO						
Well depth (ft)	1	10,600	10,600	*	*	*
Sample depth (ft)	1	2,160	2,160	*	*	*
Temperature (°C)	0	--	--	--	--	--
pH	1	6.3	6.3	*	*	*
Dissolved solids (mg/L)	1	85,800	85,800	*	*	*
Specific conductance (μS/cm)	0	--	--	--	--	--
Calcium (mg/L)	1	6,180	6,180	*	*	*
Magnesium (mg/L)	1	1,370	1,370	*	*	*
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	1	24,900	24,900	*	*	*
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	1	53,300	53,300	*	*	*
Sulfate (mg/L)	1	18.0	18.0	*	*	*
Alkalinity (mg/L)	1	52.5	52.5	*	*	*
Bicarbonate (mg/L)	1	64.0	64.0	*	*	*
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Cloud Chief Formation--312CDCF						
Well depth (ft)	2	82.0	320	201	168	201
Sample depth (ft)	13	6.1	137	69.2	36.9	70.1
Temperature (°C)	15	9.5	26.0	17.8	5.1	18.5
pH	15	6.4	7.9	*	*	*
Dissolved solids (mg/L)	14	571	2,700	1,780	608	1,870
Specific conductance (μS/cm)	15	1,000	4,310	2,470	924	2,310
Calcium (mg/L)	13	67.2	530	406	138	429
Magnesium (mg/L)	13	48.5	247	92.4	52.2	89.5
Hardness (mg/L)	2	750	850	800	70.7	800
Sodium (mg/L)	13	16.1	118	48.9	27.2	52.6
Sodium + potassium (mg/L)	2	24.0	30.0	27.0	4.2	27.0
Potassium (mg/L)	13	0.3	3.1	1.8	0.7	1.6
Chloride (mg/L)	15	10.0	230	44.1	55.8	31.0
Sulfate (mg/L)	15	292	1,690	1,110	430	1,180
Alkalinity (mg/L)	15	87.0	460	182	86.3	177
Bicarbonate (mg/L)	2	162	216	189	38.2	189
Nitrate (mg/L)	2	0.2	0.3	0.2	0.1	0.2
Geologic unit: Coffeyville Formation--323CFVL						
Well depth (ft)	7	6,440	7,200	6,610	266	6,490
Sample depth (ft)	12	2,720	6,030	4,940	1,210	5,660
Temperature (°C)	0	--	--	--	--	--
pH	4	5.1	6.7	*	*	*
Dissolved solids (mg/L)	14	81,600	388,000	241,000	69,800	241,000
Specific conductance (μS/cm)	13	152,000	244,000	198,000	26,400	200,000
Calcium (mg/L)	14	4,060	44,100	17,400	9,240	16,200
Magnesium (mg/L)	14	702	3,910	2,570	920	2,770
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	14	26,400	125,000	71,500	24,900	72,900
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	3	692	765	736	38.6	750
Chloride (mg/L)	14	49,800	239,000	148,000	43,100	150,000
Sulfate (mg/L)	13	1.0	2,250	411	576	250
Alkalinity (mg/L)	13	36.9	134	65.5	29.6	58.2
Bicarbonate (mg/L)	13	45.0	163	79.9	36.1	71.0
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Collier Formation--365CLLR						
Well depth (ft)	2	7,260	7,260	7,260	0.	7,260
Sample depth (ft)	2	4,750	5,130	4,940	272	4,940
Temperature (°C)	0	--	--	--	--	--
pH	2	4.5	5.5	*	*	*
Dissolved solids (mg/L)	2	185,000	214,000	199,000	20,400	199,000
Specific conductance (µS/cm)	2	200,000	213,000	206,000	9,050	206,000
Calcium (mg/L)	2	5,790	7,930	6,860	1,520	6,860
Magnesium (mg/L)	2	1,680	1,790	1,730	83.4	1,730
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	2	63,400	72,600	68,000	6,570	68,000
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	2	114,000	131,000	122,000	12,300	122,000
Sulfate (mg/L)	2	83.0	103	93.0	14.1	93.0
Alkalinity (mg/L)	2	85.3	210	148	88.1	148
Bicarbonate (mg/L)	2	104	256	180	108	180
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Cotter Dolomite--367CTTR						
Well depth (ft)	0	--	--	--	--	--
Sample depth (ft)	0	--	--	--	--	--
Temperature (°C)	1	19.5	19.5	*	*	*
pH	1	8.0	8.0	*	*	*
Dissolved solids (mg/L)	1	114	114	*	*	*
Specific conductance (µS/cm)	1	211	211	*	*	*
Calcium (mg/L)	1	37.0	37.0	*	*	*
Magnesium (mg/L)	1	1.4	1.4	*	*	*
Hardness (mg/L)	1	98.0	98.0	*	*	*
Sodium (mg/L)	1	3.2	3.2	*	*	*
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	1	1.4	1.4	*	*	*
Chloride (mg/L)	1	6.0	6.0	*	*	*
Sulfate (mg/L)	1	0.6	0.6	*	*	*
Alkalinity (mg/L)	1	95.1	95.1	*	*	*
Bicarbonate (mg/L)	1	116	116	*	*	*
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Council Grove Group--319CCGV						
Well depth (ft)	4	1,470	10,800	6,720	3,860	7,310
Sample depth (ft)	5	1,460	4,280	2,970	1,260	3,300
Temperature (°C)	0	--	--	--	--	--
pH	3	6.1	7.2	*	*	*
Dissolved solids (mg/L)	5	33,200	340,000	191,000	124,000	230,000
Specific conductance (µS/cm)	5	55,600	250,000	168,000	84,700	204,000
Calcium (mg/L)	5	1,040	21,900	9,950	7,580	8,640
Magnesium (mg/L)	5	273	5,220	2,670	1,950	2,450
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	5	12,300	102,000	60,300	38,700	78,800
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	1	761	761	*	*	*
Chloride (mg/L)	5	19,000	211,000	118,000	77,100	142,000
Sulfate (mg/L)	3	12.0	1,380	558	725	282
Alkalinity (mg/L)	4	45.1	859	263	398	74.2
Bicarbonate (mg/L)	4	55.0	1,050	321	485	90.5
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Dakota Formation--211DKOT						
Well depth (ft)	14	100	700	322	199	239
Sample depth (ft)	0	--	--	--	--	--
Temperature (°C)	4	14.0	15.0	14.4	0.5	14.2
pH	12	7.1	8.1	*	*	*
Dissolved solids (mg/L)	14	195	1,120	377	233	310
Specific conductance (µS/cm)	14	299	1,680	607	345	506
Calcium (mg/L)	12	21.0	56.0	39.5	10.1	41.0
Magnesium (mg/L)	10	12.0	87.0	29.7	22.1	23.0
Hardness (mg/L)	13	100	480	216	93.9	190
Sodium (mg/L)	3	16.0	30.0	24.7	7.6	28.0
Sodium + Potassium (mg/L)	12	7.0	246	60.1	68.8	33.0
Potassium (mg/L)	3	3.9	4.7	4.2	0.4	4.1
Chloride (mg/L)	13	6.0	35.0	11.1	8.1	7.5
Sulfate (mg/L)	14	6.0	294	60.4	71.2	48.5
Alkalinity (mg/L)	14	133	702	250	151	191
Bicarbonate (mg/L)	14	162	856	305	184	233
Nitrate (mg/L)	10	0.1	21.0	2.4	6.5	0.4

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Deese Formation--325DEES						
Well depth (ft)	7	4,600	7,880	5,900	1,450	5,000
Sample depth (ft)	10	2,150	8,800	4,770	1,970	4,540
Temperature (°C)	0	--	--	--	--	--
pH	7	4.8	10.8	*	*	*
Dissolved solids (mg/L)	13	50,500	255,000	166,000	49,100	167,000
Specific conductance (µS/cm)	13	78,700	286,000	172,000	47,800	170,000
Calcium (mg/L)	14	4,490	15,600	9,790	2,900	9,080
Magnesium (mg/L)	13	328	3,460	2,400	825	2,700
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	14	14,400	78,400	49,600	15,700	49,000
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	14	30,900	158,000	100,000	31,000	100,000
Sulfate (mg/L)	13	19.0	316	137	101	81.1
Alkalinity (mg/L)	12	21.6	453	114	114	67.9
Bicarbonate (mg/L)	12	26.3	552	139	140	82.8
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Desmoinesian Series, undifferentiated--324DSMS						
Well depth (ft)	2	8,520	9,000	8,760	336	8,760
Sample depth (ft)	5	2,270	10,100	5,950	3,390	7,030
Temperature (°C)	0	--	--	--	--	--
pH	2	5.7	7.8	*	*	*
Dissolved solids (mg/L)	5	35,400	136,000	86,200	45,200	68,600
Specific conductance (µS/cm)	5	56,500	149,000	100,000	35,600	90,900
Calcium (mg/L)	5	929	11,000	4,740	4,950	1,330
Magnesium (mg/L)	5	41.0	2,350	1,060	1,000	805
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	5	12,800	38,800	27,000	11,200	24,500
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	1	348	348	*	*	*
Chloride (mg/L)	5	21,100	84,800	52,900	28,700	41,900
Sulfate (mg/L)	2	75.9	920	498	597	498
Alkalinity (mg/L)	4	10.7	510	289	242	317
Bicarbonate (mg/L)	4	13.0	622	352	295	386
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Dewey Limestone--323DEWY						
Well depth (ft)	0	--	--	--	--	--
Sample depth (ft)	1	186	186	*	*	*
Temperature (°C)	1	11.0	11.0	*	*	*
pH	1	7.2	7.2	*	*	*
Dissolved solids (mg/L)	0	--	--	--	--	--
Specific conductance (µS/cm)	1	950	950	*	*	*
Calcium (mg/L)	1	61.8	61.8	*	*	*
Magnesium (mg/L)	1	40.5	40.5	*	*	*
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	1	83.1	83.1	*	*	*
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	0	--	--	--	--	--
Sulfate (mg/L)	1	96.0	96.0	*	*	*
Alkalinity (mg/L)	1	338	338	*	*	*
Bicarbonate (mg/L)	0	--	--	--	--	--
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Dockum Group--231DCKM						
Well depth (ft)	3	54.0	500	278	223	280
Sample depth (ft)	4	91.4	222	147	56.1	137
Temperature (°C)	4	20.0	22.0	21.1	0.9	21.2
pH	5	6.9	8.2	*	*	*
Dissolved solids (mg/L)	3	384	2,670	1,370	1,170	1,070
Specific conductance (µS/cm)	7	640	3,930	1,900	1,350	1,470
Calcium (mg/L)	6	16.0	492	146	186	68.5
Magnesium (mg/L)	6	10.2	92.3	41.9	32.7	31.8
Hardness (mg/L)	3	120	550	270	243	140
Sodium (mg/L)	4	60.7	157	107	40.6	104
Sodium + potassium (mg/L)	3	86.0	999	408	513	138
Potassium (mg/L)	4	1.5	4.1	2.7	1.1	2.6
Chloride (mg/L)	7	9.0	116	41.0	36.5	28.0
Sulfate (mg/L)	7	56.0	1,630	506	552	492
Alkalinity (mg/L)	7	122	1,480	415	475	260
Bicarbonate (mg/L)	3	294	1,810	807	869	317
Nitrate (mg/L)	3	0.1	56.0	19.0	32.1	0.8

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Dog Creek Shale--313DGCK						
Well depth (ft)	6	25.0	150	72.3	49.8	60.0
Sample depth (ft)	4	30.5	140	75.4	51.9	65.5
Temperature (°C)	7	10.5	23.0	17.8	4.4	19.0
pH	9	6.1	8.0	*	*	*
Dissolved solids (mg/L)	8	358	3,260	1,220	1,150	784
Specific conductance (µS/cm)	9	450	3,640	1,150	1,000	860
Calcium (mg/L)	7	59.1	614	199	226	73.8
Magnesium (mg/L)	7	12.3	155	52.7	53.1	31.0
Hardness (mg/L)	6	360	2,200	925	755	560
Sodium (mg/L)	7	23.2	311	102	106	57.4
Sodium + potassium (mg/L)	3	58.0	130	92.3	36.1	89.0
Potassium (mg/L)	7	0.7	9.0	4.4	3.5	3.0
Chloride (mg/L)	9	11.0	171	67.8	55.1	48.0
Sulfate (mg/L)	9	10.0	1,930	521	764	164
Alkalinity (mg/L)	10	144	472	266	112	229
Bicarbonate (mg/L)	6	175	576	362	162	326
Nitrate (mg/L)	5	0.1	60.0	15.0	25.9	0.
Geologic unit: Douglas Group--322DGLS						
Well depth (ft)	17	5,000	12,000	8,300	1,650	8,150
Sample depth (ft)	18	2,320	7,980	5,930	1,690	5,860
Temperature (°C)	0	--	--	--	--	--
pH	17	4.5	8.5	*	*	*
Dissolved solids (mg/L)	19	65,300	295,000	175,000	74,200	190,000
Specific conductance (µS/cm)	20	87,700	250,000	171,000	44,900	174,000
Calcium (mg/L)	20	2,520	21,300	9,960	5,280	11,400
Magnesium (mg/L)	20	566	3,680	1,700	885	1,930
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	20	22,000	89,500	55,800	21,900	60,000
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	8	85.0	677	346	201	383
Chloride (mg/L)	20	39,600	183,000	108,000	45,000	121,000
Sulfate (mg/L)	18	34.0	2,110	369	479	196
Alkalinity (mg/L)	19	22.1	376	125	94.4	83.6
Bicarbonate (mg/L)	19	27.0	459	153	115	102
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Doxy Member of the Quartermaster Formation--312DOXY						
Well depth (ft)	1	91.0	91.0	*	*	*
Sample depth (ft)	1	45.7	45.7	*	*	*
Temperature (°C)	2	19.5	20.5	20.0	0.7	20.0
pH	2	7.0	8.1	*	*	*
Dissolved solids (mg/L)	2	344	1,670	1,010	938	1,010
Specific conductance (µS/cm)	2	590	2,630	1,610	1,440	1,610
Calcium (mg/L)	1	250	250	*	*	*
Magnesium (mg/L)	1	89.7	89.7	*	*	*
Hardness (mg/L)	1	280	280	*	*	*
Sodium (mg/L)	1	175	175	*	*	*
Sodium + potassium (mg/L)	1	24.0	24.0	*	*	*
Potassium (mg/L)	1	2.2	2.2	*	*	*
Chloride (mg/L)	2	13.0	53.0	33.0	28.3	33.0
Sulfate (mg/L)	2	16.0	945	480.	657	480
Alkalinity (mg/L)	2	258	295	277	26.3	277
Bicarbonate (mg/L)	1	360	360	*	*	*
Nitrate (mg/L)	1	0.2	0.2	*	*	*
Geologic unit: El Reno Group--313ELRN						
Well depth (ft)	12	17.0	300	79.9	85.3	51.5
Sample depth (ft)	2	18.3	73.1	45.7	38.7	45.7
Temperature (°C)	10	4.5	20.5	16.4	5.1	17.7
pH	11	6.8	8.2	*	*	*
Dissolved solids (mg/L)	15	233	4,430	1,100	1,220	525
Specific conductance (µS/cm)	15	373	4,890	1,480	1,390	820
Calcium (mg/L)	9	29.0	353	91.5	102	50.0
Magnesium (mg/L)	9	12.0	156	49.3	44.1	40.0
Hardness (mg/L)	13	160	2,100	574	634	310
Sodium (mg/L)	6	15.0	448	169	202	56.9
Sodium + potassium (mg/L)	9	8.7	240	98.6	82.8	76.0
Potassium (mg/L)	5	1.4	6.5	3.5	2.0	3.1
Chloride (mg/L)	15	3.0	1,100	135	288	38.0
Sulfate (mg/L)	15	7.8	2,200	390	638	100
Alkalinity (mg/L)	15	116	481	284	114	249
Bicarbonate (mg/L)	13	142	586	349	150	304
Nitrate (mg/L)	12	0.1	53.0	12.3	19.0	0.4

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Elk City Member of the Quartermaster Formation--312ELKC						
Well depth (ft)	4	55.0	185	132	55.0	145
Sample depth (ft)	0	--	--	--	--	--
Temperature (°C)	3	17.0	18.0	17.3	0.6	17.0
pH	4	7.3	7.8	*	*	*
Dissolved solids (mg/L)	4	326	4,590	1,430	2,110	396
Specific conductance (µS/cm)	3	535	638	594	53.3	610
Calcium (mg/L)	3	25.0	67.0	50.0	22.1	58.0
Magnesium (mg/L)	3	19.0	31.0	25.7	6.1	27.0
Hardness (mg/L)	4	190	3,200	972	1,480	250
Sodium (mg/L)	4	37.0	119	64.2	37.1	50.5
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	4	1.5	3.1	2.0	0.8	1.6
Chloride (mg/L)	4	8.9	68.0	25.2	28.6	12.0
Sulfate (mg/L)	4	7.8	2,850	722	1,420	15.0
Alkalinity (mg/L)	4	258	399	327	59.4	326
Bicarbonate (mg/L)	4	314	486	399	72.5	398
Nitrate (mg/L)	4	0.1	0.5	0.2	0.2	0.
Geologic unit: Ellenberger Group--367ELBG						
Well depth (ft)	1	13,600	13,600	*	*	*
Sample depth (ft)	1	13,600	13,600	*	*	*
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	1	145,000	145,000	*	*	*
Specific conductance (µS/cm)	1	167,000	167,000	*	*	*
Calcium (mg/L)	1	11,800	11,800	*	*	*
Magnesium (mg/L)	1	1,540	1,540	*	*	*
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	1	41,800	41,800	*	*	*
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	1	89,400	89,400	*	*	*
Sulfate (mg/L)	0	--	--	--	--	--
Alkalinity (mg/L)	1	312	312	*	*	*
Bicarbonate (mg/L)	1	381	381	*	*	*
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Entrada Sandstone--221ENRD						
Well depth (ft)	1	432	432	*	*	*
Sample depth (ft)	0	--	--	--	--	--
Temperature (°C)	0	--	--	--	--	--
pH	1	7.3	7.3	*	*	*
Dissolved solids (mg/L)	1	245	245	*	*	*
Specific conductance (µS/cm)	1	409	409	*	*	*
Calcium (mg/L)	1	31.0	31.0	*	*	*
Magnesium (mg/L)	1	19.0	19.0	*	*	*
Hardness (mg/L)	1	160	160	*	*	*
Sodium (mg/L)	0	--	--	--	--	--
Sodium + potassium (mg/L)	1	30.0	30.0	*	*	*
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	1	6.0	6.0	*	*	*
Sulfate (mg/L)	1	33.0	33.0	*	*	*
Alkalinity (mg/L)	1	175	175	*	*	*
Bicarbonate (mg/L)	1	213	213	*	*	*
Nitrate (mg/L)	1	0.2	0.2	*	*	*
Geologic unit: Eskridge Shale--319EKDG						
Well depth (ft)	1	1,500	1,500	*	*	*
Sample depth (ft)	3	1,390	1,490	1,420	57.7	1,390
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	3	319,000	332,000	327,000	7,300	332,000
Specific conductance (µS/cm)	3	196,000	238,000	220,000	21,800	227,000
Calcium (mg/L)	3	20,300	20,900	20,700	323	20,900
Magnesium (mg/L)	3	4,050	4,230	4,170	106	4,230
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	3	97,100	104,000	102,000	4,270	104,000
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	3	197,000	202,000	200,000	2,510	201,000
Sulfate (mg/L)	3	442	642	576	115	642
Alkalinity (mg/L)	3	5.7	11.6	7.7	3.4	5.8
Bicarbonate (mg/L)	3	7.0	14.2	9.4	4.1	7.1
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Fairmont Shale Member of the Hennessey Shale--318FRMN						
Well depth (ft)	0	--	--	--	--	--
Sample depth (ft)	5	51.8	152	106	36.0	110
Temperature (°C)	5	12.5	21.0	16.1	3.6	17.0
pH	5	6.5	7.7	*	*	*
Dissolved solids (mg/L)	0	--	--	--	--	--
Specific conductance (µS/cm)	5	530	2,040	980	649	600
Calcium (mg/L)	5	38.4	120	83.6	34.4	80.1
Magnesium (mg/L)	5	13.8	69.3	39.0	20.6	36.7
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	5	20.6	185	86.8	67.0	90.4
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	2	1.5	1.6	1.5	0.1	1.5
Chloride (mg/L)	0	--	--	--	--	--
Sulfate (mg/L)	5	8.0	371	110	159	8.0
Alkalinity (mg/L)	5	220	500	330	103	300
Bicarbonate (mg/L)	0	--	--	--	--	--
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Fayetteville Shale--332FTVL						
Well depth (ft)	1	5,180	5,180	*	*	*
Sample depth (ft)	8	3,380	6,120	4,990	850	5,170
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	8	193,000	281,000	244,000	30,000	252,000
Specific conductance (µS/cm)	7	172,000	233,000	209,000	18,800	213,000
Calcium (mg/L)	8	10,800	19,600	16,900	3,510	18,500
Magnesium (mg/L)	8	2,330	3,310	2,860	340	2,790
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	8	59,400	85,100	71,500	8,260	72,400
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	8	119,000	173,000	150,000	18,500	156,000
Sulfate (mg/L)	8	94.0	527	447	148	518
Alkalinity (mg/L)	7	22.6	123	62.7	38.3	60.7
Bicarbonate (mg/L)	6	27.5	122	64.1	36.7	61.5
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Flowerpot Shale--313FLRP						
Well depth (ft)	1	72.0	72.0	*	*	*
Sample depth (ft)	0	--	--	--	--	--
Temperature (°C)	0	--	--	--	--	--
pH	1	8.0	8.0	*	*	*
Dissolved solids (mg/L)	1	3,360	3,360	*	*	*
Specific conductance (µS/cm)	1	4,650		*	*	*
Calcium (mg/L)	0	--	--	--	--	--
Magnesium (mg/L)	0	--	--	--	--	--
Hardness (mg/L)	1	1,200	1,200	*	*	*
Sodium (mg/L)	0	--	--	--	--	--
Sodium + potassium (mg/L)	1	638	638	*	*	*
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	1	740	740	*	*	*
Sulfate (mg/L)	1	950	950	*	*	*
Alkalinity (mg/L)	1	389	389	*	*	*
Bicarbonate (mg/L)	1	474	474	*	*	*
Nitrate (mg/L)	1	160	160	*	*	*
Geologic unit: Fort Scott Limestone--325FRSC						
Well depth (ft)	15	6,250	14,500	8,550	2,820	7,030
Sample depth (ft)	17	1,950	9,600	6,370	2,300	6,320
Temperature (°C)	0	--	--	--	--	--
pH	12	4.7	7.2	*	*	*
Dissolved solids (mg/L)	19	28,600	295,000	162,000	73,000	170,000
Specific conductance (µS/cm)	16	46,100	233,000	152,000	61,000	154,000
Calcium (mg/L)	19	622	23,900	10,600	6,280	11,100
Magnesium (mg/L)	19	166	3,840	1,740	971	2,010
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	19	4,750	84,400	49,600	22,700	56,200
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	5	73.0	188	135	51.4	140
Chloride (mg/L)	19	17,000	183,000	99,400	45,300	104,000
Sulfate (mg/L)	17	17.8	1,300	340	329	225
Alkalinity (mg/L)	19	9.8	646	193	186	136
Bicarbonate (mg/L)	17	12.0	708	188	180	164
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Garber Sandstone--318GRBR						
Well depth (ft)	54	31.0	1,100	451	297	481
Sample depth (ft)	17	30.5	204	87.9	56.1	67.1
Temperature (°C)	48	14.0	22.5	17.9	1.6	18.0
pH	64	5.8	8.9	*	*	*
Dissolved solids (mg/L)	58	92.0	4,020	576	671	350
Specific conductance (µS/cm)	74	138	6,330	1,080	1,000	672
Calcium (mg/L)	63	2.0	260	53.3	53.2	44.0
Magnesium (mg/L)	62	0.8	114	25.1	22.6	22.0
Hardness (mg/L)	60	5.0	920	172	143	175
Sodium (mg/L)	47	4.5	485	117	123	65.0
Sodium + Potassium (mg/L)	30	7.4	1,100	227	289	85.0
Potassium (mg/L)	37	0.1	9.1	1.7	1.4	1.4
Chloride (mg/L)	60	4.8	1,600	69.2	214	15.0
Sulfate (mg/L)	77	4.1	1,450	164	288	25.0
Alkalinity (mg/L)	77	52.0	475	260	80.6	259
Bicarbonate (mg/L)	60	63.0	492	300	91.0	313
Nitrate (mg/L)	54	0.1	100	5.7	17.7	0.3
Geologic unit: Garner Formation--324GRNR						
Well depth (ft)	2	3,450	6,090	4,770	1,860	4,770
Sample depth (ft)	2	3,440	8,220	5,830	3,380	5,830
Temperature (°C)	0	--	--	--	--	--
pH	2	5.8	6.6	*	*	*
Dissolved solids (mg/L)	3	55,200	193,000	138,000	73,000	166,000
Specific conductance (µS/cm)	2	86,200	154,000	120,000	47,800	120,000
Calcium (mg/L)	3	2,370	10,900	7,600	4,580	9,520
Magnesium (mg/L)	3	353	2,160	1,460	972	1,870
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	3	18,500	60,500	43,800	22,200	52,200
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	3	33,600	118,000	85,000	45,100	103,000
Sulfate (mg/L)	3	6.0	703	247	395	31.0
Alkalinity (mg/L)	3	12.3	423	164	226	55.8
Bicarbonate (mg/L)	3	15.0	516	200	275	68.0
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Granite wash (Cambrian age)--371GRNT						
Well depth (ft)	4	6,600	9,970	8,860	1,530	9,430
Sample depth (ft)	5	1,210	9,560	5,540	3,280	5,540
Temperature (°C)	0	--	--	--	--	--
pH	1	5.7	5.7	*	*	*
Dissolved solids (mg/L)	5	90,300	233,000	164,000	65,200	186,000
Specific conductance (µS/cm)	4	100,000	213,000	160,000	52,900	165,000
Calcium (mg/L)	5	8,180	20,400	13,800	5,400	14,900
Magnesium (mg/L)	5	877	3,350	2,170	1,130	2,130
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	5	25,400	67,800	46,400	19,400	46,000
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	5	56,200	144,000	102,000	40,300	116,000
Sulfate (mg/L)	5	33.0	499	270	208	216
Alkalinity (mg/L)	5	23.8	162	72.0	62.6	32.2
Bicarbonate (mg/L)	5	29.0	197	87.8	76.4	39.2
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Granite wash, (Pennsylvanian age)--320GRWS						
Well depth (ft)	7	3,080	16,400	11,700	4,490	12,100
Sample depth (ft)	7	2,790	11,400	8,770	3,410	10,900
Temperature (°C)	0	--	--	--	--	--
pH	4	4.4	6.7	*	*	*
Dissolved solids (mg/L)	7	21,500	215,000	126,000	95,900	172,000
Specific conductance (µS/cm)	6	38,500	200,000	120,000	87,600	122,000
Calcium (mg/L)	7	3.0	36,200	9,840	12,900	4,800
Magnesium (mg/L)	7	4.0	2,890	1,120	1,300	342
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	7	8,730	76,600	37,400	30,200	27,900
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	7	12,300	133,000	77,800	59,500	108,000
Sulfate (mg/L)	1	305	305	*	*	*
Alkalinity (mg/L)	6	40.2	829	374	302	296
Bicarbonate (mg/L)	6	12.0	769	290	284	228
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Guadalupian Series, undifferentiated--313GDLP						
Well depth (ft)	0	--	--	--	--	--
Sample depth (ft)	4	104	162	137	25.7	142
Temperature (°C)	4	16.0	19.0	17.4	1.4	17.2
pH	4	6.8	7.4	*	*	*
Dissolved solids (mg/L)	0	--	--	--	--	--
Specific conductance (μS/cm)	4	700	1,600	1,220	411	1,300
Calcium (mg/L)	4	59.6	282	152	96.1	134
Magnesium (mg/L)	4	35.4	90.2	51.6	25.9	40.4
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	4	42.6	96.1	64.4	24.2	59.4
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	2	3.4	3.7	3.5	0.2	3.5
Chloride (mg/L)	0	--	--	--	--	--
Sulfate (mg/L)	4	17.0	618	212	277	106
Alkalinity (mg/L)	4	182	376	293	80.9	307
Bicarbonate (mg/L)	0	--	--	--	--	--
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Hartshorne Sandstone--325HRSR						
Well depth (ft)	0	--	--	--	--	--
Sample depth (ft)	1	2,560	2,560	*	*	*
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	1	122,000	122,000	*	*	*
Specific conductance (μS/cm)	1	149,000	149,000	*	*	*
Calcium (mg/L)	1	8,190	8,190	*	*	*
Magnesium (mg/L)	1	2,300	2,300	*	*	*
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	1	35,400	35,400	*	*	*
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	1	75,700	75,700	*	*	*
Sulfate (mg/L)	0	--	--	--	--	--
Alkalinity (mg/L)	0	--	--	--	--	--
Bicarbonate (mg/L)	0	--	--	--	--	--
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Hennessey Shale--318HNSS						
Well depth (ft)	15	27.0	800	350	282	237
Sample depth (ft)	3	6.1	64.0	43.7	32.6	61.0
Temperature (°C)	11	16.5	27.5	19.8	3.1	19.5
pH	17	6.6	8.7	*	*	*
Dissolved solids (mg/L)	23	241	10,400	2,080	2,850	932
Specific conductance (μS/cm)	21	411	14,800	2,940	4,140	1,670
Calcium (mg/L)	18	3.8	395	96.1	106	52.2
Magnesium (mg/L)	18	1.2	71.0	29.9	20.8	23.7
Hardness (mg/L)	20	14.0	3,700	628	895	240
Sodium (mg/L)	13	2.5	2,240	310	632	29.0
Sodium + Potassium (mg/L)	10	147	2,900	712	882	312
Potassium (mg/L)	13	0.6	8.8	3.1	2.5	2.4
Chloride (mg/L)	23	7.8	5,000	554	1,300	61.0
Sulfate (mg/L)	23	6.6	3,600	584	910	93.0
Alkalinity (mg/L)	23	71.0	422	239	83.0	238
Bicarbonate (mg/L)	20	86.0	514	277	101	272
Nitrate (mg/L)	18	0.1	150	23.2	37.8	0.8
Geologic unit: Herington Limestone--317HRNG						
Well depth (ft)	1	6,700	6,700	*	*	*
Sample depth (ft)	0	--	--	--	--	--
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	1	272,000	272,000	*	*	*
Specific conductance (μS/cm)	0	--	--	--	--	--
Calcium (mg/L)	1	6,800	6,800	*	*	*
Magnesium (mg/L)	1	1,860	1,860	*	*	*
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	1	96,400	96,400	*	*	*
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	1	165,000	165,000	*	*	*
Sulfate (mg/L)	1	1,280	1,280	*	*	*
Alkalinity (mg/L)	1	135	135	*	*	*
Bicarbonate (mg/L)	1	165	165	*	*	*
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Hilltop Formation--324HLTP						
Well depth (ft)	2	59.0	84.0	71.5	17.7	71.5
Sample depth (ft)	0	--	--	--	--	--
Temperature (°C)	0	--	--	--	--	--
pH	2	6.0	6.8	*	*	*
Dissolved solids (mg/L)	2	134	582	358	317	358
Specific conductance (µS/cm)	2	205	900	552	491	552
Calcium (mg/L)	2	11.0	100	55.5	62.9	55.5
Magnesium (mg/L)	2	3.8	63.0	33.4	41.9	33.4
Hardness (mg/L)	2	43.0	510	276	330	276
Sodium (mg/L)	2	11.0	25.0	18.0	9.9	18.0
Sodium + potassium (mg/L)	2	14.0	26.0	20.0	8.5	20.0
Potassium (mg/L)	2	0.6	2.6	1.6	1.4	1.6
Chloride (mg/L)	2	20.0	21.0	20.5	0.7	20.5
Sulfate (mg/L)	2	20.0	140	80.0	84.9	80.0
Alkalinity (mg/L)	2	44.0	390	217	245	217
Bicarbonate (mg/L)	0	--	--	--	--	--
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Hogshooter Limestone--323HGSR						
Well depth (ft)	3	3,750	6,480	5,420	1,460	6,020
Sample depth (ft)	2	5,440	5,440	5,440	1.4	5,440
Temperature (°C)	0	--	--	--	--	--
pH	2	5.0	7.1	*	*	*
Dissolved solids (mg/L)	4	151,000	303,000	240,000	75,600	253,000
Specific conductance (µS/cm)	3	189,000	238,000	206,000	27,500	192,000
Calcium (mg/L)	4	9,000	16,700	13,500	3,800	14,200
Magnesium (mg/L)	4	1,660	3,520	2,810	900	3,020
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	4	45,800	95,500	75,300	24,500	79,900
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	4	93,800	187,000	148,000	46,500	156,000
Sulfate (mg/L)	4	20.0	296	199	122	240
Alkalinity (mg/L)	4	44.3	266	105	107	55.8
Bicarbonate (mg/L)	4	54.0	324	128	130	68.0
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Hoxbar Formation--323HXBR						
Well depth (ft)	21	3,430	16,000	6,890	2,950	6,110
Sample depth (ft)	30	2,080	11,000	7,160	2,500	7,170
Temperature (°C)	0	--	--	--	--	--
pH	8	6.4	7.8	*	*	*
Dissolved solids (mg/L)	39	7,010	265,000	117,000	80,400	112,000
Specific conductance (µS/cm)	30	9,740	213,000	112,000	71,600	127,000
Calcium (mg/L)	39	137	23,200	7,520	7,390	4,280
Magnesium (mg/L)	39	21.0	3,930	1,330	1,240	775
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	39	2,030	73,300	35,600	22,900	38,000
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	4	89.0	394	231	143	220
Chloride (mg/L)	39	3,820	165,000	71,700	50,200	68,000
Sulfate (mg/L)	37	4.0	1,560	238	269	185
Alkalinity (mg/L)	37	19.4	1,010	308	277	269
Bicarbonate (mg/L)	37	23.7	1,230	374	337	328
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Hunton Group--340HNTN						
Well depth (ft)	0	--	--	--	--	--
Sample depth (ft)	27	2,350	8,930	4,850	1,480	4,580
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	27	12,300	278,000	182,000	80,900	220,000
Specific conductance (µS/cm)	27	19,800	238,000	172,000	62,300	200,000
Calcium (mg/L)	27	159	18,900	10,600	5,590	12,100
Magnesium (mg/L)	27	80.0	3,890	2,150	1,190	2,440
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	27	4,340	87,700	56,400	25,100	66,200
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	27	6,610	171,000	112,000	50,000	135,000
Sulfate (mg/L)	24	3.2	1,500	385	378	234
Alkalinity (mg/L)	25	1.7	843	136	204	56.7
Bicarbonate (mg/L)	25	2.1	1,030	161	236	69.2
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Iola Limestone--323IOLA						
Well depth (ft)	0	--	--	--	--	--
Sample depth (ft)	1	2,380	2,380	*	*	*
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	1	188,000	188,000	*	*	*
Specific conductance (µS/cm)	1	185,000	185,000	*	*	*
Calcium (mg/L)	1	13,500	13,500	*	*	*
Magnesium (mg/L)	1	1,980	1,980	*	*	*
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	1	56,100	56,100	*	*	*
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	1	116,000	116,000	*	*	*
Sulfate (mg/L)	1	6.7	6.7	*	*	*
Alkalinity (mg/L)	1	50.4	50.4	*	*	*
Bicarbonate (mg/L)	1	61.5	61.5	*	*	*
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Joins Formation--364JONS						
Well depth (ft)	1	10,200	10,200	*	*	*
Sample depth (ft)	3	7,060	10,200	9,130	1,790	10,200
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	3	288,000	303,000	293,000	8,890	288,000
Specific conductance (µS/cm)	3	182,000	233,000	216,000	29,300	233,000
Calcium (mg/L)	3	17,500	19,200	18,100	993	17,500
Magnesium (mg/L)	3	3,130	3,920	3,390	453	3,130
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	3	89,300	92,300	90,300	1,740	89,300
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	3	178,000	188,000	181,000	5,770	178,000
Sulfate (mg/L)	3	136	268	224	75.8	267
Alkalinity (mg/L)	3	41.0	61.6	47.9	11.8	41.2
Bicarbonate (mg/L)	3	50.0	75.1	58.5	14.4	50.3
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Kansas City Group--323KSSC						
Well depth (ft)	15	4,340	7,750	5,780	1,100	5,220
Sample depth (ft)	37	1,240	5,990	3,820	1,130	4,000
Temperature (°C)	0	--	--	--	--	--
pH	9	4.8	6.9	*	*	*
Dissolved solids (mg/L)	44	13,100	320,000	242,000	71,600	266,000
Specific conductance (µS/cm)	39	100,000	244,000	206,000	34,600	222,000
Calcium (mg/L)	44	824	34,600	16,800	6,460	18,500
Magnesium (mg/L)	44	127	4,530	2,850	932	2,940
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	44	4,040	98,200	72,500	22,100	76,800
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	3	74.0	315	192	121	188
Chloride (mg/L)	44	7,920	197,000	150,000	44,400	164,000
Sulfate (mg/L)	39	73.0	2,460	492	499	371
Alkalinity (mg/L)	43	3.8	150	48.9	31.7	43.4
Bicarbonate (mg/L)	43	4.6	183	58.9	39.0	51.0
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Kindblade Formation--367KDBD						
Well depth (ft)	0	--	--	--	--	--
Sample depth (ft)	1	152	152	*	*	*
Temperature (°C)	1	19.5	19.5	*	*	*
pH	1	7.6	7.6	*	*	*
Dissolved solids (mg/L)	0	--	--	--	--	--
Specific conductance (µS/cm)	1	910	910	*	*	*
Calcium (mg/L)	1	120	120	*	*	*
Magnesium (mg/L)	1	74.7	74.7	*	*	*
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	1	3.9	3.9	*	*	*
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	1	1.0	1.0	*	*	*
Chloride (mg/L)	0	--	--	--	--	--
Sulfate (mg/L)	1	13.0	13.0	*	*	*
Alkalinity (mg/L)	1	595	595	*	*	*
Bicarbonate (mg/L)	0	--	--	--	--	--
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Krider Limestone Member of the Nolans Limestone--317KRDR						
Well depth (ft)	2	2,970	3,500	3,240	375	3,240
Sample depth (ft)	0	--	--	--	--	--
Temperature (°C)	0	--	--	--	--	--
pH	1	7.1	7.1	*	*	*
Dissolved solids (mg/L)	2	23,400	185,000	104,000	114,000	104,000
Specific conductance (µS/cm)	0	--	--	--	--	--
Calcium (mg/L)	2	910	1,890	1,400	692	1,400
Magnesium (mg/L)	2	488	645	566	111	566
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	2	5,900	69,700	37,800	45,100	37,800
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	2	12,500	99,800	56,100	61,800	56,100
Sulfate (mg/L)	2	2,410	14,500	8,440	8,530	8,440
Alkalinity (mg/L)	2	112	124	118	8.1	118
Bicarbonate (mg/L)	2	137	151	144	9.9	144
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Labette Shale--325LBTT						
Well depth (ft)	1	3,550	3,550	*	*	*
Sample depth (ft)	4	488	3,090	2,370	1,260	2,950
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	4	36,700	269,000	176,000	114,000	199,000
Specific conductance (µS/cm)	4	56,500	222,000	151,000	69,700	163,000
Calcium (mg/L)	4	1,260	20,400	12,600	9,520	14,300
Magnesium (mg/L)	4	607	4,930	3,000	2,260	3,230
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	4	12,100	75,900	51,000	31,000	57,900
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	4	22,500	167,000	109,000	71,000	124,000
Sulfate (mg/L)	4	50.2	406	271	154	313
Alkalinity (mg/L)	4	8.2	144	52.1	63.8	28.3
Bicarbonate (mg/L)	4	10.0	175	63.6	77.8	34.6
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Lansing Group--323LNSG						
Well depth (ft)	5	6,300	7,800	7,190	754	7,710
Sample depth (ft)	8	1,320	5,110	3,720	1,530	4,440
Temperature (°C)	0	--	--	--	--	--
pH	4	6.0	6.3	*	*	*
Dissolved solids (mg/L)	8	57,100	292,000	184,000	87,700	196,000
Specific conductance (µS/cm)	8	79,400	238,000	176,000	60,500	207,000
Calcium (mg/L)	8	1,760	19,900	9,730	6,710	10,100
Magnesium (mg/L)	8	693	3,530	2,240	1,080	2,330
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	8	19,400	88,100	58,300	25,800	62,000
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	8	35,000	180,000	113,000	54,300	121,000
Sulfate (mg/L)	6	89.8	530	256	149	238
Alkalinity (mg/L)	8	23.0	305	148	99.6	151
Bicarbonate (mg/L)	5	28.0	372	192	150	241
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Marlow Formation--313MRLW						
Well depth (ft)	1	110	110	*	*	*
Sample depth (ft)	1	73.1	73.1	*	*	*
Temperature (°C)	2	17.0	18.0	17.5	0.7	17.5
pH	2	7.5	7.9	*	*	*
Dissolved solids (mg/L)	2	555	995	775	311	775
Specific conductance (µS/cm)	2	994	1,180	1,090	132	1,090
Calcium (mg/L)	2	143	232	188	63.2	188
Magnesium (mg/L)	2	17.0	41.2	29.1	17.1	29.1
Hardness (mg/L)	1	430	430	*	*	*
Sodium (mg/L)	1	20.5	20.5	*	*	*
Sodium + potassium (mg/L)	1	23.0	23.0	*	*	*
Potassium (mg/L)	1	0.7	0.7	*	*	*
Chloride (mg/L)	2	10.0	73.0	41.5	44.5	41.5
Sulfate (mg/L)	2	203	595	399	277	399
Alkalinity (mg/L)	2	158	160	159	1.4	159
Bicarbonate (mg/L)	1	195	195	*	*	*
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Marmaton Group--325MRMN						
Well depth (ft)	2	6,100	8,210	7,150	1,490	7,150
Sample depth (ft)	4	1,060	6,730	4,110	2,610	4,320
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	4	116,000	211,000	169,000	45,400	174,000
Specific conductance (µS/cm)	4	139,000	250,000	198,000	45,600	202,000
Calcium (mg/L)	4	5,080	12,200	8,900	3,770	9,130
Magnesium (mg/L)	4	927	2,810	2,050	807	2,230
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	4	35,800	66,100	53,700	13,600	56,500
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	4	72,200	130,000	104,000	28,100	107,000
Sulfate (mg/L)	1	373	373	*	*	*
Alkalinity (mg/L)	4	36.9	206	102	73.3	81.6
Bicarbonate (mg/L)	4	45.0	251	124	89.4	99.5
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: McAlester Shale--325MCAL						
Well depth (ft)	11	21.0	2,180	524	830	105
Sample depth (ft)	1	1,360	1,360	*	*	*
Temperature (°C)	10	18.5	23.0	20.1	1.7	19.5
pH	12	6.2	8.7	*	*	*
Dissolved solids (mg/L)	12	293	101,000	11,800	29,800	497
Specific conductance (µS/cm)	13	460	120,000	19,500	38,100	930
Calcium (mg/L)	13	5.1	4,680	632	1,360	24.0
Magnesium (mg/L)	13	2.8	1,640	254	494	20.0
Hardness (mg/L)	10	24.0	540	164	162	125
Sodium (mg/L)	13	59.0	32,000	4,650	9,650	180
Sodium + potassium (mg/L)	2	100	130	115	21.2	115
Potassium (mg/L)	10	0.3	3.1	1.1	0.8	0.8
Chloride (mg/L)	13	11.0	62,500	8,820	18,800	46.0
Sulfate (mg/L)	12	3.0	600	130	200	42.9
Alkalinity (mg/L)	13	42.9	408	242	111	236
Bicarbonate (mg/L)	11	52.3	498	303	147	327
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: McLish Formation--364MCLS						
Well depth (ft)	9	3,060	11,600	8,280	3,040	7,960
Sample depth (ft)	7	4,640	11,400	8,450	2,160	8,760
Temperature (°C)	0	--	--	--	--	--
pH	8	5.4	7.8	*	*	*
Dissolved solids (mg/L)	11	52,800	294,000	196,000	76,100	215,000
Specific conductance (µS/cm)	10	132,000	233,000	180,000	31,800	190,000
Calcium (mg/L)	11	586	24,200	11,400	6,730	13,300
Magnesium (mg/L)	11	387	3,720	1,910	961	2,010
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	11	19,600	92,800	61,500	22,400	66,200
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	3	543	770	627	125	567
Chloride (mg/L)	11	31,900	181,000	120,000	47,200	133,000
Sulfate (mg/L)	10	11.0	595	331	193	397
Alkalinity (mg/L)	10	36.1	536	160	146	135
Bicarbonate (mg/L)	10	44.0	654	196	178	164
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Meramecian Series, undifferentiated--333MRMC						
Well depth (ft)	2	7,150	8,150	7,650	710	7,650
Sample depth (ft)	1	7,020	7,020	*	*	*
Temperature (°C)	0	--	--	--	--	--
pH	2	5.1	7.1	*	*	*
Dissolved solids (mg/L)	2	85,400	169,000	127,000	59,100	127,000
Specific conductance (µS/cm)	2	122,000	182,000	152,000	42,300	152,000
Calcium (mg/L)	2	3,520	9,040	6,280	3,900	6,280
Magnesium (mg/L)	2	830	1,520	1,180	488	1,180
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	2	27,900	54,300	41,100	18,600	41,100
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	1	420	420	*	*	*
Chloride (mg/L)	2	51,100	104,000	77,600	37,400	77,600
Sulfate (mg/L)	2	160	1,500	830	948	830
Alkalinity (mg/L)	2	200	240	220	28.4	220
Bicarbonate (mg/L)	2	244	293	268	34.6	268
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Misener Sandstone, Member of Chattanooga Shale--340MSNR						
Well depth (ft)	8	3,040	6,220	4,640	1,060	5,050
Sample depth (ft)	21	2,970	5,980	4,390	926	4,080
Temperature (°C)	0	--	--	--	--	--
pH	4	5.2	6.7	*	*	*
Dissolved solids (mg/L)	22	98,700	296,000	213,000	55,300	202,000
Specific conductance (µS/cm)	21	103,000	233,000	186,000	30,200	189,000
Calcium (mg/L)	22	4,860	21,400	13,600	4,960	11,900
Magnesium (mg/L)	22	1,200	4,150	2,430	855	2,430
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	22	31,400	89,500	65,200	16,100	62,000
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	3	326	450	381	63.2	367
Chloride (mg/L)	22	59,100	183,000	131,000	34,500	124,000
Sulfate (mg/L)	22	16.0	2,050	453	458	288
Alkalinity (mg/L)	22	4.9	104	45.5	24.2	43.6
Bicarbonate (mg/L)	22	6.0	127	55.4	29.5	53.2
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Mississippian System, undifferentiated--330MSSP						
Well depth (ft)	16	3,020	11,300	6,680	2,060	6,870
Sample depth (ft)	24	2,080	8,290	5,260	1,730	5,320
Temperature (°C)	0	--	--	--	--	--
pH	13	5.2	8.3	*	*	*
Dissolved solids (mg/L)	26	39,500	298,000	193,000	72,500	198,000
Specific conductance (µS/cm)	27	7,020	233,000	169,000	54,700	175,000
Calcium (mg/L)	27	1,040	25,200	12,600	6,910	12,700
Magnesium (mg/L)	26	62.0	3,970	2,160	1,180	2,480
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	27	13,700	90,300	56,800	21,400	59,500
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	9	16.0	1,060	355	340	242
Chloride (mg/L)	27	23,900	184,000	116,000	47,500	121,000
Sulfate (mg/L)	27	3.0	1,980	379	367	339
Alkalinity (mg/L)	26	7.7	574	122	126	81.6
Bicarbonate (mg/L)	26	9.4	700	148	153	99.5
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.- Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Missourian Series, undifferentiated--323MSSR						
Well depth (ft)	2	6,180	8,860	7,520	1,890	7,520
Sample depth (ft)	2	5,970	6,660	6,320	490	6,320
Temperature (°C)	0	--	--	--	--	--
pH	2	6.0	6.2	*	*	*
Dissolved solids (mg/L)	2	72,900	139,000	106,000	46,800	106,000
Specific conductance (µS/cm)	2	111,000	167,000	139,000	39,300	139,000
Calcium (mg/L)	2	3,950	7,900	5,930	2,790	5,930
Magnesium (mg/L)	2	543	1,340	944	567	944
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	2	23,600	44,000	33,800	14,400	33,800
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	1	259	259	*	*	*
Chloride (mg/L)	2	44,800	85,600	65,200	28,900	65,200
Sulfate (mg/L)	0	--	--	--	--	--
Alkalinity (mg/L)	2	40.2	97.6	68.9	40.6	68.9
Bicarbonate (mg/L)	2	49.0	119	84.0	49.5	84.0
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Morrison Formation--221MRSN						
Well depth (ft)	1	29.0	29.0	*	*	*
Sample depth (ft)	0	--	--	--	--	--
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	1	1,750	1,750	*	*	*
Specific conductance (µS/cm)	1	2,320	2,320	*	*	*
Calcium (mg/L)	1	99.0	99.0	*	*	*
Magnesium (mg/L)	1	89.0	89.0	*	*	*
Hardness (mg/L)	1	620	620	*	*	*
Sodium (mg/L)	0	--	--	--	--	--
Sodium + potassium (mg/L)	1	349	349	*	*	*
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	1	72.0	72.0	*	*	*
Sulfate (mg/L)	1	867	867	*	*	*
Alkalinity (mg/L)	1	369	369	*	*	*
Bicarbonate (mg/L)	1	450	450	*	*	*
Nitrate (mg/L)	1	0.1	0.1	*	*	*

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Morrowan Series, undifferentiated--328MRRW						
Well depth (ft)	33	4,790	14,500	8,530	2,170	8,640
Sample depth (ft)	32	4,160	10,700	7,830	2,150	7,520
Temperature (°C)	0	--	--	--	--	--
pH	31	4.4	8.4	*	*	*
Dissolved solids (mg/L)	35	1,070	271,000	45,600	63,600	19,800
Specific conductance (µS/cm)	33	1,830	213,000	50,500	48,200	31,200
Calcium (mg/L)	35	56.0	22,000	2,240	5,040	267
Magnesium (mg/L)	35	16.0	2,310	320	525	83.0
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	35	326	81,400	14,700	18,500	7,230
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	15	1.0	417	63.4	106	25.0
Chloride (mg/L)	35	610	170,000	27,500	39,900	11,400
Sulfate (mg/L)	31	4.0	2,850	497	644	308
Alkalinity (mg/L)	35	33.6	1,300	520	408	339
Bicarbonate (mg/L)	35	41.0	1,580	626	485	413
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Nellie Bly Formation--323NLBL						
Well depth (ft)	0	--	--	--	--	--
Sample depth (ft)	1	122	122	*	*	*
Temperature (°C)	1	16.0	16.0	*	*	*
pH	1	8.2	8.2	*	*	*
Dissolved solids (mg/L)	0	--	--	--	--	--
Specific conductance (µS/cm)	1	1,190	1,190	*	*	*
Calcium (mg/L)	1	62.2	62.2	*	*	*
Magnesium (mg/L)	1	101	101	*	*	*
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	1	29.9	29.9	*	*	*
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	1	1.8	1.8	*	*	*
Chloride (mg/L)	0	--	--	--	--	--
Sulfate (mg/L)	1	261	261	*	*	*
Alkalinity (mg/L)	1	345	345	*	*	*
Bicarbonate (mg/L)	0	--	--	--	--	--
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Neva Limestone Member of the Grenola Limestone--317NEVA						
Well depth (ft)	1	6,670	6,670	*	*	*
Sample depth (ft)	1	6,050	6,050	*	*	*
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	1	239,000	239,000	*	*	*
Specific conductance (µS/cm)	1	250,000	250,000	*	*	*
Calcium (mg/L)	1	12,100	12,100	*	*	*
Magnesium (mg/L)	1	2,970	2,970	*	*	*
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	1	76,200	76,200	*	*	*
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	1	148,000	148,000	*	*	*
Sulfate (mg/L)	0	--	--	--	--	--
Alkalinity (mg/L)	1	118	118	*	*	*
Bicarbonate (mg/L)	1	144	144	*	*	*
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Oil Creek Formation--364OLCK						
Well depth (ft)	14	1,560	13,600	7,410	3,900	8,060
Sample depth (ft)	15	1,490	12,500	6,130	3,880	3,980
Temperature (°C)	0	--	--	--	--	--
pH	8	6.0	8.1	*	*	*
Dissolved solids (mg/L)	18	1,960	295,000	142,000	96,300	153,000
Specific conductance (µS/cm)	17	2,870	222,000	126,000	74,700	141,000
Calcium (mg/L)	18	12.0	21,000	8,240	6,870	7,030
Magnesium (mg/L)	18	13.0	3,530	1,460	942	1,300
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	18	702	87,700	44,300	29,200	49,400
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	4	15.0	1,460	854	690	972
Chloride (mg/L)	18	822	182,000	87,000	59,400	93,200
Sulfate (mg/L)	18	6.0	729	274	252	202
Alkalinity (mg/L)	18	27.9	617	255	236	119
Bicarbonate (mg/L)	18	34.0	753	304	278	146
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Oscar Sandstone--3180SCR						
Well depth (ft)	1	123	123	*	*	*
Sample depth (ft)	2	82.3	140	111	40.9	111
Temperature (°C)	2	18.5	18.5	18.5	0.	18.5
pH	3	6.9	8.4	*	*	*
Dissolved solids (mg/L)	1	572	572	*	*	*
Specific conductance (µS/cm)	2	530	730	630	141	630
Calcium (mg/L)	2	75.2	80.3	77.7	3.6	77.7
Magnesium (mg/L)	2	15.6	30.6	23.1	10.6	23.1
Hardness (mg/L)	1	12.0	12.0	*	*	*
Sodium (mg/L)	2	20.2	56.1	38.1	25.4	38.1
Sodium + potassium (mg/L)	1	218	218	*	*	*
Potassium (mg/L)	2	0.4	0.9	0.6	0.4	0.6
Chloride (mg/L)	1	17.0	17.0	*	*	*
Sulfate (mg/L)	3	8.0	90.0	47.0	41.1	43.0
Alkalinity (mg/L)	3	177	417	301	120	310
Bicarbonate (mg/L)	1	508	508	*	*	*
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Pennsylvanian System, undifferentiated--320PSLV						
Well depth (ft)	15	1,520	10,400	5,480	2,900	5,790
Sample depth (ft)	14	990	9,620	3,340	2,680	2,510
Temperature (°C)	0	--	--	--	--	--
pH	6	4.6	6.4	*	*	*
Dissolved solids (mg/L)	19	11,500	290,000	161,000	76,900	173,000
Specific conductance (µS/cm)	12	69,000	222,000	145,000	53,700	153,000
Calcium (mg/L)	20	160	18,200	9,440	5,620	10,200
Magnesium (mg/L)	20	78.0	3,490	1,940	1,020	1,760
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	20	4,230	89,000	48,800	22,900	50,800
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	2	47.0	194	120	104	120
Chloride (mg/L)	20	6,530	179,000	97,300	47,200	104,000
Sulfate (mg/L)	16	8.0	2,860	444	745	126
Alkalinity (mg/L)	20	4.9	605	94.7	132	55.2
Bicarbonate (mg/L)	20	6.0	492	103	113	67.4
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Permian System, undifferentiated--310PRMN						
Well depth (ft)	5	150	6,500	3,400	2,420	4,100
Sample depth (ft)	13	860	4,200	2,450	920	2,290
Temperature (°C)	1	17.1	17.1	*	*	*
pH	1	7.6	7.6	*	*	*
Dissolved solids (mg/L)	15	421	191,000	122,000	60,400	124,000
Specific conductance (µS/cm)	14	635	189,000	127,000	58,500	133,000
Calcium (mg/L)	15	29.0	11,700	6,480	4,160	6,880
Magnesium (mg/L)	15	12.0	2,900	1,680	1,100	1,960
Hardness (mg/L)	1	120	120	*	*	*
Sodium (mg/L)	15	100	59,700	38,300	18,100	38,400
Sodium + potassium (mg/L)	1	100	100	*	*	*
Potassium (mg/L)	1	2.2	2.2	*	*	*
Chloride (mg/L)	15	27.0	118,000	74,900	37,700	76,400
Sulfate (mg/L)	9	111	798	212	222	128
Alkalinity (mg/L)	14	3.3	644	99.1	165	48.6
Bicarbonate (mg/L)	14	4.0	786	121	201	59.3
Nitrate (mg/L)	1	0.8	0.8	*	*	*
Geologic unit: Perry Farm Shale Member of the Lenapah Limestone--324PRFM						
Well depth (ft)	1	3,510	3,510	*	*	*
Sample depth (ft)	5	2,890	3,720	3,460	332	3,500
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	5	288,000	311,000	303,000	11,000	311,000
Specific conductance (µS/cm)	5	189,000	244,000	226,000	21,500	233,000
Calcium (mg/L)	5	20,000	21,700	21,100	817	21,700
Magnesium (mg/L)	5	3,140	3,370	3,300	93.2	3,340
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	5	86,600	93,600	91,200	3,300	93,500
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	5	178,000	192,000	187,000	6,810	192,000
Sulfate (mg/L)	5	234	569	428	126	475
Alkalinity (mg/L)	4	36.1	52.8	42.3	7.8	40.1
Bicarbonate (mg/L)	4	44.0	64.4	51.5	9.5	48.9
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Pontotoc Group--319PNTC						
Well depth (ft)	18	1,510	9,700	6,810	2,740	7,790
Sample depth (ft)	11	317	9,220	4,030	3,400	2,510
Temperature (°C)	0	--	--	--	--	--
pH	7	3.3	8.0	*	*	*
Dissolved solids (mg/L)	20	93,900	288,000	177,000	48,800	191,000
Specific conductance (µS/cm)	12	17,300	222,000	156,000	57,900	163,000
Calcium (mg/L)	22	110	20,300	9,880	4,300	10,600
Magnesium (mg/L)	22	96.0	4,760	1,970	1,070	1,900
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	22	4,500	85,000	52,100	18,200	55,800
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	3	34.0	670	277	344	127
Chloride (mg/L)	22	6,300	179,000	103,000	36,600	115,000
Sulfate (mg/L)	20	3.0	1,300	135	300	45.0
Alkalinity (mg/L)	18	13.9	1,170	141	260	73.0
Bicarbonate (mg/L)	18	17.0	1,400	171	312	89.0
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Post Oak Conglomerate--318PSOK						
Well depth (ft)	3	17.0	175	92.3	79.3	85.0
Sample depth (ft)	0	--	--	--	--	--
Temperature (°C)	3	17.5	23.5	20.3	3.0	20.0
pH	5	7.4	8.8	*	*	*
Dissolved solids (mg/L)	6	460	2,880	1,190	905	774
Specific conductance (µS/cm)	6	750	4,580	1,920	1,410	1,290
Calcium (mg/L)	0	--	--	--	--	--
Magnesium (mg/L)	0	--	--	--	--	--
Hardness (mg/L)	6	10.0	330	148	136	144
Sodium (mg/L)	0	--	--	--	--	--
Sodium + potassium (mg/L)	6	73.0	920	381	303	305
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	6	48.0	950	306	340	193
Sulfate (mg/L)	6	10.0	730	220	280	92.0
Alkalinity (mg/L)	6	180	633	285	172	228
Bicarbonate (mg/L)	6	208	772	338	215	269
Nitrate (mg/L)	4	0.2	38.0	9.8	18.8	0.5

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Purcell Sandstone Lens in the Hennessey Shale--318PRCL						
Well depth (ft)	0	--	--	--	--	--
Sample depth (ft)	4	30.5	183	117	66.7	126
Temperature (°C)	4	15.5	20.0	18.2	2.0	18.7
pH	4	7.1	7.7	*	*	*
Dissolved solids (mg/L)	0	--	--	--	--	--
Specific conductance (µS/cm)	4	580	2,820	1,700	1,040	1,700
Calcium (mg/L)	4	46.1	311	141	118	104
Magnesium (mg/L)	4	29.1	95.1	69.4	28.2	76.7
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	4	59.4	234	153	93.2	160
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	3	1.6	5.4	3.8	2.0	4.3
Chloride (mg/L)	0	--	--	--	--	--
Sulfate (mg/L)	4	14.0	732	253	338	132
Alkalinity (mg/L)	4	210	450	308	101	285
Bicarbonate (mg/L)	0	--	--	--	--	--
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Roubidoux Formation--367RBDX						
Well depth (ft)	10	1,080	1,670	1,240	185	1,200
Sample depth (ft)	0	--	--	--	--	--
Temperature (°C)	7	18.7	27.8	23.1	2.9	23.1
pH	16	7.0	8.2	*	*	*
Dissolved solids (mg/L)	22	167	1,490	491	358	370
Specific conductance (µS/cm)	20	300	2,750	791	634	578
Calcium (mg/L)	21	18.0	170	42.8	33.2	32.0
Magnesium (mg/L)	21	1.9	76.0	17.4	14.7	15.0
Hardness (mg/L)	21	76.0	740	175	138	140
Sodium (mg/L)	11	7.7	452	144	146	86.0
Sodium + Potassium (mg/L)	11	3.2	220	72.0	72.7	61.0
Potassium (mg/L)	15	1.0	25.0	5.4	5.8	3.7
Chloride (mg/L)	22	1.6	780	159	193	97.0
Sulfate (mg/L)	22	0.3	560	40.4	116	15.0
Alkalinity (mg/L)	22	119	270	157	39.4	143
Bicarbonate (mg/L)	14	145	210	164	18.7	160
Nitrate (mg/L)	9	0.1	0.4	0.2	0.1	0.2

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Rowe Formation--323ROWE						
Well depth (ft)	3	3,390	6,090	4,300	1,550	3,410
Sample depth (ft)	1	3,350	3,350	*	*	*
Temperature (°C)	0	--	--	--	--	--
pH	2	6.4	6.5	*	*	*
Dissolved solids (mg/L)	3	51,600	170,000	126,000	65,000	158,000
Specific conductance (µS/cm)	2	55,900	152,000	104,000	67,600	104,000
Calcium (mg/L)	3	2,900	9,910	7,340	3,860	9,210
Magnesium (mg/L)	3	558	1,800	1,340	677	1,650
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	3	16,000	53,200	39,500	20,400	49,300
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	3	29,400	105,000	77,200	41,600	97,300
Sulfate (mg/L)	3	16.0	2,790	943	1,600	28.0
Alkalinity (mg/L)	3	27.1	68.9	53.0	22.6	63.1
Bicarbonate (mg/L)	3	33.0	84.0	64.7	27.6	77.0
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Rush Springs Formation--313RSPG						
Well depth (ft)	33	20.0	2,560	191	434	105
Sample depth (ft)	29	18.3	384	104	85.3	76.2
Temperature (°C)	54	12.5	26.0	19.4	3.0	18.5
pH	55	5.8	8.3	*	*	*
Dissolved solids (mg/L)	62	154	2,620	822	730	507
Specific conductance (µS/cm)	67	222	3,610	1,150	934	754
Calcium (mg/L)	54	18.5	583	181	172	99.0
Magnesium (mg/L)	54	0.3	182	37.4	38.8	21.8
Hardness (mg/L)	41	54.0	980	335	227	240
Sodium (mg/L)	41	3.9	411	56.9	78.0	32.0
Sodium + Potassium (mg/L)	29	3.2	279	49.4	58.6	29.0
Potassium (mg/L)	37	0.4	4.1	1.5	0.9	1.1
Chloride (mg/L)	66	3.1	365	36.4	56.2	17.0
Sulfate (mg/L)	70	7.0	1,900	386	532	106
Alkalinity (mg/L)	70	32.0	495	181	85.5	161
Bicarbonate (mg/L)	41	49.0	604	226	108	192
Nitrate (mg/L)	37	0.1	330	33.2	61.7	12.0

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Salt Plains Formation--318SLPL						
Well depth (ft)	1	60.0	60.0	*	*	*
Sample depth (ft)	0	--	--	--	--	--
Temperature (°C)	1	15.0	15.0	*	*	*
pH	1	7.8	7.8	*	*	*
Dissolved solids (mg/L)	2	1,960	2,500	2,230	382	2,230
Specific conductance (µS/cm)	1	3,080	3,080	*	*	*
Calcium (mg/L)	1	160	160	*	*	*
Magnesium (mg/L)	1	96.0	96.0	*	*	*
Hardness (mg/L)	2	790	1,200	995	290	995
Sodium (mg/L)	1	421	421	*	*	*
Sodium + potassium (mg/L)	1	300	300	*	*	*
Potassium (mg/L)	1	17.0	17.0	*	*	*
Chloride (mg/L)	2	310	690	500	269	500
Sulfate (mg/L)	2	272	1,200	736	656	736
Alkalinity (mg/L)	2	192	473	332	199	332
Bicarbonate (mg/L)	2	234	577	406	242	406
Nitrate (mg/L)	2	0.2	15.0	7.6	10.5	7.6
Geologic unit: Savanna Sandstone--325SVNN						
Well depth (ft)	6	4,100	12,600	7,000	3,080	6,680
Sample depth (ft)	4	2,190	12,400	7,130	4,180	6,950
Temperature (°C)	0	--	--	--	--	--
pH	6	4.9	7.3	*	*	*
Dissolved solids (mg/L)	6	11,100	217,000	148,000	77,700	164,000
Specific conductance (µS/cm)	6	19,300	192,000	133,000	72,000	161,000
Calcium (mg/L)	6	48.0	19,400	12,600	7,260	13,700
Magnesium (mg/L)	6	23.0	2,410	1,730	905	2,090
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	6	4,330	60,500	41,600	21,200	46,900
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	4	20.0	718	353	385	336
Chloride (mg/L)	6	5,910	134,000	91,700	48,400	102,000
Sulfate (mg/L)	6	12.0	307	119	105	114
Alkalinity (mg/L)	6	8.2	1,280	271	499	93.4
Bicarbonate (mg/L)	6	10.0	1,570	331	608	114
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Seminole Formation--323SMNL						
Well depth (ft)	0	--	--	--	--	--
Sample depth (ft)	1	232	232	*	*	*
Temperature (°C)	1	14.5	14.5	*	*	*
pH	1	8.2	8.2	*	*	*
Dissolved solids (mg/L)	0	--	--	--	--	--
Specific conductance (µS/cm)	1	1,660	1,660	*	*	*
Calcium (mg/L)	1	7.6	7.6	*	*	*
Magnesium (mg/L)	1	4.7	4.7	*	*	*
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	1	355	355	*	*	*
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	0	--	--	--	--	--
Sulfate (mg/L)	1	371	371	*	*	*
Alkalinity (mg/L)	1	410	410	*	*	*
Bicarbonate (mg/L)	0	--	--	--	--	--
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Senora Formation--325SNOR						
Well depth (ft)	2	6,130	8,960	7,550	2,000	7,550
Sample depth (ft)	9	1,180	5,830	2,380	1,520	1,830
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	10	96,100	322,000	160,000	63,600	151,000
Specific conductance (µS/cm)	8	120,000	182,000	151,000	18,700	149,000
Calcium (mg/L)	10	4,390	12,400	8,450	2,190	8,400
Magnesium (mg/L)	10	1,620	2,750	2,180	344	2,260
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	10	30,500	113,000	50,200	24,000	45,800
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	10	59,500	197,000	98,600	38,600	93,500
Sulfate (mg/L)	4	44.3	458	159	200	67.2
Alkalinity (mg/L)	9	33.5	134	75.9	31.7	70.3
Bicarbonate (mg/L)	9	40.8	164	92.5	38.6	85.7
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Shawnee Group--322SHWN						
Well depth (ft)	10	4,240	7,600	5,900	1,170	5,680
Sample depth (ft)	11	1,980	4,060	2,870	782	3,020
Temperature (°C)	0	--	--	--	--	--
pH	2	5.7	6.6	*	*	*
Dissolved solids (mg/L)	15	161,000	290,000	236,000	46,300	233,000
Specific conductance (µS/cm)	11	164,000	233,000	208,000	23,300	213,000
Calcium (mg/L)	17	8,810	18,600	13,500	3,400	13,300
Magnesium (mg/L)	17	1,410	3,460	2,740	585	2,770
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	17	51,500	88,700	73,100	12,800	71,500
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	1	167	167	*	*	*
Chloride (mg/L)	17	99,300	179,000	145,000	27,000	144,000
Sulfate (mg/L)	14	19.0	592	175	191	111
Alkalinity (mg/L)	17	1.0	71.3	32.5	18.5	32.6
Bicarbonate (mg/L)	17	1.2	87.0	39.6	22.6	39.8
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Simpson Group--364SMPS						
Well depth (ft)	119	72.0	11,200	5,440	2,010	5,760
Sample depth (ft)	163	2,070	12,900	5,180	1,540	4,950
Temperature (°C)	7	13.0	22.0	16.8	2.8	16.0
pH	44	5.3	9.4	*	*	*
Dissolved solids (mg/L)	211	251	313,000	206,000	67,800	221,000
Specific conductance (µS/cm)	166	471	294,000	182,000	53,900	192,000
Calcium (mg/L)	213	16.0	28,700	12,400	5,250	12,900
Magnesium (mg/L)	213	7.4	3,770	2,340	872	2,520
Hardness (mg/L)	8	84.0	380	300	95.2	330
Sodium (mg/L)	213	2.2	100,000	64,200	20,600	68,600
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	17	0.7	1,840	354	570	48.0
Chloride (mg/L)	213	4.4	192,000	127,000	42,000	136,000
Sulfate (mg/L)	209	2.0	11,500	592	1,200	431
Alkalinity (mg/L)	205	2.8	839	86.0	98.0	59.9
Bicarbonate (mg/L)	205	3.4	885	103	114	73.0
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Spergen Formation--333SPRG						
Well depth (ft)	1	5,080	5,080	*	*	*
Sample depth (ft)	0	--	--	--	--	--
Temperature (°C)	0	--	--	--	--	--
pH	1	4.7	4.7	*	*	*
Dissolved solids (mg/L)	1	224,000	224,000	*	*	*
Specific conductance (µS/cm)	1	208,000	208,000	*	*	*
Calcium (mg/L)	1	12,600	12,600	*	*	*
Magnesium (mg/L)	1	4,220	4,220	*	*	*
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	1	67,700	67,700	*	*	*
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	1	139,000	139,000	*	*	*
Sulfate (mg/L)	1	125	125	*	*	*
Alkalinity (mg/L)	1	8.2	8.2	*	*	*
Bicarbonate (mg/L)	1	10.0	10.0	*	*	*
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Springer Group--328SPRG						
Well depth (ft)	6	4,460	11,200	8,300	2,530	8,750
Sample depth (ft)	10	2,920	10,200	6,010	2,010	6,000
Temperature (°C)	0	--	--	--	--	--
pH	5	5.9	7.3	*	*	*
Dissolved solids (mg/L)	12	25,600	190,000	116,000	45,500	132,000
Specific conductance (µS/cm)	11	39,200	189,000	127,000	41,800	141,000
Calcium (mg/L)	12	196	13,600	5,150	3,650	5,750
Magnesium (mg/L)	12	69.0	2,740	1,150	766	1,240
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	12	9,720	55,600	38,100	13,200	43,100
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	3	40.0	213	113	89.5	87.0
Chloride (mg/L)	12	15,200	118,000	70,900	28,500	81,200
Sulfate (mg/L)	12	12.3	491	168	127	136
Alkalinity (mg/L)	11	104	644	265	167	215
Bicarbonate (mg/L)	11	126	786	323	204	262
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Strawn Group--324STRN						
Well depth (ft)	14	2,600	6,900	4,430	1,100	4,240
Sample depth (ft)	52	1,300	5,590	3,460	1,130	3,240
Temperature (°C)	0	--	--	--	--	--
pH	4	5.4	7.9	*	*	*
Dissolved solids (mg/L)	55	3,420	281,000	195,000	63,000	192,000
Specific conductance (µS/cm)	53	70,900	238,000	182,000	35,900	182,000
Calcium (mg/L)	55	543	21,800	12,300	4,850	12,700
Magnesium (mg/L)	55	129	3,680	2,350	775	2,390
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	55	321	88,200	59,800	19,200	58,400
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	2	74.0	122	98.0	33.9	98.0
Chloride (mg/L)	55	66.0	173,000	121,000	39,000	118,000
Sulfate (mg/L)	50	31.2	2,300	261	322	199
Alkalinity (mg/L)	48	1.6	216	72.5	39.9	67.2
Bicarbonate (mg/L)	48	2.0	263	88.5	48.7	82.0
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Sumner Group--317SMNR						
Well depth (ft)	1	3,460	3,460	*	*	*
Sample depth (ft)	1	3,110	3,110	*	*	*
Temperature (°C)	0	--	--	--	--	--
pH	1	6.0	6.0	*	*	*
Dissolved solids (mg/L)	2	181,000	199,000	190,000	13,200	190,000
Specific conductance (µS/cm)	2	179,000	204,000	191,000	18,000	191,000
Calcium (mg/L)	2	9,570	12,000	10,800	1,700	10,800
Magnesium (mg/L)	2	1,990	2,280	2,140	207	2,140
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	2	57,500	61,800	59,700	3,050	59,700
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	2	111,000	123,000	117,000	8,340	117,000
Sulfate (mg/L)	1	135	135	*	*	*
Alkalinity (mg/L)	1	23.8	23.8	*	*	*
Bicarbonate (mg/L)	1	29.0	29.0	*	*	*
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Sycamore Limestone--338SCMR						
Well depth (ft)	0	--	--	--	--	--
Sample depth (ft)	1	4,030	4,030	*	*	*
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	1	86,200	86,200	*	*	*
Specific conductance (µS/cm)	1	109,000	109,000	*	*	*
Calcium (mg/L)	1	1,150	1,150	*	*	*
Magnesium (mg/L)	1	125	125	*	*	*
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	1	32,400	32,400	*	*	*
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	1	52,200	52,200	*	*	*
Sulfate (mg/L)	0	--	--	--	--	--
Alkalinity (mg/L)	1	269	269	*	*	*
Bicarbonate (mg/L)	1	328	328	*	*	*
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Thrifty and Graham Formation--321TFGM						
Well depth (ft)	15	4,090	7,600	6,270	1,190	6,470
Sample depth (ft)	8	4,090	6,360	4,480	766	4,210
Temperature (°C)	0	--	--	--	--	--
pH	7	5.3	8.6	*	*	*
Dissolved solids (mg/L)	15	63,300	255,000	210,000	46,100	218,000
Specific conductance (µS/cm)	6	170,000	204,000	194,000	12,700	200,000
Calcium (mg/L)	15	3,310	18,000	12,700	3,170	13,300
Magnesium (mg/L)	15	21.0	3,140	2,260	774	2,350
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	15	21,200	79,700	65,000	14,000	67,200
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	1	403	403	*	*	*
Chloride (mg/L)	15	38,400	158,000	129,000	28,700	134,000
Sulfate (mg/L)	13	21.0	268	156	79.7	172
Alkalinity (mg/L)	15	17.2	83.6	43.0	21.2	41.0
Bicarbonate (mg/L)	14	21.0	102	52.3	26.8	45.5
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Thurman Sandstone--325TRMN						
Well depth (ft)	0	--	--	--	--	--
Sample depth (ft)	4	1,530	1,840	1,680	134	1,680
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	4	78,500	110,000	94,300	13,500	94,100
Specific conductance (µS/cm)	4	108,000	133,000	120,000	12,400	120,000
Calcium (mg/L)	4	3,240	5,480	4,240	936	4,110
Magnesium (mg/L)	4	1,220	1,760	1,490	221	1,480
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	4	25,500	34,800	30,200	4,030	30,300
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	4	48,500	68,400	58,300	8,440	58,100
Sulfate (mg/L)	1	124	124	*	*	*
Alkalinity (mg/L)	4	64.3	107	78.9	19.3	72.1
Bicarbonate (mg/L)	4	78.4	131	96.2	23.5	87.9
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Triassic-Permian Systems, undifferentiated--230TCPM						
Well depth (ft)	4	112	703	299	272	190
Sample depth (ft)	0	--	--	--	--	--
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	4	320	590	435	129	416
Specific conductance (µS/cm)	1	543	543	*	*	*
Calcium (mg/L)	4	13.0	91.4	38.1	36.7	24.0
Magnesium (mg/L)	3	19.0	68.0	43.7	24.5	44.0
Hardness (mg/L)	3	110	360	230	125	220
Sodium (mg/L)	0	--	--	--	--	--
Sodium + potassium (mg/L)	4	33.0	188	82.7	71.1	55.0
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	4	11.0	43.0	21.0	15.0	15.0
Sulfate (mg/L)	4	42.0	135	79.5	41.1	70.5
Alkalinity (mg/L)	4	210	390	296	77.1	292
Bicarbonate (mg/L)	4	256	476	361	94.0	356
Nitrate (mg/L)	1	0.4	0.4	*	*	*

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Tulip Creek Formation--364TPCK						
Well depth (ft)	0	--	--	--	--	--
Sample depth (ft)	1	7,940	7,940	*	*	*
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	1	254,000	254,000	*	*	*
Specific conductance (µS/cm)	1	227,000	227,000	*	*	*
Calcium (mg/L)	1	16,400	16,400	*	*	*
Magnesium (mg/L)	1	2,660	2,660	*	*	*
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	1	78,100	78,100	*	*	*
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	1	157,000	157,000	*	*	*
Sulfate (mg/L)	1	272	272	*	*	*
Alkalinity (mg/L)	1	11.3	11.3	*	*	*
Bicarbonate (mg/L)	1	13.8	13.8	*	*	*
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Tyner Formation--364TYNR						
Well depth (ft)	1	3,940	3,940	*	*	*
Sample depth (ft)	0	--	--	--	--	--
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	1	214,000	214,000	*	*	*
Specific conductance (µS/cm)	0	--	--	--	--	--
Calcium (mg/L)	1	13,800	13,800	*	*	*
Magnesium (mg/L)	1	2,410	2,410	*	*	*
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	1	65,500	65,500	*	*	*
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	1	132,000	132,000	*	*	*
Sulfate (mg/L)	1	270	270	*	*	*
Alkalinity (mg/L)	1	29.5	29.5	*	*	*
Bicarbonate (mg/L)	1	36.0	36.0	*	*	*
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Union Valley Formation--327UNVL						
Well depth (ft)	16	3,180	12,600	5,640	3,060	4,050
Sample depth (ft)	26	2,470	12,600	4,450	2,490	3,590
Temperature (°C)	0	--	--	--	--	--
pH	10	4.9	9.4	*	*	*
Dissolved solids (mg/L)	27	3,880	208,000	154,000	59,500	180,000
Specific conductance (μS/cm)	26	5,200	204,000	145,000	60,000	159,000
Calcium (mg/L)	30	312	17,700	9,540	3,900	9,800
Magnesium (mg/L)	31	19.0	2,370	1,580	744	1,890
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	29	1,110	66,000	46,200	20,600	54,500
Sodium + potassium (mg/L)	2	34,400	35,700	35,000	955	35,000
Potassium (mg/L)	5	8.0	501	182	216	77.0
Chloride (mg/L)	31	1,680	128,000	90,900	39,100	104,000
Sulfate (mg/L)	27	7.0	1,260	383	301	332
Alkalinity (mg/L)	30	9.8	381	114	95.9	91.7
Bicarbonate (mg/L)	29	12.0	465	140	119	110
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Vamoosa Formation--322VMOS						
Well depth (ft)	51	41.0	900	249	207	160
Sample depth (ft)	1	45.7	45.7	*	*	*
Temperature (°C)	38	7.0	31.5	18.8	5.7	17.7
pH	38	5.3	9.0	*	*	*
Dissolved solids (mg/L)	53	79.0	2,290	606	512	454
Specific conductance (μS/cm)	55	114	4,000	977	798	720
Calcium (mg/L)	55	1.7	390	47.1	62.5	28.0
Magnesium (mg/L)	55	0.1	130	21.0	25.7	13.0
Hardness (mg/L)	54	5.0	1,500	204	251	120
Sodium (mg/L)	55	4.7	860	143	181	74.0
Sodium + Potassium (mg/L)	11	6.8	78.0	23.2	19.8	17.0
Potassium (mg/L)	37	0.4	7.1	2.3	1.5	1.9
Chloride (mg/L)	55	4.0	860	100	173	32.0
Sulfate (mg/L)	55	0.2	970	107	187	32.0
Alkalinity (mg/L)	55	11.0	797	257	145	270
Bicarbonate (mg/L)	33	76.0	895	375	148	386
Nitrate (mg/L)	6	0.1	58.0	9.8	23.6	0.1

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Vanoss Formation--322VNSS						
Well depth (ft)	14	30.0	240	122	68.8	110
Sample depth (ft)	11	15.2	238	153	78.9	186
Temperature (°C)	21	7.0	24.0	18.1	4.6	19.0
pH	25	6.4	8.9	*	*	*
Dissolved solids (mg/L)	15	263	7,480	1,100	1,800	659
Specific conductance (µS/cm)	26	485	12,900	1,500	2,410	935
Calcium (mg/L)	25	0.9	690	96.6	137	65.4
Magnesium (mg/L)	25	0.4	190	36.3	40.6	28.7
Hardness (mg/L)	15	4.0	2,500	448	626	260
Sodium (mg/L)	26	2.5	1,800	182	343	104
Sodium + potassium (mg/L)	7	7.7	290	161	116	110
Potassium (mg/L)	22	0.4	6.9	2.0	1.5	1.5
Chloride (mg/L)	15	4.2	4,600	445	1,180	38.0
Sulfate (mg/L)	25	5.0	290	60.3	75.4	37.0
Alkalinity (mg/L)	26	115	550	276	111	268
Bicarbonate (mg/L)	1	300	300	*	*	*
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Viola Limestone--361VIOL						
Well depth (ft)	43	3,550	15,600	5,790	2,330	5,090
Sample depth (ft)	44	2,350	15,000	5,100	2,590	4,590
Temperature (°C)	0	--	--	--	--	--
pH	26	4.2	7.7	*	*	*
Dissolved solids (mg/L)	58	2,140	289,000	160,000	81,000	188,000
Specific conductance (µS/cm)	47	14,400	233,000	153,000	59,300	175,000
Calcium (mg/L)	58	153	21,600	9,640	5,870	10,800
Magnesium (mg/L)	58	60.0	5,000	1,850	1,060	2,000
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	58	319	87,400	49,400	24,500	58,600
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	2	936	1,800	1,370	611	1,370
Chloride (mg/L)	58	144	180,000	98,200	50,200	116,000
Sulfate (mg/L)	56	16.1	1,200	373	232	340
Alkalinity (mg/L)	58	4.9	770	162	170	95.1
Bicarbonate (mg/L)	57	6.0	940	187	192	110
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Virgilian Series, undifferentiated--322VRGL						
Well depth (ft)	2	4,010	4,970	4,490	678	4,490
Sample depth (ft)	2	3,650	3,910	3,780	186	3,780
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	2	141,000	195,000	168,000	38,200	168,000
Specific conductance (µS/cm)	2	145,000	161,000	153,000	11,600	153,000
Calcium (mg/L)	2	1,250	13,800	7,510	8,840	7,510
Magnesium (mg/L)	2	635	2,800	1,720	1,530	1,720
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	1	57,400	57,400	*	*	*
Sodium + potassium (mg/L)	1	52,300	52,300	*	*	*
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	2	78,300	121,000	99,600	30,100	99,600
Sulfate (mg/L)	2	92.0	8,350	4,220	5,840	4,220
Alkalinity (mg/L)	2	55.8	254	155	140	155
Bicarbonate (mg/L)	2	68.0	310	189	171	189
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Wabaunsee Group--322WBNS						
Well depth (ft)	1	4,840	4,840	*	*	*
Sample depth (ft)	1	2,080	2,080	*	*	*
Temperature (°C)	0	--	--	--	--	--
pH	1	7.1	7.1	*	*	*
Dissolved solids (mg/L)	1	298,000	298,000	*	*	*
Specific conductance (µS/cm)	1	204,000	204,000	*	*	*
Calcium (mg/L)	1	18,500	18,500	*	*	*
Magnesium (mg/L)	1	3,440	3,440	*	*	*
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	1	91,700	91,700	*	*	*
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	1	184,000	184,000	*	*	*
Sulfate (mg/L)	1	53.0	53.0	*	*	*
Alkalinity (mg/L)	1	13.9	13.9	*	*	*
Bicarbonate (mg/L)	1	17.0	17.0	*	*	*
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Wapanucka Limestone--328WPCK						
Well depth (ft)	0	--	--	--	--	--
Sample depth (ft)	1	2,830	2,830	*	*	*
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	1	182,000	182,000	*	*	*
Specific conductance (µS/cm)	1	132,000	132,000	*	*	*
Calcium (mg/L)	1	17,800	17,800	*	*	*
Magnesium (mg/L)	1	2,000	2,000	*	*	*
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	1	49,200	49,200	*	*	*
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	1	113,000	113,000	*	*	*
Sulfate (mg/L)	1	456	456	*	*	*
Alkalinity (mg/L)	1	120	120	*	*	*
Bicarbonate (mg/L)	1	146	146	*	*	*
Nitrate (mg/L)	0	--	--	--	--	--
Geologic unit: Weatherford Member of the Cloud Chief Formation--312WRFD						
Well depth (ft)	1	70.0	70.0	*	*	*
Sample depth (ft)	0	--	--	--	--	--
Temperature (°C)	0	--	--	--	--	--
pH	1	7.7	7.7	*	*	*
Dissolved solids (mg/L)	1	232	232	*	*	*
Specific conductance (µS/cm)	1	382	382	*	*	*
Calcium (mg/L)	0	--	--	--	--	--
Magnesium (mg/L)	0	--	--	--	--	--
Hardness (mg/L)	1	160	160	*	*	*
Sodium (mg/L)	0	--	--	--	--	--
Sodium + potassium (mg/L)	1	17.0	17.0	*	*	*
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	1	12.0	12.0	*	*	*
Sulfate (mg/L)	1	12.0	12.0	*	*	*
Alkalinity (mg/L)	1	154	154	*	*	*
Bicarbonate (mg/L)	1	188	188	*	*	*
Nitrate (mg/L)	1	17.0	17.0	*	*	*

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Wellington Formation-- 310WLNG						
Well depth (ft)	13	63.0	1,050	362	333	172
Sample depth (ft)	16	9.1	162	54.8	38.0	41.1
Temperature (°C)	24	11.0	25.0	19.7	3.4	19.7
pH	26	6.2	8.2	*	*	*
Dissolved solids (mg/L)	15	129	1,540	600	358	498
Specific conductance (µS/cm)	29	207	4,240	1,340	1,080	930
Calcium (mg/L)	29	1.9	554	110	137	64.4
Magnesium (mg/L)	29	0.1	207	41.4	41.3	31.0
Hardness (mg/L)	14	7.0	410	230	128	245
Sodium (mg/L)	23	5.0	200	93.1	62.5	76.0
Sodium + potassium (mg/L)	7	22.0	492	208	155	146
Potassium (mg/L)	20	0.1	9.8	2.4	2.2	1.6
Chloride (mg/L)	15	4.5	630	115	164	67.0
Sulfate (mg/L)	30	7.0	1,630	203	402	54.5
Alkalinity (mg/L)	30	89.4	418	290	73.3	277
Bicarbonate (mg/L)	14	109	510	345	108	338
Nitrate (mg/L)	1	0.1	83.0	18.4	30.4	0.6
Geologic unit: Wewoka Formation--325WWOK						
Well depth (ft)	1	2,800	2,800	*	*	*
Sample depth (ft)	1	3,290	3,290	*	*	*
Temperature (°C)	0	--	--	--	--	--
pH	0	--	--	--	--	--
Dissolved solids (mg/L)	2	87,700	230,000	159,000	100,000	159,000
Specific conductance (µS/cm)	1	200,000	200,000	*	*	*
Calcium (mg/L)	2	3,920	14,800	9,350	7,690	9,350
Magnesium (mg/L)	2	1,200	2,970	2,080	1,250	2,080
Hardness (mg/L)	0	--	--	--	--	--
Sodium (mg/L)	2	28,400	69,800	49,100	29,300	49,100
Sodium + potassium (mg/L)	0	--	--	--	--	--
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	2	54,200	142,000	98,200	62,300	98,200
Sulfate (mg/L)	2	58.0	72.8	65.4	10.5	65.4
Alkalinity (mg/L)	2	27.1	48.5	37.8	15.1	37.8
Bicarbonate (mg/L)	2	33.0	59.2	46.1	18.5	46.1
Nitrate (mg/L)	0	--	--	--	--	--

Table 4.--Statistical summary of chemical analyses of water samples, grouped by geologic unit, in the CM RASA hydrochemical data base for Oklahoma, northern Texas, and Union County, New Mexico--Continued

	n	Minimum	Maximum	Mean	St. Dev.	Median
Geologic unit: Whitehorse Group--310WTRS						
Well depth (ft)	3	87.0	108	95.0	11.4	90.0
Sample depth (ft)	25	9.1	396	160	132	122
Temperature (°C)	26	15.5	25.0	18.9	2.3	19.0
pH	28	5.7	8.3	*	*	*
Dissolved solids (mg/L)	8	326	2,470	1,210	801	1,010
Specific conductance (μS/cm)	28	400	4,500	1,810	1,030	1,580
Calcium (mg/L)	27	22.0	557	251	180	247
Magnesium (mg/L)	27	11.6	284	66.6	54.8	57.0
Hardness (mg/L)	3	140	630	433	259	530
Sodium (mg/L)	26	14.6	149	58.0	36.4	55.0
Sodium + potassium (mg/L)	2	70.0	73.0	71.5	2.1	71.5
Potassium (mg/L)	26	0.7	5.1	2.6	1.1	2.6
Chloride (mg/L)	28	10.0	191	61.3	57.5	29.0
Sulfate (mg/L)	28	16.0	1,960	721	593	626
Alkalinity (mg/L)	28	84.0	298	185	58.9	183
Bicarbonate (mg/L)	3	260	334	292	38.0	282
Nitrate (mg/L)	3	0.1	12.0	4.2	6.7	0.6
Geologic unit: Wichita Group--318WCHT						
Well depth (ft)	3	140	4,150	1,480	2,320	140
Sample depth (ft)	1	4,080	4,080	*	*	*
Temperature (°C)	0	--	--	--	--	--
pH	3	5.9	7.8	*	*	*
Dissolved solids (mg/L)	2	8,240	241,000	125,000	164,000	125,000
Specific conductance (μS/cm)	3	8,690	154,000	57,300	83,600	9,390
Calcium (mg/L)	3	428	13,800	4,890	7,720	440
Magnesium (mg/L)	3	42.0	4,480	1,520	2,560	49.0
Hardness (mg/L)	2	1,200	1,300	1,250	70.7	1,250
Sodium (mg/L)	1	72,700	72,700	*	*	*
Sodium + potassium (mg/L)	2	1,960	2,130	2,040	120	2,040
Potassium (mg/L)	0	--	--	--	--	--
Chloride (mg/L)	3	280	149,000	49,900	85,800	350
Sulfate (mg/L)	3	920	5,080	3,620	2,340	4,870
Alkalinity (mg/L)	3	37.7	92.0	72.9	30.5	89.0
Bicarbonate (mg/L)	3	46.0	112	88.7	37.0	108
Nitrate (mg/L)	2	0.4	0.4	0.4	0.	0.4

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