

Kansas Well Schedule
(Form KGS-GW1-4/83)
User's Manual

Modified from USGS "Storage and Retrieval of Well Data"
by C.O. Morgan & J.M. McNellis

Pamela K. Chaffee and Howard G. O'Connor

The proposed format for storage of water-well data and some water-quality data to be used by the Geohydrology Section of the Kansas Geological Survey has been adapted from an older U.S. Geological Survey, Kansas Well Schedule form. Much of the information included and their respective input codes remain the same. Following are listed information included on the present well schedule and their input codes:

STATE (column 1), Kansas and bordering states

<u>Code</u>	<u>State</u>
C	Colorado
K	Kansas
M	Missouri
N	Nebraska
O	Oklahoma

COUNTY (columns 2-3), alphabetic order

<u>Code</u>	<u>County</u>	<u>Code</u>	<u>County</u>	<u>Code</u>	<u>County</u>
01	Allen	21	Dickinson	41	Haskell
02	Anderson	22	Doniphan	42	Hodgeman
03	Atchison	23	Douglas	43	Jackson
04	Barber	24	Edwards	44	Jefferson
05	Barton	25	Elk	45	Jewell
06	Bourbon	26	Ellis	46	Johnson
07	Brown	27	Ellsworth	47	Kearny
08	Butler	28	Finney	48	Kingman
09	Chase	29	Ford	49	Kiowa
10	Chautauqua	30	Franklin	50	Labette
11	Cherokee	31	Geary	51	Lane
12	Cheyenne	32	Gove	52	Leavenworth
13	Clark	33	Graham	53	Lincoln
14	Clay	34	Grant	54	Linn
15	Cloud	35	Gray	55	Logan
16	Coffey	36	Greeley	56	Lyon
17	Comanche	37	Greenwood	57	McPherson
18	Cowley	38	Hamilton	58	Marion
19	Crawford	39	Harper	59	Marshall
20	Decatur	40	Harvey	60	Meade

<u>Code</u>	<u>County</u>	<u>Code</u>	<u>County</u>	<u>Code</u>	<u>County</u>
61	Miami	76	Pratt	91	Sherman
62	Mitchell	77	Rawlins	92	Smith
63	Montgomery	78	Reno	93	Stafford
64	Morris	79	Republic	94	Stanton
65	Morton	80	Rice	95	Stevens
66	Nemaha	81	Riley	96	Sumner
67	Neosho	82	Rooks	97	Thomas
68	Ness	83	Rush	98	Trego
69	Norton	84	Russell	99	Wabaunsee
70	Osage	85	Saline	A0	Wallace
71	Osborne	86	Scott	A1	Washington
72	Ottawa	87	Sedgwick	A2	Wichita
73	Pawnee	88	Seward	A3	Wilson
74	Phillips	89	Shawnee	A4	Woodson
75	Pottawatomie	90	Sheridan	A5	Wyandotte

The symbols \emptyset in columns 4, 7, 10, 12, 20, etc. represent blanks to be placed in the computer data file.

TOWNSHIP (columns 5-6), in Kansas all townships are south (S); therefore, only the township number is needed (right-hand justified) and column 7 is left blank. However, if a well is inventoried in another state where townships are north, an "N" may be placed in column 7 instead of a blank.

Examples: 01 or \emptyset 1 may be used for T.1S
23 is used for T.23S

RANGE (columns 8-9), only the range number is needed. Right-hand justify.

01 or \emptyset 1 = R.1
23 = R.23

RANGE, EAST OR WEST DESIGNATION (column 11)

E for east ranges = R.1E
W for west ranges = R.23W

SECTION (columns 13-14), only the section number is needed. Right-hand justify.

01 or \emptyset 1 = Sec. 1
23 = Sec. 23

LOCATION WITHIN A SECTION (columns 15-19), uses the alphabetic system. Left-hand justify. Column 19 is reserved for a well number if there is more than one well at that location. Column 15 designates which 160-acre 1/4 of the section the well is located in; column 16 designates which 40-acre 1/4 of the 160-

acre 1/4; column 17, the 10-acre 1/4 of the 40-acre 1/4; and column 18, the 2-1/2-acre 1/4 of the 10-acre 1/4 (if available).

A = NE 1/4 B = NW 1/4 C = SW 1/4 D = SE 1/4

ABCØ1 = SW 1/4 NW 1/4 NE 1/4 well 1

ABCØ2 = SW 1/4 NW 1/4 NE 1/4 well 2

ABCD1 = SE 1/4 SW 1/4 NW 1/4 NE 1/4 well 1

ABCD2 = SE 1/4 SW 1/4 NW 1/4 NE 1/4 well 2

OWNER OR USER'S NAME (columns 21-39), must be left-hand justified and limited to 19 spaces.

SOURCE OF OWNER INFORMATION (columns 41-42), must be left-hand justified.

WØ = WWC-5 water well record well (since 1975)

DØ = Division of Water Resources

HØ = Kansas Department of Health and Environment

UØ = U.S. Geological Survey

RØ = reported from owner or user

LØ = County Lease map

RD = Rural Directory

RW = reported from owner or user and WWC-5 form

RL = reported from owner or user and lease map

NØ = neighbor

TYPE OF WELL (columns 44-45), left-hand justified.

DR = Drilled

DU = Dug

DN = Driven

DD = Dug and drilled

SP = Spring

AU = Augered

UN = Unknown

SURFACE ELEVATION in feet above mean sea level (columns 47-52).

Column 51 must contain a decimal point.

Examples: 1231.2 = 1231.15 feet above msl

987.2 = 987.25 feet above msl

ELEVATION ACCURACY (column 54), designates to what degree of accuracy the surface elevation has been determined.

- 1 = Instrument level ± 0.1 foot
- 2 = Instrument level ± 1.0 foot
- 3 = Topographic map 1:24,000 scale (7.5 minute) ± 5 feet
- 4 = Topographic map 1:24,000 scale (7.5 minute) ± 2 feet
- 5 = Topographic map 1:62,500 scale (15 minute) ± 10 feet
- 6 = Topographic map 1:100,000 scale (elevations are in meters--convert to feet) ± 2.5 meters or ± 8 feet
- 7 = Altimeter ± 5 feet

DATE WELL CONSTRUCTED (columns 56-60), month and year well constructed. Leave blank if unknown or spring.

Month (columns 56-57).

<u>Code</u>	<u>Month</u>	<u>Code</u>	<u>Month</u>
01	January	07	July
02	February	08	August
03	March	09	September
04	April	10	October
05	May	11	November
06	June	12	December

Column 58 must contain a hyphen (a "-" sign).

Year (columns 59-60), is represented by the last two digits of year (e.g., 50 = 1950; 63 = 1963).

DEPTH OF WELL in feet below land surface datum (lsd), (columns 62-67). A decimal point must be placed in column 66. For measured depths, use box in upper right-hand corner (T.D. represents total depth). When a spring, leave blank and indicate spring in accuracy column. M.P. stands for measuring point. Be sure to describe the measuring point in the appropriate space on schedule sheet and provide a sketch for it on back of the sheet.

ACCURACY (column 69), designates to what degree of accuracy the well depth has been determined.

- 1 = Measured by local, state, or federal water agency with proper equipment and training, to the closest 0.1 foot.
- 2 = Determined from an electrical, gamma ray, steel tape, or other mechanical log, to nearest foot.
- 3 = Reported by owner or user, to nearest foot.
- 4 = Well depth reported by driller, driller's log (WWC-5), or water agency, to closest foot.
- 5 = Estimated by local, state, or federal water agency to closest foot.
- 6 = Spring.
- 7 = Greater than the value entered
- 8 = Less than the value entered

USE OF WELL (column 71), an alphabetic and numeric code is used:

<u>Code</u>	<u>Use</u>	<u>Code</u>	<u>Use</u>
1	Domestic--includes yard and garden watering	H	Industrial and observation
2	Stock	I	Public supply and observation
3	Irrigation	J	Commercial--includes restaurants, motels, etc.
4	Industrial--includes railroad uses	K	Commercial and observation
5	Public supply--includes schools	L	Irrigation and observation
6	Observation	M	Test and observation
7	None	N	Abandoned
8	Test	O	Public supply, domestic, and stock
9	Domestic and stock	P	None and observation
A	Irrigation and domestic	Q	Abandoned and observation
B	Irrigation, domestic, and stock	R	Pressure relief or drainage well
C	Irrigation and stock	S	Municipal supply
D	Public supply and industrial	T	
E	Domestic and observation	U	Unknown
F	Stock and observation		
G	Domestic, stock, and observation		

WATER LEVEL (columns 73-79). This value represents depth to water in feet. It must be corrected to land surface (use box in upper left-hand corner). Column 77 must contain a decimal point. For water levels above lsd, place a "-" sign in front of the value. Leave blank if unknown.

WATER LEVEL ACCURACY (column 81), designates the degree of accuracy of the water-level measurement.

- 1 = Measured by local, state, or federal water agency with proper equipment and training, water level less than 100 feet below lsd to nearest 0.01 foot.
- 2 = Measured by local, state, or federal water agency with proper equipment and training, water level of 100 feet or more below lsd to nearest 0.1 foot.
- 3 = Reported by owner or user, water level below lsd to nearest foot.
- 4 = Reported by other than owner or user (i.e., driller, driller's log or water agency); water level below lsd to nearest foot.
- 5 = Estimated by local, state, or federal water agency, water level below lsd to nearest foot.
- 6 = Pumping level, to nearest foot.
- 7 = Water level measured by local, state, or federal water agency, above lsd to nearest 0.1 foot. A "-" sign should precede the water level in columns 73-79. Also used for spring measurements.
- 8 = Water level measured by local, state, or federal water agency, above lsd to nearest foot. A "-" sign should precede the water level. Also used for spring measurements.
- 9 = Water level reported above lsd to nearest foot. A "-" sign should precede the water level. Also used for reported spring water levels.
- A = Water level estimated by local, state, or federal water agency above lsd to the nearest foot. A "-" sign should precede the water level. Also used for estimated spring water levels.
- B = Water level, below lsd, not measured, reported, or estimated. Leave columns 73-79 and 83-90 blank.
- C = Water level, above lsd--including spring, not measured, reported, or estimated. Leave columns 73-79 and 83-90 blank.

Columns 73-79 blank = "dry" if date is entered in columns 83-90.

Examples: 31.52~~0~~1 = Measured water level 31.52 feet (<100) below lsd
110.30~~0~~2 or 110.3~~0~~~~0~~2 = Measured water level 110.34 feet (>100) below lsd
32.00~~0~~4 or 32.~~0~~~~0~~4 = Reported water level 32 feet below lsd by WWC-5 water well record
-5.20~~0~~7 or -5.2~~0~~~~0~~7 = Measured water level 5.2 feet above lsd
-5.00~~0~~9 or -5.~~0~~~~0~~9 = Reported water level 5 feet above lsd
-5.00~~0~~A or -5.~~0~~~~0~~A = Estimated water level 5 feet above lsd

DATE OF WATER-LEVEL MEASUREMENT (columns 83-90)

Month (columns 83-84), numeric code, right-hand justify. Use same code as for DATE WELL CONSTRUCTED (pg. 4). Column 85 must contain a hyphen.

Day (columns 86-87), numeric code, right-hand justify. Use number of day of the month, numbers 1 through 31. Column 88 must contain a hyphen.

Year (columns 89-90), numeric code, right-hand justify. Use last two digits of year (e.g., 59 = 1959; 82 = 1982).

AQUIFER(S) MATERIAL (columns 92-96), many different combinations have been coded. Additional combinations can be added easily. Right-hand justify a single aquifer material (columns 95-96). Space has been provided for two aquifers contributing to the well. Code the upper aquifer material into columns 92-93, then place a comma ",," in column 94, and then the lower aquifer material code in columns 95-96.

<u>Material</u>	<u>Code</u>	<u>Material</u>	<u>Code</u>
Sandstone (Ss)	01	Ls, Sh, Dol	36
Limestone (Ls)	02	Ls, Sh, Gyp	37
Shale (Sh)	03	Ls, Dol, Gyp	38
Dolomite (Dol)	04	Sh, Dol, Gyp	39
Gypsum (Gyp)	05	Sd, Gr, St	40
Coal	06	Sd, Gr, Cl	41
Sand (Sd)	07	Sd, St, Cl	42
Gravel (Gr)	08	Gr, St, Cl	43
Silt (St)	09	Ss and Al	44
Clay (Cl)	10	Ls and Al	45
Alluvium (Al)	11	Sh and Al	46
Igneous (Ig)	12	Dol and Al	47
Metamorphic (Meta)	13	Gyp and Al	48
Not determined	14*	Ss and Sd	49
Ss and Ls	15	Ss and Gr	50
Ss and Sh	16	Ss and St	51
Ss and Dol	17	Ss and Cl	52
Ss and Gyp	18	Ls and Sd	53
Ls and Sh	19	Ls and Gr	54
Ls and Dol	20	Ls and St	55
Ls and Gyp	21	Ls and Cl	56
Sh and Dol	22	Sh and Sd	57
Sh and Gyp	23	Sh and Gr	58
Sd and Gr	24	Sh and St	59
Sd and St	25	Sh and Cl	60
Sd and Cl	26	Dol and Sd	61
Gr and St	27	Dol and Gr	62
Gr and Cl	28	Dol and St	63
St and Cl	29	Dol and Cl	64
Ss, Ls, Sh	30	Gyp and Sd	65
Ss, Ls, Dol	31	Gyp and Gr	66
Ss, Ls, Gyp	32	Gyp and St	67
Ss, Sh, Dol	33	Gyp and Cl	68
Ss, Sh, Gyp	34	Sandy Sh	69
Ss, Dol, Gyp	35	Ash	70

<u>Material</u>	<u>Code</u>	<u>Material</u>	<u>Code</u>
Salt	71	Siltstone (Sts)	82
Black Sh	72	St, Cl, Chalk Gr	83
Colluvium	73	Anhydrite	84
Sandy Sh and Ss	74	Sd & Chalk Gr	85
Red Sh	75	Clayey Chalk Gr	86
Glacial Drift	76	Chert	87
Glac-Fluv Deposits	77	Sts & Calcite concre.	88
Chalk	78	Ls and Chert	89
Chalk Gr	79	Sd, Gr, Ss	90
St and Chalk	80	Sandy Sh and Ls	91
Chalk Gr and St	81	Claystone (Cls)	92

*Leave blank if data is to be added.

AQUIFER(S) UNIT(S) (columns 98-104). Geologic units presently acceptable, formal and informal, and some units not presently acceptable in Kansas are listed and coded. Two lists are presented: 1) a stratigraphic-numeric list on pages 14-21, and 2) an alphabetic-numeric list on pages 22-29. Approximate stratigraphic and alphabetic lists, January 1971; list of abbreviations used, page 13. Right-hand justify a single aquifer unit (columns 102-104). Again, space has been provided for two aquifers. code the upper aquifer unit into columns 98-100, then place a comma ", " in column 101, and then the lower aquifer unit code in columns 102-104.

SOURCE OF AQUIFER INFORMATION (columns 106-107), left-hand justify.

- W β = WWC-5 water well record well (since 1975)
- WT = WWC-5 water well record test hole (since 1975)
- WO = water well record (pre-1975)
- T β = Unspecified survey (U.S. or KS.) test hole (rotary or auger)
- TR = Survey test hole (rotary)
- TA = Survey test hole (auger)
- O β = Oil and gas record
- PS = Public supply record--includes city, rural water district, school, driller, USDA
- M β = Measured section
- K β = Driller
- IN = Inference
- R β = Owner or user
- WI = WWC-5 and Inference

DEPTH TO BEDROCK (columns 109-114), corrected to lsd, with decimal point in column 113. Use columns 106-107 "Source of Aquifer Information" to also describe the accuracy of the "Depth to Bedrock" value. Use '0.0' in columns 112-114 if springflow from bedrock.

YIELD (columns 116-119), in gallons per minute (gpm). Right-hand justify. Decimal point not necessary.

Examples: $\emptyset 5.5 = 5.5$ gpm
101. = 101 gpm
 $\emptyset 101 = 101$ gpm
1000 = 1,000 gpm

YIELD ACCURACY (column 121), designates the accuracy of the yield measurement.

- 1 = Estimated by local, state, or federal water agency using pump test analysis.
- 2 = Measured by local, state, or federal water agency with proper equipment and training, using measuring devices such as weirs, flow meters, flumes, etc.
- 3 = Reported by owner or user.
- 4 = Reported by other than owner or user (i.e., driller, driller's log, or water agency).
- 5 = Yield estimated by local, state, or federal water agency based on previous experience, historical records, previous measurements, etc. May be significantly in error
- 6 = Minimum value based on installed pumping equipment.

DIAMETER OF CASING (columns 123-126), in inches, right-hand justify with a decimal point included somewhere in the value, depending on the accuracy of the obtained value.

Examples: $\emptyset \emptyset 5. = 5$ inch casing
5.75 = 5 3/4 inch casing
 $\emptyset 36.$ or 36.0 = 36 inch casing
120. = 120 inches or 10 foot diameter dug well

CASING TYPE (column 128), uses an alphabetic code:

<u>Code</u>	<u>Casing Type</u>	<u>Code</u>	<u>Casing Type</u>
A	Aluminum	N	None
B	Brick	O	Oil barrel
C	Concrete	P	Plastic (includes PVC, SR, RMP & ABS)
D	Iron & Plastic	Q	Transite (Asbestos-Cement)
E	Contact Spring	R	Rock
F	Galvanized steel & Plastic	S	Steel
G	Galvanized steel	T	Tile
H	Fracture spring	U	Solution Spring
I	Iron (oil field)	V	Spring, undifferentiated
J	Iron & Galvanized steel	W	Wood
K	Unknown	X	
L	Galvanized Steel, plastic & tile	Y	
M	Brick & rock	Z	

LIFT AND POWER (column 130), an alphabetic and numeric code is used:

<u>Code</u>	<u>Lift & Power</u>	<u>Code</u>	<u>Lift & Power</u>
1	Centrifugal-Electric (C,E)	L	Airlift-Internal Combustion (AL,IC)
2	Cylinder-Electric (Cy,E)	M	Endless Chain-Hand (EC,H)
3	Cylinder-Hand (Cy,H)	N	Cylinder-Wind & Gasoline (Cy,W&G)
4	Cylinder-Wind (Cy,W)	O	Centrifugal-Natural Gas (C,NG)
5	Cylinder-Hand & Electric (Cy,H&E)	P	Centrifugal-Liquid Petroleum Gas (C,LPG)
6	Cylinder-Hand & Wind (Cy,H&W)	Q	Submersible-Electric (S,E)
7	Cylinder-Electric & Wind (Cy,E&W)	R	Centrifugal-Gasoline or Tractor (C,G/T)
8	Cylinder-Gasoline (Cy,G)	S	Cylinder-Wind and Jet-Electric (Cy,W&J,E)
9	Cylinder-Gasoline & Hand (Cy,G&H)	T	Turbine (T)
A	Jet-Electric (J,E)	U	Unknown (U)
B	Turbine-Electric (T,E)	V	Artesian Pressure (Flows)
C	Turbine-Natural Gas (T,NG)	W	Cylinder-Hand & Jet-Electric (Cy,H&J,E)
D	Turbine-Liquid Petroleum Gas (T,LPG)	X	Artesian Pressure and Submersible-Electric (Flows & S,E)
E	Turbine-Diesel (T,D)		
F	Turbine-Gasoline (T,G)		
G	Turbine-Tractor (T,T)		
H	None (N)		
I	Bucket-Hand (B,H)		
K	Airlift-Electric (AL,E)		

CHLORIDE CONTENT (columns 132-139), in milligrams per liter.

Right-hand justify and column 138 must contain a decimal point:

~~0000~~32.5 = 32.5 mg/L Cl⁻
 ~~0101~~46.0 = 10,146. mg/L Cl⁻

ACCURACY (column 141). This code designates the source and the accuracy of the chloride concentration:

<u>Code</u>	<u>Accuracy</u>
1	Analysis by Kansas Geological Survey - Geohydrology Section using a field test kit (corrected for error).
2	Analysis by Kansas Geological Survey - Analytical Services Section.
3	Analysis by Kansas Department of Health and Environment
4	Analysis by a state certified private laboratory.
5	Analysis by a research laboratory

SPECIFIC CONDUCTANCE (columns 143-147), in micromhos per centimeter at 25°C. Right-hand justify with a decimal point in column 147. If the specific conductance is greater than or equal to 10,000, a decimal point must be placed in column 148 instead of a blank:

~~0478.~~ = 478. μ mhos/cm at 25°C
 ~~03120.~~ = 3,120. μ mhos/cm at 25°C
 ~~10690.~~ = 10,690. μ mhos/cm at 25°C

ACCURACY, LAB OR FIELD (columns 149-150). This code designates the source and the accuracy of the specific conductance value and whether it was measured in the field, or in a laboratory setting. Place the source and accuracy code in column 149. In column 150, place an 'F' if the specific conductance was measured in the field at the point of sample collection, or an 'L' if it was measured some time later in a laboratory setting.

<u>Code</u>	<u>Accuracy</u>
1	Analysis by Kansas Geological Survey - Geohydrology Section using a portable conductivity meter (corrected for temperature).
2	Analysis by Kansas Geological Survey - Analytical Services Section
3	Analysis by Kansas Department of Health and Environment
4	Analysis by a state certified private laboratory
5	Analysis by a research laboratory

SAMPLE COLLECTION DATE (columns 152-159), date sample collected for the preceeding chloride (columns 132-139) and/or specific conductance value(s) (columns 143-147).

Month (columns 152-153), numeric code, right-hand justify. Use same code used for Date Well Constructed (Pg. 4). Column 154 must have a hyphen.

Day (column 155-156), numeric code, right-hand justify. Use number of day of the month, numbers 1 through 31. Column 157 must contain a hyphen.

Year (columns 158-159), numeric code, right-hand justify. Use last two digits of year (e.g., 59 = 1959; 83 = 1983).

OTHER CHEM(ICAL) QUALITY DATA AVAILABLE (column 161), numeric code (and alphabetic code if necessary) to designate other sources of chemical quality data for the same well or spring:

<u>Code</u>	<u>Data Source(s)</u>
1	Kansas Geological Survey
2	Kansas Department of Health and Environment
3	State certified private laboratory
4	Research laboratory
5	U.S. Geological Survey

REMARKS (columns 163-173), space designated for an individual's (or project's) own particular use.

Some space for additional water-level information, chemical data and respective accuracies, and remarks are provided on the schedule sheet. This information will be entered into the computer on the following line starting in column 73 and ending (as necessary) in column 173.

Space is provided on the back of the schedule sheet for sketching water well construction and/or geology, location of the well (or spring) within the proper township and range (scale of sketch is approximately 1:24,000), aerial views of the well in relation to buildings, roads, pump, pressure tank, etc., and a side view of the well in relation to any nearby objects (buildings, pump, pressure tank, etc.) or physical features. Be sure to show the measuring point in the close-up aerial and side view sketches of the well. Also include in sketches the source of collected sample(s).

List of abbreviations used in Aquifer(s) Unit(s)

<u>Name</u>	<u>Abbrev.</u>	<u>Name</u>	<u>Abbrev.</u>
BASAL	BS	PENNSYLVANIAN	PENN
BED	B	PITTSBURG	PITTS
BRANCH	BR	PLEISTOCENE	PLEIST
BURROAK	BURR	PERIDOTITE	PERIDOT
CAMBRIAN	CAM	QUARRY	QUAR
CONGLOMERATE	CONG	QUATERNARY	QUAT
CHALK	CHK	QUERY	\$
CHEYENNE	CHYN	RECENT	REC
CITY	CY	SAND	SD
CLAY	CL	SANDSTONE	SS
CREEK	CRK	SERIES	SER
CRETACEOUS	CRET	SHALE	SH
DAKOTA	DAK	SILTSTONE	STS
DEPOSITS	DEP	SILURIAN	SIL
DEVONIAN	DEV	SPRINGS	SP
DOLOMITE	DOL	STAGE	ST
FALLS	FALS	STATION	STAT
FLORENCE	FLOF	SUBGROUP	SGP
FLUVIAL	FLUV	SUBSERIES	SSER
FORMATION	FM	SUBSTAGE	SST
GLACIAL FLUVIAL	GLAC-FLUV	SYLVAN	SYL
GYP SUM	GYP	SYSTEM	SYS
GRAVEL	GRAV	TERRACE	TER
GROUP	GP	TERTIARY	TERT
HERINGTON	HERING	TRIASSIC	TRI
ILLINOISAN	ILL	UPPER	U
ISLAND	IS	WALTER	WALT
JEFFERSON	JEFF	YARMOUTHIAN	YARMOUTH
JURASSIC	JUR		
JURASSIC-TRIASSIC	JUTR		
KANSAN	KAN		
KIMMSWICK	KIMM		
LINESTONE	LS		
LOWER	L		
MEDICINE	MED		
MEMBER	ME		
MIDDLE	M		
MISSISSIPPIAN	MISS		
NEBRASKAN	NEBRAS		
OGALLALA	OGAL		
ORDOVICIAN	ORD		

STRATIGRAPHIC - NUMERIC LIST

<u>UNIT</u>	<u>CODE</u>	<u>UNIT</u>	<u>CODE</u>
CENOZOIC ROCKS	001	KANSAN ST	033
NEOGENE SYS	002	SAPPA FM	034
QUATERNARY SYS	003	PEARLETTE ASH B	035
PLEISTOCENE SER	004	NORTONVILLE CLAY	404
U PLEISTOCENE SSER	005	GRAND ISLAND FM	036
OUTWASH DEP	385	KANSAS TILL	037
COLLUVIUM	598	CEDAR BLUFF TILL	164
RECENT ST	006	NICKERSON TILL	158
HOLOCENE	131	ATCHISON FM	038
ALLUVIUM	588	AFTONIAN ST	039
AEOLIAN-FLUV DEP	007	AFTON SOIL	040
AEOLIAN DEP	008	NEBRASKAN ST	041
FLUVIAL DEP	009	BLANCO FM	042
WISCONSINAN ST	010	FULLERTON FM	043
NEWMAN TERRACE DEP	587	HOLDREGE FM	044
MANKATOAN SST	011	NEBRASKA TILL	045
BIGNELL FM	012	IOWA POINT TILL	162
CARYAN SST	013	NEBRASKAN GLAC-FLUV DEP	434
TERRACE DEP	014	DAVID CITY FM	046
BRADYAN SST	015	YARMOUTH-NEBRAS ST	047
BRADY SOIL	016	MEADE GP	048
PEORIA FM	017	CROOKED CREEK FM	049
TAZEWELLIAN SST	018	ATWATER ME	050
IOWAN SST	019	STUMP ARROYO ME	051
GLACIAL DRIFT	020	BALLARD FM	052
SANGAMONIAN ST	021	MISSLER ME	079
SANGAMON SOIL	022	ANGELL ME	053
ILLINOISAN ST	023	QUAT OR TERT SYS	054
LOVELAND FM	024	PLIO-PLEIST SER	055
CRETE FM	025	UPLAND CHERT GRAV	056
BUCK CREEK TER DEP	160	TERTIARY SYS	057
REC-ILL ST	026	PLIOCENE SER	058
SANBORN GP	027	GILMAN CANYON	339
VANHEM FM	028	REXROAD FM	059
KINGSDOWN FM	029	Y T ME	120
L PLEISTOCENE SSER	030	OGALLALA FM	060
YARMOUTHIAN ST	031	KIMBALL ME	061
MCPHERSON	469	ASH HOLLOW ME	062
YARMOUTH SOIL	032	VALENTINE ME	063
KAN GLAC-FLUV DEP	155	DELMORE FM	064

STRATIGRAPHIC - NUMERIC LIST (continued)

<u>UNIT</u>	<u>CODE</u>	<u>UNIT</u>	<u>CODE</u>
LAVERNE FM	065	L(\$) CRET SER	100
CALVERT ASH B	066	COCKRUM SS	101
DELLVALE ASH B	067	DAKOTA FM	102
FORT WALLACE ASH B	068	JANSSEN CLAY ME	103
RAWLINS ASH B	069	TERRA COTTA CL ME	104
REAGER ASH B	070	OMADI FM	105
REAMSVILLE ASH B	071	CRUISE SS ME	106
NEOGENE-CRET SYS	590	HUNTSMAN SH ME	107
OGALLALA-DAKOTA	436	GURLEY SS ME	108
OGALLALA-CHEYENNE	444	COMANCHEAN SER	109
OGAL-DAK-CHYN	446	L\$ CRET-L CRET SER	591
OGAL-DAK-CHYN-JUTR	454	L CRETACEOUS SER	110
OGAL-CHYN-JUTR	468	KIOWA SH	111
MESOZOIC ROCKS	072	CHAMPION SHELL B	112
CRETACEOUS SYS	073	CHEYENNE SS	113
GULFIAN SER	074	JURASSIC SYS	114
U CRETACEOUS SER	075	U JURASSIC SER	115
MONTANA GP	076	MORRISON FM	116
PIERRE SH	077	JUR-TRI SYS	592
BEECHER IS SH ME	078	TRIASSIC SYS	117
SALT GRASS SH ME	080	U TRIASSIC SER	118
LAKE CREEK SH ME	081	DOCKUM GP	119
WESKAN SH ME	082	PALEOZOIC ROCKS	121
SHARON SP SH ME	083	PERMIAN SYS	122
COLORADO GP	084	GUADALUPIAN SER	123
NIOBRARA CHALK	085	U PERMIAN SERIES	124
SMOXY HILL CH ME	086	QUARTERMASTER GP	125
FORT HAYS LS ME	087	TALOGA FM	126
CARLILE SH	088	BIG BASIN FM	127
COJELL SS ME	089	DAY CREEK DOL	128
BLUE HILL SH ME	090	WHITEHORSE FM	129
FAIRPORT CHALK ME	091	KIGER SH ME	130
GREENHORN LS	092	RELAY CREEK DOL ME	132
BRIDGE CREEK LS ME	093	MARLOW SS ME	133
PFEYER SH ME	094	L PERMIAN SER	134
FENCEPOST LS B	095	LEONARDIAN SER	135
JETMORE CHALK ME	096	CIMARRONIAN ST	136
HARTLAND SH ME	097	NIPPEWALLA GP	137
LINCOLN LS ME	098	DOG CREEK FM	138
GRANEROS SH	099	BLAINE GYP	139

STRATIGRAPHIC - NUMERIC LIST (continued)

<u>UNIT</u>	<u>CODE</u>	<u>UNIT</u>	<u>CODE</u>
HASKEW GYP ME	140	MATFIELD SH	185
SHIMER GYP ME	141	BLUE SPRINGS SH ME	186
NESCATUNGA GYP ME	142	KINNEY LS ME	187
MED LODGE GYP ME	143	WYMORE SH ME	188
FLOWERPOT SH	144	WREFORD LS	189
CEDAR HILLS SS	145	SCHROYER LS ME	190
SALT PLAIN STS	146	HAVENSVILLE SH ME	191
CRISFIELD SS B	147	THREEMILE LS ME	192
HARPER STS	148	COUNCIL GROVE GP	193
KINGMAN STS ME	149	SPEISER SH	194
CHIKASKIA STS ME	150	FUNSTON LS	195
SUMNER GP	151	BLUE RAPIDS SH	196
STONE CORRAL FM	152	CROUSE LS	197
NINNECAH SH	153	EASLY CREEK SH	198
RUNNYMEDE STS ME	154	BADER LS	199
WELLINGTON FM	156	MIDDLEBURG LS ME	200
MILAN DOL ME	157	HOWSER SH ME	201
HUTCHINSON SALT ME	159	EISS LS ME	202
CARLTON LS ME	161	STEARNS SH	203
HOLLENBERG LS ME	163	BEATTIE LS	204
WOLFCAMPAN SER	165	MORRILL LS ME	205
GEARYAN ST	166	FLORENA SH ME	206
CHASE GP	167	COTTONWOOD LS ME	207
NOLANS LS	168	ESKRIDGE SH	208
HERINGTON LS ME	169	GRENOLA LS	209
PADDOCK SH ME	170	NEVA LS ME	210
KRIDER LS ME	171	SALEM POINT SH ME	211
ODELL SH	172	BURR LS ME	212
WINFIELD LS	173	LEGION SH ME	213
CRESSWELL LS ME	174	SALLYARDS LS ME	214
GRANT SH ME	175	ROCA SH	215
STOVALL LS ME	176	RED EAGLE LS	216
DOYLE SH	177	HOWE LS ME	217
GAGE SH ME	178	BENNETT SH ME	218
TOWANDA LS ME	179	GLENROCK LS ME	219
HOLMESVILLE SH ME	180	JOHNSON SH	220
BARNESTON LS	181	FORAKER LS	221
FORT RILEY LS ME	182	LONG CREEK LS ME	222
OKETA SH ME	183	HUGHES CREEK SH ME	223
FLORENCE LS ME	184	AMERICUS LS ME	224

STRATIGRAPHIC - NUMERIC LIST (continued)

<u>UNIT</u>	<u>CODE</u>	<u>UNIT</u>	<u>CODE</u>
ADMIRE GP	225	WAMEGO SH ME	264
JANESVILLE SH	226	PIERSON POINT SH	265
HAMLIN SH ME	227	TARKIO LS ME	266
OAKS SH ME	228	NEMAHA SGP	267
HOUCHEM CR LS ME	229	WILLARD SH	268
STINE SH ME	230	EMPORIA LS	269
FIVE POINT LS ME	231	ELMONT LS ME	270
WEST BRANCH SH ME	232	HARVEYVILLE SH ME	271
FALLS CITY LS	233	READING LS ME	272
ONAGA SH	234	AUBURN SH	273
HAWXBY SH ME	235	BERN LS	274
ASPINWALL LS ME	236	WAKARUSA LS ME	275
TOWLE SH ME	237	SOLDIER CR SH ME	276
INDIAN CAVE SS B	238	BURLINGAME LS ME	277
L PERM-U PENN SER	593	SACFOX SGP	278
PENNSYLVANIAN SYS	239	SCRANTON SH	279
VIRGILIAN SER	240	SILVER LAKE SH ME	280
U PENN SER	241	RULO LS ME	281
VIRGILIAN ST	242	CEDAR VALE SH ME	282
WABAUNSEE GP	243	ELMO COAL	283
RICHARDSON SGP	244	HAPPY HOLLOW LS ME	284
WOOD SIDING FM	245	WHITECLOUD SH ME	285
BROWNVILLE LS ME	246	HOWARD LS	286
PONY CREEK SH ME	247	UTOPIA LS ME	287
GRAYHORSE LS ME	248	WINZELER SH ME	288
PLUMB SH ME	249	CHURCH LS ME	289
NEBRAS CITY LS ME	250	AARDE SH ME	290
CANEYVILLE LS	251	NODAWAY COAL	291
ROOT SH	252	BACHELOR CR LS ME	292
FRENCH CREEK SH ME	253	SEVERY SH	293
JIM CREEK LS ME	254	SHAWNEE GP	294
FRIEDRICH SH ME	255	TOPEKA LS	295
STOTLER LS	256	COAL CREEK LS ME	296
GRANDHAVEN LS ME	257	HOLT SH ME	297
DRY SH ME	258	DU BOIS LS ME	298
DOVER LS ME	259	TURNER CREEK SH ME	299
PILLSBURY SH	260	SHELDON LS ME	300
LANGDON SH	261	JONES POINT SH ME	301
ZEANDALE LS	262	CURZON LS ME	302
MAPLE HILL LS ME	263	IOWA POINT SH ME	303

STRATIGRAPHIC - NUMERIC LIST (continued)

<u>UNIT</u>	<u>CODE</u>	<u>UNIT</u>	<u>CODE</u>
HARTFORD LS ME	304	WESTPHALIA LS ME	345
CALHOUN SH	305	TONGANOXIE SS ME	346
DEER CREEK LS	306	U SIBLEY COAL	347
ERVINE CREEK LS ME	307	U SIBLEY COAL	348
LARSH-BURR SH ME	308	PEDEE GP	349
ROCK BLUFF LS ME	309	IATAN LS ME	350
OSKALOOSA SH ME	310	WESTON SH ME	351
OSAWKIE LS ME	311	MISSOURIAN ST	352
TECUMSEH SH	312	LANSING GP	353
LECOMPTON LS	313	STANTON LS	354
AVOCA LS ME	314	SOUTH BEND LS ME	355
KING HILL SH ME	315	ROCK LAKE SH ME	356
BEIL LS ME	316	STONER LS ME	357
QUEEN HILL SH ME	317	EUDORA SH ME	358
BIG SPRINGS LS ME	318	CAPTAIN CR LS ME	359
DONIPHAN SH ME	319	VILAS SH	360
SPRING BR LS ME	320	PLATTSBURG LS	361
ELGIN SS	321	SPRING HILL LS ME	362
KANWAKA SH	322	HICKORY CR SH ME	363
STULL SH ME	323	MERRIAM LS ME	364
CLAY CREEK LS ME	324	KANSAS CITY GP	365
JACKSON PARK SH ME	325	ZARAH SGP	366
OREAD LS	326	BONNER SPRINGS SH	367
KEREFORD LS ME	327	WYANDOTTE LS	368
HEUMADER SH ME	328	FARLEY LS ME	369
PLATTSMOUTH LS ME	329	ISLAND CREEK SH ME	370
HEEBNER SH ME	330	ARGENTINE LS ME	371
LEAVENWORTH LS ME	331	QUINDARO SH ME	372
SNYDERVILLE SH ME	332	FRISBIE LS ME	373
TORONTO LS ME	333	LANE SH	374
DOUGLAS GP	334	LANE-BONNER SP SH	375
LAWRENCE FM	335	LANE-VILAS SH	376
WATHENA SH ME	336	LINN SGP	377
AMAZONIA LS ME	337	IOLA LS	378
WILLIAMSBURG COAL	338	RAYTOWN LS ME	379
IRELAND SS ME	340	MUNCIE CREEK SH ME	380
ROBBINS SH ME	341	PAOLA LS ME	381
HASKELL LS ME	342	CHANUTE SH	382
STRANGER FM	343	COTTAGE GRO SS ME	383
VINLAND SH ME	344	THAYER COAL	384

STRATIGRAPHIC - NUMERIC LIST (continued)

<u>UNIT</u>	<u>CODE</u>	<u>UNIT</u>	<u>CODE</u>
NOXIE SS ME	386	MEMORIAL SH	427
DRUM LS	387	HOLDENVILLE SH	428
CORBIN CITY LS ME	388	LENAPAH LS	429
DEWEY LS ME	389	IDENBRO LS ME	430
CEMENT CITY LS ME	390	PERRY FARM SH ME	431
CHERRYVALE SH	391	NORFLEET LS ME	432
QUIVIRA SH ME	392	NOWATA SH	433
WESTERVILLE LS ME	393	WALT JOHNSON SS ME	435
WEA SH ME	394	ALTAMONT LS	437
BLOCK LS ME	395	WORLAND LS ME	438
FONTANA SH ME	396	LAKE NEOSHO SH ME	439
WEA-QUIVERA SH ME	397	AMORET LS ME	440
BRONSON SGP	398	TINA LS	441
DENNIS LS	399	BANDERA SH	442
WINTerset LS ME	400	MULBERRY COAL	443
STARK SH ME	401	BANDERA QUAR SS ME	445
CANVILLE LS ME	402	PAWNEE LS	447
GALESBURG SH	403	LABERDIE LS ME	448
DODDS CREEK SS ME	405	MINE CREEK SH ME	449
SWOPE LS	406	MYRICK STAT LS ME	450
BETHANY FALLS LS ME	407	ANNA SH ME	451
HUSHPUCKNEY SH ME	408	LABETTE SH	452
MIDDLE CREEK LS ME	409	WARRENSBURG SS	453
LADORE SH	410	ENGLEVALE SS ME	455
HERTHA LS	411	FORT SCOTT LS	456
SNIABAR LS ME	412	HIGGINSVILLE LS ME	457
MOUND CITY SH ME	413	LITTLE OSAGE SH ME	458
CRITZER LS ME	414	HOUX LS B	459
COFFEYVILLE FM	415	SUMMIT COAL	460
PLEASANTON GP	416	BLACKJACK CR LS ME	461
TACKET FM	417	CHEROKEE GP	462
KNOBTOWN SS ME	418	CABANISS FM	463
CHECKERBOARD LS	419	EXCELLO SH	464
SEMINOLE FM	420	MULKY COAL	465
SOUTH MOUND SH ME	421	BREEZY HILL LS ME	466
HEPLER SS ME	422	IRON POST COAL	467
DESMOINESIAN SER	423	STICE COAL	470
M PENN SER	424	WHEELER COAL(\$)	471
DESMOINESIAN ST	425	BEVIER COAL	472
MARMATON GP	426	UNMAPPED REGOLITH	473

STRATIGRAPHIC - NUMERIC LIST (continued)

<u>UNIT</u>	<u>CODE</u>	<u>UNIT</u>	<u>CODE</u>
VERDIGRIS LS ME	474	KEARNY FM	514
ARDMORE LS ME	475	PENN BS CON	515
CROWEBURG COAL	476	PENN-MISS SYS	594
BROKEN ARROW COAL	477	MISSISSIPPIAN SYS	516
UNNAMED	478	CHESTERAN SER	517
FLEMING COAL	479	U MISS SER	518
UNNAMED	480	CHESTERAN ST	519
MINERAL COAL	481	UNNAMED	520
UNNAMED	482	MERAMECIAN SER	521
SCAMMON COAL	483	MERAMECIAN ST	522
CHELSEA SS ME	484	STE. GENEVIEVE LS	523
PILOT COAL	485	ST. LOUIS LS	524
TIAWAH LS	486	SPERGEN LS	525
TEBO COAL	487	SALEM LS	526
UNNAMED	488	WARSAW LS	527
WIER PITTS COAL	489	COWLEY FM	528
KREBS FM	490	L MISS SER	529
SEVILLE LS ME	491	OSAGIAN SER	530
KNIFETON COAL	492	OSAGIAN ST	531
UNNAMED	493	KEOKUCK LS	532
BLUEJACKET SS ME	494	BURLINGTON LS	533
DRYWOOD COAL	495	REEDS SPRING LS	534
UNNAMED	496	ST. JOE LS	535
COLUMBUS COAL	497	KINDERHOOKIAN SER	536
ROWE COAL	498	KINDERHOOKIAN ST	537
UNNAMED	499	GILMORE CITY LS	538
NEUTRAL COAL	500	SEDALIA DOL	539
UNNAMED	501	NORTHVIEW SH	540
LITTLE CABIN SS ME	502	CHOUTEAU LS	541
WARNER SS ME	503	COMPTON LS	542
RIVERTON COAL	504	BOICE SH	543
UNNAMED	505	DEV OR MISS SYS	544
ATOYAN SER	506	CHATTANOOGA SH	545
ATOYAN (BENDIAN) ST	507	MISS-DEV SYS	595
ATOYAN ST	508	DEVONIAN SYS	546
CHAT	509	M DEVONIAN SER	547
UNNAMED	510	DEV-SIL SYS	596
MORROWAN SER	511	L SIL-M DEV SER	548
L PENN SER	512	SILURIAN SYS	549
MORROWAN ST	513	L SILURIAN SER	550

STRATIGRAPHIC NUMERIC LIST (continued)

<u>UNIT</u>	<u>CODE</u>	<u>UNIT</u>	<u>CODE</u>
HUNTON GRP	551	NEOGENE-CRET SYS	590
UNNAMED	552	L\$CRET-LCRET SER	591
UNNAMED	553	JUR-TRI SYS	592
CHIMNEYHILL DOL	554	L PERM U PENN SER	593
ORDOVICIAN SYS	555	PENN-MISS SYS	594
U ORDOVICIAN SER	556	MISS-DEV SYS	595
MAQUOKETA (SYL) SH	557	DEV-SIL SYS	596
M ORDOVICIAN SER	558	ORD-CAM SYS	597
VIOLA (KIMM) LS	559	COLLUVIUM	598
SIMPSON GP	560	BLANK	599
PLATTEVILLE FM	561	NOT DETERMINED	600
ST. PETER SS	562		
UNNAMED	563		
L ORDOVICIAN SER	564		
ARBUCKLE GP	565		
COTTER DOL	566		
JEFFERSON CITY DOL	567		
COTTER-JEFF C DOL	568		
ROUBIDOUX FM	569		
GASCONADE DOL	570		
VAN BUREN FM	571		
GUNTER SS ME	572		
ORD-CAM SYS	597		
L ORD-U CAM SER	573		
EMINENCE DOL	574		
CAMBRIAN SYS	575		
U CAMBRIAN SER	576		
BONNETERRE DOL	577		
HONEY CREEK LS	578		
LAMOTTE (REAGAN) SS	579		
LAMOTTE SS	580		
REAGAN SS	581		
PENN-CAM SYS	582		
GRANITE WASH	583		
PRECAMBRIAN ROCKS	584		
PRECAMBRIAN SYS	585		
UNDIFFERENTIATED	586		
NEWMAN TERRACE DEP	587		
ALLUVIUM	588		
HILLS POND PERIODO	589		

ALPHABETIC - NUMERIC LIST

<u>UNIT</u>	<u>CODE</u>	<u>UNIT</u>	<u>CODE</u>
AARDE SH ME	290	BLACKJACK CR LS ME	461
ADMIRE GP	225	BLAINE GYP	139
AEOLIAN DEP	008	BLANCO FM	042
AEOLIAN-FLUV DEP	007	BLANK	599
AFTON SOIL	040	BLOCK LS ME	395
AFTONIAN ST	039	BLUE HILL SH ME	090
ALLUVIUM	588	BLUEJACKET SS ME	494
AMAZONIA LS ME	337	BLUE RAPIDS SH	196
AMERICUS LS ME	224	BLUE SPRINGS SH ME	186
AMORET LS ME	440	BOICE SH	543
ANGELL ME	053	BONNER SPRINGS SH	367
ANNA SH ME	451	BONNETERRE DOL	577
ARBUCKLE GP	565	BRADY SOIL	016
ARDMORE LS ME	475	BRADYAN SST	015
ARGENTINE LS ME	371	BREEZY HILL LS ME	466
ASH HOLLOW ME	062	BRIDGE CREEK LS ME	093
ASPINWALL LS ME	236	BROKEN ARROW COAL	477
ATCHISON FM	038	BROXSON SGP	398
ATOKAN SER	506	BROWNVILLE LS ME	246
ATOKAN ST	508	BUCK CREEK TERR	160
ATOKAN (BENDIAN) ST	507	BURLINGAME LS ME	277
ATWATER ME	050	BURLINGTON LS	533
AUBURN SH	273	BURR LS ME	212
AVOCA LS ME	314	CABANISS FM	463
BACHELOR CR LS ME	292	CALHOUN SH	305
BADER LS	199	CALVERT ASH B	066
BALLARD FM	052	CAMBRIAN SYS	575
BANDERA QUAR SS ME	445	CANEYVILLE LS	271
BANDERA SH	442	CANVILLE LS ME	402
BARNESTON LS	181	CAPTAIN CR LS ME	359
BEATTIE LS	204	CARLILE SH	088
BEECHER IS SH ME	078	CARLTON LS ME	161
BEIL LS ME	316	CARYAN SST	013
BENNETT SH ME	218	CEDAR HILLS SS	145
BERN LS	274	CEDAR BLUFFS TILL	164
BETHANY FALLS LS ME	407	CEDAR VALE SH ME	282
BEVIER COAL	472	CEMENT CITY LS ME	390
BIG BASIN FM	127	CENOZOIC ROCKS	001
BIGNELL FM	012	CHAMPION SHELL B	112
BIG SPRINGS LS ME	318	CHANUTE SH	282

ALPHABETIC - NUMERIC LIST (continued)

<u>UNIT</u>	<u>CODE</u>	<u>UNIT</u>	<u>CODE</u>
CHASE GP	167	CRUISE SS ME	106
CHAT	509	CURZON LS ME	302
CHATTANOOGA SH	545	DAKOTA FM	102
CHECKERBOARD LS	419	DAVID CITY FM	046
CHELSEA SS ME	484	DAY CREEK DOL	128
CHEROKEE GP	462	DEER CREEK LS	306
CHERRYVALE SH	391	DELLVALE ASH B	067
CHESTERAN SER	517	DELMORE FM	064
CHESTERAN ST	519	DENNIS LS	399
CHEYENNE SS	113	DESMOINESIAN SER	423
CHIMNEYHILL DOL	554	DESMOINESIAN ST	425
CHIKASKIA STS ME	150	DEVONIAN SYS	546
CHOUTEAU LS	541	DEV OR MISS SYS	544
CHURCH LS ME	289	DEV-SIL SYS	596
CIMARRONIAN ST	136	DEWEY LS ME	389
CLAY CREEK LS ME	324	DOCKUM GP	119
COAL CREEK LS ME	296	DODDS CREEK SS ME	405
COCKRUM SS	101	DOG CREEK FM	138
CODELL SS ME	089	DONIPHAN SH ME	319
COFFEYVILLE FM	415	DOUGLAS GP	334
COLLUVIUM	598	DOVER LS ME	259
COLORADO GP	084	DOYLE SH	177
COLUMBUS COAL	497	DRUM LS	387
COMANCHEAN SER	109	DRY SH ME	258
COMPTON LS	542	DRYWOOD COAL	495
CORBIN CITY LS ME	388	DU BOIS LS ME	298
COTTAGE GRO SS ME	383	EASLY CREEK SH	198
COTTER DOL	566	EISS LS ME	202
COTTER-JEFF C DOL	568	ELGIN SS	321
COTTONWOOD LS ME	207	ELMO COAL	283
COUNCIL GROVE GP	193	ELMONT LS ME	270
COWLEY FM	528	EMINENCE DOL	574
CRESSWELL LS ME	174	EMPORIA LS	269
CRETACEOUS SYS	073	ENGLEVALE SS ME	455
CRETE FM	028	ERVIN CREEK LS ME	307
CRISFIELD SS B	147	ESKRIDGE SH	208
CRITZER LS ME	414	EUDORA SH ME	358
CROOKED CREEK FM	049	EXCELLO SH	464
CROUSE LS	197	FAIRPORT CHALK ME	091
CROWEBURG COAL	476	FALLS CITY LS	233

ALPHABETIC - NUMERIC LIST (continued)

<u>UNIT</u>	<u>CODE</u>	<u>UNIT</u>	<u>CODE</u>
FARLEY LS ME	369	HAPPY HOLLOW LS ME	284
FENCEPOST LS B	095	HARPER STS	148
FIVE POINT LS ME	231	HARTFORD LS ME	304
FLEMING COAL	479	HARTLAND SH ME	097
FLORENA SH ME	206	HARVEYVILLE SH ME	271
FLORENCE LS ME	184	HASKELL LS ME	342
FLOWERPOT SH	144	HASKEW GPY ME	140
FLUVIAL DEP	009	HAVENSVILLE SH ME	191
FONTANA SH ME	396	HAWXBY SH ME	235
FORAKER LS	221	HEEBNER SH ME	330
FORT HAYS LS ME	087	HEPLER SS ME	422
FORT RILEY LS ME	182	HERINGTON LS ME	169
FORT SCOTT LS	456	HERTHA LS	411
FORT WALLACE ASH B	068	HEUMADER SH ME	328
FRENCY CREEK SH ME	253	HICKORY CR SH ME	363
FRIEDRICH SH ME	255	HIGGINSVILLE LS ME	457
FRISBIE LS ME	373	HILLS POND PERIDOT	589
FULLERTON FM	043	HOLDENVILLE SH	428
FUNSTON LS	195	HOLDREGE FM	044
GAGE SH ME	178	HOLLENBERG LS ME	163
GALESBURG SH	403	HOLMESVILLE SH ME	180
GASCONADE DOL	570	HOLOCENE	131
GEARYAN ST	166	HOLT SH ME	297
GILMAN CANYON	339	HONEY CREEK LS	578
GILMORE CITY LS	538	HOOSER SH ME	201
GLACIAL DRIFT	020	HOUCHEN CR LS ME	229
GLENROCK LS ME	219	HOUX LS B	459
GRANDHAVEN LS ME	257	HOWARD LS	286
GRAND ISLAND FM	036	HOWE LS ME	217
GRANEROS SH	099	HUGHES CREEK SH ME	223
GRANITE WASH	583	HUNTON GRP	551
GRANT SH ME	175	HUNTSMAN SH ME	107
GRAYHORSE LS ME	248	HUSHPUCKNEY SH ME	408
GREENHORN LS	092	HUTCHINSON SALT ME	159
GRENOLA LS	209	IATAN LS ME	350
GUADALUPIAN SER	123	IDENBRO LS ME	430
GULFIAN SER	074	ILLINOISAN ST	023
GUNTER SS ME	572	INDIAN CAVE SS B	238
GURLEY SS ME	108	IOLA LS	378
HAMLIN SH ME	227	IOWAN SST	0.5

ALPHABETIC - NUMERIC LIST (continued)

<u>UNIT</u>	<u>CODE</u>	<u>UNIT</u>	<u>CODE</u>
IOWA POINT SH ME	303	LAKE NEOSHO SH ME	439
IOWA POINT TILL	162	LAMOTTE SS	580
IRELAND SS ME	340	LAMOTTE (REAGAN) SS	579
IRON POST COAL	467	LANE SH	374
ISLAND CREEK SH ME	370	LANE-BONNER SP SH	375
JACKSON PARK SH ME	325	LANE-VILAS SH	376
JANESVILLE SH	226	LANGDON SH	261
JANSSEN CLAY ME	103	LANSING GP	353
JEFFERSON CITY DOL	567	LARSH-BURR SH ME	308
JETMORE CHALK ME	096	LAVERNE FM	065
JIM CREEK LS ME	254	LAWRENCE FM	335
JOHNSON SH	220	LEAVENWORTH LS ME	331
JONES POINT SH ME	301	LECOMPTON LS	313
JURASSIC SYS	114	LEGION SH ME	213
JUR-TRI SYS	592	LENAPAH LS	429
KANSAN ST	033	LEONARDIAN SER	135
KANSAS CITY GP	365	LINCOLN LS ME	098
KANSAN GLAC-FLUV DEP	155	LINN SGP	377
KANSAS TILL	037	LITTLE CABIN SS ME	502
KANWAKA SH	322	LITTLE OSAGE SH ME	458
KEARNY FM	514	LONG CREEK LS ME	222
KEOKUCK LS	532	LOVELAND FM	024
KEREFORD LS ME	327	L CRETACEOUS SER	110
KIGER SH ME	130	L(\$) CRET SER	100
KIMBALL ME	061	L(\$) CRET-L CRET SER	591
KINDERHOOKIAN SER	536	L MISS SER	529
KINDERHOOKIAN ST	537	L ORDOVICIAN SER	564
KING HILL SH ME	315	L ORD-U CAM SER	573
KINGMAN STS ME	149	L PENN SER	512
KINGSDOWN FM	029	L PERMIAN SER	134
KINNEY LS ME	187	L PERM-U PENN SER	593
KIOWA SH	111	L PLEISTOCENE SSER	030
KNIFETON COAL	492	L SIBLEY COAL	348
KNOBTOWN SS ME	418	L SIL-M DEV SER	548
KREBS FM	490	L SILURIAN SER	550
KRIDER LS ME	171	MANKATOAN SST	011
LABERDIE LS ME	448	MAPLE HILL LS ME	263
LABETTE SH	452	MAQUOKETA (SYL) SH	557
LADORE SH	410	MARLOW SS ME	133
LAKE CREEK SH ME	081	MARMATON GP	426

ALPHABETIC - NUMERIC LIST (continued)

<u>UNIT</u>	<u>CODE</u>	<u>UNIT</u>	<u>CODE</u>
MATFIELD SH	185	NEVA LS ME	210
McPHERSON	469	NEWMAN TERRACE DEP	587
MEADE GP	048	NICKERSON TILL	158
MED LODGE GYP ME	143	NINNESCAH SH	153
MEMORIAL SH	427	NIOBRARA CHALK	085
MERAMECIAN SER	521	NIPPEWALLA GP	137
MERAMECIAN ST	522	NODAWAY COAL	291
MERRIAM LS ME	364	NOLANS LS	168
MESOZOIC ROCKS	072	NORFLEET LS ME	432
MIDDLEBURG LS ME	200	NORTHVIEW SH	540
MIDDLE CREEK LS ME	409	NORTONVILLE CLAY	404
M DEVONIAN SER	547	NOT DETERMINED	500
M ORDOVICIAN SER	558	NOWATA SH	433
M PENN SER	424	NOXIE SS ME	388
MILAN DOL ME	157	OAKS SH ME	228
MINE CREEK SH ME	449	ODELL SH	172
MINERAL COAL	481	OGALLALA FM	060
MISSISSIPPIAN SYS	516	OGALLALA-DAKOTA	436
MISS DEV SYS	595	OGALLALA-CHEYENNE	444
MISSLER ME	079	OGAL-DAK-CHYN	448
MISSOURIAN ST	352	OGAL-DAK-CHYN-JUTR	454
MONTANA GP	076	OGAL-CHYN-JUTR	468
MORRILL LS ME	205	OKETA SH ME	183
MORRISON FM	116	OMADI FM	105
MORROWAN SER	511	ONAGA SH	234
MORROWAN ST	513	ORD-CAM SYS	597
MOUND CITY SH ME	413	ORDOVICIAN SYS	555
MULBERRY COAL	443	OREAD LS	326
MULKY COAL	465	OUTWASH DEP	385
MUNCIE CREEK SH ME	380	OSAGIAN SER	530
MYRICK STAT LS ME	450	OSAGIAN ST	531
NEBRAS CITY LS ME	250	OSKALOOSA SH ME	370
NEBRASKAN ST	041	OZAWKIE LS ME	311
NEBRASKA TILL	045	PADDOCK SH ME	170
NEB GLAC-FLUV DEP	434	PALEOZOIC ROCKS	121
NEMAHA SGP	267	PAOLA LS ME	381
NEOGENE-CRET SYS	590	PAWNEE LS	447
NEOGENE SYS	002	PEARLETTE ASH B	035
NESCATUNGA GYP ME	142	PEDEE GP	349
NEUTRAL COAL	500	PENN BS CON	515

ALPHABETIC - NUMERIC LIST (continued)

<u>UNIT</u>	<u>CODE</u>	<u>UNIT</u>	<u>CODE</u>
PENN-CAM SYS	582	RICHARDSON SGP	244
PENNSYLVANIAN SYS	239	RIVERTON COAL	504
PENN-MISS SYS	594	ROBBINS SH ME	341
PEORIA FM	017	ROCA SH	215
PERMIAN SYS	122	ROCK BLUFF LS ME	305
PERRY FARM SH ME	431	ROCK LAKE SH ME	356
PFEIFER SH ME	094	ROOT SH	252
PIERRE SH	077	ROUBIDOUX FM	569
PIERSON POINT SH	265	ROWE COAL	498
PILLSBURY SH	260	RULO LS ME	281
PILOT COAL	485	RUNNY MEDE STS ME	154
PLATTEVILLE FM	561	SACFOX SGP	278
PLATTSBURG LS	361	SALEM LS	526
PLATTSMOUTH LS ME	329	SALEMPPOINT SH ME	211
PLEASANTON GP	416	SALLYARDS LS ME	214
PLEISTOCENE SER	004	SALT GRASS SH ME	080
PLIOCENE SER	058	SALT PLAIN STS	146
PLIO-PLEIST SER	055	SANBORN GP	027
PLUMB SH ME	249	SANGAMONIAN ST	021
PONY CREEK SH ME	247	SANGAMON SOIL	022
PRECAMBRIAN ROCKS	584	SAPPA FM	034
PRECAMBRIAN SYS	585	SCAMMON COAL	483
QUARTERMASTER GP	125	SCHROYER LS ME	190
QUATERNARY SYS	003	SCRANTON SH	279
QUAT OR TERT SYS	054	SEDALIA DOL	539
QUEEN HILL SH ME	317	SEMINOLE FM	420
QUINDARO SH ME	372	SEVERY SH	293
QUIVIRA SH ME	392	SEVILLE LS ME	491
RAWLINS ASH B	069	SHARON SP SH ME	383
RAYTOWN LS ME	379	SHAWNEE GP	294
READING LS ME	272	SHELDON LS ME	300
REAGAN SS	581	SHIMER GYP ME	141
REAGER ASH B	070	SILURIAN SYS	549
REAMSVILLE ASH B	071	SILVER LAKE SH ME	280
RECENT ST	008	SIMPSON GP	530
REC-ILL ST	026	SMOKY HILL CH ME	386
RED EAGLE LS	216	SNIABAR LS ME	412
REEDS SPRING LS	534	SNYDERVILLE SH ME	332
RELAY CREEK DOL ME	132	SOLDIER CR SH ME	276
REXROAD FM	059	SOUTH BEND LS ME	351

ALPHABETIC - NUMERIC LIST (continued)

<u>UNIT</u>	<u>CODE</u>	<u>UNIT</u>	<u>CODE</u>
SOUTH MOUND SH ME	421	TOWANDA LS ME	179
SPEISER SH	194	TOWLE SH ME	237
SPERGEN LS	525	TRIASSIC SYS	117
SPRING BR LS ME	320	TURNER CREEK SH ME	299
SPRING HILL LS ME	362	UNDIFFERENTIATED	586
STANTON LS	354	UNMAPPED REGOLITH	473
STARK SH ME	401	UNNAMED	478
STEARNS SH	203	UNNAMED	480
STE. GENEVIEVE LS	523	UNNAMED	482
ST. JOE LS	535	UNNAMED	488
ST. LOUIS LS	524	UNNAMED	493
ST. PETER SS	562	UNNAMED	496
STICE COAL	470	UNNAMED	499
STINE SH ME	230	UNNAMED	501
STONE CORRAL FM	152	UNNAMED	505
STONER LS ME	357	UNNAMED	510
STOTLER LS	256	UNNAMED	520
STOVALL LS ME	176	UNNAMED	552
STRANGER FM	343	UNNAMED	553
STULL SH ME	323	UNNAMED	563
STUMP ARROYO ME	051	UPLAND CHERT GRAV	056
SUMMIT COAL	460	U CAMBRIAN SER	576
SUMNER GP	151	U CRETACEOUS SER	075
SWOPE LS	406	U JERASSIC SER	115
TACKET FM	417	U MISS SER	518
TALOGA FM	126	U ORDOVICIAN SER	555
TARKIO LS ME	266	U PENN SER	247
TAZEWELLIAN SST	018	U PERMIAN SERIES	124
TEBO COAL	487	U PLEISTOCENE SSER	005
TECUMSEH SH	312	U SIBLEY COAL	347
TERRACE DEP	014	U TRIASSIC SER	118
TERRA COTTA CL ME	104	UTOPIA LS ME	287
TERTIARY SYS	057	VALENTINE ME	063
THAYER COAL	384	VAN BUREN FM	571
THREEMILE LS ME	192	VANHEM FM	025
TIAWAH LS	486	VERDIGRIS LS ME	474
TINA LS	441	VILAS SH	360
TONGANOXIE SS ME	346	VINLAND SH ME	344
TOPEKA LS	295	VIOLA (KIMM) LS	559
TORONTO LS ME	333	VIRGILIAN SER	240

ALPHABETIC - NUMERIC LIST (continued)

<u>UNIT</u>	<u>CODE</u>	<u>UNIT</u>	<u>CODE</u>
VIRGILIAN ST	242	YARMOUTHIAN ST	031
WABAUNSEE GP	243	YARMOUTH SOIL	032
WAKARUSA LS ME	275	ZARAH SGP	366
WALT JOHNSON SS ME	435	ZEANDALE LS	262
WAMEGO SH ME	264		
WARNER SS ME	503		
WARRENSBURG SS	453		
WARSAW LS	527		
WATHENA SH ME	336		
WEA SH ME	394		
WEA-QUIVIRA SH ME	397		
WELLINGTON FM	156		
WESKAN SH ME	082		
WEST BRANCH SH ME	232		
WESTERVILLE LS ME	393		
WESTON SH ME	351		
WESTPHALIA LS ME	345		
WHEELER COAL (\$)	471		
WHITECLOUD SH ME	285		
WHITEHORSE FM	129		
WIER PITTS COAL	489		
WILLARD SH	268		
WILLIAMSBURG COAL	338		
WINFIELD LS	173		
WINTERSET LS ME	400		
WINZELER SH ME	288		
WISCONSINAN ST	010		
WOLFCAMPIAN SET	165		
WOOD SIDING FM	245		
WORLAND LS ME	438		
WREFORD LS	189		
WYANDOTTE LS	368		
WYMORE SH ME	188		
X 1 ME	120		
YARMOUTH-NEBRAS ST	047		

Tape Held (ft)		
Tape Wet (ft)		
Depth to water below M.P. (ft)		
M.P. above below lsd (ft)		
Depth to water below lsd (ft)		

Kansas Well Schedule

T.D. Tape Held (ft)	
Length of Weight (ft)	
T.D. below M.P. (ft)	
M.P. above below lsd (ft)	
T.D. of Well below lsd (ft)	

Record by _____ Date: _____ Project: _____ State: _____ County: _____ DWR Permit Number: _____

Well Location:

5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----

T R E-W Sec 160 40 10 20 No.

Owner or User:

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Source of Owner Info.:

(W)	(D)	(H)	(I)	(R)	41	42	43
-----	-----	-----	-----	-----	----	----	----

WWC S, DWR KDHE, USGS, Owner or User

Type of Well:

(DR)	(DU)	(DN)	(DD)	(SP)	44	45	46
------	------	------	------	------	----	----	----

Dotted, Dug, Driven, Dug & Drilled, Spring

Surface Elevation above msl (ft):

47	48	49	50	51	52	53
----	----	----	----	----	----	----

Elevation Accuracy:

54	55
----	----

 Driller: _____ Date Constructed:

56	57	58	59	60	61
----	----	----	----	----	----

name address mon year

Depth of Well below lsd (ft):

62	63	64	65	66	67	68
----	----	----	----	----	----	----

 Accuracy:

69	70
----	----

 Use of Well:

71	72
----	----

 Water Level:

above	below	73	74	75	76	77	78	79	80
-------	-------	----	----	----	----	----	----	----	----

 Accuracy:

81	82
----	----

Date Measured:

83	84	85	86	87	88	89	90	91
----	----	----	----	----	----	----	----	----

mon day year

Description of M.P.: _____ above below lsd.

Aquifers Material:

92	93	94	95	96	97
----	----	----	----	----	----

 Aquifers Units:

98	99	100	101	102	103	104	105
----	----	-----	-----	-----	-----	-----	-----

 Source of Aquifer Info.:

106	107	108
-----	-----	-----

Depth to Bedrock:

109	110	111	112	113	114	115
-----	-----	-----	-----	-----	-----	-----

 Yield:

116	117	118	119	120
-----	-----	-----	-----	-----

 Accuracy:

121	122
-----	-----

 Diameter of casing (inches):

123	124	125	126	127
-----	-----	-----	-----	-----

 Casing Type:

128	129
-----	-----

Lat & Power:

130	131
-----	-----

 Chloride Content:

132	133	134	135	136	137	138	139	140
-----	-----	-----	-----	-----	-----	-----	-----	-----

 Accuracy:

141	142
-----	-----

 Specific Conductance:

143	144	145	146	147	148
-----	-----	-----	-----	-----	-----

 Accuracy Lab or Field:

149	150	151
-----	-----	-----

(mg/L) (µmhos/cm at 25 C)

Sample Collection Date:

152	153	154	155	156	157	158	159	160
-----	-----	-----	-----	-----	-----	-----	-----	-----

mon day year

Other Chem. Quality Data Available:

161	162
-----	-----

 Remarks:

163	164	165	166	167	168	169	170	171	172	173
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

For additional Water Level Information, Chemical Data, and Remarks use second line:

73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151							
Water Level																		Acc.		Date Measured		Chloride Content																		Acc.		Specific Conductance		Acc. L or F	

152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173
Sample Collection Date										Other Chem Data		Remarks									

Owner or User: _____ name _____ address _____

Topography of well site: Draw, Flood Plain, Lowland, Rolling, Slope, Terrace, Upland _____

Ownership Category: County, Federal Gov't., City, Corp. or Co., Private, State Agency, Water District _____

Method Drilled: Air, Bored, Cable, Dug, Driven, Hyd, Rotary, Jetted, Rev. Rotary, Trenching, Spring _____

Sample Number: _____ Water Temperature: _____ °F/C Time Pumped: _____ min. Source of Sample: _____ Location of Sample Source (sketch on back)

Water Quality Description: _____ Source: _____

Pumpage & Other Data Available: _____ Specific Capacity: _____ (gpm ft dd)

Quadrangle: _____ Well Number: _____

Kansas Geological Survey
Open-file Report

Disclaimer

The Kansas Geological Survey does not guarantee this document to be free from errors or inaccuracies and disclaims any responsibility or liability for interpretations based on data used in the production of this document or decisions based thereon. This report is intended to make results of research available at the earliest possible date, but is not intended to constitute final or formal publication.