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2 WATER

2.1 Impacted Wetlands and Waterways.

Our survey of the proposed SSC area for the original site proposal identified only seven wetlands totaling 54 acres in the area of the proposed SSC. The largest wetland is 38 acres and the remainder are less than 4 acres each. None of these wetlands are located on lands which would be purchased or otherwise impacted by the SSC.

As most of the SSC facility will be located in tunnels one to two hundred feet below ground, most of the waterways which could be impacted are those located in the campus and injector areas (Plate 2.1). These waterways comprise 22 first order and three second order streams. Because the proposed campus area is on the divide between two major watersheds (Wakarusa and Marais des Cygnes rivers) and the level of groundwater is well below the surface, all of the streams in this area are intermittent. The total lengths of the first and second order streams are 10.9 and 0.62 miles, respectively. Two of the second order streams and nine of the first order streams (5.65 miles) are located in the Strowbridge Reservoir watershed. Except for 0.06 mile of one stream, all of the potentially impacted streams in the Strowbridge reservoir watershed are located entirely within the campus, injector, and future expansion areas. Three first order streams are located in the watershed of Osage County State Fishing Lake. Only the northern portions of these streams totaling 1.2 miles are in areas to be purchased for the SSC.

As currently positioned, some of the service and other access areas intersect the beds of intermittent streams. Areas F5, J1, J5, J6, and K2 are located on first order streams. Areas F6 and J2 are adjacent to a first and second order stream, respectively.

2.2 Description of surface waters used for public water supply and other major purposes in the vicinity of the SSC site.

No new data were discovered by this additional study. The information contained in Volume 5, Sections 5.1 through 5.2.3 of the Kansas Site Proposal for the SSC (September, 1987) is the best available and is not repeated here.

2.3 Description of regional hydrogeological conditions. Discussion to include all aquifers, depth to water, quality of groundwaters, use of groundwater, ground-flow direction and rate, recharge area, and groundwater and surface water interaction.

INTRODUCTION

The quantity, quality, and availability of ground-water supplies in the SSC site area depend largely on the local geology and topography. The geology consists of consolidated limestones, shales, and sandstones of Pennsylvanian age. Ground water is available from shallow soil and weathered bedrock aquifers; and deep, unweathered bedrock aquifers. The river valleys contain alluvial deposits of unconsolidated clay, silt, and some sand and gravel of Quaternary age.

The topography of the area consists mainly of high uplands or divides, and valleys. The majority of the upland ridges have gentle slopes to the west and more steeply-inclined eastern slopes. This feature is the result of the strata dipping in a west-northwesterly direction. The valleys are only moderately wide and deep and in most cases are walled by rather steep bluffs caused by the presence of a large number of persistent limestone ledges which are cut by the major streams that traverse the area from west to east.

The main divide is located approximately along Highway 56 which trends east-west across the northern part of the site area. South of this divide the majority of the area is drained by the Marais Des Cygnes River. To the north of the divide drainage is toward the Wakarusa River.

GROUND-WATER RECHARGE AND DISCHARGE

Ground water in the SSC site area is derived largely from recharge by local precipitation. During high stages of streamflow some ground-water recharge may occur from streams as influent seepage to adjacent alluvial deposits and to the bedrock where streams cut across unsaturated permeable zones. However, during most of the year streams are discharge areas for the fresh-water aquifers. Hydrographs of ground-water levels indicate that in most years recharge occurs principally in the March through June period, with water levels rising and then declining during the remainder of the year. Over a 20 to 30 year period of time, (through both a wet and dry climatic cycle), water levels may fluctuate 20 feet or more in wells completed in valley alluvium, upland weathered zones developed in the Pennsylvanian limestones, shales, and sandstones, and in the intervening colluvial slope deposits. Ground-water recharge may also occur as influent seepage from the many man-made ponds, lakes, and reservoirs constructed in the area. For shallow upland wells, local precipitation is the only source of recharge.

In addition to baseflow to streams in the form of springs or seeps, some ground water discharges by evaporation and transpiration from vegetation, where the water table is near the surface. A portion of the ground water is discharged from wells, but with the exception of municipal pumpage from the Ireland and/or Tonganoxie sandstone aquifers and the Marais Des Cygnes River valley in the easternmost part of the site area (see Figure 3.7, Volume 3, Kansas SSC Site Proposal), the amount discharged by wells is small compared with that discharged by other means.

AVAILABILITY OF GROUND WATER

In the SSC site area fresh ground water is known to occur in unconsolidated deposits locally to a depth of about 50 feet and in consolidated rocks locally to a depth of about 500 feet. Refer to Figure 3.5 in Volume 3 of the Kansas Site Proposal for the SSC (September 1987) during discussions of aquifers in the SSC site area.

UNCONSOLIDATED ROCK AQUIFERS

Alluvium--The extent of alluvial deposits in the site area is shown on Plate 3.2 and is represented as Region 1 in Figure 3.7 in Volume 3 of the Kansas Site Proposal for the SSC (September 1987). Region 1 includes the valley areas underlain by clay, silt, sand, and gravel. In the Marais des Cygnes River Valley near Quenemo, the known maximum thickness of the fluvial deposits is 43 feet whereas those of the One Hundred and Ten Mile Creek Valley at the site of the Pomona Reservoir dam reached 52 feet. Reported maximum alluvium thicknesses in other tributary valleys include 26 feet in Dragoon Creek, 22 feet in Salt Creek, 20 feet in Camp Creek, 19 feet in Valley Brook, and 17 feet in Switzler Creek (KERC Report for Osage County, 1934 and O'Connor, 1955). As little as 5 feet of alluvium may occur in smaller valleys. Yields of 10 to 50 gallons a minute can be developed in the larger valley areas. Water is obtained from sand and gravel in the basal parts of the deposits.

In the historic past, ground-water resources from the principal alluvial deposits were preferred in much of the site area because of their greater reliability during drought periods, larger yields, and better chemical quality of the water compared to the shallow bedrock or

shallow alluvial aquifers. In the recent past and at present, increased demand, vulnerability to drought and contamination, and accessibility to potable water supplies from rural water districts has resulted in the decreased use of many municipal-supply wells in alluvial deposits. Some stock and domestic wells are still supplied by these deposits.

The quality of water from wells in alluvium is shown in Table 2.1. Because of their shallow depth alluvial wells, as well as dug wells in weathered bedrock, are more susceptible to nitrate and other contamination than are deeper drilled wells.

The direction of ground-water flow in alluvium is downvalley and toward the stream where it discharges as baseflow during some of the year. During periods of high streamflow the direction of ground-water flow will reverse temporarily, and contribute to bank storage.

In some reaches of the larger east-west stream valleys, ponding of the streamflow occurs behind outcrops in the streambed of ledge-forming limestones that dip west-northwest.

Consolidated Rock Aquifers

Limestone and Shale Aquifers--Generally, the unweathered Pennsylvanian limestones and shales which outcrop in the SSC area have little primary permeability. However, where the limestones and shales are at or near the surface (within 20 to 30 feet of land surface), various weathering processes and release of overburden pressure by erosion cause some secondary permeability to develop in both the limestones and shales. Ground water in these shallow weathered-bedrock aquifers is unconfined. It is generally of good quality [total dissolved solids less than 1,000 milligrams per liter (mg/L)] but is

easily contaminated because of its shallow depth. The water table may range from less than 5 feet to 40 feet below ground surface. During dry years, water levels may greatly decline or there may be no saturated zone and thus no water table is locally present. Dug wells, 4 or 5 feet in diameter and 10 to 50 feet deep, may yield from 0.25 gallon to as much as 5 gallons per minute in normal or wet years but may go dry or have much reduced yields during drought periods. Small diameter drilled wells (5 to 10 inch diameter) may yield so little water from the shallow weathered-bedrock aquifer that they are inadequate to provide reliable domestic water supplies or are considered to be "dry holes".

The permeability of weathered limestone and shale differs greatly from place to place. Effectiveness of recharge to, and discharge from, these rocks is importantly influenced by such factors as type and thickness of soil, vegetative cover, slope, topographic position, and thickness and extent of the weathered zone.

Some drill logs indicate that ground water is sometimes encountered in limestone formations at greater depths but these zones often have such low yields that wells are commonly constructed in such a way that an overlying or underlying shale formation containing a sandstone aquifer is also tapped in order to make the well adequate for at least minimum use. The most frequently mentioned limestone units that produce noticeable amounts of ground-water are the Howard Limestone Formation and the Happy Hollow Limestone Member of the Scranton Shale Formation in Region 2 (Fig. 3.7, Volume 3 of the Kansas Site Proposal), and the Topeka Limestone Formation in addition to the Howard Limestone in the northern portion of Region 3. In a few cases of test hole drilling in

Region 4, detectable amounts of ground water have been noted in the Deer Creek, Lecompton, and Oread limestone formations.

Sandstone Aquifers--The fine-grained sandstones locally present within the Pennsylvanian shale formations have primary intergranular permeability and locally may have some secondary fracture permeability. Generally, these sandstones have low to medium permeabilities on the order of 5 to 340 gpd/ft^2. Where the sandstone aquifers are at or near the land surface, ground water occurs under water table conditions and wells tapping them are subject to declining water levels and reduced yields in dry years. Wherever the sandstone aquifers are not at or near the land surface, but occur between relatively impermeable confining beds, the ground water is under confined conditions and the water levels in wells tapping these deeper aquifers are little affected by brief periods of deficient precipitation.

Shale formations of the Wabaunsee (Auburn, Scranton, and Severy) and Shawnee groups (Calhoun, Tecumseh, and Kanwaka), contain relatively thin intraformational channel sandstones in the vicinity of the SSC site. Where present, the sandstones can range from 5 to 40 feet in thickness and yield small ground-water supplies to domestic wells.

With the exception of Region 5 in the eastern and southeastern portions of the site area (Figure 3.7, Volume 3 of the Kansas Site Proposal) where drilled wells tap important sandstone aquifers in the Douglas Group, the largest concentration of drilled wells is in Region 2 and the northern part of Region 3.

In Region 2 it has been reported that many drilled wells which range in depth from 60 to 240 feet, derive water chiefly from beds of sandstone in the White Cloud and Severy Shales (O'Connor, 1955). Yields

were reported to range from less than one to as much as 20 gallons per minute (gpm) with most wells yielding 2 to 5 gpm. Water quality was reported to be generally good with an increasing chloride content along the western margin limiting the usefulness of the water.

Since 1974, when regulations were established requiring drilling contractors to submit water well records, several 'new' wells have been drilled in the eastern part of Region 2 and to the east in the northern part of Region 3. Information from these records indicate that sandstones in the Calhoun and White Cloud Shales were the principal aquifers in the area. These wells were usually constructed so that an overlying or underlying formation which provided a small amount of ground water, was allowed to contribute to the yield of the well. In many cases, wells tapped both the Calhoun Shale and the Topeka Limestone Formations. In other wells the Howard Limestone contributed small quantities to wells tapping either the White Cloud or Calhoun Shales. Despite these measures, reported yields averaged one gallon or less per minute and rarely exceeded 2 gpm.

A water well inventory recently done in conjunction with this study and report revealed that many of the newer wells (as well as the older drilled and dug wells) are no longer used. Low yields, mineralized or 'salty' water quality, and the availability of rural or city water supplies were the most cited reasons for nonuse of private water wells.

Other sandstone aquifers of the Wabaunsee Group from which groundwater supplies have been obtained in the site area include the Auburn, Silver Lake, and Cedar Vale shales in Region 3. Water comes from shallow drilled and dug wells with yields averaging 1 gpm and a sodium bicarbonate-type water quality.

The sandstone aquifers of the Shawnee Group in Region 4 include the Calhoun, Tecumseh, and Kanwaka Shale formations which have predominantly supplies water to shallow dug wells in the past along with a few drilled wells along the eastern margin of the region which tap the Kanwaka Shale. The yields were reported to range from a few gallons per day to a few gallons per minute. The water quality is similar to the sandstone aquifers of Region 3 above (O'Connor, 1955).

The principal aquifers of the SSC site area are the sandstone aquifers of the Douglas Group represented as Region 5 in the eastern and southeastern quadrants of the collider oval. The Ireland Sandstone Member of the Lawrence Formation and the Tonganoxie Sandstone Member of the Stranger Formation are both channel-filling deposits consisting predominantly of fine to very fine sand, with the Ireland containing a larger percentage of silt (Sanders, 1959). In one area in the east quadrant of the oval, the local disconformity at the base of the Ireland Member has been cut down into the Tonganoxie and the two are in direct hydraulic connection. The ground water in them intermingles both vertically and horizontally. Three subregions are delineated in Figure 3.7 based on the principal aquifer in each.

Subregion 5a, in the southwestern corner of Douglas County, produces ground water mainly from the Tonganoxie Sandstone, which supplies many wells with good quality water with reported yields of as much as 50 gpm. Although the Ireland Sandstone Member is reported to reach a thickness of 100 feet locally and to yield as much as 12 gpm, the ground-water quality is generally poor with chloride concentrations as high as 5200 ppm. Because of this, wells in the region must be cased

and grouted through the Ireland in order to obtain satisfactory ground-water supplies from the Tonganoxie.

In the vicinity of the Overbrook city well field (SE 1/4, Section 36, Township 14S, Range 17E and NE 1/4, Section 1, Township 15S Range 17E), the thickness of the Tonganoxie Sandstone is reported to reach 120 feet. When city wells #1 and #2 (Table 2.2) were constructed in early 1953, they were each reported to yield 50 gpm and had static water levels of 205 ft and 210 ft below land surface, respectively. By 1969, the static water levels and yields in these wells had declined to 315 ft and 300 ft, and 36 gpm and 30 gpm, respectively. It was at this time that a third city well was drilled north of wells #1 and #2, in section 1. This well had an initial static water level of 278 ft below land surface and yielded between 40 and 50 gpm. Static water levels and well yields continued to decline so that by 1979 the water level in Well #1 was 361 ft below land surface and yields ranged from 10 gpm to 28 gpm in the three wells. In the spring of 1979, two additional city wells were constructed (section 36), each yielding about 30 gpm and having static water levels of 318 ft (Well #4) and 348 ft (Well #5).

Today, reduced water supplies from the city well field are supplemented with surface water from Clinton Reservoir.

Water levels in the vicinity of the Overbrook well field as of 1980 are represented in Figure 3.8, Volume 3 of the Kansas SSC Site Proposal as a depression in the potentiometric surface in the southwest corner of Douglas County (Macfarlane, 1981). Originally the hydraulic gradient of the Tonganoxie sloped toward the northeast at about 7 feet per mile (O'Connor, 1960) with ground water discharging into the alluvial deposits of the Wakarusa and Kansas river valleys. The ground-water

divide shown in Figure 3.8 between the Overbrook well field and the Wakarusa River Valley may be sustained somewhat by the hydraulic head of the impounded water in Clinton Reservoir.

The quality of water from the Tonganoxie in Region 5a, (which is near its outcrop), is usually good but becomes saline to the west, downdip beneath the Shawnee Group cover in Region 4 and beyond. The quality is also reported to be brackish toward the discharge area in the northeast (O'Connor, 1960). Several examples of ground-water quality from the Tonganoxie Sandstone or sandstones in the Stranger Formation in the site area are listed in Table 2.1.

Subregion 5b is the area where both the Ireland Sandstone and sandstones in the Stranger Formation are freshwater aquifers. In some localities in northwestern Franklin County the two are in contact and hydraulically connected. Unless intervening beds are present, the two sandstones are difficult to differentiate except by a slightly finer texture in the Ireland and by stratigraphic position. In some localities the Vinland Shale Member contains a considerable amount of sandstone which is undifferentiable from the stratigraphically lower Tonganoxie Sandstone member. Where the Ireland can be identified separately from the Tonganoxie or Vinland/Tonganoxie, both may range up to 100 feet in thickness locally.

South of the Marais Des Cygnes River in Subregion 5b, the Ireland Sandstone and sandstone in the Vinland Shale sometimes cannot be differentiated and, in fact, the Tonganoxie Sandstone may not be present. Thus, wells in the eastern two-thirds of Subregion 5b obtain ground-water supplies from the Ireland and from sandstones in the Ireland/Vinland interval. Yields range from 2 gpm to 40 gpm and average

about 20 gpm. Well depths range from less than 100 feet where the Lawrence Formation outcrops and unconfined or water-table conditions prevail, to more than 200 feet where the sandstone aquifers become confined. Water quality is generally good for most purposes.

Wells in the westernmost portion of subregion 5b may be completed in either the Ireland or Tonganoxie Sandstone and in a few cases both sandstones are tapped by a single well. In this area wells range from 115 to 360 feet in depth.

Figure 3.8 indicates a generally continuous potentiometric surface in this subregion with ground water discharging to the streams and their tributaries. An area in the northwest, bordering Regions 5b and 5c, is represented in Figure 3.8 by a 1000 foot elevation enclosure on the potentiometric-surface map of the Douglas Group aquifers. This potentiometric 'high' is the result of at least two known wells that have been constructed to allow a water-bearing zone in the Oread Limestone Formation to contribute to the well which in one case is completed in the Ireland Sandstone and in the other, sandstones of the Vinland/Tonganoxie interval.

Subregion 5c produces water principally from the Ireland Sandstone Member of the Lawrence Formation. The unit is widely distributed and has maximum reported thicknesses of 60 to 90 feet. The Ireland is a confined aquifer in this area. Wells in Osage County that tap the Ireland range in depth from 80 to 350 feet. Yields range from 1 to 40 gpm.

Quality ranges from soft sodium bicarbonate waters to a somewhat harder calcium bicarbonate. The amounts of chlorides in some wells is enough to give the water a salty taste.

The western boundary of Region 5c is approximate. West of it the water in the Ireland is too highly mineralized for either domestic or stock use.

Merrill Mineral Spring

Merrill Mineral Spring located one and one-half mile north of Carbondale has been reported in the literature as early as the late 1800's. A Kansas Geological Survey publication on mineral waters (Bailey, 1902) reported that the spring supposedly flowed 600 gallons per hour from "...a fissure in the rock several hundred feet in depth." Some early analyses of the spring water have shown it to not only contain high concentrations of sodium, chloride, and sulfate ions, but also a significant amount of ammonia. See water quality data for well number 14-16E-18BBBC in Table 2.1.

O'Connor and others (1955) reported that the geologic source of the Spring is the Severy Shale Formation which outcrops at the spring. However, a water well drilled in 1975 approximately 1200 feet east of the spring encountered "salt" water at a depth of 132 to 140 feet in a sandy shale believed to be the Tecumseh Shale Formation.

Correlation of geologic strata based on driller's logs in the vicinity of Carbondale suggests some geologic structure, possibly faulting, which may account for the occurrence of such highly mineralized ground water at the surface and in relatively shallow aquifers.

A description of Merrill Spring in The Early History of Osage County (Carswell, 1982) states that the temperature of the water was about ten degrees Fahrenheit above that of the waters of surrounding

wells. If true, this fact suggests a deep source for the water, perhaps the basal sedimentary cover (Camro-Ordovician) over the Precambrian basement rocks or from the Precambrian itself. If either is also true, the likely conduit for the rising water would be a deep fault.

2.4 Location of water wells that could be affected by the SSC facility, including use, size, depth, pumping rate, and years of production.

Table 2.2 is a listing of the wells and springs that have been reported or identified either by field investigation in December 1987 specifically for this study, or by other sources in the vicinity of the proposed SSC site. Information included in the table is use, size, depth, yield, and age of the well (where available); along with the well's location, elevation, owner or user, casing type and diameter, and static water level (again where available). Aquifer(s) material and unit(s) are also reported and/or inferred based upon available driller's logs for water wells, oil and gas wells, and test holes; and surface geology maps.

Because of the inadequate quantity and quality of ground-water resources in most of the SSC site area, a large number of wells listed in Table 2.2 are old shallow, hand-dug wells. Historically, these wells obtained ground-water supplies from alluvial and weathered-bedrock aquifers at a time when such quantity and quality were deemed adequate. Today these wells are, for the most part, unused or abandoned. Dug wells listed in Table 2.2 represent those nearest the actual proposed ring site that could be identified or were reported by landowners. Many others are likely to exist in the area.

Information on many drilled wells not as close to the SSC ring were included in Table 2.2 in order to provide a better understanding of the areas where ground water has been and currently is more extensively used.

Water well inventories conducted in this area in the past were associated with geologic and ground-water resource studies. These

studies have included Osage (O'Connor, 1955) and Douglas (O'Connor, 1960) counties and the Douglas Group Aquifers (Macfarlane, unpublished, 1981).

2.5 Discussion of provisions for disposal of mineralized or contaminated waters.

This subject and a proposed scheme for constructively utilizing natural rock and soil materials from excavation on the proposed or other projects are adequately discussed in Section 3.5.5, Volume 3 of the Kansas Site proposal for the SSC (September 1987).

2.6 Description of existing surface and groundwater quality data and surveys in the vicinity of this proposed project.

This subject is adequately discussed in Section 2.3 and 2.4 above and in Section 5.2.3, Volume 5, Kansas Site Proposal for the SSC (September, 1987).

2.7 Pattern of historical flooding and drainage conditions for the surface waters in the area of the proposed project.

This subject is adequately discussed in Section 5.2.4, Volume 5, and Section 6.1.1, Volume 6, Kansas Site Proposal for the SSC (September, 1987).

2.8 Alternatives for Actions in Floodplains or Wetlands

Our positioning of the SSC ring initially resulted in areas F6 and E9 being located within 100 year floodplains. To relieve this condition, we specified in our original site proposal relocation of area F6 300 feet to the west and area E9 200 feet to the east (Figure 2.1). These actions place these sites largely out of floodplains.

No proposed project actions would take place on wetlands.

8 SOILS

8.1 Description of soils data for the project area.

A brief description and summary of soils in the vicinity of the project is appended to Volume 3, Kansas Site Proposal for the SSC (September, 1987). Detailed descriptions, maps, tables and other data are contained in the Soil Surveys for Osage County (March 1985); Shawnee County (June 1970); Douglas County (July 1977); and Franklin County (July 1981) by the staffs of the Soil Conservation Service, U.S. Department of Agriculture. These reports may be obtained or copied at the district or county offices of the SCS in the appropriate areas.

10 RADIATION

Data concerning radiation sources and levels from naturally occurring water, soils, rocks and minerals in the area are sparse. Existing data and a discussion of this subject are contained in Section 5.6.1 of Volume 5, Kansas Site Proposal for the SSC (September, 1987).

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Table 2.1.--Analyses of water from typical wells in the SSC site area.
Concentrations in milligrams per liter.

ell Number	Location	Depth, feet	Geologic Source	Date of Collection	Temperature (F)	Dissolved Solids	Silica (SiO2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium & Potassium (Na+K)	Bicarbonate (HCO3)	Sulfate (SO4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO3)	Hardness as CaCO3 Total	Hardness as CaCO3 Carbonate	Hardness as CaCO3 Noncarbonate	Sp. Cond. (umhos/cm @ 25 C)
4-14E-15BBAA	NE NE NW NW 15-14-14E	18.6	TERRACE ALLUVIUM	7-17-52	--	2,640	16.0	0.36	430	64.0	303	353	1,350	93	0.6	204.0	1,340	290	1,040	
4-15E-13AAAD	SE NE NE NE 13-14-15E	31.1	TOPEKA LS AND/OR SEVERY SH	3-26-47	--	878	14.0	0.15	185	22.0	49	354	186	63	0.4	106.0	552	290	262	
4-15E-16BAA 2	NE NE NW 16-14-15E	172.0	CALHOUN SH	5-22-52	58									470		239.0				
4-15E-19AABA	NE NW NE NE 19-14-15E	180.0	WHITE CLOUD SH	5-22-52										80		7.5				
4-15E-24BADD	SE SE NE NW 24-14-15E	495.0	IRELAND SS	8-29-53	--	8,490	13.0		418	167.0	2,450	198	1,700	3,640	1.2	1.1	1,730	162	1,570	
4-15E-24DBBA	NE NW NW SE 24-14-15E	71.0	CALHOUN SH	3-10-53	--	1,040	17.0	1.60	133	34.0	167	429	351	82	0.6	2.1	472	352	120	
4-15E-35BDD	SE SE NW 35-14-15E	200.0	SEVERY SH & CALHOUN SH	5-22-52	--									322		43.0				
4-16E-18BBBC	SW NW NW NW 18-14-16E	18.0	SEVERY SH	2-11-47	--	2,750	10.0	0.05	57	31.0	944	459	532	980	1.7	5.8	270	270	0	
4-16E-19ADAC	SW NE SE NE 19-14-16E	643.0	STRANGER FM	4-20-54		70,900	5.8	11.00	3,010	1,160.0	22,700	76	1,640	42,400			12,200	62	12,200	
4-17E-17ABAB	NW NE NW NE 17-14-17E	58.6	TECUMSEH SH AND/ OR DEER CREEK LS	5-22-52	54	1,200	6.0	1.40	286	26.0	46	332	169	114	0.3	385.0	820	272	548	
4-17E-25CAAA	NE NE NE SW 25-14-17E	458.0	STRANGER FM	3-9-56										168						
4-17E-26ADD	SE SE NE 26-14-17E	405.0	STRANGER FM	3-19-56	--	2,060								822						
4-17E-36BDDA	NE SE SE NW 36-14-17E	296.0	LAWRENCE FM	2----50										420						
4-17E-36DDDA	NE SE SE SE 36-14-17E	500.0	STRANGER FM	5-11-79							263*		18	253	0.5					
4-18E-30ADAD	SE NE SE NE 30-14-18E	289.0	LAWRENCE FM	5-18-54	--	3,300	18.0	0.17	15	10.0	1,220	678	540	1,130	3.1	22.0	78	78	0	
4-18E-30ADAD	SE NE SE NE 30-14-18E	475.0	STRANGER FM	10-10-54	--	1,540	6.0	0.74	6	2.9	608	461	15	670	3.1	1.3	26	26	0	
4-18E-31ADDD	SE SE SE NE 31-14-18E	340.0	LAWRENCE FM	5-26-53	--	2,690	22.0	0.18	14	7.6	946	760	1,020	294	6.0	4.9	66	66	0	
5-14E-21CDDD	SE SE SE SW 21-15-14E	20.7	TERRACE ALLUVIUM	5-21-52	--	1,040	14.0	0.22	206	30.0	86	262	183	173	0.2	217.0	638	215	423	
5-15E-6ABB	NW NW NE 6-15-15E	200.0	WHITE CLOUD SH	5-21-52	58	672	7.2	0.67	45	13.0	188	423	170	24	1.0	15.0	166	166	0	
5-16E-15ABAA	NE NE NW NE 15-15-16E	23.7	DEER CREEK LS AND/ OR CALHOUN SH	7-17-52	--	1,090	7.0	1.40	151	55.0	106	342	145	53	0.2	407.0	602	280	322	
5-17E-1ACDC	SW SE SW NE 1-15-17E	507.0	STRANGER FM	4-1-53	--	604	9.0	0.62	40	15.0	176	350	37	154	0.8	0.3	162	162	0	
5-17E-1ACDC	SW SE SW NE 1-15-17E	507.0	STRANGER FM	12-12-55	--	565	--	0.32	38	12.0	173	346	31	144	0.7	0.4	144	144	0	
5-17E-1ACDC	SW SE SW NE 1-15-17E	507.0	STRANGER FM	1-11-71							165*	337		156						1,040
5-17E-1ACDC	SW SE SW NE 1-15-17E	507.0	STRANGER FM	7-11-72							181*	359		144						1,040
5-17E-1ACDC	SW SE SW NE 1-15-17E	507.0	STRANGER FM	8-10-76							226*	398		149						1,260
5-17E-1ACCC	SW SW SW NE 1-15-17E	497.0	STRANGER FM	9-14-70							176*	356		144						1,050
5-17E-1ACCC	SW SW SW NE 1-15-17E	497.0	STRANGER FM	3-29-73							180*	349	45	144						1,040
5-17E-1ABBB	NW NW NW NE 1-15-17E	472.0	STRANGER FM	7-10-74							183*	356		143						1,060
5-17E-13CDD	SE SE SW 13-15-17E	315.0	STRANGER FM	2----50										152						
5-18E-7ADAA	NE NE SE NE 7-15-18E	350.0	STRANGER FM	5-26-53	--	2,670	16.0	0.08	14	7.6	970	720	688	590	4.8	29.0	66	66	0	
5-17E-25DDD	SE SE SE 25-15-17E	359.0	STRANGER FM	4-8-68	--	488	11.0	0.07	50	11.0	123	386	63	38	0.3	1.8	170	170	0	820
5-18E-24CC	SW SW 24-15-18E	329.0	STRANGER FM	3-30-50	--	6,096	9.4	1.50	56	24.0	2,300	647	184	3,200	2.4	2.2	238	238	0	
5-18E-34BAA	NE NE NW 34-15-18E	359.0	STRANGER FM	1-17-68	--	915	25.0	3.30	163	36.0	94	434	376	7	0.2	0.2	554	356	198	1,240
6-15E-5CBB	NW NW SW 5-16-15E	21.5	WHITE CLOUD SH	7-17-52	--	656	1.6	0.07	129	31.0	51	309	60	94	0.2	137.0	450	254	196	
6-16E-18CCD	SE SW SW 18-16-16E	50.0	CALHOUN SH	7-17-52	--	775	2.8	0.23	185	26.0	32	295	172	75	0.5	137.0	568	242	326	
6-16E-23BAAC	SW NE NE NW 23-16-16E	25.1	DEER CREEK LS AND/	7-17-52	--	1,380	2.2	0.91	340	31.0	47	252	382	184	0.3	266.0	976	206	770	

* Sodium (Na) concentration only.

Table 2.1.--Analyses of water from typical wells in the SSC site area.
Concentrations in milligrams per liter.

Well Number	Location	Depth, feet	Geologic Source	Date of Collection	Temperature (F)	Dissolved Solids	Silica (SiO2)	Iron (Fe)	Calcium (Ca)	Magnesium (Mg)	Sodium & Potassium (Na+K)	Bicarbonate (HCO3)	Sulfate (SO4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO3)	Hardness as CaCO3 Total	Hardness as CaCO3 Carbonate	Hardness as CaCO3 Noncarbonate	Sp. Cond. (umhos/cm @ 25 C)
16-17E-10ABA	NE NW NE 10-16-17E	345.0	LAWRENCE FM	5-22-52										131		540.0				
16-17E-26BAB	NW NE NW 26-16-17E	280.0	STRANGER FM	4-8-68	--	528	12.0	0.04	14	3.2	193	371	26	96	0.8	0.9	48	48	0	910
16-18E-31CCC	SW SW SW 31-16-18E	100.0	LAWRENCE FM	1-17-68	49	264	25.0	2.80	51	18.0	20	273	10	5	0.1	0.2	201	201	0	400
16-18E-35BAA	NE NE NW 35-16-18E	102.0	STRANGER FM	4-8-68	--	283	21.0	0.04	61	15.0	22	298	10	6	0.4	0.9	214	214	0	470
17-14E-10AAD	SE NE NE 10-17-14E	34.5	WHITE CLOUD SH AND/OR HOWARD LS	7-15-52	--	3,440	16.0	0.56	373	76.0	642	398	1,560	346	0.6	217.0	1240	326	917	
17-16E-20AADB	NW SE NE NE 20-17-16E	297.0	LAWRENCE FM	5-21-52	58	719	6.2	3.30	140	39.0	54	390	167	58	0.4	62.0	510	320	190	
17-16E-26AAD	SE NE NE 26-17-16E	250.0	LAWRENCE FM	5-22-52	58									146		106.0				
17-16E-33DDAD	SE NE SE SE 33-17-16E	120.0	LAWRENCE FM	7-17-52	--	1,760	9.0	0.16	7	5.0	688	615	72	670	3.6	0.9	38	38	0	
17-17E-9DADA	NE SE NE SE 9-17-17E	167.0	LAWRENCE FM	3-4-39	--	369	18.0	0.18	98	16.0	18	390	13	9	0.3	2.2	310	310	0	
17-17E-9DADA	NE SE NE SE 9-17-17E	228.0	STRANGER FM	2-25-43	--	11,700	9.2	4.30	259	141.0	3,720	146	0	6,510	2.4	8.4	1220	120	1110	
17-17E-10CCCD	SE SW SW SW 10-17-17E	33.0	TERRACE ALLUVIUM	9-10-52	--	824	16.0	0.11	159	23.0	55	359	143	60	0.2	102.0	491	294	197	
17-17E-17CBBC	SW NW NW SW 17-17-17E	255.0	LAWRENCE FM	5-22-52	57	1,840	7.8	0.27	19	8.0	702	633	98	685	6.0	3.8	80	80	0	
17-18E-24DAA	NE NE SE 24-17-18E	18.0	STRANGER FM	4-8-68	--	462	16.0	0.20	78	17.0	37	102	84	50	0.2	130.0	264	84	180	730
17-18E-30BBB	NW NW NW 30-17-18E	220.0	STRANGER FM	4-8-68	--	642	7.1	0.07	155	15.0	55	383	86	64	0.1	71.0	448	314	134	1,070
17-18E-34DBB	NW NW SE 34-17-18E	240.0	STRANGER FM	3-21-66	--			2.60					900	17	0.8	27.0	760			

* Sodium (Na) concentration only.

Table 2.2.--Records of wells, test holes, and springs in the SSC site area.

STATE COUNTY CODE	WELL LOCATION	OWNER OR USER	SOURCE OF OWNER INFO.	TYPE OF WELL	SURFACE ELEVATION	ACCURACY	DATE CONSTRUCTED	DEPTH OF WELL	ACCURACY	USE OF WELL	WATER LEVEL	ACCURACY	DATE MEASURED	AQUIFER(S) MATERIAL	AQUIFER(S) UNIT(S)	SOURCE OF AQUIFER INFO.	DEPTH TO BEDROCK	YIELD	ACCURACY	DIAMETER OF CASING (INCHES)	CASING TYPE	LIFT & POWER	CHLORIDE CONTENT	ACCURACY	SPECIFIC CONDUCTANCE	ACCURACY, LAB OR FIELD	SAMPLE COLLECTION DATE	OTHER CHEM. QUALITY DATA AVAILABLE	REMARKS
K70	14 14 E 15BBAA	JOHN E. COCHRAN	KG	DU	1180.0	4		18.1	1	U	8.90	1	10-26-51	24	014	SI				42.	R	U	93.0	3			07-17-52	1	NO3=204. 3
K70	14 14 E 25AADD	J. W. CLINE	WO	DR	1205.0	3	01-56	218.0	4	U	100.00	4	01-30-56	01	285	WI	26.0	0.5	4	5.5	G	U							
K70	14 15 E 12DDAD	CARL BULLOCK	W	DR	1070.0	8	02-76	162.0	4	7	19.00	4	02-20-76				18.0	0.04		5.	P	U							
K70	14 15 E 12DDDC	PHILLIP ROGERS	W	DR	1088.0	4	12-75	123.0	4	7	40.00	4	12-19-75	02,01	295,305	WI	1.0	2.	4	5.	P	H							
K70	14 15 E 13AAAD	MABLE CARROLL	KG	DU	1092.0	4		31.1	1	U	13.30	1	03-26-47	03,02	293,295	SI				25.	T	U	63.0	3			03-26-47	1	NO3=106. 3
K70	14 15 E 13DDDD	JOHN STAAKABAUM	W	DR	1070.0	3	07-81	92.0	4	1	13.00	4	07-23-81	02,69	295,305	WI	12.0	0.5	4	5.	P	Q							
K70	14 15 E 14CBCC	LAMMY L. HINCK	RW	DR	1113.0	4	01-81	167.0	4	1	65.00	4	12-30-80	02,69	295,305	WI	18.0	0.3	4	5.	P	Q							
K70	14 15 E 15CCCC	ROGER SISCO-FORMER	W	DR	1120.0	4	05-76	121.0	4	U	17.00	4	05-24-76	02,69	284,285	WI	15.0	0.25	4	5.	P	Q							
K70	14 15 E 15DDDA	J. MCFARLAND	RW	DR	1097.0	4	03-78	149.0	4	U	75.00	4	03-06-78	02,01	286,305	WI	20.0	2.	4	5.	P	U							
K70	14 15 E 16BAA 2	W.C. WEHRLE	KG	DR	1060.0	3		172.0	3	U	13.65	1	05-15-52	02,01	285,305	SI		5.	5	6.	G	U	470.0	3			05-22-52		NO3=239. 3
K70	14 15 E 19AABA	HAROLD URISH	KG	DR	1190.0	3		180.0	3	U	102.66	1	05-14-52	01	285	SI				8.	G	U	80.0	3			05-22-52		NO3=7.5 3
K70	14 15 E 21CCC	JIM RAWTER	W	DR	1121.0	3	09-75	201.0	4	1	40.00	4	09-05-75	02,69	285,305	WI	15.0	2.	4	5.	P	U							
K70	14 15 E 23DCBD	JIM MERCER	RW	DR	1110.0	4	08-76	127.0	4	7	64.00	4	08-10-76	02,01	295,305	WI	6.0	1.	4	5.	P	H						SALTY	
K70	14 15 E 24BADD	KGS TEST HOLE- KAFF	KG	DR	1085.9	1	08-53	495.5	1	8	34.00	1	08-31-53	69,74	305,340	SW	15.0	1.	4		N	H	3640.0	3			08-29-53	1	TDS=8490. 3
K70	14 15 E 24CABD	WILLIAM OHSE	RW	DR	1130.0	4	06-81	177.0	4	1	42.00	4	06-10-81	01	305	WI	25.0	5.	4	5.	P	Q						GOOD TASTE	
K70	14 15 E 24DBBA	CITY OF CARBONDALE	KG	DU	1083.0	4		71.0	3	7	21.00	3	06-15-52	02,01	295,305	SI	20.0			144.	5	H	82.0	3			03-10-53	1	NO3=2.1 3
K70	14 15 E 25AADD	CHRIS ARMSTRONG	WN	DR	1123.0	4	07-80	149.0	4	1	42.00	4	07-04-80	02	295	WI	12.0	2.	4	5.	P	Q							
K70	14 15 E 25DCCB	RON PROST	RW	DR	1164.0	4	01-80	165.0	4	7	100.00	4	01-04-80	02,69	295,305	WI	7.0	2.	4	5.	P	U						VERY SALTY	
K70	14 15 E 25DCCB										95.80	1	12-08-87																
K70	14 15 E 26BCBD	JAMES D. BRYAN	R	DD	1153.0	3		40.0	3	N		B		01	279	IN				48.	R	H							
K70	14 15 E 26BCCC	JAMES D. BRYAN	R	DU	1140.0	4		40.2	1	7	5.00	5	12-08-87							41.	R	H							
K70	14 15 E 26CDC	DELMER ROBB	R	DU	1110.0	3		20.0	3	2		B		02	286	IN				48.	R	U							
K70	14 15 E 26CDCD1	DELMER ROBB	R	DU	1127.0	4		28.8	1	2	21.01	1	12-11-87	02	286	IN		2.	5	48.	R	3							
K70	14 15 E 26CDCD2	DELMER ROBB	R	DR	1127.0	4				1		B								8.	I	A							
K70	14 15 E 27BBAA	ERNEST SPEAR	W	DR	1145.0	3	01-81	104.0	4	1	40.00	4	01-17-81	01,02	285,286	WI	20.0	2.	4	5.	P	U							
K70	14 15 E 35BDD	LOU URISH	KG	DR	1130.0	3		200.0	3	U	57.39	1	08-28-51	03,01	293,305	SI		2.	3	8.	G	U	322.0	3					NO3=43. 3
K70	14 15 E 36DBCC	ELMER CARRIER	WN	DR	1103.0	4	04-76	50.0	4	U	10.00	4	04-06-76	02	295	WI	17.0	0.5	4	5.	P	3							
K70	14 16 E 18BBAA	MR. EASTMAN	N	DR	1040.0	4	09-75	140.0	4	1	12.00	4	09-11-75	02,69	295,312	WI	12.0	0.5	4	5.	P	U						VERY SALTY	
K70	14 16 E 18BBBC	MERRILL MINERAL SPG	KG	SP	1040.0	4		18.0	6	7	8.00	3	02	03?	293?	SI		10.	3	24.	T	U	1652.0	8		88	1	NH3=2.46 8	
K70	14 16 E 18BBBC											B											980.0	3		02-11-47	1	TDS=2750 3	

Table 2.2--Records of wells, test holes, and springs in the SSC site area. (cont.)

STATE COUNTY CODE	WELL LOCATION	OWNER OR USER	SOURCE OF OWNER INFO.	TYPE OF WELL	SURFACE ELEVATION	ACCURACY	DATE CONSTRUCTED	DEPTH OF WELL	ACCURACY	USE OF WELL	WATER LEVEL	ACCURACY	DATE MEASURED	AQUIFER(S) MATERIAL	AQUIFER(S) UNIT(S)	SOURCE OF AQUIFER INFO.	DEPTH TO BEDROCK	YIELD	ACCURACY	DIAMETER OF CASING (INCHES)	CASING TYPE	LIFT & POWER	CHLORIDE CONTENT	ACCURACY	SPECIFIC CONDUCTANCE	ACCURACY, LAB OR FIELD	SAMPLE COLLECTION DATE	OTHER CHEM. QUALITY DATA AVAILABLE	REMARKS
K70	14 16 E 19ADAC	KGS TEST HOLE- PIT	KG	DR	1149.2	1	03-54	643.0	1	8		B		01,74	305,343	SW	3.0				N	H	42400.0	3			04-20-54		NA+K=22,700
K70	14 16 E 19CADC	ROBERT CUNNINGHAM	R	SP	1148.0	3			6	U		C		06	286	IN	.0				V	V							HARD/SWEET
K70	14 16 E 19DDDD	LEWIS ASHWILL	RW	DR	1170.0	4	07-75	163.0	4	7	60.00	4	07-01-75	69	305	WI	8.0	1.5	4	5.	P	Q							WATER SALTY
K70	14 16 E 27DBDA	JEFF BADGER	R	DU	1118.0	4	78	10.0	3	2		B								48.	C	V							SURFACE WTR
K70	14 16 E 30ABBB	ELDON CHRISTENSEN	WN	DR	1151.0	4	07-77	170.0	4	1	70.00	4	07-18-77	02,01	295,305	WI	12.0	1.	4	5.	P	Q							SALTY
K70	14 16 E 30ADAA	LEWIS ASHWILL (PRE)	RW	DR	1170.0	4	05-77	150.0	4	7	95.00	4	05-31-77	01	305	WI	12.0	2.	4	5.	P	U							MINERALIZED
K70	14 16 E 30BABB										57.35	1	12-11-87																
K70	14 16 E 30BABB	MORRIS MERCER	WR	DR	1130.0	4	02-82	180.0	4	1	59.00	4	02-28-82	01	305	WI	20.0	0.5	4	5.	P	Q							SALTY
K70	14 16 E 30BACD	MORRIS MERCER	R	DU	1165.0	3		27.0	3	1	17.00	3	12-00-87	01	293						R	U							
K70	14 16 E 30DADD	MERISSA GARNER	R	DU	1169.0	4		58.8	1	N	12.85	1	12-03-87	01,02	293,295	IN				60.	R	H							
K70	14 16 E 33DCDD	LEE W. KAFF	R	DU	1153.0	4		14.7	1	7	7.00	5	12-07-87		295	IN				48.	R	U							
K70	14 16 E 33DDCC	LEE W. KAFF	R	DU	1140.0	3		22.8	1	7	4.00	1	12-07-87	02,01	295,305	IN				48.	R	H							
K70	14 16 E 34AADA	CHARLES STARKEBAUM	R	DU	1160.0	4		17.3	1	1	7.58	1	12-03-87	02	295	IN				60.	R	A							
K70	14 16 E 34BBBC	CHARLES COOPER	KG	DR	1135.0	3		63.4	1	N	4.60	1	05-23-52	02,01	295,305	KI				6.	T	H							
K70	14 16 E 34BBBD	CHARLES COOPER	R	DR	1138.0	3		230.0	3	N		B										H							
K70	14 16 E 34DDDD	GREG HYLTON	R	DU	1135.0	4		35.0	3	7	8.00	3		01	305	IN				60.	R	H							
K70	14 16 E 36ADBD	JOHN BUTEL	R	DD	1177.0	4		300.0	3	N	20.00	5	12-07-87	01	305	IN				8.	Z	H							SALTY
K70	14 17 E 17ABAB	ADA HUPP	KG	DU	1045.0	3		58.6	1	U	21.10	1	11-15-51	02,03	306,312	SI				48.	R	U	114.0	3			05-22-52		NO3=385. 3
K70	14 17 E 20CCDC	JOHN SCHIRMER	R	DR	1125.0	4	04-57	230.0	4	7	45.00	4	04- 57	02,02	311,327	WO		0.42	4		G		36.0				04- 57		TD 300'
K70	14 17 E 20CCDC							325.0	4	7	80.00	4	04- 57	01	340	WO							5640.0				04- 57		PLUGD BACK
K70	14 17 E 20DCAB	MIKE GODDARD	RW	DR	1120.0	3	04-76	105.0	4	7	75.00	4	04-12-76	02	313	WI		0.17	4	5.	P	H							
K70	14 17 E 20DCDC	MIKE GODDARD	R	DU	1125.0	3		35.0	3	7		B		02,03	306,312	WI				72.	R	H							
K23	14 17 E 25ADCD	ROBERT LANG	W	DR	1113.0	3	09-79	468.0	4	1	360.00	4	09-28-79	01	343	WI	18.0	25.	4	5.	P	Q							NOT FLD CKD
K23	14 17 E 25CAAA	H. MAICHEL	KG	DR	1096.0	9	34	458.0	4	9		B		01	343	SI	9.0			6.	I	2	168.0	8			03-09-56		KERC WELL
K23	14 17 E 26ADDC	RALPH FUQUA	KG	DR	1084.0	9	03-56	405.0	4	9	186.00	4	03-19-56	01	343	SI	2.0	20.	4	6.	G	U	822.0	8			03-19-56		TDS=2060. 8
K70	14 17 E 28CCDC	RICHARD GOFF	R	DU	1149.0	4		20.0	3	7	7.00	3		02	306	IN				48.	R	H							CAN GO DRY
K70	14 17 E 28CCDD	RICHARD GOFF	R	DU	1151.0	4		20.0	3	7	7.00	3		02	306	IN				48.	R	H							CAN GO DRY
K70	14 17 E 28DAAA	ROBERT COMBS	R	DU	1052.0	4		13.9	1	7	4.30	1	12-02-87	02	313	IN				48.	R	3							GOOD WATER
K70	14 17 E 28DCCD	PATRICK MULRYAN	R	DU	1135.0	4		19.4	1	7	11.11	1	11-30-87	02	306	IN				48.	R	H							
K70	14 17 E 28DCDB	PATRICK MULRYAN	R	DU	1110.0	3		8.8	1	N	3.10	1	11-30-87	02	306	IN				24.	R	H							SPRING FED

Table 2.2--Records of wells, test holes, and springs in the SSC site area. (cont.)

STATE COUNTY CODE	WELL LOCATION	OWNER OR USER	SOURCE OF OWNER INFO.	TYPE OF WELL	SURFACE ELEVATION	ACCURACY	DATE CONSTRUCTED	DEPTH OF WELL	ACCURACY	USE OF WELL	WATER LEVEL	ACCURACY	DATE MEASURED	AQUIFER(S) MATERIAL	AQUIFER(S) UNIT(S)	SOURCE OF AQUIFER INFO.	DEPTH TO BEDROCK	YIELD	ACCURACY	DIAMETER OF CASING (INCHES)	CASING TYPE	LIFT & POWER	CHLORIDE CONTENT	ACCURACY	SPECIFIC CONDUCTANCE	ACCURACY, LAB OR FIELD	SAMPLE COLLECTION DATE	OTHER CHEM. QUALITY DATA AVAILABLE	REMARKS
K70	14 17 E 29CBDA1	MAURICE FAGER	R	DU	1135.0	3		27.0	3	2	4.00	3		01,02	305,306	IN				84.	R	A							
K70	14 17 E 29CBDA2	MAURICE FAGER	R	DU	1135.0	3		25.0	3	2	4.00	3		01,02	305,306	IN				48.	R	A							
K70	14 17 E 29CBDB	MAURICE FAGER	R	DU	1141.0	4		25.0	3	7	.00			01	305	IN				48.	R	H							
K70	14 17 E 29CCDC	FRANCIS LEMBERGER	R	DU	1165.0	4		20.0	3	N		B		02	306	IN				60.	R	H							
K70	14 17 E 29CCDD	FRANCIS LEMBERGER	R	DU	1161.0	4		20.0	3	U		B		02	306	IN				60.	R	U							
K70	14 17 E 29DCDC	LEMBERGER FARMS	R	DU	1140.0	4		50.0	8	U		B		02	306	IN				60.	R	U							
K70	14 17 E 29DCDD	LEMBERGER FARMS	R	DU	1153.0	4		50.0	8	U		B		02	306	IN				60.	R	U							
K70	14 17 E 30A	JOE P. COLLINS	R	DU	1160.0	4		20.0	3	7		B		01	305	IN						H						2 DUG HERE	
K70	14 17 E 32BBCC	MARY PIPER	NR	DR	1190.0	4				U		B								7.	G	4						LOW YIELD	
K70	14 17 E 32BCCC	FRANCIS LEMBERGER	R	DR	1175.0	4		82.3	1	7	9.38	1	12-03-87	01,02	305,306	IN		0.24	3	5.	G	H						HARD WATER	
K70	14 17 E 33AABB	KEN KRAUSE	R	DU	1070.0	4				1		B			312,313	IN				48.	R	U							
K70	14 17 E 33ABAA	KEN KRAUSE	R	DU	1079.0	4				7		B								48.	R	H							
K70	14 17 E 34BA	E. AND H. GERISCH	L	DU	1070.0	8		50.0	8	N		B		03,02	312,313	IN				60.	R	H							
K70	14 17 E 34BB	DAVID E. PIERCE	R	DU	1080.0	4		46.8	1	7	7.06	1	12-02-87	02	313	IN				84.	R	3							
K70	14 17 E 34CCBA	HAROLD BESSETTE	N	DU	1105.0	3		20.0	3	N	5.00	5	12-02-87	03	312	IN				84.	R	H							
K70	14 17 E 34CDAD	EDWARD BESSETTE	R	DU	1110.0	3		20.0	3	N	.00	B		03	312	IN				48.	R	H							
K70	14 17 E 34CDCD	EDWARD BESSETTE	R	DU	1163.0	4		20.0	3	7	5.00	3		02	306	RI				48.	R	H							
K70	14 17 E 34CDDC	EDWARD BESSETTE	R	DU	1150.0	3		20.0	3	2	5.00	3		02	306	RI				48.	R	4							
K23	14 17 E 35ADDA	JOSEPH BALDWIN	KG	DR	1105.0	9	08-56	410.0	4	9	180.00	4	08-24-56	01	343	SI	7.0	20.	4	5.	G	2						WATER GOOD	
K23	14 17 E 36BDDA	CLIFFORD DESQUE	KG	DR	1110.0	9		296.0	9	2	197.10	2	09-03-52	01	335	SI				6.	G	4	420.0	8		02- 50		NOT FLD CKD	
K23	14 17 E 36DBBB										371.00	1	12-02-80															JAMAL MEAS.	
K23	14 17 E 36DBBB	CITY OF OVERBROOK 4	W	DR	1119.0	4	04-79	493.0	4	5	318.00	4	04-18-79	01	343	WI	7.0	60.	4	6.	S	Q						4 WTR ZONES	
K23	14 17 E 36DDDA										373.00	1	12-02-80															JAMAL MEAS.	
K23	14 17 E 36DDDA	CITY OF OVERBROOK 5	W	DR	1135.0	4	05-80	500.0	4	5	348.00	4	05-10-79	01	343	WI	13.0	30.	4	6.	S	Q						WTR @ 250'	
K23	14 17 E 36DDDC	IVAN HOOVER	KG	DU	1137.0	9		30.0	9	9		B		02,03	313,322	SI				96.	R	1							
K23	14 18 E 30ADAD	JEFF A. ROBERTSON	KG	DR	1112.0	9	05-54	489.0	4	9	250.00	4	05-19-54	01	343	SI	15.0	10.	4	7.	I	B	1130.0	8		05-18-54	1	LAWRENCE SH	
K23	14 18 E 30ADAD											B											670.0			10-10-54	1	STRANGER FM	
K23	14 18 E 31ADDD	GEORGE F. FAWL	KG	DR	1135.0	9		340.0	9	U	280.00	3		01	335	SI				6.	G	U	294.0	3		05-26-53	1	BRACKISH	
K70	15 14 E 21CDDD	TOM FISHER	KG	DU	1049.0	4		20.7	1	U	6.20	1	10-25-51	24	014	SI				40.	R	U	173.0	3		05-21-52	1	NO3=217.	3
K70	15 14 E 24DCCC	JOHN QUANEY	R	DU	1030.0	3	74	25.0	3	9	5.00	3	12- 87	40	588	IN				20.	G	Q							

Table 2.2--Records of wells, test holes, and springs in the SSC site area. (cont.)

STATE COUNTY CODE	WELL LOCATION	OWNER OR USER	SOURCE OF OWNER INFO.	TYPE OF WELL	SURFACE ELEVATION	ACCURACY	DATE CONSTRUCTED	DEPTH OF WELL	ACCURACY	USE OF WELL	WATER LEVEL	ACCURACY	DATE MEASURED	AQUIFER(S) MATERIAL	AQUIFER(S) UNIT(S)	SOURCE OF AQUIFER INFO.	DEPTH TO BEDROCK	YIELD	ACCURACY	DIAMETER OF CASING (INCHES)	CASING TYPE LIFT & POWER	CHLORIDE CONTENT	ACCURACY	SPECIFIC CONDUCTANCE	ACCURACY, LAB OR FIELD	SAMPLE COLLECTION DATE	OTHER CHEM. QUALITY DATA AVAILABLE	REMARKS
K70	15 14 E 25AABB	JOHN QUANEY	R	DU	1040.0	3	74	25.0	3	9	5.00	3	12- 87	40	588	IN				20.	G Q							
K70	15 14 E 25CBBB	NELLIE HALL	R	DU	1073.0	3	48	22.0	3	1		B								72.	R A							
K70	15 14 E 36DACA	WILLER MEYER	R	DU	1063.0	3		25.0	3	7		B		02	286	IN				48.	R H							
K70	15 15 E 2BCDC	ED PRICE	W	DR	1152.0	4	09-77	127.0	4	U	62.00	4	09-00-77	02,01	295,305	WI	12.0	0.5	4	5.	P U							
K70	15 15 E 4BDD	GLENN E. BOWMAN	R	DU	1110.0	8		50.0	8	7		B								60.	R H							
K70	15 15 E 4DDCD1	ROBERT A. WILSON	RW	DR	1103.0	4	11-80	134.0	4	7	30.00	4	11-21-80	02,01	295,305	WI	9.0	1.5	4	5.	P Q							BRINE @131'
K70	15 15 E 4DDCD1							119.0	3	7	8.68	1	12-10-87	02,02	286,295	WI												PLUGD BACK
K70	15 15 E 4DDCD2	ROBERT A. WILSON	R	DU	1103.0	4		15.0	3	7	8.70	5	12-10-87	02	286	WI	9.0			48.	R H							
K70	15 15 E 5AAAA	GLENN E. BOWMAN	R	DU	1170.0	8		50.0	8	7		B								60.	R H							
K70	15 15 E 5ABBB1	WILLIAM MENZIE	WO	DR	1170.0	4	09-72	202.0	4	9	25.00	4	09-21-72	02,01	284,293	WO	15.0	2.	4	5.	P Q							
K70	15 15 E 5ABBB2	WILLIAM MENZIE	R	DU	1170.0	4		24.0	1	9	13.22	1	12-10-87	02	284	WO	12.0			48.	R 3							
K70	15 15 E 5DB	ELDRIDGE S. BERRY	R	DU				19.0	3	1	9.00	3	10- 87							36.	R A							
K70	15 15 E 6ABB	RALPH VANDEVORD	KG	DR	1185.0	8		200.0	3	U	69.58	1	05-06-52	01	285	SI		3.	3	6.	G U	24.0	3			05-21-52	1	NO3=15. 3	
K70	15 15 E 7DCCD	DANNY SEELE	R	DU	1112.0	3				7	12.03	1	12-02-87	01	285	IN				72.	R H							
K70	15 15 E 7DCDC	DANNY SEELE	R	DU	1112.0	3		43.0	1	1	17.00	3		01	285	IN				72.	R A							
K70	15 15 E 8CCB 1	HOWARD D. ROWE	R	DR	1110.0	8	60	110.0	3	1		B		02,01	285,286	IN				6.	G Q							MINERALIZED
K70	15 15 E 8CCB 2	HOWARD D. ROWE	R	DU	1110.0	8		30.0	3	2		B			279	IN					R U							HI NITRATES
K70	15 15 E 18ABBA1	ROBERT W. TINDELL	R	DU	1112.0	3		43.5	3	1	10.00	3	11-30-87	01	285	RI				60.	1 Q							HARD,SM NO3
K70	15 15 E 18ABBA2	ROBERT W. TINDELL	R	DU	1112.0	3		50.0	3	2	15.00	3		01	285	RI				48.	1 A							HARD,HI NO3
K70	15 15 E 18BAAA	ROBERT W. TINDELL	R	DU	1105.0	3		45.0	3	7		B		01	285	RI				60.	1 U							
K70	15 15 E 18BAAB	ROBERT W. TINDELL	R	DU	1095.0	3		40.0	3	7		B		01	285	RI				60.	1 U							
K70	15 15 E 18BABC	ROBERT W. TINDELL	R	DU	1075.0	8		10.0	3	7		B		01	285	RI					K U							
K70	15 15 E 19ADA	EARL THOMPSON	RK	DU	1073.0	3		38.0	9	2	3.80	1	10-31-51	02	286	KI				72.	R Q							TESTED POOR
K70	15 15 E 19BBBB	LEONARD RUCKER	R	DU	1080.0	4		28.2	1	7	9.51	1	12-01-87	02	286	IN				30.	R H							
K70	15 15 E 31CBCB1	WILLER MEYER	R	DU	1030.0	4		30.0	3	7		B		69	293	IN					R H							
K70	15 15 E 31CBCB2	WILLER MEYER	R	DU	1030.0	3		30.0	3	2		B		69	293	IN					R 4							
K70	15 15 E 31CBCC	WILLER MEYER	R	DR	1030.0	4	56	70.0	3	7		B		69,02	293,295	IN					K H							V. SALTY
K70	15 16 E 6ACDD	JIM BUMP (FORMERLY)	WW	DR	1102.0	3	03-77	92.0	4	7	17.00	4	03-25-77	69,02	305,306	WI	12.0	0.23	4	5.	P H							WELL NEVER
K70	15 16 E 6ACDD										12.29	1	12-10-87															BEEN USED
K70	15 16 E 6ADBC	EARL KELLEY	RW	DR	1118.0	4	06-78	185.0	4	7	90.00	4	06-08-78		306,312	WI	5.0	0.25	4	5.	P U							SALTY WATER

Table 2.2--Records of wells, test holes, and springs in the SSC site area. (cont.)

STATE COUNTY CODE	WELL LOCATION	OWNER OR USER	SOURCE OF OWNER INFO.	TYPE OF WELL	SURFACE ELEVATION	ACCURACY	DATE CONSTRUCTED	DEPTH OF WELL	ACCURACY	USE OF WELL	WATER LEVEL	ACCURACY	DATE MEASURED	AQUIFER(S) MATERIAL	AQUIFER(S) UNIT(S)	SOURCE OF AQUIFER INFO.	DEPTH TO BEDROCK	YIELD	ACCURACY	DIAMETER OF CASING (INCHES)	CASING TYPE	LIFT & POWER	CHLORIDE CONTENT	ACCURACY	SPECIFIC CONDUCTANCE	ACCURACY, LAB OR FIELD	SAMPLE COLLECTION DATE	OTHER CHEM. QUALITY DATA AVAILABLE	REMARKS
K70 15 16 E	15ABAA	JACK WELLS	KG	DU	1090.0	3		23.7	1	U	7.17	1	12-13-51	01,02	305,306	SI				96.	R	U	53.0	3			07-17-52	1	NO3=407. 3
K23 15 17 E	1AAA	OVERBROOK TH #2	KG	DR	1134.0	3		327.0	4	8		B		01	335	SW	13.0	12.	4		N	H					01- 53	2	NI FLUORIDE
K23 15 17 E	1ABBB	CITY OF OVERBROOK 3	H	DR	1120.0	3	69	472.0	4	5	278.00	4	69	01	343	HE		40.	4	6.	2	U							
K23 15 17 E	1ABBB																	15.	4				143.0	3	1060.	3L	07-10-74	2	NA=183. 3
K23 15 17 E	1ACCC																	24.	4				144.0	3	1040.	3L	03-29-73	2	NA=180. 3
K23 15 17 E	1ACCC	CITY OF OVERBROOK 2	KG	DR	1141.0	9	03-53	497.0	4	5	210.00	4	04-01-53	01	343	SW		50.	4	6.	2	B							
K23 15 17 E	1ACCC										300.00	4	08-01-69					30.	4				144.0	3	1050.	3L	09-14-70	2	NA=176. 3
K23 15 17 E	1ACDC	CITY OF OVERBROOK 1	KG	DR	1144.0	4	02-53	507.0	4	5	205.00	4	02- 53	01	343	SW	13.0	50.	4	6.	2	B	154.0	8			04-01-53	1	TDS=604. 8
K23 15 17 E	1ACDC										254.50	4	05-11-54										144.0	8			12-12-55	1	TDS=565. 8
K23 15 17 E	1ACDC										272.60	4	03-08-56																
K23 15 17 E	1ACDC										356.00	4	71										156.0	3	1040.	3L	01-11-71	2	NA=165. 3
K23 15 17 E	1ACDC										315.00	4	08-01-69					36.	4										
K23 15 17 E	1ACDC										361.00	4	79					28.	4				149.0	3	1260.	3L	08-10-76	2	NA=226. 3
K23 15 17 E	2ABD	OVERBROOK TH #1	KG	DR	1146.0	8	01-53	290.0	4	8		B		01	335	SW	25.0				N	H	5200.0	4			01- 53		TEST HOLE
K23 15 17 E	2DDDD	EMIL MESENTINE	KG	DU	1143.0	9		30.7		U	16.95	1	01-14-50	02	313	K				48.	R	U							NOT FLD CKD
K70 15 17 E	38BAB	RALPH D. BRYSON	R	DU	1135.0	3		22.0	1	7	5.00	5	12-03-87	02	306	IN				48.	R	H							
K70 15 17 E	3CCC	RALPH D. BRYSON	R	DU	1157.0	4		50.0	8	2		B		02	306	IN				60.	R	U							
K70 15 17 E	3CCCC	RALPH D. BRYSON	R	DU	1158.0	4		50.0	8	2		B		02	306	IN				60.	R	U							GOOD WATER
K70 15 17 E	4DDAD	MRS. BRYSON-STITT	N	SP	1150.0	3			6	7		C		02,03	306,312	IN	.0				E	V							
K23 15 17 E	11BAA 1	MCCARTY	KG	DR	1155.0	3		380.0	9	U		B		01	335	KW				6.	S	U							V. BRACKISH
K23 15 17 E	11BAA 2	MCCARTY	KG	DR	1150.0	3	08-55	382.0	4	U		B		01	335	SW	2.0			5.5	G	U							V. BRACKISH
K23 15 17 E	13CDDD	R.E. TUTCHER-KERC	LK	DR	1055.0	3	34	315.0	4	U		B		01	343	SW	9.0	17.	4	6.25	I	U	137.0	9					HCO3=408. 9
K30 15 17 E	25ACDD										210.00	1	01-17-81					13.	3										
K30 15 17 E	25ACDD	GENE KING/J.A.ENGEL	W	DR	1115.0	3	02-77	380.0	4	9	200.00	4	02-15-77	01	343	WI	7.0	10.	4	5.5	P	Q							
K30 15 17 E	25DDD	ELMER L. GRAY	R	DR	1125.0	3	34	359.0	4	9	150.00	3	04-08-68	01	343	SI		10.	3	6.25	I	Q	38.0	3	488.	3L	04-08-68	2	KERC WELL#1
K30 15 17 E	26DADD	GENE KING	W	DR	1085.0	3	02-80	488.0	4	1	180.00	4	02-25-80	69,69	335,343	WI	8.0	1.	4	5.	P	U							2 NEW WELLS
K70 15 17 E	33CCBC	JEAN INGERSOL	WO	DR	1100.0	3	04-58	500.0	4	U		B		03,01	335,343	WO	24.0	1.7	4	6, 5	S	U	1200.0	2			04-10-58		LAWRENCE FM
K70 15 17 E	33CCBC																						3400.0	2			05-16-58		BOTH FM'S
K70 15 17 E	33CCBC																	5.	4				1400.0	2			04-10-58		STRANGER FM
K30 15 17 E	35DBAD	W. F. HERMAN	W	DR	1024.0	3	08-82	220.0	4	1	100.00	4	08-10-82	01,01	335,343	WI	24.0	35.	4	5.5	P	Q							

Table 2.2--Records of wells, test holes, and springs in the SSC site area. (cont.)

STATE COUNTY CODE	WELL LOCATION	OWNER OR USER	SOURCE OF OWNER INFO.	TYPE OF WELL	SURFACE ELEVATION	ACCURACY	DATE CONSTRUCTED	DEPTH OF WELL	ACCURACY	USE OF WELL	WATER LEVEL	ACCURACY	DATE MEASURED	AQUIFER(S) MATERIAL	AQUIFER(S) UNIT(S)	SOURCE OF AQUIFER INFO.	DEPTH TO BEDROCK	YIELD	ACCURACY	DIAMETER OF CASING (INCHES)	CASING TYPE	LIFT & POWER	CHLORIDE CONTENT	ACCURACY	SPECIFIC CONDUCTANCE	ACCURACY, LAB OR FIELD	SAMPLE COLLECTION DATE	OTHER CHEM. QUALITY DATA AVAILABLE	REMARKS
K30 15 17 E	36ACCC	TOM KING	W	DR	1020.0	3	01-80	275.0	4	1	180.00	4	01-25-80	69,01	335,343	WI	10.0	20.	4	5.5	P	U							
K30 15 17 E	36ACCC										178.00	1	01-17-81																JAMAL MEAS.
K23 15 18 E	7AAAA	R. PRICE-KERC WELL	KG	DR	1137.6	9	34	464.0	9	U		B		01,01	335,343	SW	5.0	3.5	4	6.25	5	U	440.0	9			34	1	HCO3=658. 9
K23 15 18 E	7ADAA	CHRIS STRAUB	KG	DR	1156.0	4	52	350.0	4	U	225.00	3	09-02-52	69,69	335,343	SW	7.0	10.	4	6.	G	U	590.0	3			05-26-53	1	TDS=2670. 3
K30 15 18 E	20CCDD	ALBERT L. ROBBINS	W	DR	1060.0	3	09-77	300.0	4	2	230.00	4	09-27-77	01	343	WI	10.0	13.	4	5.	P	Q							
K30 15 18 E	20CCDD										237.00	1	01-08-81																JAMAL MEAS.
K30 15 18 E	24CCCC	E.L. BROVANT	H	DR	1070.0	3		329.0	3	U		B		01	343	HE					K	U	3200.0	3			03-30-50	1	NA+K=2300 3
K30 15 18 E	29AABD	ARLON JONES	W	DR	1041.0	4	04-77	240.0	4	9		B		01	343	WI	2.0	18.	4	5.	P	Q							NO SWL GIVN
K30 15 18 E	29AABD										135.00	1	01-08-81																JAMAL MEAS.
K30 15 18 E	30CCD	ELMER L. GRAY	R	DR	1060.0	3	01-70	327.0	3	9	100.00	3	02- 70		343	RI		10.	3	6.	I	Q							
K30 15 18 E	30DDAD	RAYMOND DEJULIO	W	DR	1035.0	3	11-78	240.0	4	1	135.00	4	11-22-78	01	343	WI	1.0	8.	4	5.	P	Q							
K30 15 18 E	30DDAD										131.00	1	01-08-81																JAMAL MEAS.
K30 15 18 E	32AAAA	JOHN WRAY	W	DR	1055.0	3	02-78	260.0	4	1	140.00	4	02-21-78	01	343	WI		8.	4	5.	P	U							
K30 15 18 E	32AAAA										143.00	1	01-17-81																JAMAL MEAS.
K30 15 18 E	34BAA	E.C. JAMISON	H	DR	1120.0	3		359.0	3	U		B		01	343	HE					K	U	7.0	3	1240.	3L	01-17-68	2	SO4=376. 3
K70 16 14 E	12ADAB	JEROME M. CRETTOL	R	DU	1041.0	4		20.0	3	2		B		01	293	IN				48.	R	3							
K70 16 14 E	12BAAA	WILFORD HEROCHER	R	UN	1063.0	4				7		B										7							
K70 16 14 E	12BABA	WILFORD HEROCHER	R	UN	1062.0	4				2		B										3							
K70 16 14 E	13DAA	VERL E. SMITH	R	DD	1075.0	4		100.0	3	7	3.90	1	12-02-87	02,02	286,295					6.	Z	H							
K70 16 14 E	13DAAA	VERL E. SMITH	R	DU	1065.0	3		11.0	3	7		B		02	286	IN				72.	R	H							
K70 16 14 E	13DAAD	VERL E. SMITH	R	DR	1081.0	4		100.0	3	7		B		02	295	CI				6.	G	3							V. HARD WTR
K70 16 14 E	13DDBC	VERL E. SMITH	R	DU	1075.0	3		11.0	3	7		B		02	286	IN				72.	R	H							
K70 16 14 E	13DDDA	VERL E. SMITH	R	DU	1083.0	4		11.0	3	7	3.00	5		02	286	IN				72.	R	H							
K70 16 15 E	5CBB	W.M. REGENOLD	KG	DU	1050.0	3		21.5	1	U	7.92	1	10-31-51	03,01	286,293	SI				54.	R	U	94.0	3			07-17-52	1	NO3=137. 3
K70 16 15 E	7CCDC	LINDA CRETTOL	R	DU	1080.0	4	65	50.0	8	2	1.17	1	12-01-87	03	293	RI				24.	C	R							FE PROBLEMS
K70 16 15 E	19B	HELEN SCHRADER	R	DU	1090.0	3		50.0	8	N		B			279	IN					R	H							
K70 16 15 E	19DDD	FRANK CORBOLOTTI	R	DU	1115.0	3		50.0	8	7	6.50	3		02	286	IN					R	U							
K70 16 15 E	19DDDC	FRANK CORBOLOTTI	R	DU	1115.0	3		50.0	8	7	6.50	3		02	286	IN					R	U							
K70 16 15 E	20CCDC	VICKY LONG	R	DR	1125.0	4				7		B								6.	I	H							
K70 16 15 E	28CDB	LORALIE SHACKELFORD	R	DU	1040.0	8		50.0	8	7		B		01	305	IN					R	H							

Table 2.2--Records of wells, test holes, and springs in the SSC site area. (cont.)

STATE COUNTY CODE	WELL LOCATION	OWNER OR USER	SOURCE OF OWNER INFO.	TYPE OF WELL	SURFACE ELEVATION	ACCURACY	DATE CONSTRUCTED	DEPTH OF WELL	ACCURACY	USE OF WELL	WATER LEVEL	ACCURACY	DATE MEASURED	AQUIFER(S) MATERIAL	AQUIFER(S) UNIT(S)	SOURCE OF AQUIFER INFO.	DEPTH TO BEDROCK	YIELD	ACCURACY	DIAMETER OF CASING (INCHES)	CASING TYPE	LIFT & POWER	CHLORIDE CONTENT	ACCURACY	SPECIFIC CONDUCTANCE	ACCURACY, LAB OR FIELD	SAMPLE COLLECTION DATE	OTHER CHEM. QUALITY DATA AVAILABLE	REMARKS
K70	16 15 E 28DCCD	D. STROMGREN, TRACT	L	DU	1049.0	4		32.3	1	N	2.70	1	12-03-87	01	305	IN				60.	R	H							
K70	16 15 E 29ABA	KEITH LEWIS	R	DU	1075.0	3	66	20.0	3	7	5.00	3	11-01-87	02	295	RI				72.	R	H							
K70	16 15 E 29DDDC	LARRY STEVICKS	R	DU	1079.0	4				7		B		01	293	IN					R	H							
K70	16 15 E 29DDDD	LARRY STEVICKS	R	DU	1085.0	4		12.1	1	7	6.90	1	12-03-87	01	293	IN				48.	R	H							
K70	16 15 E 33BBBB	DENNIS DOWNEY	R	DU	1080.0	3		20.0	3	7		B		02	295	IN				60.	R	H							
K70	16 15 E 33BCCD	F.W. SAFFELL	R	DU	1078.0	4		5.0	3	7		B									R	H							
K70	16 15 E 33CDC	WAYNE WISCHROPP	R	DU	1085.0	3		25.0	3	2	7.00	3	11- 87							72.	R	U							
K70	16 15 E 33DDDA	LARRY J. RICHMOND	R	DU	1060.0	4		13.3	1	7	.55	1	12-10-87	02	295	IN				48.	R	H							
K70	16 15 E 34ABA	HARLAN LIPPERT	R	DU	1085.0	3		60.0	8	7		B		01	305	IN				36.	R	H							
K70	16 15 E 34ABAB	HARLAN LIPPERT	R	DU	1093.0	4		60.0	8	7		B		01	305	IN				36.	R	H							
K70	16 15 E 34ABCD	HARLAN LIPPERT	R	DU	1070.0	8		60.0	8	7		B								36.	R	H							
K70	16 15 E 34CCCC1	HARLAN LIPPERT	R	DU	1071.0	4		60.0	8	7		B		01	305	IN				36.	R	H							
K70	16 15 E 34CCCC2	HARLAN LIPPERT	R	DU	1065.0	4		60.0	8	7		B		01	305	IN				36.	R	H							
K70	16 15 E 35CDC	RAY D. WEILY	WO	DR	1070.0	3	12-68	80.0	4	7	.00	4	12-15-68			WO	11.0	0.0	4		N	H							
K70	16 16 E 18CCD	LOUIS MEYERS	KG	DU	1130.0	3		50.0	3	U	20.00	3	12-13-51	01	305	SI				36.	R	U	75.0	3			07-17-52	1	NO3=137. 3
K70	16 16 E 23BAAC	HAROLD WOODARD	KG	DU	1110.0	3		25.1	1	U	13.61	1	12-08-51	02,03	306,312	SI				54.	R	U	184.0	3			07-17-52		NO3=266. 3
K70	16 16 E 36DAAB	RAYMOND GOLDSMITH	R	DR	960.0	3		100.0	8			B		02,01	326,340	KI					3								
K30	16 17 E 2ABBA	MIKE CAMPBELL	W	DR	1110.0	4	08-78	200.0	4	1	70.00	4	08-30-78	03,69	326,335	WI	4.0	2.	4	5.	P	Q							
K30	16 17 E 2ABBA										76.00	1	05-26-81																JAMAL MEAS.
K30	16 17 E 2CDDD	OSAGE RWD#2 WELL #1	RC	DR	1121.0	4	07-63	363.0	4	5	203.00	4	07-24-63	01	334	WO	10.0	25.	4		K	U	258.0	3			07-23-63	2	LAYNE-WESTN
K30	16 17 E 2DCCC										161.00	1	05-26-81																JAMAL MEAS.
K30	16 17 E 2DCCC	OSAGE RWD#2 WELL #2	W	DR	1123.0	4	11-78	320.0	4	5	150.00	4	11-22-78	01	334	WI	5.0	20.	4	8.25	P	Q							
K70	16 17 E 3ADAD	MRS. CLAUDE HOWARD	W	DR	1105.0	3	03-77	347.0	4	2	50.00	4	03-05-77	02,01	326,343	WI	5.0	3.	4	5.5	P	Q							
K70	16 17 E 3ADAD										59.00	1	05-26-81																JAMAL MEAS.
K70	16 17 E 10ABAB	A.S. LEE (FORMERLY)	RD	DR	1095.0	9		345.0	3	N	145.00	3	07-01-30	01	335	SI				6.	G	H	131.0	3			05-22-52	1	NO3=540. 3
K70	16 17 E 10ABAB										139.00	1	09-28-83																
K70	16 17 E 10DAA	G.W. GINGERICH	L	DR	1028.0	8	34	274.0	4	N		B		01	343	KI	14.0	16.7	4	6.25	U	H							KERC WELL#6
K70	16 17 E 10DDC	GEORGE GINGERICH	L	DR	1015.0	8	04-60	110.0	7	U		B					12.0				K	U							NOT FLD CKD
K30	16 17 E 11BCDB	GREG RODGERS	W	DR	1075.0	3	07-79	265.0	4	1	170.00	4	07-20-79	01	334	WI	5.0	10.	4	5.	P	Q							
K30	16 17 E 11BCDB										178.00	1	05-26-81																JAMAL MEAS.

Table 2.2--Records of wells, test holes, and springs in the SSC site area. (cont.)

STATE COUNTY CODE	WELL LOCATION	OWNER OR USER	SOURCE OF OWNER INFO.	TYPE OF WELL	SURFACE ELEVATION	ACCURACY	DATE CONSTRUCTED	DEPTH OF WELL	ACCURACY	USE OF WELL	WATER LEVEL	ACCURACY	DATE MEASURED	AQUIFER(S) MATERIAL	AQUIFER(S) UNIT(S)	SOURCE OF AQUIFER INFO.	DEPTH TO BEDROCK	YIELD	ACCURACY	DIAMETER OF CASING (INCHES)	CASING TYPE	LIFT & POWER	CHLORIDE CONTENT	ACCURACY	SPECIFIC CONDUCTANCE	ACCURACY, LAB OR FIELD	SAMPLE COLLECTION DATE	OTHER CHEM. QUALITY DATA AVAILABLE	REMARKS
K30	16 17 E 11CDD	CARL REED	W	DR	1075.0	3	10-79	285.0	4	1	235.00	4	10-24-79	01	334	WI	3.0	20.	4	5.	P	Q							GROUT 2 SWL
K30	16 17 E 13ADA	DOROTHY GILLILAND	R	DR	1145.0	3	63	277.0	3	9		B		01	334	WI		10.	3	6.	I	Q							ADEQUATE
K30	16 17 E 13CCBB	GLEN NITCHER	LC	DR	1095.0	3	03-60	250.0	4	U		B		01	335	WO		22.	4		K	U							GOOD TASTE
K30	16 17 E 13DAAA	BOB JONES	W	DR	1145.0	3	01-84	315.0	4	1	220.00	4	01-15-84	01	334	WI	5.0	30.	4	6, 5	4	Q							
K30	16 17 E 14DCA	GENE MILLER	W	DR	1085.0	8	05-77	320.0	4	2	200.00	4	05-30-77	69,01	335,343	WI	1.0	3.	4	5.	P	U							
K30	16 17 E 14DCA										211.00	1	05-26-81																JAMAL MEAS.
K70	16 17 E 21ADD 1	WOODBURY FARMS	R	DR	1015.0	3		132.0	7	1	132.00	1	09-26-83							5.	K	U							
K70	16 17 E 21ADD 2	WOODBURY FARM	R	DR	1015.0	3		195.0	9	U	100.00	3	07-01-49	01	335	KI				6.	G	U							JOHN OGLE'S
K30	16 17 E 24DDAA	FLOYD GATES	WO	DR	1075.0	3	54	250.0	4	U		B		01	343	WO	5.0	22.	4	6, 5	J	U							GOOD QUAL.
K30	16 17 E 25CBBB	ANDY DUFFLE	W	DR	1025.0	3	12-76	200.0	4	2	80.00	4	12-21-76	01	334	WI	4.0	30.	4	5.5	P	Q							NOT FLD CKD
K30	16 17 E 25DDCD	ANDY DUFFLE	W	DR	995.0	3	03-77	130.0	4	2	65.00	4	03-24-77	01	334	WI	2.0	30.	4	5.	P	Q							ASCS WELL
K30	16 17 E 25DDCD										64.00	1	05-26-81																JAMAL MEAS.
K30	16 17 E 26BABA1	RALPH HAMILTON	H	DR	985.0	3		280.0	3	U	67.88	1	04-08-68	01	343	HE				6.	G	U	96.0	3	910.	3L	04-08-68	2	NA+K=193. 3
K30	16 17 E 26BABA2	RALPH HAMILTON	W	DR	985.0	3	01-77	190.0	4	9	100.00	4	01-19-77	01	334	WI	4.0	30.	4	5.	P	Q							ASCS WELL
K30	16 17 E 26BABA2										104.00	1	05-26-81																JAMAL MEAS.
K30	16 17 E 26CAA	MARK HAMILTON	W	DR	1030.0	8	06-85	125.0	4	9	81.00	4	06-06-85	01	335	WI	4.0	21.	4	5.5	P	Q							TESTED OKAY
K30	16 17 E 26DBD	JACK WILSON	R	DR	1005.0	3	77	320.0	3	1		B		01	334	WI				8.	P	Q							HD, FE PROB
K30	16 17 E 26DDCC	LINDA ASPLUND	R	DR	1035.0	3		189.0	3	9	60.00	3		01,01	340,343	WI		36.	3	8.	G	Q							
K70	16 17 E 27BAAB	JOHN OGLE	W	DR	975.0	3	01-83	173.0	4	1	110.00	4	01-03-83	01	335	WI	3.0	10.	4	6.25	3	U							
K70	16 17 E 28CCAC	RICHARD GOFF	R	DU	1125.0	8		10.0	8	7		B		02	306	IN				48.	R	H							SPRING FED
K70	16 17 E 33A	JAMES DRIVER	R	DR						N		B									K	H							
K70	16 17 E 33D 1	DOROTHY CASTEN	R	DU				30.0	3	N		B		02	326	IN				48.	R	H							NOT FLD CKD
K70	16 17 E 33D 2	DOROTHY CASTEN	R	DU				20.0	3	N		B		02	326	IN				48.	R	H							NOT FLD CKD
K30	16 18 E 4DCCC	LAWRENCE DYER	W	DR	965.0	3	03-81	124.0	4	1	45.00	4	03-27-81	69,01	334	WI	45.0	30.	4	6, 5	P	U							NOT FLD CKD
K30	16 18 E 6A	DALE CRAWFORD DVM	R	DR	1050.0	8		150.0	3	N		B		01	335	WI				6.	G	4							
K30	16 18 E 6ABBB	APPANOOSE GRADE SCH	W	DR	1070.0	3	11-82	210.0	4	5	70.00	4	11-01-82	01	335	WI	6.0	25.	4	5.	S	U							GROUT- 140'
K30	16 18 E 6CBB	FRANK JR. CAMPBELL	R	DR	1045.0	3		180.0	3	9		B		01	335	WI				6.	P	Q							NOT FLD CKD
K30	16 18 E 8DDBB	JOHN STONE	W	DR	1045.0	3	03-79	170.0	4	1	80.00	4	03-09-79	69,01	335,343	WI	4.0	15.	4	6, 5	P	U							
K30	16 18 E 8DDBB										87.50	1	05-25-81																JAMAL MEAS.

Table 2.2--Records of wells, test holes, and springs in the SSC site area. (cont.)

STATE COUNTY CODE	WELL LOCATION	OWNER OR USER	SOURCE OF OWNER INFO.	TYPE OF WELL	SURFACE ELEVATION	ACCURACY	DATE CONSTRUCTED	DEPTH OF WELL	ACCURACY	USE OF WELL	WATER LEVEL	ACCURACY	DATE MEASURED	AQUIFER(S) MATERIAL	AQUIFER(S) UNIT(S)	SOURCE OF AQUIFER INFO.	DEPTH TO BEDROCK	YIELD	ACCURACY	DIAMETER OF CASING (INCHES)	CASING TYPE	LIFT & POWER	CHLORIDE CONTENT	ACCURACY	SPECIFIC CONDUCTANCE	ACCURACY, LAB OR FIELD	SAMPLE COLLECTION DATE	OTHER CHEM. QUALITY DATA AVAILABLE	REMARKS
K30	16 18 E 18CDDC	MRS. R. THOMPSON	W	DR	1075.0	4	04-75	275.0	4	1	165.00	4	04-10-75	01	343	WI	3.0	15.	4	6.25	P	Q							
K30	16 18 E 18CDDC										171.00	1	05-25-81																JAMAL MEAS.
K30	16 18 E 31CCCC	BERTHA FRANK	WO	DR	938.0	3	01-54	100.0	4	U	50.00	4	01- 54	01	334	WI	14.0	15.	4		K	U	5.0	3	400.	3L	01-17-68	1	TH=201 3
K30	16 18 E 35BAAA	P.L. JOHNSON	H	DR	965.0	3		102.0	3	U		B		01	343	HE				6.	G	U	6.0	3	470.	3L	04-08-68	1	TDS=283. 3
K70	17 14 E 10AAD	FLOYD WILLIAMS	KG	DU	1110.0	3		34.5	1	U	4.70	1	10-19-51	03,02	285,286	SI				36.	R	U	346.0	3			07-15-52	1	NO3=217. 3
K70	17 15 E 1DBAC	RUTH L. STURDY	R	DU	993.0	3	64	12.0	3	8	4.50	3		24	588	IN		35.	3	24.	T	Q							
K70	17 15 E 2ACC	RAY D. WEILY	RC	DR	1005.0	3	03-68	120.0	4	U	12.00	4	03-06-68	03	313	IN	22.0	1.	4		N	U							
K70	17 15 E 2BACD	RAY D. WEILY	R	DU	1030.0			412.0	1	2	2.30	1	12-04-87	02	306					30.	R	U							
K70	17 15 E 2BBAA	H. BELL	R	DU	1065.0	3		14.2	1	7	3.00	1	12-04-87	40	014	IN				72.	R	H							
K70	17 15 E 2BBAC	H. BELL	R	DU	1051.0	3		12.0	3	7		B		40	014	IN				72.	R	H							
K70	17 15 E 2BBAD	H. BELL	R	DU	1063.0	3	63	12.0	3	9	8.00	3		40	014	IN	12.0	20.	3	72.	R	H							10 PPM NO3N
K70	17 15 E 2BDDC	RAY D. WEILY	WO	DR	1005.0	3	03-68	35.0	4	U	5.00	4	03-16-68	08	588	IN	16.5	6.	4	8.25	I	U							
K70	17 15 E 2DADD1	RALPH BELL	R	DU	1055.0	3		31.1	1	7	11.15	1	12-10-87	02,03	306,312	IN				22.2	R	H							
K70	17 15 E 2DADD2	RALPH BELL	R	DU	1057.0	4		33.1	1	2	15.76	1	12-10-87	02,03	306,312	IN				66.	R	R							
K70	17 15 E 3ABAB	HULDA WEISS	R	DU	1047.0	4		25.0	3	N		B								60.	R	H							
K70	17 15 E 3BAAD	MARJORIE TYSON	R	DU	1020.0	4		20.0	1	9	8.55	1	12-04-87	02	306	IN				48.	R	A							
K70	17 15 E 15BBAA	IRVING R. NILES	R	DU	1075.0	3		25.0	3	7	3.00	3		02,01	295,305					72.	R	H							
K70	17 16 E 1DDDA	RAYMOND GOLDSMITH	R	DU	1028.0	3		30.0	3	7		B		02	326	IN				48.	R	H							
K70	17 16 E 4ADDD	DEAN BURKDOLL	R	DU	1023.0	3		26.4	1	N		B	12-10-87	02	313	IN				20.4	R	H							
K70	17 16 E 4DAAB1	DEAN BURKDOLL	R	DU	1002.0	4		14.8	1	7	2.70	1	12-10-87	02	313	IN				60.	R	H							
K70	17 16 E 4DAAB2	DEAN BURKDOLL	R	DU	1000.0	4		10.7	1	N	5.60	1	12-10-87	02	313	IN				66.	R	H							
K70	17 16 E 8ABAC	DEAN BURKDOLL	R	DU	1065.0	3		9.1	1	7	.40	1	12-11-87	02	313	IN				24.	R	H							
K70	17 16 E 8ABBA	DEAN BURKDOLL	R	DU	1069.0	4		19.5	1	7	9.10	1	12-11-87	02	313	IN				48.	R	H							
K70	17 16 E 9ADAA1	DEAN BURKDOLL	R	DU	1095.0	3		12.9	1	7	4.55	1	12-10-87	02	313	IN				60.	R	H							
K70	17 16 E 9ADAA2	DEAN BURKDOLL	R	DU	1095.0	4		20.0	8	7		B		02	313	IN				60.	R	H							
K70	17 16 E 9ADAA3	DEAN BURKDOLL	R	RP	1093.0	3		100.0	3	7		B		01	325	IN					K	H							TOP PLUGGED
K70	17 16 E 9BBBC	PAUL WINTERSCHEIDT	R	DU	1125.0	4		9.3	1	7	7.90	1	12-11-87	02	306	IN				48.	R	H							
K70	17 16 E 10DD	KENNETH MCCREIGHT	R	DU				50.0	8	2	3.00	3			306	IN					R	H							
K70	17 16 E 11BBAA1	MARVIN YOUNG	R	DU	1139.0	3		28.8	1	7	6.80	1	12-11-87	02	306	IN				48.	R	H							
K70	17 16 E 11BBAA2	MARVIN YOUNG	R	DR	1140.0	4				7		B								6.	G	H							

Table 2.2--Records of wells, test holes, and springs in the SSC site area. (cont.)

STATE COUNTY CODE	WELL LOCATION	OWNER OR USER	SOURCE OF OWNER INFO.	TYPE OF WELL	SURFACE ELEVATION	ACCURACY	DATE CONSTRUCTED	DEPTH OF WELL	ACCURACY	USE OF WELL	WATER LEVEL	ACCURACY	DATE MEASURED	AQUIFER(S) MATERIAL	AQUIFER(S) UNIT(S)	SOURCE OF AQUIFER INFO.	DEPTH TO BEDROCK	YIELD	ACCURACY	DIAMETER OF CASING (INCHES)	CASING TYPE	LIFT & POWER	CHLORIDE CONTENT	ACCURACY	SPECIFIC CONDUCTANCE	ACCURACY, LAB OR FIELD	SAMPLE COLLECTION DATE	OTHER CHEM. QUALITY DATA AVAILABLE	REMARKS
K70	17 16 E 12DDD	RAYMOND GOLDSMITH	R	DR	1025.0	4		200.0	3	7		B		02,01	326,340	WI		5.	5	6.	F	Q							SODA-WATER
K70	17 16 E 20AADB	M.R. BRONSON	KG	DR	1105.0	8		297.0	3	U	150.00	3	01-10-50	01	335	SI				5.	I	U	58.0	3			05-21-52		NO3=62. 3
K70	17 16 E 26AAD	JOHN PLOWMAN	KG	DR	1030.0	3		250.0	3	U	83.54	1	11-12-51	01	335	SI				6.	G	U	146.0	3			05-22-52		NO3=106. 3
K70	17 16 E 33DDAD	DON EVERST	KG	DR	1078.0	3		120.0	3	U	60.00	3	11-09-51	01	335	SI				6.	G	U	670.0	3			07-17-52	1	NATK=688. 3
K30	17 17 E 1BAAB	JIM DRIVER	WO	DR	950.0	4	01-54	125.0	4	1	29.00	1	09-27-83	69,01	335,343	WO	16.0			6.25	2	U							GOOD YIELD
K70	17 17 E 3CBBB	L. W. BRECHEISEN	WO	DR	937.0	4	02-68	70.0	4	U	8.00	4	02-06-68	10,01	588,335	WO	20.0	5.	4	6, 5	J	U							FAULT INLOG
K70	17 17 E 4B	JESSIE HERRING	R	DU				50.0	8	7		B		02	326	IN					K	H							
K70	17 17 E 7A	ANTON PFAFF	R	DU				50.0	8	7		B								60.	R	H							
K70	17 17 E 7BCBB	ANDY DUFFLE	W	DR	1067.0	4	03-77	200.0	4	2	100.00	4	01-17-77	01	335	WI	2.0	6.	4	5.	P	Q							
K70	17 17 E 8B	ELWOOD WALTERS	R	SP					6	2		C		02	326	IN	.0				V	V							
K70	17 17 E 9DADA	QUENEMO CITY WELL#2	H	DR	945.0	3	44	228.0	4	7		B		02	343	WI				8.	I	H	6510.0	3			02-25-43	2	NA+K=3720 3
K70	17 17 E 9DCDC	QUENEMO CITY WELL#3	H	DR	1015.0	4	46	214.0	4	5		B		01	335	WI		10.	4	8.	I	U					03-28-86	2	FE=3 PPM 3
K70	17 17 E 9DDD	QUENEMO CITY WELL#1	H	DR	945.0	3	39	175.0	4	7		B		01	335	WH	42.0			6, 5	I	H							FORMER PWS
K70	17 17 E 10CCCA	QUENEMO CITY WELL#6	H	DR	941.0	4	67	45.0	4	5		B		24	588	IN					K	U						2	HI NITRATES
K70	17 17 E 10CCCD	QUENEMO CITY WELL#5	H	DR	940.0	4	52	33.0	9	5		B		24	588	SI				8.	I	B						2	HI NITRATES
K70	17 17 E 10CCDB	QUENEMO CITY WELL#4	H	DR	939.0	4	51	33.0	9	5		B		24	588	SI				8.	I	B						2	HI NITRATES
K70	17 17 E 15CCAA	D.W. EVANS	WO	DR	935.0	4	12-65	40.0	4	U	10.00	4	12-22-65	24,01	588,335	WO	25.0	50.	4	6.25	S	U							
K70	17 17 E 16DBD	EDWIN CARSWELL	WO	DR	980.0	8	07-60	175.0	4	U	103.00	4	07-08-60	01	334	WO	4.0	24.	4	6, 5	J	U							
K70	17 17 E 17CBBC	VAN B. CADE	KG	DR	1025.0	3		225.0	3	U	88.00	3	07-12-49	01	335	SI				6.	G	U	685.0	3			05-22-52	1	NATK=702. 3
K30	17 17 E 23BDCD	GENE SNYDER		DR	1071.0	4	08-76	200.0	4	1	110.00	4	08-24-76	01	334	WI	4.0	2.	4	6.25	P	Q							
K30	17 17 E 23BDCD										107.00	1	06-01-81																JAMAL MEAS.
K30	17 17 E 23CABB	ANTON E. RASMUSSEN	W	DR	1070.0	3	07-77	207.0	4	1	97.00	4	07-04-77	01	334	WI	4.0	6.	4	5.	P	U							
K30	17 17 E 23CABB										135.00	1	09-22-83																PAM MEAS.
K30	17 17 E 26BBDA	MARK DODGE		DR	1065.0	3	11-78	190.0	4	3	90.00	4	11-28-78	01	335	WI	11.0	2.5	4	6, 5	P	U							
K30	17 17 E 26BBDA										91.00	1	06-01-81																JAMAL MEAS.
K30	17 17 E 26CBAA	GERALD RHEA	W	DR	1068.0	3	10-75	194.0	4	1	114.00	4	10-10-75	01	334	WI	2.0	4.	4	5.	P	U							
K30	17 18 E 4BBBB	GLEN NEIL	W	DR	955.0	4	11-76	135.0	4	1	60.00	4	11-12-76	01	334	WI	35.0	40.	4	5.	3	Q	.						
K30	17 18 E 4BBBB										57.00	1	06-03-81																JAMAL MEAS.
K30	17 18 E 6A	CITY OF POMONA #2	WO	DR			04-53	253.0	4	5		B		01	334	WO	7.0	40.	4	6.	S	U							NOT FLD CKD
K30	17 18 E 6AAB	CITY OF POMONA	WO	DR	940.0	3	38	200.0	4	5		B		01,01	335,343	WI		40.	4		K	U							

Table 2.2--Records of wells, test holes, and springs in the SSC site area. (cont.)

STATE COUNTY CODE	WELL LOCATION	OWNER OR USER	SOURCE OF OWNER INFO.	TYPE OF WELL	SURFACE ELEVATION	ACCURACY	DATE CONSTRUCTED	DEPTH OF WELL	ACCURACY	USE OF WELL	WATER LEVEL	ACCURACY	DATE MEASURED	AQUIFER(S) MATERIAL	AQUIFER(S) UNIT(S)	SOURCE OF AQUIFER INFO.	DEPTH TO BEDROCK	YIELD	ACCURACY	DIAMETER OF CASING (INCHES)	CASING TYPE	LIFT & POWER	CHLORIDE CONTENT	ACCURACY	SPECIFIC CONDUCTANCE	ACCURACY, LAB OR FIELD	SAMPLE COLLECTION DATE	OTHER CHEM. QUALITY DATA AVAILABLE	REMARKS
K30	17 18 E 7AAD 1	KS GEOLOGICAL SURVY	RW	DR	912.0	4	10-83	41.0	4	6	15.00	4	10-26-83	43	588	WI				5.	P	H							DG PROJECT
K30	17 18 E 7AAD 2	KS GEOLOGICAL SURVY	RW	DR	912.0	4	10-83	50.5	4	6	24.00	1	83	01	343	WI	41.0			6.	P	H							DG PROJECT
K30	17 18 E 8CCCC	DOUG COMBS	W	DR	985.0	8	03-78	140.0	4	1	75.00	4	03-28-78	01	335	WI	10.0	7.	4	6.25	3	Q							
K30	17 18 E 8CCCC										80.00	1	09-27-83																PAM MEAS.
K30	17 18 E 24DAAD	EDGAR REEVES	H	DU	990.0	8		18.0	3	U	14.50	1	04-08-68	01	343	HE				48.	R	U	50.0	3	730.	3L	04-08-68	1	NO3=130.	3
K30	17 18 E 30BBBB	H.L. DEHN	WO	DR	1075.0	3	08-62	220.0	3	U	160.00	3	08-31-62	01	334	WO		7.	4	6.	J	U	64.0	3	1070.	3L	04-06-68	1	NO3=71.	3
K30	17 18 E 30BBBB										140.00	1	09-28-83																
K30	17 18 E 34DBB	STATE OF KANSAS	H	DR	1115.0	8		240.0	3	5		B			334	IN					K	U	17.0	3			03-21-66	1	NO3=27.	3

State: K=Kansas

County code: 23=Douglas; 30=Franklin; 70=Osage.

Well location: Well numbers give the location of wells according to the following formula: township-range-section, 160-acre tract within that section, the 40-acre tract within the quarter section, the 10-acre tract within the quarter-quarter section, and the 2.5-acre tract within the quarter-quarter-quarter section. If two or more wells are located within a 2.5-acre tract, the wells are numbered serially according to the order in which they were inventoried. The 160-acre, 40-acre, 10-acre, and 2.5-acre tracts are designated A,B,C, or D in a counterclockwise direction beginning in the northeast quarter. For example, well 17 15E 10CDBA is located in the $NE^1/_4$, $NW^1/_4$, $SE^1/_4$, $SW^1/_4$ Section 10, Township 17 S, Range 15 E.

Source of owner information: W=WWC-5 Form (a water well record since 1974); WO=water well record before 1974; D=Division of Water Resources; H=Kansas Department of Health & Environment (KDHE); U=U.S. Geological Survey; R=reported from owner or user; L=county lease and ownership map; RD=rural directory; RW=reported from owner or user and WWC-5 Form; RL=reported from owner and user and lease map; N=reported from neighbor; RH=reported from owner or user and KDHE; RC=reported from owner or user and driller; KG=reported in a Kansas Geological Survey (KGS) publication; RK=reported from owner or user and KGS publication.

Type of well: DR=drilled; DU=dug; DN=driven; DD=dug and drilled; SP=spring; AU=augered; UN=unknown.

Elevation Accuracy: 1=instrument level ± 0.1 foot; 2=instrument level ± 1.0 foot; 3=7.5 minute topographic map ± 5 feet; 4=7.5 min. topo. map ± 2 feet; 8=7.5 min. topo. map ± 10 feet; 9=reported elevation.

Date well constructed: month-year

Depth of well: in feet below land surface datum (lsd).

Table 2.2--Records of wells, test holes, and springs in the SSC site area. (cont.)

Accuracy: 1=measured by local, state, or federal water agency with proper equipment and training, to the closest 0.1 foot; 3=reported by owner or user to nearest foot; 4=reported by driller, driller's log, or water agency, to closest foot; 5=estimated by local, state, or federal water agency to closest foot; 6=spring; 7=greater than value entered; 9=reported in KGS publication.

Use of well: 1=domestic--includes yard and garden watering; 2=livestock; 3=irrigation; 4=industrial; 5= public water supply; 6=observation; 7=none; 8=test; 9=domestic and livestock; N=abandoned; U=unknown; V=plugged.

Water level: represents depth to water in feet below land surface.

Accuracy: 1=measured by local, state, or federal water agency with proper equipment and training; 3=reported by owner or user to nearest foot; 4=reported by driller, driller's log, or water agency to nearest foot; 5=estimated by local, state, or federal water agency to nearest foot; 6=pumping level, to nearest foot; B=water level, below land surface, not measured, reported, or estimated; C=water level, above land surface--including a spring, not measured, reported, or estimated; D=water level, below land surface, greater than value entered.

Date measured: month-day-year

Aquifer(s) material: 01=sandstone; 02=limestone; 03=shale; 06=coal; 08=gravel; 10=clay; 14=not determined; 24=sand and gravel; 40=silt, sand, and gravel; 43=gravel, silt, and clay; 69=sandy shale; 74=sandy shale and sandstone. If two aquifers are contributing to the well, the upper aquifer material is listed first.

Aquifer(s) unit(s): 014=Terrace alluvium; 279=Scranton Shale (Sh) Formation (Fm); 284=Happy Hollow Limestone (Ls) Member (Mbr); 285=White Cloud Sh Mbr; 286=Howard Ls Fm; 293=Severy Sh Fm; 295=Topeka Ls Fm; 305=Calhoun Sh Fm; 306=Deer Creek Ls Fm; 311=Ozawkie Ls Mbr; 312=Tecumseh Sh Fm; 313=Lecompton Ls Fm; 322=Kanwaka Sh Fm; 325=Jackson Park Sh Mbr; 326=Oread Ls Fm; 327=Kereford Ls Mbr; 329=Plattsmouth Ls Mbr; 334=Douglas Group; 335=Lawrence Fm; 340=Ireland Sandstone (Ss) Mbr; 343=Stranger Fm; 588=Alluvium.

Source of aquifer information: IN=inference (usually in conjunction with surface geology map and/or available geologic literature); WI=WWC-5 Form and inference; WO=water well record before 1974; RI=owner or user and inference; KI=driller and inference; SI=reported in KGS publication and inference; SW=reported in KGS publication from driller's log; CI=core hole information and inference.

Depth to bedrock: in feet below land surface. If springflow from bedrock, 0.0 will be entered.

Yield: in gallons per minute.

Accuracy: 3=reported by owner or user; 4=reported by driller, driller's log, or water agency; 5=estimated by local, state, or federal water agency based on previous experience, historical records, previous measurements, etc., (may be significantly in error).

Diameter of casing: in inches. If two types of casing are used, the diameter of both may be given separated by a comma.

Casing type: C=concrete; E=contact spring; G=galvanized steel; I=wrought or oil-field iron; J=iron and galvanized steel; K=unknown; N=none; P=plastic (includes PVC, SR, RMP, and ABS); R=rock; S=steel; T=tile; V=spring (undif.); Z=rock and unknown; 1=rock and none; 2=steel and none; 3=plastic and none; 4=steel and plastic; 5=cement and none.

Lift and power: 1=centrifugal-electric; 2=cylinder-electric; 3=cylinder-hand; 4=cylinder-wind; 7=cylinder-electric and wind; A=Jet-electric; B=turbine-electric; H=none; Q=submersible-electric; R=centrifugal-gasoline or tractor; U=unknown; V=artesian pressure (flows).

Chloride content: in milligrams per liter (mg/L).

Accuracy: 2=analysis by KGS; 3=analysis by KDHE; 4=analysis by a state-certified private laboratory; 8=reported in KGS publication; 9=reported in Kansas Emergency Relief Committee Report (1934).

Specific conductance: in micromhos per centimeter at 25°C.

Accuracy, lab or field: 3=analysis by KDHE; L=measured in a laboratory setting.

Sample collection date: month-day-year.

Other chemical quality data available: 1=Kansas Geological Survey (KGS); 2=Kansas Department of Health and Environment (KDHE).

Remarks: additional notes or comments. Many times this space is used for additional water quality information. The chemical symbol of a constituent concentration will be used and in the last column will be the accuracy code which will be the same as those used in the chloride content accuracy column.