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GEOLOGICAL SURVEY
WASHINGTON, D. C. 20242

FINNEY COUNTY BASIC DATA

By

W. R. Meyer, E. D. Gutentag, and D. H. Lobmeyer

Water Resources Division
Lawrence, Kansas

Prepared in cooperation with the State Geological Survey of Kansas, Kansas State Board of Agriculture, and Kansas State Department of Health

OPEN-FILE REPORT

March 1969

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Introduction

This open-file report contains basic data on measurements and chemical analyses of ground water, logs of test holes, and summary information on selected logs for Finney County, Kans.

A generalized section of the geologic formations and their water-bearing characteristics is presented in table 1. Information on 694 inventoried wells in Finney County is given in table 2. Measured depths to water are given to the nearest hundredth of a foot; reported depths are given in feet. Chemical analyses for 96 samples of ground water in the county are listed in table 3.

Logs of 89 test holes drilled in Finney County are listed. Thirty-seven of these text holes were drilled by the State and Federal Geological Surveys, and logs of these test holes are headed "Sample log of test hole drilled in . . . ." These test were logged by the authors during drilling and were supplemented by study of the formation cuttings. Fifteen of the test holes were drilled by commerical well drillers for individual land owners, and formation cuttings were collected; logs of these test holes are headed "Sample log of test hole drilled by (name of driller) for (owner). . . ." In most instances these test holes were logged by personnel of the Geological Survey from the formation cuttings, and the description may differ somewhat from that of the drillers.

Thirty-seven driller's logs were included with the sample logs for coverage in areas where sample logs were not available.

The wells, test holes, and logs are numbered according to the U.S. Bureau of Land Management system of land subdivision and in the following manner: township, range, section, and the position within the section. A graphic illustration of this method of location is shown in figure 1. The first numeral indicates the township, the second indicates the range, and the third indicates the section in which the well or test hole is situated. Letters following the section number locate the well or test hole within the section. The first letter denotes the quarter section, the second letter denotes the quarter-quarter section, and the third letter denotes the quarter-quarter-quarter section. The letters are assigned in a counterclockwise direction beginning with A in the northeast corner of the section. If more than one well or test hole occurs in a quarter-quarter-quarter section, consecutive numbers beginning with 2 are added to the letters in the order in which the wells were inventoried. For example, the number 22-33W-23BAC indicates a well in the SW¼NE¼NW¼ of section 23, T. 22 S., R. 33 W.

Table 4 lists 250 selected test holes, 158 of which were drilled and logged by commercial well drillers. Logs for the 92 test holes indicated by an asterisk are given in the section "Logs of test holes" in the report. The owner's name shown in the log table indicates the individual or company the test hole was drilled for and may not indicate present land ownership. An "e" after the altitude means that the altitude was estimated from topographic maps.

Table 5 presents a total of 115 selected electrical and radioactivity logs of oil and gas tests. In many instances the depths reported are to the nearest 10-foot interval.

Table 1.--Generalized section of geologic formations[1/] and their water-bearing characteristics.

System	Series	Stratigraphic unit	Thickness, feet	Physical character	Water supply
Quaternary	Holocene and Pleistocene	Alluvium	0- 70±	Silt, clay, and sand of Holocene age overlying sand, gravel, and cobbles of late Pleistocene age along the major stream valleys, both in valley proper and in adjacent uplands.	Yields from single wells range from 800 to 1,200 gpm (gallons per minute), and yields from battery wells in the Arkansas River valley range from 3,000 to 5,000 gpm.
	Pleistocene	Dune sand	0- 75±	Fine to medium quartzose sand with lesser amounts of clay, silt, and coarse sand, formed into small hills and mounds by wind. Located principally south of the Arkansas River.	Lies above the water table and does not yield water to wells. The dunes have a high infiltration rate and are important as areas of ground-water recharge.
		Loess	0- 30±	Eolian (windblown) silt mantles much of the county and is moderately permeable.	Lies above the water table and does not yield water to wells. Serves as minor areas of ground-water recharge.
		Undifferentiated deposits	0-300±	Sand, gravel, silt, clay, and caliche underlies most of the county, and is generally in contact with the Ogallala Formation when both are present.	The sand and gravel of the undifferentiated Pliestocene deposits and the Ogallala Formation are the principal water-bearing deposits in the county. Yields range from 600 to 2,500 gpm in irrigation wells.
Tertiary	Pliocene	Ogallala Formation	0-300±	Poorly sorted sand, gravel, silt, clay, and caliche; unconsolidated to tightly cemented by calcium carbonate.	
Cretaceous	Upper Cretaceous	Niobrara Chalk, Carlile Shale, Greenhorn Limestone, and Graneros Shale	0-600±	Massive cream-colored chalky limestone, gray to black clayey and chalky shale and thin limestone beds, and some sandstone. Removed by erosion from much of Finney County.	Yield 2 to 10 gpm of water for stock and domestic wells near outcrop areas.
	Lower Cretaceous	Undifferentiated deposits	120-460±	Shale; clay, sandstone, and siltstone; interbedded and varicolored.	Yield 20 to 100 gpm of water to wells from sandstone aquifers.
Jurassic	Upper Jurassic	Morrison (?) Formation	50-350±	Shale, clay, sandstone, and siltstone, with basal sandstone and siltstone.	Not known to yield water to wells. A potential aquifer for small to moderate yields.
Permian	Upper Permian	Undifferentiated red beds	200-500±	Shale, siltstone, sandstone, dolomite, and anhydrite, with local occurrence of limestone.	Not known to yield water to wells.

[1/] Stratigraphic units used in this release are those of the U.S. Geological Survey and differ somewhat from those of the State Geological Survey of Kansas.

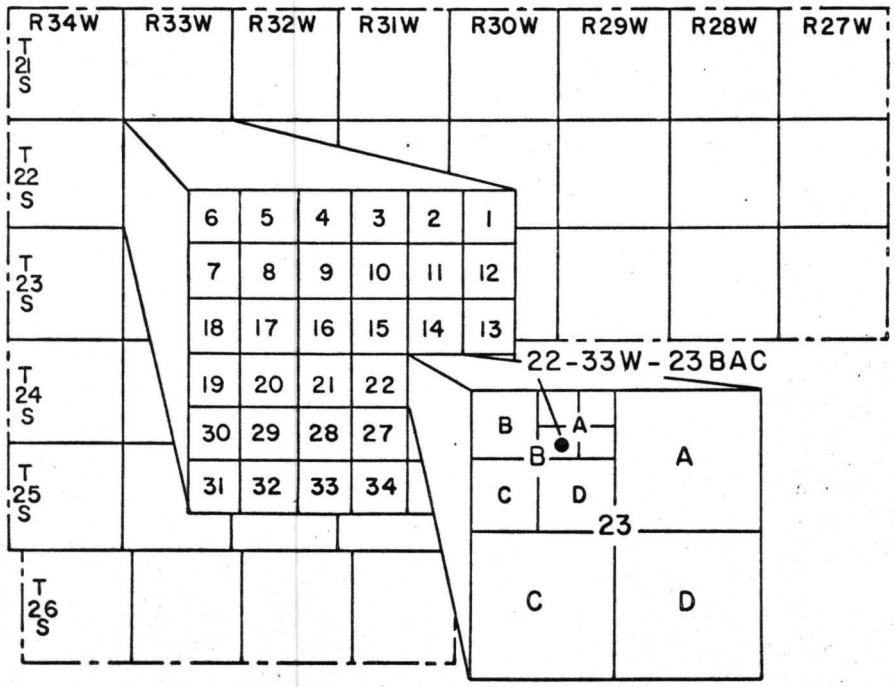

Figure 1.--Well-numbering system used in this report.

20-34W-32CD.--Driller's log of test hole in SE¼SW¼ sec. 32, T. 20 S., R. 34 W. (Scott County), about 0.4 mile west and 50 feet north of SE cor. sec.; drilled 1941. Altitude of land surface, 3,089 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Soil, sandy, dark	2	2
Silt and sand, fine, limy, tan; contains gastropods	10	12
Silt and sand, fine, pinkish-brown, with thin limy zones	6	18
Caliche, soft, tan to light-gray	6	24
Sand, fine to medium, pinkish-brown; contains some silt	2	26
Caliche, soft, tannish-gray, and limy clay	7	33
Clay, tannish-gray	5	38
Sand, medium, to gravel, medium-brown	16	54
Sand and gravel, lime-cemented, gray	4	58
Sand, medium, to coarse gravel; contains few lime-cemented zones	37	95
Silt, sandy, light grayish-yellow	8	103
Silt, sandy, lime-cemented, soft, light-gray; contains lenses of brown, fine to medium sand	16	119
Niobrara Chalk		
Chalk, silty, soft, light-yellow to light-gray	15	134
Shale, chalky, soft, dark bluish-gray; contains few fragments of white bentonite	6	140
Shale, chalky, dark bluish-gray; contains interbedded lighter gray hard sandy shale	14	154
Shale, chalky, dark-gray to white	10	164
Chalk, light-gray to white	3	167
Shale, chalky, light-gray to dark-gray	5	172
Chalk, light-gray to white	12	184
Shale, chalky, dark-gray	1	185
Chalk, light-gray to white	15	200
Shale, chalky, light-gray to white	19	219
Carlile Shale		
Shale, sandy, noncalcareous, dark-gray	33	252
Shale, sandy, light-gray to dark-gray	1	253
Shale, clayey, noncalcareous, dark-gray to black	17+	270

21-29W-33CD.--Driller's log of test hole in SE¼SW¼ sec. 33, T. 21 S., R. 29 W.; drilled by Pan American Petroleum, May 29, 1938. Altitude of land surface, 2,653.3 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Clay, brown	16	16
Niobrara Chalk		
Clay, brown, and bits of chalk	9	25
Clay, sticky, yellow	24	49
Carlile Shale		
Shale, blue	25+	74

21-30W-10AA.--Sample log of test hole in NE¼NE¼ sec. 10, T. 21 S., R. 30 W.; 40 feet west and 25 feet south of NE cor. sec.; drilled July 17, 1962. Altitude of land surface, 2,840e feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	2	2
Silt, sandy, tan	6	8
Silt, sandy, calcareous, tan	17	25
Sand, fine to very fine, silty, tan; contains caliche	8	33
Caliche; white and brown silt	7	40
Sand, medium to fine, silty, brown	8	48
Silt, sandy, brown; contains streaks of fine to medium silty sand	6	54
Clay, silty, brown	4	58
Silt, sandy, tan	3	61
Niobrara Chalk		
Chalk, yellowish-white	6	67
Chalk, soft, white and yellow	22	89
Shale, sandy, limy, dark-gray	1+	90

21-31W-9AA.--Sample log of test hole in NE¼NE¼ sec. 9, T. 21 S., R. 31 W., 55 feet west and 30 feet south of NE cor. sec. 9; drilled July 16, 1962. Altitude of land surface, 2,920e feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil, dark-brown	3	3
Sand, very fine to fine, silty, grayish-tan	7	10
Sand, very fine to medium, silty, tan; contains caliche	17	27
Sand, very fine to medium, some coarse, silty, tan; contains caliche	10	37
Silt, sandy, calcareous, tan	9	46
Sand, fine to coarse, tan; contains caliche	14	60
Sand, medium to very coarse	13	73
Sand, fine to coarse, silty, tannish-white; contains high amount of caliche	22	95
Clay, soft, limy, yellowish-white (weathered limy shale)	23	118
Niobrara Chalk		
Shale, limy, gray	12+	130

21-31W-30DD.--Sample log of test hole in SE¼SE¼ sec. 30, T. 21 S., R. 31 W., 40 feet north and 40 feet west of SE cor. sec.; drilled July 16, 1962. Altitude of land surface, 2,920e feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	2	2
Silt, sandy, tan; contains mollusk fragments	6	8
Silt, tan	2	10
Sand, very fine to fine, silty, tan	5	15
Caliche; white and tan silt	3	18
Caliche, sandy, white and tan silt; contains fine to very coarse sand	16	34
Silt, sandy, tan	6	40
Sand, very fine to medium, silty; contains caliche	5	45
Sand, fine to very coarse, subangular to subrounded, silty	5	50
Sand, fine to very coarse, subangular to subrounded, silty, tan	9	59
Sand, fine to medium, lime-cemented	2	61
Sand, medium to very coarse, angular to subrounded; and fine to medium, subangular to subrounded gravel	14	75

21-31W-30DD.--continued

	Thickness, feet	Depth, feet
Sand, fine to medium, some coarse, subangular to subrounded, and fine gravel; contains thin lime-cemented streaks	12	87
Sand, very fine to fine, silty, tan; contains lime-cemented streaks	11	98
Silt, tannish-white, very sandy, and fine to medium gravel; some lime-cemented streaks	16	114
Sand, fine to very coarse, subangular to subrounded	3	117
Clay, limy, yellowish-white	15	132
Niobrara Chalk		
Shale, limy, dark grayish-brown	18+	150

21-32W-8AB3.--Sample log of test hole in NW¼NE¼ sec. 8, T. 21 S., R. 32 W., 0.20 mile south and 0.3 mile west of NE cor. sec. 8; drilled July 23, 1962. Altitude of land surface, 2,910 feet.

Undifferentiated Pleistocene deposits	Thickness, feet	Depth, feet
Topsoil, dark-brown	3	3
Silt, very sandy, tan	2	5
Silt, very sandy, grayish-tan	4	9
Silt, sandy, gray	10	19
Silt, sandy, reddish-tan	6	25
Silt, very sandy, brown; contains very fine to fine sand streaks	11	36
Silt, sandy, tannish-gray; contains caliche	16	52
Sand, fine to very coarse, subangular to subrounded, caliche-cemented	3	55
Silt, sandy, tan; contains caliche-cemented streaks	8	63
Sand, medium to very coarse, subangular to subrounded, and fine to medium gravel; contains caliche-cemented streaks	7	70
Gravel, fine to medium, subangular to subrounded; and fine to very coarse subangular to subrounded sand	11	81
Gravel, fine to medium, subangular to subrounded; and very coarse to medium subangular to subrounded sand; contains hard white caliche streaks	31	112
Sand, fine to very coarse, subangular to subrounded; and fine, subangular to subrounded gravel	16	128

21-32W-8AB3.--continued

	Thickness, feet	Depth, feet
Niobrara Chalk		
Shale, soft, limy, yellowish-white; interbedded with thin laminae of light-gray limy shale (weathered limy shale?)	11	139
Shale, soft, sticky, limy, dark grayish-brown	4	143
Shale, soft, sticky, limy, dark yellowish-brown	5	148
Shale, soft, sticky, limy, dark-gray	2+	150

21-32W-16BA.--Driller's log of test hole in NE¼NW¼ sec. 16, T. 21 S., R. 32 W., 100 feet south and 0.27 mile east of NW cor. sec. 16; drilled by Henkle Drilling and Supply Co., Inc. for George Schriener, October 27, 1955. Altitude of land surface, 2,913e feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	2	2
Subsoil	3	5
Clay	15	20
Gyp (caliche) and clay streaks	1	21
Gyp (caliche) and tight sand	39	60
Clay	3	63
Sand, medium	3	66
Rock	2	68
Clay	3	71
Sand, fine, and small clay streaks	5	76
Sand, fine to medium; small rock shell	16	92
Rock	2	94
Sand, fine to medium, with coarse streaks	29	123
Clay, yellow	17	140
Niobrara Chalk		
Shale	3+	143

21-32W-21CD.--Driller's log of test hole in SE¼SW¼ sec. 21, T. 21 S., R. 32 W., 0.3 mile east and 0.1 mile north of SW cor. sec. 21; drilled by Henkle Drilling and Supply Co., Inc. for Wesley Sterling, July 12, 1955. Altitude of land surface, 2,907 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	2	2

21-32W-21CD.--continued

	Thickness, feet	Depth, feet
Subsoil	3	5
Silt and clay	12	17
Lime and clay	21	38
Rock shell	1	39
Clay, slightly sandy, lime streaks, brown	6	45
Sand, fine to medium fine; with clay	22	67
Clay, lime, and thin fine sand streaks	3	70
Sand, fine to medium coarse; some broken rock	12	82
Clay	1	83
Sand, fine to medium; some broken rock and thin lime streaks	5	88
Lime and clay with broken limerock and thin sandstone shells; thin sand streaks	11	99
Sand, fine to coarse; with broken limerock and thin limy clay shells	8	107
Clay, sandy, brown; with thin lime streaks	8	115
Sand, fine to medium coarse; some broken rock	9	124
Rock, hard	1	125
Sand, fine to medium coarse; with some chipped rock and clay streaks	4	129
Sand, fine to medium coarse; with broken rock and hard shells	6	135
Clay, soapy, yellow	13	148
Niobrara Chalk		
Shale	2+	150

21-32W-29DB.--Driller's log of test hole in NW¼SE¼ sec. 29, T. 21 S., R. 29 W., 0.46 mile north and 0.46 mile west of SE cor. sec.; drilled by Henkle Drilling and Supply Co., Inc. for J. E. Greathouse, May 19, 1953. Altitude of land surface, 2,902 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	2	2
Subsoil	2	4
Clay, silty	8	12
Clay	13	25
Limerock, fairly hard	56	81
Limerock; with sandy clay streaks	18	99
Clay, sandy; with few rock shells	10	109

21-32W-29DB.--continued

	Thickness, feet	Depth, feet
Sand, fine to coarse, with small clay streaks; extra loose	20	129
Sand, fine to coarse; with small streaks of clay and a few rock shells	27	156
Clay, sandy, limy	5	161
Lime rock, extra hard	2	163
Clay, sandy, limy; with a few small rock shells	8	171
Sand with chipped rock, small clay streaks; fairly loose	19	190
Clay, sandy	16	206
Sand; fine and coarse gravel, loose; small lime rock shell and a few small clay streaks	3	209
Clay	6	215
Niobrara Chalk		
Shale	1+	216

21-32W-35DA.--Driller's log of test hole in NE¼SE¼ sec. 35, T. 21 S., R. 32 W.,; drilled by Henkle Drilling and Supply Co., Inc. for A. E. Landgraf, July 14, 1954. Altitude of land surface, 2,938e feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	2	2
Subsoil	1	3
Silt and clay	9	12
Silt and sand	6	18
Clay, mushy	6	24
Clay, firm	21	45
Clay, limy, firm	30	75
Caliche, hard	17	92
Sand	1	93
Sandstone; clay and lime rock	15	108
Clay, sandy, slightly firm	18	126
Sand, fine	6	132
Clay; chipped rock and sand mixed	25	157
Rock shell	1	158
Clay; with lime rock	30	188
Clay; imbedded gravel and lime rock	3	191
Clay	4	195
Clay, yellow	13	208
Niobrara Chalk		
Shale	1+	209

21-33W-2AC2.--Sample log of test hole in SW¼NE¼ sec. 2, T. 21 S., R. 33 W., 0.36 mile south and 0.4 mile west of NE cor. sec.; drilled July 20, 1963. Altitude of land surface, 2,915e feet.

Undifferentiated Pleistocene deposits	Thickness, feet	Depth, feet
Topsoil, dark-brown	5	5
Silt, sandy, tan; contains fragments of mollusk shells	20	25
Silt, hard, limy, clayey, tan	12	37
Clay, silty, blue	3	40
Silt, hard, limy, clayey, light-brown; contains caliche-cemented layers	15	55
Silt, hard, limy, sandy	8	63
Sand, very fine to fine, silty, tan	10	73
Caliche, sandy, silty, white	3	76
Sand, fine to very coarse, subangular to subrounded, and gravel	14	90
Sand, fine to coarse, subangular to subrounded, silty; contains silty sandy tan caliche layers	24	114
Sand, medium to very coarse, angular to subrounded, and fine gravel; contains white caliche layers	17	131
Caliche, hard, sandy, silty, yellowish-white	2	133
Sand, fine to medium, subangular to subrounded, and fine gravel; contains cemented layers	3	136
Caliche, hard, sandy, whitish-yellow	2	138
Silt, soft, sandy	5	143
Sand, fine to coarse, subangular to subrounded, and fine gravel, silty; contains caliche-cemented layers	5	148
Sand, fine to very coarse, angular to rounded, and fine gravel, silty; caliche-cemented	3	151
Silt, sandy, limy, yellowish-white; contains interbedded sand layers	23	174
Niobrara Chalk		
Shale (siltstone), limy, bluish-brown	6+	180

21-33W-11AA.--Driller's log of test hole in NE¼NE¼ sec. 11, T. 21 S., R. 33 W., 0.24 mile west and 30 feet south of NE cor. sec.; drilled by Kenny Minter Water Wells for J. A. Hipp, January 10, 1959. Altitude of land surface, 2,902 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	1	1

21-33W-11AA.--continued

	Thickness, feet	Depth, feet
Clay	32	33
Sand, fine sand, and gravel mixed (loose)	2	35
Clay strips, thin	5	40
Sand; gravel, some large gravel (mixed, loose)	7	47
Sand, fine; clay (silt), drilled easy	11	58
Sand, fine (loose)	5	63
Clay and gyp (caliche)	9	72
Gyp (caliche), rotten, and thin shells	7	79
Sand, fine (loose)	1	80
Caly, sandy, and gyp (caliche)	2	82
Sand and large gravel	3	85
Caly, sandy; some gyp (caliche)	11	96
Gyp (caliche), rotten, and fine sand strips; sandy clay	8	104
Sand and gravel (loose); gyprock	3	107
Clay and gyp (caliche)	.5	107.5
Sand and large gravel (loose)	2.5	110
Sand; gravel, large gravel, cemented sand streaks, and thin gyp (caliche) shells	5	115
Sand and gravel strips; clay strips (loose)	2.5	117.5
Sand, fine, and sand and gravel (loose)	4.5	122
Clay, sandy	4	126
Gyp (caliche), rotten, formation fairly loose in strips	11	137
Gyp (caliche), rotten, gyprock, and sand and gravel (fairly loose)	11	148
Sand, fine, and some large gravel (loose)	4	152
Shale, yellow	14	166
Niobrara Chalk		
Shale, blue	4+	170

21-33W-26DA.--Driller's log of test hold in NE¼SE¼ sec. 26, T. 21 S., R. 33 W., 0.33 mile north and 150 feet west of SE cor. sec.; drilled by Henkle Drilling and Supply Co., Inc. for the Gano Estate, January 10, 1959. Altitude of land surface, 2,898 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Surface	2	2
Clay, brown	41	43
Sand, fine	11	54
Clay, sandy, and fine sand streaks	13	67
Clay, brown and blue	13	80

21-33W-26DA.--continued

	Thickness, feet	Depth, feet
Sand, small, and small gravel (good, loose) -	11	91
Gyp (caliche), white clay, and layers of black rock -	25	116
Clay, white; gyp (caliche) and sand streaks -	7	123
Sand, medium, and medium gravel (very good, loose) -	12	135
Sand, small, and small gravel; small clay streaks (good, loose) - - - - - - - - - - - - -	16	151
Clay -	1	152
Sand; medium and small gravel (good, loose) -	13	165
Sand, small, coarse, and white rock - - - - - -	11	176
Niobrara Chalk		
Limestone, soapstone (good, loose) - - - - - - -	29+	205

21-33W-31CC.--Driller's log of test hole in SW¼SW¼ sec. 31, T. 21 S., R. 33 W.; drilled by Western Drilling Co. for Raymond Crist, 1946. Altitude of land surface, 2,892 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Surface -	3	3
Clay, yellow - - - - - - - - - - - - - - - - - - -	26	29
Sand -	5	34
Clay, yellow - - - - - - - - - - - - - - - - - - -	10	44
Clay, with strips of caliche - - - - - - - - - -	8	52
Clay, sandy - - - - - - - - - - - - - - - - - - -	5	57
Gravel -	10	67
Clay and rock - - - - - - - - - - - - - - - - - -	2	69
Gravel, with strips of sandstone - - - - - - - -	7	76
Gravel -	7	83
Clay -	2	85
Sandstone -	2	87
Gravel -	10	97
Niobrara Chalk		
Limestone -	23+	120

21-33W-35DC.--Driller's log of test hole in SW¼SE¼ sec. 35, T. 21 S., R. 33 W., 1,320 feet west and 825 feet north of SE cor. sec.; drilled by Henkle Drilling and Supply Co. for the Gano Estate, August 31, 1957. Altitude of land surface, 2,882 feet.

21-33W-35DC.--continued

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	2	2
Subsoil	3	5
Clay, yellow	16	21
Clay, brown and blue	21	42
Sand, fine	15	57
Clay, blue	15	72
Clay, gray	18	90
Rock	12	102
Gyp (caliche)	12	114
Gyp (caliche) and clay streaks	9	123
Sand, fine to medium, loose	17	140
Sand, fine, and clay	3	143
Sand, fine to medium; small gravel	11	154
Gyp (caliche)	5	159
Gyprock	3	162
Gyp (caliche) and clay streaks	23	185
Clay, yellow, and rock shell	35	220
Niobrara Chalk		
Shale	5+	225

21-34W-14CB.--Driller's log of test hole in NW¼SW¼ sec. 14, T. 21 S., R. 34 W., 0.2 mile east of W¼ cor. sec.; drilled by Henkle Drilling and Supply Co., Inc. for Raymond Kester, October 2, 1956. Altitude of land surface, 2,957 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	2	2
Subsoil	3	5
Clay	15	20
Clay, sandy	10	30
Clay and gyp (caliche)	28	58
Sand, fine to medium, and rock shell	14	72
Sand, fine to medium	11	83
Sand, medium, and tight clay	9	92
Sand, medium, and gravel	22	114
Rock	1	115
Clay and gyp (caliche)	8+	123

21-34W-17CD.--Sample log of test hole in SE cor. SW¼ sec. 17, T. 21 S., R. 34 W., about ½ mile east of SW cor. sec.; drilled by C. K. Minter Drilling Co. for Kansas Nebraska Natural Gas Co., October 12, 1961. Altitude of land surface, 3,009 feet.

	Thickness, feet	Depth, feet
Undifferentiated Pleistocene deposits and Ogallala Formation		
Silt, limy, sandy, tan; contains mollusk shell fragments	15	15
Silt, limy, sandy, light-tan	4	19
Silt, limy, sandy, light-tan; contains caliche nodules	2	21
Sand, medium to very coarse, angular to subrounded, and fine, subangular to subrounded gravel; contains lime-cemented streaks	9	30
Sand, medium to very coarse, angular to subrounded, and fine to medium, subangular to subrounded gravel; contains lime-cemented streaks	18	48
Sand, fine to coarse, subangular to subrounded, lime-cemented; interbedded brown limy silt streaks	7	55
Niobrara Chalk		
Chalk, soft, weathered, yellow and white	15	70
Chalk, soft, weathered, yellow	8	78
Chalk, soft, white and yellow; contains thin hard streaks	22	100
Chalk, soft, white	15	115
Chalk, gray and white	11	126
Chalk, gray	4	130
Carlile Shale		
Shale, limy, gray; contains a minor amount of pyrite	30	160
Shale, limy, dark-gray to black; interbedded with noncalcareous dark-gray shale	40	200
Shale, limy, dark-gray to black, noncalcareous; interbedded with dark-gray to black limy shale	62+	262

21-34W-35CC.--Driller's log of test hole in SW¼SW¼ sec. 35, T. 21 S., R. 34 W.; drilled by Kenny Minter Water Wells for Bill Frisby, September 1954. Altitude of land surface, 2,910e feet.

21-34W-35CC.--continued

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
No log	22	22
Clay, jointed; some fine sand, mixed	5	27
Gyp (caliche) and gyprock	10	37
Clay, sandy	3	40
Gyp (caliche)	1	41
Clay, sandy, and real thin fine sand strips	3	44
Clay	6	50
Sand, fine	1	51
Clay	9	60
Sand, fine; with gravel, mixed	1	61
Clay, sandy; strips of fine sand and small gravel	10	71
Gyprock (drilled hard with a few loose strips)	25	96
Gyprock; with more clay and some yellow clay mixed	30	126
Clay, sandy (drilled easy)	3	129
Niobrara Chalk(?)		
Shale, blue	11+	140

22-29W-12AB.--Sample log of test hole in NW¼NE¼ sec. 12, T. 22 S., R. 29 W., 200 feet east and 10 feet south of N¼ cor. sec.; drilled, July 17, 1962. Altitude of land surface, 2,620e feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Road fill and topsoil	3	3
Silt, limy, tan	5	8
Silt, limy, reddish-brown	7	15
Silt, limy, reddish-brown; contains caliche nodules	6	21
Silt, limy, clayey, tan	24	45
Silt, hard, clayey, tan; contains sand streaks	8	53
Silt, clayey, sandy, limy, tan; contains sand streaks	7	60
Sand, fine to very coarse, subangular to sub-rounded, silty; and fine, subangular gravel composed of limestone fragments	5	65

22-29W-12AB.--continued

	Thickness, feet	Depth, feet
Carlile Shale		
Shale (mudstone), hard, noncalcareous, black	5+	70

22-30W-6CB.--Driller's log of test hole in the NW¼SW¼ sec. 6, T. 22 S., R. 30 W., 1,620 feet north and 780 feet east of SW cor. sec.; drilled by K & M Drilling Co. for F. M. Gordanier, February 1956. Altitude of land surface, 2,881 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	2	2
Subsoil	5	7
Clay, gray	5	12
Clay, sandy, yellow	13	25
Rock and clay, white	3	28
Gyprock; hard and streaks of sandy yellow clay	26	54
Sand, fine	14	68
Sand, fine to coarse, and thin clay streaks	26	94
Sand, fine	6	100
Clay, sandy	6	106
Sand, medium	3	109
Clay, gray	13+	122

22-30W-19BC.--Driller's log of test hole in SW¼NW¼ sec. 19, T. 22 S., R. 30 W., 0.15 mile east and 0.3 mile south of NW cor. sec.; drilled by Henkle Drilling and Supply Co., Inc. for Ted Friessen, February 17, 1955. Altitude of land surface, 2,874 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	5	5
Subsoil	5	10
Clay	20	30
Gyp and clay	16	46
Rock	2	48
Gyp and clay streaks	8	56
Clay, sandy	23	79
Sand, fine to medium, and small gravel streaks	28	107
Clay, sandy	16	123

22-30W-19BC.--continued

	Thickness, feet	Depth, feet
Sand and clay	10	133
Clay, yellow	7	140
Niobrara Chalk		
Shale	3+	143

22-31W-15CA.--Sample log of test hole in NE¼SW¼ sec. 15, T. 22 S., R. 31 W., 0.4 mile north and 0.4 mile east of SW cor. sec.; drilled by Henkle Drilling and Supply Co., Inc. for Alfred Winters, February 28, 1961. Altitude of land surface, 2,809e feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil, sandy, dark-brown	2	2
Silt, sandy, limy, light-brown	10	12
Sand, very fine to coarse, subangular to rounded, silty	17	29
Caliche, hard, limy, sandy, silty	14	43
Sand, very fine to coarse, subangular to rounded, silty; contains layers of caliche-cemented sand	17	60
Sand, medium to very coarse, subangular to rounded; and fine to medium, angular to subrounded gravel	40	100
Sand, very fine to medium, subangular to subrounded, silty; contains streaks of fine to medium, subangular to subrounded gravel	8	108
Silt, sandy, limy; contains very fine to medium, subangular to subrounded sand streaks and thin whitish-tan caliche layers	7	115
Sand, very fine to medium, subangular to subrounded, silty	7	122
Sand, fine to very coarse, subangular to subrounded; contains tan clayey silt streaks	4	126
Silt, clayey, tan; contains caliche-cemented lime streaks	6	132
Sand, very fine to coarse, subangular to subrounded; and fine, subangular to rounded gravel, very silty	6	138
Sand, medium to very coarse, subangular to rounded; and fine, subangular to subrounded gravel	4	142
Caliche, hard, tannish-white	2	144

22-31W-15CA.--continued

	Thickness, feet	Depth, feet
Sand, coarse to very coarse, subangular to rounded; and fine, subangular to subrounded gravel	11	155
Clay, silty, limy, yellowish-white	15	170
Niobrara Chalk		
Shale, soft, limy, dark-gray	5+	175

22-31-32DB2.--Sample log of test hole in NW¼SE¼ sec. 32, T. 22 S., R. 31 S., 100 feet east and 2 feet south of center sec.; drilled, June 15, 1962. Altitude of land surface, 2,900 feet.

Undifferentiated Pleistocene deposits	Thickness, feet	Depth, feet
Topsoil, dark-brown	4	4
Silt, clayey, light-brown	3	7
Silt, sandy, tan; contains thin soft limy silt layers	17	24
Silt, limy, clayey, very sandy, tannish-white	14	38
Caliche, silty, sandy, whitish-tan	3	41
Silt, tight, very sandy, light-brown; contains tannish-white sandy caliche streaks	9	50
Silt, soft, sandy, reddish-brown and tan	5	55
Sand, fine to coarse, very silty	5	60
Silt, soft, sandy, reddish-brown and tan; contains soft whitish-tan caliche strips	6	66
Caliche, tight, silty, sandy, whitish-tan	6	72
Sand, fine to very coarse, subangular to subrounded, and fine, subangular to subrounded gravel; contains tannish-white caliche-cemented sand streaks	25	97
Silt, sandy, reddish-brown	5	102
Sand, fine to very coarse, subangular to subrounded, silty; contains tan caliche-cemented sand streaks	11	113
Sand, fine to very coarse, angular to subrounded; and fine to medium, subangular to subrounded gravel	17	130
Silt, sandy, reddish-brown	4	134
Sand, fine to very coarse, subangular to rounded; and fine to medium, subangular to subrounded gravel	16	150
Sand, fine to very coarse, subangular to subrounded, and fine to medium, angular to subrounded gravel; contains thin white caliche-cemented sand streaks	12	162

22-31W-32DB2.--continued

Ogallala Formation	Thickness, feet	Depth, feet
Silt, tight, sandy, yellow and reddish-brown; contains reddish-brown sandy silt and white caliche streaks	13	175
Sand, fine to very coarse, subangular to subrounded, and fine, subangular to rounded gravel; contains 50 percent caliche and reddish-brown sandy silt streaks	20	202
Silt, soft, limy, sandy, yellow	12	214
Sand, fine to very coarse, subangular to subrounded, and fine, subangular to subrounded gravel; contains 40 percent tannish-white caliche cement	6	220
Sand, fine to coarse, and very fine to coarse gravel; contains white tight caliche-cemented sand and thin reddish-brown to yellow sandy silt streaks	12	232
Niobrara Chalk		
Shale (siltstone), very calcareous, brownish-black	8+	240

22-32W-6DD.--Sample log of test hole in SE¼SE¼ sec. 6, T. 22 S., R. 32 S.; drilled, 1941. Altitude of land surface, 2,878 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	1	1
Silt, clayey, very sandy, tan	29	30
Sand, medium to very coarse, angular to rounded, and fine to medium, subangular to rounded gravel; contains brown silty clay	11	41
Clay, silty, light greenish-gray to blue; contains mollusk fragments	16	57
Silt, sandy, greenish-gray	15	72
Sand, coarse to very coarse, subangular to subrounded; and fine to medium, angular to subrounded gravel	3	75
Caliche, sandy, silty, gray	7	82
Sand, fine to very coarse, subangular to subrounded; and fine, angular to subrounded gravel	5	87
Clay, silty, sticky, light-gray	18	105
Caliche, sandy, silty, light-gray to white	24	129

22-32W-6DD.--continued

	Thickness, feet	Depth, feet
Sand, fine to coarse, subangular to subrounded, and fine, subangular to subrounded gravel; contains caliche cement	7	136
Sand, fine to very coarse, angular to subrounded, and fine, subangular to rounded gravel; contains gray and brown limy silt	24	160
Sand, medium to very coarse, angular to rounded; and fine to medium, angular to subrounded gravel	21	181
Silt, very sandy, limy, tan	9	190
Caliche, sandy, silty, yellowish-white; contains caliche-cemented sand and gravel	22	212
Sand, fine to very coarse, subangular to subrounded, and fine to medium, subangular to subrounded, gravel; contains Cretaceous chalk pebbles	28	240
Niobrara Chalk		
Chalk, yellow, weathered material	9	249
Chalk, yellow	25	274
Carlile Shale		
Shale, sandy, noncalcareous, bluish-gray	6+	280

22-32W-21DC.--Driller's log of test hole in the SW¼SE¼ sec. 21, T. 22 S., R. 32 W., 0.33 mile west and 150 feet north of SE cor. sec. 21; drilled by Western Drilling Co. for Naomi Hett, November 15, 1945. Altitude of land surface, 2,911 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Surface	6	6
Clay, sandy	14	20
Clay, sandy, and sand strips	10	30
Sand, fine	5	35
Lime bed, sandy	10	45
Clay, very sandy	15	60
Sand, fine; with one 6-inch strip of clay	9	69
Clay	4	73
Gravel, fine	7	80
Sand and clay strips	8	88
Clay	2	90

22-32W-21DC.--continued

	Thickness, feet	Depth, feet
Sand; few clay strips	4	94
Clay	2	96
Gravel, fine	10	106
Clay, blue	9	115
Gravel, fine, and blue clay; rock strips in last foot	6	121
Clay	17	138
Gravel	26	164
Rock strip	1	165
Gravel	22	187
Clay	1	188
Gravel	7	195
Lime rock	5	200
Niobrara Chalk		
Shale	10+	210

22-33W-8BB.--Sample log of test hole in NW¼NW¼ sec. 8, T. 22 S., R. 33 W., 50 feet east and 50 feet south of NW cor. sec.; drilled, 1941. Altitude of land surface, 2,892 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil, dark-brown	2	2
Silt, sandy, tan	6	8
Clay, silty, gray to black; contains mollusk fragments	11	19
Clay, silty, light-gray	6	25
Sand, fine to medium, subangular to subrounded, silty, grayish-tan	7	32
Sand, fine to very fine, limy, tan and light-gray; contains caliche	6	38
Caliche, light-gray to white	6	44
Sand, fine to coarse, subangular to subrounded, and fine gravel; contains caliche cement	6	50
Caliche, white; interbedded with fine sand	10	60
Silt, sandy, tannish-gray; contains thin caliche-cemented layers	50	110
Sand, medium to coarse, subangular to subrounded; contains gray caliche cement	11	121
Clay, silty, noncalcareous, mottled gray and yellow	21	142
Carlile Shale		
Shale (siltstone), sandy, dark-gray	8+	150

22-33W-13AA.--Sample log of test hole in NE¼NE¼ sec. 13, T. 22 S., R. 33 W., 22 feet south and 40 feet west of NE cor. sec.; drilled, May 28, 1962. Altitude of land surface, 2,885 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	2	2
Silt, sandy, dark-brown	4	6
Silt, sandy, light-brown	11	17
Clay, soft, silty, tan	13	30
Silt, clayey, tan	12	42
Clay, silty, bluish-gray; interbedded with tan clayey silt streaks	11	53
Sand, medium to very fine, subangular to rounded, silty; contains tannish-white caliche cement	14	67
Sand, very fine to medium, angular to subrounded, silty; contains whitish-gray caliche cement	11	78
Silt, very sandy; contains caliche-cemented fine sand layers	15	93
Silt, very sandy; contains tannish-white hard caliche-cemented layer	5	98
Caliche, hard, tight, sandy, silty, tannish-white; contains thin tan sandy silt layer	7	105
Caliche, hard, tight, very sandy, silty, tannish-white	17	122
Caliche, hard, tight, very sandy, silty, tannish-white; contains tan sandy silt layer	5	127
Silt, very sandy, tan; contains caliche cement	5	132
Sand, fine to very coarse, subangular to rounded, and fine to medium gravel; contains thin tan sandy limy silt layers	25	157
Sand, fine to very coarse, subangular to subrounded, and fine gravel; contains tan sandy silt	8	165
Silt, limy, sandy, tan	11	176
Caliche, hard, sandy, silty, whitish-tan	8	184
Caliche, hard, sandy, silty, whitish-tan; interbedded with yellowish-tan sandy limy silt and thin silty sand layers	24	208
Carlile Shale		
Shale (claystone), tight, noncalcareous, dark-gray to black; contains very thin brown limy silt layers	82+	290

22-33W-20BC.--Driller's log of test hold in the SW¼NW¼ sec. 20, T. 22 S., T. 33 W., 0.49 mile south and 50 feet east of NW cor. sec. 20; drilled by Henkle Drilling and Supply Co., Inc. for the Garden City Co., May 7, 1960. Altitude of land surface, 2,905 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	5	5
Clay, brown	40	45
Clay, gray	6	51
Clay, sandy, brown	19	70
Clay, sandy, light-brown	22	92
Clay, white, and rock	8	100
Clay, sandy, brown	8	108
Sand, and gravel	13	121
Clay, sandy, brown	12	133
Sand, fine, and gravel	11	144
Sand, medium, and gravel; good	45	189
Rock, white	1	190
Clay, yellow and gray	15+	205

22-33W-35BC.--Sample log of test hole in SW¼NW¼ sec. 35, T. 22 S., R. 33 W., 0.49 mile south and 0.18 mile east of NW cor. sec.; drilled by Henkle Drilling and Supply Co., Inc. for L. L. Holstead, December 5, 1960. Altitude of land surface, 2,871 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	2	2
Silt, sandy, tan	10	12
Silt, sandy, limy, tan	11	23
Sand, very fine to medium, subangular to subrounded	2	25
Silt, limy, clayey, grayish-tan, and fine to very coarse, subangular to subrounded sand	19	44
Sand, fine to very coarse, subangular to rounded; contains gray silty clay and brown silty clay streaks	7	51
Silt, sandy, limy, tan	10	61
Sand, very fine to medium, subangular to rounded, silty, tan; contains tan caliche-cemented silt layers	18	79
Silt, very sandy, limy, brownish-tan	6	85
Sand, very fine to medium, subangular to subrounded, and brown limy silt	9	94

22-33W-35BC.--continued

	Thickness, feet	Depth, feet
Silt, sandy, brown	21	115
Sand, fine to coarse, subangular to subrounded; contains tan limy clayey silt streaks	24	139
Sand, fine to very coarse, subangular to subrounded, and fine, subangular to rounded gravel; contains reddish-tan sandy silt streaks	16	155
Sand, medium to very coarse, subangular to well-rounded, and fine to medium, subangular to subrounded gravel; contains brown limy clay and tannish-white caliche streaks	25	180
Sand, fine to coarse, subangular to rounded, and gravel; contains caliche-cemented sand streaks and tannish-white silty caliche layers	28	208
Caliche, hard, white	2	210
Silt, sandy, clayey, brown; interbedded with whitish-tan hard caliche layers	18	228
Silt, sandy, yellowish-tan; interbedded with whitish-tan hard caliche layers	7+	235

22-34W-12BB.--Sample log of test hole in NW¼NW¼ sec. 12, T. 22 S., R. 34 W., 200 feet east and 75 feet south of NW cor. sec.; drilled by Henkle Drilling and Supply Co., Inc. for E. W. Henkle, November 5, 1958. Altitude of land surface, 2,913 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil, sandy	5	5
Silt, sandy, tan	20	25
Silt, sandy, tan, and very fine to medium, subangular to rounded sand	30	55
Sand, fine to very coarse, angular to subrounded, and subangular gravel; contains silty clay streaks	15	70
Silt, sandy, limy, tan	12	82
Silt, sandy, limy, tan to white	13	95
Caliche, hard	3	98
Silt, sandy, limy, light-yellow; contains caliche layers	4	102
Silt, limy, sandy, light-yellow to white	34	136
Carlile Shale		
Shale, noncalcareous, bluish-black; contains thin white limestone streaks	24	160
Shale, noncalcareous, bluish-black	20	180

22-34W-12BB.--continued

	Thickness, feet	Depth, feet
Shale, noncalcareous, bluish-black; contains very thin tan calcareous silty, very fine-grained sandstone streaks	20	200
Shale, noncalcareous, bluish-black; interbedded with bluish-black limy shale	55	255
Shale, limy, bluish-black	90	345
Greenhorn Limestone		
Limestone, shaly, dark-gray; interbedded with dark-gray calcareous shale	75	420
Graneros Shale		
Shale, limy, dark-gray to black; contains bentonite streaks	90	510
Undifferentiated Lower Cretaceous rocks		
Shale, limy, silty, sandy, dark-gray; contains 5 percent to 10 percent by volume of light-gray sandstone streaks	70	580
Siltstone, limy, sandy, light-gray	48	628
Sandstone, fine-grained, noncalcareous, silty	32	660
Sandstone, fine-grained, limy, silty, gray	30	690
Siltstone, sandy, calcareous, gray and red	50	740
Morrison(?) Formation		
Siltstone, calcareous, gray, and thin layers of red shale	45	785
Shale, dark grayish-black; interbedded with grayish-green and red shale	50	835
Siltstone, calcareous, gray	5	840
Shale, noncalcareous, grayish-black; interbedded with thin grayish-green and red shale streaks; contains chert fragments	28	868
Sandstone, silty, calcareous, grayish-tan, and noncalcareous grayish-black shale	19+	887

22-34W-19AB.--Sample log of test hole in NW¼NE¼ sec. 19, T. 22 S., R. 34 W., approximately 0.49 mile west and 100 feet south of NE cor. sec.; drilled by Henkle Drilling and Supply Co., Inc. for Loren Combs, March 3, 1961. Altitude of land surface, 2,990e feet.

22-34W-19AB.--continued

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	2	2
Silt, very sandy, tan	8	10
Sand, very fine, angular to subrounded, silty, tan; contains caliche nodules	40	50
Sand, very fine to coarse, angular to subrounded, silty; contains caliche-cemented streaks	22	72
Sand, medium to very coarse, angular to subrounded, silty; contains tan sandy calcareous silt-cemented streaks	10	82
Sand, medium to very coarse, subangular to subrounded; contains reddish-tan silt and hard caliche-cemented streaks	10	92
Sand, fine to coarse, subangular to subrounded; contains tannish-white caliche-cemented silt	8	100
Sand, fine to coarse, subangular to subrounded; contains tannish-white caliche-cemented silt	5	105
Silt, sandy, reddish-tan	7	112
Sand, medium to very coarse, subangular to subrounded; contains tan clayey silt streaks	16	128
Sand, medium to very coarse, angular to subrounded, and fine gravel; contains thin tan clayey silt streaks	34	162
Silt, sandy, yellowish-tan	17	179
Sand, medium to very coarse, subangular to subrounded; contains weathered limestone fragments	15	194
Sand, medium to coarse, subangular to subrounded, and grayish-tan silt layers; contains tannish-white caliche streaks	21	215
Sand, medium to very coarse, subangular to subrounded, and fine gravel; contains hard white caliche and tannish-white silt streaks	17	232
Clay, silty, sandy, yellowish-tan	8	240
Carlile Shale		
Shale, calcareous, black	6+	246

22-34W-29BB.--Driller's log of test hole in NW¼NW¼ sec. 29, T. 22 S., R. 34 W., 0.24 mile south and 60 feet east of NW cor. sec.; drilled by Henkle Drilling and Supply Co., Inc. for Kenneth Burg, October 24, 1955. Altitude of land surface, 2,978 feet.

22-34W-29BB.--continued

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	2	2
Subsoil	3	5
Clay and small lime streaks	36	41
Clay, sandy	10	51
Clay	11	62
Clay, sandy, and lime streaks	16	78
Clay	4	82
Clay, sandy, and rock shell	18	100
Sand, fine to medium, and small clay streaks	12	112
Sand, and clay streaks	8	120
Clay	3	123
Clay, sandy	5	128
Sand, fine to medium, with coarse streaks, loose	15	143
Sand, fine, and clay	19	162
Sand, fine	2	164
Clay, sandy	10	174
Sand, fine to medium, with coarse streaks	15	189
Clay, sandy, and gyprock	16	205
Sand, and white broken rock and loose rock	10	215
Rock	2	217
Clay, sandy	3	220
Clay, yellow	8	228
Carlile Shale		
Shale	3+	231

22-34W-36BC.--Driller's log of test hole in the SW¼NW¼ sec. 36, T. 22 S., R. 34 W.; drilled by Henkle Drilling and Supply Co., Inc. for Ed Shrimplin, July 18, 1958. Altitude of land surface, 2,929 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Surface	2	2
Clay, brown	15	17
Sand, medium, and small gravel	17	34
Clay, sandy, brown, and small sand streaks	141	175
Sand, small, coarse, and small gravel streaks	34	209
Clay, brown; cemented sand, and small sand streaks	8	217

22-34W-36BC.--continued

	Thickness, feet	Depth, feet
Sand, fine, and small clay streaks	4	221
Sand, small, medium, good, loose	16	237
Clay, brown; limestone streaks and small sand streaks	21	258
Clay, yellow	12	270
Carlile Shale		
Shale, blue	3+	273

23-27W-31CC.--Sample log of test hole in SW¼SW¼ sec. 31, T. 23 S., R. 27 W., 10 feet north and 10 feet east of SW cor. sec.; drilled, July 18, 1962. Altitude of land surface, 2,730e feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil and road fill	5	5
Silt, limy, sandy, light-tan	5	10
Silt, limy, very sandy, tannish-brown	2	12
Silt, limy, sandy, silty; contains tannish-white caliche-cemented layers	10	22
Caliche, sandy, silty, tannish-white	6	28
Silt, limy, sandy, tannish-gray	3	31
Caliche, hard, silty, tannish-white, and caliche-cemented, fine to very coarse, subangular to rounded sand	4	35
Silt, limy, very sandy, light reddish-brown	5	40
Sand, medium to very coarse, subangular to sub-rounded, and fine to medium, subangular to rounded gravel; contains caliche-cemented sand and gravel streaks	24	64
Sand, very fine to medium, subangular to sub-rounded, very silty; contains tannish-white caliche-cemented streaks	14	78
Sand, medium to very coarse, subangular to rounded, silty; and fine, subangular to rounded gravel	10	88
Clay, hard, silty, yellow	3	91
Sand, fine to very coarse, subangular to rounded; and fine, subangular to subrounded gravel	10	101
Silt, sandy, yellowish-tan	4	105
Sand, fine to very coarse, subangular to sub-rounded; and fine, subangular to subrounded gravel	6	111
Silt, limy, pinkish-tan; contains very fine to fine, angular to subrounded sand	8	119

23-27W-31CC.--continued

	Thickness, feet	Depth, feet
Caliche, hard, tannish-white	3	122
Sand, fine to very coarse, subangular to rounded, and fine to medium, angular to subangular gravel (composed of limestone fragments); contains pinkish-tan caliche-cemented sand streaks	9	131
Carlile Shale		
Shale, calcareous, dark-gray to black	9+	140

23-28W-11CC.--Sample log of test hole in SW¼SW¼ sec. 11, T. 23 S., R. 28 W., at SW cor. sec.; drilled, 1941. Altitude of land surface, 2,705 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	3	3
Silt, sandy, tan	9	12
Caliche, sandy, tan and light-gray	3	15
Silt, very sandy, limy, tan to reddish-brown; contains caliche	13	28
Sand, fine to very coarse, subangular to rounded, and fine, subangular to subrounded gravel, silty; contains grayish-white to tan caliche cement	8	36
Sand, fine to very coarse, subangular to subrounded, and fine, subangular to subrounded gravel; cemented by grayish-white caliche cement	6	42
Caliche, very sandy, grayish-tan	12	54
Sand, medium to very coarse, subangular to subrounded; and fine, angular to subrounded gravel	10	64
Silt, clayey, sandy, grayish-tan	10	74
Sand, coarse to very coarse, subangular to subrounded, and fine to medium, angular to subangular gravel; contains reworked chalk pebbles	5	79
Carlile Shale		
Shale, silty, gray; contains yellow hard lime concretions	21	100
Shale, limy, bluish-gray to black	20+	120

23-29W-31AC.--Driller's log of test hole in SW¼NE¼ sec. 31, T. 23 S., R. 29 S.; drilled by Kenny Minter Water Wells for Ralph Haflich, May 1957. Altitude of land surface, 2,770e feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil and clay	20	20
Clay, soft; some thin fine sand	11	31
Clay and gyp (caliche)	6	37
Clay, red, and gyp rocks (fairly slow)	2	39
Clay; gyp (caliche), some gyprock, mixed	8	47
Clay, sandy, and gyp (caliche)	8	55
Gyprock (hard)	2	57
Gyprock, rotten; some sand mixed	3	60
Gyprock and clay (drilled slow)	3	63
Clay, yellow, and gyprock shells	21	84
Gyp (caliche), and gyprock shells, hard strips	39	123
arlile Shale		
Clay, black (shale?), and gyprock shells	14	137
Shale, gray (drilled hard)	17	154
Shale, blue (solid)	1+	155

23-29W-36DD.--Sample log of test hole in SE¼SE¼ sec. 36, T. 23 S., R. 29 W., 20 feet west and 20 feet north of SE cor. sec.; drilled, July 18, 1962. Altitude of land surface, 2,800e feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	2	2
Silt, sandy, tan	7	9
Sand, fine to medium, subangular to subrounded, silty	1	10
Silt, sandy, tan	5	15
Silt, sandy, reddish-tan; contains fine to medium, subangular to subrounded sand and tannish-white caliche-cemented silt streaks	20	35
Silt, sandy, limy; contains fine to very coarse, subangular to subrounded silty sand streaks	4	39
Sand, fine to very coarse, subangular to rounded, and fine to medium, subangular to rounded gravel; contains tan sandy silt streaks	19	58
Silt, very sandy, tan	8	66
Sand, fine to very coarse, subangular to rounded; and fine, angular to subrounded gravel	9	75

23-29W-36DD.--continued

	Thickness, feet	Depth, feet
Silt, sandy, reddish-tan	8	83
Sand, very fine to coarse, subangular to rounded; contains reddish-tan sandy limy silt streaks	13	96
Silt, sandy, limy, reddish-brown	4	100
Sand, fine to very coarse, angular to subrounded, and fine, subangular to rounded gravel; contains tannish-white caliche-cemented streaks	29	129
Sand, fine to very coarse, subangular to well-rounded, and fine to medium, subangular to subrounded gravel; gravel faction contains weathered caliche fragments	9	138
Caliche, silty, sandy, pink, and tannish-brown silt	12	150
Sand, fine to very coarse, subangular to rounded, and fine, subangular to subrounded gravel, silty; caliche-cemented	19	169
Sand, fine to coarse, subangular to subrounded, and very fine, subangular to rounded gravel, very silty; contains tannish-white caliche-cemented layers	14	183
Caliche, very sandy, silty, yellowish-white	7	190
Carlile Shale		
Shale, limy, dark-gray to black	10+	200

23-30W-19CC.--Driller's log of test hole in SW¼SW¼ sec. 19, T. 23 S., R. 30 W.; drilled by Western Drilling Co. for C. D. Golightly, 1956. Altitude of land surface, 2,870e feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	5	5
Clay, brown	13	18
Clay, brown, and caliche	10	28
Caliche	7	35
Clay, sandy, brown	6	41
Clay, white, and limestone; tight	5	46
Clay, sandy, brown, and sandstone; tight	15	61
Gravel, fine to medium	2	63
Sandstone, hard	1	64
Clay, sandy, brown	14	78
Sand and gravel, fine, tight	10	88

23-30W-19CC.--continued

	Thickness, feet	Depth, feet
Clay, sandy, brown	31	119
Clay, sandy, brown, and caliche	7	126
Limestone, hard, white	4	130
Clay, sandy, brown	10	140
Clay, sandy, brown; 50 percent sand and gravel	8	148
Clay, sandy, brown	2	150
Sand and gravel, fine	8	158
Niobrara Chalk		
Clay, white and yellow	12	170
Clay, white	15	185
Clay, sandy, gray	11	196
Clay, gray	14+	210

23-30W-36DD.--Sample log of test hole in SE¼SE¼ sec. 36, T. 23 S., R. 30 W.; drilled, July 19, 1962. Altitude of land surface, 2,780e feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	5	5
Silt, sandy, brown	5	10
Sand, very fine to very coarse, subangular to rounded, silty; contains tannish-white caliche-cemented silt streaks	13	23
Sand, very fine to coarse, subangular to subrounded, very silty; contains tannish-white caliche-cemented silty sand streaks	4	27
Sand, fine to very coarse, subangular to subrounded; and fine, subangular to rounded gravel	14	41
Sand, fine, silty; contains caliche cement	12	53
Silt, sandy, grayish-brown and tan	7	60
Sand, fine to very coarse, subangular to subrounded, and fine, subangular to subrounded gravel; contains thin caliche-cemented sand streaks	43	103
Silt, sandy, limy, tannish-white; contains tannish-white caliche, and fine to medium sand layers	19	122
Sand, fine to very coarse, subangular to rounded, and fine to medium, subangular to rounded gravel; gravel faction consists predominantly of abraded caliche pebbles	19	141

23-30W-36DD.--continued

	Thickness, feet	Depth, feet
Clay, noncalcareous, variegated, gray to pinkish-red	4	145
Carlile Shale		
Shale, soft, noncalcareous, black	15+	160

23-31W-29CB.--Driller's log of test hole in NW¼SW¼ sec. 29, T. 23 S., R. 31 W.; drilled by Western Drilling Co. for C. C. Spikes, 1953. Altitude of land surface, 2,905e feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	2	2
Clay, yellow	10	12
Sand, fine	1	13
Clay, sandy, yellow	14	27
Caliche, soft	20	47
Clay, yellow	4	51
Sand, medium	9	60
Sandstone, hard layer	2	62
Clay, yellow, and fine sand	11	73
Clay, sandy, brown	25	98
Sand, fine to medium, and gravel	12	110
Clay, sandy, brown	30	140
Sand, medium	9	149
Sandstone, hard	2	151
Clay, sandy, brown	11	162
Gravel, medium to coarse	14	176
Clay, sandy	11	187
Limestone, hard	6	193
Clay, tight, yellow	41	234
Niobrara Chalk		
Shale, blue	6+	240

23-31W-35CC.--Driller's log of test hole in SW¼SW¼ sec. 35, T. 23 S., R. 31 W., 0.04 mile north and about 70 feet east of SW cor. sec.; drilled by Kenny Minter Water Wells for W. M. Snell, January 1956. Altitude of land surface, 2,875 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil and clay; contains some fine sand	15	15

23-31W-35CC.--continued	Thickness, feet	Depth, feet
Clay, sandy; gyp (caliche), and fine sand strips	27	42
Gyprock; gyp (caliche), and sandy clay (hard and loose strips)	15	57
Sand, fine, and gravel; cemented (real hard)	13	70
Sand, fine, and fairly large gravel strips (loose)	13	83
Sandstone	3	86
Gyprock and sandstone (real hard)	2	88
Sandstone	1	89
Sandstone (hard)	5	94
Sand, fine, and gravel; cemented (fairly loose)	2	96
Rock (hard)	1	97
Sand and gravel (fairly loose)	1	98
Clay, sandy, and gyp (caliche)	2	100
Clay, sandy; fine sand and sand strips (loose)	3	103
Clay, sandy, and gyp (caliche)	3	106
Sand, fine sand; gravel and some large gravel	3	109
Clay, sandy clay, and gyp (caliche) strips (hard)	5	114
Gyp (caliche) strips, roggen; sandy clay, fine sand, and sand (drilled slow)	26	140
Clay, yellow, and gyp (caliche)	4	144
Sand, real fine sand; small gravel and some shale (loose)	3	147
Clay, sandy, and gyp (caliche) strips (drilled slow)	5	152
Clay, sandy clay, and gyp (caliche) strips	23	175
Sand, gravel and a little gyp rock (loose)	2	177
Gyp (caliche), clay, and gyprock	7	184
Sand, fine sand; gravel, and white rock (loose)	3	187
Gyprock, and thin fine sand strips	5	192
Gyp (caliche); clay and gyprock strips (drilled slow)	28	220
Carlile Shale		
Shale, black	2+	222

23-32W-6BB.--Sample log of test hole in NW¼NW¼ sec. 6, T. 23 S., R. 32 W., 20 feet east and 20 feet south of NW cor. sec.; drilled, 1941. Altitude of land surface, 2,857 feet.

23-32W-6BB.--continued

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	1	1
Silt, sandy, limy, tan	14	15
Sand, medium to very coarse, subangular to rounded, and fine, subangular to rounded gravel; contains tan sandy silt streaks	15	30
Silt, very sandy, limy, tan	7	37
Sand, medium to very coarse, subangular to rounded; and fine to medium, subangular to rounded gravel	9	46
Silt, sandy, limy, yellowish-tan	5	51
Caliche, silty, sandy, tannish-white	9	60
Caliche, silty, sandy, white	18	78
Silt, very sandy, tan	8	86
Sand, medium to very coarse, angular to subrounded; and fine to medium, angular to rounded gravel	8	94
Sand, medium to very coarse, and fine to medium, angular to rounded gravel; contains tannish-white caliche cement	1	95
Silt, very sandy, limy, reddish-brown and tan	15	110
Sand, fine to very fine, angular to subrounded; contains tannish-brown silt	3	113
Sand, coarse to very coarse, angular to subrounded, and fine to medium, subangular to rounded gravel; contains yellowish-tan limy silt streaks	10	123
Silt, very sandy, limy, grayish-tan	7	130
Gravel, fine to medium, subangular to rounded, and very coarse to coarse, angular to subrounded sand; contains thin tannish-white caliche-cemented streaks	16	146
Silt, very sandy, limy, tan	15	161
Sand, fine to very coarse, subangular to subrounded, and fine to medium gravel; contains tannish-white caliche and tannish-yellow silt streaks	20	181
Silt, sandy, limy, tannish-yellow, and fine to very coarse, subangular to rounded sand; contains tannish-white silty sandy caliche layers	16	197
Silt, sandy, limy, tan, and fine to very coarse, subangular to subrounded sand; contains tannish-white caliche nodules	15	212
Gravel, fine to medium, angular to subrounded, silty; composed of weathered yellow chalk pebbles	4	216

23-32W-6BB.--continued

	Thickness, feet	Depth, feet
Sand, fine to coarse, subangular to subrounded, and fine, subangular to subrounded gravel; gravel composed of weathered yellow chalk pebbles	3	219
Silt, sandy, yellowish-tan to gray; contains medium to very coarse sand and fine gravel layers	16	235
Carlile Shale		
Shale, calcareous, dark-gray to black	10+	245

23-32W-19BC.--Driller's log of test hole in SW¼NW¼ sec. 19, T. 23 S., R. 32 S.; drilled by Minter Drilling Co. for John Hawk, May 24, 1963. Altitude of land surface, 2,879 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Clay, brown	21	21
Sand and gravel, fine to medium	12	33
Clay, blue	27	60
Clay, brown	45	105
Clay, sandy	7	112
Sand and gravel, fine to medium	6	118
Clay, sandy	17	135
Clay, sandy, yellow	15	150
Clay, yellow	15	165
Sand and gravel, fine to medium	50	215
Clay, sandy	15	230
Sand and gravel, fine to medium	26	256
Clay	6	262
Sand and gravel, fine to medium	8	270
Clay	5	275
Sand and gravel, fine to medium	35	310
Clay, yellow	10+	320

23-32W-23CC.--Driller's log of test hole in SW¼SW¼ sec. 23, T. 23 S., R. 32 W., 0.1 mile north and 100 feet east of SW cor. sec.; drilled by Leslie Pelnar for C. E. Boyd, 1940. Altitude of land surface, 2,913 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Soil and clay	71	71

23-32W-23CC.--continued

	Thickness, feet	Depth, feet
Sand, fine, dry	21	92
Sand and rock	6	98
Sand, coarse, water bearing	9	107
Clay, blue	5	112
Sand, fine	15	127
Clay, sandy	5	132
Sand and rock, soft	9	141
Sand, coarse	16	157
Clay, sandy	18	175
Sand, fine	32	207
Clay and rock	2	209
Sand, coarse	10	219
Carlile Shale		
Mud, blue	16	235
Shale	63+	298

23-32W-31DD.--Sample log of test hole in SE¼SE¼ sec. 31, T. 23 S., R. 32 W., 20 feet north and 20 feet west of SE cor. sec.; drilled, 1941. Altitude of land surface, 2,878 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	1	1
Silt, sandy, tan	14	15
Sand, fine to very coarse, subangular to subrounded, very silty	3	18
Sand, fine to very coarse, subangular to subrounded; and fine, subangular to rounded gravel	8	26
Sand, very fine to medium, subangular to subrounded; contains tan limy silt	5	31
Sand, fine to very coarse, subangular to rounded, and fine, subangular to rounded gravel; contains caliche-cemented layers	4	35
Silt, very sandy, yellowish-tan	15	50
Sand, fine to coarse, angular to subrounded; contains tan limy silt	4	54
Silt, very sandy, yellowish-tan	3	57
Silt, clayey, sticky, dark bluish-gray	33	90
Clay, silty, yellowish-gray	10	100
Sand, very fine to medium, subangular to subrounded; contains light-gray and tan limy silt	7	107

23-32W-31DD.--continued

	Thickness, feet	Depth, feet
Clay, silty, blocky, limy, tan and gray ish-brown	13	120
Silt, sandy, light-gray and tan; contains gray limy clay and caliche streaks	14	134
Sand, fine to very coarse, subangular to subrounded, and fine, subangular to rounded gravel; contains tannish-white caliche-cemented streaks	21	155
Sand, very fine to coarse, angular to subrounded, silty; contains tannish-white caliche-cemented layers	8	163
Sand, medium to very coarse, subangular to subrounded, and fine to medium, subangular to subrounded gravel; contains tannish-white caliche-cemented streaks	18	181
Sand, very fine to medium, subangular to subrounded; contains tan limy silt	7	188
Sand, coarse to very coarse, subangular to subrounded, and fine to medium, subangular to rounded gravel; contains caliche-cemented layers	22	210
Sand, fine to coarse, subangular to subrounded; contains tan sandy limy silt	20	230
Sand, fine to very coarse, subangular to subrounded, and fine, subangular to subrounded gravel; contains tan limy silty clay streaks	24	254
Sand, very fine to medium, subangular to subrounded; contains tan limy clayey silt layers	39	293
Silt, very sandy, limy, tan; contains streaks of fine to medium, subangular to rounded sand streaks	32	325
Greenhorn Limestone		
Shale, limy, dark-gray, and dark-green hard limestone	5+	330

23-33W-5AA.--Sample log of test hole in NE¼NE¼ sec. 5, T. 23 S., R. 33W., 0.1 mile south and 0.15 mile west of NE cor. sec.; drilled by Helmerich and Payne for Pan American Petroleum Co., March 28, 1962. Altitude of land surface, 2,870 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	1	1

23-33W-5AA.--continued	Thickness, feet	Depth, feet
Silt, brown	4	5
Silt, clayey, limy, light-gray	5	10
Silt, sandy, limy, tan	12	22
Silt, sandy, limy, grayish-green	6	28
Silt, sandy, limy, tan and gray; contains light-gray silty clay	7	35
Silt, sandy, limy, yellowish-brown; contains tannish-white caliche-cemented sand streaks	7	42
Sand, fine to coarse, subangular to rounded; contains tannish-brown sandy limy silt	6	48
Silt, sandy, limy, tan; contains tannish-white caliche layers	46	94
Sand, medium to very coarse, subangular to subrounded; contains tannish-white caliche-cemented streaks	5	99
Silt, sandy, limy, tan	10	109
Sand, medium to very coarse, subangular to subrounded, silty; contains tannish-white caliche streaks	15	124
Sand, very fine to very coarse, subangular to rounded, and fine, subangular to subrounded gravel; contains tan limy silt streaks	36	160
Sand, medium to very coarse, subangular to rounded, and fine, angular to subrounded gravel; contains tannish-white caliche-cemented streaks	25	185
Silt, sandy, limy, yellowish-tan	5	190
Sand, medium to very coarse, subangular to rounded, and fine to medium gravel; contains tannish-white caliche-cemented streaks	20	210
Clay, silty, limy, tannish-white, and tan sandy silt layers	30	240
Carlile Shale		
Shale (siltstone), calcareous, fossiliferous, dark-gray to black	30	270
Shale (siltstone), calcareous, dark-gray to black	40	310
Greenhorn Limestone		
Shale (siltstone), calcareous, dark-gray; contains thin crystalline limestone streaks	73	383
Shale (mudstone), calcareous, dark-gray to black; contains thin limestone streaks	57	440

23-33W-5AA.--continued	Thickness, feet	Depth, feet
Undifferentiated Lower Cretaceous rocks		
Sandstone, very fine to medium gravel, silty, white, gray and tan; interbedded with gray to black calcareous shale (siltstone)	56	496
Sandstone, very fine to medium, subangular to rounded; interbedded with gray to black calcareous shale (siltstone)	15	511
Sandstone, very fine to medium, subangular to rounded; interbedded with gray to black calcareous shale (siltstone); contains thin black lignite and pyrite layers	79	590
Sandstone, very fine to fine, rounded to well-rounded; contains gray calcareous siltstone	14	604
Sandstone, very fine to fine, rounded to well-rounded; contains gray calcareous siltstone, red shale (siltstone) streaks, and dark-gray noncalcareous shale (mudstone)	61	665
Morrison(?) Formation		
Siltstone, sandy, calcareous to noncalcareous, dark-gray	25	690
Sandstone, very fine to medium; contains gray and red shale (siltstone) streaks	56	746
Siltstone, noncalcareous, gray; contains very fine- to medium-grained sandstone	19	765
Sandstone, very fine to medium, subangular to well-rounded; interbedded with gray calcareous and noncalcareous shale (siltstone)	40	805
Shale (mudstone), noncalcareous; interbedded with very fine- to medium-rounded sandstone and gray shale (siltstone) layers	15	820
Sandstone, fine to medium, subangular to rounded; contains gray siltstone	21	841
Shale (siltstone), noncalcareous, sandy, gray; contains pyrite concretions	23	864
Chert, hard, red	1	865
Shale (siltstone), noncalcareous, gray	12	877
Undifferentiated Permian rocks		
Shale (siltstone), red, and red fine- to medium-grained sandstone	73+	950

23-33W-18CC2.--Driller's log of test hole in SW¼SW¼ sec. 18, T. 23 S., R. 33 W.; drilled by Henkle Drilling and Supply Co., Inc. for the Garden City Co., December 21, 1954. Altitude of land surface, 2,912 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	5	5
Subsoil	5	10
Clay	57	67
Gyprock	2	69
Clay and gyp (caliche)	11	80
Sand and clay	4	84
Clay	18	102
Clay, sandy	10	112
Sand	2	114
Clay and gyp (caliche) streaks	9	123
Clay, sticky	10	133
Sand, fine to medium, and clay streaks	10	143
Clay, sandy	17	160
Clay and gyp (caliche) streaks	4	164
Rock	1	165
Sand, fine, coarse streaks, and clay	19	184
Sand, fine to medium	16	200
Sand and gravel	6	206
Clay	2	208
Sand	3	211
Clay	7	218
Sand and gravel	9	227
Clay	16	243
Sand	5	248
Clay and sand streaks	20	268
Clay, sandy	8	276
Sand, fine, and clay streaks	8	284
Sand	3	287
Sand, fine, and clay	10	297
Clay	3	300
Rock	2	302
Clay and gyp (caliche) streaks	4	306
Carlile Shale(?)		
Rock, hard	1+	307

23-33W-20BB.--Driller's log of test hole in NW¼NW¼ sec. 20, T. 23 S., R. 33 W., 300 feet south of NW cor. sec.; drilled by Henkle Drilling and Supply Co., Inc. for V. G. Baier, November 1955. Altitude of land surface, 2,902 feet.

23-33W-20BB.--continued

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	2	2
Subsoil	3	5
Clay	15	20
Clay, sandy	15	35
Clay and lime streaks	10	45
Clay	12	57
Sand, fine to medium	14	71
Clay	21	92
Sand and clay	10	102
Clay and lime streaks	10	112
Clay	40	152
Gyp (caliche) and clay	8	160
Sand and clay	23	183
Sand, fine to medium	3	186
Clay	4	190
Sand, fine, medium loose	43	233
Clay and rock shell	18	251
Sand, fine to medium	8	259
Rock	5	264
Sand, fine to medium	4	268
Clay and rock shell	8	276
Sand, fine, and clay	12	288
Sand, fine to medium, and white rock	22	310
Clay, yellow	4	314
Carlile Shale		
Shale	3+	317

23-33W-21AA.--Driller's log of test hole in NE¼NE¼ sec. 21, T. 23 S., R. 33 W., 0.13 mile south and 300 feet west of NE cor. sec.; drilled by Henkle Drilling and Supply Co., Inc. for Dale Borgman, September 19, 1952. Altitude of land surface, 2,896 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	1	1
Clay, sandy, silty	27	28
Clay, sandy, limy	47	75
Clay, sandy; with small streaks of fine sand	13	88
Clay, sandy, brown	35	123
Clay, slightly sandy, limy	36	159
Clay, mushy; with sand	4	163

23-33W-21AA.--continued

	Thickness, feet	Depth, feet
Clay, sandy; with sand streaks	13	176
Sand, fine to coarse; with clay streaks	12	188
Sand, fine; with mushy sandy clay streaks	15	203
Sand, fine to gravel; with small clay streaks	48	251
Clay; with imbedded gravel; drilled tight	12	263
Clay, sandy; with fine small sand streaks	52	315
Carlile Shale		
Shale	1+	316

23-33W-24DC.--Driller's log of test hole in SW¼SE¼ sec. 24, T. 23 S., R. 33 W., 0.49 mile west and 200 feet north of SE cor. sec.; drilled by Henkle Drilling and Supply Co., Inc. for Ruby Olomon, February 4, 1953. Altitude of land surface, 2,880 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	2	2
Subsoil	2	4
Silt	15	19
Sand, fine, and coarse gravel; with small clay streaks	23	42
Clay, blue	9	51
Clay, firm, yellow	11	62
Sand, fine	2	64
Clay, firm, blue	30	94
Clay, sandy	5	99
Clay, firm	28	127
Lime rock shell; with clay streaks; not too hard	2	129
Clay	2	131
Sand, fine to coarse gravel; with clay streaks; fairly loose	10	141
Lime rock, hard; used pulldown	1	142
Clay, sandy	10	152
Sand, fine to coarse gravel; with clay streaks; loose	24	176
Clay	2	178
Sand, fine to coarse; with clay streaks; fairly loose	24	202
Sand, fine to coarse gravel; with clay streaks	28	230
Sand, fine to coarse; with clay streaks; not too loose	17	247

23-33W-24DC.--continued

	Thickness, feet	Depth, feet
Sand, fine to coarse; with clay streaks; fairly loose	12	259
Clay; with few sand streaks	8	267
Sand, fine to coarse; with clay streaks; fairly loose	8	275
Clay	24	299
Sand, fine to coarse; with clay streaks and some chipped rock; fairly loose	15	314
Clay	14	328
Carlile Shale		
Shale	1+	329

23-33-26BB2.--Sample log of test hole in NW¼NW¼ sec. 26, T. 23 S., R. 33 W., near NW cor. sec.; drilled by Henkle Drilling and Supply Co., Inc. for E. C. Brookover, February 29, 1963. Altitude of land surface, 2,894e feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	3	3
Silt, very sandy, limy, yellowish-tan	21	24
Sand, very fine to medium, angular to subrounded, and fine to medium, subangular to rounded gravel; contains tan sandy limy silt streaks	14	38
Sand, very fine to fine, subangular to subrounded, silty, and 50 percent tan limy silt streaks	25	63
Sand, very fine to medium, subangular to subrounded, silty; contains tan limy silt-cemented sand streaks	17	80
Silt, sandy, limy, yellowish-tan	27	107
Silt, sandy, limy, yellowish-tan, and olive-yellow silty clay	53	160
Sand, fine to coarse, subangular to subrounded, silty; contains tannish-white silty caliche-cemented streaks	20	180
Sand, fine to very coarse, angular to subrounded, and fine gravel; contains tan sandy silt streaks	20	200
Sand, medium to very coarse, subangular to rounded; and fine to medium, angular to subrounded gravel	20	220
Silt, very sandy, limy, tan	30	250

23-33W-26BB2.--continued

	Thickness, feet	Depth, feet
Sand, fine to very coarse, subangular to rounded, and fine, subangular to rounded gravel; contains caliche-cemented sand streaks	46	296
Silt, sandy, limy, yellowish-tan	14	310
Sand, medium to very coarse, subangular to rounded, and fine to medium, subangular to subrounded gravel; contains tannish-white caliche-cemented streaks	27	337
Carlile Shale		
Shale (siltstone), calcareous, bluish-black	8+	345

23-34W-1CC.--Driller's log of test hole in SW¼SW¼ sec. 1, T. 23 S., R. 34 W., 100 feet east and 400 feet north of SW cor. sec.; drilled by Henkle Drilling and Supply Co., Inc. for Kenneth Lyon, December 8, 1952. Altitude of land surface, 2,932 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	2	2
Subsoil	3	5
Silt	4	9
Gyp (caliche), and clay, brown	10	19
Clay, firm	12	31
Clay, limy	5	36
Sand	7	43
Clay, sandy	9	52
Sand, fine; with clay streaks	30	82
Sand, fine to coarse, and clay streaks	41	123
Sand, fine	4	127
Clay, sandy, mushy, and fine sand	30	157
Clay, sandy, limy	56	213
Sand, fine, and fine gravel; small clay streaks	24	237
Clay, sandy, limy; little hard	16	253
Sandstone, limy, hard	6	259
Clay	3	262
Sand, fine to coarse, loose; small clay streaks	7	269
Clay; with small loose sand streaks	22	291
Sand, firm to coarse, and small clay streaks	6	297
Clay	5	302

23-34W-1CC--concluded	Thickness, feet	Depth, feet
Sand, fine, small gravel, and clay; clay streaks with some chipped rock	16	318
Carlile Shale		
Shale	2+	320

23-34W-14BD.--Driller's log of test hole in NW¼SE¼ sec. 14, T. 23 S., R. 34 W., 0.33 mile east of W¼ cor. sec.; drilled by Kenny Minter Water Wells for Ed Shrimplin, April 1953. Altitude of land surface, 2,940.2 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
No log	56	56
Sand, fine (fair)	3	59
Clay, sandy	10	69
Sand, find, and large gravel mixed; thin clay strips; loose	11	80
Clay	10	90
Clay, sandy	18	108
Clay	9	117
Sandrock, brown (drilled easy)	7	124
Sandrock, white (drilled slow)	1	125
Clay	8	133
Clay, sandy; gyprock shells	12	145
Clay, sandy	15	160
Sand, find, and clay strips (drilled loose)	7	167
Clay, sandy	4	171
Sand, find; with clay strips (drilled loose)	3	174
Clay, sandy; with a few gyprock shells	52	226
Sand and large gravel mixed; clay and gyprock shells; very thin, loose	14	240
Clay, sandy, with a few sand and gravel layers; gyprock shells	15	255
Gravel and thin clay strips; good, loose	6	261
Clay	1	262
Gravel, large; thin rock shells; good, loose	16	278
Clay, sandy	3	281
Sand and gravel mixed	4	285
Clay and thin rock shells	1	286
Clay, sandy; thin rock shells	12	298
Sand, fine; with clay strips	6	304
Clay, sandy; gyprock shells	22	326
Gyprock	1	327

23-34W-14BD.--concluded

	Thickness, feet	Depth, feet
Clay, yellow, and gyprock shells	3	330
Graneros Shale		
Shale, blue	2+	332

23-34W-16CB.--Driller's log of test hole in NW¼SW¼ sec. 16. T. 23 S., R. 34 W., 2,400 feet north and 300 feet east of SW cor. sec.; drilled by Henkle Drilling and Supply Co., Inc. for the Garden City Co., February 23, 1955. Altitude of land surface, 2,979.6 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	4	4
Subsoil	4	8
Clay, sandy	12	20
Clay	38	58
Sand and clay	14	72
Clay	61	133
Clay, sandy	15	148
Clay and small sand streaks	5	153
Clay	16	169
Clay and sand streaks	20	189
Sand, medium, and small gravel streaks	21	210
Clay, sandy	12	222
Sand	8	230
Clay, sandy	5	235
Sand, fine to medium	22	257
Rock	2	259
Sand, medium, with coarse streaks	4	263
Clay	9	272
Rock	2	274
Clay and gyp (caliche)	18	292
Rock	3	295
Clay and gyp (caliche); hard	12	307
Clay	11	318
Sand	5	323
Clay	31	354
Sand and gyp (caliche); tight	16	370
Clay, yellow	5+	375

23-34W-17BB.--Driller's log of test hole in the NW¼NW¼ sec. 17, T. 23 S., R. 34 W., 1,300 feet east and 1,000 feet south of NW cor. sec.; drilled by Henkle Drilling and Supply Co., Inc. for the Garden City Co., July 6, 1953. Altitude of land surface, 2,975e feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	2	2
Subsoil	2	4
Silt	15	19
Clay	19	38
Clay, soft, sandy; with a few fine sand streaks	27	65
Clay	49	114
Sand, fine to coarse, with clay streaks; loose	9	123
Clay, sandy, limy; with a few sand streaks	21	144
Sand, fine to medium, with clay streaks; loose	15	159
Clay, sandy; with a few fine sand streaks	26	185
Sand, fine; with clay streaks	32	217
Sand, fine to coarse, with small clay streaks; loose	32	249
Rock, lime, hard	7	256
Sand, fine; with clay streaks	8	264
Clay, with few fine sand streaks; loose	11	275
Sand, fine to medium, with small clay streaks; loose	4	279
Clay; with fine sand streaks	18	297
Clay	16	313
Sand, fine to medium fine, with small clay streaks; loose	7	320
Sand, fine to coarse, with small clay streaks; loose; some chipped rock	17	337
Lime rock, hard (caliche ?)	2	339
Clay	4	343
Greenhorn Limestone		
Shale and limestone	1+	344

23-34W-36CC.--Sample log of test hole in SW¼SW¼ sec. 36, T. 23 S., R. 34 W., 200 feet north and 15 feet east of SW cor. sec.; drilled, May 29, 1962. Altitude of land surface, 2,890e feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil, dark-brown	3	3
Silt, very sandy, light-brown	4	7

23-34W-36CC.--continued	Thickness, feet	Depth, feet
Silt, sandy, light-brown to gray	8	15
Sand, medium to very coarse, subangular to rounded; and fine to coarse, subangular to subrounded gravel	8	23
Silt, sandy, limy, light-tan	7	30
Sand, fine to very coarse, subangular to rounded; and fine to very coarse, subangular to subrounded gravel	8	38
Caliche, hard, sandy, silty, tannish-white	4	42
Sand, very fine to coarse, subangular to subrounded	6	48
Sand, very fine to medium, subangular to subrounded, silty; contains caliche-cemented streaks	6	54
Sand, very fine to fine, subangular to rounded; contains tan to gray sandy limy silt	8	62
Caliche, silty, sandy, grayish-white	5	67
Silt, limy, very sandy, light-gray to tannish-gray	6	73
Caliche, silty, sandy, grayish-white	6	79
Caliche, silty, sandy, grayish-white; contains tannish-gray caliche-cemented sand streaks-	13	92
Silt, sandy, limy, reddish-brown; contains caliche-cemented, very fine to medium, subangular to subrounded sand streaks	18	110
Sand, very fine to very coarse, subangular to rounded; and fine, subangular to rounded gravel	10	120
Silt, sandy, reddish-brown and gray sandy silt streaks	5	125
Silt, sandy, reddish-brown; contains thin caliche-cemented, very fine to medium, subangular to subrounded sand streaks	13	138
Sand, fine to very coarse, subangular to rounded, and fine to medium gravel; contains thin caliche-cemented sand and reddish-brown sandy silt streaks	47	185
Silt, very sandy, reddish-brown	10	195
Sand, fine to very coarse, subangular to rounded; and fine, subangular to rounded gravel	30	225
Sand, very fine to fine, subangular to rounded, very silty; tannish-white, caliche-cemented	12	237

23-34W-36CC.--concluded

	Thickness, feet	Depth, feet
Sand, fine to very coarse, subangular to subrounded, and fine to medium, subangular to subrounded gravel; contains tannish-white hard caliche-cemented sand and thin yellow limy silt streaks	10	247
Sand, very fine to coarse, subangular to subrounded, silty; contains tannish-white caliche cement	14	261
Silt, sandy, limy, tan	2	263
Sand, fine to very coarse, subangular to subrounded, and fine, subangular to subrounded gravel; contains tannish-white caliche cement	5	268
Silt, sandy, limy, light-gray to tannish-yellow	7	275
Sand, fine to very coarse, subangular to subrounded, and fine to medium, subangular to subrounded gravel; contains tan limy silt streaks	8	283
Silt, sandy, limy, tan; contains caliche-cemented sand streaks	4	287
Sand, fine to very coarse, subangular to subrounded, and fine to medium, subangular to subrounded gravel; contains tan sandy limy silt and thin caliche-cemented sand and gravel streaks	17	304
Graneros Shale		
Shale (siltstone), calcareous, dark-gray to black	6+	310

24-31W-8DC.--Sample log of test hole in SW¼SE¼ sec. 8, T. 24 S., R. 31 W., about 200 feet east and 100 feet north of S¼ cor. sec.; drilled by Henkle Drilling and Supply Co., Inc. for R. G. Morris, March 27, 1962. Altitude of land surface, 2,890e feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil, dark-brown	3	3
Silt, sandy, limy, tan; contains white sandy caliche streaks	7	10
Sand, very fine to coarse, subangular to rounded, and light-tan limy sandy silt; contains white caliche-cemented sand streaks	15	25

24-31W-8DC.--continued	Thickness, feet	Depth, feet
Sand, medium to very coarse, subangular to rounded, and red silt; contains white caliche streaks	13	38
Sand, medium to very coarse, subangular to rounded, and fine to medium angular to subangular gravel	18	56
Sand, medium to very coarse, subangular to rounded, and fine to medium angular to subrounded gravel; contains hard white caliche-cemented sand and gravel	3	59
Sand, medium to very coarse, subangular to subrounded, and fine to coarse, angular subrounded gravel; contains white caliche-cemented sand and gravel streaks	11	70
Sand, very fine to very coarse, subangular to subrounded, and fine angular to subrounded gravel; contains light-brown sandy limy silt streaks	11	81
Silt, sandy, limy, tan	4	85
Sand, very fine to very coarse, subangular to subrounded, and very fine to fine angular to subangular gravel; contains white caliche-cemented sand and gravel streaks snad tan limy silt streaks	40	125
Silt, very sandy, brown; contains white caliche streaks and very fine to medium subangular to subrounded sand streaks	5	130
Sand, very fine to very coarse, subangular to rounded, and yellowish-tan limy silt; contains white caliche streaks and yellow silty clay streaks	34	164
Sand, very fine to coarse, subrounded to rounded; contains thin white caliche-cemented sand streaks	18	182
Silt, limy, sandy, tan, and brownish-tan silty clay; contains white caliche-cemented thin fine to very coarse subangular to rounded sand streaks	8	190
Sand, very fine to very coarse, subangular to subrounded, and brown clayey silt streaks	10	200
Sand, medium to very coarse, subangular to rounded, and very fine to fine angular to subrounded gravel; contains white caliche-cemented sand and gravel streaks	26	226
Silt, clayey, limy, yellowish-tan; interbedded with thin fine to very coarse subangular to rounded sand and fine angular to subrounded gravel streaks	8	234

24-31W-8DC.--concluded

	Thickness, feet	Depth, feet
Sand, fine to coarse, subangular to rounded, and subangular to subrounded fine gravel; contains thin limy sandy silt streaks	9	243
Silt, sandy, limy, yellowish-tan	7	250
Sand, very fine to very coarse, subangular to well-rounded, and very fine, angular to subrounded gravel; contains yellowish-tan limy silt	12	262
Sand, medium to very coarse, subangular to well-rounded, and very fine, subangular to subrounded gravel; contains yellowish-tan limy silt	12	274
Sand, coarse to very coarse, subangular to rounded, and fine, subangular to rounded gravel; coarse fraction consists of weathered fragments of limestone	8	282
Carlile Shale		
Shale (claystone), noncalcareous, light-gray and dark-gray	3+	285

24-31W-12AD.--Driller's log of test hole in SE¼NE¼ sec. 12, T. 24 S., R. 31 W., 0.13 mile south and 15 feet west of NE cor. sec.; drilled, May 22, 1962. Altitude of land surface, 2,878 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil, dark-brown	4	4
Silt, clayey, light-brown	6	10
Sand, very fine, silty; interbedded with light-brown clayey silt	4	14
Silt, limy, sandy, tan; contains soft white caliche	21	35
Silt, clayey, sandy, tan; interbedded with silty, fine to medium sand layers	7	42
Silt, sandy, clayey reddish-brown; contains white caliche layers	4	46
Silt, sandy, limy, reddish-brown	9	55
Sand, fine to coarse, and fine to medium gravel	18	73
Gravel, fine to coarse, and very coarse to medium sand	4	77
Silt, sandy, tan	6	83

24-31W-12AD.--concluded	Thickness, feet	Depth, feet
Silt, sandy; contains hard white caliche layers	3	86
Silt, limy, sandy, tan; contains soft white caliche layers	7	93
Sand, fine to very coarse, and fine to medium gravel	12	105
Gravel, fine to coarse, and very coarse to medium sand; contains thin white caliche-cemented gravel and sand streaks	5	110
Silt, limy, sandy, reddish-brown	6	116
Silt, clayey, sandy, tan; contains fine to coarse sand and fine gravel streaks	13	129
Sand, fine to coarse, and fine to medium gravel	4	133
Sand, fine to very coarse, and fine to medium gravel; interbedded with layers of sandy clayey silt	5	138
Silt, sandy, limy, tan and yellow; contains thin fine to medium sand streaks	7	145
Silt, clayey, yellow; interbedded with tannish-white soft caliche streaks	13	158
Sand, fine to coarse, and fine to coarse gravel	6	164
Silt, clayey, yellowish-tan; contains caliche and caliche-cemented sand and gravel streaks	13	177
Sand, fine to very coarse, and fine to medium gravel; contains caliche-cemented sand and gravel streaks	6	183
Caliche, hard, tight, sandy, tannish-white	2	185
Sand, fine to coarse, and fine gravel; contains thin white caliche and tan clayey silt streaks	11	196
Silt, tight, clayey, limy; interbedded with clayey sandy silt	26	222
Carlile Shale		
Shale (mudstone), tight, black	8+	230

24-31W-20DA.--Driller's log of test hole in NE¼SE¼ sec. 21, T. 24 S., R. 31 W., 0.22 mile west and 0.49 mile south of NE cor. sec.; drilled by Western Drilling Co. for R. G. Morris, March 19, 1956. Altitude of land surface, 2,904 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	2	2
Sand, fine	21	23
Clay, brown	2	25
Clay, sandy, yellow	11	36
Clay and caliche, sandy	19	55
Limestone	1	56
Clay, sandy, yellow	8	64
Sand and gravel, medium	22	86
Limestone	3	89
Sand; fine to medium gravel	8	97
Clay, sandy, yellow	2	99
Sand and gravel, fine	4	103
Clay, sandy, yellow	9	112
Sand; fine to medium gravel	4	116
Limestone	1	117
Clay, sandy, yellow	6	123
Sand, fine, and gravel; loose	8	131
Clay, sandy, yellow	23	154
Sand, fine, very tight	13	167
Clay, sandy, yellow	3	170
Sand, fine	5	175
Clay, sandy, yellow	15	190
Clay, yellow	12	202
Sand; fine to medium gravel; loose	31	233
Sand; fine and medium gravel	24	257
Clay, sandy, yellow	4	261
Sand; fine to medium gravel; loose	37	298
Clay, yellow	9	307
Carlile Shale		
Shale, blue	8+	315

24-31W-31BB.--Sample log of test hole in the NW¼NW¼ sec. 31, T. 24 S., R. 31 W.; drilled, 1941. Altitude of land surface, 2,791 feet.

	Thickness, feet	Depth, feet
Alluvium		
Soil, sandy, dark	2	2
Silt and sand, fine, light-tan, and light-gray	4	6
Gravel, fine to very coarse; contains some sand and cobbles	31	37
Undifferentiated Pleistocene deposits and Ogallala Formation		
Silt and sand, fine, tan and light-gray; contains lime-cemented bed from 41 to 43 feet	12	49
Sand and gravel, poorly sorted, brown	17	66
Silt and sand, fine, tan; contains thin lenses of coarser sand and gravel	12	78
Sand, fine, lime-cemented, tan	5	83
Sand, fine, limy; contains thin cemented beds	7	90
Silt and sand, fine, limy tan and light-gray	10	100
Sand, fine, tan to brown; contains cemented zones and white and yellow chalk and limestone pebbles	20	120
Silt and sand, fine, tan; contains some clay	17	137
Sand, medium to gravel; contains caliche fragments and yellow chalk pebbles	26	163
Silt, clayey, sandy, tan	3	166
Sand, medium, to medium gravel	3	169
Silt, clayey, tan	6	175
Sand, medium, to fine gravel; contains chalk pebbles	28	203
Silt and sand, fine, tan and gray	6	209
Sand; medium to fine gravel, brown	5	214
Carlile Shale		
Shale, silty, yellowish-tan; contains hard sandstone concretions	4	218
Shale, calcareous, dark-gray	2+	220

24-32W-28D.--Sample log of test hole in SE¼NW¼ sec. 2, T. 24 S., R. 32 W., about 0.48 mile east and 0.48 mile south of NW cor. sec.; drilled by Minter Drilling Co. for Luke Rohleder, July 19, 1962. Altitude of land surface, 2,885± feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	4	4
Silt, sandy, limy, tannish-white	7	11
Sand, fine to very coarse, subangular to subrounded; contains tannish-white caliche-cemented sand streaks	29	40
Sand, fine to very coarse, subangular to rounded	10	50
Sand, fine to very coarse, subangular to rounded; interbedded with tannish-white caliche and caliche-cemented sand streaks	20	70
Silt, sandy, limy, reddish-brown, and tannish-white caliche streaks	15	85
Sand, medium to very coarse, subangular to subrounded, and fine to medium, subangular to subrounded gravel	12	97
Silt, sandy, limy, reddish-brown	9	106
Sand, fine to very coarse, subangular to subrounded gravel; contains tannish-white caliche-cemented sand streaks	16	122
Silt, sandy, limy, tan	4	126
Sand, fine to very coarse, subangular to subrounded, and fine, subangular to subrounded gravel; contains tan limy sandy silt streaks	9	135
Silt, sandy, limy, tan; contains subangular to rounded fine sand streaks	10	145
Sand, very fine to medium, subangular to subrounded; contains yellowish-tan limy silt and whitish-tan caliche-cemented sand streaks	8	153
Silt, sandy, limy, yellowish-tan	5	158
Sand, fine to very coarse, subangular to subrounded; contains tan limy sandy silt streaks and tannish-white caliche-cemented sand streaks	9	167
Silt, sandy, limy, yellowish-tan; contains subangular to subrounded fine to very coarse sand streaks	10	177
Sand, very fine to very coarse, subangular to subrounded; contains tannish-white caliche-cemented sand streaks	13	190

24-32W-2BD.--concluded

	Thickness, feet	Depth, feet
Silt, sandy, limy, yellowish-tan	20	210
Sand, fine to very coarse, subangular to subrounded; contains yellowish-tan limy silt	4	214
Clay, silty, yellow	5	219
Sand, medium to very coarse, subangular to rounded, and fine, subangular to subrounded gravel; contains tannish-yellow limy silt	14	233
Silt, sandy, limy, yellowish-tan	8	241
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel	6	247
Silt, sandy, limy, yellowish-tan	8	255
Sand, medium to very coarse, subangular to subrounded, and fine to medium, subangular to subrounded gravel; coarse fraction predominantly weathered limestone fragments; contains yellowish-tan limy sandy silt	22	277
Silt, clayey, limy, yellowish-tan	23	300
Carlile Shale		
Shale (siltstone), calcareous, dark-gray to black	5+	305

24-32W-7DA.--Driller's log of test hole in NE¼SE¼ sec. 7, T. 24 S., R. 32 W., 0.4 mile south and 100 feet west of NE cor. sec.; drilled by Henkle Drilling and Supply Co., Inc. for City of Garden City, Kans., October 30, 1948. Altitude of land surface, 2,833 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Surface soil	2	2
Sand, fine to medium	7	9
Gravel, medium	19	28
Clay, sandy	3	31
Gravel, coarse	3	34
Clay, sticky, with occasional thin caliche breaks	7	41
Sand, fine	8	49
Clay, sandy	5	54
Sand, medium	6	60
Clay, sandy	2	62

24-32W-7DA.--concluded

	Thickness, feet	Depth, feet
Gravel, fine to medium	4	66
Clay, with frequent thin strips of fine sand and caliche	18	84
Gravel, fine to medium, with frequent caliche breaks	9	93
Caliche, hard	2	95
Sand, medium to coarse, with frequent caliche breaks	9	104
Lime rock, hard	2	106
Clay, sandy	3	109
Gravel, fine to medium, with frequent caliche breaks	7	116
Gravel, fine to medium	11	127
Clay, sandy	4	131
Sandstone, medium, hard, with occasional gravel breaks	11	142
Gravel, fine to medium, loose	25	167
Clay, sandy	5	172
Gravel, fine to medium, medium loose	8	180
Caliche, hard	1	181
Gravel, medium, with frequent clay strips, 50 percent gravel	10	191
Clay, intermittent thin strips, and medium sand	8	199
Clay, sticky	5	204
Clay, very sandy	14	218
Sand, fine to medium	4	222
Clay, very sandy	6	228
Sand, fine to medium, with frequent thin caliche breaks	3	231
Clay, very sandy	31	262
Clay, sticky	13	275
Lime rock, very hard	2	277
Clay, sticky	4	281
Lime rock, very hard	6	287
Clay, sandy	2	289
Greenhorn Limestone		
Shale, blue	6+	295

24-32W-12DC.--Sample log of test hole in SW¼SE¼ sec. 12, T. 24 S., R. 32 W., 100 feet east and 15 feet north of S¼ cor. of sec.; drilled, May 26, 1962. Altitude of land surface, 2,906 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	8	8
Silt, sandy, limy, grayish-white to tan	10	18
Sand, very fine to fine, subangular to rounded, and tan limy silt	9	27
Sand, very fine to medium, subangular to rounded, and tan limy silt; contains tannish-white caliche streaks	18	45
Caliche, sandy, tannish-white; contains reddish-brown sandy silt streaks	7	52
Silt, sandy, reddish-brown; contains tannish-white caliche	3	55
Sand, medium to very coarse, subangular to rounded, and fine to coarse subangular to subrounded gravel; contains tan sandy silt and tan caliche	18	73
Sand, fine to very coarse, subangular to rounded, and fine to coarse subangular to subrounded gravel; contains tannish-white caliche-cemented sand and gravel streaks and tan sandy silt streaks	19	92
Silt, limy, sandy, tan; contains tannish-white caliche nodules	13	105
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel	9	114
Sand, very fine to fine, subangular to rounded, and tan limy silt; contains streaks of tannish-white caliche	8	122
Sand, very fine to very coarse, subangular to rounded, and tan limy silt; contains tannish-white caliche streaks	9	131
Sand, fine to very coarse, subangular to rounded, and fine subangular to subrounded gravel; contains tan limy silt and tannish-white caliche-cemented sand and gravel streaks	6	137
Sand, fine to medium, subangular to subrounded, and tan limy silt; interbedded with tannish-white caliche layers	15	152
Silt, sandy, yellowish-tan, and yellowish-tan caliche; contains fine to very coarse subangular to subrounded sand and tannish-white caliche streaks	7	159

24-32W-12DC.--concluded	Thickness, feet	Depth, feet
Sand, very fine to medium, subangular to rounded; contains yellowish-tan limy silt -	13	172
Sand, very fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains yellow clay and white caliche-cemented sand and gravel breaks - - - - - - - - - - - - - - - - - - -	5	177
Silt, sandy, limy, tan, and yellow clay; interbedded with fine to very coarse subangular to subrounded sand and tannish-white caliche streaks - - - - - - - - - - - -	16	193
Sand, fine to very coarse, subangular to subrounded, and very fine subangular to subrounded gravel; contains tannish-white caliche-cemented streaks - - - - - - - - - -	5	198
Clay, olive-yellow, and tan limy sandy silt -	21	219
Sand, fine to very coarse, subangular to subrounded gravel; contains olive-yellow clay and tannish-white caliche streaks - - - - -	15	234
Clay, tight, olive-yellow; contains thin layers of reddish-brown sandy silt, and fine to very coarse subangular to subrounded sand - - -	18	252
Sand, fine to very coarse, subangular to rounded and fine subangular to subrounded gravel; contains reddish-brown sandy silt and tannish-white caliche-cemented s and and gravel streaks - - - - - - - - - - - - -	11	263
Sand, fine to very coarse, subangular to subrounded, and reddish-brown sandy silt; contains layers of olive-yellow clay - - -	9	272
Clay, olive-yellow and light yellowish-gray; contains reddish-brown sandy silt and fine to medium subangular to subrounded sand streaks - - - - - - - - - - - - - - - - - - -	23	295
Carlile Shale		
Shale (siltstone), calcareous, dark-gray to black -	5+	300

24-32W-14BB.--Sample log of test hole in NW¼NW¼ sec. 14, T. 24 S., R. 32 W., at NW cor. sec.; drilled, May 24, 1962. Altitude of land surface, 2,834 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	1	1
Silt, very sandy, tan; contains fine to very coarse subangular to subrounded sand and fine subangular to subrounded gravel	8	9
Sand, medium to very coarse, subangular to rounded, and fine subangular to subrounded gravel	2	11
Caliche, very sandy, white; contains tan limy silt streaks	14	25
Sand, fine to very coarse, subangular to rounded, and fine subangular to subrounded gravel; contains tannish-white caliche-cemented sand and gravel streaks	8	33
Sand, fine to very coarse, subangular to rounded, and fine subangular to rounded gravel	8	41
Gravel, fine to coarse, subangular to subrounded, and medium to very coarse subangular to subrounded sand; contains white caliche-cemented sand and gravel streaks	19	60
Sand, very fine to medium, subangular to subrounded; contains 50 percent tan and reddish-brown limy sandy silt	11	71
Sand, very fine to very coarse, subangular to rounded, and fine subangular to subrounded gravel; contains reddish-brown sandy silt and tannish-white caliche-cemented sand and gravel streaks	14	85
Silt, sandy, reddish-brown and tannish-white caliche streaks	6	91
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains tannish-white caliche-cemented sand and gravel streaks	29	120
Sand, fine to coarse, subangular to subrounded; contains 50 percent tan limy silt and tight white caliche-cemented sand and gravel	15	135
Silt, sandy, limy, yellowish-tan	14	149
Sand, very fine to very coarse, subangular to rounded, and fine subangular to subrounded gravel; contains yellowish-tan limy silt and white caliche streaks	10	159

24-32W-14BB.--concluded

	Thickness, feet	Depth, feet
Sand, fine to coarse, subangular to subrounded; contains tannish-white caliche-cemented sand and gravel streaks	6	165
Silt, sandy, limy, yellowish-tan; contains tannish-white caliche streaks	9	174
Sand, fine to very coarse, subangular to rounded, and fine subangular to subrounded gravel; contains white caliche-cemented sand and gravel streaks	9	183
Clay, silty, limy, tan	3	186
Sand, fine to very coarse, subangular to rounded, and fine to medium subangular to subrounded gravel; contains tannish-white caliche streaks	8	194
Silt, sandy, limy, yellowish-tan; contains white caliche streaks	19	213
Sand, very fine to coarse, subangular to rounded, and yellowish-tan limy silt; contains tannish-white caliche-cemented sand streaks	15	228
Silt, sandy, limy, yellowish-tan; contains tannish-white caliche streaks	5	233
Sand, fine to very coarse, subangular to rounded; contains yellow clay and white caliche-cemented sand streaks	22	255
Silt, sandy, limy, tan	13	268
Sand, very fine to coarse, subangular to rounded; contains tannish-yellow limy silt streaks	4	272
Silt, sandy, limy, yellowish-tan, and tannish-white caliche streaks	8	280
Carlile Shale		
Shale (siltstone), calcareous, dark-gray to black	10+	290

24-32W-17AA.--Sample log of test hole in NE¼NE¼ sec. 17, T. 24 S., R. 32 W., 1,200 feet west and 600 feet south of NE cor. sec.; drilled by Raymond Morris for the City of Garden City, January 31, 1961. Altitude of land surface, 2,830 feet.

24-32W-17AA.--continued

	Thickness, feet	Depth, feet
Alluvium		
Topsoil	2	2
Silt, limy, sandy, yellow	3	5
Sand, medium to very coarse, subangular to rounded, and fine to medium subangular to subrounded gravel; contains tan silty clay streaks	15	20
Gravel, fine to very coarse, subangular to subrounded, and medium to very coarse subangular to subrounded sand; contains tan limy silt streaks	10	30
Undifferentiated Pleistocene deposits and Ogallala Formation		
Silt, limy, sandy, light-tan; contains fine to medium subangular to subrounded sand streaks	18	48
Sand, fine to medium, subangular to rounded; contains red silt and white caliche streaks	10	58
Sand, very coarse to medium, subangular to subrounded, and fine to very coarse gravel; contains white caliche-cemented sand and gravel and reddish-brown sandy silt streaks	32	90
Sand, medium to very coarse, subangular to subrounded, and fine to coarse subangular to subrounded gravel; contains white caliche and reddish-brown sandy silt streaks	20	110
Sand, fine to very coarse, subangular to subrounded, and fine to coarse subangular to subrounded gravel; contains tan limy silt streaks	40	150
Sand, very fine to medium, subangular to subrounded; contains yellow limy silt and hard white caliche-cemented streaks	20	170
Sand, very fine to very coarse, subangular to rounded; contains light-yellow limy silt	10	180
Silt, sandy, limy, yellow; contains white sandy caliche streaks	8	188
Sand, very fine to medium, subangular to rounded, and yellow limy silt; contains tannish-yellow silty clay streaks	38	226

24-32W-17AA.--concluded

	Thickness, feet	Depth, feet
Clay, silty, yellow, and yellow sandy silt	6	232
Sand, very fine to coarse, subangular to rounded; contains reddish-tan limy silt	8	240
Sand, fine to very coarse, subangular to rounded, and reddish-tan limy silt; contains hard white caliche streaks	10	250
Sand, very fine to medium, subangular to rounded, and tannish-red limy silt; contains hard white caliche streaks	27	277
Caliche, hard, sandy, white	4	281
Greenhorn Limestone		
Shale (siltstone), calcareous, dark-gray, with thin limestone streaks	19+	300

24-32W-19CA.--Sample log of test hole in NE¼SW¼ sec. 19, T. 24 S., R. 32 W., 0.48 mile north and 0.28 mile east of SW cor. sec.; drilled, October 16, 1961. Altitude of land surface, 2,833 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	4	4
Sand, medium to very coarse, subangular to rounded, and fine to medium subangular to subrounded gravel	21	25
Silt, very sandy, limy, tannish-white; contains fine to very coarse subangular to subrounded sand and fine subangular to subrounded gravel	25	50
Sand, very fine to very coarse, subangular to subrounded; contains tan limy silt streaks	15	65
Silt, sandy, limy, yellowish-tan to light-gray	8	73
Sand, fine to very coarse, subangular to subrounded	11	84
Gravel, fine to medium, subangular to subrounded, and coarse to very coarse subangular to rounded gravel	8	92
Silt, sandy, limy, tan	2	94
Sand, fine to very coarse, subangular to rounded, and fine subangular to rounded gravel; contains tan limy silt streaks	16	110

24-32W-19CA.--concluded	Thickness, feet	Depth, feet
Sand, medium to very coarse, subangular to rounded, and fine subangular to subrounded gravel; contains tannish-white caliche-cemented streaks	15	125
Sand, medium to very coarse, subangular to rounded, and fine to medium subangular to rounded gravel; contains tan limy clayey silt streaks and hard tannish-white caliche-cemented sand and gravel streaks	25	150
Gravel, fine to medium, subangular to rounded, and very coarse to coarse subangular to rounded sand	5	155
Silt, sandy, limy, tan	1	156
Sand, medium to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains tan sandy silt streaks and white caliche-cemented sand and gravel streaks	27	183
Sand, fine to very coarse, subangular to rounded, and fine to medium subangular to subrounded gravel; contains tannish-white caliche-cemented sand and gravel and yellow silty clay streaks	44	227
Caliche, hard, sandy, white	1	228
Sand, medium to very coarse, subangular to rounded, and fine to medium subangular to subrounded gravel; contains yellow silty clay and tannish-white caliche-cemented sand and gravel streaks	12	240
Sand, medium to very coarse, subangular to rounded, and fine subangular to sub-rounded gravel; contains yellow limy silt and hard white caliche-cemented sand and gravel streaks	14	254
Caliche, hard, sandy, white	3	257
Caliche, hard, sandy, white; interbedded with medium to very coarse subangular to sub-rounded sand and fine subangular to sub-rounded gravel	7	264
Caliche, very hard, sandy, white; contains tan limy silt streaks	6	270
Greenhorn Limestone		
Shale (siltstone), calcareous, dark-brown to black, and thin limestone streaks	7+	277

24-32W-25BD.--Sample log of test hole in SE¼NW¼ sec. 25, T. 24 S., R. 32 W., 0.29 mile south and 0.44 mile east of NW cor. sec.; drilled, August 13, 1961. Altitude of land surface, 2,281 feet.

Undifferentiated Pleistocene deposits	Thickness, feet	Depth, feet
Topsoil, brown	2	2
Sand, fine to very coarse, subangular to rounded, and fine to coarse subangular to subrounded gravel	15	17
Silt, sandy, limy, tan; interbedded with fine to coarse subangular to rounded sand	13	30
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains tan limy sandy silt	8	38
Silt, sandy, limy, tan; contains tannish-white caliche streaks and very fine to fine subangular to subrounded sand	17	55
Sand, very fine to medium, subangular to subrounded; contains tan limy silt and white caliche-cemented sand streaks	10	65
Sand, medium to very coarse, subangular to subrounded, and fine to medium angular to subrounded gravel; contains tan limy silt and white caliche-cemented sand and gravel streaks	20	85
Gravel, fine to medium, angular to subrounded, and fine to very coarse subangular to rounded sand; contains whitish-gray caliche and whitish-tan caliche-cemented gravel and sand	11	96
Sand, very fine to medium, subangular to subrounded, and tan limy silt; contains white caliche-cemented sand streaks	5	101
Sand, fine to very coarse, subangular to subrounded, and fine angular to subrounded gravel; contains tan limy silt and tannish-white caliche-cemented sand streaks	6	107
Sand, fine to very coarse, subangular to rounded, and very fine angular to subrounded gravel; contains tan limy silt and tannish-white caliche-cemented sand streaks	18	125
Ogallala Formation		
Silt, sandy, limy, tan; contains fine to very coarse subangular to rounded sand, whitish-tan hard caliche, and caliche-cemented sand and gravel	7	132

24-32W-25BD.--concluded

	Thickness, feet	Depth, feet
Silt, sandy, clayey, yellowish-tan; contains fine to very coarse subangular to rounded sand streaks and white caliche streaks	11	143
Sand, medium to very coarse, subangular to rounded, and fine to medium subangular to subrounded gravel; contains tannish-white caliche-cemented sand and gravel streaks	14	157
Silt, limy, sandy, yellowish-tan; contains fine to very coarse subangular to rounded sand streaks	12	169
Sand, very fine to very coarse, subangular to rounded, and fine to medium subangular to rounded gravel; contains interbedded yellowish-tan limy silt and tannish-white caliche-cemented sand and gravel streaks	29	198
Silt, limy, sandy, yellowish-tan	4	202
Sand, fine to very coarse, subangular to rounded; contains interbedded tan limy silt layers	6	208
Silt, very sandy, limy, yellowish-tan	7	215
Sand, very fine to coarse	3	218
Silt, very sandy, limy, yellowish-tan; interbedded with fine to very coarse subangular to rounded sand and fine angular to subrounded gravel	10	228
Sand, fine to very coarse, subangular to rounded, and fine to medium subangular to subrounded gravel; contains yellowish-tan limy sandy silt	18	246
Silt, sandy, limy, yellowish-tan	7	253
Carlile Shale		
Shale (siltstone), calcareous, dark-brown to black	3+	256

24-33W-4AC2.--Sample log of test hole in SW¼NE¼ sec. 4, T. 24 S., R. 33 W., 0.49 mile south and 0.44 mile west of NE cor. sec.; drilled by Minter Drilling Co. for G. E. Cone, March 20, 1962. Altitude of land surface, 2,872 feet.

24-33W-4AC2.--continued

	Thickness, feet	Depth, feet
Undifferentiated Pleistocene deposits and Ogallala Formation		
Topsoil	3	3
Silt, sandy, limy, tan	12	15
Gravel, fine to medium, subangular to rounded, and coarse to very coarse subangular to rounded sand; contains tan sandy limy silt layer	10	25
Silt, sandy, limy, tan	4	29
Sand, very fine to medium, subangular to subrounded; contains tan limy silt	6	35
Sand, very fine to coarse, subangular to subrounded; contains tan limy silt	13	48
Silt, sandy, limy, tan	6	54
Sand, very fine to very coarse, subangular to subrounded; contains tan limy silt	8	62
Silt, sandy, tan	5	67
Sand, coarse to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel	9	76
Silt, clayey, yellowish-tan; contains fine to medium subangular to subrounded sand	10	86
Sand, medium to very coarse, subangular to rounded, and fine subangular to subrounded gravel; contains yellow silty clay and tan limy silt streaks	9	95
Sand, medium to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains tannish-white caliche-cemented sand and yellow silt	30	125
Silt, sandy, limy, yellowish-tan	5	130
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to rounded gravel; contains tan limy silt and tannish-white caliche-cemented streaks	18	148
Silt, sandy, limy, reddish-brown	5	153
Sand, fine to very coarse, subangular to subrounded, and fine to coarse subangular to subrounded gravel; contains tan limy silt and tannish-white caliche streaks	15	168
Silt, sandy, limy, reddish-brown	7	175

24-33W-4AC2.--concluded

	Thickness, feet	Depth, feet
Sand, very fine to very coarse, subangular to subrounded, and fine to medium gravel; contains tan limy silt streaks	18	193
Silt, sandy, limy, tan; contains fine to coarse subangular to subrounded sand streaks	9	202
Sand, very fine to medium, subangular to subrounded; contains yellow limy silt	13	215
Caliche, hard, white, and tan limy sandy silt	8	223
Sand, fine to very coarse, subangular to rounded, and fine subangular to subrounded gravel; contains white caliche-cemented sand streaks and tannish-yellow limy silt streaks	22	245
Silt, sandy, limy, yellowish-tan	6	251
Sand, fine to very coarse, subangular to rounded, and fine subangular to subrounded gravel; contains tannish-white caliche and yellowish-tan silt	9	260
Sand, medium to very coarse, subangular to rounded, and fine to medium subangular to subrounded gravel; contains tannish-white caliche and yellowish-tan limy silt	15	275
Silt, sandy, limy, yellowish-tan	5	280
Sand, fine to very coarse, subangular to rounded, and fine to coarse subangular to subrounded gravel; contains tannish-white caliche and caliche-cemented sand streaks	27+	307

Driller reports Greenhorn Limestone at 320 feet in nearby test hole.

24-33W-7BA.--Driller's log of test hole in NE¼NW¼ sec. 7, T. 24 S., R. 33 W.; drilled by Henkle Drilling and Supply Co., Inc. for Irving Brownlee, July 14, 1956. Altitude of land surface, 2,887.8 feet.

Alluvium	Thickness, feet	Depth, feet
Topsoil	2	2
Subsoil	3	5
Clay	5	10
Sand, medium to coarse, and gravel	32	42

Undifferentiated Pleistocene deposits and Ogallala Formation

24-33W-7BA.--concluded

	Thickness, feet	Depth, feet
Clay and lime streaks	20	62
Clay, sandy	50	112
Clay	41	153
Clay and small sand streaks	11	164
Sand, fine to medium, and small clay streaks	10	174
Sand, medium to coarse	10	184
Sand, fine to medium, and small clay streaks	16	200
Sand, medium to coarse	35	235
Clay and sand streaks	9	244
Sand, fine, very fine	4	248
Clay	8	256
Sand, fine, very fine	11	267
Sand, fine, and small clay streaks	15	282
Rock and clay streaks	18	300
Graneros Shale		
Shale	3+	303

24-33W-7CB2.--Sample log of test hole in NW¼SW¼ sec. 7, T. 24 S., R. 33 W., about 0.45 miles north and 50 feet east of SW cor. sec.; drilled, 1941. Altitude of land surface, 2,877.8 feet.

Alluvium	Thickness, feet	Depth, feet
Soil, sandy, tan	2	2
Gravel, fine to very coarse, subangular to subrounded, and subangular to rounded cobbles; contains coarse to very coarse subangular to rounded sand	34	36
Undifferentiated Pleistocene deposits and Ogallala Formation		
Silt, sandy, limy, reddish-brown; contains fine to medium subangular to subrounded sand	35	71
Sand, medium to very coarse, subangular to rounded, and fine to medium subangular to subrounded gravel	12	83
Silt, sandy, tan and light-gray	7	90

24-33W-7CD2.--concluded

	Thickness, feet	Depth, feet
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains light-tan limy silt	48	138
Sand, fine to medium, subangular to rounded; contains white caliche-cemented sand streaks	12	150
Silt, clayey, tan and brown; contains very fine to medium subangular to subrounded sand	20	170
Silt, limy, gray; contains thin light-gray caliche beds	16	186
Sand, medium to very coarse, subangular to subrounded, and fine subangular to subrounded gravel	28	214
Silt, limy, sandy, tan	6	220
Sand, fine to very coarse, subangular to subrounded, and very fine subangular to subrounded gravel; contains yellow limy silt streaks	20	240
Sand, fine to medium, subangular to subrounded; contains whitish-tan caliche-cemented sand streaks	12	252
Sand, very fine to coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains yellow limy silt streaks	48	300
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; coarse portion consists of weathered chalk and limestone fragments	15	315
Graneros Shale (?)		
Limestone, hard, gray; contains yellowish-tan silty shale	10	325
Shale, calcareous, black	5+	330

24-33W-13DA.--Driller's log of test hole in the NE¼SE¼ sec. 13, T. 24 S., R. 33 W., at Fulton and Spencer Streets; drilled by Henkle Drilling and Supply Co., Inc. for the City of Garden City, Kans., May 1955. Altitude of land surface, 2,841 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Loam, sandy	2	2

24-33W-13DA.--concluded

	Thickness, feet	Depth, feet
Subsoil, sandy, limy	2	4
Clay, heavy, soapy	3	7
Sand and coarse gravel	37	44
Clay, limy, with sand streaks	49	93
Clay, blue	31	124
Clay and lime	13	137
Rock shell	1	138
Clay, soapy, gray, with heavy lime streaks	9	147
Clay, sandy, firm, red	8	155
Clay, gray, with lime	14	169
Sand, fine to coarse, and some clay, loose	9	178
Clay, very sandy	7	185
Clay, heavy	3	188
Sand, fine to medium coarse, loose, some clay	6	194
Clay, limy, thin sandy streaks	20	214
Sand, fine to coarse, with some clay streaks	42	256
Clay, limy, sandy streaks	11	267
Sand, fine to coarse, loose; 25 percent clay streaks with chipped limestone	11	278
Clay	5	283
Rock	2	285
Sand, very fine	3	288
Rock and clay streaks	5	293
Clay, limy, with sandy streaks	23	316
Sand, fine to coarse	6	322
Clay, rock shells	3	325
Lime rock and clay streaks	12	337
Graneros Shale		
Shale	3+	340

24-33W-18BC.--Sample log of test hole in SW¼NW¼ sec. 18, T. 24 S., R. 33 W., 0.4 mile south and 30 feet east of NW cor. sec.; drilled, December 6, 1961. Altitude of land surface, 2,880 feet.

Alluvium	Thickness, feet	Depth, feet
Sand, very fine to medium, subangular to rounded, and tannish-brown silt	3	3
Sand, medium to coarse, subangular to rounded, and fine to medium subangular to subrounded gravel	5	8

24-33W-18BC.--continued	Thickness, feet	Depth, feet
Silt, sandy, gray	3	11
Gravel, fine to coarse, subangular to rounded, and coarse to very coarse subangular to rounded sand; contains thin brown sandy silt streaks	20	31
Undifferentiated Pleistocene deposits and Ogallala Formation		
Clay, silty, yellow, tan, and greenish-gray	15	46
Caliche, hard, sandy, white	2	48
Sand, fine to coarse, subangular to subrounded; contains yellow silt	7	55
Caliche, hard, white	1	56
Clay, silty, dark-gray; contains yellow silty clay streaks	22	78
Clay, silty, dark-gray; contains thin fine to very coarse subangular to subrounded sand streaks and yellow sandy silt streaks	5	83
Clay, silty, dark-gray; contains fine to coarse subangular to subrounded sand streaks	14	97
Clay, silty, dark-gray, and light-gray sandy silt	8	105
Sand, medium to very coarse, subangular to subrounded, and fine subangular to rounded gravel	10	115
Silt, sandy, dark-gray; interbedded with fine to medium subangular to rounded sand and fine subangular to subrounded gravel	23	138
Sand, fine to very coarse, subangular to subrounded, and fine to coarse subangular to subrounded gravel; interbedded with gray sandy silt	27	165
Silt, clayey, dark-gray, and fine to very coarse subangular to rounded sand; clay contains carbonized wood	10	175
Sand, fine to very coarse, subangular to rounded, and fine to medium subangular to subrounded gravel; interbedded with gray clayey silt	15	190
Silt, sandy, limy, tan	15	205
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains tan limy silt streaks	32	237

24-33W-18BC.--concluded

	Thickness, feet	Depth, feet
Clay, hard, limy, gray	1	238
Sand, fine to very coarse, subangular to rounded, and fine to medium subangular to subrounded gravel; contains tan limy silt and white caliche-cemented streaks	10	248
Silt, very sandy, reddish-brown	12	260
Sand, fine to coarse, subangular to rounded, and fine to medium subangular to subrounded gravel; contains reddish-brown and tan sandy limy silt	15	275
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains white caliche and tannish-brown limy sandy silt streaks	12	287
Gravel, fine to medium, subangular to subrounded, and medium to very coarse subangular to rounded sand; contains reddish-brown sandy silt and white caliche-cemented sand and gravel	23	310
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains white caliche-cemented sand and gravel streaks	20	330
Gravel, fine to medium, subangular to subrounded, and fine to very coarse subangular to rounded sand; contains white caliche streaks and yellow silty clay	16	346
Graneros Shale		
Shale, calcareous, hard, black	14+	360

24-34W-30A.--Sample log of test hole in NE¼NW¼ sec. 3, T. 24 S., R. 34 W., 0.4 mile east and 50 feet south of NW cor. sec.; drilled by Minter Drilling Co. for G. L. Potter, August 9, 1960. Altitude of land surface, 2,910 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	5	5
Silt, sandy, limy, brown	25	30

24-34W-3BA.--continued

	Thickness, feet	Depth, feet
Sand, medium to very coarse, subangular to subrounded, and fine subangular to rounded gravel; contains tan limy sandy silt layers	20	50
Sand, medium to very coarse, subangular to subrounded, and fine to medium subangular to rounded gravel; contains tan limy sandy silt layers	10	60
Sand, very fine to medium, subangular to rounded; contains tan limy sandy silt	15	75
Sand, medium to very coarse, subangular to rounded; contains fine subangular to rounded gravel	15	90
Silt, sandy, limy, tan	10	100
Sand, medium to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel	15	115
Silt, sandy, limy, tan	25	140
Sand, medium to very coarse, subangular to subrounded, and fine subangular to rounded gravel; contains tan limy sandy silt and tannish-white caliche layers	15	155
Silt, limy, sandy, tan	5	160
Sand, medium to very coarse, s ubangular to rounded, and fine to medium subangular to subrounded gravel; contains tan limy sandy silt	40	200
Gravel, fine to medium, subangular to subrounded, and coarse to very coarse subangular to rounded sand	30	230
Silt, very sandy, limy, reddish-brown	3	233
Sand, fine to very coarse, subangular to rounded, and fine to medium subangular to subrounded gravel	5	238
Silt, very sandy, limy, reddish-tan	5	243
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains reddish-brown limy silt and tannish-white caliche-cemented sand	12	255
Silt, very sandy, limy, tan	12	267
Gravel, fine to coarse, subangular to subrounded, and coarse to very coarse subangular to subrounded sand; contains tannish-white caliche-cemented layers	11	278

24-34W-3BA.--concluded

	Thickness, feet	Depth, feet
Silt, sandy, limy, tan	3	281
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains tannish-white caliche-cemented sand and tan sandy limy silt	29	310
Silt, sandy, limy, yellowish-tan, and tannish-white sandy caliche	7	317
Sand, medium to very coarse, subangular to rounded, and fine to medium subangular to subrounded gravel; contains yellowish-tan limy silt and tannish-white caliche-cemented sand layers	23	340
Sand, fine to very coarse, subangular to rounded, and fine to medium subangular to subrounded gravel; contains yellow limy silt and whitish-tan caliche-cemented sand layers; gravel fraction contains weathered limestone pebbles	57	397
Caliche, hard, sandy, tannish-white	3+	400

24-34W-9BB.--Sample log of test hole in NW¼NW¼ sec. 9, T. 24 S., R. 34 W., 0.8 mile north and 40 feet east of SW cor. sec.; drilled May 30, 1962. Altitude of land surface, 2,914 feet.

Alluvium	Thickness, feet	Depth, feet
Topsoil	4	4
Silt, sandy, yellow; contains light-gray silty clay	1	5
Sand, medium to very coarse, subangular to rounded, and fine to medium subangular to subrounded gravel	20	25
Undifferentiated Pleistocene deposits and Ogallala Formation		
Silt, sandy, limy, light-tan; contains whitish-tan caliche nodules	6	31
Silt, sandy, limy, tan	27	58
Silt, sandy, limy, tan; contains fine subangular to subrounded sand streaks	4	62
Silt, sandy, limy, reddish-brown to tan	10	72

24-34W-9BB.--continued

	Thickness, feet	Depth, feet
Sand, fine to very coarse, subangular to rounded, and fine to very coarse subangular to subrounded gravel; contains tan limy silt streaks	6	78
Silt, very sandy, tan, contains fine to medium subangular to subrounded sand and grayish-white sandy caliche streaks	14	92
Silt, sandy, limy, tan and light-gray	13	105
Clay, silty, bluish-gray; interbedded with light-gray and tan limy silt	30	135
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel	20	155
Silt, sandy, limy, tan and light-gray	9	164
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel	23	187
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains tan sandy limy silt streaks	7	194
Silt, sandy, limy, tan, contains fine to medium subangular to subrounded sand	10	204
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel, contains white caliche-cemented streaks	11	215
Silt, sandy, limy, reddish-brown	3	218
Sand, fine to very coarse, subangular to rounded, and fine subangular to subrounded gravel; contains white caliche-cemented streaks	10	228
Sand, fine to very coarse, subangular to rounded, and fine to medium subangular to subrounded gravel; contains yellow sandy silt and white caliche-cemented sand streaks	15	243
Sand, fine to very coarse, subangular to rounded, and fine subangular to subrounded gravel; contains white caliche-cemented sand streaks	9	252
Sand, fine to very coarse, subangular to subrounded; contains white caliche-cemented sand and reddish-brown sandy limy silt streaks	11	263

24-34W-9BB.--concluded

	Thickness, feet	Depth, feet
Sand, fine to very coarse, subangular to rounded; contains yellowish-tan and reddish-brown sandy limy silt streaks	12	275
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains yellowish-tan limy silt streaks	21	296
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains white caliche-cemented sand streaks	8	304
Silt, sandy, limy, silty, yellowish-tan	3	307
Sand, fine to very coarse, subangular to rounded, and fine to medium subangular to subrounded gravel; contains white caliche-cemented sand streaks and reddish-brown sandy limy silt	35	342
Silt, light, chalky, yellow (weathered shale?)	3	345
Graneros Shale		
Shale (siltstone), tight, calcareous, dark-gray to black	5+	350

25-31W-13BB.--Sample log of test hole in NW¼NW¼ sec. 13, T. 25 S., R. 31 W., 200 feet east and 50 feet south of NW cor. sec.; drilled December 1, 1961. Altitude of land surface, 2,826 feet.

Alluvium	Thickness, feet	Depth, feet
Topsoil	1	1
Sand, medium to very coarse, subangular to rounded, and fine to medium gravel	6	7
Sand, medium to very coarse, subangular to rounded, and fine to medium gravel cemented by tannish-white caliche	3	10
Sand, very fine to medium, angular to subrounded, and tan limy silt; contains tannish-white caliche-cemented sand streaks	8	18
Sand, medium to very coarse, subangular to subrounded, and fine to medium subangular to rounded gravel; contains sandy silt streaks	7	25

25-31W-13BB.--concluded	Thickness, feet	Depth, feet
Gravel, fine to medium, subangular to rounded, and coarse to very coarse sand; contains tannish-white caliche-cemented sand streaks	12	37
Undifferentiated Pleistocene deposits and Ogallala Formation		
Clay, silty, grayish-tan, and fine to medium subangular to subrounded sand streaks	11	48
Sand, fine to very coarse, subangular to rounded, and fine subangular to subrounded gravel	15	63
Silt, clayey, tan	3	66
Sand, fine to medium, subangular to subrounded, and fine subangular to subrounded gravel; contains tannish-white caliche-cemented streaks	7	73
Sand, very fine to coarse, subangular to rounded, and fine subangular to subrounded gravel; contains hard white caliche-cemented sand and gravel layers	27	100
Silt, limy, sandy, grayish-white	13	113
Sand, fine to very coarse, subangular to subrounded	4	117
Silt, very sandy, limy, tannish-white; contains tannish-white caliche streaks	8	125
Caliche, grayish-white, sandy, and tannish-gray limy silt	10	135
Silt, clayey, limy, and fine to very fine subangular to subrounded sand	10	145
Sand, fine to very coarse, subangular to rounded; contains tannish-white caliche-cemented streaks	14	159
Sand, fine to very coarse, subangular to rounded, and fine subangular to rounded gravel; contains tan clay streaks	26	185
Silt, very sandy, limy, tannish-white	18	203
Sand, very fine to very coarse, subangular to rounded, and very fine gravel; contains silt streaks	18	221
Carlile Shale		
Shale (siltstone), calcareous, black	9+	230

25-31W-24DD.--Sample log of test hole in SE¼SE¼ sec. 24, T. 25 S., R. 31 W., about 0.24 mile north and 50 feet west of SE cor. sec.; drilled by U.S. Bureau of Reclamation, February 1956. Altitude of land surface, 2,748.3 feet.

	Thickness, feet	Depth, feet
Alluvium		
Sand, fine to medium, subangular to subrounded, limy; contains yellowish-tan silt	2	2
Silt, very sandy, limy, yellowish-gray	3	5
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to rounded gravel; contains white caliche-cemented sand and gravel streaks	17	22
Undifferentiated Pleistocene deposits and Ogallala Formation		
Sand, very fine to medium, subangular to subrounded, limy; contains yellowish-tan silt	2	24
Sand, fine to very coarse, subangular to rounded; contains fine subangular to rounded gravel and tan limy silt streaks	31	55
Silt, very sandy, limy, grayish-tan to tan	9	64
Sand, fine to coarse, subangular to subrounded; contains tan limy silt and white caliche-cemented sand streaks	5	69
Silt, very sandy, limy, reddish-tan; contains fine to medium subangular to subrounded sand and whitish-tan caliche-cemented streaks	15	84
Sand, fine to very coarse, subangular to subrounded; contains streaks of fine subangular to subrounded gravel and tan limy silt streaks	25	109
Silt, sandy, limy, gray to tan; contains tannish-white caliche streaks	20	129
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains tan limy silt and tannish-white caliche-cemented sand and gravel streaks	15	144
Silt, sandy, limy, light-tan; contains fine to medium subangular to subrounded sand streaks and tan clayey silt streaks	30	174

25-31W-24DD.--concluded

	Thickness, feet	Depth, feet
Sand, fine to very coarse, subangular to rounded, and tan limy silt	5	179
Silt, sandy, limy, tan; contains tan silty clay streaks	20	199
Sand, fine to very coarse, subangular to rounded and fine subangular to subrounded gravel; contains tan limy silt streaks	15	214
Silt, sandy, limy, tan	10	224
Carlile Shale		
Shale (siltstone), calcareous, dark-gray	5+	229

25-33W-1BD.--Sample log of test hole in the center SE¼NW¼ sec. 1, T. 25 S., R. 33 W., about 0.35 mile south and 0.35 mile east of NW cor. sec.; drilled by Peel Bros. Drilling Co. for Mobil Oil Co., November 24, 1961. Altitude of land surface, 2,894 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
No log	250	250
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains tannish-white caliche and tan sandy limy silt streaks	48	298
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains tan sandy limy silt and tannish-white caliche streaks	22	320
Silt, sandy, limy, tan, and tannish-white caliche	35	355
Silt, sandy, limy, tan; interbedded with fine to very coarse subangular to subrounded sand and fine to coarse subangular to rounded gravel	35	390
Sand, fine to very coarse, subangular to subrounded, and fine to coarse subangular to rounded gravel; contains tannish-white limy silt and white caliche streaks	38	428

25-33W-1BD.--concluded

	Thickness, feet	Depth, feet
Graneros Shale		
Shale (siltstone), calcareous, black; contains interbedded thin streaks of gray hard dense limestone and gray bentonite seams	41	469
Shale (siltstone), noncalcareous; contains interbedded dark-gray to black calcareous shale (siltstone)	16	485
Undifferentiated Lower Cretaceous rocks		
Siltstone, very sandy, light-gray; contains interbedded gray fine-grained sandstone layers	40	524
Sandstone, fine-grained, silty	9	533
Siltstone, very sandy, light-gray; contains interbedded gray fine-grained sandstone layers	46	579
Sandstone, fine- to medium-grained, silty	18	597
Siltstone, very sandy, light-gray; contains interbedded gray fine-grained sandstone layers	81	678
Shale (mudstone), very hard, noncalcareous, black	5	683
Sandstone, fine- to medium-grained, silty, light-gray; contains hard black mudstone layers and gray sandy siltstone layers	47	730
Morrision(?) Formation		
Shale (mudstone), black; contains gray thin hard sandstone layers	31+	761

25-33W-1DC.--Sample log of test hole in SW¼SE¼ sec. 1, T. 25 S., R. 33 W., 0.15 mile north and 0.3 mile west of SE cor. sec.; drilled October 18, 1961. Altitude of land surface, 2,883 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Sand, very fine to coarse, subangular to well-rounded, and tan silt; contains tan caliche-cemented nodules	22	22

25-33W-1DC.--continued	Thickness, feet	Depth, feet
Silt, limy, sandy, tannish-white	5	27
Sand, fine to very coarse, subangular to rounded	5	32
Gravel, fine to coarse, subangular to rounded, and very coarse to coarse subangular to rounded sand	8	40
Sand, very coarse to coarse, subangular to rounded, and fine to very coarse subangular to rounded gravel	15	55
Silt, sandy, limy, tannish-white, and caliche streaks	15	70
Caliche, sandy, tannish-white	6	76
Silt, sandy, limy, tannish-white, and tannish-white caliche	14	90
Sand, medium to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains limy sandy silt	16	106
Silt, sandy, limy, tannish-white, and very fine to medium subangular to subrounded sand	19	125
Sand, fine to coarse, subangular to subrounded, and fine to coarse subangular to subrounded gravel; contains tannish-white limy sandy silt	15	140
Sand, fine to very coarse, subangular to subrounded, and fine to coarse subangular to subrounded gravel	13	153
Silt, sandy, limy, tan	17	170
Sand, very fine to medium, subangular to subrounded, and reddish-brown sandy silt; contains tannish-white caliche-cemented layers	20	190
Sand, medium to very coarse, subangular to subrounded, and fine to medium gravel	24	214
Sand, medium to very coarse, subangular to subrounded, cemented by tannish-white caliche	3	217
Sand, medium to very coarse, subangular to subrounded, and fine to medium gravel; contains thin layers of tan limy clay	15	232
Sand, fine to very coarse, subangular to subrounded, and fine to medium gravel cemented by tannish-white caliche	3	235
Sand, medium to very coarse, subangular to subrounded, and fine gravel; contains tannish-white caliche-cemented streaks	20	255

25-33W-1DC.--concluded

	Thickness, feet	Depth, feet
Silt, sandy, limy, tan, and very fine to fine sand	10	265
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains tan limy silt and tannish-white caliche-cemented streaks	32	297
Sand, very fine to medium, subangular to subrounded, and tannish-white limy silt; contains tannish-white caliche-cemented sand streaks	13	310
Sand, very fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; interbedded with yellowish-tan limy silt and tannish-white caliche streaks	104	414
Graneros Shale		
Shale (siltstone), black, and thin grayish-white interbedded limestone rocks	6+	420

25-33W-12AB.--Sample log of test hole in NW¼NE¼ sec. 12, T. 25 S., R. 33 W., about 0.1 mile east and 100 feet south of N¼ cor. of sec. 12; drilled 1941. Altitude of land surface, 2,867 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Soil, sandy, dark	0.5	0.5
Sand, fine to medium, tan	3.5	4
Sand, fine, tan	4	8
Gravel, medium to very coarse, sandy; contains pebbles and cobbles	37	45
Silt and sand, fine, limy, gray and tan; contains some gray silty clay	36	81
Sand, fine to gravel, medium, tan	12	93
Silt and sand, fine limy, tan and light-gray	32	125
Sand, coarse to gravel, medium, brown	30	155
Silt and sand, fine, limy, light-gray	7	162
Sand, fine, reddish-brown	9	171
Sand, fine, lime-cemented, hard; interbedded with light-gray silt and fine sand	9	180

25-33W-12AB.--concluded

	Thickness, feet	Depth, feet
Sand, coarse, to coarse gravel, brown	16	196
Silt and sand, fine, limy, light-gray; contains hard-cemented zone on top	2	198
Sand, coarse, to medium gravel, brown	6	204
Silt, clayey, medium-gray	2	206
Sand, coarse, to medium gravel, brown	31	237
Sand, fine, brown; containing few thin-cemented zones and some coarser sand and gravel	23	260
Sand, coarse, and fine gravel	17	277
Silt and sand, fine, tan and light-gray	12	289
Sand, medium, to fine gravel, brown	20	309
Silt, clayey, tan	5	314
Sand and gravel, brown	11	325
Silt, clayey, sandy, yellowish-tan	11	336
Gravel, fine to coarse, sandy; contains granules and pebbles of Cretaceous rocks	10	346
Silt and sand, fine, limy, tan and light-gray	4	350
Sand, medium to gravel, coarse; containing chik and limestone pebbles	56	406
Graneros Shle		
Shale silty, calcareous, yellowish-tan	4	410
Shale calcareous, black, and dark-gray limestone	10+	420

25-33W-24AA--Sample log of test hole in NE¼NE¼ sec. 24, T. 25 S., R. 33 W., 0.22 mile south and 0.05 mile west of NE cor. sec.; drilled November 6, 1961. Altitude of land surface, 2,913 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Sand, very fine to very coarse, subangular to subrounded; contains tan silt and tannish-white caliche streaks	28	28
Sand, very fine to medium, subangular to subrounded, and tan limy silt	12	40
Sand, very fine to medium, subangular to subrounded, and tan limy silt; contains tanish-white caliche-cemented streaks	7	47
Gravel, fine to coarse, subrounded to rounded, and very coarse to medium subangular to subrounded sand	53	100

25-33W-24AA.--continued

	Thickness, feet	Depth, feet
Silt, sandy, limy, tan, and tannish-white caliche streaks	45	145
Sand, fine to very coarse, subangular to subrounded, and reddish-brown sandy silt	10	155
Sand, fine to very coarse, subangular to subrounded, and fine to coarse subangular to subrounded gravel; contains sandy silt and tannish-white caliche streaks	15	170
Sand, fine to coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains tannish-white caliche streaks	15	185
Caliche, very sandy, hard, white	8	193
Sand, medium to very coarse, subangular to subrounded, and fine subangular to subrounded gravel	14	207
Silt, very sandy, limy; contains fine to very coarse subangular to subrounded sand streaks	30	237
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains thin tannish-white caliche and tan sandy limy silt streaks	45	282
Silt, very sandy, limy, tan; contains fine to very coarse subangular to subrounded sand and fine to medium gravel streaks	11	293
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to rounded gravel	15	308
Silt, sandy, limy, tan; contains fine to very coarse subangular to subrounded sand and fine subangular to subrounded gravel	12	320
Sand, medium to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains thin tannish-white caliche-cemented sand and gravel streaks	33	353
Silt, sandy, limy, tan, and tannish-white caliche	9	362
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains tan limy silt and tannish-white caliche-cemented sand streaks	8	370

25-33W-24AA.--concluded

	Thickness, feet	Depth, feet
Silt, sandy, limy, tan	18	388
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to rounded gravel; contains yellowish-tan limy sandy silt and tannish-white caliche streaks	32	420
Silt, sandy, limy, yellow, and tannish-white caliche	17	437
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel	7	444
Silt, sandy, limy, yellowish-tan; contains (50 percent) fine to very coarse subangular to subrounded sand and fine subangular to subrounded gravel	19	463
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains yellowish-tan limy silt	15	478
Silt, sandy, limy, yellowish-tan	5	483
Sand, fine to very coarse, and fine subangular to subrounded gravel; contains yellowish-tan limy silt and tannish-white caliche-cemented sand and gravel streaks	64	547
Undifferentiated Lower Cretaceous rocks		
Siltstone, very sandy, gray	3+	550

25-34W-18BB.--Sample log of test hole in NW¼NW¼ sec. 1, T. 25 S., R. 34 W., 20 feet south and 50 feet east of NW cor. sec.; drilled December 7, 1961 and May 18, 1962. Altitude of land surface, 2,929 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Sand, very fine to medium, subangular to rounded; contains tan limy silt	5	5
Silt, clayey, gray to white and brown; contains a molluscan fauna	1	6
Silt, sandy, limy, tan	9	15
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains light-brown silt streaks	10	25

25-34W-18B.--continued	Thickness, feet	Depth, feet
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains tan limy silt and tannish-white caliche streaks	24	49
Silt, sandy, tan; contains soft tannish-white caliche nodules	6	55
Sand, fine to very coarse, subangular to subrounded, and fine to medium gravel; contains tan limy silt streaks	24	79
Sand, very fine to medium, subangular to subrounded, and tan limy silt	10	89
Silt, sandy, light-gray	4	93
Silt, sandy, limy, tan	41	134
Silt, sandy, tan and light-gray; contains fine to coarse subangular to subrounded sand streaks	6	140
Silt, sandy, tannish-gray; contains tannish-white caliche streaks	35	175
Silt, sandy, limy, gray to tan	30	205
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel	20	225
Silt, sandy, limy, tan	5	230
Sand, very fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains fine limy silt streaks	30	260
Silt, very sandy, limy light-tan	10	270
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains interbedded tan sandy limy silt	12	282
Sand, medium to very coarse, subangular to sub-subrounded, cemented with tannish-white caliche	1	283
Silt, very sandy, rusty-tan	13	296
Sand, fine to very coarse, subangular to subrounded and fine subangular to subrounded gravel; contains tan limy sandy silt	18	314
Silt, sandy, limy reddish-tan; contains fine to very coarse subangular to subrounded sand and fine subangular to subrounded gravel	6	320

25-34W-18B.--concluded

	Thickness, feet	Depth, feet
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains tan and brown sandy limy silt layers	26	346
Sand, fine to very coarse, subangular to subrounded, and very fine to fine subangular to subrounded gravel; contains yellowish-tan limy clayey silt	24	370
Sand, fine to very coarse, subangular to rounded, and fine subangular to rounded gravel; interbedded with layers of yellow limy clayey silt	9	379
Silt, sandy, limy, yellowish-tan; contains interbedded fine to coarse subangular to rounded sand	11	390
Sand, fine to very coarse, subangular to rounded, and subangular to rounded gravel	10	400
Silt, sandy, yellow; interbedded with fine to very coarse subangular to subrounded sand and subangular to rounded fine gravel	20	420
Silt, sandy, yellow	16+	436

25-34W-14DA.--Sample log of test hole in NE¼SE¼ sec. 14, T. 25 S., R. 34 W., 0.47 mile north and 30 feet west of SE cor. sec.; drilled May 10, 1962. Altitude of land surface, 2,948 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	6	6
Silt, sandy, limy, tan; contains fine to medium subangular to subrounded sand to medium subangular to subrounded sand streaks	15	21
Sand, fine to very coarse, subangular to subrounded, and fine to medium gravel; contains tan sandy limy silt streaks	13	34
Gravel, fine to medium, subangular to rounded, and very coarse to medium subangular to subrounded sand	31	65
Silt, sandy, limy, tannish-white; contains white caliche nodules	12	77
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel	17	94

25-34W-14DA.--continued	Thickness, feet	Depth, feet
Silt, sandy, limy, tan; interbedded with fine to very coarse subangular to subrounded sand streaks	18	112
Silt, very sandy, reddish-tan; contains tannish-white caliche layers	12	124
Gravel, fine to very coarse, subangular to subrounded, and very coarse to medium subangular to subrounded sand	2	126
Silt, sandy, limy, tan, and white caliche nodules; contains interbedded fine to very coarse subangular to subrounded sand and fine subangular to subrounded gravel	26	152
Silt, tight, limy, sandy, tannish-white	11	163
Silt, sandy, limy, grayish-tan	13	176
Sand, fine to very coarse, subangular to subrounded, and very fine subangular to rounded gravel	6	182
Silt, sandy, limy, grayish-tan; contains interbedded fine to very coarse subangular to subrounded sand and fine subangular to subrounded gravel	13	195
Silt, sandy, limy, tannish-gray; contains interbedded fine to very coarse subangular to subrounded sand and fine subangular to subrounded gravel	9	204
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains tannish-gray limy sandy silt streaks	18	222
Caliche, hard, white	2	224
Silt, limy, clayey, gray; contains interbedded tan sandy silt	4	228
Silt, limy, gray	10	238
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains gray and tan limy silt	17	255
Silt, sandy, limy, tan; contains fine to very coarse subangular to subrounded sand and fine subangular to subrounded gravel	16	271
Silt, sandy, limy, tan and light-gray; contains bluish-gray clayey silt, fine to coarse subangular to subrounded sand, and fine subangular to subrounded gravel streaks	21	292

25-34W-14DA.--concluded

	Thickness, feet	Depth, feet
Silt, clayey, sandy, limy, light-tan; contains interbedded fine to coarse subangular to subrounded sand and fine subangular to rounded gravel layers	23	315
Silt, tight, sandy, limy, and tannish-white caliche; contains fine to very coarse subangular to subrounded sand and fine subangular to subrounded gravel	17	332
Caliche, hard, sandy, white	6	338
Silt, tight, limy, sandy, rusty-brown to tannish-white; contains tannish-white caliche-cemented sand streaks	8	346
Silt, sandy, yellow	11	357
Silt, sandy, yellow, and fine to very coarse subangular to rounded sand	9	366
Sand, fine to very coarse, subangular to subrounded, and fine subangular to rounded gravel	10	376
Silt, clayey, limy, yellowish-tan; contains fine to coarse subangular to rounded sand	42	418
Silt, sandy, yellow	11	429
Silt, hard, limy, light-gray and tan	38	467
Undifferentiated Lower Cretaceous rocks		
Shale (siltstone), hard, calcareous, sandy, dark-gray to black	3+	470

26-31W-1BB.--Sample log of test hole in NE cor. NW¼NW¼ sec. 1, T. 26 S., R. 31 W., drilled by U.S. Bureau of Reclamation, February 1956. Altitude of land surface, 2,783.9 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Sand, fine, very silty, gray	2	2
Silt, very sandy, clayey, gray	4	6
Silt, very sandy, light-tan	3	9
Sand, very fine, grading to coarse at base	8	17
Silt, sandy, very calcareous, pinkish-tan	6	23
Sand, fine to coarse; contains tan clayey silt streaks from 34 to 39 feet and some fine gravel from 43 to 49 feet	26	49

26-31W-18B.--concluded	Thickness, feet	Depth, feet
Sand, fine to coarse, and much fine to coarse gravel; contains some sandy tan silt streaks from 69 to 84 feet	48	97
Silt, sandy, calcareous, grayish-tan	2	99
Sand, fine to coarse, and fine to medium gravel; contains some sandy tan silt streaks	15	114
Silt, sandy, calcareous, tan; contains some sand streaks	5	119
Sand, fine to coarse; contains many calcareous tan silt streaks	10	129
Silt, very sandy, calcareous, clayey, grayish-tan; contains some lime-cemented streaks	18	147
Sand, fine to coarse, and fine gravel; contains some silt	5	152
Silt, very sandy, calcareous, light-tan	6	158
Sand, fine to coarse; contains much calcareous tan silt	21	179
Sand, fine to medium, silty	5	184
Silt, sandy, calcareous, grayish-tan	6	190
Sand, fine to coarse; contains much calcareous tan silt and some lime-cemented streaks	19	209
Silt, very sandy, calcareous, grayish-tan to light-tan; contains some tan clay streaks near base and some sand streaks	20	229
Sand, fine to coarse, and fine gravel, silty	4	233
Silt, calcareous, grayish-tan; contains sand and fine gravel streaks	6	239
Sand, fine to coarse, silty; contains some lime-cemented streaks and some Cretaceous-derived pebbles	3	242
Silt, very sandy, calcareous, light grayish-tan	7	249
Silt, sand, and gravel, lime cemented, tannish-white ("mortar bed"); contains many Cretaceous-derived pebbles	13	262
Graneros Shale		
Shale, calcareous, dark-gray	7+	269

26-31W-12CD.--Driller's log of test hole in SE¼SW¼ cor. sec. 12, T. 26 S., R. 31 W.; drilled by the U.S. Bureau of Reclamation, February 1956. Altitude of land surface, 2,796.1 feet.

Undifferenitated Pleistocene deposits Ogallala Formation	Thickness, feet	Depth, feet
Sand, fine, very silty, gray	2	2
Silt, sandy, light- to dark-tan	22	24
Silt, sandy, calcareous, light grayish-tan	2	26
Sand, fine to medium	3	29
Silt, very sandy, very calcareous, grayish-tan	15	44
Sand, fine to coarse, and fine to medium gravel	10	54
Silt, sandy, calcareous, light-tan	5	59
Sand, fine to coarse; contains some fine to medium gravel at base	10	69
Silt, very sandy, calcareous, tannish-gray	5	74
Sand, fine to coarse, and fine gravel; contains some fine to medium silt at base and some lime-cemented streaks	17	91
Silt, very sandy, calcareous, grayish-tan	2	93
Sand, fine to coarse, and fine gravel, silty	7	100
Silt, sandy, calcareous, tan; contains lime-cemented sand streaks	11	111
Sand, fine to coarse, and fine to medium gravel; contains some cemented streaks	22	133
Silt, sandy, very calcareous, pinkish-tan to grayish-tan	18	151
Sand, fine to coarse; contains lime-cemented streaks	2	153
Silt, sandy, very calcareous, grayish-tan	13	166
Sand, fine to very coarse, silty	7	173
Silt, sandy, calcareous, tan; contains some brown clay streaks	6	179
Sand, fine to coarse, and fine gravel; contains some calcareous clayey tan silt streaks	22	201
Silt, sandy, calcareous, clayey, tan	23	224
Sand, fine to coarse; contains some calcareous tan silt streaks	9	233
Silt, sandy, calcareous, grayish-tan	2	235
Sand, fine to coarse, and fine gravel; contains much Cretaceous-derived gravel	14	249
Silt, very sandy, very calcareous, light grayish-tan	10	259

26-31W-12CD.--concluded	Thickness, feet	Depth, feet
Sand, fine to coarse, and fine gravel; contains much clayey tan silt from 259 to 269 and from 279 to 284 feet and some lime-cemented streaks	35	294
Silt, very sandy, very calcareous, light-tan; contains some sand and streaks of Cretaceous-derived gravel near base	17	311
Graneros Shale		
Shale, calcareous, dark-gray	7+	318

26-31W-32BB.--Sample log of test hole in NW¼SW¼ sec. 32, T. 26 S., R. 31 W., 50 feet east and 30 feet south of NW cor. sec.; drilled August 1, 1962. Altitude of land surface, 2,845e feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil, sandy, limy, brown	3	3
Silt, sandy, limy, tannish-brown	5	8
Silt, sandy, limy, brown	10	18
Sand, fine to very coarse, subangular to rounded; contains tan limy silt	7	25
Sand, fine to very coarse, subangular to rounded; contains tan limy silt and white caliche strips	19	44
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains tannish-white limy silt streaks	72	116
Silt, sandy, limy, yellowish-tan	8	124
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains hard tannish-white caliche streaks	14	138
Caliche, tannish-white, and tannish-white sandy silt streaks	9	147
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains tannish-white caliche-cemented sand streaks	31	178

26-31W-32BB.--continued	Thickness, feet	Depth, feet
Silt, sandy, clayey, limy, tan, and tannish-white hard caliche	5	183
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains tannish-white caliche-cemented streaks	42	225
Silt, sandy, limy, tan, and whitish-tan caliche streaks	6	231
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains reddish-brown sandy limy silt streaks	54	285
Silt, sandy, limy, and white caliche	8	293
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel	13	306
Silt, sandy, limy, tannish-white, and white hard caliche streaks	25	331
Sand, fine to very coarse, subangular to subrounded, and fine subangular to rounded gravel	6	337
Silt, sandy, limy, tannish-white, and tannish-white sandy caliche; contains fine to very coarse subangular to subrounded sand streaks	36	373
Silt, sandy, limy, yellowish-tan, and gray silty clay layers; contains tannish-white caliche strips	49	422
Sand, fine to very coarse, subangular to subrounded, and fine subangular to rounded gravel; contains tan clayey silt streaks	31	453
Undifferentiated Lower Cretaceous rocks		
Siltstone, sandy, yellow, and very fine- to medium-grained sandstone; contains gray to black siltstone layers	20	473
Sandstone, silty, very fine- to medium-grained, yellow to gray and gray siltstone; contains black organic material	44	517
Siltstone, sandy, gray; contains interbedded gray to yellow very fine- to medium-grained silty sandstone layers	33	550

26-31W-32BB.--concluded

	Thickness, feet	Depth, feet
Siltstone, sandy, gray to white; contains interbedded gray fine- to medium-grained sandstone layers	50+	600

26-32W-6AB2.--Sample log of test hole in NW¼NE¼ sec. 6, T. 26 S., R. 32 W., 0.49 mile west and 0.14 mile south of NE cor. corrected sec. 6; drilled by Henkle Drilling and Supply Co., Inc. for Harry Lightner, February 19, 1962. Altitude of land surface, 2,872 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Soil, sandy, brown	4	4
Silt, sandy, limy, tan and gray	14	18
Sand, fine to very coarse, subangular to subrounded, and fine to coarse subangular to rounded gravel	59	77
Sand, fine to very coarse, subangular and subrounded, and fine to medium subangular to subrounded gravel; contains tan limy silt streaks	13	90
Silt, sandy, limy, yellowish-tan	9	99
Sand, fine to very coarse, subangular to rounded; contains tan limy silt	11	110
Silt, sandy, limy, tannish-yellow; contains fine to very coarse subangular to subrounded sand and fine subangular to subrounded gravel streaks	13	123
Sand, very fine to coarse, subangular to rounded, and tan limy silt	12	135
Clay, limy, tannish-yellow, and tan limy sandy silt; contains tan limy silty fine to coarse sand streaks	23	158
Sand, fine to very coarse, subangular to subrounded, and tannish-yellow limy silt	7	165
Silt, sandy, limy, yellowish-tan; contains tannish-white sandy caliche streaks	19	184
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel	7	191
Clay, silty, gray	6	197
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel	49	246
Silt, sandy, limy, tan	4	250

26-32W-6AB2.--concluded	Thickness, feet	Depth, feet
Sand, fine to very coarse, subangular to subrounded, and fine gravel; contains tan limy sandy silt streaks	17	267
Silt, sandy, limy, tan	6	273
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains tannish-white caliche streaks	17	290
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel	47	337
Silt, sandy, limy, yellowish-tan, and tannish-white hard caliche	11	348
Sand, fine to very coarse, subangular to rounded, and tannish-white caliche streaks	10	358
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains tan silty clay streaks	14	372
Silt, sandy, limy, tannish-white; contains tannish-white caliche-cemented streaks	13	385
Sand, fine to very coarse, subangular to rounded; contains tan limy silt	18	403
Silt, clayey, limy, tan	5	408
Sand, fine to very coarse, subangular to subrounded, and tan limy silt	19	427
Silt, sandy, limy, tan; contains tannish-white caliche	8	435
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains tan limy silt	22	457
Silt, sandy, limy, tan	9	466
Silt, sandy, reddish-brown	5	471
Silt, sandy, limy, yellow; contains fine to very coarse subangular to rounded sand streaks	10	481
Undifferentiated Lower Cretaceous rocks		
Sandstone, very fine- to medium-grained, limy, silty, gray; contains streaks of gray sandy siltstone	29+	510

26-32W-33DC.--Sample log of test hole in SW¼SE¼ sec. 33, T. 26 S., R. 32 W., 400 feet east and 10 feet north of S¼ cor.; drilled May 16, 1962. Altitude of land surface, 2,869 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Sand, fine to very coarse, subrounded to rounded, frosted; contains tan limy silt	30	30
Sand, medium to very coarse, subangular to rounded, frosted, and reddish-brown silt	11	41
Gravel, fine to coarse, subangular to subrounded, and coarse to very coarse subangular to rounded sand	24	65
Gravel, fine to coarse, subangular to rounded, and medium to very coarse sand; contains yellowish-tan clayey silt streaks	8	73
Silt, clayey, limy, yellow	4	77
Gravel, fine to coarse, subangular to rounded, and medium to very coarse subangular to subrounded sand; contains yellowish-tan limy silt streaks	7	84
Silt, clayey, limy, yellow	2	86
Caliche, sandy, tannish-white	4	90
Sand, medium to very coarse, subangular to subrounded; contains tan limy silt	5	95
Silt, sandy, limy, yellowish-tan	10	105
Sand, medium to very coarse, subangular to subrounded, and fine to coarse subangular to rounded gravel; contains tannish-yellow sandy limy silt streaks	25	130
Silt, sandy, limy, yellow; contains tannish-white caliche streaks	20	150
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel	10	160
Silt, sandy, limy, tan	12	172
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains tan limy silt streaks and tannish-white caliche-cemented sand and gravel streaks	41	213
Silt, very sandy, limy, reddish-brown; contains interbedded light-gray silt	14	227
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains tannish-white sandy caliche streaks	21	248

26-32W-33DC.--concluded	Thickness, feet	Depth, feet
Silt, sandy, limy, reddish-brown; contains interbedded fine to very coarse subangular to subrounded sand and fine subangular to subrounded gravel	21	269
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains reddish-brown sandy silt and tannish-white caliche streaks	34	303
Silt, sandy, limy, reddish-brown to tan	4	307
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains brown silt and tannish-white caliche	14	321
Silt, sandy, brown; contains interbedded fine to very coarse subangular to subrounded sand and fine subangular to subrounded gravel	22	343
Silt, sandy, limy, tan; contains interbedded fine to very coarse subangular to subrounded sand, fine subangular to rounded gravel, and tannish-white caliche streaks	41	384
Caliche, very sandy, tannish-white	3	387
Silt, sandy, limy, tan, and tannish-white sandy caliche; contains fine to very coarse subangular to rounded gravel	55	442
Sand, fine to very coarse, subangular to rounded, and fine to medium subangular to rounded gravel; contains tan limy silty clay streaks	23	465
Silt, clayey, limy, yellow	13	478
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains yellow clayey limy silt streaks	10	488
Undifferentiated Lower Cretaceous rocks		
Sandstone, silty, varicolored, tan, red, gray, and white; contains interbedded gray silty sandstone	7+	495

26-33W-19DD.--Sample log of test hole in SE¼SE¼ sec. 19, T. 26 S., R. 33 W., 50 feet north and 10 feet west of the SE cor. sec.; drilled May 14, 1962. Altitude of land surface, 2,933 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	2	2
Silt, clayey, brown	4	6
Sand, fine to medium, and reddish-brown silt	12	18
Silt, clayey, limy, light-brown	2	20
Sand, fine to medium, and reddish-brown clay and caliche, silty	6	26
Silt, limy	2	28
Sand, fine to very coarse, and fine gravel	8	36
Sand, medium to very coarse, and fine gravel	26	62
Silt, sandy, tan	2	64
Sand, medium to very coarse, and fine to coarse gravel	8	72
Gravel, fine to coarse	4	76
Sand, fine to coarse, and fine gravel; contains tan silt streaks	6	82
Sand, fine to coarse, and tan sandy silt streaks	6	88
Caliche, sandy, tannish-white	1	89
Sand, fine to very coarse, and fine gravel	17	106
Sand, fine to very coarse, and tan sandy silt streaks	5	111
Silt, sandy, tan, and tannish-white sandy caliche	23	134
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel and tan limy silt	23	157
Silt, sandy, limy, tan	8	165
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to rounded gravel; contains tan limy silt streaks	22	187
Silt, sandy, limy, yellowish-tan	15	202
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains tan limy silt and tannish-white caliche-cemented sand and gravel streaks	53	255
Silt, sandy, limy, tan, and tannish-white caliche streaks	18	273

26-33W-19DD.--concluded	Thickness, feet	Depth, feet
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains tan limy silty clay and tannish-white caliche-cemented sand and gravel streaks	34	307
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains tannish-white caliche-cemented streaks and tan limy sandy silt	13	320
Silt, sandy, limy, tan, and tannish-white sandy caliche streaks	10	330
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to rounded gravel; contains tan limy silt and tannish-white caliche-cemented streaks	32	362
Sand, fine to very coarse, subangular to rounded, and yellow limy sandy silt; contains tannish-white caliche-cemented sand streaks	25	387
Sand, fine to coarse, subangular to rounded, and tan limy silt; contains yellow silty clay	8	395
Sand, fine to coarse, subangular to rounded, and tan limy silt	15	410
Clay, silty, limy, yellow and light-gray	25	435
Sand, very fine to very coarse, subangular to rounded, and yellowish-tan limy silt; contains tannish-white caliche streaks (440 to 442 feet)	18	453
Clay, silty, limy, yellow	7	460
Sand, fine to very coarse, subangular to well-rounded, and fine subangular to rounded gravel; contains yellow limy silt streaks	12	472
Sand, fine to very coarse, subangular to rounded; contains interbedded yellow clay and silt streaks	18	490
Sand, fine to very coarse, subangular to rounded, and fine to medium subangular to rounded gravel interbedded with yellow silt; coarse fraction composed of weathered sandstone phenoclasts	40	530
Undifferentiated Lower Cretaceous rocks		
Sandstone, silty, reddish-brown, and interbedded gray sandy siltstone	70+	600

26-33W-36DD.--Sample log of test hole in SE¼SE¼ sec. 26, T. 26 S., R. 33 W., about 70 feet north and 70 feet west of SE cor. sec. 36; drilled October 23, 1961. Altitude of land surface, 2,905 feet.

Undifferentiated Pleistocene deposits and Ogallala Formation	Thickness, feet	Depth, feet
Topsoil	4	4
Silt, sandy, limy, brown	7	11
Silt, sandy, limy, light-brown, and tannish-white nodular caliche	4	15
Sand, very fine to coarse, subangular to rounded, frosted; contains tan limy silt	17	32
Sand, fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains tannish-white caliche-cemented sand and gravel streaks	6	38
Sand, medium to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains tannish-white caliche and tan limy sandy silt streaks	17	55
Sand, coarse to very coarse, subangular to rounded, and fine to medium subangular to rounded gravel	19	74
Gravel, fine to medium, subangular to rounded, and very coarse subangular to well-rounded sand	16	90
Sand, coarse to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains tan limy silt and tannish-white caliche	16	106
Silt, sandy, limy, yellowish-tan	9	115
Gravel, fine to coarse, subangular to well-rounded, and coarse to very coarse subangular to subrounded sand; contains tan sandy limy silt streaks	15	130
Sand, medium to very coarse, subangular to subrounded, and fine to medium subangular to rounded gravel; contains tan limy sandy silt	17	147
Sand, very fine to very coarse, subangular to subrounded, and fine subangular to subrounded gravel; contains tan limy sandy silt and tannish-white caliche streaks	13	160
Sand, medium to very coarse, subangular to rounded, and fine to medium subangular to rounded gravel; contains tan limy sandy silt streaks	12	172

26-33W-36DD.--continued	Thickness, feet	Depth, feet
Silt, sandy, limy, tan, and tannish-white caliche streaks	9	181
Sand, medium to very coarse, subangular to subrounded, and fine to medium subangular to rounded gravel	12	193
Silt, sandy, limy, tan, and tannish-white caliche	12	205
Sand, fine to very coarse, subangular to subrounded, and very fine to fine subangular to subrounded gravel	4	209
Silt, sandy, limy, tan; contains fine to medium subangular to subrounded sand streaks	6	215
Sand, fine to very coarse, subangular to subrounded gravel; contains tan limy silt and tannish-white caliche-cemented sand and gravel streaks	18	233
Sand, fine to very coarse, subangular to subrounded; interbedded with gray sandy silt and tan sandy silt	21	254
Silt, clayey, limy, bluish-gray; interbedded with tan clayey limy silt	22	276
Silt, sandy, limy, bluish-gray	29	305
Sand, medium to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains bluish-gray silty limy clay	29	334
Clay, silty, limy, bluish-gray, and tan limy sandy silt	8	342
Sand, medium to very coarse, subangular to subrounded, and fine to medium subangular gravel	11	353
Clay, silty, limy, bluish-gray, and tan limy sandy silt	14	367
Sand, fine to very coarse, subangular to subrounded, and fine to medium subangular to subrounded gravel; contains tannish-white caliche-cemented streaks	13	380
Silt, sandy, limy, tan and bluish-gray; contains fine to very coarse subangular to subrounded sand and fine to medium subangular gravel streaks	20	400
Silt, very limy, sandy, grayish-white, and tan limy sandy silt; contains white caliche streaks	10	410

26-33W-36DD.--concluded	Thickness, feet	Depth, feet
Sand, medium to very coarse, subangular to well-rounded, and fine subangular to rounded gravel	10	420
Sand, very fine to very coarse, subangular to rounded, and fine to medium subangular to rounded gravel; contains tannish-white limy silt	12	432
Silt, sandy, limy, yellowish-tan to tannish-white caliche; contains fine to medium subangular to subrounded sand and fine subangular to subrounded gravel streaks	22	454
Sand, fine to coarse, subangular to subrounded; contains yellow limy sandy silt	8	462
Sand, fine to very coarse, subangular to rounded, and fine subangular to rounded gravel; contains tan and light-gray limy silty clay streaks	12	474
Clay, silty, limy, tan and light-gray	8	482
Sand, medium to very coarse, subangular to well-rounded, and fine to medium subangular to rounded gravel composed of weathered sandstone fragments	15	497
Undifferentiated Lower Cretaceous rocks		
Sandstone, very fine- to medium-grained, silty, limonite cement; contains varicolored tan, yellow, red, and gray silty clay	20+	517

TABLE 2.--RECORDS OF WELLS IN FINNEY COUNTY, KANSAS

WELL (1)	OWNER OR TENANT	DEPTH OF WELL (FEET) (2)	DIAM. OF WELL (FT OR IN)	CASING (3)	PRINCIPAL WATER-BEARING BED(S): CHARACTER OF MATERIAL (4)	PRINCIPAL WATER-BEARING BED(S): GEOLOGIC SOURCE	METH. OF LIFT (5)	USE OF WATER (6)	DEPTH TO WATER LEVEL BELOW LSD (FT) (7)	DATE OF MEAS.	ELEV. OF LAND SURF. (FT)	CHEM. (8)	DATA	REMARKS (9)
21 27W 9CC	LEO SCHLEGEL	100 R	40	N	CHALK	NIOBRARA CHALK	CY.W	D,S				C		
21 27W 16BB	LEO SCHLEGEL	640 R	6	I	SS	L CRETACEOUS SER	CY.E,W	D,S				C		
21 29W 36CCB	T. A. MEAKEL	24.	8	I	SD AND GR	PLEISTOCENE SER	N	O	16.6	1-63	2611.1			
21 30W 5BB	R. F. ELLIS	44.0	6	G	SD AND GR	PLIO-PLEIST SER	CY.W	D,S	26.7	1-62	2863.3	C		
21 30W 9BB	T. X. DOLL ET AL	84 R	6	G	SD AND GR	PLIO-PLEIST SER	JET,E	D,S	48.0	1-62	2867.5			
21 30W 20BC	ALBERT CAMPBELL	72.5	6	G	SD	PLIO-PLEIST SER	CY.W	D	52.2	1-62	2880.9			
21 31W 3CC	B. F. BREYFOGLE	75 R	6	G	CHALK	NIOBRARA CHALK		D,S				C		
21 31W 8AB	M. BREYFOGLE	72.5			SD AND GR	PLIO-PLEIST SER	CY.W	D	60.2	2-62	2902.6			
21 31W 13CC	E. F. WARE	83.5	6	G	SD AND GR	PLIO-PLEIST SER	CY.H	D	65.9	1-62	2904.5			
21 31W 26DC	MILO JOYCE	90 R	6	I	SD AND GR	PLIO-PLEIST SER	CY.W	D,S	66.7	1-62				
21 32W 5BB	TED CRIST	146 R	18	I	SD AND GR	PLIO-PLEIST SER	T,F	I	36.5	1-62	2915.	P		1250GPM R
21 32W 8AB	C. C. SPIKES EST.	155 R	16	I	SD AND GR	PLEISTOCENE SER OGALLALA FM	T,F	I	30 R		2910.	P		2400GPM R
21 32W 8AB2	U.S.G.S.	125 R	1	I	SD AND GR	PLEISTOCENE SER OGALLALA FM	N	O	45.3	7-62				
21 32W 8AB3	U.S.G.S.	128 R	1	I	SD AND GR	PLEISTOCENE SER	N	O	39.0	2-63	2911.0			
21 32W 8DB	C. C. SPIKES EST.	156 R	16	I	SD AND GR	PLEISTOCENE SER	T,F	I						1200GPM R
21 32W 9BC	WESLEY STERLING	120 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I				P		320GPM R
21 32W 9CB	G. SCHREINER	145 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I				P		1000GPM R
21 32W 16BA	A. F. ANDERSON	140 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	45.8	2-62		P		2000GPM R
21 32W 19BB	M. GROSSMAN	32 R	6	G	SD AND GR	PLEISTOCENE SER	N	O	26.2	6-62				
21 32W 20CB	L. ARCHER	203 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I				C		
21 32W 21CD	WESLEY STERLING	140 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	40 R		2908	P		800GPM R
21 32W 22BC	RODGER LANDGRAF	120 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	70 R					1800GPM R
21 32W 26DA	A. E. LANDGRAF		16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	98.5	2-63	2946.			1000GPM R
21 32W 29DB	J. E. GREATHOUSE	210 R	16	S	SD AND GR	PLIO-PLEIST SER	T,NG	I	37 R		2902	L		1160GPM R
21 32W 32BA	J. E. GREATHOUSE	210 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	47.6	2-63	2903	P		860GPM R
21 32W 33AA	J. J. LANDGRAF	205 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	78.5	2-63	2922	L		2000GPM R
21 32W 33BA	F. M. GREATHOUSE	173 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	48 R			L		1350GPM R
21 32W 33DA	A. E. LANDGRAF	200.	18	I	SD AND GR	PLIO-PLEIST SER	T,F	I	76.5	10-40	2930.9			1000GPM R
21 33W 1BC	L. A. KOCH EST.	122 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	18 R		2906	L		1100GPM R

TABLE 2.--CONTINUED

WELL (1)	OWNER OR TENANT	DEPTH OF WELL (FEET) (2)	DIAM. OF WELL (FT OR IN)	CASING (3)	PRINCIPAL WATER-BEARING BED(S) CHARACTER OF MATERIAL (4)	GEOLOGIC SOURCE	METH. OF LIFT (5)	USE OF WATER (6)	DEPTH TO WATER LEVEL BELOW LSD (FT) (7)	DATE OF MEAS.	ELEV. OF LAND SURF. (FT)	CHEMICAL DATA (8)	REMARKS (9)
21 33W 1CD	E. F. WARE	77.8	16	I	SD AND GR	PLEISTOCENE SER	T,NG	I	30.3	3-62	2911.0	P	1400GPM R
21 33W 1DB	E. F. WARE	190 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I					
21 33W 2AC	RALPH GROSS	125 R	16	I	SD AND GR	PLEISTOCENE SER	T,F	I	41.0	2-63	2910.4	P	
21 33W 3CB	GLEN C. STOVER	150 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I				P	
21 33W 3CD	GLEN C. STOVER	150 R	18	I	SD AND GR	PLIO-PLEIST SER	T,F	I	46.5	1-62		P	650GPM R
21 33W 5BC	R. ARMANTROUT	57.8	6	I	SD AND GR	PLEISTOCENE SER	CY.W	N	37.6	9-40			
21 33W 7AD	A. L. BUERKLE	95 R	16	I	SD AND GR	PLEISTOCENE SER	T,F	I	43.2	8-60	2919		350GPM R
21 33W 7AD2	A. L. BUERKLE	92 R	6	I	SD AND GR	PLEISTOCENE SER	CY.E	D,S					
21 33W 7DA	A. L. BUERKLE	95 R	16	S	SD AND GR	PLEISTOCENE SER	T,F	I			2919	P	300GPM R
21 33W 7DD	A. L. BUERKLE	95 R	16	I	SD AND GR	PLEISTOCENE SER	T,NG	I	44.4	2-63	2918.		400GPM R
21 33W 7DD2	A. L. BUERKLE		16	I	SD AND GR	PLEISTOCENE SER	T,NG	I					500GPM R
21 33W 11AA	JOSEPH A. HIPP	150 R	16	S	SD AND GR	PLIO-PLEIST SER	T,JPG	I	30 R	2-59	2902.3	P	1300GPM R
21 33W 11AB	JOSEPH A. HIPP	92 R	18	I	SD AND GR	PLEISTOCENE SER	T,JPG	I	28 R		2905.7	P	1000GPM R
21 33W 12AB	E. F. WARE	151 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	61 R	12-59	2912	P	1156GPM R
21 33W 13BA	G. ZIRKLE	39.5	5	G	SD AND GR	PLEISTOCENE SER	CY.W	S	29.9	9-40	2908.	C	
21 33W 16BB	VIRG. CRIST		16	S	SD AND GR	PLIO-PLEIST SER	T,NG	I			2892	P	
21 33W 16DC	JOHN W. HYER	180 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	30 R			P	1500GPM R
21 33W 17BA	LELAND CRIST	109 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG		50 R		2923	P	500GPM R
21 33W 17BD	LELAND CRIST	109 R	16	S	SD AND GR	PLIO-PLEIST SER	T,NG	I	50 R		2921		550GPM R
21 33W 18AD	J. O. CRIST			S			T,NG	I			2917		
21 33W 18BB	J. O. CRIST	79 R			SD AND GR	PLIO-PLEIST SER	T,NG	I	41 R		2919		250GPM R
21 33W 18BC	J. O. CRIST	82 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2916		400GPM R
21 33W 18CB	J. O. CRIST	100 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	41 R		2914	P	550GPM R
21 33W 18CC	J. O. CRIST	128 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	41 R		2913	P	1200GPM R
21 33W 19AA	C. J. DAVIS	86 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	32 R		2911	P	950GPM R
21 33W 19AB	C. J. DAVIS	112 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	31 R		2910	P	700GPM R
21 33W 19BC	C. J. DAVIS		16	I		PLIO-PLEIST SER	T,NG	I			2911	L	650GPM R
21 33W 19CC	C. J. DAVIS	96 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	32 R		2910	L	1000GPM R
21 33W 20BB	RAYMOND CRIST		16	I		PLIO-PLEIST SER	T,NG	I				P	
21 33W 20CB	E. ALBERT ZIRKLE	120 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	24 R		904	L	1776GPM R
21 33W 25BA	G. D. ESTES EST.	190 R	16	I	SD AND GR	PLIO-PLEIST SER	T,JPG	I	50 R		2904	L	1820GPM R
21 33W 26DA	H. N. HOBART	180 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2898		2500GPM R
21 33W 28BA	FREDERICK FINNUP	165 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	16.3	2-61	2888		1500GPM R
21 33W 28DA	H. HULLMAN	120.0	24	I	SD AND GR	PLIO-PLEIST SER	N	N	25.0	1-62	2900		
21 33W 29DA	CORWIN BETTS	108 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	12 R		2891		1886GPM R
21 33W 29DB	CORWIN BETTS	96 R	12	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	11 R		2891	L	924GPM R
21 33W 31CB	RAYMOND CRIST	76 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2908.2		700GPM R
21 33W 31CB2	RAYMOND CRIST	80 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2908.6		600GPM R
21 33W 31CB3	RAYMOND CRIST	78 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	30.6	2-63	2908.5		750GPM R
21 33W 32AD	CORWIN BETTS	137 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	37 R	2-58	2894	L	2500GPM R
21 33W 35AB	GANO ELEVATOR CO.	164 R	5	I	SD AND GR	PLIO-PLEIST SER	T,F	D	18 R	10-47	2892		
21 33W 36BB	NELSON HOBART	185 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	28.1	2-63	2897.2		2000GPM R
21 33W 36CC	NELSON HOBART	185 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2892		

TABLE 2.--CONTINUED

WELL (1)	OWNER OR TENANT	DEPTH OF WELL (FEET) (2)	DIAM. OF WELL (FT OR IN)	CASING (3)	PRINCIPAL WATER-BEARING BED(S): CHARACTER OF MATERIAL (4)	PRINCIPAL WATER-BEARING BED(S): GEOLOGIC SOURCE	METH. OF LIFT (5)	USE OF WATER (6)	DEPTH TO WATER LEVEL BELOW LSD (FT) (7)	DATE OF MEAS.	ELEV. OF LAND SURF. (FT)	CHEMICAL ANALYSIS (8)	DATA	REMARKS (9)
21 33W 36DA	FREDERICK FINNUP	165 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	35.5	8-60	2896			
21 33W 36DD	H. N. HOBART		16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2893			
21 34W 4BC	R. N. FINKENBINDER	102.0	6	G	SD AND GR	PLIO-PLEIST SER	CY:H,W	D	85.8	9-40	3016			
21 34W 13AB	LELAND CRIST		16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2924			
21 34W 13AB2	LELAND CRIST		16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2927			433GPM R
21 34W 13AB3	LELAND CRIST		16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	50 R		2929	L		495GPM R
21 34W 13BB	F. W. MILLER	88 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	51 R	1-60	2937.0	L		260GPM R
21 34W 13BB2	F. W. MILLER	90 R	16	I	SD AND GR	PLIO-PLEIST SER		I,D,S	52.8	1-62	2935.7			
21 34W 13DB	LELAND CRIST	128 R	16	I	SD AND GR	PLIO-PLEIST SER	T,I PG	I	50 R		2922			900GPM R
21 34W 14CB	L. R. KESTER	120 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	67 R	10-56	2956.9			
21 34W 14DB	PATRICK MCHUGH	141 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	66.8	2-63	2947.1	L		1200GPM R
21 34W 15DD	J. C. LANG	94 R	6	I	SD AND GR	PLIO-PLEIST SER	CY:W	S						
21 34W 16AA	V. J. NICHOLS	135 R			SD AND GR	PLIO-PLEIST SER	T,NG	I	96.1	2-63	2981.3			200GPM R
21 34W 16AA2	V. J. NICHOLS	130 R			SD AND GR	PLIO-PLEIST SER	T,NG	I	92.6	1-62	2982.7			200GPM R
21 34W 16AB	V. J. NICHOLS	120 R			SD AND GR	PLIO-PLEIST SER	T,NG	I						200GPM R
21 34W 16AB2	V. J. NICHOLS	110 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2990.2			250GPM R
21 34W 21AD	IRENE COUCH	85 R	48	Z	CHALK	NIOBRARA CHALK	CY:E	D	82 R	40	2973.3	C		
21 34W 23CC	PATRICK MCHUGH	92.0	6	I	SD AND GR	PLIO-PLEIST SER	N	N	68.1	1-62	2951.0			
21 34W 27BB	EVA NUNN	89 R	6	I	CHALK	NIOBRARA CHALK	N	S	81.4	2-63	2963.3			
21 34W 27DD	FRED GOBLEMAN EST.	69 R	48	N	CHALK	NIOBRARA CHALK	CY:W	D,S	67 R	10-40				
21 34W 36AC	L. W. MAUNE	55 R	6	I	SD AND GR	PLIO-PLEIST SER	CY:W	S	41.8	10-40	2921.6	C		
22 27W 4CC	C. E. DOERR	23.0	36		SD AND GR	PLEISTOCENE SER	CY:H,W	D,S	14.9	10-40	2492.7			
22 27W 10DC	D. Y. GLEASON	44.0	8	I	SD AND GR	PLEISTOCENE SER	CY:W	D	23.7	10-40	2467.6			
22 28W 25CC	D. H. HOLDEN	490 R		I	SS	L CRETACEOUS SER	T,F	D,S				C		
22 29W 12BC	TINA E. MEAKEL	18.5	42	G	SD AND GR	ALLUVIUM	CY:H	D	11.2	10-40	2577.6	C		
22 30W 6CB	F. H. GORDANIER	120 R	16	I	SD AND GR	PLIO-PLEIST SER	T,I PG	I	66.2	2-63	2880.9			250GPM R
22 30W 7AB	L. E. DOLL	118 R	16	I	SD AND GR	PLIO-PLEIST SER	T,I PG	I	70.5	9-60				300GPM R
22 30W 19BC	TED FRIESEN	140 R	12	I	SD AND GR	PLIO-PLEIST SER	T,I PG	I	69.6	2-63	2873.5			400GPM R
22 30W 28DC	OLSEN AND FRYE	253 R	6	G	SD AND GR	PLEISTOCENE SER	CY:W	S	11.6	2-62	2793.6			
22 30W 29BC	A. W. ESTES	69.5	6	G	SD AND GR	PLIO-PLEIST SER	CY:W	D,S	65.9	9-40		C		
22 31W 6CC	O. A. OTTMANNS	104.2	6	I	SD AND GR	PLIO-PLEIST SER	CY:W	D,S	93.4	1-62	2930.7			

TABLE 2.--CONTINUED

WELL (1)	OWNER OR TENANT	DEPTH OF WELL (FEET) (2)	DIAM. OF WELL (FT OR IN)	C T A Y O S P F I E N G (3)	PRINCIPAL WATER-BEARING BED(S) CHARACTER OF MATERIAL (4)	GEOLOGIC SOURCE	METH. OF LIFT (5)	USE OF WATER (6)	DEPTH TO WATER LEVEL BELOW LSD (FT) (7)	DATE OF MEAS.	ELEV. OF LAND SURF. (FT)	C H E M (8)	D A T A	REMARKS (9)
22 31W 12CC	H. A. WIEBE	148 R	18	I	SD AND GR	PLIO-PLEIST SER	T,I PG	I						800GPM R
22 31W 12CD	H. A. WIEBE	146 R	16	I	SD AND GR	PLIO-PLEIST SER	T,I PG	I	72 R				P	500GPM R
22 31W 12CD2	H. A. WIEBE	135 R	16	I	SD AND GR	PLIO-PLEIST SER	T,I PG	I	83.7	2-63	2896.3		L	360GPM R
22 31W 15CA	ALFRED WINTERS	165 E	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I						800GPM R
22 31W 16AD	L. WINTERS	182 R	16	I	SD AND GR	PLIO-PLEIST SER	T,I PG	I	84.2	2-63	2904.3			550GPM R
22 31W 27CD	JESSE SCOTT, JR.	211 R	18	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	80.9	1-62	2883.7			1350GPM R
22 31W 29DB	WILLIAM LEWIS	230 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	80.1	3-63				
22 31W 32DB	ED LEWIS	234 R	18	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	81.0	2-63	2901.3	C		2200GPM R
22 31W 32DB2	U.S.G.S.	151.	1	I	SD AND GR	L PLEISTOCENE SSER	N	O			2900.4			
22 31W 35AB	ARTHUR WINTERS	157 R	16	I	SD AND GR	OGALLALA FM PLIO-PLEIST SER	T,I PG	I	79.1	2-63	2877.3			800GPM R
22 32W 5DB	R. G. GREATHOUSE	196 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	45.8	8-60	2891			1100GPM R
22 32W 8AC	R. G. GREATHOUSE	148 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	35.3	2-63	2884.5			1300GPM R
22 32W 9BA	R. G. GREATHOUSE	85 R	4	G	SD AND GR	PLIO-PLEIST SER	CY,W	D,S	57 R	10-40	2913			
22 32W 13CC	J. M. GODFREY	115.1	6	I	SD AND GR	PLIO-PLEIST SER	CY,W	D	107.	2-63	2942.4			
22 32W 16BB	LLOYD HETT EST.	201 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	43 R		2892			1456GPM R
22 32W 16CA	CHESTER ULRICH	200 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	74.0	8-60	2898.3			800GPM R
22 32W 16DB	CHESTER ULRICH	160 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	61.3	9-60	2898.8			1200GPM R
22 32W 21CC	NAOMI HETT ET AL	200 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	63.6	2-63	2903.0			1900GPM R
22 32W 21DC	NAOMI HETT ET AL	200 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2911		P	1070GPM R
22 32W 27BB	C. W. PREISSER	94.	6	G	SD AND GR	PLEISTOCENE SER	CY,W	D	69.2	9-40	2916.1	C		
22 32W 33AA	ALVIN L. JACKSON	225 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	100 R		2950		P	1400GPM R
22 33W 3DB	P. BLOOD	187 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	32.8	2-63	2903.2			1500GPM R
22 33W 6AB	R. W. LANGE	90 R	16	I	SD AND GR	PLEISTOCENE SER	T,NG	I	16 R		2895			600GPM R
22 33W 6CB	HAROLD STEVENSON	82 R	16	I	SD AND GR	PLEISTOCENE SER	T,NG	I			2903			
22 33W 6CB2	HAROLD STEVENSON	80 R	16	I	SD AND GR	PLEISTOCENE SER	T,NG	I	20 R		2903			900GPM R
22 33W 6DB	HAROLD STEVENSON	82 R	16	I	SD AND GR	PLEISTOCENE SER	T,NG	I			2897		P	1000GPM R
22 33W 17DC	FREDERICK FINNUP	145 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	36.2	2-63	2902			1092GPM R
22 33W 18CC2	GARDEN CITY CO.	150 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	61 R		2913		P	1450GPM R
22 33W 19CB	GARDEN CITY CO.				SD AND GR	PLIO-PLEIST SER	T,F	I			2913		P	
22 33W 19DC	J. W. BURGHARDT	150 E	16		SD AND GR	PLIO-PLEIST SER	T,NG	I			2908			
22 33W 20BCC	GARDEN CITY CO.	150 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2905		L	1700GPM R
22 33W 20CC	C. A. PFIEFER	180 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	70 R		2905			2000GPM R
22 33W 22BA	O. TRENT	184 R	16	S	SD AND GR	PLIO-PLEIST SER	T,NG	I	40.7	2-63	2900.0			600GPM R
22 33W 22DB	VANCE AND GRAVES	158 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	20 R		2877			2000GPM R
22 33W 23DA	ISABEL FINNUP	165 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	21 R		2876			785GPM R
22 33W 23DC	ISABEL FINNUP	195 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	28.7	2-62	2882			1166GPM R
22 33W 24DD	L. L. HOLSTED	206 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	12.6	2-63	2858			1500GPM R
22 33W 25BD	L. L. HOLSTED	193 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	12 R		2860			1479GPM R

TABLE 2.--CONTINUED

WELL (1)	OWNER OR TENANT	DEPTH OF WELL (FEET) (2)	DIAM. OF WELL (FT OR IN)	CASING (3)	PRINCIPAL WATER-BEARING BED(S): CHARACTER OF MATERIAL (4)	GEOLOGIC SOURCE	METH. OF LIFT (5)	USE OF WATER (6)	DEPTH TO WATER LEVEL BELOW LSD (FT) (7)	DATE OF MEAS.	ELEV. OF LAND SURF. (FT)	CHEM. (8)	DATA	REMARKS (9)
22 33W 25CC	B. F. HOLSTED	240 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2865			1582GPM R
22 33W 26AC	GEORGE L. MEEKER	202 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	14 R		2872	L		2000GPM R
22 33W 27BC	GEORGE L. SOOBY	189 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	44.0	9-60	2881			1374GPM R
22 33W 27DC	RONALD HARKNESS	191 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	71.7	9-60	2880			1350GPM R
22 33W 29CB	GARDEN CITY CO.	252 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2909			1655GPM R
22 33W 30AC	GARDEN CITY CO.	250 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I			2912	L		1100GPM R
22 33W 30BB	GARDEN CITY CO.	210 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	51.6	1-62		L		1000GPM R
22 33W 32AB	LAWRENCE WEBB	208 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	37.2	4-58	2897.2	L		1093GPM
22 33W 32CB	JOHN J. HORNING	272 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	71.2	2-63	2923.1			1700GPM R
22 33W 34BA	FREDERICK FINNUP	159 R	16	I	SD AND GR	PLEISTOCENE SER	T,NG	I	26.0	4-58	2882.			1800GPM R
22 33W 34BC	ISABEL FINNUP	218 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	21 R		2880			2200GPM R
22 33W 35AB	S. D. BONTRAGER	198 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	21.0	2-63	2868.9	L		1000GPM R
22 33W 35BC	L. L. HOLSTED	208 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2871			
22 33W 35DD	S. D. BONTRAGER	185 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	19.2	4-58	2869.7			1000GPM
22 33W 36AA	M. HAHN	190 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I,O			2860			1400GPM R
22 33W 36BC	D. E. EVERS EST.	200 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I				L		1500GPM R
22 34W 1AD	MYRTLE JENNINGS	80 R	16	I	SD AND GR	PLEISTOCENE SER	T,NG	I			2927	L		800GPM R
22 34W 7DC	FRED CASTERLINE	170 E	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	85 R		2987.5	L		1500GPM R
22 34W 7DD	FRED CASTERLINE	160 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2981.9			2200GPM R
22 34W 8BC	W. A. GREEN	170 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	103.	2-63	2986.6	L		1000GPM R
22 34W 8DB	W. C. HAMILTON	181 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	75.0	1-61	2970.9	P		1800GPM R
22 34W 10AA	MARION K. SALMONS	150 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	55.0	2-63	2932.9	L		1000GPM R
22 34W 13CC	JAY SHUMWAY	143 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	49.6	1-62	2924.9			2150GPM R
22 34W 13DC	J. M. BARLOW	138 R	18	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	40 R	6-47	2917.2	L		
22 34W 14CB	TRESMAN MILLER	128 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	44 R		2936.4	L		1000GPM R
22 34W 14DC	TRESMAN MILLER	156 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	63 R	12-59	2928.8	L		3200GPM R
22 34W 15BC	A. E. COOK	160 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	55 R		2945.2			2000GPM R
22 34W 15CC	A. E. COOK	162 R	16	I	SD AND GR	PLIO-PLEIST SER	T,I PG	I	59 R	11-59	2946.0	L		1500GPM R
22 34W 15DB	A. E. COOK	160 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	51 R		2940.3	L		1585GPM R
22 34W 16AC	JOHN BOYD	156 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	52 R		2954.7	L		2000GPM R
22 34W 18AB	I. C. HAMPTON	160 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	114.	9-60	2986.3			1700GPM R
22 34W 18CD	K. AND O. BURG	184 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	86.0	8-60	2989.0			900GPM R
22 34W 19CD	P. W. TURRENTINE	199 R	10	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2990.8			
22 34W 20BC	KENNETH BURG	214 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	81.5	8-60	2977.8	L		1850GPM R
22 34W 20CC	E. BARRETT	180 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	86 R	11-58	2979.6			2400GPM R
22 34W 21BC	BENJAMIN EVANS	200 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	73.7	7-60	2960.8	L		2000GPM R
22 34W 21CB	GILBERT BROCK	195 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	70.4	1-62	2961.0	L		2460GPM R
22 34W 22CB	R. E. WERNER	180 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	80 R		2943.9			2437GPM
22 34W 22DB	LENA THRASHER	180 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I						2500GPM R
22 34W 24CC	RUTH BUMP	180 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2930.1	L		
22 34W 24DC	GARDEN CITY CO.	180 R	18	I	SD AND GR	PLIO-PLEIST SER	T,F	I			2922	L		

TABLE 2.--CONTINUED

WELL (1)	OWNER OR TENANT	DEPTH OF WELL (FEET) (2)	DIAM. OF WELL (FT OR IN)	C T A YOS PFI E N G (3)	PRINCIPAL WATER-BEARING BED(S) CHARACTER OF MATERIAL (4)	GEOLOGIC SOURCE	METH. OF LIFT (5)	USE OF WATER (6)	DEPTH TO WATER LEVEL BELOW LSD (FT) (7)	DATE OF MEAS.	ELEV. OF LAND SURF. (FT)	C H E M (8)	D A T A	REMARKS (9)
22 34W 25AB	GARDEN CITY CO.	200	E 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	44.5	5-34	2923.2		D	
22 34W 25BB	WILBUR ULRICH	205	R 16	S	SD, GR, ST	PLIO-PLEIST SER	T,NG	I			2930.3		P	
22 34W 26AD	TRINKLE EST.	163.	5	G	SD AND GR	PLIO-PLEIST SER	CY.W	O	65.8	9-57				
22 34W 26BD	TRINKLE EST.	206	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	71	R	2938.9		L	1500GPM R
22 34W 26CB	J. F. MILLER	74.8	6	G	SD AND GR	PLEISTOCENE SER	AL.IC	D,S	49.8	9-40	2941.1			
22 34W 26CB2	J. F. MILLER	204	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	50	R	2943.3		L	1800GPM R
22 34W 27CC	DORTHY BAILEY	270	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	50	R	2945.1			2500GPM R
22 34W 28CC	G. H. ANDERSON	292	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2957.0			
22 34W 29BB	M. BURG	215	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	80	R	2979.0		L	2000GPM R
22 34W 30AC	C. F. HELM	210	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I						2000GPM R
22 34W 30CC	J. RUNNIE		16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2999.3			2300GPM R
22 34W 31AB	A. E. COOK	220	E 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2991.7			
22 34W 31CA	E. AND R. HENKLE	220	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	70	R	2993.4			1600GPM R
22 34W 32BC	KATHERINE JONES	220	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	84.7	2-63	2983.4			2000GPM R
22 34W 33BD	A. E. COOK	250	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	55	R 4-50	2960.0			1200GPM R
22 34W 33CB	A. E. COOK	250	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2963.6			
22 34W 34AC	MILDRED HENSELMAN	245	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	50	R	2944.1			1300GPM R
22 34W 34CB	CLARA L. CORMACK	307	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	50	R				1600GPM R
22 34W 34DB	CLINT SCHLOFELT	324	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	67.0	3-64	2947.1			
22 34W 36BC	ED SCHRIMPLIN	220	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	60.9	2-63	2929.3			1000GPM R
23 27W 4AB	EARL POWELL	400	R 6	I	SS	L CRETACEOUS SER	T,E	D,S					D	
23 27W 4CC	R. WOODS	35	R 6	G	SD AND GR	PLIO-PLEIST SER	CY.W	D	33	R 10-40	2649.5			
23 27W 12CC	C. RIXON	71.5	6	I	SD AND GR	PLIO-PLEIST SER	CY.W	O	63.1	1-63	2918.5			
23 27W 21DA	NELLIE EVANS	140	R 2	G	SD AND GR	PLIO-PLEIST SER	CY.W	D	95	R			C	
23 27W 22BD	GEORGE EVANS	135	R 24	I	SD AND GR	PLIO-PLEIST SER	T,I PG	I	87.3	2-63	2664.0			1000GPM R
23 27W 24AD	W. ENGLISH	47.5	6	G	SD AND GR	PLIO-PLEIST SER	CY.W	D,S	37.2	11-40	2592.3			
23 27W 32CC	LLOYD DEWEY	97	R 16	I	SD AND GR	PLIO-PLEIST SER	T,I PG	I	50.1	2-63	2687.9			450GPM R
23 27W 36DA	P. KRUG	79	R 6	G	SD AND GR	PLIO-PLEIST SER	AL.IC	D	70.0	11-40				
23 28W 3DD	CHARLES REIMER	64	R 2	I	SD AND GR	PLIO-PLEIST SER	CY.W	D,S	52	R 39				
23 28W 12BD	R. D. NORTON	12.0	6	G	SD AND GR	PLEISTOCENE SER	CY.W	S	10.0	10-40	2627.3			
23 29W 11DD	A. E. SCHRAEDER	97.0	6	G	SD AND GR	PLIO-PLEIST SER	CY.H,W	D	78.9	10-40			C	
23 29W 17DC	E. DOLL	54.5	5	G	SD AND GR	PLIO-PLEIST SER	CY.W	D	36.8	10-40	2738.5			
23 29W 30BB	RALPH HAFLICH	135	R 16	I	SD AND GR	PLIO-PLEIST SER	N	I	74.9	2-63	2793.8			
23 29W 31AC	RALPH HAFLICH	145	R 16	I	SD AND GR	PLIO-PLEIST SER	T,I PG	I	71.1	2-61				1000GPM R
23 30W 5AD	VICTOR HAFLICH	135	R 16	I	SD AND GR	PLIO-PLEIST SER	T,I PG	I	74.7	9-62	2854.8			

TABLE 2.--CONTINUED

WELL (1)	OWNER OR TENANT	DEPTH OF WELL (FEET) (2)	DIAM. OF WELL (FT OR IN)	CASING (3)	PRINCIPAL WATER-BEARING BED(S) CHARACTER OF MATERIAL (4)	GEOLOGIC SOURCE	METH. OF LIFT (5)	USE OF WATER (6)	DEPTH TO WATER LEVEL BELOW LSD (FT) (7)	DATE OF MEAS.	ELEV. OF LAND SURF. (FT)	CHEM. ANAL. (8)	DATA	REMARKS (9)
23 30W 19CC	AGNES GOLIGHTLY	205 R	16	I	SD AND GR	PLIO-PLEIST SER	T,I PG	I	82.4	2-63	2862.0	C		500GPM R
23 31W 3AD	ELLSWORTH SHERMAN ES	200 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	80.0	9-60				
23 31W 3BD	ELLSWORTH SHERMAN ES	180 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	81.6	9-60				
23 31W 3DC	ELLSWORTH SHERMAN ES	180 R			SD AND GR	PLIO-PLEIST SER	T,NG	I	80.7	2-63	2877.1			1750GPM R
23 31W 26BB	V. K. TATE	120 R	6	G	SD AND GR	PLIO-PLEIST SER	CY.W	D,S	75.7	2-62				
23 31W 29CB	C. C. SPIKES	180 R	12		SD AND GR	PLIO-PLEIST SER	T,NG	I			2910.			750GPM R
23 31W 31AB	C. C. SPIKES	267 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	117.	2-63	2912.0			1800GPM R
23 31W 32CB	J. T. KERFOOT EST.	260 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	118.	9-62	2910			
23 31W 35CC	W. M. SNELL	205 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	96.3	2-63	2875.4			900GPM R
23 32W 10CA	WAYNE PICKETT	200 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG		80 R	5-52	2921.			810GPM R
23 32W 11AA	N. D. CHAMBERLAIN		16		SD AND GR	PLIO-PLEIST SER	T,I PG	I			2950.			1250GPM R
23 32W 11AD	N. D. CHAMBERLAIN	180 R	16	I	SD AND GR	PLIO-PLEIST SER	T,I PG		116.	2-63	2941.5			1500GPM R
23 32W 11CA	DORIS L. BOYD	172 R	16	I	SD AND GR	PLIO-PLEIST SER	T,I PG	I	116.	9-60	2932.			1500GPM R
23 32W 18BC	PAUL HAYS	290 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	38.0	4-58	2878.1			1010GPM R
23 32W 19CB	H. R. HAWK EST.	312 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	39.0	2-63	2876.2	P		1500GPM R
23 32W 19CB2	H. R. HAWK EST.	193 R			SD AND GR	PLIO-PLEIST SER		D				C		
23 32W 20CB	R. L. WALKER	172 R	18	C	SD AND GR	PLIO-PLEIST SER	T,F	I	5.6	10-40	2840.5			
23 32W 20CC	R. L. WALKER	23.5	5	G	SD AND GR	PLEISTOCENE SER	CY.W	S	10.4	10-40	2844.5	C		
23 32W 20DC	R. L. WALKER	261 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	90 R	1-51	2850	C		1500GPM R
23 32W 22DA	ROGER RAMSEY	250 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	106.	2-63	2923.			1200GPM R
23 32W 23CC	J. BOYD	224 R	16	I	SD AND GR	PLIO-PLEIST SER	T,I PG	I	101.	10-60	2913			1200GPM R
23 32W 26DC	HOMER GOSS	242 R	16	I	SD AND GR	PLIO-PLEIST SER	T,I PG	I	111.	9-61	2910	P		2000GPM R
23 32W 27AB	S. KANE	256 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	10.1	10-60	2912			1100GPM R
23 32W 27BA	R. H. CALIHAN	250 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	97.3	10-60	2910			
23 32W 30BB	HENRY GILLAN	320 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	51.3	10-60	2874.3			1800GPM R
23 32W 30DC	H. C. SCHWEER	300 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2873			1500GPM R
23 32W 31BC	H. R. BRUNGARDT	260 R	18	I	SD AND GR	PLIO-PLEIST SER	T,F	I	40 R	8-40	2878			750GPM R
23 32W 31CA	L. N. ARCHER	290 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	42.8	2-63	2876.1			1350GPM R
23 32W 32AB2	M. DEREMUS	290 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	18.0	4-58	2851.5	P		2035GPM R
23 32W 32BC	R. J. MAXFIELD	280 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	40.0	4-58	2873.7			1000GPM R
23 32W 32CB	DENNIS GOSS	165 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	27.2	10-60	2871.7	C		800GPM R
23 32W 32DA	C. L. JARMER	155 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	15.2	10-60	2838			2500GPM R
23 32W 35DB	M. L. RUSSELL	287 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	113.	2-63	2916			2000GPM R
23 32W 36CA	FRANK MCCLURE	270 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	105 R	4-48	2921	P		1500GPM R
23 32W 36CD	FRANK MCCLURE	295 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2920	P		
23 33W 2CB	G. F. REID	265 R	24	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	42.1	4-61	2872.			1500GPM R
23 33W 2DB	CLEVE DEAN	225 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	45.6	4-61	2876.7			1117GPM

TABLE 2.--CONTINUED

WELL (1)	OWNER OR TENANT	DEPTH OF WELL (FEET) (2)	DIAM. OF WELL (FT OR IN)	CASING (3)	PRINCIPAL WATER-BEARING BED(S): CHARACTER OF MATERIAL (4)	PRINCIPAL WATER-BEARING BED(S): GEOLOGIC SOURCE	METH. OF LIFT (5)	USE OF WATER (6)	DEPTH TO WATER LEVEL BELOW LSD (FT) (7)	DATE OF MEAS.	ELEV. OF LAND SURF. (FT)	CHEMICAL ANAL. (8)	DATA	REMARKS (9)
23 33W 3AC	JOHN MEYER	247	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	20.4	2-62	2872.			1800GPM R
23 33W 5CD	M. E. ROME	300	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2907.			684GPM R
23 33W 6AC	V. G. BAIER	319	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	79.3	4-58	2943.1			
23 33W 6BD	A. B. CORN	320	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	77.1	4-58	2939.7			1500GPM R
23 33W 7BB	F. D. CORMACK	280	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	82.7	9-60	2933.8			
23 33W 7BB2	F. A. CORMACK	345	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	87.1	9-60	2933.6			800GPM R
23 33W 7CB	MYERS AND KELLER	325	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	58.4	4-58	2928.			1550GPM R
23 33W 8BB	A. J. KNOLL	300	R 16		SD AND GR	PLIO-PLEIST SER	T,NG				2920		P	1800GPM R
23 33W 9CC	CHAS. MILHON	290	E 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2892.			
23 33W 9CD	CHAS. MILHON	261	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	35.7	4-58	2892.8	C		1800GPM R
23 33W 10CC	PETE ROME	280	E 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2883.			
23 33W 10DC	GEO. L. MEEKER	310	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	32.3	2-63	2880.2			1650GPM R
23 33W 14AC	M. O. WOLFKILL	302	R 16	I	SD AND GR	PLIO-PLEIST SER	T,F	I			2883			2000GPM R
23 33W 14CD	R. E. FUNK	310	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	38.4	4-58	2892.8			1350GPM
23 33W 14DC	L. CALDWELL	328	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	41.0	2-63	2885.8			1240GPM R
23 33W 15CB	H. A. HOLDEN ET AL			I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2887			
23 33W 16BC	J. BAIER	340	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	37.0	4-58	2895.4			1593GPM R
23 33W 17AB	LULA BORGMAN	285	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	37.4	4-58	2897.4			
23 33W 17BB	GARDEN CITY CO.	340	R 16		SD AND GR	PLIO-PLEIST SER	T,F	I	48.0	2-63	2903.9			1800GPM E
23 33W 18BA	CHARLES PFEIFER	270	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	46.2	4-58	2916.			750GPM R
23 33W 18BB	CHARLES PFEIFER	320	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	50.5	4-58	2920.0			750GPM R
23 33W 18CB	GARDEN CITY CO.	298	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	38.5	4-58	2912.			
23 33W 18CC	GARDEN CITY CO.	68.0	6	G	SD AND GR	PLEISTOCENE SER	CY.W	D,S	30.7	4-58	2910.5	C		
23 33W 19CD	GARDEN CITY CO.	362	R 16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	40.4	4-58	2917.2			1410GPM R
23 33W 20BB	V. C. BAIER	200	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	39.0	4-58	2901.3			
23 33W 20DC	GARDEN CITY CO.	312	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	48.6	4-58	2905.8		P	2150GPM R
23 33W 21AA	V. W. YORK	270	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2896		P	840GPM R
23 33W 21BD	L. B. BORGMAN	320	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	41.0	4-58	2896.1			
23 33W 21DC	A. E. GOETZ	300	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	43.5	4-58	2898.3			560GPM R
23 33W 22AC	H. W. CLUTTER EST.	343	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	42.5	4-58	2895.0			2500GPM R
23 33W 22BB	E. U. SELSOR	299	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	38.9	7-60	2901.3	C		1400GPM R
23 33W 22DB	A. B. GARDNER	160	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2894			1125GPM R
23 33W 23AC	R. F. SCHWEER	319	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	35.8	4-58	2886.1			1800GPM R
23 33W 23BB	H. W. STEVENSON	328	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2892			1024GPM
23 33W 23DD	R. W. BLACKWOOD	320	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	35.6	4-58	2883.8			2300GPM R
23 33W 24AC	OVID D. HARMON	305	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	37.5	4-58	2881.4			1194GPM
23 33W 24CB	ELZA CALDWELL	340	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	35.4	4-58	2882.8			
23 33W 24DC	RUBY OLOMON	315	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	40 R		2880			2150GPM R
23 33W 25CD	JOHN H. HAWK	265	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	51 R	6-54	2879			2000GPM R
23 33W 25DC	GEO. METZ	330	R 16	S	SD AND GR	PLIO-PLEIST SER	T,NG	I	34.6	4-58	2878.3			2000GPM R
23 33W 26AB	CLYDE SHEAKS	327	R 16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	48.0	2-63	2890.3			2000GPM R
23 33W 26BB	EARL BROOKOVER	200	R 16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	38.4	4-58	2894.1			
23 33W 26BB2	EARL BROOKOVER	338	R 16	I	SD AND GR	PLIO-PLEIST SER	T,F	I						

TABLE 2.--CONTINUED

WELL (1)	OWNER OR TENANT	DEPTH OF WELL (FEET) (2)	DIAM. OF WELL (FT OR IN)	C T A YOS PFI E N G (3)	PRINCIPAL WATER-BEARING BED(S) CHARACTER OF MATERIAL (4)	GEOLOGIC SOURCE	METH. OF LIFT (5)	USE OF WATER (6)	DEPTH TO WATER LEVEL BELOW LSD (FT) (7)	DATE OF MEAS.	ELEV. OF LAND SURF. (FT)	C H E M (8)	D A T A	REMARKS (9)
23 33W 26DC	EARL BROOKOVER	332 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	23.4	7-62	2888			900GPM R
23 33W 27AB	EARL BROOKOVER	200 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	41.9	4-58	2896.9			
23 33W 27CA	GARDEN CITY CO.	330 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	46.3	4-58	2899.9			
23 33W 27DB	EARL BROOKOVER	200 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	44.8	4-58	2896.3			
23 33W 28BD	GARDEN CITY CO.	300 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	46.9	4-58	2899.6			
23 33W 28CD	ANDREW BURGHARDT	300 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	50.2	4-58	2903.3			1400GPM R
23 33W 28DC	WENDELL RICHMEIER	310 R	10	I	SD AND GR	PLIO-PLEIST SER	T,NG	O	50.0	4-58	2902.6			
23 33W 29DB	GARDEN CITY CO.	285 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	55.0	4-58	2910.8			1860GPM R
23 33W 31AC	LEO J. GRAHAM ET AL	286 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	51.4	4-58	2917.5			1900GPM R
23 33W 32AB	J. H. DEINES	250 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	56.1	2-63	2909.8			970GPM R
23 33W 32CB	HENRY HOFFMAN	290 R	18	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	20.7	4-58	2882.2			1432GPM
23 33W 33AB	GARDEN CITY CO.	323 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	45.4	4-58	2902.1			1710GPM R
23 33W 33BB	A. AND G. NEEDHAM	312 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	45 R	9-59	2904			1447GPM R
23 33W 34AB	JOSEPH J. NAAB EST.	300 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I			2896			1092GPM R
23 33W 34BD	E. M. KNOLL		16		SD AND GR	PLIO-PLEIST SER	T,NG	I	48.4	4-58	2900.3			
23 33W 34CB	SANDHILL LAND CO.				SD AND GR	PLIO-PLEIST SER	T,F	I						
23 33W 34DB	L. E. JOSEPH	341 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	46.9	4-58	2897.6			
23 33W 34DC	L. E. JOSEPH	80 R	12	I	SD AND GR	PLEISTOCENE SER	C,F	I	16.6	2-62	2897.9			
23 33W 35CA	A. J. KNOLL	380 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	44.3	4-58	2892.6			
23 33W 35DD	HENRY MEYER	240 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	48.8	4-58	2891.2	C		1000GPM R
23 33W 36AC	GEO. METZ	327 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	30 R		2880			2000GPM R
23 33W 36CC	A. J. KNOLL	265 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	45.2	4-58	2888.6			
23 33W 36DC	H. P. WINGET	327 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	80 R		2883	C		1500GPM R
23 34W 1CC	KENNETH LYON	315 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	63.0	9-61	2932.0			
23 34W 1DC	R. A. LEOPOLD	334 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	69.0	2-63	2931.3			1600GPM R
23 34W 2CB	F. D. CORMACK, JR.	305 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	56.2	9-61	2936.2			2000GPM R
23 34W 2DA	JAKE ECKERT	315 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	57.4	9-61	2934.0			2000GPM R
23 34W 3BC	MAE ANDERSON	285 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	68.1	2-63	2951.5			2000GPM R
23 34W 4AC	J. O. SWEARENGEN	269 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	66.2	9-61	2954.8			1650GPM R
23 34W 5CB	JOHN J. MEYER	330 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I						2400GPM R
23 34W 6AA2	J. W. DUNSWORTH	336 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	87.3	9-61	2990.0			1250GPM R
23 34W 6DB	FLEMING AND SHELL	304 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	73.2	9-61	2982.7			2000GPM R
23 34W 7CC	GEO. MEEKER	330 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	53.0	2-62	2976.6			1657GPM R
23 34W 7CD	GEO. MEEKER	318 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2976.9			
23 34W 9CA	O. L. SILER	337 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	63.4	3-61	2964.8			1150GPM R
23 34W 9DB	FRED CORMACK, JR.	333 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	51.2	2-63	2950.8			2000GPM R
23 34W 10AC	H. E. RAMSEY	330 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	55.6	9-61	2948.0			2150GPM R
23 34W 12AC	J. J. ADAMS	329 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	72.2	9-61	2934.2			1300GPM R
23 34W 12CC	BERNARD KRAUSE	314 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	61.8	4-58	2940.1			1050GPM R
23 34W 12DC	BERNARD KRAUSE		16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	98.3	9-61	2933.9			950GPM R
23 34W 13AC	GARDEN CITY CO.	287 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	70.0	9-61	2935.2			830GPM R

TABLE 2.--CONTINUED

WELL (1)	OWNER OR TENANT	DEPTH OF WELL (FEET) (2)	DIAM. OF WELL (FT OR IN)	CASING (3)	PRINCIPAL WATER-BEARING BED(S) CHARACTER OF MATERIAL (4)	GEOLOGIC SOURCE	METH. OF LIFT (5)	USE OF WATER (6)	DEPTH TO WATER LEVEL BELOW LSD (FT) (7)	DATE OF MEAS.	ELEV. OF LAND SURF. (FT)	CHEMICAL ANALYSIS (8)	REMARKS (9)
23 34W 14BD	C. J. SCHIFFELBEIN	313 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	50.8	2-63	2940.2		914GPM
23 34W 14DB	GARDEN CITY CO.	290 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	56.8	9-61	2938.5		1150GPM R
23 34W 15AC	GARDEN CITY CO.	275 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	66.8	5-58	2947.5		1425GPM R
23 34W 16CB	GARDEN CITY CO.	264 R	16	I	SD AND GR	PLIO-PLEIST SER		I	68.0	2-62	2979.5		
23 34W 17BB	J. C. LEAVITT	338 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	61 R				1710GPM R
23 34W 17CC	J. C. LEAVITT	310 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	63.3	2-63	2974.1		1550GPM R
23 34W 19AB	C. E. MILLER	317 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	54.0	5-58	2976.8		1640GPM R
23 34W 19BB	GARDEN CITY CO.	284 R	16	S	SD AND GR	PLIO-PLEIST SER	T,F	I	42 R	40			1250GPM R
23 34W 20DB	GARDEN CITY CO.	303 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I					2050GPM R
23 34W 21DC	P. W. TURRENTINE	300 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	56.4	5-58	2972.9		1040GPM R
23 34W 21DD	P. W. TURRENTINE	300 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	51.6	5-58	2960.6		458GPM R
23 34W 22BB	GARDEN CITY CO.	285 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	48.6	4-58	2958.0		1400GPM R
23 34W 22CC	GARDEN CITY CO.	361 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	50.0	5-58	2957.0		2000GPM R
23 34W 23CB	GARDEN CITY CO.	290 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I					2200GPM R
23 34W 24BA	GARDEN CITY CO.	303 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	64.2	9-61	2929.5		1800GPM R
23 34W 24BB	GARDEN CITY CO.	282 R			SD AND GR	PLIO-PLEIST SER	T,F	I	66.6	9-61	2935.5		850GPM R
23 34W 25AA2	GARDEN CITY CO.	347 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	69.1	9-61	2928.3		
23 34W 25CC	GARDEN CITY CO.	303 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	50.8	2-62	2930.1		1800GPM R
23 34W 26CB	GARDEN CITY CO.	305 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I				C	
23 34W 26CC	G. C. EXP. STATION	309 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	73.7	2-63	2945.7	C	1600GPM R
23 34W 26DC	GARDEN CITY CO.	320 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	61.1	5-58	2951.3	C	2140GPM R
23 34W 27BD	GARDEN CITY CO.	368 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	63.2	4-58	2963.3		1900GPM R
23 34W 28CD	GARDEN CITY CO.	355 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	64.5	9-62	2965.0		2150GPM R
23 34W 30AB	L. AND S. DANLER	325 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	46.6	4-58	2975.0		1500GPM R
23 34W 30AB2	LEONARD DANLER	325 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I					1200GPM R
23 34W 32CB	GARDEN CITY CO.	354 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	45.4	2-62	2972.1		
23 34W 33BC	GARDEN CITY CO.	268 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	50.8	4-58	2966.5		
23 34W 33CB	GARDEN CITY CO.	189 R	16	I	SD AND GR	PLIO-PLEIST SER	N		48 R	10-40	2967.6		
23 34W 34AB	GARDEN CITY CO.	271 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	60.8	4-58	2962.		1250GPM R
23 34W 34BD	GARDEN CITY CO.	355 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	60.8	2-62			1950GPM R
23 34W 35CB	GARDEN CITY CO.	344 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	66.6	5-58	2956.8		1760GPM R
23 34W 36BB	J. BURGARDT	297 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	67.2	9-61	2935		950GPM R
23 34W 36DC	L. E. JOSS	274 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	20.4	2-62	2896.5		1160GPM R
24 31W 6DA	R. W. HANDS	265 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	117.	2-61	2913		2000GPM R
24 31W 10CB	B. A. GARDNER	260 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	119.	9-61			1416GPM R
24 31W 11DB	K. O. POWELL	241 R	16	I	SD AND GR	PLIO-PLEIST SER	T,I PG	I	113.	9-62	2882.1		1400GPM R
24 31W 13BA	JOHN ARCHIBALD	261 R	16	I	SD AND GR	PLIO-PLEIST SER	T,I PG	I	120 R				1400GPM R
24 31W 14DD	HENRY HARMS	265 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I			2881.9	C	
24 31W 15BC	E. KISNER	281 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I					1000GPM R
24 31W 17DC	R. G. MORRIS	290 R	16	I	SD AND GR	PLIO-PLEIST SER	T,D	I	121.	1-56	2904.0		1200GPM R
24 31W 20BA	R. G. MORRIS	290 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	126.	2-63	2903.6		1500GPM

TABLE 2.--CONTINUED

WELL (1)	OWNER OR TENANT	DEPTH OF WELL (FEET) (2)	DIAM. OF WELL (FT OR IN)	CASING (3)	PRINCIPAL WATER-BEARING BED(S) CHARACTER OF MATERIAL (4)	GEOLOGIC SOURCE	METH. OF LIFT (5)	USE OF WATER (6)	DEPTH TO WATER LEVEL BELOW LSD (FT) (7)	DATE OF MEAS.	ELEV. OF LAND SURF. (FT)	CHEM (8)	DATA	REMARKS (9)
24 31W 20DA	R. G. MORRIS	308 R	16	I	SD AND GR	PLIO-PLEIST SER	T,D	I	140 R		2904.			1800GPM R
24 31W 27CA2	ELSIE KISNER	220 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	118.	9-61				1400GPM R
24 31W 27CCB	CITY OF GARDEN CITY	295 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	PS	115.	1-62	2883.2			
24 31W 31BB	G. L. WEBSTER	32 R	15	G	SD AND GR	ALLUVIUM	C,F	I	18.7	1-62	2802.5	C		750GPM R
24 31W 31BC	O. C. HICKS	47 R	20	C	SD AND GR	ALLUVIUM	C,F	I	11.0	2-63	2797.0			1000GPM R
24 31W 34BA	J. V. MOLER	280 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	114.	2-63	2880.0			1530GPM R
24 31W 34CB	CITY OF GARDEN CITY	285 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I						
24 32W 1AA	M. L. RUSSELL	240.	12	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	114.	2-63	2908			1100GPM R
24 32W 2CB	LEONARD HARMS	280 R	16	I	SD AND GR	PLIO-PLEIST SER	T,D	I	79 R		2884.0			1800GPM R
24 32W 3CA	G. C. EXP. STATION	50 R	16	G	SD AND GR	PLEISTOCENE SER	C,F	I	15.3	2-40	2829.6			1000GPM R
24 32W 3DA	G. C. EXP. STATION	185 R	26	I	SD AND GR	PLIO-PLEIST SER	N	O	79.7	9-62	2884.8			
24 32W 3DB	G. C. EXP. STATION	230 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	70 R		2858	C		1560GPM R
24 32W 4AD	G. G. FINLEY	113 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	43.6	10-40	2858			1000GPM R
24 32W 4CB	LLOYD DINNETT	172 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	59 R	11-59	2862			970GPM R
24 32W 4DC	L. M. LARGENT	120 R	24	G	SD AND GR	PLIO-PLEIST SER	T,F	I	36 R	8-40	2860			750GPM R
24 32W 5AB	C. L. JARMER	293 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	38.7	58	2864.5			2000GPM R
24 32W 5AC	A. KOESTER	305 R	14	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	45.0	58	2869.3			1500GPM R
24 32W 5BC	O. C. STONE ET AL	212 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	33.5	2-63	2873.	P		700GPM R
24 32W 5CC	A. KOESTER	280 E	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	50.9	1-62	2874			
24 32W 6AC	HOWARD B. SMITH	315 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	43.9	58	2875.7			1400GPM R
24 32W 6AD	VALLEY VIEW CEMETERY	300 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I			2872			
24 32W 6CB	M. R. GARDINER	330 R	12		SD AND GR	PLIO-PLEIST SER	T,C	I			2876.			400GPM R
24 32W 6DA	VALLEY VIEW CEMETERY	280 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I			2870.			
24 32W 6DC	RALPH BEACH	165 R	10	I	SD AND GR	PLIO-PLEIST SER	T,F	I	25 R		2850.			600GPM R
24 32W 7CB	J. F. TRABERT	40 R	12	I	SD AND GR	ALLUVIUM	C,F	I	15.5	2-62	2834.			1500GPM R
24 32W 7DA	CITY OF GARDEN CITY	197 R	12	I	SD AND GR	OGALLALA FM	T,F	PS	8 R	48	2833		A	450GPM R
24 32W 7DC	CITY OF GARDEN CITY	258 R	12	G	SD AND GR	OGALLALA FM	T,F	PS	16 R		2832		A	750GPM R
24 32W 7DD	SENIOR HIGH SCHOOL				SD AND GR	PLIO-PLEIST SER	T,F	I			2833			
24 32W 8AB	CARL R. COOK	296 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2868			2000GPM R
24 32W 8BD	M. P. REEVE	277 R	4	I	SD AND GR	OGALLALA FM	T,F	D			2865			
24 32W 8DB	J. H. MAI	156 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	18 R		2831			1100GPM R
24 32W 9AC	F. TRENT	260 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I			2838			
24 32W 9CB	ROGER RAMSEY	195 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I			2864			
24 32W 10BD	PETER MEEKMA	30 R	16	I	SD AND GR	ALLUVIUM	T,PG	I			2858			1200GPM R
24 32W 14CC	G. C. COUNTRY CLUB	125 R	10	I	SD AND GR	PLIO-PLEIST SER	T,F	I	20 R		2835			350GPM R
24 32W 14CD	J. E. HIGGS	130 R			SD AND GR	PLEISTOCENE SER	T,NG	I	28.0	2-62	2826.5			1350GPM R
24 32W 15BD	DONALD MCMILLAN	149 R	8	I	SD AND GR	PLEISTOCENE SER	T,F	I	60 R		2839			150GPM R
24 32W 16AB	MAYO BROS.	287 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2825			2500GPM R
24 32W 16DA	MAYO BROS.	270 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2822			3000GPM R
24 32W 17BD	CITY OF GARDEN CITY	299 R	12	G	SD AND GR	OGALLALA FM	T,F	PS	16 R		2832		A	500GPM R
24 32W 17CA	CITY OF GARDEN CITY	277 R	16	I	SD AND GR	OGALLALA FM	T,F	PS	12 R		2832		A	700GPM R

TABLE 2.--CONTINUED

WELL (1)	OWNER OR TENANT	DEPTH OF WELL (FEET) (2)	DIAM. OF WELL (FT OR IN)	CASING (3)	PRINCIPAL WATER-BEARING BED(S) CHARACTER OF MATERIAL (4)	GEOLOGIC SOURCE	METH. OF LIFT (5)	USE OF WATER (6)	DEPTH TO WATER LEVEL BELOW LSD (FT) (7)	DATE OF MEAS.	ELEV. OF LAND SURF. (FT)	CH (8)	DAT (8)	REMARKS (9)
24 32W 17DA	ARTHUR BRINKMEYER	48 R	15	I	SD AND GR	ALLUVIUM	C,G/T	I			2831			800GPM R
24 32W 17DB	BAPTIST HOME	52,	16	I	SD AND GR	ALLUVIUM	C,F	I	15.9	2-62				
24 32W 17DB2	CITY OF GARDEN CITY	280 R	19	I	SD AND GR	OGALLALA FM	T,F	PS	18.5	2-62	2831,	A		
24 32W 17DD	KS. HWY. COMMISSION	30 R	16	G	SD AND GR	ALLUVIUM	C,F	I			2825			
24 32W 18BC	CITY OF GARDEN CITY	299 R	16	I	SD AND GR	OGALLALA FM	T,F	PS	30.4	2-62	2839	A		450GPM R
24 32W 18CA2	GARDEN CITY ICE CO.	35 R		I	SD AND GR	ALLUVIUM	C,F	ID	16 R		2839			175GPM R
24 32W 18CA3	GARDINER DAIRY	300 R	10	I	SD AND GR	OGALLALA FM	T,F	ID	10 R		2839			160GPM R
24 32W 18CA4	GARDEN CITY ICE CO.	270 R			SD AND GR	OGALLALA FM	T,F	ID			2839			
24 32W 18CC	CITY OF GARDEN CITY	280 R	12	I	SD AND GR	OGALLALA FM	T,F	PS			2840	A		1000GPM R
24 32W 18DA	CITY OF GARDEN CITY	265 R	12	I	SD AND GR	OGALLALA FM	T,F	PS			2833	C		450GPM R
24 32W 19AB	CITY OF GARDEN CITY	150 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	PS	9.6	9-61	2832			900GPM R
24 32W 19BC	SMITH SAND CO.	137 R	5	I	SD AND GR	PLEISTOCENE SER	JET,F	ID	20 R		2836	P		
24 32W 19CA	U.S.G.S.	245 R	1	I	SD AND GR	OGALLALA FM	N	O	10.8	2-63	2833	A		
24 32W 19CA2	W. A. SMITH	116 R	4	I	SD AND GR	PLIO-PLEIST SER	CY.E	D			2834,	P		
24 32W 19CA3	U.S.G.S.	141,	1		SD AND GR	PLEISTOCENE SER	N	O	7.3	2-63	2831.9	A		
24 32W 19CD	F. E. STEWART	70.6	6	G	SD AND GR	ALLUVIUM PLEISTOCENE SER	CY.H	D	46.3	9-40		C		
24 32W 19DA	DAN STRINGER	18 R	6	I	SD AND GR	ALLUVIUM	CY.E	D			2828			
24 32W 19DB	W. A. SMITH	210 R	6	I	SD AND GR	PLIO-PLEIST SER	JET,E	D			2838	P		
24 32W 20AA	R. M. JAMESON	50 R	16	I	SD AND GR	ALLUVIUM	C,F	I						2000GPM R
24 32W 20CB	J. H. BURNSIDE				SD AND GR	ALLUVIUM		I			2828,			
24 32W 21BA	R. M. JAMESON	45 R	18	G	SD AND GR	ALLUVIUM	C,F	I	11.6	6-60	2822,	A		4000GPM R
24 32W 22BA2	FRED RAMIREZ	210 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2815			
24 32W 22BC	WM. MAI	50 R	16	I	SD AND GR	ALLUVIUM	C,F	I	9.3	2-62	2818.3			1715GPM R
24 32W 22DB	ROY KING	45 R	16	I	SD AND GR	ALLUVIUM	T,NG	I			2814	C		2000GPM R
24 32W 23AA	MEM. GARDEN CEMETERY				SD AND GR	PLIO-PLEIST SER	T,F	I			2867,			
24 32W 25BD	R. G. MORRIS	230 R	16	I	SD AND GR	OGALLALA FM	T,NG	I	31 R		2824.4	C		
24 32W 25CB	R. G. MORRIS	42 R	16	G	SD AND GR	ALLUVIUM	C,F	I	9.3	2-63	2800.5			1500GPM R
24 32W 25CB2	R. G. MORRIS	245 R	16		SD AND GR	PLIO-PLEIST SER	T,NG	I	7.8	2-61	2800	P		2500GPM R
24 32W 26AA	W. H. RENICK				SD AND GR	ALLUVIUM	T,NG	I			2804			
24 32W 26AD	W. H. RENICK				SD AND GR	ALLUVIUM		I			2804,			
24 32W 26BB	ROY KING				SD AND GR	ALLUVIUM	T,NG	I			2808			
24 32W 29AC	JOHN BURNSIDE	34,	5	I	SD AND GR	ALLUVIUM	CY.W	S,O	31.2	2-63	2850			
24 32W 31CB	JOHN BURNSIDE	82,	6	I	SD AND GR	PLEISTOCENE SER	CY.W	S	38.7	10-61	2863			
24 32W 34CA	EMMA C. DAMME EST.	34,	4	G	SD AND GR	ALLUVIUM PLEISTOCENE SER	CY.W	S	28.2	10-61	2836,			
24 32W 35DD	O. C. HICKS	350 R	18	I	SD AND GR	PLIO-PLEIST SER	N	N	27.7	2-63	2811			
24 32W 36AB	O. C. HICKS	43 R	16	G	LS AND GYP	ALLUVIUM	C,NG	I	8.3	11-40		C		
24 33W 1AC	EARL BROOKOVER	316 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	47.5	58	2881.8			1300GPM R
24 33W 1AC2	EARL BROOKOVER	297 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	35 R		2882			1450GPM R
24 33W 1BA	EARL BROOKOVER	280 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	47.6	58	2886.6			1150GPM R

TABLE 2.--CONTINUED

WELL (1)	OWNER OR TENANT	DEPTH OF WELL (FEET) (2)	DIAM. OF WELL (FT OR IN)	CASING (3)	PRINCIPAL WATER-BEARING BED(S) CHARACTER OF MATERIAL (4)	GEOLOGIC SOURCE	METH. OF LIFT (5)	USE OF WATER (6)	DEPTH TO WATER LEVEL BELOW LSD (FT) (7)	DATE OF MEAS.	ELEV. OF LAND SURF. (FT)	CHEM ANAL (8)	DATA	REMARKS (9)
24 33W 1BC	EARL BROOKOVER	235 R	8	I	SD AND GR	PLIO-PLEIST SER	T,F	ID	35 R		2882			150GPM R
24 33W 1CC	D. G. LEWIS			G	SD AND GR	ALLUVIUM	C,F	I	16.9	4-58	2852,			
24 33W 1DC	LOUIS ANGELES	23 R	14	G	SD AND GR	ALLUVIUM	C,F	I	16 R	7-40	2847,			300GPM R
24 33W 1DD	E. C. BROOKOVER	20 R	16	G	SD AND GR	ALLUVIUM	C,F	I	12 R		2843,			400GPM R
24 33W 2AC	CARL KEMPER	270 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2853,			
24 33W 2BA	L. J. HINEMAN	205 R	14	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	48.9	2-63	2891,0			1400GPM R
24 33W 2CD	VICTOR HAFLICH	200 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	10,9	58	2851,2			2000GPM R
24 33W 2DC	LEO BENNETT	198 R	12	I	SD AND GR	PLIO-PLEIST SER	T,F	I	12.3	5-58	2850,5			
24 33W 3AA	ALBERT SHACKLEFORD	220 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	22.5	5-58	2869,			
24 33W 3CD	E. W. HENKLE	248 R	12	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2862,			2200GPM E
24 33W 3DB	CHARLES LARSON	270 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	30 R	58	2862,			2000GPM R
24 33W 4AC	G. E. CONE	130 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	19.9	5-58	2871,9			
24 33W 4BA	GRACE JOSS	97 R	16	I	SD AND GR	PLEISTOCENE SER	C,F	I	11 R	6-48				800GPM R
24 33W 4CB	FRED BROWN	35 R	16	G	SD AND GR	ALLUVIUM	C,F	I	12 R		2872,4			
24 33W 4CB2	FRED BROWN	357 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	19.3	5-58	2871,9			
24 33W 4DB2	E. W. HENKLE	280 R	16	I	SD AND GR	ALLUVIUM	T,NG	I	17.7	58	2868,9			
24 33W 4DD	E. W. HENKLE	314 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	13.8	5-58	2861,4			
24 33W 5BB	ANDREW LARSON	307 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	27.7	58	2879,1			2000GPM R
24 33W 5CB	ANDREW LARSON	305 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	17.6	5-58	2878,4			2000GPM R
24 33W 5CC	ANDREW LARSON	210 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	18.5	58	2879,3			1750GPM R
24 33W 6AC	LESTER MCCOY	230 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	15.0	2-61	2882,3			
24 33W 6CC	V. R. MAYO	290 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2886			
24 33W 6DC	LESTER MCCOY	45 R	16	G	SD AND GR	ALLUVIUM	C,F	I	16,9	4-58	2884,4			
24 33W 6DC2	LESTER MCCOY	300 R	16		SD AND GR	PLIO-PLEIST SER	T,NG	I	44,7	9-61	2884			
24 33W 7BA	DAVID BROWNLEE	300 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2886,8			2200GPM R
24 33W 7BB	HOLCOMB SCHOOL	265 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	19,2	5-58	2886,1			
24 33W 7BC2	TRI-COUNTY GAS CO.	220 R	4	I	SD AND GR	PLIO-PLEIST SER	CY,E	PS	15 R	1-40	2884	C		
24 33W 7BC3	WALTER HOLSTROM	35 R	16	I	SD AND GR	ALLUVIUM	T,NG	I	12,6	5-58	2883			
24 33W 7BD	ROBT. W. CALHOUN	85 R	16	I	SD AND GR	ALLUVIUM	T,F	I	12,7	58	2881,9			1000GPM R
						PLEISTOCENE SER								
24 33W 7CB	WALTER HOLSTROM	40 R	16	G	SD AND GR	ALLUVIUM	C,F	I	6,8	5-58	2877,8			
24 33W 7DB	FRANKLIN OLDWEILER	40 R	16	I	SD AND GR	ALLUVIUM	C,F	I	12,1	5-58	2879,7	C		
24 33W 7DB2	FRANKLIN OLDWEILER	40 R	16	I	SD AND GR	ALLUVIUM	C,F	I	6,6	2-63	2873,3			
24 33W 8AC	A. J. KNOLL	150 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	15,4	5-58	2873,7			
24 33W 8BB	A. J. KNOLL	35 R	16	G	SD AND GR	ALLUVIUM	C,NG	I	14,3	5-58	2878,6			
24 33W 8DB	GEORGE ANDERSON	34,9	16	I	SD AND GR	ALLUVIUM	C,F	I	12,2	5-58	2872,4	C		
24 33W 9AA	H. M. WILEY	21,1	15	G	SD AND GR	ALLUVIUM	N	O	15,2	1-62	2862,			
24 33W 9AC	HOMER PEMBERTON	35 R	16	I	SD AND GR	ALLUVIUM	C,F	I	18,6	5-58	2871,4			600GPM R
24 33W 9BD	D. B. MCKIBBEN	40 R	16	G	SD AND GR	ALLUVIUM	C,F	I	15,0	5-58	2869,			
24 33W 9CC	GEORGE ANDERSON		18	G	SD AND GR	ALLUVIUM	C,F	I			2876			1800GPM R
24 33W 9DB	JOHN KINDSCHI	30 R	19	I	SD AND GR	ALLUVIUM	C,F		17,3	1-58	2868,9			1000GPM R
24 33W 9DC	GEORGE ANDERSON	40 R	18	G	SD AND GR	ALLUVIUM	C,F	I	12 R	7-40	2866			1000GPM R
24 33W 10AB	GLEN DUNKELBERG	32 R	16	I	SD AND GR	ALLUVIUM	C,NG	I	16,0	5-58	2860,3			

TABLE 2.--CONTINUED

WELL (1)	OWNER OR TENANT	DEPTH OF WELL (FEET) (2)	DIAM. OF WELL (FT OR IN)	CASING (3)	PRINCIPAL WATER-BEARING BED(S) CHARACTER OF MATERIAL (4)	GEOLOGIC SOURCE	METH. OF LIFT (5)	USE OF WATER (6)	DEPTH TO WATER LEVEL BELOW LSD (FT) (7)	DATE OF MEAS.	ELEV. OF LAND SURF. (FT)	CHEMICAL DATA (8)	REMARKS (9)
24 33W 10AC	CHARLES LARSON	84 R	16	I	SD AND GR	ALLUVIUM PLIO-PLEIST SER	T,F	I	14.8	1-58	2859.6		1300GPM R
24 33W 10BA	HENRY BURT	39 R	16	G	SD AND GR	ALLUVIUM	C,F	I	16.3	5-58	2862.9		
24 33W 10BB	E. W. HENKLE	280 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	22 R		2865		1200GPM R
24 33W 10BC	BRYANT GARNAND	40 R	16	I	SD AND GR	ALLUVIUM	C,F	I	18.1	5-58	2865.1		
24 33W 10CB	HENRY BURT	96 R	16	I	SD AND GR	ALLUVIUM PLEISTOCENE SER	T,F	I	16.1	5-58	2863.8		
24 33W 10DB	C. D. GARDNER	83 R	18	I	SD AND GR	ALLUVIUM PLEISTOCENE SER	T,F	I	16.3	58	2860		1600GPM R
24 33W 10DB2	C. D. GARDNER	83 R	18	I	SD AND GR	ALLUVIUM PLEISTOCENE SER	C,F	I			2864.		
24 33W 10DC	C. D. GARDNER	83 R	18	I	SD AND GR	ALLUVIUM PLEISTOCENE SER		I			2858		
24 33W 11AC	CHARLES J. VOTH	80 R	16	I	SD AND GR	ALLUVIUM PLEISTOCENE SER	T,F	I	11 R		2852		300GPM R
24 33W 11BA	JOHN KUNZ				SD AND GR	ALLUVIUM PLIO-PLEIST SER	T,NG	I	18.3	2-62	2850		
24 33W 11BB	W. W. STREETER EST.	32 R	15	G	SD AND GR	ALLUVIUM	C,F	I	17.1	5-58	2858.5		
24 33W 11BC	EARL M. SULLIVAN	45 R	18	G	SD AND GR	ALLUVIUM	C,F	I	15 R	7-40	2856.		1000GPM R
24 33W 11CB	H. R. SHAFER	55 R	16	G	SD AND GR	ALLUVIUM	C,F	I	16.0	5-58	2857.		
24 33W 11DA	M. L. BLAND	50 R	16	I	SD AND GR	ALLUVIUM	C,F	I	16.7	5-58	2850.7		
24 33W 11DB	RITA TOWNSEND	78 R	16	I	SD AND GR	ALLUVIUM PLEISTOCENE SER	T,F	I	17.6	5-58	2854.4		1200GPM R
24 33W 11DC	M. M. BLAND	50 R	19	I	SD AND GR	ALLUVIUM	C,F	I	15 R	5-58	2851.3		
24 33W 12AA	RAYMOND DICK	84 R	16	I	SD AND GR	ALLUVIUM PLEISTOCENE SER	T,F	I	16.5	5-58	2845.4		1000GPM R
24 33W 12AB	C. A. BECKER	80 R	16	I	SD AND GR	ALLUVIUM PLEISTOCENE SER	C,F	I	18.1	5-58	2848.5		
24 33W 12BA	F. E. STONE	40 R	14	G	SD AND GR	ALLUVIUM PLEISTOCENE SER	C,F	I	16.7	5-58	2849.3		500GPM R
24 33W 12CB	S. F. MERRILL	45 R	15	I	SD AND GR	ALLUVIUM	C,F	I	17.7	5-58	2849.4	A	500GPM R
24 33W 12CD	O. V. NANNINGA	50 R	16	G	SD AND GR	ALLUVIUM PLEISTOCENE SER	C,F	I	19.9	58	2849.		
24 33W 13AA	CITY OF GARDEN CITY	309 R	12	I	SD AND GR	OGALLALA FM	T,F	PS	41.3	2-62	2843.	A	1030GPM R
24 33W 13BA	WHEATLAND ELECTRIC	318 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	ID	25 R		2845.		1600GPM R
24 33W 13BA2	WHEATLAND ELECTRIC	325 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	ID			2845.		900GPM R
24 33W 13BC	GARDEN CITY CO.	180 R	24	I	SD AND GR	PLIO-PLEIST SER	T,F	ID					500GPM R
24 33W 13BC2	WHEATLAND ELECTRIC	240 R	12	I	SD AND GR	PLIO-PLEIST SER	T,F	ID			2846.		
24 33W 13BD	GARDEN CITY CO.	48 R	21	C	SD AND GR	ALLUVIUM	C,F	ID	31 R				1200GPM R
24 33W 13BD2	GARDEN CITY CO.	48 R	21	C	SD AND GR	ALLUVIUM	C,F	ID	31 R				900GPM R
24 33W 13BD3	GARDEN CITY CO.	48 R	21	C	SD AND GR	ALLUVIUM	C,F	ID	31 R				1200GPM R
24 33W 13BD4	GARDEN CITY CO.	48 R	21	C	SD AND GR	ALLUVIUM	C,F	ID	31 R				1200GPM R
24 33W 13BD5	GARDEN CITY CO.	48 R	21	C	SD AND GR	ALLUVIUM	C,F	ID	31 R				1500GPM R

TABLE 2.--CONTINUED

WELL (1)	OWNER OR TENANT	DEPTH OF WELL (FEET) (2)	DIAM. OF WELL (FT OR IN)	CASING (3)	PRINCIPAL WATER-BEARING BED(S) CHARACTER OF MATERIAL (4)	GEOLOGIC SOURCE	METH. OF LIFT (5)	USE OF WATER (6)	DEPTH TO WATER LEVEL BELOW LSD (FT) (7)	DATE OF MEAS.	ELEV. OF LAND SURF. (FT)	CHEMICAL ANALYSIS (8)	REMARKS (9)
24 33W 13BD6	GARDEN CITY CO,	180 R	24	I	SD AND GR	PLIO-PLEIST SER	T,F	ID					300GPM R
24 33W 13BD7	GARDEN CITY CO,	260 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	ID					600GPM R
24 33W 13BD8	WHEATLAND ELECTRIC	250 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	ID					
24 33W 13BD9	WHEATLAND ELECTRIC	91 R	16	I	SD AND GR	PLEISTOCENE SER	T,F	ID					830GPM R
24 33W 13BD10	WHEATLAND ELECTRIC	92 R	16	I	SD AND GR	PLEISTOCENE SER	T,F	ID					
24 33W 13BD11	WHEATLAND ELECTRIC	82 R	16	I	SD AND GR	ALLUVIUM PLEISTOCENE SER	T,F	ID					
24 33W 13BD12	WHEATLAND ELECTRIC	87 R	16	I	SD AND GR	PLEISTOCENE SER		ID					900GPM R
24 33W 13CA	WHEATLAND ELECTRIC	320 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	ID			2842,		600GPM R
24 33W 13CA2	WHEATLAND ELECTRIC	60 R	16	I	SD AND GR	ALLUVIUM	T,F	ID				C	700GPM R
24 33W 13CA3	WHEATLAND ELECTRIC	90 R	16	I	SD AND GR	ALLUVIUM	T,F	ID					700GPM R
24 33W 13CA4	WHEATLAND ELECTRIC	60 R	16	I	SD AND GR	ALLUVIUM	T,F	ID					400GPM R
24 33W 13CD	JOHN LANDGRAF	45,5	15	I	SD AND GR	ALLUVIUM	C,F	I				C	1500GPM R
24 33W 13DA	CITY OF GARDEN CITY	324 R	12	I	SD AND GR	OGALLALA FM	T,F	PS				A	1100GPM R
24 33W 13DD	CONRAD CRAYTOR	45 R	10		SD AND GR	ALLUVIUM	C,S/T	I			2841,		750GPM R
24 33W 14BB	GARDEN CITY CO,	29,5	14	G	SD AND GR	ALLUVIUM	C,F	I	14,4	2-63	2855,		1400GPM R
24 33W 14BC	PETE MAI	45 R	16	I	SD AND GR	ALLUVIUM	C,F	I	13,5	58	2855,2		
24 33W 14CA	HENRY HOFFMAN	42 R	18	G	SD AND GR	ALLUVIUM	C,NG	I	15,2	5-58	2852,3	C	1200GPM R
24 33W 14CB	PETE MAI	60 R	18	G		ALLUVIUM	C,F	I	12.3	5-58	2855,5		2000GPM R
24 33W 14DA	HARRIS F, BUCK	67 R	16	C	SD AND GR	PLEISTOCENE SER ALLUVIUM	C,NG	I	15.0	5-58	2849,2		
24 33W 15AB	PETE MAI	45 R	16	I	SD AND GR	PLEISTOCENE SER ALLUVIUM	C,F	I	12.9	58	2858,3		2000GPM R
24 33W 17CB	E. C. SPRATT	16,	6	I	SD AND GR	ALLUVIUM	CY·W	D,S	11.7	2-63	2873,	P	
24 33W 18BC	U.S.G.S.	225,	1	I	SD AND GR	PLIO-PLEIST SER	N	O	6.5	1-63	2880,		
24 33W 18BC2	U.S.G.S.	24,	1	I	SD AND GR	ALLUVIUM	N	O	2.8	2-63	2880,		
24 33W 23BC	J. M. COWGILL	14,0	6	G	SD AND GR	ALLUVIUM	CY·W	S	9.8	2-63	2852,		
24 33W 29AA	E. C. SPRATT	47,2	6	I	SD AND GR	PLEISTOCENE SER	CY·W	S	37.5	2-63	2900,		
24 33W 34BC	J. M. COWGILL	56,	6	I	SD AND GR	PLEISTOCENE SER	CY·W	S	52.2	2-63	2891,		
24 33W 36AD	CITY OF GARDEN CITY	49,	4	I	SD AND GR	PLEISTOCENE SER	N		47.6	10-61	2879,		
24 34W 1BC	GRACE BROWN	295 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	17.8	2-63	2893,7	C	2500GPM R
24 34W 1CC	C. O. SMITH	153 R	16	I	SD AND GR	PLIO-PLEIST SER	T,F	I	15.4	4-58	2895,4		
24 34W 1DD	O. A. SCHOPF	70 R	16	I	SD AND GR	ALLUVIUM	T,F	I	16.9	4-58	2889,1		
24 34W 1DD2	O. A. SCHOPF	70 R	16	I	SD AND GR	PLEISTOCENE SER ALLUVIUM	T,F	I	16.9	5-58	2889,5		
24 34W 2AB	G. L. POTTER	80 R	16	I	SD AND GR	ALLUVIUM	C,F	I	22.1	5-58	2905,1		
24 34W 2AD	HARRY BROWN	81 R	20	C	SD AND GR	ALLUVIUM	C,F	I	11 R	8-40	2894,	C	685GPM
24 34W 2BB	GEO. POTTER	50 R	15	I	SD AND GR	ALLUVIUM	C,F	I			2905,		1200GPM R
24 34W 2CD	T. L. JONES	280 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	15.4	5-58	2899,5		
24 34W 3BC	G. L. POTTER	50 R	15	C	SD AND GR	ALLUVIUM	C,F	I	12.5	58	2910,8	C	
24 34W 3CD	T. L. JONES	40 R			SD AND GR	ALLUVIUM	C,F	I	13.8	2-62	2906,4		

TABLE 2,--CONTINUED

WELL (1)	OWNER OR TENANT	DEPTH OF WELL (FEET) (2)	DIAM. OF WELL (FT OR IN)	CASING (3)	PRINCIPAL WATER-BEARING BED(S) CHARACTER OF MATERIAL (4)	GEOLOGIC SOURCE	METH. OF LIFT (5)	USE OF WATER (6)	DEPTH TO WATER LEVEL BELOW LSD (FT) (7)	DATE OF MEAS.	ELEV. OF LAND SURF. (FT)	CHEM ANAL (8)	DATA	REMARKS (9)
24 34W 5AA	W. W. WEILAND	320 R	12	I	SD AND GR	PLIO-PLEIST SER	T,E	I	53.9	2-63				1000GPM R
24 34W 6BB	LOGAN GREEN	360 R	14	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	39.7	5-58	2972.9			
24 34W 8DA	MARY MCBIRNEY	45 R	16	I	SD AND GR	ALLUVIUM	C,B/T	I			2914.			
24 34W 8DB	MARY MCBIRNEY	45 R	16	I	SD AND GR	ALLUVIUM	C,B/T	I			2918.			800GPM R
24 34W 9BB	U.S.G.S.	350 R	1	I	SD AND GR	ALLUVIUM	N	T	7.7	2-63	2914.	P		
24 34W 10CB	WM. NEUERBERG	50 E	18	I	SD AND GR	ALLUVIUM	T,NG	I	11.9	2-62	2906.			
24 34W 11AB	EDNA T. JONES	60 R		C	SD AND GR	ALLUVIUM	C,E	I	14.0	5-58	2897.4			1000GPM R
24 34W 12BA	W. M. BRATCHER	48 R		I	SD AND GR	ALLUVIUM	C,E	I	13.6	5-58	2891.			850GPM R
24 34W 12BC	G. R. BYRD	42.			SD AND GR	ALLUVIUM	C,E	I	14.9	5-58	2893.2			2500GPM
24 34W 16BB	C. SMITH	35 R	16	G	SD AND GR	ALLUVIUM	C,E	I	10 R	9-40		C		
24 34W 17BA	P. FOTOPOULES	45 R	16	G	SD AND GR	ALLUVIUM	C,NG	I	15 R	2-62	2919.	C		1000GPM R
24 34W 17BB	F. FOTOPOULES	35.	16	G	SD AND GR	ALLUVIUM	C,E	O	11.7	9-39	2925.			
24 34W 18AB	B. C. LINENBERGER	47 R	16	G	SD AND GR	ALLUVIUM	C,E	I	10.7	5-58	2931.			
24 34W 18BD	F. C. MCGONIGAL	47 R			SD AND GR	ALLUVIUM	C,NG	I	11.5	2-63	2931.7			
24 34W 18DA	F. C. MCGONIGAL	47 R	16		SD AND GR	ALLUVIUM	C,NG	I	9.3	5-58	2927.5			
24 34W 18DD	F. C. MCGONIGAL	47 R	16		SD AND GR	ALLUVIUM		I	9.6	5-58	2928.2			
24 34W 19BA	F. AND I. FINNUP	40 R	19		SD AND GR	ALLUVIUM	N	I			2930			1000GPM R
24 34W 25AA	ARCHIE B. LADNER	51.5	6		SD AND GR	PLEISTOCENE SER	CY,W	S	41.8	9-40	2527.	C		
24 34W 36CA	ARCHIE B. LADNER	62 R			SD AND GR	PLEISTOCENE SER	CY,W	S	52.2	9-61	2939.			
25 31W 8BB	FRANK REED SR. EST.	8.	6	G	SD AND GR	ALLUVIUM	CY,W	S	7.1	2-63	2777.0			
25 31W 9BA	FRANK REED SR. EST.	12.2	6	G	SD AND GR	ALLUVIUM	CY,W	S	5.0	2-62				
25 31W 11DC	CLAY WELDON	49.	14	I	SD AND GR	ALLUVIUM	T,E	I	23.9	2-63	2765.0			
25 31W 13BB	U.S.G.S.	172 R	1	I	SD AND GR	PLIO-PLEIST SER	N	O	78.0	2-63	2820.5			
25 31W 13BC	CLAY WELDON	24.2	16	I	SD AND GR	ALLUVIUM	C,E	I	13.9	1-56	2752.3			2200GPM R
25 31W 13CA2	PIERCEVILLE SCHOOL	180 R				PLIO-PLEIST SER	T,E	PS				C		
25 31W 13CDA	EDWIN WEHRLEY	7.5	24	I	SD AND GR	ALLUVIUM	N	O	4.6	9-39	2739.2			
25 31W 13DB	WELDON LAND CO.	50 R	16	G	SD AND GR	PLEISTOCENE SER	C,E	I						
25 31W 14AB	CLAY WELDON						T,E	I						
25 31W 15BA	GERALD BEACH	60.3	16	I	SD AND GR	ALLUVIUM	T,E	I	3.6	2-62	2757.8			750GPM R
25 31W 15BA2	RALPH BEACH	55 R	16	I	SD AND GR	PLEISTOCENE SER PLEISTOCENE SER	T,E	I	8 R	60				1100GPM R
25 31W 15DC	F. DOUGLAS	24.5	5	G	SD AND GR	ALLUVIUM	CY,W	S	15 R			C		
25 31W 15DD	GERALD BEACH	20 R	16	G	SD AND GR	ALLUVIUM	C,B/T	I	5.3	2-62				
25 31W 19CB	O. C. HICKS	175.	3	I	SD AND GR	ALLUVIUM PLEISTOCENE SER	N	N	64.1	2-63	2850.			
25 31W 21CA	GERALD BEACH	28.6	8	I	SD AND GR	PLEISTOCENE SER	CY,W	S	19.6	2-63	2788.0			
25 31W 32CD	D. W. VANDEREE	58.2	6	G	SD AND GR	PLEISTOCENE SER	CY,H	N	53.6	2-63	2820.0			
25 31W 35DB	RALPH BEACH	59.1	4	I	SD AND GR	PLEISTOCENE SER	CY,W	S	48.5	2-63	2801.4			
25 32W 2CA	O. C. HICKS	40.	8	I	SD AND GR	ALLUVIUM	CY,W	S	28.8	2-63	2829.			

TABLE 2.--CONTINUED

WELL (1)	OWNER OR TENANT	DEPTH OF WELL (FEET) (2)	DIAM. OF WELL (FT OR IN)	CASING (3)	PRINCIPAL WATER-BEARING BED(S) CHARACTER OF MATERIAL (4)	GEOLOGIC SOURCE	METH. OF LIFT (5)	USE OF WATER (6)	DEPTH TO WATER LEVEL BELOW LSD (FT) (7)	DATE OF MEAS.	ELEV. OF LAND SURF. (FT)	CHEM. ANAL. (8)	DATA	REMARKS (9)
25 32W 5CA	JOHN BURNSIDE	59,	8	I	SD AND GR	PLEISTOCENE SER	CY.W	S	52.5	2-62	2772,			
25 32W 13BD	O. C. HICKS	46,	12	I	SD AND GR	PLEISTOCENE SER	CY.W	S	42.6	3-65	2833,			
25 32W 22CC	CLARENCE GIGOT	69,	4	I	SD AND GR	PLEISTOCENE SER	CY.W	S	66.7	2-62	2870,			
25 32W 25BD	D. F. KOEHN	180 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2848.4			1500GPM R
25 32W 31DC	HARRY LIGHTNER	77,	6	I	SD AND GR	PLEISTOCENE SER	CY.H	D,S	65.5	9-40	2884,			
25 32W 31DC2	HARRY LIGHTNER				SD AND GR	PLIO-PLEIST SER	T,NG	I	74.0	9-60				2000GPM R
25 32W 31DD	HARRY LIGHTNER	140 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I,O	65.6	2-63	2879.1			2500GPM R
25 32W 33AB	ANNE L. STALEY	185 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	64.6	9-61	2872,			2000GPM R
25 32W 35AD	PETE SMITH, JR.	180 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	64.7	9-62	2857.4			2500GPM R
25 33W 1DC	U.S.G.S.	394,	1	I	SD AND GR	PLIO-PLEIST SER	N	O	54.5	2-63			C	
25 33W 1DC2	U.S.G.S.	145,	1	I	SD AND GR	PLIO-PLEIST SER	N	O	53.2	2-63	2880.7		C	
25 33W 5BB	E. C. SPRATT	37.0	6	I	SD AND GR	PLEISTOCENE SER	CY.W	S	35.4	2-63	2912,			
25 33W 13DA	M. P. REEVE	84 R	6	G	SD AND GR	PLEISTOCENE SER	N	O	75.4	9-39	2897.9			
25 33W 15BB	JAMES M. COWGILL	74,	6	I	SD AND GR	PLEISTOCENE SER	CY.W	S	65.1	2-62	2907,			
25 33W 24AA	U.S.G.S.	282,	1	I	SD AND GR	PLIO-PLEIST SER		T	90.3	2-63	2911.4	C		
25 33W 32DB	MAX ENGLER EST.	81 R	15	G	SD AND GR	PLEISTOCENE SER	N	I	61.1	2-63	2915			700GPM R
25 34W 1BB	U.S.G.S.	242,	1	I	SD AND GR	PLIO-PLEIST SER	N	T	45.5	2-63	2929.1	P		
25 34W 1BB2	U.S.G.S.	52,	1		SD AND GR	PLEISTOCENE SER	N	T	38.7	2-63	2929,			
25 34W 6AB	HARRY CANNON	68,	5	G	SD AND GR	PLEISTOCENE SER	CY.W	S	52.3	2-63	2975,			
25 34W 17AC	PERRY BROWN	78,	5	G	SD AND GR	PLEISTOCENE SER	CY.W	S	60.6	2-63	2970,			
25 34W 25BB	T. L. JONES	81.5	6	G	SD AND GR	PLEISTOCENE SER	CY.W	D,S	81.2	2-63	2955,			
25 34W 33CA	STELLA SUTTON	78.5	8	I	SD AND GR	PLEISTOCENE SER	CY.W	S	72.9	2-62	2966,			
26 31W 1DD	MEARL HUTTON	169,	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I,O	72.2	2-63	2810.5			2050GPM
26 31W 4CC	LOWELL MCGRAW	140 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	54.5	1-56	2818.4			
26 31W 6BB	D. W. VANDEREE	180 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	54.3	2-63	2832.5			1350GPM R
26 31W 6CA	E. A. LESSENDEN	327 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	69 R		2838,			2200GPM R
26 31W 12CC	W. E. HUTTON	161 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	71.7	1-56	2804.8			1400GPM R
26 31W 14AA	O. E. HUTTON	184 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	52.0	2-62				1000GPM R
26 31W 18AD	MARION K. SALMANS	74.5	6	G	SD AND GR	PLEISTOCENE SER	CY.W	D,S			2835.9			
26 31W 21BC	H. KLEYSTEUBER	150 R	6	I	SD AND GR	PLIO-PLEIST SER	CY.W	D,S	95.3	2-63				
26 31W 23DA	F. W. CRONIN	89.8	5	G	SD AND GR	PLEISTOCENE SER	CY.W	D,S	86.4	10-40	2824.6			
26 31W 24AC	R. E. ANDREWS	191 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I						1000GPM R
26 31W 30AA	SCHOOL DISTRICT 78	97.2	6	G	SD AND GR	PLEISTOCENE SER	CY.W	COM,O	78.1	9-40		C		
26 31W 31CD	HENRY KLEYSTEUBER		16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	85.4	2-63	2840.9			1700GPM R
26 31W 36CA	B. O., W. A. RUNDELL	160 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	78.2	2-63	2817.1			1500GPM R

TABLE 2,--CONTINUED

WELL (1)	OWNER OR TENANT	DEPTH OF WELL (FEET) (2)	DIAM. OF WELL (FT OR IN)	CASING (3)	PRINCIPAL WATER-BEARING BED(S) CHARACTER OF MATERIAL (4)	GEOLOGIC SOURCE	METH. OF LIFT (5)	USE OF WATER (6)	DEPTH TO WATER LEVEL BELOW LSD (FT) (7)	DATE OF MEAS.	ELEV. OF LAND SURF. (FT)	CHEMICAL ANALYSIS (8)	REMARKS (9)
26 32W 2BA	C. BOWERS ET AL	222 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	52.6	2-63	2843.		2000GPM R
26 32W 3AB	TRINA MILLER	417 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	56 R		2848.1		2162GPM
26 32W 4BC	E. HINEMAN	207 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	60.1	9-60	2861.5		1100GPM R
26 32W 5AB	G. CRABB ET AL	350 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	67.9	9-60	2872.9		2600GPM R
26 32W 5BB	L. S. STRACKELJOHN	420 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	60 R		2875.8		1770GPM R
26 32W 6AB	HARRY LIGHTNER	340 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2872.		1700GPM R
26 32W 6AB3	HARRY LIGHTNER	140 R			SD AND GR	PLIO-PLEIST SER	T,NG	I					
26 32W 6CC	L. S. STRACKELJOHN	280 R	16		SD AND GR	PLIO-PLEIST SER	T,NG	I	62.5	9-60	2875.		
26 32W 6DD	L. S. STRACKELJOHN	378 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	60.3	2-63	2872.3		2200GPM R
26 32W 7AD	A. A. BARGER				SD AND GR	PLIO-PLEIST SER	T,NG	I	76.4	2-61	2881.9		
26 32W 10CB	GEORGE LIGHTNER	315 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	80.3	9-60	2868.		
26 32W 10DC	CLARENCE J. GIGOT				SD AND GR	PLIO-PLEIST SER	T,NG	I	84.9	9-60	2867.7		1800GPM R
26 32W 13CB	CLARENCE J. GIGOT				SD AND GR	PLIO-PLEIST SER	T,NG	I	123.	2-60	2896.		2000GPM R
26 32W 14DB	DAN OHMES	370 R	16		SD AND GR	PLIO-PLEIST SER	T,NG	I	135 R		2909.4		2100GPM R
26 32W 15DB	DEAN GIGOT	408 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	128.	2-60	2911.7	P	2500GPM R
26 32W 18AA	L. S. STRACKELJOHN	346 R	16		SD AND GR	PLIO-PLEIST SER	T,NG	I	81 R		2884.		2000GPM R
26 32W 19DB	C. C. CRAUSE	310 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2918.		1526GPM R
26 32W 21AC	M. K. SALMANS	196 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	122 R		2906.		2000GPM R
26 32W 21BB	M. K. SALMANS	380 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	120 R		2906.		2000GPM R
26 32W 22AB	ALOYSIUS OHMES				SD AND GR	PLIO-PLEIST SER	T,NG	I	114.	2-63	2899.		1500GPM R
26 32W 22BC	LENA HEIMAN	400 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	95 R		2893.		1305GPM R
26 32W 24BB	CLARENCE J. GIGOT	335 R	16	O	SD AND GR	PLIO-PLEIST SER	T,NG	I	100 R	11-50	2875.	P	2000GPM R
26 32W 25BB	P. L. HOLDERNESS EST	380 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I			2849.		1800GPM R
26 32W 26CD	O. M. DUSING EST.	291 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	93 R		2862.		1500GPM R
26 32W 30BC	L. S. STRACKELJOHN	375 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	115.	9-61	2818.7		2000GPM
26 32W 31BC	CECIL SNODGRASS	120.5	6	G	SD AND GR	PLEISTOCENE SER	CY:W	D,S	98.2	9-40	2897.	C	
26 32W 31CC	CECIL SNODGRASS	345 R	16		SD AND GR	PLIO-PLEIST SER	T,NG	I	110.	8-61	2907.2	C	1250GPM R
26 32W 32BD	LOUIS LOBMEYER	305 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	80 R		2880.		865GPM R
26 32W 35CD	D. LEAR ET AL	320 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	94.5	2-63	2863.7		2000GPM R
26 33W 1AC	CALVIN OLOMAN	211 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	82 R		2903.		1800GPM R
26 33W 3DB	SAM F. HANDS	265 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	56.6	2-63	2886.2	P	1900GPM R
26 33W 9AA	SCHOOL DISTRICT	78.2	6	G	SD AND GR	PLEISTOCENE SER	CY:W	PS	62.9	9-40	2901.	C	
26 33W 9AA2	F. A. STONE	190 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	63 R	5-56	2902.		1400GPM R
26 33W 10BA	M. B. HANDS	320 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	64 R		2895.		2000GPM R
26 33W 10CC	FRED DRUSSEL				SD AND GR	PLIO-PLEIST SER	T,NG	I				P	
26 33W 10DD	V. V. HANDS EST.	325 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	66 R		2892.	P	1865GPM R
26 33W 11BA	RUTH BALL	87.7	6	G	SD AND GR	PLEISTOCENE SER	CY:E	D	71.2	9-40	2891.		
26 33W 12AB	RUTH BALL	410 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	71.1	2-63	2885.5		1800GPM R
26 33W 12CA	MARIAN MEYER	355 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	69.6	2-63	2886.1		2300GPM R
26 33W 13DC	VINITA S. JOHNSON	350 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	107 R		2917.	P	2000GPM R
26 33W 17AC	W. F. STONE	200 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	62.6	2-63	2902.	P	1200GPM R

TABLE 2.--CONTINUED

WELL (1)	OWNER OR TENANT	DEPTH OF WELL (FEET) (2)	DIAM. OF WELL (FT OR IN)	CTAYOSPFIENG (3)	PRINCIPAL WATER-BEARING BED(S) CHARACTER OF MATERIAL (4)	GEOLOGIC SOURCE	METH. OF LIFT (5)	USE OF WATER (6)	DEPTH TO WATER LEVEL BELOW LSD (FT) (7)	DATE OF MEAS.	ELEV. OF LAND SURF. (FT)	CHEM DATA (8)	REMARKS (9)
26 33W 19DA	F. A. STONE	200 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG		99 R		2940.	C	1400GPM R
26 33W 26AB	C. J. VOTH	340 R	16	I	SD AND GR	PLIO-PLEIST SER	T,NG	I	117.	2-63	2929.	P	1500GPM R
26 33W 31CB	JOHN ADAMS	132.	3	I	SD AND GR	PLEISTOCENE SER	N	O	101.	2-63	2948.		
26 33W 36DD	U.S.G.S.	145 R	1	I	SD AND GR	PLIO-PLEIST SER	N	T,O	111.	2-63	2905.		
26 34W 2BB	L. L. JONES EST.	84.	6	I	SD AND GR	PLEISTOCENE SER	CY,W	S	76.0	2-63	2951.		
26 34W 7CA	M. L. JACOBS	101.	6	I	SD AND GR	PLEISTOCENE SER	CY,W	S	71.3	9-62	2971.		
26 34W 21AA	F. A. STONE	95.	6	I	SD AND GR	PLEISTOCENE SER	CY,W	S	90.1	2-63	2950.		
26 34W 30BD	W. KUHN	195.	6	I	SD AND GR	PLEISTOCENE SER	CY,W	S	131.	9-63	3005.		

(1) WELL-NUMBERING SYSTEM DESCRIBED IN TEXT.

(2) MEASURED DEPTHS OF WELLS GIVEN IN FEET AND TENTHS BELOW LAND SURFACE/ R, REPORTED/ E, ESTIMATED.

(3) B, BRICK/ C, CONCRETE/ G, GALVANIZED/ I, IRON, BLACK/ N, NONE/ O, OIL BARREL/ P, PLASTIC/ R, ROCK/ S, STEEL/ T, TILE/ A, ALUMINUM/ E, CONTACT SPRING/ H, FRACTURE SPRING/ U, SOLUTION SPRING.

(4) SS, SANDSTONE/ LS, LIMESTONE/ SH, SHALE/ DOL, DOLOMITE/ GYP, GYPSUM/ SD, SAND/ GR, GRAVEL/ ST, SILT/ CL, CLAY/ AL, ALLUVIUM/ IG, IGNEOUS/ META, METAMORPHIC.

(5) METHOD OF LIFT--C, CENTRIFUGAL/ CY, CYLINDER/ T, TURBINE/ B, BUCKET/ AL, AIRLIFT/ EC, ENDLESS CHAIN/ SUB, SUBMERSIBLE.
TYPE OF POWER--E, ELECTRIC/ H, HAND/ W, WIND/ G, GASOLINE/ NG, NATURAL GAS/ LPG, LIQUID PETROLEUM GAS/ D, DIESEL/ T, TRACTOR/ IC, INTERNAL COMBUSTION.

(6) D, DOMESTIC/ S, STOCK/ I, IRRIGATION/ ID, INDUSTRIAL/ PS, PUBLIC SUPPLY/ O, OBSERVATION/ N, NONE/ T, TEST/ COM, COMMERCIAL.

(7) MEASURED DEPTHS GIVEN IN FEET AND TENTHS / R, REPORTED/ E, ESTIMATED/ P, PUMPING/ +, FEET ABOVE LAND SURFACE.

(8) C, COMPLETE/ P, PARTIAL/ L, CHLORIDE/ K, CONDUCTANCE/ A, SERIES OF COMPLETES/ S, SERIES OF PARTIALS/ D, SERIES OF COMPLETES AND PARTIALS/ B, BACTERIOLOGICAL/ E, BACTERIOLOGICAL AND COMPLETE/ R, RADIOCHEMICAL.

(9) YIELD--GPM, GALLONS PER MINUTE/ GPD, GALLONS PER DAY/ R, REPORTED/ E, ESTIMATED.
DRAWDOWN--IN FEET.

TABLE 3.--ANALYSES OF WATER FROM TYPICAL WELLS IN FINNEY COUNTY, KANSAS
DISSOLVED CONSTITUENTS AND HARDNESS GIVEN IN MILLIGRAMS PER LITER(A).

WELL NUMBER	(B) DEPTH, FEET	GEOLOGIC SOURCE	DATE OF COLLECTION	TEMPERATURE (°C)	DISSOLVED SOLIDS (EVAPORATED AT 180°C)	SILICA (SIO2)	IRON (FE)	MANGANESE (MN)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM AND POTASSIUM (NA+K)	BICARBONATE (HCO3)	SULFATE (SO4)	CHLORIDE (CL)	FLUORIDE (F)	(C) NITRATE (NO3)	HARDNESS AS CACO3 TOTAL	HARDNESS AS CACO3 CARBONATE	HARDNESS AS CACO3 NON CARBONATE	SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C)	PH	(D) ANALYST
21 27W 9CC	100	NIOBRARA CHALK	10 14 40	15	259	....	.44	....	57	17	18	228	27	38	1.4	8.0	213	207	6	.....	....	1
21 27W 16BB	640	L CRETACEOUS SER	4 19 62	...	594	8.0	.13	....	18	7.0	199	254	126	106	2.6	2.2	74	74	0	990	....	1
21 30W 5BB	44	PLIO-PLEIST SER	10 17 40	14	509	....	.09	....	101	24	53	347	99	50	.9	7.1	350	284	66	.....	....	1
21 31W 3CC	75	NIOBRARA CHALK	4 20 62	...	402	27	.09	.00	74	26	34	310	13	23	.5	53	292	254	38	680	....	1
21 32W 20CB	203	PLIO-PLEIST SER	10 12 60	...	434	31	.01	.00	38	36	61	261	109	27	3.6	.0	243	214	29	760	....	1
21 33W 13BA	40	PLEISTOCENE SER	10 17 40	14	422	....	.99	....	47	26	73	290	104	21	2.2	2.9	227	227	0	.....	....	1
21 34W 21AD	85	NIOBRARA CHALK	10 17 40	14	290	....	.28	....	54	25	20	266	35	12	1.0	9.3	238	218	20	.....	....	1
21 34W 36AC	55	PLIO-PLEIST SER	10 26 40	14	444	....	.17	....	56	31	50	245	121	46	1.6	5.8	293	201	92	.....	....	1
22 28W 25CC	490	L CRETACEOUS SER	5 5 64	18	2493	9.0	6.9	.16	136	160	485	522	1155	282	4.0	5.3	997	428	569	3470	7.6	1
22 29W 12BC	19	ALLUVIUM	10 23 40	15	917	....	2.0	....	137	67	56	390	379	38	1.2	22	671	320	351	.....	....	1
22 30W 29BC	70	PLIO-PLEIST SER	10 17 40	15	499	....	1.8	....	77	32	50	217	195	27	2.3	3.1	327	182	145	.....	....	1
22 31W 32DB	234	PLIO-PLEIST SER	4 20 62	...	438	42	.01	.00	60	25	53	234	107	26	1.4	8.0	252	192	60	690	....	1
22 32W 27BB	94	PLEISTOCENE SER	10 17 40	15	385	....	5.2	....	53	24	40	227	105	27	1.6	5.3	265	186	79	.....	....	1
22 34W 25AB	200	PLIO-PLEIST SER	4 20 62	...	371	24	.01	.00	58	23	38	200	87	30	.8	12	239	164	75	620	....	1
23 27W 4AB	400	L CRETACEOUS SER	8 22 53	...	.....	....	.....	....	.....	.....	.....	....	.....	90	6.0	2.2	66	....	....	.....	....	1
23 27W 4AB	400	L CRETACEOUS SER	5 5 64	19	765	8.0	.24	.00	6.4	2.0	280	346	209	81	6.5	2.4	24	24	0	1270	7.9	1
23 27W 21DA	140	PLIO-PLEIST SER	10 14 40	15	285	....	.35	....	51	24	21	228	48	17	1.4	8.0	226	187	39	.....	....	1
23 29W 11DD	97	PLIO-PLEIST SER	10 14 40	15	271	....	.61	....	37	23	35	224	29	25	3.3	5.8	188	183	5	.....	....	1
23 30W 19CC	205	PLIO-PLEIST SER	9 29 60	...	360	25	1.8	.00	45	29	36	210	87	23	3.2	8.4	231	172	59	630	....	1
23 32W 19CB2	193	PLIO-PLEIST SER	4 29 63	...	410	25	.34	.00	53	31	41	234	107	22	1.4	14	260	192	68	630	....	1
23 32W 20CC	24	PLEISTOCENE SER	10 26 40	15	1500	....	.44	....	183	122	130	250	786	147	2.1	4.8	959	205	754	.....	....	1
23 32W 20DC	261	PLIO-PLEIST SER	11 19 60	...	465	24	.01	.00	73	34	34	239	138	31	1.0	12	322	196	126	790	....	1
23 32W 32CB	165	PLIO-PLEIST SER	10 10 60	...	2182	25	.01	.00	280	151	195	237	1191	211	1.3	11	1319	194	1125	3010	....	1
23 33W 9CD	261	PLIO-PLEIST SER	10 10 60	...	419	22	.01	.00	54	29	36	232	117	24	1.0	12	278	190	88	740	....	1
23 33W 18CC	68	PLEISTOCENE SER	10 18 40	14	1180	....	.29	....	118	93	142	246	558	135	2.3	8.4	677	202	475	.....	....	1
23 33W 22BB	299	PLIO-PLEIST SER	2 21 61	...	402	22	.77	.00	56	32	35	232	107	26	1.0	8.9	271	190	81	710	....	1
23 33W 35DD	240	PLIO-PLEIST SER PLEISTOCENE SER	10 15 40	15	1576	....	.06	....	207	81	186	246	867	97	1.1	14	850	202	648	.....	....	1
23 33W 36DC	327	PLIO-PLEIST SER	2 21 61	...	1362	22	.01	.0	174	62	176	242	706	90	1.0	12	689	198	491	2050	....	1
23 34W 26CB	305	PLIO-PLEIST SER	4 11 68	16	1804	22	.05	.00	235	137	138	200	1018	138	1.1	16	1150	164	986	2350	7.8	1
23 34W 26CC	309	PLIO-PLEIST SER	11 20 67	14	1643	20	.08	.00	250	94	134	181	932	113	.9	10	1010	148	862	2130	7.8	1
23 34W 26DC	320	PLIO-PLEIST SER	4 11 68	16	2005	22	.08	.00	282	112	188	210	1144	139	.8	14	1164	172	992	2550	7.6	1
24 31W 14DD	265	PLIO-PLEIST SER	4 23 62	...	518	33	.10	.0	70	29	67	244	159	31	1.1	8.0	294	200	94	830	....	1
24 31W 31BB	32	ALLUVIUM	10 15 40	16	1158	....	.02	....	120	50	195	290	596	43	1.4	8.0	505	238	267	.....	....	1
24 32W 3DB	230	PLIO-PLEIST SER	2 21 61	...	967	23	.01	.00	117	65	104	254	456	64	1.0	12	559	208	351	1520	....	1

TABLE 3.--ANALYSES OF WATER FROM TYPICAL WELLS IN FINNEY COUNTY, KANSAS CONTINUED

WELL NUMBER	(B) DEPTH, FEET	GEOLOGIC SOURCE	DATE OF COLLECTION	TEMPERATURE (°C)	DISSOLVED SOLIDS (EVAPORATED AT 180°C)	SILICA (SIO2)	IRON (FE)	MANGANESE (MN)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM AND POTASSIUM (NA+K)	BICARBONATE (HCO3)	SULFATE (SO4)	CHLORIDE (CL)	FLUORIDE (F)	(C) NITRATE (NO3)	HARDNESS AS CACO3 TOTAL	HARDNESS AS CACO3 CARBONATE	HARDNESS AS CACO3 NONCARBONATE	SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C)	PH	(D) ANALYST
24 32W 7DA	197	OGALLALA FM	6 20 49	...	367	6.6	2.6	.00	54	19	46	210	105	17	.7	8.0	212	172	40	.....	7.9	1
24 32W 7DA	197	OGALLALA FM	8 25 52	...	985	18	.08	.00	119	45	116	222	434	59	.8	19	482	182	300	.....	7.7	1
24 32W 7DA	197	OGALLALA FM	7 13 53	...	864	19	.04	.00	105	39	107	224	370	52	.8	15	422	184	238	.....	7.6	1
24 32W 7DA	197	OGALLALA FM	5 10 54	...	530	19	.05	.00	82	15	74	217	189	28	.8	13	266	178	88	.....	7.7	1
24 32W 7DA	197	OGALLALA FM	7 21 58	...	548	19	.04	....	67	26	79	210	213	29	.8	11	274	172	102	891	....	1
24 32W 7DC	258	OGALLALA FM	8 25 52	...	440	14	26	.0	61	21	54	211	141	19	.7	9.7	238	173	65	.....	8.0	1
24 32W 7DC	258	OGALLALA FM	6 3 59	...	419	18	.06	.00	58	23	51	207	139	19	.7	8.4	239	170	69	700	7.9	1
24 32W 7DC	258	OGALLALA FM	4 12 66	...	374	16	.03	.02	66	15	71	190	120	17	.7	6.6	226	156	70	590	7.9	1
24 32W 17BD	299	OGALLALA FM	2 4 52	...	385	13	8.1	.11	54	22	43	207	117	15	.7	6.6	225	170	55	.....	8.1	1
24 32W 17BD	299	OGALLALA FM	7 18 58	...	588	19	.08	....	89	31	59	190	250	37	.8	9.3	350	156	194	927	....	1
24 32W 17CA	277	OGALLALA FM	6 10 53	...	312	7.4	12	.00	51	16	37	196	77	18	.7	6.6	193	161	32	.....	7.8	1
24 32W 17CA	277	OGALLALA FM	10 30 54	...	590	18	.06	....	97	27	46	188	235	32	.8	9.3	358	159	199	.....	7.8	1
24 32W 17CA	277	OGALLALA FM	7 18 58	...	1315	18	.07	.00	226	62	99	179	711	93	.7	18	819	147	672	1862	7.6	1
24 32W 17CA	277	OGALLALA FM	6 4 59	...	568	19	.10	....	100	24	50	185	241	31	.7	11	348	152	196	900	....	1
24 32W 17DB2	280	OGALLALA FM	5 22 62	...	494	17	.02	.00	90	26	34	181	198	30	.6	8.9	332	148	184	740	7.6	1
24 32W 17DB2	280	OGALLALA FM	4 13 65	...	356	18	.00	.00	64	18	33	176	114	16	.7	5.8	234	144	90	570	7.6	1
24 32W 18BC	299	OGALLALA FM	3 23 50	...	321	15	.07	.00	56	14	32	188	82	13	.7	8.4	197	154	43	.....	7.7	1
24 32W 18BC	299	OGALLALA FM	8 25 52	...	324	13	.07	.09	56	13	32	195	76	12	.7	5.8	193	160	33	.....	8.0	1
24 32W 18BC	299	OGALLALA FM	7 18 58	...	312	18	.03	....	54	15	31	184	83	14	.7	5.8	196	151	45	530	....	1
24 32W 18BC	299	OGALLALA FM	4 19 63	...	444	34	.10	.06	76	18	45	185	160	17	.8	2.6	264	152	112	660	7.7	1
24 32W 18CC	280	OGALLALA FM	2 4 52	...	274	13	.08	.0	47	15	23	185	58	7.0	.7	5.8	178	152	26	.....	8.1	1
24 32W 18CC	280	OGALLALA FM	3 10 61	...	484	17	.01	....	83	21	46	183	199	20	.7	6.6	294	150	144	790	7.9	1
24 32W 18CC	280	OGALLALA FM	3 27 67	...	472	16	.03	.00	90	20	40	181	184	24	.6	8.0	306	148	158	740	7.9	1
24 32W 18DA	265	OGALLALA FM	8 25 52	...	338	11	3.5	....	57	15	32	185	93	14	.7	4.9	204	152	52	.....	7.9	1
24 32W 19CA	245	OGALLALA FM	10 24 61	...	229	19	5.8	.04	42	10	21	154	52	6.0	.6	2.7	146	126	20	380	....	1
24 32W 19CA	207	OGALLALA FM	10 27 61	...	225	20	.07	.00	39	10	23	163	36	8.0	.6	7.5	138	134	4	380	....	1
24 32W 19CA3	141	PLEISTOCENE SER	10 23 61	...	226	22	.68	.00	45	7.8	22	185	24	6.0	.6	7.1	144	144	0	370	....	1
24 32W 19CA3	92	PLEISTOCENE SER	10 31 61	...	431	21	.01	.00	92	16	22	134	181	30	.5	2.2	296	110	186	710	....	1
24 32W 19CA3	65	PLEISTOCENE SER	11 14 61	...	1094	18	.60	.05	188	37	107	149	570	95	.6	4.4	621	122	499	1610	....	1
24 32W 19CD	71	ALLUVIUM PLEISTOCENE SER	10 24 40	16	232	....	2.4	....	66	9.0	1.6	171	13	12	.3	42	206	140	66	.....	....	1
24 32W 21BA	45	ALLUVIUM	10 15 40	14	1753	....	.02	....	249	100	170	282	960	104	1.8	27	1033	231	802	.....	....	1
24 32W 21BA	45	ALLUVIUM	11 4 63	14	2866	16	.00	.00	323	130	414	242	1676	176	2.2	10	1340	198	1142	3530	....	1
24 32W 22DB	45	ALLUVIUM	5 19 61	13	3046	20	.01	.0	361	145	402	346	1720	186	2.0	40	1496	284	1212	3960	7.2	1
24 32W 25BD	230	OGALLALA FM	8 18 61	...	540	19	.12	.00	74	25	68	190	230	24	.6	5.3	288	156	132	870	8.0	1
24 32W 36AB	45	ALLUVIUM	5 19 61	13	3040	18	.01	.00	315	151	441	368	1744	155	1.3	34	1406	302	1104	3960	7.2	1

TABLE 3.--ANALYSES OF WATER FROM TYPICAL WELLS IN FINNEY COUNTY, KANSAS CONTINUED

WELL NUMBER	(B) DEPTH, FEET	GEOLOGIC SOURCE	DATE OF COLLECTION	TEMPERATURE (°C)	DISSOLVED SOLIDS (EVAPORATED AT 180°C)	SILICA (SIO2)	IRON (FE)	MANGANESE (MN)	CALCIUM (CA)	MAGNESIUM (MG)	SODIUM AND POTASSIUM (NA+K)	BICARBONATE (HCO3)	SULFATE (SO4)	CHLORIDE (CL)	FLUORIDE (F)	(C) NITRATE (NO3)	HARDNESS AS CACO3 TOTAL	HARDNESS AS CACO3 CARBONATE	HARDNESS AS CACO3 NONCARBONATE	SPECIFIC CONDUCTANCE (MICROMHOS AT 25°C)	PH	(D) ANALYST
24 33W 7BC2	220	PLIO-PLEIST SER	10 24 40	16	242	....	.02	....	43	17	23	194	50	7.0	.9	4.0	178	159	19	.....	....	1
24 33W 7DB	40	ALLUVIUM	5 19 61	14	3098	13	.01	.00	330	146	451	333	1827	157	1.2	9.3	1424	273	1151	4040	7.2	1
24 33W 8DB	35	ALLUVIUM	10 18 40	15	2442	....	.07	....	342	99	297	275	1413	140	1.2	12	1261	225	1036	.....	....	1
24 33W 12CB	45	ALLUVIUM	10 16 40	14	3197	....	.04	....	336	165	390	264	1920	178	2.5	23	1641	216	1425	.....	....	1
24 33W 12CB	45	ALLUVIUM	5 7 64	14	2871	17	.00	.00	360	134	368	334	1620	168	1.8	38	1448	274	1174	3530	....	1
24 33W 13AA	280	OGALLALA FM	6 30 49	...	495	16	.32	.00	58	23	72	222	157	25	.8	16	239	182	57	.....	7.9	1
24 33W 13AA	309	OGALLALA FM	2 4 52	...	382	16	.30	.00	57	21	35	198	110	14	.7	6.6	228	162	66	.....	8.1	1
24 33W 13AA	309	OGALLALA FM	7 13 53	...	366	7.2	.04	.00	57	19	43	204	108	18	.8	8.0	220	167	53	.....	7.7	1
24 33W 13AA	309	OGALLALA FM	6 3 59	...	372	18	.05	.02	60	17	42	203	113	13	.7	8.0	220	166	54	620	7.8	1
24 33W 13CA2	60	ALLUVIUM	5 19 61	16	3020	18	.02	.00	367	120	423	298	1776	162	1.3	5.8	1408	244	1164	3880	7.4	1
24 33W 13CD	46	ALLUVIUM	10 16 40	14	2196	....	.01	....	246	101	316	246	1281	124	1.2	.....	1029	202	827	.....	....	1
24 33W 13DA	324	OGALLALA FM	6 30 55	...	266	19	.05	.00	47	12	31	188	58	10	.6	4.2	166	154	12	.....	7.8	1
24 33W 13DA	324	OGALLALA FM	6 27 58	...	439	16	.12	.00	69	19	53	210	153	20	.7	5.3	250	172	78	691	8.0	1
24 33W 13DA	324	OGALLALA FM	6 3 59	...	262	17	.04	....	51	9.0	27	185	53	8.0	.7	4.4	164	152	12	440	7.9	1
24 33W 14CA	42	ALLUVIUM	5 7 64	14	3423	12	.01	.00	364	159	512	305	2028	182	1.4	15	1562	250	1312	4300	7.4	1
24 34W 1BC	295	PLIO-PLEIST SER	5 7 64	16	688	20	.00	.00	88	38	85	210	290	45	.8	18	376	172	204	1010	7.3	1
24 34W 2AD	81	ALLUVIUM	10 14 40	15	1811	....	.03	....	212	107	219	253	996	130	1.4	19	969	208	761	.....	....	1
24 34W 3BC	50	ALLUVIUM	10 15 40	16	1743	....	.06	....	193	107	213	190	988	133	1.6	12	922	156	766	.....	....	1
24 34W 16BB	35	ALLUVIUM	10 18 40	17	2216	....	.27	....	307	101	253	263	1288	107	1.4	27	1182	215	967	.....	....	1
24 34W 17BA	45	ALLUVIUM	11 4 63	...	3269	16	.0	.0	370	144	457	181	1988	175	1.3	39	1515	148	1367	3960	....	1
24 34W 25AA	52	PLEISTOCENE SER	10 18 40	16	272	....	.20	....	74	12	6.2	217	16	12	.4	43	235	178	57	.....	....	1
25 31W 13CA2	180	PLIO-PLEIST SER	4 10 56	...	274	20	.10	....	45	15	29	202	50	9.0	.7	4.9	174	166	8	.....	....	1
25 31W 15DC	25	ALLUVIUM	10 15 40	16	249	....	.08	....	71	8.2	6.4	188	6.8	22	.2	40	211	154	57	.....	....	1
25 33W 1DC	394	PLIO-PLEIST SER	10 19 61	...	223	25	.81	.00	38	13	16	151	42	7.0	.5	7.1	148	124	24	390	....	1
25 33W 1DC	245	PLIO-PLEIST SER	10 20 61	...	249	21	.96	.00	45	8.8	27	171	46	7.0	.5	8.9	148	140	8	420	....	1
25 33W 1DC2	145	PLIO-PLEIST SER	10 24 61	...	221	21	.11	.00	53	7.8	13	190	22	6.0	.5	4.2	164	156	8	390	....	1
25 33W 1DC2	95	PLIO-PLEIST SER	11 15 61	...	202	23	.45	.12	48	7.8	8.5	161	21	8.0	.5	5.3	152	132	20	340	....	1
25 33W 24AA	282	PLIO-PLEIST SER	11 14 61	...	215	20	.38	.00	37	8.6	25	168	26	6.0	.4	9.3	128	128	0	370	....	1
26 31W 30AA	97	PLEISTOCENE SER	10 16 40	16	215	....	.04	....	53	8.3	17	203	21	3.5	.3	10	166	166	0	.....	....	1
26 32W 26C	205	PLIO-PLEIST SER	4 29 63	...	214	17	.09	.00	50	9.0	15	185	20	7.0	.3	4.9	162	152	10	370	....	1
26 32W 31BC	121	PLEISTOCENE SER	10 16 40	16	178	....	2.9	....	52	8.2	3.9	184	9.5	3.5	.3	5.3	163	151	12	.....	....	1
26 32W 31CC	345	PLIO-PLEIST SER	4 29 63	...	214	17	.09	....	50	9.0	15	185	20	7.0	.3	4.9	162	152	10	370	....	1
26 33W 9AA	78	PLEISTOCENE SER	10 18 40	16	196	....	1.1	....	56	11	3.2	207	13	2.5	.3	4.9	187	170	17	.....	....	1
26 33W 19DA	200	PLIO-PLEIST SER	4 10 68	16	232	19	.02	.00	61	6.8	13	200	16	11	.3	7.1	180	164	16	380	7.6	1

° = DEGREE SYMBOL

A. ONE MILLIGRAM PER LITER IS EQUIVALENT TO ONE POUND OF SUBSTANCE PER MILLION POUNDS OF WATER OR 8.33 POUNDS PER MILLION GALLONS OF WATER.

B. COMP - COMPOSITE SAMPLE FROM 2 OR MORE WELLS.

C. IN AREAS IN WHICH THE NITRATE CONTENT OF WATER IS KNOWN TO EXCEED 45 MG/L, THE PUBLIC SHOULD BE WARNED OF THE POTENTIAL DANGERS OF USING THE WATER FOR INFANT FEEDING (U.S. PUBLIC HEALTH SERVICE, 1962, P.7)

D. ANALYST

1. ENVIRONMENTAL HEALTH SERVICES OF THE KANSAS STATE DEPARTMENT OF HEALTH.
2. U. S. GEOLOGICAL SURVEY.

Table 4.--Summary of information from selected drillers' and sample logs, Finney County, Kans. Depths shown are to the base of the geologic formation or to the bottom of the test hole.

* *Descriptive log in report.*
e, *Estimated from topographic maps.*
TQu, *Undifferentiated Tertiary and Quaternary deposits.*
Qu, *Undifferentiated Pleistocene deposits*
To, *Ogallala Formation*
Kn, *Niobrara Chalk.*
Kc, *Carlile Shale.*
Kgn, *Greenhorn Limestone*
Kgr, *Graneros Shale.*
Ku, *Undifferentiated Lower Cretaceous deposits.*
Jm(?), *Morrison(?) Formation*

Well number	Owner	Driller	Surface altitude	Tertiary and Quaternary			Upper Cretaceous				Lower Cretaceous	Upper Jurassic Morrison(?) Formation
				TQu	Qu	To	Kn	Kc	Kgn	Kgr	Ku	Jm(?)
20-34-32cd*	U.S. Geol. Survey	Kansas Geol. Survey	3,089	119	--	--	219	270	--	--	--	--
21-29-33cd*	Pan American Petrol. Corp.	Seismic shot hole	2,653	16	--	--	49	74	--	--	--	--
21-30-10aa*	U.S. Geol. Survey	Kansas Geol. Survey	2,840e	61	--	--	90	--	--	--	--	--
21-31- 9aa*	do	do	2,920e	118	--	--	130	--	--	--	--	--
30dd*	do	do	2,920e	132	--	--	150	--	--	--	--	--
21-32- 5bb	W. R. Hall	Western Drilling Co.	2,915	145	--	--	150	--	--	--	--	--
8ab3*	U.S. Geol. Survey	Kansas Geol. Survey	2,910	--	123	--	150	--	--	--	--	--
8db	C. C. Spikes Est.	Western Drilling Co.	2,911	148	--	--	150	--	--	--	--	--
9bc	Wesley Sterling	Henkle Drilling & Supply Co., Inc.	2,910	120	--	--	--	--	--	--	--	--
16ba*	George Schriener	do	2,913	140	--	--	143	--	--	--	--	--
21cd*	Wesley Sterling	do	2,907	148	--	--	150	--	--	--	--	--
22bc	Roger and Norman Landgraf	do	2,933	129	--	--	130	--	--	--	--	--
23da	A. E. Landgraf	do	2,961	149	--	--	150	--	--	--	--	--
28ca	F. M. Greathouse	do	2,909	190	--	--	191	--	--	--	--	--
29db*	J. E. Greathouse	do	2,902	215	--	--	216	--	--	--	--	--
32bd	J. K. Greathouse	do	2,903	218	--	--	223	--	--	--	--	--
33ab	F. M. Greathouse	do	2,922	180	--	--	--	--	--	--	--	--
35da	A. E. Landgraf	do	2,938	208	--	--	209	--	--	--	--	--

Table 4.--Summary of information from selected drillers' and sample logs, Finney County, Kans.--*Continued.*

Well number	Owner	Driller	Surface altitude	Tertiary and Quaternary			Upper Cretaceous				Lower Cretaceous	Upper Jurassic Morrison(?) Formation
				TQu	Qu	To	Kn	Kc	Kgn	Kgr	Ku	Jm(?)
21-33- 1db	E. F. Ware	Henkle Drilling & Supply Co., Inc.	2,911	195	--	--	--	?	--	--	--	--
2ac2*	U.S. Geol. Survey	Kansas Geol. Survey	2,915e	--	174	--	180	--	--	--	--	--
3cb	G. C. Stover	Henkle Drilling & Supply Co., Inc.	2,929	155	--	--	160	--	--	--	--	--
3cd	do	Weishaar & Son	2,920e	158	--	--	?	--	--	--	--	--
11aa*	J. A. Hipp	Kenny Minter Water Wells	2,902	166	--	--	170	--	--	--	--	--
18bb	John Crist	Western Drilling Co.	2,918	121	--	--	122	--	--	--	--	--
26da*	Gano Est.	Henkle Drilling & Supply Co., Inc.	2,898	176	--	--	205	--	--	--	--	--
31cc*	Raymond Crist	Western Drilling Co.	2,895	97	--	--	120	--	--	--	--	--
35ab	Gano Est.	do	2,892	175	--	--	--	--	--	--	--	--
35dc*	do	Henkle Drilling & Supply Co., Inc.	2,882	220	--	--	225	--	--	--	--	--
21-34- 1da	A. L. Buerkle	do	2,945e	76	--	--	82	--	--	--	--	--
14cb*	Raymond Kester	do	2,957	123	--	--	?	--	--	--	--	--
15dd	John Wampler	Western Drilling Co.	2,970	68	--	--	145	--	--	--	--	--
16ab2	V. Nichols	E. L. Gestenslager	2,990	120	--	--	?	--	--	--	--	--
17cd*	Kansas Nebraska Gas Co.	C. K. Minter	3,009	55	--	--	130	262	--	--	--	--
29ca	Ralph Haflich	Western Drilling Co.	2,995e	77	--	--	?	--	--	--	--	--
35cc*	Bill Frisby	Kenny Minter Water Wells	2,910	129	--	--	140	--	--	--	--	--
22-29-12ab*	U.S. Geol. Survey	Kansas Geol. Survey	2,620e	65	--	--	--	70	--	--	--	--
22-30- 6cb*	F. H. Gordanier	K & M Drilling Co.	2,881	122	--	--	?	--	--	--	--	--
19bc*	Ted Friesen	Henkle Drilling & Supply Co., Inc.	2,874	140	--	--	143	--	--	--	--	--
22-31-15ca*	Arthur Winters	do	2,890e	170	--	--	175	--	--	--	--	--
16ad	do	do	2,905	182	--	--	185	--	--	--	--	--

Table 4.--Summary of information from selected drillers' and sample logs, Finney County, Kans.--*Continued.*

Well number	Owner	Driller	Surface altitude	Tertiary and Quaternary			Upper Cretaceous				Lower Cretaceous	Upper Jurassic Morrison(?) Formation
				TQu	Qu	To	Kn	Kc	Kgn	Kgr	Ku	Jm(?)
22-31-27cd	Jesse Scott, Jr.	Western Drilling Co.	2,884	215	--	--	?	--	--	--	--	--
29db	William Lewis	Swearengen Drilling Co.	2,909	235	--	--	240	--	--	--	--	--
32db2*	U.S. Geol. Survey	Kansas Geol. Survey	2,930	--	162	232	240	--	--	--	--	--
22-32- 4cc	Ralph Greathouse, Jr.	Henkle Drilling & Supply Co., Inc.	2,890	213	--	--	215	--	--	--	--	--
4dd	Edward Hughes	Western Drilling Co.	2,938	224	--	--	225	--	--	--	--	--
5db	Ralph Greathouse, Jr.	Henkle Drilling & Supply Co., Inc.	2,891	200	--	--	--	--	--	--	--	--
6dd*	U.S. Geol. Survey	Kansas Geol. Survey	2,878	240	--	--	274	280	--	--	--	--
8ac	Ralph Greathouse, Jr.	Henkle Drilling & Supply Co., Inc.	2,885	210	--	--	--	--	--	--	--	--
16ca	Chester Ulrich	Western Drilling Co.	2,899	200	--	--	221	--	--	--	--	--
21cc	Naomi Hett	Henkle Drilling & Supply Co., Inc.	2,901	200	--	--	?	--	--	--	--	--
21dc*	do	Western Drilling Co.	2,911	200	--	--	210	--	--	--	--	--
22-33- 5bc	Garden City Co.	Henkle Drilling & Supply Co., Inc.	2,895	134	--	--	145	--	--	--	--	--
8bb*	U.S. Geol. Survey	Kansas Geol. Survey	2,892	142	--	--	--	150	--	--	--	--
13aa*	do	do	2,885	208	--	--	--	290	--	--	--	--
17dc	Frederick Finnup	K & M Drilling Co.	2,905	170	--	--	--	?	--	--	--	--
18cc2	Garden City Co.	Henkle Drilling & Supply Co., Inc.	2,913	155	--	--	--	163	--	--	--	--
20bc*	do	do	2,905	205	--	--	--	?	--	--	--	--
22ba	E. A. Walters	Western Drilling Co.	2,890e	195	--	--	--	?	--	--	--	--
22db	B. J. Vance	do	2,876e	190	--	--	--	?	--	--	--	--
24dd	L. L. Holsted	Henkle Drilling & Supply Co., Inc.	2,858	215	--	--	--	?	--	--	--	--
25bd	do	do	2,860	210	--	--	--	?	--	--	--	--
26ac	George Meeker	do	2,872	220	--	--	--	?	--	--	--	--
30ac	Garden City Co.	do	2,912	248	--	--	--	?	--	--	--	--
35bc*	L. L. Holsted	do	2,871	235	--	--	--	--	--	--	--	--
35ca	do	do	2,869	215	--	--	--	--	--	--	--	--
36bc	Peter Mai	do	2,868	250	--	--	--	?	--	--	--	--

Table 4.--Summary of information from selected drillers' and sample logs, Finney County, Kans.--*Continued.*

Well number	Owner	Driller	Surface altitude	Tertiary and Quaternary			Upper Cretaceous				Lower Cretaceous	Upper Jurassic Morrison(?) Formation
				TQu	Qu	To	Kn	Kc	Kgn	Kgr	Ku	Jm(?)
22-34- 7dc	Fred Casterline	Kenny Minter Water Wells	2,988	169	--	--	--	172	--	--	--	--
8db	W. C. Hamilton	Henkle Drilling & Supply Co., Inc.	2,970	170	--	--	--	?	--	--	--	--
9cc	A. E. Cook	do	2,960e	154	--	--	--	155	--	--	--	--
10aa	M. K. Salmans	K & M Drilling Co.	2,934	165	--	--	--	175	--	--	--	--
12bb*	E. W. Henkle	Henkle Drilling & Supply Co., Inc.	2,913	136	--	--	--	345	420	510	740	887
13cc	Jay Shumway	do	2,924	143	--	--	--	?	--	--	--	--
13dc	M. L. Barlow	do	2,916	146	--	--	--	147	--	--	--	--
15cc	K. E. Sentney	Kenny Minter Water Wells	2,946	165	--	--	--	170	--	--	--	--
15db	A. E. Cook	Western Drilling Co.	2,940	157	--	--	--	170	--	--	--	--
16ac	John Boyd	Henkle Drilling & Supply Co., Inc.	2,954	180	--	--	--	182	--	--	--	--
18ab	N. F. Hampton	Kenny Minter Water Wells	2,986	185	--	--	--	186	--	--	--	--
18cd	Kenneth Burg	Henkle Drilling & Supply Co., Inc.	2,990	184	--	--	--	--	--	--	--	--
19ab*	Loren Combs	do	2,990e	240	--	--	--	246	--	--	--	--
19cd	William Turrentine	do	2,991	200	--	--	--	205	--	--	--	--
20bc	Kenneth Burg	do	2,977	214	--	--	--	215	--	--	--	--
21bc	Ben Evans	do	2,960	215	--	--	--	218	--	--	--	--
22cb	R. E. Werner	Kenny Minter Water Wells	2,944	181	--	--	--	185	--	--	--	--
22db	Lena Thrasher	do	2,945e	180	--	--	--	185	--	--	--	--
24cc	Ruth Bump	Henkle Drilling & Supply Co., Inc.	2,930	178	--	--	--	180	--	--	--	--
25bb	Wilbur Ulrich	Western Drilling Co.	2,930	215	--	--	--	220	--	--	--	--
26bd	H. W. Clutter	Henkle Drilling & Supply Co., Inc.	2,940	230	--	--	--	?	--	--	--	--
26cb	Tresman Miller	Kenny Minter Water Wells	2,943	224	--	--	--	230	--	--	--	--
27cc	Dorothy Bailey	do	2,945	282	--	--	--	285	--	--	--	--
28cc	George Anderson	Henkle Drilling & Supply Co., Inc.	2,958	298	--	--	--	300	--	--	--	--

Table 4.--Summary of information from selected drillers' and sample logs, Finney County, Kans.--*Continued.*

Well number	Owner	Driller	Surface altitude	Tertiary and Quaternary			Upper Cretaceous				Lower Cretaceous	Upper Jurassic Morrison(?) Formation
				TQu	Qu	To	Kn	Kc	Kgn	Kgr	Ku	Jm(?)
22-34-29bb*	Kenneth Burg	Henkle Drilling & Supply Co., Inc.	2,978	228	--	--	--	231	--	--	--	--
31ab	A. E. Cook	do	2,991	275	--	--	--	278	--	--	--	--
31ca	E. W. Henkle	do	2,993	230	--	--	--	235	--	--	--	--
33bd	A. E. Cook	Western Drilling Co.	2,960	288	--	--	--	290	--	--	--	--
34ac	Mildred Henselman	Henkle Drilling & Supply Co., Inc.	2,943	290	--	--	--	?	--	--	--	--
34cb	A. E. Cook	Western Drilling Co.	2,965	322	--	--	--	330	--	--	--	--
36bc*	Ed Shrimplin	Henkle Drilling & Supply Co., Inc.	2,929	270	--	--	--	273	--	--	--	--
23-27-31cc*	U.S. Geol. Survey	Kansas Geol. Survey	2,730e	131	--	--	--	140	--	--	--	--
32cc	Lloyd Dewey	Loucks Bros.	2,710e	95	--	--	--	95	--	--	--	--
36dd	U.S. Geol. Survey	Kansas Geol. Survey	2,650e	68	--	--	120?	--	--	--	--	--
23-28-11cc*	do	do	2,705	79	--	--	--	120	--	--	--	--
23-29-31ac*	Ralph Haflich	Kenny Minter Water Wells	2,770e	123	--	--	--	155	--	--	--	--
36dd*	U.S. Geol. Survey	Kansas Geol. Survey	2,800e	190	--	--	--	200	--	--	--	--
23-30-19cc*	G. D. Golightly	Western Drilling Co.	2,870e	158	--	--	210	--	--	--	--	--
36dd*	U.S. Geol. Survey	Kansas Geol. Survey	2,780e	145	--	--	--	160	--	--	--	--
23-31-14db	Oliver Anderson	Western Drilling Co.	2,880e	220	--	--	?	--	--	--	--	--
27ac	Harold Carlson	Henkle Drilling & Supply Co., Inc.	2,890e	227	--	--	230	--	--	--	--	--
29cb*	C. C. Spikes	Western Drilling Co.	2,905e	234	--	--	240	--	--	--	--	--
31ab	do	Haasz Drilling Co.	2,912	257	--	--	266	--	--	--	--	--
32cb	J. T. Kerfoot	Kenny Minter Water Wells	2,910	245	--	--	260	--	--	--	--	--
32dd	Luke Rohleder	do	2,905e	254	--	--	255	--	--	--	--	--
35cc*	W. M. Snell	do	2,875	220	--	--	--	222	--	--	--	--
23-32 6bb*	U.S. Geol. Survey	Kansas Geol. Survey	2,857	235	--	--	--	245	--	--	--	--
7cb	do	do	2,869e	281	--	--	--	290	--	--	--	--

Table 4.--Summary of information from selected drillers' and sample logs, Finney County, Kans.--*Continued.*

Well number	Owner	Driller	Surface altitude	Tertiary and Quaternary			Upper Creatceous				Lower Cretaceous	Upper Jurassic Morrison(?) Formation
				TQu	Qu	To	Kn	Kc	Kgn	Kgr	Ku	Jm(?)
23-32-10ca	Wayne Pickett	Henkle Drilling & Supply Co., Inc.	2,921	230	--	--	?	--	--	--	--	--
11ca	Doris L. Boyd	Western Drilling Co.	2,932	255	--	--	?	--	--	--	--	--
13ca	J. S. Boyd	Henkle Drilling & Supply Co., Inc.	2,925e	246	--	--	--	--	--	--	--	--
19bc*	John Hawk	Minter Drilling Co.	2,879	320	--	--	--	--	--	--	--	--
23cc*	C. E. Boyd	Leslie Pelner	2,913	219	--	--	--	298?	--	--	--	--
27ba	Walter Goss	Kenny Minter Water Wells	2,910	300	--	--	--	--	--	--	--	--
31dd*	U.S. Geol. Survey	Kansas Geol. Survey	2,878	325	--	--	--	--	330	--	--	--
32ab	Ancel DeRemus	Henkle Drilling & Supply Co., Inc.	2,852	298	--	--	--	--	300	--	--	--
36ca	Frank McClure	Western Drilling Co.	2,921	268	--	--	--	270	--	--	--	--
23-33- 2db	Cleve Dean	do	2,878	286	--	--	--	290	--	--	--	--
5aa*	Pan American Petrol. Corp.	Helmerich & Payne	2,870	240	--	--	--	310	367	440	665	887
6ac	V. G. Baier	Henkle Drilling & Supply Co., Inc.	2,943	328	--	--	--	330	--	--	--	--
6bd	A. B. Corn	do	2,940	327	--	--	--	328	--	--	--	--
7bb2	F. D. Cormack	Western Drilling Co.	2,934	350	--	--	--	355	--	--	--	--
7cb	M. A. Meyers & J. H. Keller	Henkle Drilling & Supply Co., Inc.	2,928	328	--	--	--	330	--	--	--	--
18bb	C. A. Pfeifer	do	2,921	330	--	--	--	--	--	--	--	--
18cc2*	Garden City Co.	do	2,912	306	--	--	--	307?	--	--	--	--
19bb	do	do	2,915	305	--	--	--	--	307?	--	--	--
20bb*	V. G. Baier	do	2,902	314	--	--	--	317	--	--	--	--
21aa*	E. T. Borgman	do	2,896	315	--	--	--	316	--	--	--	--
22ac	H. W. Clutter Est.	do	2,896	357	--	--	--	358	--	--	--	--
23bb2	E. U Selsor	do	2,902	336	--	--	--	345	--	--	--	--
23bb	E. O. Stevenson	Ray Stevenson	2,892	333	--	--	--	340	--	--	--	--
24dc*	Ruby Olomon	Henkle Drilling & Supply Co., Inc.	2,880	328	--	--	--	329	--	--	--	--
26bb2*	E. C. Brookover	do	2,894e	337	--	--	--	345	--	--	--	--
26dc	Hubert Winget	do	2,883	349	--	--	--	350	--	--	--	--
27ca	Harold Stevenson	Ray Stevenson	2,900	324	--	--	--	330	--	--	--	--

Table 4.--Summary of information from selected drillers' and sample logs, Finney County, Kans.--*Continued.*

Well number	Owner	Driller	Surface altitude	Tertiary and Quaternary			Upper Cretaceous				Lower Cretaceous	Upper Jurassic Morrison(?) Formation
				TQu	Qu	To	Kn	Kc	Kgn	Kgr	Ku	Jm(?)
23-34- 1cc*	Kenneth Lyon	Henkle Drilling & Supply Co., Inc.	2,932	318	--	--	--	320	--	--	--	--
1dc	R. A. Leopold	do	2,932	337	--	--	--	339	--	--	--	--
2cb	F. D. Cormack, Jr.	do	2,937	308	--	--	--	310	--	--	--	--
4ac	J. O. Swearengen	do	2,955	269	--	--	--	270	--	--	--	--
7cc	George Meeker	do	2,978	323	--	--	--	330	--	--	--	--
7cd	do	do	2,978	333	--	--	--	--	355	--	--	--
9db	F. D. Cormack, Jr.	do	2,951	332	--	--	--	--	--	335	--	--
12ac	Truitt Adams	do	2,935	332	--	--	--	334	--	--	--	--
12dc	Bernard Krause	do	2,934	330	--	--	--	?	--	--	--	--
13dc	Garden City Co.	do	2,935	308	--	--	--	310?	--	--	--	--
14bd*	Ed Shrimplin	Kenney Minter Water Wells	2,940	330	--	--	--	--	--	332	--	--
14db	Garden City Co.	Henkle Drilling & Supply Co., Inc.	2,938	318	--	--	--	--	--	319	--	--
15ac	do	do	2,948	316	--	--	--	--	--	?	--	--
16cb*	do	do	2,979	375	--	--	--	--	--	--	--	--
17bb*	do	do	2,975e	343	--	--	--	--	344	--	--	--
20ab	do	do	2,975e	348	--	--	--	--	--	355	--	--
20db	do	do	2,975e	345	--	--	--	--	--	350	--	--
21ba	do	do	2,975e	358	--	--	--	--	--	360	--	--
21cb	William Turrentine	do	2,972	336	--	--	--	--	--	337	--	--
22cc	Garden City Co.	do	2,957	360	--	--	--	--	--	365	--	--
23cb	do	do	2,930e	320	--	--	--	--	--	--	--	--
24bb	do	do	2,936	346	--	--	--	--	--	347	--	--
25aa	do	do	2,928	346	--	--	--	--	--	348	--	--
25cc	do	do	2,932	323	--	--	--	--	--	328	--	--
26cc	do	do	2,947	348	--	--	--	--	--	350	--	--
26dc	do	do	2,953	345	--	--	--	--	--	346	--	--
27bd	do	do	2,964	370	--	--	--	--	--	372	--	--
28cd	do	do	2,966	365	--	--	--	--	--	370	--	--
30ab	Leonard and Sylvester Danlier	Kenny Minter Water Wells	2,975	337	--	--	--	--	--	338	--	--
32cb	Garden City Co.	Henkle Drilling & Supply Co., Inc.	2,973	356	--	--	--	--	--	359	--	--
34bd	do	do	2,955e	389	--	--	--	--	--	?	--	--

Table 4.--Summary of information from selected drillers' and sample logs, Finney County, Kans.--*Continued.*

Well number	Owner	Driller	Surface altitude	Tertiary and Quaternary			Upper Cretaceous				Lower Cretaceous	Upper Jurassic Morrison(?) Formation
				TQu	Qu	To	Kn	Kc	Kgn	Kgr	Ku	Jm(?)
23-34-35cb	Garden City Co.	Henkle Drilling & Supply Co., Inc.	2,958	354	--	--	--	--	--	355	--	--
36cc*	U.S. Geol. Survey	Kansas Geol. Survey	2,890e	304	--	--	--	--	--	310	--	--
24-31- 6cb	Walter Goss	Kenny Minter Water Wells	2,915e	300	--	--	--	?	--	--	--	--
8dc*	Raymond Morris	Henkle Drilling & Supply Co., Inc.	2,890e	282	--	--	--	285	--	--	--	--
10cb	A. D. Gardner	do	2,885e	285	--	--	--	286	--	--	--	--
11db	K. O. Powell	do	2,882	240	--	--	--	246	--	--	--	--
12ad*	U.S. Geol. Survey	Kansas Geol. Survey	2,878	222	--	--	--	230	--	--	--	--
13ba	John Archibald	Henkle Drilling & Supply Co., Inc.	2,870e	261	--	--	--	266	--	--	--	--
14dd	Henry Harmes	Ray Stevenson	2,882	280	--	--	--	?	--	--	--	--
20ba	Raymond Morris	Western Drilling Co.	2,905	295	--	--	--	300	--	--	--	--
20da*	do	do	2,904	307	--	--	--	315	--	--	--	--
27ca2	Elsie Kisner	do	2,885e	290	--	--	--	292	--	--	--	--
31bb2*	U.S. Geol. Survey	Kansas Geol. Survey	2,791	214	--	--	--	220	--	--	--	--
34ba	John Moler	Western Drilling Co.	2,880	290	--	--	--	295	--	--	--	--
34cb	City of Garden City	do	2,880	282	--	--	--	286	--	--	--	--
24-32- 2bd*	Luke Rohleder	Minter Drilling Co.	2,885e	300	--	--	--	305	--	--	--	--
6ac	Howard Smith	Western Drilling Co.	2,876	324	--	--	--	326	--	--	--	--
6ca	C. F. McGraw	Kenny Minter Water Wells	2,874	313	--	--	--	?	--	--	--	--
6ad	Valley View Cemetery	K & M Drilling Co.	2,872	310	--	--	--	--	?	--	--	--
6da	do	Henkle Drilling & Supply Co., Inc.	2,870	310	--	--	--	--	?	--	--	--
7ab	City of Garden City	do	2,844	310	--	--	--	--	315	--	--	--
7ad2	do	Western Drilling Co.	2,837	293	--	--	--	--	309	--	--	--
7da*	do	Henkle Drilling & Supply Co., Inc.	2,833	289	--	--	--	--	295	--	--	--
12dc*	U.S. Geol. Survey	Kansas Geol. Survey	2,906	295	--	--	--	300	--	--	--	--
14bb*	do	do	2,834	280	--	--	--	290	--	--	--	--
15bd	Don McMillan	Western Drilling Co.	2,839	286	--	--	--	290	--	--	--	--

Table 4.--Summary of information from selected drillers' and sample logs, Finney County, Kans.--*Continued.*

Well number	Owner	Driller	Surface altitude	Tertiary and Quaternary			Upper Cretaceous				Lower Cretaceous	Upper Jurassic Morrison(?) Formation
				TQu	Qu	To	Kn	Kc	Kgn	Kgr	Ku	Jm(?)
24-32-16ab	Mayo Bros.	Western Drilling Co.	2,825	295	--	--	--	--	300	--	--	--
16da	do	do	2,821	287	--	--	--	--	290	--	--	--
17aa*	City of Garden City	Raymond Morris	2,830	281	--	--	--	--	300	--	--	--
17bd	do	Well Works Mfg. Co.	2,832	305	--	--	--	--	?	--	--	--
17db2	do	Henkle Drilling & Supply Co., Inc.	2,831	274	--	--	--	280	--	--	--	--
18cb2	do	do	2,840	285	--	--	--	--	--	--	--	--
18da	do	Western Drilling Co.	2,833	299	--	--	--	--	?	--	--	--
18dc	do	do	2,833	279	--	--	--	--	280	--	--	--
19ba	U.S. Geol. Survey	Kansas Geol. Survey	2,833	270	--	--	--	--	275	--	--	--
19ca*	do	do	2,833	270	--	--	--	--	277	--	--	--
25bd*	do	do	2,821	--	96	253	--	256	--	--	--	--
25cd2	R. G. Morris	Western Drilling Co.	2,799	228	--	--	--	230	--	--	--	--
24-33- 1ac	E. C. Brookover	Henkle Drilling & Supply Co., Inc.	2,882	320	--	--	--	--	?	--	--	--
2ac	Carl Kemper	do	2,853	316	--	--	--	--	318	--	--	--
4ac2*	G. E. Cone	Minter Drilling Co.	2,872	320	--	--	--	--	?	--	--	--
4cb2	Fred Brown	Henkle Drilling & Supply Co., Inc.	2,873	356	--	--	--	--	360	--	--	--
4dd	E. W. Henkle	do	2,862	314	--	--	--	--	320	--	--	--
6dc2	Lester McCoy	do	2,884	302	--	--	--	--	307	--	--	--
7ba*	Irving Brownlee	do	2,887	300	--	--	--	--	303	--	--	--
7cb2*	U.S. Geol. Survey	Kansas Geol. Survey	2,878	315	--	--	--	--	--	330	--	--
10bb	E. W. Henkle	Henkle Drilling & Supply Co., Inc.	2,865	320	--	--	--	--	--	321	--	--
13aa	City of Garden City	do	2,843	315	--	--	--	--	--	?	--	--
13ba	do	do	2,845	317	--	--	--	--	--	?	--	--
13ca	Wheatland Electric Co-op	do	2,842	318	--	--	--	--	?	--	--	--
13da*	City of Garden City	do	2,841	337	--	--	--	--	--	340?	--	--
18bc*	U.S. Geol. Survey	Kansas Geol. Survey	2,880	346	--	--	--	--	--	360	--	--
24-34- 1bc	Grace Brown	Henkle Drilling & Supply Co., Inc.	2,894	316	--	--	--	320	--	--	--	--
3ba*	G. L. Potter	Minter Drilling Co.	2,910	400	--	--	--	--	--	--	?	--

Table 4.--Summary of information from selected drillers' and sample logs, Finney County, Kans.--*Concluded.*

Well number	Owner	Driller	Surface altitude	Tertiary and Quaternary			Upper Cretaceous				Lower Cretaceous	Upper Jurassic Morrison(?) Formation
				TQu	Qu	To	Kn	Kc	Kgn	Kgr	Ku	Jm(?)
24-34- 9bb*	U.S. Geol. Survey	Kansas Geol. Survey	2,914	345	--	--	--	--	--	350	--	--
25-31-13aa	Garden City Co-op	Minter Drilling Co.	2,745e	178	--	--	--	180	--	--	--	--
13bb*	U.S. Geol. Survey	Kansas Geol. Survey	2,826	221	--	--	--	230	--	--	--	--
13cd	do	do	2,744	144	--	--	--	--	--	--	--	--
14ab	Clay Weldon	Henkle Drilling & Supply Co., Inc.	2,750e	177	--	--	--	181	--	--	--	--
22bb	U.S. Bureau of Reclamation	U.S. Bureau of Reclamation	2,784	200	--	--	--	--	209	--	--	--
24dd*	do	do	2,748	224	--	--	--	229	--	--	--	--
25-33- 1bd*	Mobil Oil Co.	Peel Bros. Drilling Co.	2,894	428	--	--	--	--	--	485	730	761
1dc*	U.S. Geol. Survey	Kansas Geol. Survey	2,883	414	--	--	--	--	--	426	--	--
12ab*	do	do	2,867	406	--	--	--	--	--	420?	--	--
24aa*	do	do	2,913	547	--	--	--	--	--	--	553	--
25-34- 1bb*	do	do	2,929	436	--	--	--	--	--	--	--	--
14da*	do	do	2,948	467	--	--	--	--	--	--	470	--
16ca-cen.	L. F. Meyers Co.	?	2,958e	488	--	--	--	--	--	--	758	800
26-31- 1bb*	U.S. Bureau of Reclamation	U.S. Bureau of Reclamation	2,784	262	--	--	--	--	--	269	--	--
12cd*	Do	do	2,796	311	--	--	--	--	--	318	--	--
32bb*	U.S. Geol. Survey	Kansas Geol. Survey	2,845e	453	--	--	--	--	--	--	600	--
26-32- 6ab2*	Harry Lightner	Henkle Drilling & Supply Co., Inc.	2,872	481	--	--	--	--	--	--	510	--
33dc*	U.S. Geol. Survey	Kansas Geol. Survey	2,896	488	--	--	--	--	--	--	495	--
26-33-19dd*	do	do	2,933	530	--	--	--	--	--	--	600	--
36dd*	do	do	2,905	497	--	--	--	--	--	--	517	--

Table 5.--Summary of selected electrical and radioactivity logs of gas and oil tests, Finney County, Kans. Depths shown are to the base of the geologic formations.

* *Altitude is from the Kelly Bushing or Drill Floor elevation from which "0" depth on log is measured.*
e, *Estimated elevation.*
TQu, *Undifferentiated Tertiary and Quaternary deposits.*
Kn, *Niobrara Chalk*
Kc, *Carlile Shale.*
Kgn, *Greenhorn Limestone.*
Kgr, *Graneros Shale.*
Ku, *Undifferentiated Lower Cretaceous deposits.*
Jm(?), *Morrison(?) Formation.*

Well number	Owner	Well Name	Surface altitude*	Tertiary and Quaternary, undifferentiated	Upper Cretaceous				Lower Cretaceous	Upper Jurassic Morrison(?) Formation
				TQu	Kn	Kc	Kgn	Kgr	Ku	Jm(?)
21-27-11baa	Pickrell Drilling Co.	Hamill #1	2,697	45	130	425	490	580	810	1,080
21-28-22cc(cen)	Gene Goff	Chennel #1	2,757	no log	no log	481	545	605	890	1,100
21-30-16acc	A. D. McKelvy	Doll #1	2,811	--	--	430	490	580	975	1,200
21-32-18caa	Colorado Oil & Gas	Van Allen #1	2,903	204	282	530	580	650	910	1,128
35c(cen)	Texaco, Inc.	Landgraf #1	2,953	210	410	650	712	780	1,050	1,280
21-33- 9cca	Halliburton Oil Production Co.	Jones #1	2,912	120	210	440	510	600	850	1,175
13bdd	Colorado Oil and Gas	Ware #1	2,893	190	270	500	565	650	870	1,110
17ddb	Imperial Oil of Kansas	Wampler "A" #1	2,893	125	170	422	480	570	822	1,028
20aac	Skelly Oil Co.	E. O. Wampler #1	2,902	105	170	420	480	570	825	1,032
21ba(cen)	Texaco, Inc.	N. K. Wineinger #1	2,905	140	190	430	500	580	860	1,060
29c(cen)	Skelly Oil Co.	Betts "A" #1	2,895	118	165	410	475	560	850	1,040
32b(cen)	do	C. C. Betts #1	2,899	90	170	440	500	570	880?	1,050
33cad	W. L. Hartman	Brown #1	2,904	100	170	430	490	570	850?	1,070?
21-34-14db(cen)	Bruce Anderson	McHugh #2	2,951	110	180	420	490	580	800	1,045
15dc(cen)	Shallow Water Refining Co.	Lang. "B" #1	2,970	70	130	392	455	550	800	1,030
22ab(cen)	do	Lang #1	2,968	70	150	400	460	560	770	1,030
22baa	do	Lang #3	2,968	75	150	400	460	560	770	1,030
27cd(cen)	J. E. Ely	Ely #1	2,957	50	110	355	420	490	780	1,010
35aa	Nate Appleman	Gobleman #1	2,928	60	150	390	450	550	800	1,030
36aac	Shallow Water Refining Co.	Maune "B" #1	2,911	60	132	388	450	545	810	1,030

Table 5.--Summary of selected electrical and radioactivity logs of gas and oil test, Finney County, Kans.--*Continued.*

Well number	Owner	Well Name	Surface altitude*	Tertiary and Quaternary, undifferentiated TQu	Upper Cretaceous				Lower Cretaceous Ku	Upper Jurassic Morrison(?) Formation Jm(?)
					Kn	Kc	Kgn	Kgr		
22-28-35bb(cen)	Joe N. Champlin	Keeler #1	2,646	40	--	200	260	350	810	1,055
22-31-16d(cen)	A. D. McKelvy	Lydia Winters #1	2,900	190	325	605	660	755	1,050	1,250
19bdd	Nate Appleman	Trekell #1	2,926	220	350	600	665	740	1,080	1,230
21aaa	Co-operative Refining Assn.	Sondregger "A" #1	2,910e	185	330	600	665	740	970	1,250
22-32- 9d(cen)	Texaco, Inc.	L. H. Erickson #1	2,933	225	310	550	610	690	1,030	1,190
11b(cen)	do	Ed Hughes "B" #1	2,957	190	380	630	690	780	970	1,250
12c(cen)	do	Ed Hughes "C" #1	2,931	180	380	615	670	760	995	1,230
13b(cen)	A. D. McKelvy	Boyd #1	2,940	205	365	610	670	750	1,038	1,245
13c(cen)	Texaco, Inc.	Godfrey "GU" #1	2,932	180	360	610	670	740	1,000	1,230
14b(cen)	do	Bertha Presiser #1	2,954	210	375	630	690	760	1,020	1,235
15d(cen)	do	Preisser-Erickson "GU" #1	2,932	220	355	600	668	730	1,070	1,220
24c(cen)	do	M. Lindner "U" #1	2,936	230	340	590	650	725	910	1,220
26c(cen)	A. D. McKelvy	Foster #1	2,941	210	330	575	640	715	1,040	1,190
26d(cen)	Texaco, Inc.	Oldweiler "U" #1	2,954	230	325	580	630	700	1,055	1,200
27b(cen)	do	L. G. Strasser #1	2,925	230	305	550	610	690	1,040	1,170
29bdc	Kan-Neb. Gas Co.	Hughes #1	2,871	170	212	442	505	590	885	1,055
32E½W½(cen)	Texaco, Inc.	A. L. Jackson #1	2,875e	170	200	430	490	560	830	1,035
33(cen)	do	Alvin Jackson #1	2,940	235	260	515	575	655	870	1,120
34cad	Kan-Neb. Gas Co.	J. Shell #1	2,924	200	255	492	555	630	950	1,120
36bdd	Texaco, Inc.	John S. Boyd #1	2,947	260	345	590	650	720	1,030	1,205
22-33- 3ac(cen)	Skelly Oil Co.	Anderson #1	2,910e	165	210	465	520	600	820	1,110
5b(cen)	Texaco, Inc.	Garden City Co. "GU" #1	2,893	132	180	383	450	535	700	1,010
9add	do	Graves "B" #1	2,892	168	--	405	470	550	710	1,020
15bbc	do	Graves #1	2,880	170	--	370	430	520	660	960
16cd(cen)	do	E. P. Ward #1	2,902	172	--	380	433	530	710	980
18d(cen)	do	Garden City Co. "GU" "D"	2,900	150	--	360	420	510	655	975
20ad(cen)	do	Garden City Co. "D" #1	2,895	180	--	360	430	520	655	960
22cdb	Rocket Drilling Co.	Clark #3	2,877	180	--	350	425	490	640	950

Table 5.--Summary of selected electrical and radioactivity logs of gas and oil test, Finney County, Kans.--*Continued.*

Well number	Owner	Well Name	Surface altitude*	Tertiary and Quaternary undifferentiated	Upper Cretaceous				Lower Cretaceous	Upper Jurassic Morrison(?) Formation
				TQu	Kn	Kc	Kgn	Kgr	Ku	Jm(?)
22-33-24ac(cen)	Texaco, Inc.	J. W. Bebermeyer #1	2,873	220	--	402	460	550	670	1,020
28aad	W. L. Hartman	Damme #14	2,887	180	--	352	420	480	620	940
22-34- 1b(cen)	Panhandle Eastern Pipeline Co.	Warren #1	2,914	115	--	365	430	500	670	990
24d(cen)	W. L. Hartman	Garden City Co. #1	2,928	177	--	370	430	500	660	970
23-30- 3ac(cen)	Texaco, Inc.	Davis #1	2,805	no log	no log	430	495	580	940	1,160
6bca	Co-operative Refining Assn.	Stewart "A" #1	2,868	130	230	560	620	730	930	1,210
23-31-16d(cen)	J. G. Catlett	Adamson #1	2,889	210	260	520	576	658	905	1,150
18abc	A. D. McKelvy	L. Russell #1	2,923	230	310	570	630	710?	960	1,180
19c(cen)	do	McAnarney #1	2,905e	190	260	520	580	650	910	1,150
33c(cen)	W. C. McBride	A. E. Larson #1	2,902	253	--	510	570	650	880	1,185
23-32- 1caa	Texaco, Inc.	Mary Crase "GU" #1	2,945	220	300	550	605	680	1,040	1,195
4bdd	do	Jack Shell #1	2,884	140	170	415	470	540	880	1,030
11(cen)	do	Chamberlain #1	2,930e	200	270	535	590	665	980	1,128
14dbb	do	H. M. Riffel #1	2,926	200	260	525	590	670	1,000	1,130
21(cen)	Nate Appleman	Strassner #1	2,864e	330	--	385	445	515	830	980
28caa	do	Congdon #1	2,860e	270	--	360	405	475	790	950
31bac	Northern Pump Co.	Danner "A" #1	2,877	320	--	--	390	480	?	930
33bdd	Nate Appleman	DeRemis #1	2,839	210	--	310	380	460	?	940
23-33- 2caa	Northern Pump Co.	M. R. Pearce #1	2,877	270?	--	375	430	500	810	945
23-34-16bdd	Champlin Refining Co.	Garden City #5	2,967	370	--	--	--	450	780	905
18b(cen)	do	Garden City #4	2,981	no log	no log	no log	no log	470	710	890
21bda	do	Garden City "D" #1	2,966	no log	no log	no log	no log	480	750	890
24-31- 4c(cen)	G. M. K. Drilling Co.	David Crase #1	2,910	300	--	482	550	615	900	1,120
5d(cen)	J. G. Catlett	Miller #1	2,910	295	--	493	560	635	910	1,130
26d(cen)	Apache Corp.	Westphal #1	2,874	277	--	370	430	500	820	1,100
29b(cen)	Skelly Oil Co.	H. Weldon #1	2,873	310	--	381	440	510	790	1,010
30b(cen)	do	Weldon #1	2,865e	290	--	341	400	475	765	1,090

Table 5.--Summary of selected electrical and radioactivity logs of gas and oil test, Finney County, Kans.--*Continued.*

Well number	Owner	Well name	Surface altitude*	Tertiary and Quaternary, undifferentiated	Upper Cretaceous				Lower Cretaceous	Upper Jurassic Morrison(?) Formation
				TQu	Kn	Kc	Kgn	Kgr	Ku	Jm(?)
24-32-19aab	Northern Natural Gas Production Co.	Garden City #3	2,837	no log	no log	no log	360	415	670	840
24a(cen)	Skelly Oil Co.	John Huston #1	2,894	300	--	355	420	490	800	1,005
24-33-27db(cen)	Cities Service Pet.Co.	Cowgill "A" #1	2,893	377	--	--	--	450	680	835
32bdd	Kansas Natural Gas, Inc.	Spratt #13	2,920	no log	no log	no log	no log	no log	720	890
24-34-21caa	Northern Natural Gas Production Co.	Brown #26	2,962	390	--	--	--	--	660	830
23bdd	do	Brown #10	2,942	440	--	--	--	--	730	870
33d S½N½(cen)	do	Brown #21	2,988	360	--	--	--	--	680	850
35acc	do	Brown #1	2,944	420	--	--	--	--	740	870
25-31- 3acb	Continental Oil Co.	V. K. Tate #1	2,850	240	--	300	366	446	740	910
5a(cen)	Skelly Oil Co.	A. R. Bowie #1	2,820e	223	--	250	310	380	690	870
8cdd	do	Reed Ranch #1	2,784	190	--	--	260	340	610	840
9bd(cen)	Apache Corporation	Reed #1	2,771	210	--	?	300?	380	650	870
20dbb	Draper Motors Corp.	Beach #3	2,835	250	--	--	290	370	650	860
21W½E½E½(cen)	do	Beach #6	2,805	235	--	--	300	390	650	860
27bdd	do	Beach #1	2,814	250	--	--	310	400	710	870
28bdd	do	Beach #5	2,840	250	--	--	310	395	660	860
29acc	do	Beach #4	2,830	240	--	--	310	380	650	840
30caa	do	Beach #2	2,835e	245	--	--	330	400	670	870
25-33- 1bd(cen)	Mobil Oil Co.	State tract "12" #1	2,903	428	--	--	--	485	730	910
21cdd	Northern Natural Gas Co.	Reeve #1-A	2,933	530	--	--	--	--	710	890
30dbb	do	Jones J #1	2,954	520	--	--	--	--	700	880
25-34-14caa	do	Brown #22	2,961	480	--	--	--	--	810	870
17acc	do	Brown #5	2,970	490	--	--	--	--	750?	820
19dbb	do	Brown #17	2,985	510	--	--	--	--	720?	790
21acc	do	Brown #24	2,965	475	--	--	--	--	750?	810
26caa	do	Brown #9	2,944	500	--	--	--	--	780?	880

Table 5.--Summary of selected electrical and radioactivity logs of gas and oil test, Finney County, Kans.--*Concluded.*

Well number	Owner	Well name	Surface altitude*	Tertiary and Quaternary, undifferentiated	Upper Cretaceous				Lower Cretaceous	Upper Jurassic Morrison(?) Formation
				TQu	Kn	Kc	Kgn	Kgr	Ku	Jm(?)
25-34-28acc	Northern Natural Gas Co.	Brown #13	2,972	500	--	--	--	--	770?	860
29bdd	do	Brown #15	2,980	495	--	--	--	--	790?	860
26-31- 3c(cen)	Texaco, Inc.	Anna Hutton #1	2,818	280	--	--	--	350	660	810
8a(cen)	Skelly Oil Co.	D. R. Lightner #1	2,815e	300	--	--	--	345	650	785
29bad	Continental Oil Co.	Kleysteuber #1	2,850	400	--	--	--	--	650	780
34bd(cen)	King-Stevenson Oil Co.	Hines #1	2,819	370	--	--	--	--	640	750
26-32- 2bdd	Skelly Oil Co.	Miller #1	2,845	400	--	--	--	430	725	845
26-33- 7caa	Northern Natural Gas Production Co.	Bakke A #1	2,918	510	--	--	--	--	750?	790
12bdd	W. E. Bakke	Ruth Ball #1	2,890	550	--	--	--	--	840?	930
23acc	W. J. Coppinger	Evans-Hartnett #1	2,934	580	--	--	--	--	880?	910
25acc	do	Craft #1	2,918	550	--	--	--	--	830?	920
26-34-29cca	Helmerich & Payne, Inc.	Jones, SWD #1	2,990	460	--	--	--	--	825	850
32bac	White Eagle Oil Co.	USA "A" #9	2,991	--	--	--	--	--	720?	800
34ca(cen)	Helmerich & Payne, Inc.	Jones #1	2,968	460	--	--	--	--	740?	800