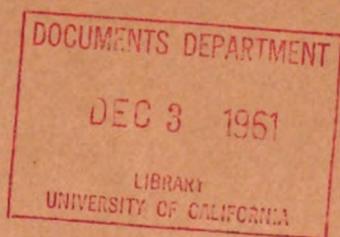


Oil and Gas Developments in Kansas During 1960

By

**E. D. GOEBEL, P. L. HILPMAN, D. L. BEENE,
and R. J. NOEVER**



UNIVERSITY OF KANSAS PUBLICATIONS
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*Chancellor of the University, and ex officio
Director of the Survey*

FRANK C. FOLEY, Ph.D.
State Geologist and Director

BULLETIN 155

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OIL AND GAS DEVELOPMENTS IN KANSAS DURING 1960

By

E. D. GOEBEL, P. L. HILPMAN, D. L. BEENE, AND R. J. NOEVER

ABSTRACT

Kansas oil production in 1960 totaled 113,344,548 barrels, a 5.1 percent decrease from the previous year. The 1960 output of crude oil decreased in value to \$336,633,308 from \$354,837,409 in the preceding year, because of decreased production.

Natural gas production in Kansas totaled 632.6 billion cubic feet (14.65 p.s.i.a.), an increase of 6.4 percent; the Hugoton Gas Area produced 451.8 billion cubic feet, about 71 percent of the total.

During the year, 82 new oil fields, 12 new gas fields, and 5 that were both oil and gas fields were discovered; 10 previously abandoned fields were revived.

In 1960, a total of 3,536 wells was recorded as drilled in Kansas in connection with the petroleum industry. Of the recorded completions, 1,556 were oil wells, 159 were gas wells, 68 were both oil and gas, 1,572 were dry holes, and 181 were salt water disposal wells or wells used as input wells in secondary recovery operations. Of the 1,572 dry holes, 543 were wildcats. Estimates of wells not specifically reported, but for which drilling permits were issued, bring the total number of wells drilled in the state during the year to 4,489.

In 1960, Ellis county produced 11,231,495 barrels and was the leading oil-producing county. Barton and Russell Counties, ranked second and third, produced 10,245,807 barrels and 8,336,647 barrels, respectively. The Bemis-Shutts field of Ellis and Rooks Counties was the top-ranking field in the state. The six leading oil fields—Bemis-Shutts, El Dorado, Hall-Gurney, Chase-Silica, Trapp, and Kraft-Prusa—accounted for about 18 percent of the total annual production.

In 1960, Kansas fields produced 204.2 million gallons of natural gas liquids, valued at more than 10.7 million dollars. Proved reserves of natural gas liquids are more than 198 million barrels. The proved reserves of Kansas crude oil at the end of the year were 883.9 million barrels, or 3.7 percent less than the previous year's reserves. Proved reserves of natural gas are more than 19.6 trillion cubic feet.

Production from recorded secondary recovery projects in Kansas amounted to 11,423,426 barrels of oil during 1960, but allowance for projects not reporting boosts the total to an estimated 19.3 million barrels. An estimated total of 17,023 oil wells and 4,648 injection wells was active during the year. Butler County, which yielded 3,948,210 barrels, led in the amount of oil produced by secondary recovery methods.

INTRODUCTION

During 1960, production of oil declined from that reported the previous year. Production of natural gas increased, but recovery of natural gas liquids decreased. The value of the crude oil produced during 1960 was less than that reported in 1959. Fluctuating prices

averaged \$2.97 a barrel. The value of natural gas was greater than in the previous year. Prices for natural gas liquids averaged near \$2.18 a barrel, three cents less than prices of the previous year.

During the year, 82 new oil fields, 12 new gas fields, and 5 that were both oil and gas were discovered. Figure 1 is a generalized map of Kansas showing geographic distribution of areas producing oil and gas. There was a marked decline in drilling and exploration activities compared with 1959. Barton County had the most new fields discovered during the year, 10. Other counties in which several new fields were discovered are Stafford, Sumner, Butler, Ellis, Kingman, and Rooks.

Reserves of crude oil and natural gas declined during the year. Reserves of natural gas liquids increased.

A condensed petroleum data table (Table 1) compares various phases of the industry in Kansas with those of the United States for 1959 and 1960.

The total value of Kansas raw products of the petroleum industry (crude oil, natural gas, and natural gas liquids) produced in 1960 was more than 417 million dollars, 15 million less than in the previous year. Figure 2 shows the relative values of 1960 oil and gas production by county. Of the 105 counties in Kansas, 80 reported oil and gas production during 1960. Because the price of crude oil decreases with decreasing gravity, and because different fields produce oils of different gravities, value by county is not proportional to production by county.

Ellis County replaced Barton County as the leading oil-producing county in the state. The **Bemis-Shutts** field of Ellis and Rooks Counties held the top position in oil production for the fourth consecutive year.

Annual oil and gas production in Kansas since 1890 is shown graphically in Figure 3. Significant discoveries and developments in Kansas by the petroleum industry are indicated.

Important developments in Kansas during 1960.—Marion County, considered by the industry as old established oil territory, led the state in number of holes drilled in the search for new oil and gas production. Four new Mississippian fields (**Dobbs**, **Fanska South**, **Klenda Southwest**, and **Tajchman**) were named during 1960, and **Klenda**, **Klenda Northwest**, **Hillsboro East**, **Lost Springs**, and **Antelope East** fields accounted for most of the well completions. In the **Lost Springs** field, 92 oil wells and 8 gas wells were opened; in **Hillsboro East**, 31 oil and 7 gas; and in **Klenda Northwest**, 42 oil and 3 gas.

In December, a basic proration order for the "Antelope East Gas Area" was issued by the State Corporation Commission. The order covers an area of 30,000 acres east and northeast of Marion. Rules for orderly development of the gas area, should commercial development

TABLE 1.—Petroleum data and percentage changes for Kansas and United States, 1959-1960

	Kansas figures		Change from previous year, percent
	1959	1960	
Crude oil production (barrels)			United States
Value of crude oil produced	119,473,875 ^a	113,344,548 ^a	- 5.1
Kansas oil production as percentage of U.S. total	\$354,837,409	\$336,633,308	- 5.1
Average price of oil	4.9	4.6	- 6.1
Rank of Kansas among oil-producing states	\$2.97	\$2.97	.....
Proved reserves of liquid hydrocarbons (at year end), thousands of barrels	6th	6th	.....
Oil-producing area of "western Kansas", acres	1,114,415 ^b	1,082,252 ^b	+ 0.5
Natural gas production, M cu. ft.	8.9	9.0	+ 1.1
Value of natural gas produced	898,580 ^c	922,370 ^c	+ 2.6
Production of natural gasoline and LPG (natural gas liquids), gallons	595,244,836 ^d	632,609,850 ^d	+ 6.4
Value of natural gasoline and LPG	\$65,476,932 ^e	\$69,587,083 ^e	+ 6.3
Proved reserves of natural gas, millions of cubic feet	232,847,282 ^f	204,215,634 ^f	-12.3
Ratio of proved natural gas reserves to current annual production	\$12,259,209 ^g	\$10,745,632 ^g	-12.3
Gas-producing area of "western Kansas", acres	19,981,403	19,608,724	- 1.9
New oil and gas pools discovered	34.1	31.1	- 8.8
Recorded well completions in Kansas	3,032,420	3,105,450	.....
Ohio completions in Kansas	198 ^h	99 ^h	.....
Cash	2,161	1,556	.....
Oil and gas ⁱ	194	159	.....
Dry	57	68	.....
Salt-water disposal ^j	1,984	1,572	.....
Unrecorded, estimated	372	181	.....
Total recorded and estimated	1,235 ^j	953 ^j	.....
Wildcats and discovery wells (included in above total)	6,013	4,489	.....
	825	631	.....

^a Figures supplied by State Corporation Commission, Conservation Division.
^b Figures from American Petroleum Institute and American Gas Association, 1959. Barrels have 42 U.S. gallons and gas is based at 14.65 p.s.i.a. at 60°F.
^c The petroleum area of "western Kansas" includes all producing counties west of the west line of Cowley, Butler, Marion, and Dickinson Counties.
^d Figures supplied by State Corporation Commission, base 14.65 p.s.i.a.
^e The minimum value of 11 cents per M cubic feet of gas at 14.65 p.s.i.a. has been applied to all Kansas gas production.
^f This aggregate figure is based on unit values of the several products that reflect wholesale prices at the plant.
^g Omitting revived pools.
^h Includes pool wells and new discoveries.
ⁱ Includes salt-water disposal and recorded secondary recovery input wells.
^j Counties for which number of wells drilled in 1960 is entirely or in part estimated include Allen, Anderson, Bourbon, Chautauqua, Coffey, Crawford, Elk, Franklin, Greenwood, Labette, Linn, Miami, Montgomery, Neosho, Wilson, and Woodson. Estimates based on "intent to drill" records.

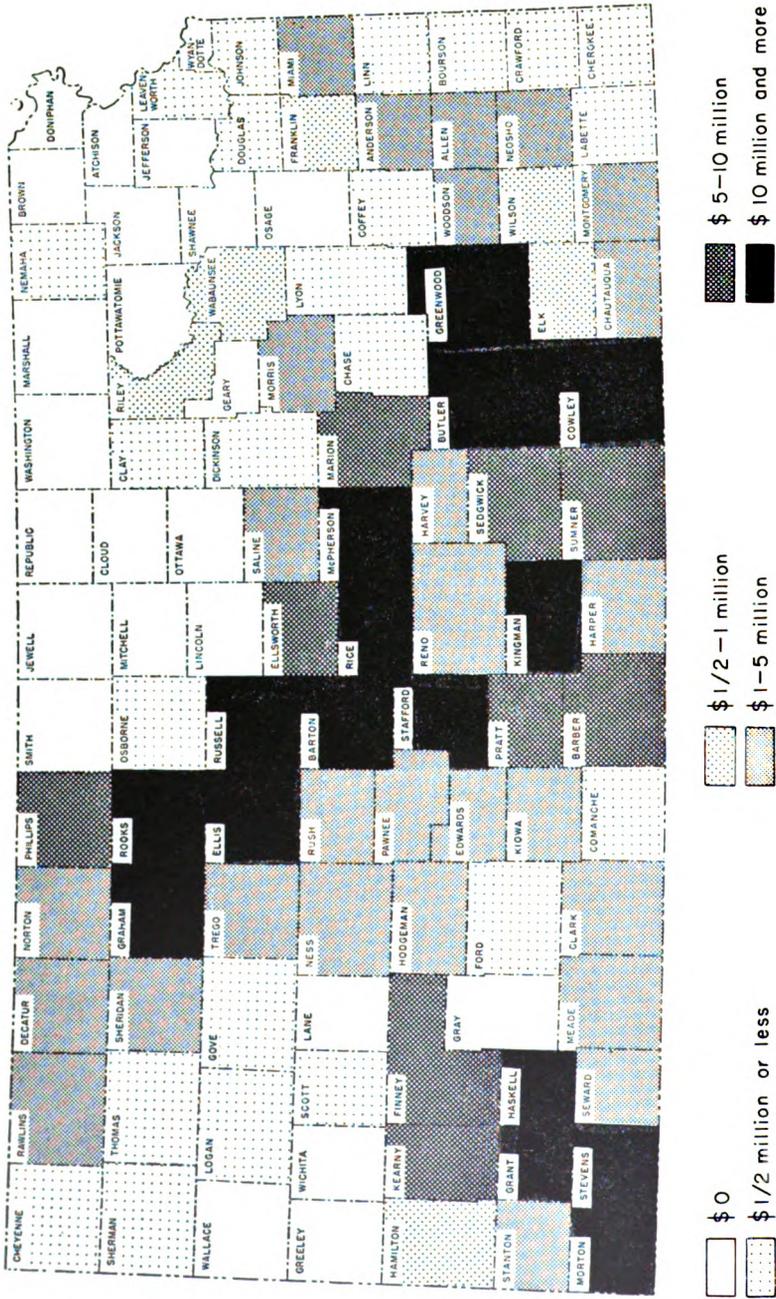


Fig. 2.—Map of Kansas showing relative value of 1960 oil and gas production by county.

be widespread, include 320 acre spacing and allowables which are based on both open-flow capacity and acreage attributed to each well.

The **Tajchman** Mississippian gas field, as defined geologically by the Kansas Nomenclature Committee, falls within the "Antelope East Gas Area", as does a portion of the **Lost Springs** field. The **Tajchman** field was opened by the Can-Am Petroleum Company No. 1 Tajchman during July in sec. 21, T. 19 S., R. 5 E. Production is from a depth of 2,238 to 2,252 feet in the discovery well, which was assigned an initial potential of 1,200,000 cubic feet of gas per day. The well was reported to have a bottom hole pressure of 760 p.s.i.

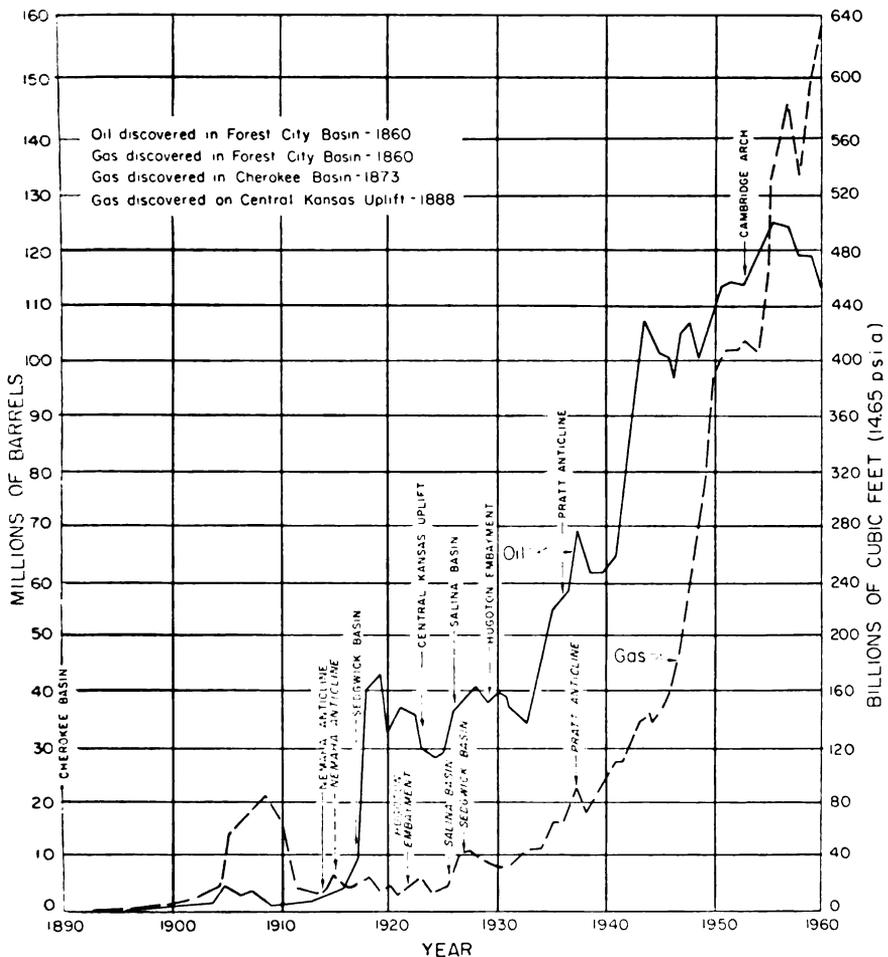


FIG. 3.—Annual oil and gas production in Kansas from 1890 to 1960 and year of discovery of oil or gas in different structural provinces.

During 1960 there was an intensified search for additional oil and gas reserves in the Hugoton Embayment in southwestern Kansas, specifically below the Permian rocks that contain the huge **Hugoton Gas Area**. Four new oil fields were opened in Haskell County during the year; **Eubank South** (Mississippian), **Hopkins** (Mississippian), **Satanta North** (Morrowan and Mississippian), and **Victory** (Lansing-Kansas City). The discovery wells of these four fields had a combined initial potential of 1,291 barrels of oil per day. In Morton County, a Morrowan gas field (**Kinsler Southeast**) and a Morrowan oil field (**Shrauner**) were opened. Seward County had three new Mississippian fields during 1960 (**Arkalon**, gas; **Arkalon East**, gas; and **Thirty-Three**, oil and gas) and one new Morrowan field (**Evalyn**, gas). In Stevens County, Morrowan gas was discovered in the **Center** field.

Geographically outside of the **Hugoton Gas Area** but within the Hugoton Embayment, operators were also successful in locating additional reserves of hydrocarbons. Important new fields in the area include Morrowan gas production (**Sitka Northeast**) in Clark County, Marmaton oil production (**Willroads**) in Ford County, and Mississippian oil reserves (**Cam**, **Nova North**, and **Wieland West**) in Hodgeman County. In Ness County, the **Hair** Mississippian oil field was opened. Lansing-Kansas City and Marmaton were named as dual oil pools in the **Newby** field opened in Scott County in 1960.

In Comanche County, a rank new field, **Necatunga**, was opened southeast of Coldwater. The discovery well had dual completion of gas from Mississippian rocks and oil and gas from Viola rocks. North of Comanche County in Kiowa County, two Mississippian oil fields, **Fralick** and **Fruit**, were opened during 1960.

Exploratory drilling in northwestern Kansas, which apexed the previous year with a significant number of field discoveries, was generally less intense and less successful during 1960. In December 1960, the first field discovery in Rawlins County was Lansing-Kansas City oil production in the **Wilhelm East**. Rawlins County's **Cahoj** field had a good success ratio in developmental drilling with completion of 22 oil wells.

In Harvey County, northwest of Wichita, step-out drilling from the **Halstead** field opened new oil production with the finding of **Halstead West**. Production in the discovery well was from both "Hunton" and Simpson rocks. Developmental drilling during the year revealed the oil potential of the Viola rocks in the new field and 10 wells were completed in this zone by the end of the year.

Developmental drilling also was significant in other parts of Kansas during 1960. Twenty-three oil wells were completed in the **Kraus** field

in Ellis County. In the large **Spivey-Grabs** field in Harper and Kingman Counties, 28 oil, 3 gas, and 19 condensate wells were completed. Kingman County's **Basil** field also has 23 oil wells, 1 gas, and 5 condensate added during the year. Drilling on offset leases in McPherson County added 11 oil wells in the **Larson** field and 15 in the **Ritz-Canton**. In northwest Kansas, developmental drilling opened 14 oil wells in the **Ray West** (Norton County) and 12 in the **Huffstutter** (Phillips County).

In southwestern Kansas, 14 oil wells were completed in the **Pleasant Prairie** field (Haskell and Finney Counties), 7 gas wells in Grant and Morton Counties' **Panoma Gas Area**, and 12 oil wells, 5 gas, and 5 condensate in Haskell County's **Eubank** field.

In southeastern Kansas, the **Shannon** field in Cowley County was extended by developmental drilling of 47 new oil wells and now includes the **Shannon North** field (new in 1960). Fifty oil wells were completed in Butler County's **El Dorado** field and 41 in **Paulson**. Developmental drilling in secondary recovery projects in the **Seeley-Wick** field of Greenwood County opened 32 oil wells. Eleven oil wells were completed in the **John Creek** field in Morris County.

Developments in southeastern Kansas in 1960 were accentuated by the search for shallow reservoir rocks in which commercial wells could be completed by hydraulic fracturing methods. There was some drilling in search of Mississippian and Arbuckle production in eastern Kansas during 1960.

Marketing developments.—In early March, Indiana Oil Purchasing Company announced a cut in crude oil purchasing to 80 percent of January purchases. Later in the month, Sinclair Crude Oil Company followed with a similar announcement. Early in April, agreement was reached between the two companies and the Kansas Corporation Commission on the method of proration of the cuts based on conservation principles. This problem was resolved with discontinuance of purchaser's proration early in May.

In May, Derby Refining Company, a division of Colorado Oil and Gas Corporation, found it necessary ". . . because of the continuing depressed prices for refinery products", to reduce the price it paid for crude oil in Kansas by 20 cents a barrel. "It was the pressure of cheaper Rocky Mountain crude and low product prices in Kansas that prompted Derby to cut the price" (Oil and Gas Journal, May 30, 1960). The Kansas Corporation Commission followed the announcement by ordering a shut-down of wells in 40 fields which supplied part of the refinery's current daily oil requirements. The order was

based on the 1949 Kansas statute defining "economic waste". The problem was resolved with a price restoration early in June.

Refinery yields nationwide during 1960 featured gasoline over distillates and residuals, thus more crude oil was converted into gasoline. Because less crude oil is required to make a given volume of gasoline than to make distillates and residuals, total demand for crude oil did not increase commensurate with refinery yields. Refiners were able to meet the 1960 market demand with production at 1959 average levels plus some inventories (Oil and Gas Journal, May 23, 1960).

Export of crude oil to Illinois and Indiana from Kansas pipelines declined from about 106,000 barrels daily in 1956 to 85,000 barrels daily in 1960. Meanwhile, shipments to the same markets from Rocky Mountain states (generally unprorated) increased from 145,000 barrels daily in 1956 to 239,000 barrels daily in 1960. (Oil and Gas Journal, March 27, 1961).

Kansas was listed as among the four oil-prorated states that bore the brunt of crude oil-production cuts during 1960, while nine others (some non-prorated) had increased production (Oil and Gas Journal, June 20, 1960). The question, "What is Kansas' share of the national market?" is pertinent, and future study is obviously necessary.

Tables.—Detailed production tables for both oil and gas from all producing counties are given in this report (Table 30, 31). In Table 30, the listing for each county shows both current and known cumulative oil production, producing area in acres, name of field (alphabetically arranged), discovery year, producing zone, average thickness of producing zone, average gravity of oil, reported number of producing wells, and number of producing wells plugged during 1960. Similar data for gas are given in Table 31. Where possible, production from different zones is differentiated, and totals for each county are given. Where oil or gas pools extend across county lines, each county's production has been computed on the basis of individual leases.

Test wells drilled within 1½ miles of producing limits of fields are called "extension wells" and are not shown on Plate 1. Dry test holes drilled more than 1½ miles from producing wells are classified as "wildcat wells" and are plotted on the maps. Dry wildcat wells completed during 1960 are given by county in Table 29.

Tops of different stratigraphic units listed in Table 29 were determined from electric or radioactivity logs. Holes penetrating Precambrian rocks are noted. If no electric or radioactivity well log was available to the Survey, an asterisk was placed in front of the well name to indicate other sources of information were used to determine tops. These sources include logs of the Kansas Sample Log Service, drillers

logs, and scout tops reported by the Independent Oil and Gas Service and by Data, Incorporated.

Because the location of boundaries of producing areas is arbitrary, definition of wildcat wells also may be somewhat arbitrary; hence, total number of wildcat wells reported by various sources is likely to differ.

Only wells drilled to completion within the year are counted as 1960 completions. Thus, wells worked over, although completed as producing wells, are not counted as 1960 completions. Unless an unproductive well was drilled expressly for the purpose of injection or for salt-water disposal it is classified as a dry hole.

Area of production.—Areas of oil and gas production are shown as accurately as possible on Plate 1. Where no dry holes limit the field, boundaries have been projected a short distance outside the outermost producing wells. Undoubtedly, many reservoirs extend beyond the limits indicated; however, future field developments have not been anticipated.

Maps.—Figure 1 is an index map of Kansas showing generalized areas of oil and gas production. A larger-scale map of Kansas shows all presently producing oil and gas areas in the state (Pl. 1).

Abandoned and combined fields.—There were 10 fields recognized by the Kansas Nomenclature Committee as abandoned in 1960. Data on discovery wells and cumulative production of abandoned fields are included in Table 27. Also during 1960, 33 oil or gas fields were combined with other fields (Table 26). As has been the custom of the State Geological Survey, outlines of abandoned fields are not shown on Plate 1.

Well elevations.—Elevations of all wildcat tests in the state have been taken from scout reports of Data, Incorporated, and of the Kansas Oil Scouts and Landman's Association.

Acknowledgments.—Personnel of the Conservation Division of the State Corporation Commission have long cooperated to the fullest extent with the State Geological Survey. Without their cooperation, this report would not be possible.

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Appreciation is expressed to the Nomenclature Committee of the Kansas Geological Society for supplying their data on oil and gas pools discovered during the year and for their areal descriptions of existing pools.

Special thanks are due to J. E. Davies of the Kansas Sample Laboratory Service for permission to use well-sample data on some rank wildcat tests drilled during the year. We acknowledge also Data, Incorporated and the Independent Oil and Gas Service's scouting service.

The Survey is pleased to acknowledge assistance from Vance E. Rowe of Petroleum Statistical Guide, Incorporated, who supplied a part of the crude oil production figures, and from Dwight's Oil and Gas Reports, which made available the production figures for the Hugoton Gas Area.

Many persons, including Charles W. Studt and Harvel White engaged in various phases of the petroleum industry in Kansas, have been generous in providing data used in this report. Thanks are extended to numerous companies and to individuals who have contributed information on secondary recovery production and drilling activities connected with secondary recovery.

EXPLORATION

A summary of drilling activity in Kansas during 1960 is given in Table 23. Comparison of development by county is facilitated by inclusion of statewide data in this single table.

New fields.—During 1960, 82 oil fields, 12 gas fields, and 5 that were both oil and gas fields were discovered in Kansas (Table 24). On Plate 1 these new fields are emphasized by a heavier outline than that of the older fields. Ten previously abandoned oil or gas fields were revived during the year (Table 25). Of the 109 new and revived fields, the discovery wells of 5 were carried by scout reports as dry and abandoned. Thirty-three fields were combined with other fields.

Barton County had the most new fields named, 10; Stafford and Sumner Counties each had 7 fields; Butler, Ellis, Kingman, and Rooks Counties each had 6 fields named. The number of oil and gas fields

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(99) discovered during 1960 is exactly one-half of the 1959 total. The total number of Kansas counties that have produced or are producing commercial quantities of oil or gas or both remained at 85. Pertinent data on new pools are given in Table 24.

Table 28 summaries oil and gas zones discovered in established producing fields during 1960; 25 new zones were named. Also, data similar to those presented for new pools are given. New oil and gas zones are significant, because the new zone in many fields may be economically more important than the original discovery.

Wells drilled during 1960.—There were 3,536 wells recorded as drilled in the state during 1960. It is certain that numerous shallow wells in several eastern Kansas counties were not recorded and thus are not included in the above tabulation. It is estimated from drilling permits on file with the Kansas Corporation Commission and from surveys of secondary recovery projects that at least 953 such unrecorded wells were drilled in 1960. Of the reported tests, 1,556 produced oil, 159 gas, and 68 oil and gas; 1,572 were dry and abandoned; and 181 were salt-water disposal wells or input wells drilled in connection with secondary recovery operations. New field discoveries and revived fields accounted for 109 of the oil and gas wells; 543 of the dry holes were wildcat tests. A list of Kansas dry wildcat tests is given by county in Table 29.

In each of five Kansas counties, more than 200 wells were recorded and estimated as drilled in 1960. Allen County led with 310 new wells, followed by Marion (293), Butler (275), Neosho (258), and Ellis (210). These five counties accounted for about 30 percent of the total number of wells drilled in the state during 1960.

A statute requiring drillers to file an "intent-to-drill" application with the State Corporation Commission has facilitated tabulation of new wells, especially in non-scouted eastern Kansas areas. Figure 4 shows, by county, the geographic distribution of wells tabulated on the basis of applications filed. Table 2 lists, by county, the number of permits issued during 1960.

Drilling rigs.—Rotary rigs active in Kansas reached a peak number of 138 one month and averaged 112 per month during 1960 (Oil and Gas Journal, January 30, 1961). Cable-tool rigs were reported to have drilled 1,250 wells during the year. There were 236 rigs of all types active during 1960 in Kansas, an appreciable decline from the previous year (World Oil, February 15, 1961).

Geophysics.—Although geophysical work has been conducted for many years in Kansas, few results have been published, because the information has potential value to its owner. Most geophysical explora-

TABLE 2.—Number of intent-to-drill permits issued by State Corporation Commission in Kansas during 1960 by county.

Allen	314	Greeley	2	Osborne	0
Anderson	20	Greenwood	203	Ottawa	1
Atchison	0	Hamilton	16	Pawnee	14
Barber	57	Harper	38	Phillips	27
Barton	191	Harvey	37	Pottawatomie	11
Bourbon	14	Haskell	43	Pratt	43
Brown	1	Hodgeman	44	Rawlins	31
Butler	288	Jackson	5	Reno	22
Chase	16	Jefferson	2	Republic	0
Chautauqua	88	Jewell	2	Rice	71
Cherokee	0	Johnson	63	Riley	17
Cheyenne	4	Kearny	8	Rooks	72
Clark	18	Kingman	128	Rush	26
Clay	1	Kiowa	23	Russell	91
Cloud	0	Labette	33	Saline	43
Coffey	8	Lane	3	Scott	6
Comanche	10	Leavenworth	3	Sedgwick	67
Cowley	175	Lincoln	2	Seward	39
Crawford	25	Linn	5	Shawnee	0
Decatur	29	Logan	5	Sheridan	11
Dickinson	10	Lyon	6	Sherman	2
Doniphan	0	McPherson	89	Smith	2
Douglas	26	Marion	274	Stafford	198
Edwards	18	Marshall	7	Stanton	9
Elk	9	Meade	63	Stevens	10
Ellis	203	Miami	71	Sumner	158
Ellsworth	18	Mitchell	3	Thomas	6
Finney	41	Montgomery	93	Trego	13
Ford	18	Morris	28	Wabaunsee	12
Franklin	64	Morton	44	Wallace	2
Geary	3	Nemaha	0	Washington	1
Gove	1	Nesho	272	Wichita	3
Graham	68	Ness	28	Wilson	44
Grant	8	Norton	16	Woodson	86
Gray	1	Osage	0	Wyandotte	0

tion programs in Kansas presently are directed toward finding new oil and gas reserves. Because expenditures in connection with the exploration programs are an essential part of the petroleum industry economy, data concerning the programs in Kansas are pertinent.

The total number of exploration crews in Kansas has increased since 1946 because of the increased number of seismic parties; the number of gravimeter and core-drill crews has generally decreased. During 1960 there was an average of nine geophysical crews active each month.

OIL

Production and value.—The 113,344,548 barrels of oil produced in Kansas during 1960 is 6,129,327 barrels less than the amount produced in 1959. The 5.1 percent decrease in total value of crude oil, from \$354,800,000 to \$336,600,000 is due to decreased production.

TABLE 3.—Ten leading oil-producing counties in Kansas, 1959 and 1960

County	Production, bbl.		Rank	
	1959	1960	1959	1960
Ellis	11,222,654	11,231,495	2	1
Barton	11,404,683	10,245,807	1	2
Russell	8,922,064	8,336,647	3	3
Butler	7,929,366	7,799,582	4	4
Graham	6,889,023	6,116,015	5	5
Stafford	5,845,204	5,737,031	7	6
Rooks	6,066,361	5,634,607	6	7
Greenwood	5,844,543	4,758,538	8	8
Rice	4,666,987	4,474,824	9	9
Cowley	3,858,450	3,672,337	10	10

The number of counties from which oil production was reported during 1960 is 78. Among the 10 leading oil-producing counties, two changes were noted compared with 1959; Ellis County advanced to first during 1960, and Stafford County advanced to sixth (Table 3). Of the ten leading oil-producing counties, only Ellis County showed an increase in crude oil production during 1960 compared with 1959.

Kansas has 16 counties (Table 4) that have each produced a cumulative quantity of more than 50,000,000 barrels of oil. Of these, Butler County, in eastern Kansas, ranks first, having produced 445,315,949 barrels, considerably more than the 342,462,571 barrels of second-place Barton County. In 1960, Ellis County passed Greenwood County in cumulative production.

Distribution of cumulative oil production by producing zones is significant in exploration for additional reserves. About 45 percent of

TABLE 4.—Leading oil-producing counties in Kansas based upon reported, estimated, and recorded cumulative production (50 million barrels or more) to end of 1960

County	Cumulative production, bbl.		Rank	
	1959	1960	1959	1960
Butler	437,516,367	445,315,949	1	1
Barton	332,190,198	342,462,571*	2	2
Russell	306,454,155	314,790,802	3	3
Ellis	226,888,085*	238,121,434*	5	4
Greenwood	228,886,912	233,645,449	4	5
Rice	225,856,069*	230,330,893	6	6
McPherson	148,269,306*	151,772,104	7	7
Stafford	138,426,185*	144,205,806*	8	8
Cowley	100,346,582	104,018,919	9	9
Ellsworth	93,924,791	95,679,582	10	10
Rooks	86,537,643	92,172,250	11	11
Sumner	72,893,539	75,964,022	12	12
Sedgwick	70,479,157	72,760,931	13	13
Reno	63,896,384	64,674,301	14	14
Graham	57,444,711	63,560,726	15	15
Chautauqua	49,716,594	50,582,892	16	16

* Corrected cumulative.

the cumulative oil production has come from Arbuckle-Reagan rocks and about 32 percent from Pennsylvanian rocks; other Paleozoic rocks contributed the other 23 percent of cumulative oil production.

Cumulative oil production in Kansas had almost reached the 3 3/8 billion barrel mark at the end of 1960. Annual production exceeded 100 million barrels in 15 of the last 18 years, including every year since 1947. The state has produced as much crude oil since the end of World War II as before. Statistics on oil production are given by county in Table 23 and Table 30.

Of the six major oil fields listed in Table 5, only the **El Dorado** field in Butler County lies east of the Sixth Principal Meridian. All of the state's leading oil fields had decreases in annual production compared with the previous year. It is of interest that the youngest of the state's leading oil fields, **Kraft-Prusa**, is 24 years old.

Refining.—The names and locations of 13 refineries operating in Kansas during 1960 are listed in Table 6. Crude capacity, throughput, and products per stream day are shown (Oil and Gas Journal, April 3, 1961). The Standard Oil Company of Indiana refinery at Neodesha was renamed the American Oil Company refinery.

Figure 5 shows a monthly comparison of allocated crude oil to crude oil reported received by Kansas refineries and total daily average pipeline runs (averaged monthly) in Kansas during 1960. Daily average runs in April and October were considerably lower than the amounts allocated. Figure 6 compares by month during 1960 the crude oil demand forecast by the U. S. Bureau of Mines, the amount nominated to be purchased by purchasers, the amount allocated by the State Corporation Commission, and the amount actually run by pipeline companies. Purchasers' nominations were below daily average runs the last nine months of the year.

The U. S. Bureau of Mines reported the 1960 nationwide average value of crude oil at the wellhead as \$2.92 a barrel, down 2 cents from 1959. The estimated value of crude oil per barrel (36.0° to 36.9°) in Kansas during 1960 was \$2.97. Table 7 shows crude oil price changes since 1949 in the Midcontinent.

TABLE 5.—Leading oil fields in Kansas, 1959 and 1960

Rank, 1960	Field	Age, years	County	Annual production, bbl.	
				1959	1960
1	Bemis-Shutts	26	Ellis-Rooks	4,867,675	4,471,955
2	El Dorado	45	Butler	4,443,182	4,291,069
3	Hall-Gurney	30	Russell-Barton	3,253,461	3,228,587
4	Chase-Silica	30	Rice-Barton-Stafford	3,689,358	3,219,167
5	Trapp	25	Russell-Barton	3,120,143	2,752,269
6	Kraft-Prusa	24	Barton-Ellsworth	2,889,685	2,526,426

TABLE 6.—Kansas refineries and capacity, 1960

Company and location	Crude capacity		Charge, bbl. per stream day						Production, bbl. per stream day					
	BPCD	BPSD	Catalytic cracking			Hydrogen treating			Alkylation	Polymerization	Lubes	Coke (tons)	Asphalt	
			Vacuum distillate	Thermal operations	Fresh feed	Recycle	Catalytic reforming	Unit						Feed
American Oil Co.,* Neodesha	28,640	30,400	.....	.....	10,000	1,000	7,200	7,200	SR naph.	1,300	.....	.....	.....
American Petrofina Co. of Texas, El Dorado	19,000	20,000	6,000	.....	6,000	4,000	2,500	.....	.....	450	.....	.....	1,900
Anderson-Pritchard Oil Corp., Arkansas City	25,000	26,000	5,000	3,500	7,500	4,800	5,000	.....	.....	2,200	.....	.....	1,300
Century Refining Co., Shallow Water	4,000	4,200	2,000	.....	3,000	3,000	.....	.....	.....	1,200	.....	.....	400
Cooperative Refinery Assoc., Coffeyville	24,500	25,500	6,000	8,000	10,000	8,500	4,200	2,300	Mid. dist.	1,200	500	1,200	1,200	
Phillipsburg Phillips Refining Co., Wichita	13,000	14,000	4,500	.....	5,000	4,500	2,500	3,500	SR naph.	.....	750	.....	1,600
Mid-America Refining Co., Inc., Wichita	19,250	20,500	6,800	3,000†	7,500	4,500	2,500	4,000	SR naph.	1,600	600‡	.....	2,000
Chanute Mobil Oil Co., Augusta	2,850	3,000	1,600	1,200	.....	.....	.....	.....	.....	.....	.....	.....	500
National Coop. Refinery Assoc., McPherson	45,000	47,000	16,000	4,100	18,800	5,200	10,500	.....	.....	2,400	.....	.....	7,000
Phillips Petroleum Co., Kansas City	31,000	33,000	.....	2,000	13,500	6,000	5,000	8,000	SR naph.	2,300	1,000	.....	250
Skelly Oil Co., El Dorado	70,000	NR	15,000	.....	24,000	16,000	16,000	.....	.....	6,600	.....	2,400	2,400
Vickers Petroleum Co., Inc., Potwin	45,000	48,000	24,000	6,500	20,000	2,500	15,000	10,000	SR naph.	3,500	1,400	.....	500
	16,000	17,200	3,000	3,400	8,200	2,000	3,100	3,100	SR naph.	.....	800	.....	.....
Total†	343,240	362,485	89,900	53,700	133,500	62,000	73,500	38,100	22,300	5,500	3,600	900	21,300

* Formerly Standard Oil Co. of Indiana.

‡ Shut down.

† State crude-capacity totals include calendar-day figures converted to stream-day basis. Oil and Gas Journal, April 3, 1961.

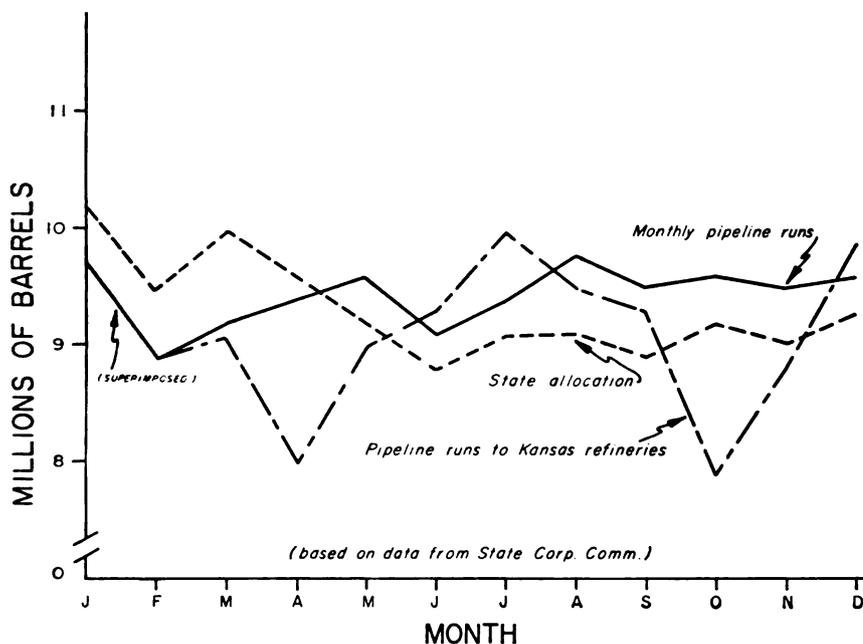


FIG. 5.—Monthly comparison of crude oil allocated, pipeline runs to Kansas refineries, and total daily average pipeline runs in Kansas during 1960.

During 1960, oil refined in Kansas refineries amounted to 109,685,925 barrels. The total production was 113,344,548 barrels. Imports of oil in 1960 increased to 43,697,343 barrels from 41,884,139 barrels the previous year. Exports of oil during 1960 decreased by 3,902,084 barrels. Total quantity of oil accounted for in 1960 was 157,041,891 barrels compared to 161,358,014 barrels in 1959. Data on production, imports, exports, and crude oil refined in 1959 and in 1960 are listed in Table 8.

TABLE 7.—Crude oil price changes in Midcontinent, by year (dollars per bbl.)

Date	Okla.-Kansas 36-36.9° gravity
1949: June 1	\$2.57
1951: Frozen at Jan. 25 level	2.57
1953: Feb. 16: decontrolled .....	.....
June 15	2.82
1957: January 3	3.07
1958: October 3	2.93
October 3	3.00
1959: Feb. 20	2.97
1960: No changes .....	.....

World Oil, February 15, 1960a

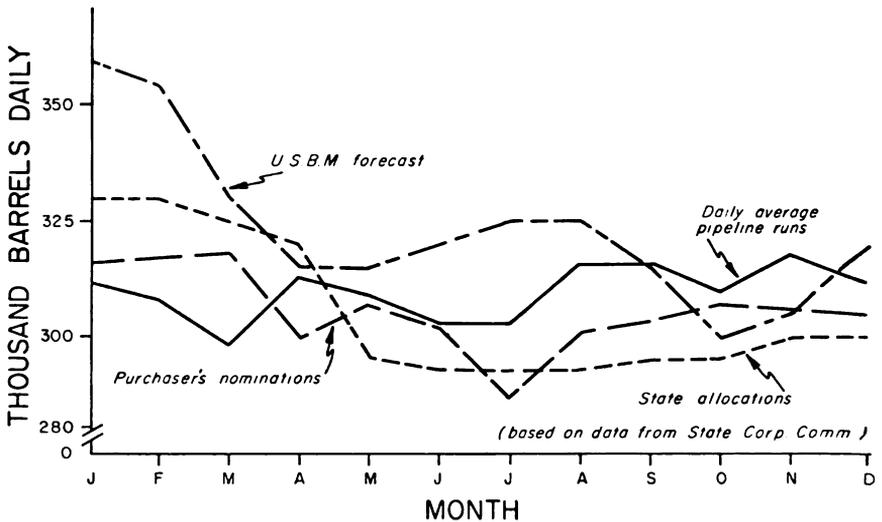


FIG. 6.—Comparison of crude oil forecast, nominated, allotted, and actual pipeline runs by months in Kansas during 1960.

Oil and Gas Conservation Division.—Monthly oil proration reports are issued by the Conservation Division of the State Corporation Commission for many of the state's oil fields. Productivity tests of new wells are made immediately. Supervision of dual completions and installation of packers in oil wells in Kansas is under the jurisdiction of the Conservation Division, and particular emphasis is placed on avoiding the co-mingling of water or oil from different zones. The Conservation Division supervises the plugging of wells and the disposal of produced saltwater in the subsurface. Cost of regulating the petroleum industry in Kansas is paid by the industry. A fee of one cent per foot, or a minimum of \$10.00 per hole, is charged for supervision of plugging. Oil production is assessed at the rate of 0.001 cent per barrel.

TABLE 8.—Barrels of oil produced, imported, refined, and exported in Kansas, 1959-1960*

	1959	1960
Produced	119,473,875	113,344,548
Imported	41,884,139	43,697,343
Total	161,358,014	157,041,891
Exported	51,258,050	47,355,966
Crude oil refined	110,099,964	109,685,925
Total	161,358,014	157,041,891

* From the Conservation Division, State Corporation Commission.

Pipeline and refinery construction.—The refining of crude oil in Kansas refineries, the production of natural gas liquids from Kansas natural gasoline plants, and the inter- and intra-state movement of crude oil products and natural gas through transmission lines are an integral part of the petroleum industry in Kansas.

The Cooperative Refinery Association planned for completion during the spring of 1960 of 6 miles of 6-inch crude oil line at Stockton, Kansas (Oil and Gas Journal, January 25, 1960). In December, the Rock Island Oil and Refining Company, Incorporated, announced a crude oil pipeline project of 60 miles of 6- and 7-inch line from fields in Red Willow County, Nebraska, to Arapahoe Pipe Line Company's line at Colby, Kansas. Completion is to be by the spring of 1961.

Century Refining Company completed a 3,000-barrel Thermoform unit and an 800-barrel HF alkylation unit during 1960 at their Shallow Water refinery.

SECONDARY RECOVERY

Repressuring of oil-bearing rocks by injection of water, air, gas, or a combination of these agents has become a principal method of oil production in Kansas since official sanction and status were given the practice through the passage of a state law in 1935. Grandone (1944) reported that after passage of the law, the first legal project was organized by the York State Oil Company in the **Seeley pool** (now **Seeley-Wick**) of northern Greenwood County in May 1935. Pointing up the significance of secondary recovery activities in the state is the fact that such production has risen from an estimated 5 million barrels in 1942 to 19.3 million barrels in 1960, when it amounted to about 17 percent of the total production. The reported production for 1960 totaled 11,428,426 barrels, and the figure of 19.3 million barrels is obtained by adding an estimate of those operations not reporting specifically, but for which reasonably accurate production data are known.

There were 832 projects in Kansas during 1960; 527 projects were in eastern Kansas. Records were received from some, and for others, permits were issued but no secondary recovery questionnaires were returned. Within these projects there were an estimated 17,023 producing wells and 4,648 wells utilized as input wells for injection of a repressuring medium. During 1960, the Conservation Division of the State Corporation Commission issued 168 permits for secondary recovery operations. The areal distribution is shown in Figure 7. During 1960, many new projects were started in western Kansas, especially in Russell and Barton Counties. This points out the significance of secondary recovery methods in the larger and older fields on the Central Kansas Uplift.

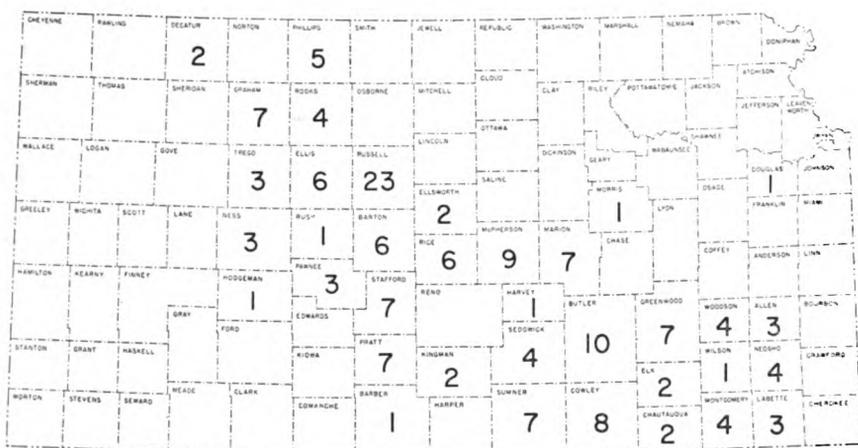


FIG. 7.—Distribution of permits issued by State Corporation Commission for secondary recovery projects in Kansas, 1960.

In past years, a listing of secondary recovery operations in the state was included as a table in this report. Because this listing has grown in size, it is deemed necessary to publish the data as a separate report. Therefore, the table showing greater detail on the operations of secondary recovery projects in Kansas will be available separately.

Greenwood County, as in past years, led in the number of reported projects operating but was second in production attributable to secondary recovery (Table 9). During 1960, the 89 recorded projects in Greenwood County produced at least 3.7 million barrels of oil. Projects in Butler County (84), the largest producer of oil by secondary recovery methods, yielded at least 3.9 million barrels. These two counties accounted for more than one-third of the oil produced by repressuring projects in Kansas.

TABLE 9.—Data on ten selected eastern Kansas counties producing oil by secondary recovery in 1960

County	Number of projects	Oil production, bbl.	
		Total	By secondary recovery ^a
Allen	35	1,012,122	635,787
Anderson	19	433,170	359,478
Butler	84	7,799,582	3,948,210
Chautauqua	42	866,298	724,012
Cowley	69	3,672,337	1,264,061
Greenwood	89	4,758,538	3,756,722
Miami	18	406,792	364,259
Montgomery	30	494,293	326,368
Neosho	29	488,212	375,975
Woodson	22	803,162	578,392

^a In part estimated.

NATURAL GAS

The shipping of natural gas through extensive pipeline systems across state lines and the approval of new cross-country lines come under the jurisdiction of the Interstate Commerce Commission and the Federal Power Commission, respectively. The apportionment of new lines and approval of transmission of gas are based on considerations of the greatest good to the greatest number of people and on economic investment values. Thus Kansas, ranking fifth among the gas-producing states, third in reserves, yet having a relatively small population, has a minor voice in the eventual use of the gas. The producers want to export excess gas for income, which returns to the state; the Kansas consumer, both domestic and industrial, desire retention of the natural resource within the state's borders, arguing that exportation of natural gas is depleting reserves. A significant portion of our annual gas production is being exported, but estimated domestic and industrial use of natural gas within the state has risen during the last few years.

Production and value.—Natural gas production during 1960 increased 6.4 percent from the previous year to 632,609,850 thousand cubic feet calculated at the base of 14.65 p.s.i.a. The estimated value of natural gas increased to \$69,587,083 compared to \$65,476,932 in 1959, a 6.4 percent increase in value due entirely to an increase in gas production. A minimum price of 11 cents per thousand cubic feet measured at 14.65 p.s.i.a. has been applied to all Kansas gas production including minor amounts of unprorated production, much of which probably brought a higher price.

Natural gas was produced in 48 counties in 1960. Each of 16 counties (Table 10) produced 3 billion cubic feet or more of gas during 1960. Among these 16 counties, Stevens County maintained its lead, producing 122,005,132 thousand cubic feet.

Seventeen counties in Kansas had cumulative production of 20 billion cubic feet or more of natural gas to the end of 1960. Although complete production records are not available or are non-existent for most eastern counties, it is certain that Allen, Cowley, Montgomery, and Wilson have each produced 10 billion cubic feet or more of gas. Rank for 1959 and 1960 is noted in Table 11.

Cumulative gas production exceeds 8.6 trillion cubic feet. The Permian gas production (mostly from the **Hugoton Gas Area**) is about 61 percent of the total. Other important gas zones are the Pennsylvanian, which accounts for 32 percent, and the Mississippian and Cambrian-Ordovician, which combined account for about 7 percent of past gas production.

TABLE 10.—Kansas counties producing 3 billion cubic feet or more of natural gas annually, 1959 and 1960

County	Production, M cu. ft. (14.65 psia)		Rank	
	1959	1960	1959	1960
Stevens	103,479,190	122,005,132	1	1
Grant	90,869,682	91,748,893	2	2
Morton	85,803,592	76,950,127	3	3
Kearny	69,576,597	69,931,846	4	4
Finney	44,291,434	53,961,070	6	5
Barber	55,081,079	53,315,227	5	6
Haskell	28,702,647	35,945,374	7	7
Seward	26,228,374	33,009,597	8	8
Stanton	23,846,214	21,848,436	9	9
Kingman	15,351,781	18,982,088	10	10
Meade	12,738,162	14,312,613	11	11
Clark	6,897,840	6,811,276	12	12
Harper	4,839,145	4,860,913	13	13
Hamilton	4,254,341	4,548,756	15	14
Reno	4,653,637	3,963,203	14	15
Kiowa .....	.....	3,384,213	....	16

Since 1956, annual gas production has exceeded 500,000,000 thousand cubic feet and since 1943 has been more than 100,000,000 thousand cubic feet annually.

In the gas production table (Table 31), 1960 production and cumulative figures for the entire state are calculated at the same pressure base, 14.65 p.s.i.a. Production in the eastern Kansas fields, which reached their peak about 56 years ago, was less than 1 percent, whereas production from the **Hugoton Gas Area** in southwestern Kansas was about 71 percent of the state total for 1960.

TABLE 11.—Counties in Kansas having cumulative production of 20 billion cubic feet or more of gas to end of 1960 (based on estimated and recorded production)

County	Cumulative production M cu. ft. (14.65 psia)	Rank	
		1959	1960
Stevens	1,900,356,110	1	1
Grant	1,112,690,744	2	2
Kearny	795,991,282	3	3
Morton	686,751,000	4	4
Barber	505,300,301	5	5
Finney	431,041,398	6	6
Haskell	402,946,645	7	7
Seward	326,676,381	8	8
Stanton	193,008,238	9	9
Kingman	69,758,050	11	10
Meade	65,856,833	10	11
Pawnee	43,415,354	12	12
Hamilton	39,334,516	14	13
Rice	36,011,360	13	14
Clark	26,584,966	....	15
Barton	25,038,885	15	16
Pratt	23,141,982	16	17

Consumption of marketed natural gas in Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota is reported as a unit quarterly by the U. S. Bureau of Mines. Therefore, detailed breakdown of use within Kansas during 1960 is unavailable at this time. During 1959, the U. S. Bureau of Mines reported 71,177,000 thousand cubic feet, valued at an average of 56.1 cents per thousand, was consumed in residential use. A total of 45,092,000 thousand cubic feet, valued at an average of 40.1 cents per thousand, was consumed commercially. Industrial consumption was 263,972 thousand cubic feet, part of which was valued at 18.3 cents and part at 20.2 cents per thousand cubic feet.

At the end of the year, monthly proration schedules were issued for 30 fields. These are the **Hugoton Gas Area**, **Greenwood Gas Area**, **McKinney**, **Taloga** (Keyes, Taloga "C", and Taloga "G"), **Sparks**, **Richfield**, **Goetz**, **Spivey-Grabs**, **Nichols**, **Elsea**, **Elwood**, **Hardtner**, **McGuire-Goemann**, **Mohler**, **Mohler Northeast**, **Panoma**, **Rhodes North**, **Rhodes Northeast**, **Rhodes South**, **Sharon Northwest**, and **Wil**. The "Bartholow", "Boggs", "Medicine Lodge West", and "Medicine Lodge Southwest" are part of the **Medicine Lodge-Boggs** field. "Farley" and "Blunk" are in the **Aetna Gas Area**, and "Driftwood" is in **Boggs Southwest**. Unprorated gas fields in Kansas are limited by statute not to run in excess of 25 percent of the open-flow capacity. Purchasing companies are required each month to file a record of the amount of gas purchased from wells in Kansas. Gas deliverability tests are made annually. Gas was assessed during 1960 at 0.00025 cents per thousand cubic feet to provide income for regulatory purposes.

New developments.—There were 17 gas fields (12 gas and 5 oil and gas) named in Kansas during 1960 (Table 24). Of the new fields, 5 produce from Morrowan rocks and 10 from Mississippian rocks. In the new **Nescatunga** field discovery well in Comanche County, both the Mississippian (gas) and Viola (oil and gas) were named as producing zones.

Mississippian rocks in two oil fields and Morrowan rocks in another were recognized as new gas zones in old fields during 1960 (Table 28).

The Hugoton Gas Area.—The Hugoton Gas Area, including its extension across the Oklahoma "strip" into the Texas Panhandle, is regarded as one of the world's largest known gas reserves. As of the beginning of 1960 the estimated reserves from the entire field were 37 trillion cubic feet. Production since 1945 from the Kansas portion of the field is shown by year in Table 12.

The Defenders and Traders Gas Company gas well in sec. 3, T. 35 S., R. 34 W., Seward County, has been accredited as the discovery

TABLE 12.—Production from Kansas part of Hugoton Gas Area, 1945-1960

Year	M cu. ft. gas (14.65 psia)	Year	M cu. ft. gas (14.65 psia)
1945	90,345,203	1953	387,635,243
1946	119,637,983	1954	346,732,192
1947	157,663,036	1955	394,257,153
1948	185,872,594	1956	381,874,779
1949	247,868,876	1957	396,889,199
1950	320,545,480	1958	349,263,723
1951	371,002,475	1959	404,764,021
1952	375,081,748	1960	451,820,153

well of the **Hugoton Gas Area** proper in 1922. Rapid development of the huge gas reservoir in southwestern Kansas came in the early 1940's. By the end of 1949, the number of producing wells in the field passed the 2,000 mark, and the area encompassed 2 million acres. At the end of 1960, there were 3,916 producing gas wells, and the Kansas part of the **Hugoton Gas Area** was about 2,673,500 acres. It is 60 miles wide and 85 miles long (north-south), and includes two entire counties (Stevens and Grant) and parts of 7 others (Finney, Hamilton, Haskell, Kearny, Morton, Seward, and Stanton). Thirteen wells were completed in the field during 1960 compared with 40 the previous year.

With the assistance of the Conservation Division of the State Corporation Commission and Dwight's Oil and Gas Reports, county production figures and county cumulative totals have been prepared for this report. These data are given in Table 13.

The Nomenclature Committee of the Kansas Geological Society by definition has limited the **Hugoton Gas Area** to wells producing gas from the Chase Group of the Permian System. These zones are the Fort Riley, Towanda, Winfield, Krider, and Herington Limestones. Distribution of porosity seems to control productivity and porosity ranges from 13 to 18 percent; permeability is low and irregular. Plate

TABLE 13.—County production and cumulative total, Hugoton Gas Area*

County	Cumulative production to end of 1959, M cu. ft.	1960 production, M cu. ft.	Cumulative production to end of 1960, M cu. ft.
Finney	376,934,253	53,961,070	430,895,323
Grant	1,020,941,851	91,748,893	1,112,690,744
Hamilton	34,785,760	4,548,756	39,334,516
Haskell	366,877,841	34,428,502	401,306,343
Kearny	726,059,436	69,931,846	795,991,282
Morton	317,599,712	31,126,201	348,725,913
Seward	240,511,464	27,325,644	267,837,108
Stanton	152,420,147	19,186,135	171,606,282
Stevens	1,778,350,978	119,563,106	1,897,914,084
Total	5,014,481,442	451,820,153	5,466,301,595

* Base 14.65 psia.

1 shows the approximate boundary of the area as outlined at the end of 1960; gas wells drilled previous to 1960 are not shown.

Wells having an initial potential of less than 1 million cubic feet per day after acidization are regarded as small, and those producing more than 30 million cubic feet of gas per day are big. The average depth to top of producing zones is about 2,500 feet. The field has a water drive, and shut-in pressure from selected wells averages 350 pounds per square inch.

Because the **Hugoton Gas Area** is under proration, commonly only one well may be drilled in each 640 acres, and allowable production for wells or groups of wells is established on a monthly basis in a manner designed to conserve the gas supply. Because of wide well spacing, there is little surface evidence of this huge gas reservoir.

Gas from the **Hugoton Gas Area** is of fairly good quality (Table 14), having a heating value of about 1,000 B.t.u. per cubic foot, and in addition yields about 0.5 gallon of natural gasoline condensate per thousand cubic feet. Many natural gasoline plants are within the borders of the area, as are two operating carbon black plants.

Helium.—Helium production in Kansas declined from 24,004,300 cubic feet in 1959 to 21,930,600 cubic feet in 1960. Federal shipments of helium were 17,850,100 cubic feet; non-federal shipments were 3,846,200 cubic feet. Total shipments during 1960 were 21,696,300 cubic feet of helium. Price and production of helium are controlled by the federal government. Revenue from helium shipments amounted to \$349,750.00.

Kansas helium is processed in the U. S. Bureau of Mines plant at Otis, Rush County. The gas is extracted from helium-bearing natural gas from wells in Barton, Pawnee, and Rush Counties. Helium-contributing gas fields include **Otis-Albert** field in Rush and Barton Counties, **Ryan** field in Rush and Pawnee Counties, **Pawnee Rock** field in Pawnee County, **Reichel** field in Rush County, and **Behrens** and **Unruh** fields in Barton County. Three fields formerly producing helium, **Ash**

TABLE 14.—Average natural gas analysis from Hugoton Gas Area

Gas	Percent
Methane	74.26
Nitrogen	14.27
Ethane	5.81
Propane	3.52
Butane	1.48
Pentane plus	0.65
Total	99.99

From Keplinger, Wanenmacher, and Burns, 1948.

Creek in Pawnee County and **Dundee** and **Bergtal** in Barton County, have been abandoned.

Gas pipelining.—Cities Service Gas Company laid 13 miles of 16-inch natural gas pipeline from the **Alden** field in Rice County to their Lyons Station, 10 miles of 16-inch between Lyons and Hutchinson, and 9 miles of 16-inch near Wichita. The lines completed in the fall of 1960 provided an increase in capacity of 145 million cubic feet of gas per day (Oil and Gas Journal, February 29, 1960).

Kansas-Nebraska Natural Gas Company had several projects under construction in Kansas during 1960. These include enlargement of facilities in the **Hugoton Gas Area** of 10 miles of 8-inch, 10 miles of 20-inch, and about 2 miles of 26- and 30-inch pipe (Oil and Gas Journal, March 28, 1960). Added service to various communities in Kansas accounted for 56 miles of 2-inch pipe.

Kansas Gas Supply Corporation had 105 miles of 4- to 16-inch pipe under construction near Pratt, Kansas during 1960.

Michigan-Wisconsin Pipe Line Company received approval late in 1960 to loop their main line with 342 miles of 24-inch and 191 miles of 30-inch, much of which construction will be in Kansas.

Panhandle Eastern Pipe Line Company had several projects planned in Kansas during 1960. They sought Federal Power Commission approval of 50 miles of 22-inch and 156 miles of 24-inch from Haven, Kansas to Elk City, Oklahoma, which is designed to bring Oklahoma gas into the trunk lines in Kansas. Pending approval, the company planned completion in 1960 of 300 miles of 30-inch, 18 miles of 26-inch, 9 miles of 12-inch, 29 miles of 8-inch, and 40 miles of 6-inch loop (Oil and Gas Journal, October 31, 1960). They completed 141 miles of 4- to 16-inch gathering lines in southwestern Kansas during 1960.

Northern Natural Gas Company during 1960 had underway 100 miles of 30-inch loop line and 14 miles of 24-inch pipeline between Beaver, Oklahoma, and Minneapolis, Minnesota. Pending approval late in 1960 was the company's project of laying about 21 miles of 16-inch and 26 miles of various small diameter pipe in Kiowa County's **Glick** field.

Scheduled for completion by January 1961 by Natural Gas Pipeline Company was the laying of 153 miles of 36-inch loop of main line between Ford County, Kansas, and Washington County, Iowa, and 188 miles of 24-inch from near Mountain View, Oklahoma, to Ford County, Kansas (Oil and Gas Journal, November 28, 1960).

Because of seasonal demand for natural gas, storage of gas during the slack seasons has been developed. Table 15 gives the locations and capacities of various Kansas projects.

TABLE 15.—Underground gas storage*

Company (field or area—county)	Capacity, M cu. ft.			Zone
	Working gas	Cushion gas	Total reservoir	
Cities Service Gas Company				
Alden—Rice	5,000,000	9,773,582	14,773,582	"Misener"
Boyer—Butler	392,279	627,588	1,019,867	Wabaunsee
Colony—Anderson	4,148,104	5,055,561	9,203,665	"Colony"
Craig—Johnson	1,557,945	4,517,875	6,075,820	"Bush City"
Elk City—Elk	10,000,000	10,000,000	20,000,000	"Burgess"
McLouth—Jefferson and Leavenworth	5,212,337	7,701,420	12,913,757	"Bartlesville"
Piqua—Allen and Woodson	1,551,042	1,679,430	3,230,472	"Colony"
Welda North—Anderson	4,521,646	5,500,000	10,021,646	"Colony"
Welda South—Anderson	5,313,617	6,475,569	11,789,186	"Colony"
Arkansas Louisiana Gas Corp.				
Collinson—Cowley	647,270	425,730	1,073,000	
Union Gas System, Inc.				
Buffalo—Wilson	3,034,023**	3,908,194	8,250,000	Iola
Fredonia—Wilson				"Layton"
Liberty South—Montgomery				"Squirrel"
Liberty North—Montgomery				"Squirrel"
Longton—Chautauqua				"Layton"
Total	41,378,263	55,664,949	98,350,995	

*In part from Biral, May 8, 1961.

**Plus unused capacity of 1,307,783 M cu.ft.

NATURAL GAS LIQUIDS

Kansas production of natural gas liquids during 1960 was 204.2 million gallons, 28.6 million gallons less than during 1959. The value of natural gas liquids (natural gasoline, propane, butane, and other liquefied petroleum gases) produced during 1960 was \$10,745,632. The 12.3 percent decrease in production compares unfavorably with a 3.4 percent increase the previous year. There were 14 natural gasoline plants reported operating in Kansas during 1960. Cities Service Oil Company's Wichita plant was reported shut down June 1, 1960. Independent Lease Management Company took over operation of Dunn-Mar Oil and Gas Company's Otis plant, and Plateau Natural Gas Company's Cheney plant was taken over by Kansas Hydrocarbon Company. The daily average production of natural gasoline and LPG in 1960 was 13,285 barrels compared to 15,189 for the previous year (Table 16). The output of natural gas liquids during 1960 and estimated value at the plant are shown in Table 17. Estimated value averaged \$2.18 per barrel compared with \$2.21 per barrel during the previous year. Production from Kansas plants for the last 12 years is shown in Table 18; plant capacity is given in Table 19.

The use of natural gas liquids with natural gas in the production of carbon black increased from 390,063 barrels in 1959 to 398,415 barrels in 1960.

Low-cost temporary storage is one of the major problems facing the expanding LPG industry. This problem, created by the seasonal demand for the product, has been solved partly in the last few years by

TABLE 16.—Natural gasoline and LPG processed in 1960*
(From the Conservation Division, Kansas Corporation Commission)

Operator and plant location	Natural gasoline	Butane	Propane	LPG	Total
Cities Service Oil Company					
Burrton, Reno County	15,021	14,168	9,696		38,885
Wichita, Sedgwick County	359	446	305		1,110
Colorado Interstate Gas Company					
Lakin, Kearny County	138,942				138,942
Kansas Hydrocarbon Company					
Cheney, Sedgwick County	34,833	28,892	33,872		97,597
Independent Lease Management Co.					
Otis, Rush County	10,146				10,146
Hugoton Production Company					
Ulysses, Grant County	134,918	151,233	155,313		441,464
Kansas-Nebraska Nat'l Gas Company					
Deerfield, Kearny County	131,119		18,301	12,494	161,914
Northern Natural Gas Company					
Holcomb, Finney County	105,903				105,903
Sublette, Haskell County	282,147				282,147
Pan American Petroleum Corporation					
Ulysses, Grant County	509,321	649,145	437,219		1,595,685
Panhandle Eastern Pipe Line Co.					
Liberal, Seward County	495,682	250,410	141,719		887,811
Skelly Oil Company					
Medicine Lodge, Barber County	111,260		94,887		206,147
Socony Mobil Oil Company, Inc.					
Ulysses, Grant County	233,838	64,199	100,644		398,681
Spivey, Kingman County	207,814	93,936	194,095		495,845
Total	2,411,303	1,252,429	1,186,051	12,494	4,862,277
	Daily average for year 1960—13,285 bbl.				
	Daily average for year 1959—15,189 bbl.				

* 42-gallon barrels.

TABLE 17.—Production and estimated value of natural gas liquids in Kansas, 1960*

	Gallons	Barrels**	Price per bbl.	Value
Natural gasoline	101,274,726	2,411,303	\$2.31	\$ 5,580,110
Propane	49,814,142	1,186,051	2.21	2,621,173
Butane	52,602,018	1,252,429	2.01†	2,523,360
LPG	524,748	12,494	1.68	20,989
Total	204,215,634	4,862,277		\$10,745,632

* Production figures supplied by State Corporation Commission.

** 42-gallon barrels.

TABLE 18.—Kansas production of natural gasoline and allied products, 1949-1960

Year	Production, thousand gal.	Year	Production, thousand gal.
1949	113,807	1955	206,621
1950	155,233	1956	199,384
1951	182,932	1957	223,618 ^r
1952	196,462	1958	225,176
1953	211,657	1959	232,847
1954	193,783	1960	204,216

^r Revised figure.

TABLE 19.—Natural gasoline plant survey*

Location (county, and nearest town)	Capacity, million cu. ft. per day	Throughput, million cu. ft. per day	Products (gal. per day)					Natural gasoline
			Propane	Isobutane	Normal butane	LPG mix		
Cities Service Oil Co.	120	118	34,000	13,000	26,000	.....	40,000
Burton-Stone, Reno (Burrton)		(Shut down, June 1, 1960)						
Wichita plant, Sedgwick ^a	215	79	.....	.....	.....	.....	15,944
Colorado Interstate Gas Co.	90	67	18,180	.....	17,592	.....	15,727
Lakin plant, Kearny (Lakin)	b	.....	.....	.....	.....	.....	.....
Hugoton Production Co.	b	.....	.....	.....	.....	.....	.....
Hugoton, Grant (Ulysses)	b	.....	.....	.....	.....	.....	.....
Independent Lease Management Co.	125	100	3,000	.....	.....	.....	.....
Otis, Rush (Otis)	100	85	11,000	.....	7,000	.....	25,000
Kansas Hydrocarbon Co.	55	44	20,000	.....	9,000	.....	23,000
Cheney, Sedgwick	325	296	.....	.....	.....	.....	55,000
Kansas-Nebraska Natural Gas Co., Inc.	185	167	.....	.....	.....	.....	15,000
Hugoton, Kearny (Deerfield)	325	202	44,800	15,300	51,900	5,100	55,400	
Mobil Oil Co.	240	238	14,487	.....	25,562	.....	58,748
Hickok, Grant (Ulysses)	60	b	11,000	.....	.....	.....	.....
Spivey, Harper (Attica)	1,840	1,444	156,467	28,300	137,054	21,100	318,819	
Northern Natural Gas Co.								
Hugoton, Seward (Sublette)								
Hugoton, Finney (Holcomb)								
Pan American Petroleum Corp.								
Hugoton, Grant-Stanton-Morton-Stevens (Ulysses)								
Panhandle Eastern Pipe Line Co.								
Hugoton, Seward (Liberal)								
Skelly Oil Co.								
Medicine Lodge, Barber (Medicine Lodge)								
Total								

* Adapted from Piyant and Bizal, March 20, 1961.

^a Located on gas-transmission line.^b Not reported.

injecting natural gas liquids into wholly or partly depleted reservoirs, which may have contained saltwater, gas, or distillate. Recently, and especially in Kansas, natural gas liquids have been stored in artificially formed underground cavities in salt beds. Locations and capacities of these storage projects are given in Table 20.

The value of Kansas reserves of natural gas liquids is commonly overshadowed by the value of crude oil and natural gas. Natural gas liquids, consisting of natural gasoline, condensate, and LPG (mainly propane and butane), supplement supplies of gasoline for motor vehicles and fuel for industrial and domestic use. Natural gas liquids also have great potential use in the manufacture of plastics.

TABLE 20.—Underground LPG storage*

Company, county, and type of storage	Capacity, bbl.	Product
Cities Service Oil Co.		
Reno—Salt layer (4 caverns)	235,000	Butane
Reno—Salt layer (8 caverns)	570,000	Propane
Mid-America Pipeline Co.		
McPherson—Salt layer (3 caverns)	150,000	Propane
National Cooperative Refinery Assoc.		
McPherson—Salt layer (8 caverns)	400,000	Propane
McPherson—Salt layer (10 caverns)	500,000	Butane
McPherson—Salt layer (12 caverns under construction)	600,000	Propane
Pan American Petroleum Corp.		
Grant—Salt layer (7 caverns)	180,000	LPG
Phillips Petroleum Company		
Kingman—Salt layer (5 caverns)	316,000	Butane Propane
Sinclair Oil and Gas Company		
Reno—Salt layer (2 caverns under construction)	100,000	Propane
Skelly Oil Company		
McPherson—Salt layer	490,000	Propane
Tuloma Gas Products Co.		
Reno—Salt bed	240,000	Propane Butane

* Bizal, November 28, 1960.

Natural gas liquids pipelining.—In January of 1960, Mid-America Pipeline Company, Missouri-Kansas-Texas Railroad, announced construction, with a completion date of December 1960, of a 2,200-mile liquid products (propane) pipeline system from gasoline plants in West Texas, Texas Panhandle, and New Mexico to the upper Midwest. The line, started in April of 1960 branches at Conway, Kansas, with one branch going to Minneapolis, Minnesota, and the other to Madison, Wisconsin. The pipe size is 10- and 12-inch along the main line and 6- to 8-inch in branch lines (Oil and Gas Journal, February 29, 1960a).

Okan Pipeline Company installed a remote-control gas-turbine pump station on their 6-inch LPG pipeline from southwestern Kansas to Tulsa, Oklahoma. The new station at Goltry, Oklahoma is operated from Liberal, Kansas. Added horsepower will raise capacity from 10,500 barrels to 15,000 barrels daily.

Skelly Oil Company has under construction a new gasoline plant near Minneola, Kansas, at which it is planned to process gas from Meade County gas fields. Estimated capacity is 15,000 gallons daily with residue gas to go to Kansas Power and Light Company's Minneola booster station.

Buffalo Petroleum Corporation late in 1960 announced a new gasoline and liquified petroleum plant near Marion to extract products from gas produced principally in Marion County.

Sinclair Oil and Gas Company began construction of a 100,000-barrel underground storage cavity for LPG near Hutchinson during the year.

Late in 1960, Northern Gas Products Company announced the awarding of a construction contract for a propane extraction plant in Ellsworth County near Bushton (Rice County). The plans include storage facilities in artificially created salt caverns below the surface. The plant will be constructed to have a maximum capacity of 900,000 thousand cubic feet per day.

CARBON BLACK

Production of carbon black during 1960 was reported as 87,302,185 pounds, valued at \$5,621,236. This is a decrease in production of 4,341,975 pounds and in value of \$766,362 from the previous year (Table 21). Carbon black was produced using the furnace process by the Columbian Carbon Company at Hickok and by United Carbon Company at Ryus in Grant County.

The Conservation Division of the State Corporation Commission reports that use of natural gas in the manufacture of carbon black in Kansas was 3,914,444 thousand cubic feet, a decrease of 709,960 thousand cubic feet from 1959.

TABLE 21.—Quantity and value of carbon black produced in Kansas in 1959 and 1960

Year	Carbon black produced		Estimated fuel consumed	
	Quantity, lb.	Value	Gas, billion cu. ft.	Nat. gasoline, million bbl.
1959	91,644,160	\$6,387,598.	4.62	0.39
1960	87,302,185	\$5,621,236.	3.91	0.40

RESERVES

Kansas proved reserves of liquid hydrocarbons (crude oil and natural gas liquids) as of December 31, 1960, were 1,082,252,000 barrels, a decrease of 2.9 percent from the previous year; nationally, reserves increased 0.5 percent. Kansas proved reserves of crude oil were 883,849,000 barrels at the end of 1960, a decrease of 33,654,000 barrels or 3.7 percent; national reserves decreased .03 percent.

Proved reserves of natural gas in Kansas at the end of 1960 were estimated to be 19,608,724 million cubic feet, a decrease of about 1.9 percent. Kansas proved reserves of natural gas liquids, 198,403,000 barrels, are 0.8 percent more than in the previous year (Table 22). All estimates of reserves are taken from the American Petroleum Institute and American Gas Association's annual report on reserves.

It is emphasized that the published petroleum reserve figures represent proved reserves. The figures in Table 22 and other reserve figures used in this report do not include (1) oil under the unproved portions of partly developed fields; (2) oil in untested prospects; (3) oil that may be present in unknown prospects in regions believed to be generally favorable; (4) oil that may become available by fluid injection methods from fields where such methods have not yet been applied; (5) oil that may become available through chemical processing of natural gas; and (6) oil that can be made from oil shale, coal, or other substitute sources. The policy of the Reserves Committee applies also to natural gas and natural gas liquids.

STATISTICAL TABLES

In the following tables are statistical data on oil and gas developments in Kansas during 1960. Because the producing areas are less continuous than those elsewhere in the state, eastern Kansas fields (Table 30) have been subdivided into lesser producing areas labeled a, b, c, etc., in the table as well as on the map, Plate 1. No attempt has been made to list production by producing zone within these subdivisions. Elsewhere in Table 30 prorated field production is differentiated by producing zone.

TABLE 22.—Kansas proved reserves of natural gas and natural gas liquids, December 31, 1960

	Reserves* as of 12-31-59	Extensions and re- visions, 1960	Discoveries, 1960	Production during 1960	Proved reserves, 12-31-60	Nonassoci- ated associ- ated and dissolved	Difference in reserves, 1959-1960	Percentage change, 1959-1960
Natural gas liquids	196,912	7,680	930	7,119	198,403		+ 1,491	+ 0.8
Natural gas	19,981,403	128,848	156,452	666,345	19,608,724	19,537,656	- 372,679	- 1.9

From the American Petroleum Institute and American Gas Association, 1960.

* Reserves of natural gas liquids are thousands of barrels of 42 U.S. gallons; reserves of natural gas are millions of cubic feet calculated at 14.65 psia. at 60 F.

TABLE 24.—Oil and gas pools discovered in Kansas during 1960

County, pool, and location of discovery well	Discovery well	Producing zone	Production depth, feet	Month named	Initial production, bbl. per day
Barton County					
Cheyenne East NW NW SW 3-19-12W	Tomlinson-Kathol, Inc. No. 1 Rusco (Combined with Cheyenne)	Lans.-K.C.	3274-3288	Mar.	131
Dist. 65 NE SE SW 24-18-14W	Peel-Hardman No. 1 Johnson	Lans.-K.C.	3301-3306	Apr.	11
Frees SW SE NE 23-16-11W	Bennett & Roberts No. 1 Frees	Arbuckle	3372-3381	July	25
Great Bend Southeast SE SW SW 1-20-13W	Chief Drlg. Co., Inc. No. 1 Rogers	Lans.-K.C.	3250-3253 3257-3261	May	D & A
Kath SW NE SE 1-19-13W	Thunderbird Drlg., Inc. No. 1 Kath	Arbuckle	3364-3370	Dec.	23
Lake Barton West SW NW NW 29-18-13W	Alpine Oil & Roy. Corp. No. 1 Stoos	Arbuckle	3405-3419	Apr.	40
Marquis NE SE NE 4-17-14W	Woodman-Iannitti No. 1 Marquis	Lans.-K.C.	3374-3378	May	90
Putnam East NW NE NE 7-17-13W	A. Scott Ritchie, et al. No. 1 Putnam	Lans.-K.C.	3343-3365	Dec.	48
Redwing Southeast N2 NE NW 8-18-12W	Nadel & Gussman No. 1 Eveleigh "B"	Arbuckle	3351-3355	Nov.	135
Shaeffer Northeast* SE SW SW 35-20-13W	Alpine Oil & Gas Corp. No. 1 Sharp "A"	Arbuckle	3527-3545	Mar.	79
Butler County					
Ballard W2 SE SE 6-25-3E	John P. Gaty No. 1 Ballard	Mississippian	2746-2747	Mar.	47
Brickley East NW SW NW 1-27-7E	J. A. Allison No. 1 Lucas	Mississippian	2761-2766	Dec.	25
Clay NW NW SW 32-29-6E	Gralapp & Everly No. 1 Williams "A"	Mississippian	2830-2844	Dec.	34
Edmonds Southwest SE SW SE 1-23-3E	Raymond Oil Co., Inc. No. 1 Young	Mississippian	2503-2528	Apr.	160
Mann NE SW NE 29-26-4E	Exec. Oil Invest., Inc. No. 1 Mann**	Kansas City	2231-2236	Oct.	10
Steinhoff East C NW NE 26-29-6E	H. H. Blair No. 1 Blair Ranch North	Kansas City	2320-2328	May	8
Chautauqua County					
Coach Lines SW SE SE 10-32-8E	Pure Oil Co. No. 2 M.K.O. Coachlines	"Layton"	1758-1762	Sept.	4,000,000 cu. ft. gas
Knowles SE SE SW 22-32-9E	Mesa Petroleum Co., Inc. No. 1 Knowles	"Bartlesville"	2130-2136	June	10
Clark County					
Sitka Northeast C SE NW 5-33-21W	Graham-Michaelis Drlg. Co., No. 1-5 Wilson Unit	Morrowan	5252-5276	Nov.	4,700,000 cu. ft. gas
Comanche County					
Nescatunga C NW SE 22-32-18W	J. M. Huber Corp. No. 1 Keller	Mississippian	5116-5127 5132-5138 5146-5155 5162-5172 5652-5669	Apr.	3,680,000 cu.ft. gas
		Viola			298 & 4,750,000 cu. ft. gas
Cowley County					
Lady NE SE NW 35-34-6E	H. H. Blair No. 1 Lady**	"Hoover"	1421-1425	Aug.	35
Rock Southwest SW SW SE 26-31-3E	Lloyd V. Youmans No. 1 Smith	"Layton"	2480-2484 2497-2500	Sept.	50
Shannon North SW SE NE 23-31-5E	L. A. Watson No. 1 Evans (Combined with Shannon)	"Layton"	2281-2285	Feb.	50

TABLE 24.—Oil and gas pools discovered in Kansas during 1960, continued

County, pool, and location of discovery well	Discovery well	Producing zone	Production depth, feet	Month named	Initial production, bbl. per day
Edwards County					
Fellsburg C SW SW 34-25-17W	Natl. Drlg. Co., Inc. No. 1 Fatzner	Cherokee	4490-4494 4501-4504	Apr.	4,740,000 cu. ft. gas
Wil West C NE NE 29-25-16W	Honaker-Davis Drlg. Co. No. 1 Parker	Mississippian	4352-4356 4366-4372	Feb.	10
Elk County					
Cummings SE NW SE 26-31-9E	Texaco, Inc. No. 1 Cummings	Mississippian	2231	Nov.	11
Ellis County					
Air Base West NW NE NW 28-13-16W	Don E. Pratt Oil Oper. No. 1 Pratt Air Base "B"	Lans.-K.C.	3284-3286	Feb.	78
Ger SE SW NW 15-13-20W	Feldt-Maytag & Co. No. 1 Gerber**	Arbuckle	3810-3816	Oct.	25
Herbert North N2 NE NW 18-13-20W	Birmingham-Bartlett No. 1 Nicholson "B"	Lans.-K.C.	3647-3654	Mar.	57
Herbert Southeast SE SE NE 19-13-20W	Frontier Oil Co. No. 1 Lang "A"***	Arbuckle	3874-3880	Apr.	30
Pleasant Southeast SE SE SW 12-14-20W	C-G Drlg. Co., et al. No. 1 Weigel	Arbuckle	3770-3776	Sept.	D & A
Sauer SE SE SE 29-13-20W	I. O. Miller Oil Co. No. 1 Sauer	Lans.-K.C.	3674-3680	Dec.	D & A
Ford County					
Willroads NE SE SW 26-27-24W	Tenn. Gas & Oil Co. No. 1 Barngrover	Marmaton	4874-4883	May	248
Graham County					
Emor North C NE SW 27-9-25W	Natl. Coop. Refg. Assn., et al., No. 1 Ray Rome	Lans.-K.C.	4034-4039	Mar.	90
Harper County					
Muir NW NW NE 4-32-7W	Walters Drlg. Co., et al. No. 1 Muir "B"	Simpson	4735-4736	Dec.	120
Harvey County					
Halstead West SW NW NE 10-23-2W	Anderson-Prichard Oil Corp., No. 1 Will	"Hunton" Simpson	3156-3162 3299-3309	Jan.	108 65
Haskell County					
Eubank South C SE NW 21-29-34W	United Prod. Co., Inc. No. 2 O. V. Ray	Chesteran	5396-5478	Oct.	456
Hopkins* C SW SW 34-30-33W	Falcon Seaboard Drlg. Co. No. 1 Hopkins	Mississippian	5530-5532 5575-5580	Feb.	115
Satanta North C NW NE 4-30-34W	United Prod. Co., Inc. No. 1 Walton	Morrowan Chesteran	5250-5268 5408-5415	Aug.	144 384
Victory C SE NW 32-30-33W	Cities Service Oil Co. No. 1 Blair "B"	Lans.-K.C.	4128-4138	Nov.	192
Hodgeman County					
Cam C NE NW 30-22-24W	Franco-Central Oil Co. No. 1 Campbell	Mississippian	4623-4627	July	D & A
Nova North C NW SE 8-22-23W	Colo. Oil & Gas Corp. No. 1 Rehmer	Mississippian	4627-4634	May	111
Wieland West C SE NW 18-21-22W	Colo. Oil & Gas Corp. No. 1 Antrim	Mississippian	4370-4380 4380-4386	Aug.	130
Kingman County					
Basil Northeast SE SE SE 14-29-7W	Pickrell Drlg. Co. No. 1 Kostner	Lans.-K.C.	3764-3769	Aug.	120
Freemyer C SW SE 20-27-6W	Rupp-Ferguson Oil Co. No. 1 Freemyer	Mississippian	3828-3832	Dec.	917,000 cu. ft. gas
Hurn C SE 1/4 28-27-5W	Drillers Prod. Co., Inc. No. 2 Hurn	Mississippian	3782-3794	Sept.	5 & 70,000 cu. ft. gas

TABLE 24.—Oil and gas pools discovered in Kansas during 1960, continued

Klaver C SE SW 9-29-6W	Thunderbird Drlg., Inc. No. 1 Klaver	Mississippian	4112-4119	Aug.	16 & 1,400,000 cu. ft. gas
Kostner SE SE NE 1-29-6W	Stelbar Oil Corp., Inc. No. 1 Kostner "A"	Mississippian	3891-3895	Oct.	10
Rosedale Northeast C SW SE 28-29-6W	Petroleum, Inc. No. 1 Early "C"	Misener	4494-4497	Sept.	280
Kiowa County					
Fralick C SW SW 14-27-20W	Northern Natural Gas Co. No. 1 Fralick	Mississippian	4844-4849	Apr.	49
Fruit SW SW SW 28-27-16W	Aylward Drlg. Co. No. 1 Fruit "A"***	Mississippian	4652-4658	Dec.	10
McPherson County					
Larson North SE SE SE 27-18-2W	George R. Hess No. 1 Miller	Mississippian	2934-2946	Aug.	36
McMurtry NW NW SE 13-18-4W	Melland Drlg. Co., Inc. No. 1 McMurtry**	Maquoketa	3477-3483	Oct.	83
Marion County					
Dobbs SE SE SE 22-19-3E	Crowe Drlg. Co., Inc. No. 1 Kruse	Mississippian	2386-2392	Oct.	81 & 75,000 cu. ft. gas
Fanska South* NW NW NW 18-17-1E	Glickman Oil Co., et al. No. 1 Scully	Mississippian	2820-2900	May	25
Klenda Southwest NE NE NW 14-19-3E	Can-Am Petroleum Co. No. 1 Stenzel	Mississippian	2415-2454	May	32
Tajchman C SE NW 21-19-5E	Can-Am Petroleum Co. No. 1 Tajchman	Mississippian	2238-2252	July	1,200,000 cu. ft. gas
Morton County					
Kinsler Southeast C SE NW 12-32-40W	Cities Service Oil Co. No. 2 French "A"	Morrowan	5758-5766 5778-5784 5786-5792 5796-5798	Sept.	7,000,000 cu. ft. gas
Shrauner C SE SE 18-35-42W	Fraham-Michaelis Drlg. Co., No. 1-18 Shrauner	Morrowan	4469-4473	Nov.	6
Ness County					
Hair C NW NE 4-20-24W	Colo. Oil & Gas Corp. No. 1 Hair	Mississippian	4401-4402	Dec.	154
Pratt County					
Ludwick Northeast NW NE SE 28-18-13W	E. K. Edmiston Drlg. Co. No. 1 Gates	Simpson	4418-4423	Sept.	120
Sawyer North C SE SW 24-29-13W	Frontier Oil Co. No. 1 Flora	Lans.-K.C.	3966-3974 4110-4115	Sept.	78
Rawlins County					
Wilhelm East C NW SE 15-1-32W	Edwin Foster Blair Assoc. No. 1 Walsh	Lans.-K.C.	4071-4074	Dec.	40
Reno County					
Abbyville Southwest SW SW SW 26-24-8W	J. E. Newman No. 1 Linscheid**	Mississippian	3778-3782	Mar.	10
Rice County					
Bull Creek C NE SE 26-21-8W	The Pure Oil Co. No. 1 Thode	Mississippian	3354-3359	Dec.	167
Rino* SE SE SW 33-21-9W	Thunderbird Drlg., Inc. No. 1 Wellman "I"	Arbuckle	3527-3534	Dec.	137
Rooks County					
Bray SE SW SW 20-8-19W	Kaiser-Francis No. 1 Bray Estate	Arbuckle	3462-3466	Dec.	85
Collins N2 SW SE 34-9-18W	John O. Farmer, Inc. No. 1 Collins	Simpson	3659-3662	Dec.	80
LeSage SE SE NE 18-7-20W	Imperial Oil of Kansas No. 1 LeSage	Lans.-K.C.	3348-3392	Aug.	241
Lynd West SW SE SW 32-9-19W	Tomlinson-Kathol, Inc. No. 1 Lynd	Arbuckle	3755-3761	June	42
O'Brien NE NE NE 14-9-18W	Bergman Oil Co. No. 1 O'Brien**	Arbuckle	3509-3514	Dec.	25

TABLE 24.—Oil and gas pools discovered in Kansas during 1960, continued

County, pool, and location of discovery well	Discovery well	Producing zone	Production depth, feet	Month named	Initial production, bbl. per day
Simons NE SW SW 11-7-17W	Cities Service Oil Co. No. 1 Simons "B"	Lansing	2915-2921 2925-2929 2949-2957 3005-3009 3014-3021	July	71
Rush County					
Basgall NE SW SE 5-16-17W	Lario Oil & Gas Co. No. 1 Basgall	Arbuckle	3546-3548 3548-3552 3550-3554	Nov.	5
Old Maids Fork SE NW SE 20-19-20W	Thunderbird Drlg., Inc. No. 1 Well	Cherokee	4304-4308	Aug.	90
Russell County					
Driscoll West SE NE SW 25-15-12W	Birmingham & Bartlett No. 1 Woydziak "B"	Arbuckle	3309-3319	Nov.	141
Saline County					
Dieter SE SW NE 7-15-2W	Solar Oil Co. No. 1 Dieter	Maquoketa	3219-3225	Nov.	192
Jackman NE SE NE 10-15-1W	Don McKellar No. 1 Jackman	Mississippian	2549-2553	Aug.	25
Scott County					
Newby C SE SW 23-18-32W	Imperial Oil of Kansas No. 1 Newby	Lans.-K.C. Marmaton	3958-3960 4386-4388	Sept.	129
Sedgwick County					
Minneha North SE SE SW 2-27-2E	H. H. Blair No. 1 Ketterman	Arbuckle	3287-3294	Dec.	70
Seward County					
Arkalon C NW¼ 36-33-32W	Andarko Prod. Co. No. 1-36 Davies	Chesteran	5762-5769	Aug.	3,500,000 cu. ft. gas
Arkalon East C SW¼ 20-33-31W	Cabot Carbon Corp. No. 1 Massoni "B"	Chesteran	5770-5776 5784-5796	Oct.	1,750,000 cu. ft. gas
Evalyn C NE SW 15-33-33W	Falcon Seaboard Drlg. Co. No. 1 Peters	Morrowan	5680-5700	Sept.	40,598,000 cu. ft. gas
Thirty-Three C NW¼ 33-33-33W	Falcon Seaboard Drlg. Co. No. 1 Salley	Chesteran	6194-6207	May	258 & 902,000 cu. ft. gas
Thirty-Two C SW 1-32-32W	Petroleum, Inc. No. 1 Dolven	Morrowan	5572-5608	Dec.	1,200,000 cu. ft. gas
Stafford County					
Dillwin West SE SE NE 18-24-14W	Aylward Drlg. Co. No. 1 Holderness**	Mississippian	4099-4104	June	4,940,000 cu. ft. gas
Haynes East SE SE NW 23-25-15W	Tomlinson-Kathol, Inc. No. 1 Smith	Mississippian	4263-4279	Aug.	87
McCandless Northeast NW SE NE 20-25-13W	Chief Drlg. Co., Inc. No. 1 Kipp	Arbuckle	4337-4342	Sept.	79
Nellie East NW SW SE 27-22-14W	Morris Garvin No. 1 Garvin	Lans.-K.C.	3668-3675	Mar.	121
Sieker* NE NW NW 5-21-12W	Sterling Drlg. Co. No. 1 Sieker	Arbuckle	3461-3468	Nov.	36
Steve SW NW NW 24-21-12W	Coop. Refg. Assn., et al. No. 1 Stevenson	Arbuckle	3557-3580	Dec.	104
Van Lieu East SE NW NE 21-24-13W	Dunne-Gardner Drlg. Co. No. 1 Brown	Arbuckle	4075-4077	Aug.	104
Stevens County					
Center C SE NW 26-33-37W	Republic Natural Gas Co. No. 1 Carpenter	Morrowan	6142-6156	Dec.	4,661,000 cu. ft. gas

TABLE 24.—Oil and gas pools discovered in Kansas during 1960, concluded

County, pool, and location of discovery well	Discovery well	Producing zone	Production depth, feet	Month named	Initial production, bbl. per day
Sumner County					
Belsley NW NE NE 13-31-2W	Beardmore Drlg. Co. No. 1 Belsley	Mississippian	3761-3770	June	46
Cole SE SW NW 24-31-4W	Imperial Oil of Kansas No. 1 Cole	Simpson	4411-4415	Apr.	97
Harrington SW SW NW 24-30-3W	Shawver-Armour, Inc. No. 1 Harrington	"Burgess"	3794-3796	July	D & A
Holman SW SW NE 26-33-2E	Donald C. Slawson No. 1 Holman	Mississippian	3306-3312	July	170
Meils W2 NW NW 5-34-2E	Wentworth Oil & Dev. Co., No. 1 Meils**	"Bartlesville"	3437-3445	Aug.	60
Milan SE SW NW 2-32-3W	Sunray Mid-Continent No. 1 Busch	Mississippian	3920-3932	Dec.	24
Olive Branch SE NE NE 11-33-3W	Leben Drlg., Inc., et al. No. 1 Porter	Simpson	4448-4452	Mar.	150

*Field extends into adjacent county.

**Old well worked over.

TABLE 25.—Fields revived during 1960

County, pool, and location of revival well	Revival well	Producing zone	Production depth, ft.	Month revived	Initial production, bbl. per day
Barton County					
Rolling Green* SE SW SW 36-20-13W	Alpine Oil & Roy. Co. No. 1 Schartz	Lans.-K.C.	3403-3411	Dec.	92
Cowley County					
Brown NW NW SE 13-31-7E	Smith, et al. No. 1 Keilhorn**	"Bartlesville"	2738-2776	Dec.	Oil
Falls City NE NE SE 17-35-7E	H. H. Blair No. 1 Bauman	"Bartlesville"	2697-2716	July	45
Ellis County					
Reichert C SE SE 4-15-19W	Raymond Oil Co., Inc. No. 1 Gross	Lans.-K.C.	3430-3440	Nov.	13
Upper Turkville SW SW SE 9-11-17W	Raymond Oil Co., Inc. No. 1 Simpson	Arbuckle	3362-3367	June	39
Ellsworth County					
Satran C SW ¼ 5-14-9W	Messman-Rinehart Oil Co. No. 1 Foran	Herington	1282-1294	June	150,000 cu. ft. gas
Russell County					
Mahoney C SW SW 8-14-12W	Messman-Rinehart Oil Co. No. 1 Mahoney	Tarkio	2414-2420	June	2,250,000 cu. ft. gas
Stafford County					
Macksville N2 NE SW 3-24-15W	Tomlinson-Kathol, Inc. No. 1 Nagel	Viola	4023-4035	Oct.	2,800,000 cu. ft. gas
Vogel NW NW SW 10-25-11W	R. P. Nixon No. 1 Post	Lans.-K.C.	3453-3460	July	108
Trego County					
Hixson East SE SE NW 20-11-22W	John O. Farmer, Inc. No. 1 Lemke	Marmaton	3884-3887	Feb.	15

*Field extends into adjacent county.

**Completed in 1947.

TABLE 26.—Fields combined in Kansas during 1960

County and name of field combined	Discovery well location	Producing zone				Year of discovery	Cumulative production, bbl.	Month of combination	Combined as part of
		Area, acres	Name	Depth, ft.	Thickness, ft.				
Barber County									
Aetna	13-34-15W	640	Mississippian Viola	4,850 5,215	...	1949	3,588,828 ^a M cu. ft.	November	Aetna Gas Area
Aetna Northeast	9-34-15W		Mississippian	4,693	...	1956		November	Aetna Gas Area
Blunk	30-34-13W	160	Mississippian	4,727	...	1956	1,206,310 ^b M cu. ft.	November	Aetna Gas Area
Blunk South	1-35-14W	40	Mississippian	4,821	...	1956	223,255 ^a M cu. ft.	November	Aetna Gas Area
Farley	32-34-14W	300	Mississippian	4,742	...	1956	387,417 ^c M cu. ft.	November	Aetna Gas Area
Medicine Lodge-Boggs									
Medicine Lodge S'west	6-34-13W	100	All wells in T. 33S.—R. 14W. now in Aetna Gas Area Mississippian	4,889	...	1954	2,037,551 ^f M cu. ft.	November	Aetna Gas Area
Palmer West	25-32-14W		Marmaton Mississippian Viola	4,504 4,552 4,923	7 ... 7	1959	0	November	Palmer
Barton County									
Cheyenne East	3-19-12W		Lansing-K.C.	3,105	14	1960	0	December	Cheyenne
Feltes North	2-16-12W		Arbuckle	3,340	...	1959	0	June	Kraft-Prusa*
Great Bend Northwest	24-19-14W	120	Lansing-K.C. Arbuckle	3,315 3,460	13 5	1955	54,859	December	Great Bend Townsite
Butler County									
Paulson Northeast	24-23-3E	880	Mississippian	2,467	...	1958	191,324	September	Paulson
Pierce Northwest	21-25-4E	160	Mississippian	2,569	14	1954	74,145	November	Pierce
Pierce West	20-25-4E	80	Mississippian	2,515	29	1951	32,072	November	Pierce
Clark County									
Harper Ranch North	22-33-21W	60	Morrowan	5,318	...	1954	1,641	December	Harper Ranch
Cowley County									
Rock North	3-30-4E	320	"Bartlesville"	2,800	...	1937	392,563	February	Rock
Shannon North	23-31-5E		"Layton"	2,280	4	1960	0	March	Shannon

TABLE 27.—Fields abandoned in Kansas during 1960

County pool and location of discovery well	Discovery well	Producing zone			Cumulative production, bbl.	Year of discovery abandonment	Month of abandonment	
		Name	Depth, ft.	Thickness, ft.				Aver. grav.
Butler County Plum Grove	No. 1 Mellor	Mississippian	2,515	10	....	11,391	1958	March
Harper County Attica	No. 1 Hoyt	Mississippian	4,364	8	....	1,135	1958	December
Kingman County Evan Mound South	No. 1 Johnson	Mississippian	.....	....	....	0	1959	September
Norton County Horesky	No. 1 Horesky	Arbuckle	3,685	9	....	0	1959	May
Pratt County Stark	No. 1 Stark	Lansing-K.C. Viola	3,601 4,121	.... 2	....	859,316	1941	July
Stoops	No. 1 Stoops	Viola	4,446	....	....	94,767	1946	July
Reno County Haven	No. 1 Meyer "A"	Viola Simpson	3,978 3,977	10 4	.... 30	28,847	1951	July
Rice County Dymond	No. 1 Dymond	Mississippian	3,392	10	....	2,223	1955	July
Glen Sharrald	No. 1 Heiken	Lansing-K.C.	3,118	25	39	39,158	1950	July
Lyons	No. 1 Townsile	Lansing-K.C. Penn. cong. "Misener"	3,226 3,315	.... .... 16	....	14,108,000 MCF*	1927	July
		Simpson	3,290	....	....	....	....	....
		Arbuckle	3,277	....	....	....	....	....

* 76,381 bbls.

TABLE 28.—New oil or gas zones in old producing fields, 1960

County, pool, and location of discovery well	Discovery well	Producing zone	Production depth, ft.	Month of discovery	Initial production, bbl. per day
Barber County					
Palmer West NW SW NE 25-32-14W	Crescent Royalty Corp. No. 1 Elsea (Combined with Palmer)	Viola	4922-4929	June	121
Palmer West C NW SE 25-32-14W	Crescent Royalty Corp. No. 2 Rinke (Combined with Palmer)	Marmaton	4528-4535	Aug.	146
Barton County					
St. Peter East SE NW SE 33-18-11W	Isern Drlg. Co. No. 6 Musenberg "B"	Arbuckle	3374-3377	Oct.	40
Staeffer Northeast NW SE SW 35-20-13W	Alpine Oil & Royalty Co. No. 2 Sharp "A"	Lans.-K.C.	3447-3452	June	139
Ellis County					
Toronia North NW NW NW 8-14-16W	Jay Kornfeld No. 1 Schulte	Toronto Lansing	3189-3190 3257-3260 3352-3355	June	20
Finney County					
Pleasant Prairie C SW SW 16-26-34W	Champlin Oil & Refg. Co. No. 1 Stone	Marmaton	4551-4561	Dec.	65
Wampler C SE SW 16-21-33W	Imperial Oil of Kansas No. 1 Hyer	Morrowan	4584-4588	Apr.	138
Harper County					
Gerber NE SE SW 28-31-5W	Natural Gas & Oil Corp. No. 2 Gerber*	Lans.-K.C.	3708-3714	Mar.	83
Harvey County					
Halstead West NE SE NW 10-23-2W	Anderson-Prichard No. 2 Dyck	Viola	3305-3325	June	245
Kingman County					
Rosedale Northeast C NW NE 33-29-6W	Petroleum, Inc. No. 1 Robertson "D"	Lans.-K.C.	3743-3748	Nov.	20
Rosedale Northeast SE SE SW 28-29-6W	Duncan Operators No. 1 Voran	Mississippian	4149-4156	Nov.	85
Marion County					
Hillsboro East SE NE SE 17-19-3E	E. K. Carey No. 3 Selbert	Viola	2741-2761	Oct.	36
Ratzlaff SE NE SW 8-19-2E	Sierra Petro. Co., Inc. No. 1 Knak	Mississippian	2692-2702	Dec.	1,630,000 cu. ft. gas
Meade County					
Adams Ranch NW NW NE 5-35-29W	Phillips Petroleum Co. No. 1 Adams "J"	Chesteran	5949-5953 5962-5970 5978-5980 5991-6001 6016-6022 6030-6032	Oct.	28
Borchers North C NW SW 34-32-28W	Shamrock Oil & Gas No. 1 McNaughten	Chesteran	5506-5510	Aug.	3,009,000 cu. ft. gas
Morton County					
Kinsler C SW NE 22-31-40W	Pan American Petro. Corp. No. 1 Wratil "B"	Morrowan	5202-5204 5432-5436	Oct.	3,283,000 cu. ft. gas
Rooks County					
Locust Grove NE NE NW 8-7-19W	Sierra Petro. Co., Inc. No. 1 Greibel	Shawnee	3166-3170	Mar.	146
Rush County					
Herr North NW NW NW 12-16-18W	Imperial Oil of Kansas No. 2 Herman "A"	Lans.-K.C.	3433-3435	May	199
Sedgwick County					
Butwick NW SE SE 13-26-2E	John P. Gaty No. 1 Wheeler	"Hunton"	3192-3194	Apr.	24
Farview Northeast SE SW NW 3-26-2E	John Newman No. 1 Feick "C"	Mississippian	2863-2866	June	28

TABLE 28.—*New oil or gas zones in old producing fields, 1960, concluded*

County, pool, and location of discovery well	Discovery well	Producing zone	Production depth, ft.	Month of discovery	Initial production, bbl. per day
Stafford County					
Grunder Southwest SE NW SW 15-25-15W	Natl. Coop. Refg. Assoc. No. 1 Hart	Mississippian	4251-4258	Oct.	161
Macksville East SW NW SW 12-24-15W	Dunne-Gardner Drig. Co. No. 1 Devore	Arbuckle	4096-4100	Dec.	258
O'Connor SW SW NE 9-24-15W	Coop. Refg. Ass'n. et al. No. 1 Petro	Simpson	4034-4057	Oct.	113
Sand Hills SE NW NW 30-21-11W	Western Petro. Co., Inc. No. 3 Duggan	Lans.-K.C.	3236-3239 3329-3332	Sept.	57
Sumner County					
Mells NE NE NE 6-34-2E	Wentworth Drig. Co. No. 1 Nugen	Mississippian	3463-3472	Dec.	10

*Old well worked over.

TABLE 29
DRY WILDCAT TESTS
DRILLED IN 1960

FOOTNOTES

- a** Anhydrite
- b** Base of the Kansas City
- c** "Bartlesville"
- f** Fort Riley
- g** Granite basement
- h** "Hunton"
- k** Kansas City Group

- p** Penn. basal congl.
- r** Reagan
- s** "Stalnaker"
- t** Topeka
- †** Well penetrated Precambrian
- *** No electric or radioactivity logs available.

TABLE 29.—Dry wildcat tests drilled in 1960

County, company, and farm	Location	Depth to top of formation, feet							Total depth, feet	
		Surface eleva- tion, feet	Heebner	Lans- K.C.	Missis- sippian	"Kinder- hook"	Viola	Simp- son		At- buckle
ANDERSON COUNTY										
Ward M. Edinger, Inc. No. 1 Drum	NE NE NW 24-21-17E	1,059	598 ^b	1,142 ^c	1,358	-----	-----	-----	-----	1,388
BARBER COUNTY										
Tennessee Gas & Oil Co. No. 1 McReynolds	SW SW NW 32-31-10W	1,715	3,712	3,866	4,526	4,709	4,810	4,874	4,997	5,011
*Mull Drlg. Co., Inc. No. 1 Wheelock	C SW SE 28-31-12W	1,630	3,602	3,800	4,356	-----	-----	-----	-----	4,430
I. W. Seigle, et al. No. 1 Grigsby	NW SW SW 30-32-11W	1,422	3,522	3,696	4,287	4,450	4,570	4,651	-----	4,663
Sunray Mid-Continent No. 1 Palmer	C NW NW 16-32-13W	1,787	3,805	3,988	4,490	4,712	4,795	3,907	-----	4,990
Petroleum Exploration Corp. No. 1 Hoagland	C SW NW 21-32-14W	1,877	3,964	4,134	4,652	4,590 ^b	-----	-----	-----	4,687
Aylward Drlg. Co., et al. No. 1 Garner "A"	NE NE NE 11-33-10W	1,396	3,417	3,814	4,388	4,628	4,710	4,792	4,176 ^b	4,819
Aylward Drlg. Co. No. 1 Piatt	C SW SW 17-33-15W	1,744	3,952	4,128	4,747	4,918	4,951	5,096	-----	5,199
Stelbar Oil Corp., Inc. No. 1 Circle	NW NW NE 5-34-10W	1,437	3,630	4,191 ^k	4,601	4,400 ^b	-----	-----	-----	4,706
Mull Drlg. Co., Inc. No. 1 Circle	C SW NW 12-34-11W	1,396	3,648	4,164 ^k	4,582	4,410 ^b	-----	-----	-----	4,628
Messman-Rinehart Oil Co. No. 1 Humphrey	C SW SW 26-34-11W	1,312	3,611	4,198 ^k	4,648	4,411 ^b	-----	-----	-----	4,710

BARTON COUNTY

Stickler Drlg. Co. No. 1 Debes	NW SW NW 27-17-12W	1,905	3,050	3,165	792 ⁿ	-----	-----	3,419	3,454
*Wilkinson Drig. Co. No. 1 Rugan	NE SE NW 12-18-12W	1,846	2,002	3,126	-----	-----	-----	3,409	3,425
*B. H. Hillburn No. 1 Gaunt	N/2 NW SE 3-20-13W	1,846	3,072	3,199	698 ^a	-----	-----	-----	3,513

BROWN COUNTY

*Mull Drlg. Co., Inc. No. 1 Van Epp	NE NW NE 23-3-17E	1,035	575	783	2,034	2,250	2,432 ^h	1,104 ^b	300 ^t	2,476
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BUTLER COUNTY

*Oil Property Mgmt., Inc. No. 1 Wiebe	NW NW SE 28-23-3E	1,430	-----	2,034	2,700	2,238 ^k	2,426 ^b	2,674 ^p	-----	2,712
*E. H. Adair Oil Co. No. 2 White "B"	SW SW SE 15-23-5E	1,478	-----	1,606	1,994 ^b	1,859 ^k	2,196 ^p	2,301 ^r	2,220	2,341 ⁺
*Rex & Morris, et al. No. 1 Wyss	NW SW NE 21-23-5E	1,480	1,409	1,674	2,075 ^b	1,928 ^k	2,274 ^p	-----	2,312	2,523
*Shawver-Armour No. 1 Frerking	NW NW NE 34-23-5E	1,426	2,140 ^b	1,705	2,487 ^h	2,415	2,502	2,565	2,615	2,646
*Red Drlg. Co., Inc. No. 1 Finkle "A"	SW SW NE 35-24-4E	1,400	-----	1,922	2,248 ^k	-----	-----	-----	-----	2,361
*Schwartz & McCorgary No. 1 Locke	SE SW NE 23-24-5E	-----	-----	-----	"Tight Hole"	-----	-----	-----	-----	852
Cities Service Oil Co. No. 1 Thacker	NE NE SW 27-26-3E	1,361	1,693	1,971	2,780	3,049	3,106	3,130	3,196	3,250
Stelbar Oil Corp., Inc. No. 1 Colburn	SW SE NW 36-26-3E	1,345	1,700	1,950	2,759	2,975	3,035	3,055	3,130	3,165

TABLE 29.—Dry wildcat tests drilled in 1960, continued

County, company, and farm	Location	Surface eleva- tion, feet	Depth to top of formation, feet						Total depth, feet	
			Heobner	Lans- K C	Missis- sippian	"Kinder- hook"	Viola	Simp- son		Ar- buckle
*McNeish Oil Operations No. 1 Wade	NW NW NW 27-26-6E	1,410	-----	1,828	2,780	2,138 ^k	3,212	3,234	3,282	3,316
*Shawver-Armour No. 1 McEwen	NE NW NW 28-27-3E	1,306	2,335 ^k	1,945	2,799	3,013	2,527 ^b	3,066	-----	3,071
Stelbar Oil Corp., Inc. No. 1 Bisagno	SE SW SE 2-27-4E	1,321	1,582	1,877	2,682	2,835	2,364 ^b	2,914	2,992	3,008
*Rex & Morris, et al. No. 1 Kilian	SE SW NW 7-27-5E	1,270	2,123 ^k	1,813	2,624	2,873	2,306 ^b	2,953	3,028	3,045
*Shawver-Armour, et al. No. 1 Dunn	NE NE NE 36-27-6E	1,442	2,129 ^k	1,804	2,811	2,735 ^c	2,299 ^b	-----	-----	2,860
*O. A. Sutton No. 1 Willhite	NE NE SW 20-27-7E	1,460	2,068 ^k	1,751	2,758	2,652 ^c	2,223 ^b	-----	-----	2,784
*White & Ellis Drlg., Inc. No. 1 Pettit	SW SW SW 15-28-6E	1,387	2,096 ^k	1,773	2,745	3,027	-----	3,110	3,124	3,135
*Brunson-Spines, Inc. No. 1 Rhodes	SE SW NW 28-28-7E	1,513	2,103 ^k	1,774	2,797	-----	2,282 ^b	-----	-----	2,848
*Shawver-Armour No. 1 Sawin	CSL N2 SE 4-29-3E	1,292	2,334 ^k	1,979	2,832	-----	2,555 ^b	3,096	-----	3,108
H. H. Blair No. 1 Murtough	E2 SW SE 31-29-7E	1,491	1,480	2,156 ^k	2,892	3,250	-----	-----	3,330	3,351
CHASE COUNTY										
*Irvin Daetwiler No. 2 Koegeboehn	SE SE NW 8-19-6E	1,298	1,171	1,421	1,768 ^b	-----	1,999	-----	-----	2,020
*Sauder-Murphy No. 1 Piper	SW NE NE 15-20-9E	1,384	1,555 ^k	1,490	2,480	-----	2,350 ^c	-----	-----	2,520

CHAUTAUQUA COUNTY									
J. D. White & Wm. Fry No. 1 Kelley	SW SW NE 27-32-8E	1,072	1,140 ^s	1,733 ^k	2,367	1,795 ^b	-----	-----	2,411
*Solar Oil Co. No. 1 Payne	SW SW SW 28-32-9E	1,158	-----	-----	"Tight Hole"	-----	-----	-----	1,500
CHEYENNE COUNTY									
Kern Drilg. No. 1 Galvin	C SE NE 33-1-39W	3,207	4,488 ^b	4,245	4,950	4,946 ^P	-----	-----	4,789
National Assoc. Petro. Co. No. 1 Corthy "A"	C SE SW 6-2-38W	3,261	3,196 ^a	4,280	4,989	4,534 ^b	-----	-----	5,060
John O. Farmer, Inc. No. 1 Pugh	C SE NE 30-2-39W	3,231	3,122 ^a	4,140	4,919	4,441 ^b	-----	5,095	5,162
E. J. Athens No. 1 Zwegardt	C SE SE 34-2-42W	3,726	3,629 ^a	4,590	5,396	4,905 ^b	5,289 ^P	-----	5,455
Murfin Drilg. Co., et al. No. 1 Casford	C NW NW 16-4-37W	3,450	4,300	4,351	-----	-----	-----	-----	4,597
Murfin Drilg. Co., et al. No. 2 Casford	C NW NW 16-4-37W	3,450	4,298	4,352	5,096	4,647 ^b	4,878 ^P	3,220 ^a	5,120
E. J. Athens No. 1 Douthit	C SW SW 27-4-41W	3,590	4,370	4,407	5,256	-----	5,160 ^P	3,358 ^a	5,306
E. J. Athens No. 1 Schirmer	C NE SW 3-4-42W	3,696	-----	4,492	5,308	-----	5,189 ^P	3,505 ^a	5,345
CLARK COUNTY									
Sunray Mid-Continent, et al. No. 1 Broadie	C SW NW 32-32-23W	2,204	4,394	4,600	5,498	6,620	6,712	-----	6,778
Sinclair Oil & Gas Co. No. 1 Broadie	C SE SE 33-33-22W	1,905	4,242	4,442	5,364	-----	-----	-----	5,645

TABLE 29.—Dry wildcat tests drilled in 1960, continued

County, company, and farm	Location	Surface eleva- tion, feet	Depth to top of formation, feet					Total depth, feet		
			Heebner	Lans- KC	Missis- sippian	"Kinder- hook"	Viola		Simp- son	Ar- buckle
Sinclair Oil & Gas Co. No. 1 Klinger	NW NW NE 5-34-23W	1,941	4,186	4,401	5,388	6,810	6,882	7,015	7,106	7,242
*Pure Oil Co. No. 1 Tuttle "F"	C NE SW 12-35-22W	1,886	-----	4,582	5,638	-----	-----	-----	-----	5,663
CLAY COUNTY										
L. B. Jackson Co. No. 1 Alquist	C NE SE 21-10-3E	1,332	1,482	1,612	2,160	2,279	2,790	2,934	3,023	3,046
COMANCHE COUNTY										
Messman-Rinehart Oil Co. No. 1 Schuette Est. "B"	C S2 SE 36-31-16W	2,001	4,117	4,281	4,849	-----	-----	-----	-----	4,990
Youngblood & Youngblood No. 1 Betzer	C SW NE 35-33-18W	1,920	4,174	4,500	5,210	-----	5,862	6,070	6,262	6,313
Daube, et al. No. 1 McMoran	NE NE SW 25-34-16W	1,798	4,180	4,399	5,040	5,335	5,444	5,603	5,782	5,945
R. W. Rine Drilg. Co., et al. No. 1 Brinkman	C SE SE 3-34-18W	1,889	4,321	4,521	5,262	5,853	5,922	6,109	6,307	6,389
COWLEY COUNTY										
*Jones-Gebert Oil Co. No. 1 Bloomenshire	NW NE SW 7-30-3E	1,296	2,195 ^S	2,515 ^k	3,035	3,327	-----	-----	3,417	3,429
Gralapp, et al. No. 1 Stuber	NW NW SE 27-30-5E	1,304	1,892 ^S	2,255 ^k	2,935	2,500 ^b	2,865 ^c	-----	-----	2,941
*J. A. Allison, et al. No. 1 Spillman	SW SW SW 18-30-7E	1,486	1,751 ^S	1,739	2,889	2,143 ^k	2,379 ^b	-----	-----	2,940
*White & Ellis Drilg., Inc. No. 1 Smith	NW NW NW 9-31-3E	1,255	2,196 ^S	2,558 ^k	3,145	2,804 ^b	-----	-----	-----	3,173

Hammer & Maclean, et al. No. 1 Brown	SW SW NW 23-31-7E	1,402	1,681 ^S	2,112 ^k	2,855	2,335 ^b	-----	-----	2,925
Hammer & Maclean, et al. No. 1 Kielhorn	NW NW SE 24-31-7E	1,391	-----	2,003 ^k	2,744	2,210 ^b	-----	-----	2,800
Augusta Oil Co., Inc. No. 1 Watt	CN2 NE SE 32-31-7E	1,243	1,613 ^S	1,765	2,069 ^k	-----	-----	-----	2,102
*Gralapp, et al. No. 1 Charbonnet	SW SW NE 32-32-3E	1,178	2,201 ^S	2,717 ^k	3,211	2,858 ^b	-----	-----	3,236
Stewart Oil Co. No. 1 Gann	NE NW SE 9-32-6E	1,317	1,900 ^S	-----	3,047	-----	-----	-----	3,080
L. A. Watson No. 1 Bruce	NE NE NW 23-32-6E	1,359	1,835 ^S	2,000 ^k	-----	-----	-----	-----	2,383
Earl F. Wakefield No. 1 Nitschke	NE SE NE 25-32-6E	1,307	1,736 ^S	1,900 ^k	-----	-----	-----	-----	2,214
DECATUR COUNTY									
Sauvage Drig. Co., Inc. No. 1 Eiler	NE NE SE 25-2-29W	2,605	3,563	3,605	4,008 ^P	2,290 ^a	-----	-----	4,172
John O. Farmer, Inc. No. 1 Brunk	C NW NW 6-3-26W	2,660	3,551	3,594	-----	2,210 ^a	4,130 ^r	4,139 ^g	4,142+
Sauvage Drig. Co., Inc. No. 1 Shaw	C SE SE 7-3-28W	2,665	3,606	3,645	-----	2,340 ^a	-----	-----	3,865
Sauvage Drig. Co., Inc. No. 1 Harmon	C NE SE 21-3-28W	2,746	3,709	3,751	-----	2,417 ^a	-----	-----	3,964
Sunray Mid-Continent, et al. No. 1 Barker	SE SE NE 25-3-29W	2,765	3,887	3,930	-----	2,610 ^a	-----	-----	4,063
*Sauvage Drig. Co., Inc. No. 1 Tilden	C NE NW 27-3-29W	2,702	-----	3,850	-----	2,544 ^a	-----	-----	4,078

Table 29.—Dry wildcat tests drilled in 1960, continued

County, company, and farm	Location	Surface civa- tion, feet	Depth to top of formation, feet						Total depth, feet
			Heebner	Link- K.C.	Missis- sippian	"Kinder- hook"	Viola	Simp- son		Ar- buckle
*Savage Drig. Co., Inc. No. 1 Bishop	C NW SE 7-4-28W	2,782	3,910	3,952	2,424 ^a	-----	-----	-----	4,140
Savage Drig. Co., Inc. No. 1 Gaumer	C SE SE 16-4-28W	2,712	3,825	3,871	2,495 ^a	-----	-----	-----	4,021
Empire Drig. Co., et al. No. 1 Marcuson	C NW NW 4-5-29W	2,770	3,830	3,880	4,388	2,528 ^a	-----	-----	4,424
DICKINSON COUNTY									
Eureka Drig. Co. No. 1 Roberts	SE SE SE 18-14-5E	1,794	1,382	1,570	2,103	-----	-----	-----	2,126
*E. H. Adair Oil Co. No. 1 Schlessner	SW SW SW 17-15-4E	1,341	1,511	1,681	2,251	2,339	2,796	2,916	3,025
E. H. Adair Oil Co. No. 1 Boyce	NE NE NE 9-16-1E	1,320	1,770	1,970	2,609	2,815	3,186	3,289	3,370
*E. H. Adair Oil Co. No. 1 Lorson	SW SW SW 18-16-3E	1,285	-----	1,781	2,431	2,172 ^b	-----	-----	2,463
EDWARDS COUNTY									
Strata Drig., Inc., et al. No. 1 Shinstock	SW NE NE 16-24-20W	2,260	3,952	4,062	4,634	-----	4,853	4,392 ^b	4,870
Dale Green, et al. No. 1 Schwartz	C NE NE 9-25-20W	2,241	3,988	4,107	4,715	-----	-----	4,474 ^b	4,803
Pickrell Drig. Co. No. 1 King "B"	C SE SE 26-26-19W	2,221	4,030	4,179	4,784	4,857	-----	4,568 ^b	4,917

ELLIS COUNTY

*Harms-Burt Drlg. Co., et al. No. 1 Armbruster	SE NW SE 6-11-19W	2, 141	3, 362	3, 400	3, 631 ^b	-----	3, 713	3, 743
Davis Bros., et al. No. 1 Gasaway "M"	NE NE NE 12-11-19W	2, 053	3, 269	3, 309	3, 532 ^b	1, 390 ^a	3, 611	3, 660
Drlg. & Exploration Co., Inc. No. 1 Chrisler	SE SE NW 16-12-16W	1, 917	3, 090	3, 138	-----	1, 075 ^a	-----	3, 432
E. K. Edmiston No. 1 Kansas State	SE SW NW 9-12-18W	2, 181	3, 418	3, 465	3, 719 ^b	1, 485 ^a	-----	3, 810
*Leben Drlg., Inc., et al. No. 2 Kroeger	SE SW NE 31-13-20W	2, 269	3, 521	3, 560	3, 814 ^b	1, 595 ^a	-----	3, 923
Woodman-Iannitti Drlg. Co. No. 1 Pfeiffer	SE SW NW 32-13-20W	2, 310	3, 564	3, 604	-----	1, 625 ^a	-----	3, 954
Tomlinson-Kathol, Inc. No. 1 Schulte	NE NE NE 8-14-16W	1, 898	3, 100	3, 145	-----	1, 017 ^a	-----	3, 416
Sterling Drlg. Co. No. 1 Kisner	NW NW SW 11-14-19W	2, 213	3, 489	3, 540	3, 776 ^b	1, 500 ^a	-----	3, 860
*Harms-Burt Drlg. Co. No. 1 Befort	SW NE SE 12-14-19W	2, 194	3, 456	3, 505	3, 745 ^b	1, 448 ^a	-----	3, 838
Woodman & Iannitti Drlg. Co. No. 1 Phannenstiel	NW NW NE 9-14-20W	2, 241	3, 500	3, 540	3, 792 ^b	1, 540 ^a	-----	3, 917
Petroleum, Inc. No. 1 Keller "E"	NW NE NW 23-14-20W	2, 164	-----	-----	-----	"Tight Hole"	-----	1, 500
Jay Bergman Oil Co. No. 1 Braun	NW NW NW 8-15-16W	1, 865	3, 102	3, 152	3, 378 ^b	-----	-----	3, 450
Western Petroleum Co., Inc. No. 1 Witt	SW SW SW 13-15-16W	1, 894	3, 124	3, 179	3, 394 ^b	985 ^a	-----	3, 481

TABLE 28.—Dry wildcat tests drilled in 1960, continued

County, company, and farm	Location	Surface elevation, feet				Depth to top of formation, feet				Total depth, feet
		Heebner	Lans- K C.	Missis- sippian	"Kinder- hook"	Viola	Simp- son	Ar- buckle		
ELLSWORTH COUNTY										
Messman-Rinehart Oil Co. No. 1 Jelinek	E2 NE NE 31-15-8W	1,656	2,478	2,624	-----	1,191 ^f	-----	-----	-----	2,661
*Bergman Drig., Inc. No. 1 Gust	NW NW NW 30-16-9W	1,837	2,824	2,950	575 ^a	-----	-----	-----	3,350	3,440
FINNEY COUNTY										
Braden Drig., Inc. No. 1 Stover	C SW SW 3-21-33W	2,933	3,886	3,938	4,870	4,408 ^b	-----	-----	-----	4,900
Cities Service Oil Co. No. 2 Spratt "C"	C NW SE 8-25-33W	2,952	3,905	3,994	4,960	4,425 ^b	-----	-----	-----	5,195
Russell McGuire No. 1 Brown	C SW NW 9-25-34W	2,947	3,785	3,892	4,890	-----	-----	-----	-----	5,106
Petroleum, Inc. No. 1 Brown "I"	C NW NW 19-25-34W	2,997	3,796	3,882	4,978	4,401 ^b	-----	-----	-----	5,209
W. C. McBride, Inc. No. 1 Brown	C SW NE 34-25-34W	2,973	3,838	3,887	5,003	4,434 ^b	-----	-----	-----	5,177
N. Appleman Co. No. 3 Ohmes	C SE NE 14-26-32W	2,907	4,048	4,145	5,009	4,611 ^b	-----	-----	-----	5,261
Russell McGuire No. 1 Finnup	C SW SW 28-26-32W	2,881	4,005	4,090	5,050	4,581 ^b	-----	-----	-----	5,275
FORD COUNTY										
Artnell Co. No. 1 Stegman	NW NW SW 2-25-21W	2,285	3,983	4,092	4,698	4,463 ^b	-----	-----	-----	4,754
O. A. Sutton No. 1 Mollitor	SW SW SE 35-26-21W	2,283	4,050	4,175	4,810	2,622 ^f	-----	-----	-----	4,966

Alkman Bros. No. 1 Giesseel	C SE NW 21-26-23W	2,498	-----	2,774 ^f	-----	2,900
Tennessee Gas & Oil Co. No. 1 Taylor	NE NE SW 6-26-24W	2,522	1,630 ^a	-----	2,774 ^f	2,984
Pickrell Drilg. Co. No. 1 Barnes	C NW SE 17-27-24W	2,535	1,562 ^a	-----	2,800 ^f	2,900
Tennessee Gas & Oil Co. No. 1 Sara A. Smith	NW SW NE 24-27-24W	2,475	4,149	4,270	4,975 2,733 ^f 5,633	5,776 5,848 5,924
Five Nation Drilg. Co. No. 1 Copeland	NW NW NW 25-28-23W	2,486	4,297	4,442	5,166 2,845 ^f 1,465 ^a	4,898 ^b ----- 5,260
Kewanee Oil Co. No. 2 Polson	NE SE SW 26-28-23W	2,533	4,332	4,485	5,174 2,880 ^f 1,505 ^a	----- 5,320
Tennessee Gas & Oil Co. No. 1 Lehmann	SE SE NW 11-28-24W	2,560	-----	-----	2,830 ^f 1,520 ^a	----- 3,000
Robert F. White No. 1 Faulds	SE SE NW 19-28-24W	2,531	-----	-----	2,826 ^f 1,520 ^a	----- 3,000
Tennessee Gas & Oil Co. No. 1 Deitz	SW SW NE 36-28-24W	2,546	-----	-----	2,864 ^f 1,510 ^a	----- 3,060
FRANKLIN COUNTY						
Lance C. Hill No. 1 Bowman	C SW SE 17-16-18E	1,054	-----	1,498	1,824 1,880 ^h	----- 1,918
GEARY COUNTY						
Cities Service Oil Co. No. 1 Salazar	SE NE SE 11-12-7E	1,387	1,263	1,449	1,939 2,000 2,212 ^h	----- 2,275
*Sauder, et al. No. 1 Hodgson	NE NE SW 18-12-8E	1,426	1,274	1,463	1,987 2,064 2,290 ^h	1,773 ^b ----- 2,317
*F. G. Holl No. 1 Green	CEL NE NW 22-12-8E	1,395	1,229	1,427	1,977 2,033 2,305 ^h	1,731 ^b ----- 2,350

TABLE 29.—Dry wildcat tests drilled in 1960, continued

County, company, and farm	Location	Surface eleva- tion, feet	Depth to top of formation, feet					Total depth, feet	
			Heebner	Lans- KC	Missis- sippian	"Kinder- hook"	Viola		Simp- son	Ar- buckle
GOVE COUNTY									
John O. Farmer No. 1 Bertrand "B"	C SE SE 22-11-29W	2,826	3,908	3,952	4,530	4,220 ^b	2,365 ^a	4,499P	4,606
GRAHAM COUNTY									
Imperial Oil of Kansas, Inc. No. 1 Oliver	C NE SW 24-6-23W	2,399	3,600	3,643	2,035 ^a	3,838 ^b	-----	-----	3,852
Imperial Oil of Kansas, Inc. No. 1 Holsman "A"	C SE SW 12-7-21W	2,165	3,354	3,391	1,753 ^a	3,591 ^b	3,640P	-----	3,731 ^g 3,733+
Imperial Oil of Kansas, Inc. No. 1 Drury	C NW SE 2-7-23W	2,393	3,614	3,652	2,030 ^a	3,848 ^b	-----	-----	3,860
Herndon Drlg. Co. No. 1 Barrow	SE SE NW 8-7-23W	2,420	3,650	3,696	2,115 ^a	3,895 ^b	-----	-----	3,930
R. W. Shields, et al. No. 1 Best	NE NE NE 7-7-25W	2,556	3,634	3,674	2,134 ^a	3,864 ^b	-----	-----	3,880
*John O. Farmer, et al. No. 1 Moore	SW SW SE 35-7-25W	2,484	3,782	3,820	2,238 ^a	4,035 ^b	3,083 ^f	-----	4,056
*Barnett Oil Co. No. 1 Brault	N2 NE NE 20-8-21W	2,080	3,255	3,296	1,614 ^a	3,502 ^b	-----	-----	3,650
*John O. Farmer No. 1 Riggs	C NW SE 31-8-23W	2,382	3,689	3,729	2,058 ^a	3,939 ^b	-----	-----	3,945
Woodman-Iannitti Drlg. Co. No. 1 Denio	NW NW SW 31-9-23W	2,489	3,787	3,820	2,102 ^a	4,048 ^b	-----	-----	4,050
Anderson-Prichard Oil Corp. No. 1 Brungardt Unit	NW NW SW 32-9-25W	2,594	3,829	3,867	2,234 ^a	4,099 ^b	-----	-----	4,371

Oil and Gas Developments, 1960

GRANT COUNTY

Socony Mobil Oil Co., Inc. C NW NW 3,088 3,878 3,932 5,327 4,545^b 2,812^f ----- 5,680
 No. 1 Lighter 5-28-36W

GRAY COUNTY

Phillips Petroleum Co., et al. C SW SE 2,767 4,121 4,214 4,927 1,720^a 5,851 5,995 6,020 6,095
 No. 1 Jury "A" 20-26-29W

GREELEY COUNTY

Kans.-Nebr. Nat. Gas Co., Inc. SW SW NE 3,600 ----- ----- 2,445^a ----- ----- 2,920
 No. 1 Clift 9-19-40W

GREENWOOD COUNTY

*Lance C. Hill NW NE SE 1,055 1,738^c 1,023^k 1,866 ----- ----- 1,900
 No. 1 Luthi 17-22-12E

*Taylor & Snyder NW NW NW 1,245 ----- 1,428^k 2,187 ----- 2,649 2,650 2,663 3,006
 No. 1 Tuttle 23-24-10E

Augusta Oil Co., Inc. NE SE NW 1,332 ----- 1,845^k 2,370 ----- ----- 2,420
 No. 1 Nixon 31-24-10E

Woltz Bros. C NE SW ----- ----- 1,838 ----- ----- 1,868
 No. 1 Hunsaker 14-25-12E

O. A. Roberts SW SE NE ----- ----- 1,638 ----- ----- 1,682
 No. 1 Roberts 23-26-12E

Hammer & Maclean, et al. C SW SE 1,483 ----- 1,560 2,706 1,866^k 2,056^b ----- 2,745
 No. 1 Wallis 8-28-9E

HARPER COUNTY

Mull Drlg. Co., Inc. NE NE SW 1,459 3,360 3,914^k 4,392 4,646 4,738 4,786 4,326^b 4,792
 No. 1 Eddie Morse 18-32-8W

*Christie-Stewart Drlg. Co. C SW NE 1,338 3,082 3,714^k 4,375 3,946^b ----- 5,038 5,070
 No. 1 Roth 7-33-5W

TABLE 29.—Dry wild-cat tests drilled in 1960, continued

County, company, and farm	Location	Surface elevation, feet				Depth to top of formation, feet				Total depth, feet
		Heebner	Lans- KC	Missis- sippian	"Kinder- hook"	Viola	Simp- son	Ar- buckle		
Gross Drlg. Co. No. 1 Stouffer	C SE SE 12-33-5W	1,281	2,937	3,595 ^k	4,345	3,851 ^b	-----	4,725	4,884	4,916
*Mull Drlg. Co., Inc. No. 1 Loesch	NE NW SE 20-33-9W	1,339	3,416	3,978 ^k	4,447	4,657	4,743	4,827	-----	4,850
HARVEY COUNTY										
Se Ro Bee Drlg. Co., Inc. No. 1 Uphoff	NW NW NW 11-22-2E	1,412	1,800	2,065	2,728	2,895	3,105	3,030 ^h	-----	3,141
*Graves Drlg. Co., Inc. No. 1 Nickel	C SW NW 23-24-2E	1,373	2,083 ^s	2,157	2,877	2,560 ^b	-----	-----	-----	2,920
*White & Fry No. 1 Ruth	SW SW SW 28-23-2W	1,426	2,270	2,484	3,338	3,757 ^h	3,853	3,868	2,958 ^b	3,915
Kewanee Oil Co. No. 1 Richter	SW SE SE 1-24-3W	1,430	2,323	2,532	3,363	3,792 ^h	3,885	3,899	3,991	4,015
Shawver-Armour, Inc. No. 1 Zimmerman	SE SW NE 34-24-3W	1,430	2,393	2,610	3,424	3,848	3,882 ^h	3,977	4,065	4,100
HASKELL COUNTY										
Hamilton Bros., Ltd. No. 1-25 Nusser	C NE NW 25-27-31W	2,828	4,096	4,152	5,049	4,660 ^b	3,636 ^t	-----	-----	5,557
Petroleum, Inc. No. 1 Lemon "K"	C SW SW 9-29-33W	2,974	4,109	4,202	5,410	4,691 ^b	2,782 ^f	-----	-----	5,755
Braden Drlg. Co. No. 1 Groth	C NE NE 31-29-33W	2,976	4,092	4,193	5,460	-----	-----	-----	-----	5,723

HODGEMAN COUNTY

Colorado Oil & Gas Corp. No. 1-13 Hays	C SW SW 13-21-23W	2,321	3,820	3,872	4,482	1,508 ^a	-----	-----	4,590
Tennessee Gas & Oil Co. No. 1 Johnson	C NW SE 29-21-23W	2,366	3,894	3,950	4,572	1,610 ^a	2,700 ^f	-----	4,938
*Franco Central Oil Co. No. 1 Salmons	C SW SE 34-21-23W	2,284	1,525 ^a	-----	"Tight Hole"	-----	-----	-----	4,640
Imperial Oil of Kansas No. 1 Almquist	C SE NE 18-21-24W	2,318	3,751	3,802	4,403	1,540 ^a	2,558 ^f	4,137 ^b	4,510
Bud Spradlin, et al. No. 1 Goebel	NE NE NW 23-21-24W	2,365	3,832	3,883	4,510	1,588 ^a	2,618 ^f	-----	4,550
Kewanee Oil Co. No. 1 Sinclair	SW SE NE 27-21-25W	2,454	3,866	3,914	4,532	1,665 ^a	2,670 ^f	4,290 ^b	4,680
Kewanee Oil Co. No. 1 Webster	SE SE NE 24-22-22W	2,193	3,766	3,824	4,440	1,324 ^a	2,508 ^f	4,145 ^b	4,504
Franco Central Oil Co. No. 1 Ewy-Grabber	C SW NE 2-22-23W	2,303	3,856	3,913	4,520	1,500 ^a	2,630 ^f	-----	4,624
Pickrell Drig. Co. No. 1 Campbell "C"	C NE SW 9-22-23W	2,376	3,940	3,994	4,612	1,620 ^a	2,730 ^f	-----	4,690
Pickrell Drig. Co. No. 1 Craghead	C NW NE 19-22-23W	2,375	3,928	3,978	4,625	1,622 ^a	2,720 ^f	-----	4,705
*Joseph E. Newman No. 1 Schneider	NW NW NW 21-22-23W	-----	-----	-----	"Tight Hole"	-----	-----	-----	4,700
*Joseph E. Newman No. 1 Wilholt	NW NW NW 21-22-23W	2,383	-----	-----	"Tight Hole"	-----	-----	-----	4,700
Ferguson Oil Co. No. 1 Lee	C SE SE 23-22-23W	2,304	3,864	3,926	4,556	1,483 ^a	2,630 ^f	-----	4,715

TABLE 29.—Dry wildcat tests drilled in 1960, continued

County, company, and farm	Location	Surface eleva- tion, feet			Depth to top of formation, feet				Total depth, feet	
		Heebner	Lans- K.C.	Missis- sippian	"Kinder- hook"	Viola	Simp- son	Ar- buckle		
Joseph E. Newman No. 1 Reed	C NW NW 29-22-23W	2,337	3,910	3,968	4,601	1,580 ^a	2,690 ^f	-----	-----	4,660
Glenn Smith Drlg. No. 1 Schauvliege	C SW NE 17-22-24W	2,486	3,946	3,997	4,650	1,680 ^a	2,720 ^f	4,375 ^b	-----	4,735
Drlg. & Explor. Co., Inc. No. 1 Ryan	C NW NE 36-22-24W	2,387	2,936	4,013	4,636	-----	-----	-----	-----	4,712
Mack Oil Co. No. 1 Ryan "A"	C NW NE 36-22-24W	2,337	3,900	3,980	4,644	1,560 ^a	2,670 ^f	-----	-----	4,675
Imperial Oil of Kansas No. 1 Fehrenbach	C NW SE 2-22-25W	2,471	3,888	3,973	4,577	1,660 ^a	2,672 ^f	-----	-----	4,675
Franco Central Oil Co. No. 1 Brumfield	C NW NE 36-22-25W	2,481	3,925	3,974	4,632	1,650 ^a	2,621 ^f	4,379 ^b	-----	4,735
Barnett Drlg., Inc. No. 1 Mooney	NW NW NE 1-23-22W	2,305	3,899	3,947	4,562	1,445 ^a	-----	4,262 ^b	-----	4,601
Petroleum, Inc. No. 1 Jarnagin	C SW NW 21-23-23W	2,419	3,962	4,023	4,675	1,580 ^a	-----	4,425 ^b	-----	4,720
Gulf Oil Corp. No. 1 Andrew	C NW NW 23-23-25W	2,500	3,994	4,058	4,730	1,700 ^a	2,764 ^f	-----	-----	4,800
Natl. Coop. Refg. Assn. No. 1 Trent	C NE SE 18-24-24W	2,525	4,065	4,165	4,802	1,686 ^a	2,733 ^f	4,559 ^b	-----	5,066
JACKSON COUNTY										
Kaiser-Francis Oil Co. No. 1 Attwater	C SW SE 14-5-15E	1,127	845	1,070	2,330	2,507	3,273	3,408	3,510	3,560
Kaiser-Francis Oil Co. No. 1 Biggart	C NW SE 20-6-14E	1,150	1,000	1,222	2,451	2,642	3,381	3,505	3,618	3,636

William H. Pine No. 1 Mabel	C NW NE 27-7-13E	1,225	1,120	1,301	2,470	2,598	3,358	3,464	2,819 ^h	3,540
Tom Palmer, Inc. No. 1 Robb	SW NE NE 24-8-15E	1,098	620	870	2,098	2,255	2,787	2,912	3,010	3,045
Cities Service Oil Co. No. 1 Lempenau	NW NW NW 35-8-16E	1,077	559	822	2,080	1,162 ^b	-----	-----	-----	2,113
JEFFERSON COUNTY										
Cities Service Oil Co. No. 1 Wunder	SW NE SW 16-8-17E	964	410	660	1,866	1,000 ^b	-----	-----	-----	1,950
JEWELL COUNTY										
Natl. Drlg. Co., Inc., et al. No. 1 Voboril	C SE NE 8-3-10W	1,856	2,777	2,834	3,524	3,691 ^h	3,904	4,088	4,161	4,437
Natl. Drlg. Co., Inc. No. 1 Keehner	C NE NE 27-5-10W	1,618	2,632	2,707	3,366	3,509 ^h	3,710	3,991	4,065	4,246
JOHNSON COUNTY										
George E. Hicks No. 2 Kilmer	NE SW SW 35-12-22E	-----	-----	-----	"Tight Hole"	-----	-----	-----	-----	910
KEARNY COUNTY										
Pan American Pet. Corp. No. 2 Beaty	C NE SW 8-25-38W	3,164	3,670	-----	5,074	-----	-----	-----	-----	5,522
Helmerich & Payne, Inc. No. 6 U.S.A. "D"	C NE NE 35-26-35W	3,050	3,949	4,005	5,289	-----	-----	-----	-----	5,508
Pan American Pet. Corp. No. 1 Waechter "G"	C NE SW 17-26-37W	3,174	3,801	3,893	5,268	4,427 ^b	-----	-----	-----	5,768
Pan American Pet. Corp. No. 1 Doerr	C NE SW 28-26-38W	3,224	3,790	3,899	5,280	-----	-----	-----	-----	5,825

TABLE 29.—Dry wildcat tests drilled in 1960, continued

County, company, and form	Location	Surface eleva- tion, feet	Depth to top of formation, feet					Total depth, feet		
			Huebner	Lans- KC	Missis- sippian	"Kunder- hook"	Viola		Simp- son	Ar- buckle
KINGMAN COUNTY										
*Natural Gas & Oil Corp. No. 1 Kroeker	NW NW NW 34-27-5W	1,463	-----	2,954	3,751	-----	-----	-----	3,802	
Rupp-Ferguson Oil Co., et al. No. 1 Billings	NE NE NE 31-27-6W	1,572	2,890	3,163	3,892	4,139	4,240	4,262	-----	4,310
Natural Gas & Oil Corp. No. 1 Sample	C SE SW 7-27-8W	1,682	3,197	3,404	4,042	4,113	4,307	4,384	-----	4,410
Franco-Central Oil Co. No. 1 Rohlman	NW NW SE 30-28-8W	1,667	3,260	3,486	4,125	4,270	4,450	4,509	4,626	4,643
I. W. Seigle, et al. No. 1 McKenna	SE SE SE 33-28-8W	1,672	3,235	3,463	4,136	4,325	4,475	4,505	-----	4,538
*Mull Drlg. Co., Inc. No. 1 Giefer	C NE SE 1-28-9W	1,566	3,138	3,342	3,966	4,070	4,268	4,311	-----	4,324
Drillers Production Co., Inc. No. 1 Garnett "B"	C NE SW 2-29-6W	1,538	2,956	3,222	4,033	-----	-----	-----	-----	4,143
Thunderbird Drlg., Inc. et al. No. 1 Garber	C SE SE 6-29-6W	1,553	2,998	3,248	4,040	-----	-----	-----	-----	4,137
Petroleum, Inc. No. 1 Matson	NW NW NW 21-29-6W	1,581	3,091	3,330	4,148	-----	-----	-----	-----	4,227
Pet-Ex Co. No. 1 Clouse	SW SW SE 16-29-8W	1,616	3,208	3,428	4,129	4,325	4,458	4,500	3,887 ^b	4,530
Walters Drlg. Co., et al. No. 1 Land	C NE SW 32-30-5W	1,358	2,940	3,508 ^k	4,121	4,460	4,569	4,580	3,735 ^b	4,634
Stelbar Oil Corp., Inc. et al. No. 1 Van Doring (Cook)	SE SW SE 13-30-6W	1,388	2,952	3,500 ^k	4,092	4,420	4,522	4,551	3,729 ^b	4,583

Walter W. Clements, Jr. No. 1 Smith	C SE NE 14-30-6W	1,401	2,990	3,526 ^k	4,106	4,426	4,534	4,570	-----	4,594
Dorset Co. No. 1 Holman	NE SE SW 27-30-6W	1,417	3,020	3,554 ^k	4,150	4,440	-----	-----	-----	4,576
Peel-Hardman No. 1 Wells	SE SE NW 28-30-7W	1,595	3,278	3,507 ^k	4,332	4,598	4,718	-----	-----	4,748
Braden Drlg. Inc. No. 1 Rolf	NE NE SW 18-30-10W	1,790	3,637	3,835 ^k	4,397	4,450	4,635	-----	-----	4,674
Duncan Operating Co. No. 1 Oak	C NW NW 29-30-10W	1,774	3,652	3,837	4,421	4,495	4,674	4,750	-----	4,793
KIOWA COUNTY										
Roland S. Bond No. 1 Ziegler	C NW SW 28-27-20W	2,312	4,115	4,266	4,878	-----	1,305 ^a	-----	-----	5,010
Prime Drlg. Co. No. 1 Welsch-Cronic	C NE NE 16-28-17W	2,184	4,040	4,213	4,778	4,818	1,055 ^a	-----	-----	4,868
K & E Drlg., Inc. No. 1 Swisher	C NE NE 21-29-19W	2,354	4,261	4,455	5,068	-----	4,863 ^b	-----	-----	5,150
*Petroleum, Inc. No. 1 Robbins	C NE SW 1-30-16W	1,900	3,861	4,037	4,582	-----	4,641	-----	-----	4,655
Gulf Oil Corp. No. 1 Robbins	C NW SE 3-30-17W	2,069	4,054	4,232	4,846	-----	985 ^a	4,637 ^b	-----	4,890
Messman-Rinehart Oil Co. No. 1 Kane Ranch "F"	C SE NW 17-30-17W	2,039	4,062	4,241	4,868	-----	990 ^a	-----	-----	4,978
Rupp-Ferguson Oil Co. No. 1 Booth	C NE SW 28-30-17W	2,112	4,158	4,345	4,962	-----	-----	-----	-----	5,100
*Mull Drlg. Co., Inc. No. 1 Sealey	C NW SW 25-30-18W	2,186	4,225	4,408	5,084	-----	4,781 ^b	-----	-----	5,130

TABLE 29.—Dry wildcat tests drilled in 1960, continued

County, company, and farm	Location	Depth to top of formation, feet					Total depth, feet			
		Surface eleva- tion, feet	Heebner	Lans- K C.	Missis- sippian	"Kinder- hook"		Viola	Simp- son	Ar- buckle
LANE COUNTY										
Cities Service Oil Co. No. 1 Lewis "C"	C NW SW 9-20-27W	2,722	3,956	3,997	4,640	2,015 ^a	4,902	5,048	5,058	5,100
Sunray Mid-Continent No. 1 Miller	NW NW NW 27-20-30W	2,864	3,937	3,982	4,635	4,393 ^b	2,845 ^f	-----	-----	4,736
LEAVENWORTH COUNTY										
Brunson-Spines, Inc. No. 1 Fevurly	NW NW NE 25-8-20E	1,065	129	414	1,487	731 ^b	-----	-----	-----	1,690
Cities Service Oil Co. No. 1 Schmidling	NE NE NW 15-8-21E	1,110	135	415	1,537	739 ^b	-----	-----	-----	1,570
*Brunson & Spines, Inc. No. 1 Jones	NW NW SW 30-10-21E	1,074	465 ^k	310	1,445	654 ^b	-----	-----	-----	1,467
LINCOLN COUNTY										
Harvest Queen Mills & Elev. No. 1 Meyer	SE SE NE 32-10-6W	1,380	2,307	2,456	3,080	3,425 ^h	3,598	3,789	3,858	4,155
Sinclair Oil & Gas Co. No. 1 E. Gabelmann	NW NW SE 35-10-8W	1,650	2,611	2,742	3,320	3,583 ^h	3,725	3,946	3,996	4,119
LOGAN COUNTY										
James Oil No. 1 Reed	C NE SW 26-11-34W	3,144	4,025	4,062	4,698	4,375 ^b	-----	-----	-----	4,780
Texaco Seaboard, Inc. No. 1 Kleckner	C SE SE 24-11-37W	3,248	3,971	4,019	4,788	2,560 ^a	-----	-----	-----	4,910
Reel-Hardman No. 1 Briggs	C NW SE 12-14-33W	2,774	3,722	3,764	4,443	1,590 ^a	4,100 ^b	-----	-----	4,509

Schafer Drlg. No. 1 Fotopolulus	C NW NW 7-14-36W	3,389	4,111	4,158	5,051	-----	-----	-----	5,103
LYON COUNTY									
Musgrove Petroleum No. 1 Fee	SW SW NE 15-16-11E	1,318	-----	1,284	2,310	2,718	2,850 ^h	3,040	3,082
*Tomlinson-Kathol No. 1 Mounkes	SW SW SW 16-19-13E	-----	-----	-----	1,815	-----	-----	-----	1,850
MCPHERSON COUNTY									
Rupp-Ferguson No. 1 Berg	SE SE NE 17-17-4W	1,427	2,205	2,428	3,084	3,324	3,604	3,650	3,700
Rupp-Ferguson, et al. No. 1 Johnson	C SW NW 33-17-4W	1,368	2,180	2,391	3,030	3,272	3,552	3,608	3,650
Mid-American Pipe Line No. 1 Disposal SWDW	E SW SW 24-19-5W	1,591	2,526	2,756	3,409	3,637	3,892	3,932	4,290
*Donald T. Ingling No. 1 Jacob Goering	SW SW NE 7-20-2W	1,494	-----	2,347	2,981	3,182	3,401	3,491	3,506
Donald T. Ingling No. 1 Lumley "A"	NW NW NW 20-20-2W	1,491	2,083	2,351	3,027	3,211	3,445	3,488	3,551
Fred Ayesch No. 1 Goering	NW NW SE 20-21-2W	1,474	2,118	2,370	3,072	3,364	3,563	3,593	3,700
Leben Drlg., Inc. No. 1 Kuthick	NE NW SE 22-21-2W	1,488	2,072	2,338	2,994	3,294	3,476	-----	3,500
MARION COUNTY									
*F. W. Vishnefske No. 1 Kaizer	W2 W2 NW 33-17-1E	1,434	-----	-----	2,729	-----	-----	-----	2,763
*Capitol Petroleum Corp. No. 1 Socolssky	NW NW SE 15-17-3E	1,468	-----	1,967 ^k	2,508	-----	2,989	2,776 ^h	3,005

TABLE 29.—Dry wildcat tests drilled in 1960, continued

County, company, and farm	Location	Surface elevation, feet	Depth to top of formation, feet						Total depth, feet
			Heebner	Lans- K.C.	Missis- sippian	"Kinder- hook"	Viola	Simp- son		At- buckle
*Francis O. Hawn No. 1 Hatterman	SE SE SW 17-17-3E	1,468	2,305 ^b	1,943	2,531	2,718	2,866 ^h	-----	2,870
*Buick Drlg., Inc. No. 1 Makovec	NW NW SE 26-17-3E	1,433	-----	2,430	-----	-----	-----	-----	2,450
Francis O. Hawn No. 1 Kaiser	SW SW NE 1-18-1E	1,446	1,856	2,087	2,670	2,868	3,150	3,056 ^h	3,180
*Se Ro Bee Drlg., Co., Inc. No. 1 Borton	NE NE SE 8-18-2E	1,403	2,388 ^b	1,998	2,604	2,783	3,075	-----	3,090
*Graves, et al. No. 1 Frick	NE NE NE 16-18-2E	1,410	2,179 ^k	1,984	2,569	2,370 ^b	-----	-----	2,595
*Cave-Quillen Oil Co., Inc. No. 1 Schafer	NE NE NW 24-18-2E	1,399	-----	1,938 ^k	2,512	2,681	2,953	-----	2,958
*Buick Drlg., Inc. No. 1 Commerford	NW NW SE 16-18-3E	1,395	-----	1,864	2,434	-----	-----	-----	2,492
*John C. Graves & Co. No. 1 Stallwizk	C SW NW 21-18-3E	1,363	-----	2,078 ^k	2,432	-----	-----	-----	2,480
*Buick Drlg., Inc. No. 1 Allen	NE NE NE 27-18-3E	1,390	-----	1,844	2,408	2,040 ^k	-----	-----	2,450
*Stephen Young No. 1 Berg	CS2 SW SW 27-18-3E	1,357	-----	-----	2,385	-----	-----	-----	2,432
*Harold Stith No. 1 Kline	NE SE NE 28-18-3E	1,365	-----	-----	2,397	-----	-----	-----	2,431
*J. D. White & W. L. Frey No. 1 Stenzel	SW SW NE 32-18-3E	1,410	-----	-----	2,515	-----	-----	-----	2,580
*Robert F. White No. 1 Christiansen	C NE 1 18-18-5E	1,468	-----	1,746	2,239	2,291	2,081 ^b	-----	2,300

*Rex & Morris Drilg. Co. No. 1 Penner	SW NW SW 36-19-1E	1,502	1,950	2,193	2,784	2,986	3,216	3,268	2,476 ^b	3,313
*Neven H. Veail No. 1 Ratzlaff	SW NE NE 25-19-2E	1,354	-----	1,900 ^k	2,518	-----	-----	-----	-----	2,550
*John C. Graves & Co. No. 1 Kreutziger	NW NW SE 31-19-3E	1,395	-----	1,940	2,514	2,684	2,879	2,940	-----	2,960
*Rex & Morris Drilg. Co. No. 1 Schlehuber	NE NE NW 2-20-1E	1,486	1,956	2,197 ^k	2,795	2,478 ^b	-----	-----	-----	2,850
John C. Graves & Co. No. 1 Liptau	NE NE SW 35-20-2E	1,407	1,750	2,022	2,582	2,705	2,917	2,887 ^h	-----	2,930
*Buick Drilg., Inc., et al. No. 1 Woerz	SW SW NE 6-20-3E	1,365	-----	1,915 ^k	2,487	-----	-----	-----	-----	2,562
*Crowe Drilg. Co., Inc. No. 1 Siebert	SW SW NE 9-20-3E	1,360	-----	1,880	2,440	1,974 ^k	-----	-----	-----	2,450
*Se Ro Bee Drilg. Co., Inc. No. 1 Pankratz	NE NE SW 13-20-3E	1,390	1,603	1,851	2,391	2,457	2,664	2,740	2,207 ^b	2,790
*Crowe Drilg. Co., Inc. No. 1 Suderman	SE SE NW 19-20-3E	1,389	-----	1,963	2,523	2,255 ^b	-----	-----	-----	2,550
*White & Ellis Drilg., Inc. No. 1 Anna Bartel	SE SE SE 21-20-3E	1,378	-----	1,897	2,459	2,572	2,793	2,847	2,258 ^b	2,880
*J. S. Mason & J. M. Armstrong No. 1 Folkerson	SW SW SW 2-20-4E	-----	-----	-----	-----	-----	-----	-----	-----	800
*Francis O. Hawn No. 1 Hett	NW NE NW 14-20-4E	1,399	-----	1,771	2,269	-----	-----	-----	-----	2,340
*E. H. Adair Oil Co. No. 1 Crofoot	NW NW SE 11-20-5E	1,399	1,388	1,651	2,158	-----	2,405	1,993 ^b	-----	2,419
Glickman Oil Co. No. 1 Voth	SE SE NW 28-21-1E	1,538	-----	2,329	2,977	3,234	3,456	3,490	3,358 ^h	3,515

TABLE 29.—Dry wildcat tests drilled in 1960, continued

County, company, and farm	Location	Surface eleva- tion, feet	Depth to top of formation, feet					Total depth, feet		
			Heebner	Lans- KC	Missis- sippian	"Kinder- hook"	Viola		Simp- son	At- buckle
*Rex & Morris Drlg. Co. No. 1 Voth "A"	SE SE NE 36-21-1E	1,568	2,000	2,283	2,916	3,172	3,352	3,384	3,261 ^h	3,405
Graves, et al. No. 1 Suderman	SE SE NE 6-21-2E	1,507	1,930	2,187	2,834	2,967	3,190	3,258	3,132 ^h	3,310
George C. Schoonmaker No. 1 Grace	NW NW NW 10-22-5E	1,428	1,510	1,785	2,431	2,528	2,680	2,154 ^b	2,648 ^h	2,695
*E. H. Adair Oil Co. No. 1 Timmons	SE SE NE 16-22-5E	1,454	1,990 ^k	1,778	2,450	2,515	2,655	2,190 ^b	-----	2,675
Pure Oil Co. No. 1 Langenegger "A"	C SW NE 28-22-5E	1,476	1,516	1,784	2,418	2,464	2,651	2,679	2,748	2,765
Time Petroleum Co. No. 1 Ida Ott	SE SE SW 28-22-5E	1,489	1,520	1,790	2,410	2,474	2,620	2,176 ^b	2,590 ^h	2,650
MARSHALL COUNTY										
Kiska Oil Co. No. 1 Kraus	C SW SW 36-1-7E	1,288	1,144	1,186	1,540 ^h	1,524 ^P	2,150	-----	-----	2,250
*Sam Mize1 No. 1 Scott	SE SE SE 23-2-7E	1,303	1,188	1,230	1,486 ^b	1,604 ^h	2,343	-----	-----	2,475
*D. L. Somers, et al. No. 1 Grauer	SE SE NW 3-3-7E	1,300	1,027	1,093	1,345 ^b	1,519 ^h	1,927	-----	-----	2,020
*Shar-Alan Co. No. 1 Olson	NW NW NW 15-3-10E	1,290	650	735	-----	-----	-----	-----	924 ^g	947+
Keener Oil Co. No. 1 Haller	NW NW NE 36-4-6E	1,271	1,040	1,082	1,490 ^h	-----	2,012	2,228	-----	2,310
*F. G. Holl No. 1 Hammett	NW NW NE 33-4-7E	1,235	925	961	1,265 ^b	1,358 ^h	-----	-----	-----	1,410

*Cities Service Oil Co. No. 1 Christner	NW NW SE 7-4-9E	1,216	775	839	-----	1,085	-----	1,418 ^k	1,426 ⁺
*Cities Service Oil Co. No. 1 Kennedy	SE SW SE 14-5-9E	1,360	-----	-----	"Tight Hole"	-----	-----	-----	1,418
*Cities Service Oil Co. No. 1 Morton	NE NE NE 21-5-9E	1,276	-----	-----	"Tight Hole"	-----	-----	-----	1,305
MEADE COUNTY									
J. M. Huber Corp. No. 1 Stegman	C SW SW 33-31-30W	2,768	4,305	4,424	5,512	2,810 ^f	1,630 ^a	-----	5,760
Sunray Mid-Continent No. 1 Hallock	C NW SE 30-32-28W	2,590	4,376	4,536	5,618	2,856 ^f	1,541 ^a	-----	5,780
Youngblood & Youngblood No. 1 Gollieber	C SW NE 15-32-29W	2,671	4,390	4,530	5,668	-----	1,532 ^a	-----	5,800
Shamrock Oil & Gas Corp. No. 1 Dennis "J"	App C SE 1-33-26W	2,242	4,386	4,524	5,518	-----	-----	-----	5,800
Shamrock Oil & Gas Corp. No. 1 Friesen	C SW 35-33-27W	2,439	4,570	4,700	5,894	-----	-----	-----	6,060
*Herndon Drlg. Co. No. 1 Isaac	C NW SW 15-33-28W	2,533	4,452	4,627	5,803	-----	-----	-----	6,020
Skelly Oil Co. No. 1 Maxwell	C SW NE 4-33-29W	2,676	4,429	4,572	5,738	4,194 ^b	1,538 ^a	-----	6,039
Shamrock Oil & Gas Corp. No. 1 Classen	App C SE 13-34-27W	2,418	4,593	4,755	6,022	-----	-----	-----	6,230
Panhandle Eastern Pipe Line No. 1-21 Barby "C"	C SW NW 21-34-27W	2,238	4,332	4,508	5,870	-----	-----	-----	6,082
Panhandle Eastern Pipe Line No. 1-24 Leonard	C NE SW 24-34-28W	2,414	-----	-----	-----	1,305 ^a	2,973 ^w	-----	3,205

TABLE 29—Dry wildcat tests drilled in 1960, continued

County, company, and farm	Location	Depth to top of formation, feet						Total depth, feet		
		Surface elevation, feet	Heebner	Lans- K.C.	Missis- sippian	"Kinder- hook"	Viola		Simp- son	Ar- buckle
Skelly Oil Co. No. 1 Dickey	C W2 NE 36-34-28W	2,371	-----	-----	-----	2,840 ^f	-----	-----	3,145	
Panhandle Dev. Co., Inc. No. 1 Gage	C NE NE 6-34-30W	2,734	4,370	4,521	5,803	1,510 ^a	-----	-----	6,350	
Sun Oil Co. No. 1 Ediger	C SE NW 5-35-26W	2,180	4,426	4,593	5,969	-----	-----	-----	6,475	
MITCHELL COUNTY										
Clair Gillin, et al. No. 1 Hartman	C SW NW 17-6-6W	1,528	2,388	2,502	3,140	3,420 ^h	3,640	-----	3,973	4,040
MORRIS COUNTY										
Paul W. Fleeger No. 1 Morgan	NE NW SE 3-14-6E	1,372	1,332	1,540	2,040	2,158	2,677	2,770	2,868	2,890
*C. H. Spoor, Jr. No. 1 Frey	SW SW SE 34-14-6E	1,457	1,407	1,618	2,148	-----	-----	-----	-----	2,178
E. H. Adair Oil Co. No. 1 Eisenhut	SE NE SE 19-14-8E	1,432	1,210	1,403	1,725 ^b	2,010 ^h	-----	-----	-----	2,020
*Rex & Morris Drig. Co. et al. No. 1 Moore "F"	NW SW NW 1-15-7E	1,454	1,126	1,402	2,063 ^h	1,982	2,314	2,419	2,505	2,530
Barnett Oil Co. No. 1 Scott	C NW NE 22-15-8E	1,287	1,270	1,535	2,443	2,634	3,017	3,133	3,195	3,210
*Claude C. Shaft No. 1 Rumsey	SW SE SE 32-15-9E	1,365	1,935 ^b	1,555	2,490	2,784	3,114	2,920 ^h	-----	3,121
Robert H. Kirk, et al. No. 1 Brown	SE SE NE 30-16-7E	1,525	1,330	1,560	1,905 ^b	2,115 ^h	2,310	2,400	2,477	2,490

Barnett Oil Co. No. 1 White	C SW NE 17-16-8E	1,403	1,373	1,641	2,508	2,730	3,043	3,157	3,220	3,224
Humble Oil & Refg. Co. No. 1 Hale-White	C NW NW 17-16-8E	1,420	1,386	1,655	2,526	2,721	3,044	3,158	3,218	3,251
Musgrove Drfg. Co. No. 1 Richards	SW SW SW 22-16-8E	1,367	1,310	1,591	2,478	2,712	3,020	3,100	3,198	3,210
Jernigan-Morgan Oil Co. No. 1 Bushman	C NE SW 15-16-9E	1,390	1,303	1,577	2,553	2,869	3,159	3,011 ^h	-----	3,200
Gulf Oil Corp. No. 1 Barth	C NE SW 21-16-9E	1,285	1,208	1,481	2,457	2,770	3,046	2,910 ^h	-----	3,102
William Gruenerwald No. 1 Johnson	C NE SE 33-16-9E	1,238	2,848 ^h	1,410	2,400	2,686	2,936	3,012	3,089 ^h	3,103+
*William Gruenerwald, et al. No. 1 Bicker	C NW NE 3-17-9E	1,277	2,901 ^h	1,435	2,438	2,750	3,005	3,084	3,170	3,182
MORTON COUNTY										
Jake L. Hamon No. 1 Julius Stuckey	C SE 24-32-42W	3,484	3,503	3,610	5,337	-----	-----	-----	-----	5,405
NESS COUNTY										
Sunray Mid-Continent No. 1 J. P. Moran	NE NE SW 21-17-21W	2,210	3,658	3,703	4,245	1,497 ^a	3,972 ^b	-----	-----	4,310
R. W. Shields No. 1 Glenn Young	NE SE SW 12-18-21W	2,101	3,526	3,572	4,126	1,312 ^a	-----	-----	-----	4,165
R. W. Shields No. 1 L. C. Young	NE NE SW 13-18-21W	2,114	3,538	3,584	4,151	1,325 ^a	-----	-----	-----	4,175
*Harms-Burt Drfg. Co. No. 1 Anspaugh	C NW SW 14-18-25W	2,449	3,795	3,839	4,437	1,110 ^a	-----	-----	-----	4,504
Colorado Oil & Gas Corp. No. 1 Merten	C SW NE 24-19-23W	2,221	3,675	3,726	4,344	1,488 ^a	-----	-----	-----	4,400

TABLE 29.—Dry wildcat tests drilled in 1960, continued

County, company, and farm	Location	Surface elevation, feet	Depth to top of formation, feet					Total depth, feet	
			Heebner	Lans- K.C.	Missis- sippian	"Kinder- hook"	Viola		Simp- son	Ar- buckle
Solar Oil Co. No. 1 Schlegel	NE NE SW 30-19-24W	2,333	3,732	3,772	4,380	1,618 ^a	-----	-----	4,440
Pryor & Tracy, et al. No. 1 Spurill	SW SE SE 4-19-25W	2,510	3,874	3,914	4,507	1,795 ^a	-----	-----	4,580
Ferguson Oil Co. No. 1 Koeppen	C SW SE 19-19-25W	2,601	3,928	3,968	4,592	1,866 ^a	-----	-----	4,687
Sterling Drdg. Co. No. 1 Stearns	NE NW SE 14-20-21W	2,227	3,754	3,802	4,375	1,435 ^a	4,552	4,645	4,730
Natural Gas & Oil Corp. No. 1 Cook	C NE NE 25-20-22W	2,193	3,696	3,745	4,326	1,400 ^a	-----	-----	4,361
Barnett Oil Co. No. 1 Bowie	C SW NE 35-20-22W	2,164	3,660	3,709	4,308	1,360 ^a	-----	-----	4,368
*Rupp-Ferguson Oil Co. No. 1 Kerr	C SE SW 11-20-25W	2,431	3,804	3,846	4,455	4,205 ^b	-----	-----	4,490
*Ferguson Oil Co. No. 1 Gibson	C NW SE 17-20-25W	2,454	3,812	3,849	4,472	-----	-----	-----	4,490
Rupp-Ferguson Oil Co. No. 1 Copeland "C"	C SE NW 25-20-25W	2,453	3,840	3,885	4,503	-----	-----	-----	4,551
Rupp-Ferguson Oil Co. No. 1 Hinkle	C NE SW 2-20-26W	2,605	3,933	3,975	4,602	1,212 ^a	-----	-----	4,733
NORTON COUNTY									
British American Oil Prod. Co. No. 1 Yunt	C NW NW 25-1-25W	2,403	3,256	3,299	-----	1,911 ^a	-----	-----	3,658 ^c
Schermerhorn Oil Corp. No. 1 Schoen	C SW NE 23-3-25W	2,435	3,387	3,432	-----	1,988 ^a	-----	-----	3,810 ^c

C-G Drlg. Co., et al. No. 1 Danewood	NE NE SE 20-5-21W	2,259	3,418	3,462	-----	1,862 ⁿ	-----	3,744 ^b	3,767 ⁺	
D. G. Hansen No. 1 Schafer	SW SW NE 3-5-22W	2,189	3,323	3,365	-----	1,800 ^a	-----	3,675 ^k	3,690 ⁺	
OSBORNE COUNTY										
Drolte-Christopher No. 1 Thurston	NW SW SE 11-10-11W	1,763	2,923	2,992	3,602	3,794	3,874	4,124	4,184	4,224
OTTAWA COUNTY										
*E. K. Carey Drlg. Co., Inc. No. 1 Srna	NW NW SE 21-9-5W	1,593	2,411	2,542	3,243	2,908 ^b	-----	-----	-----	3,295
PAWNEE COUNTY										
Chief Drlg. Co., Inc., et al. No. 1 Behrens	SE SE NE 2-20-17W	2,145	3,487	3,566	-----	1,192 ^a	3,818 ^b	-----	3,901	3,937
Texaco, Inc. No. 1 Boyd	C NE NE 9-21-17W	2,089	3,500	3,596	-----	1,110 ^a	4,852 ^b	3,931	3,950	4,025
Pure Oil Co. No. 1 Malvin Ford	C NE NE 7-21-18W	2,100	3,532	3,592	-----	1,184 ^a	-----	-----	4,078	4,392
Dunne-Gardner Drlg. Co., Inc. No. 1 Wilcox	NW NE NW 28-22-16W	2,049	3,517	3,637	-----	1,033 ^a	-----	-----	4,076	4,120
Earl F. Wakefield No. 1 Ewing	NE NE NE 29-22-17W	2,055	3,578	3,681	-----	1,070 ^a	4,171	4,280	4,350	4,367
Drlg. & Exploration Co., Inc. No. 1 Morrill	C SE SE 2-22-18W	2,047	3,550	3,647	-----	1,110 ^a	4,192	4,268	4,320	4,364
*D. R. Lauck Oil Co., Inc. No. 1 Petro	NE NE SW 15-23-15W	2,016	3,486	3,638	-----	953 ^a	3,996	4,080	4,140	4,165
*Chief Drlg. Co., Inc. et al. No. 1 Lyman	NE NE NE 20-23-18W	2,119	3,737	3,850	4,418	4,502	4,523	-----	1,184 ^a	4,560

TABLE 29.—Dry wildcat tests drilled in 1960, continued

County, company, and farm	Location	Depth to top of formation, feet					Total depth, feet			
		Surface eleva- tion, feet	Heebner	Lans- K.C.	Missis- sippian	"Kinder- hook"		Viola	Simp- son	Ar- buckle
PHILLIPS COUNTY										
Leben Drig., Inc., et al. No. 1 Hill	C. NW NW 31-5-19W	2,063	3,258	3,304	-----	1,650 ^a	-----	-----	-----	3,615
POTTAWATOMIE COUNTY										
Rupp-Ferguson Oil Co. No. 1 Quigley	SE SE NE 34-6-9E	1,475	1,017	1,112	1,431 ^h	-----	1,627	-----	-----	1,772
*Seymour, et al. No. 1 Kalterman	NW NW SE 15-7-9E	1,315	-----	989	1,335 ^h	-----	1,582	-----	-----	1,587
Robert H. Kirk, et al. No. 1 Kelly	C. NW SE 25-7-10E	1,178	608	755	1,030 ^b	-----	1,144	1,252	1,406 ^g	1,408+
J. F. Daniels No. 1 Handley	C. NE NE 6-7-12E	1,271	2,069 ^h	1,034	1,841	2,008	2,704	2,928	3,014 ^g	3,017+
Gulf Oil Corp. No. 1 Ewing	SW SW SW 6-8-9E	1,220	885	1,099	1,358 ^h	-----	1,715	1,796	1,948 ^g	1,953+
*Seymour, et al. No. Vossloh	NW NW SE 22-8-9E	1,258	871	987	1,371 ^h	-----	1,666	1,756	-----	1,835
*Tennessee Gas & Oil Co. No. 1 Burgess	SW SW NW 24-9-9E	1,036	618	762	1,060 ^b	1,169 ^h	1,585	1,682	1,818 ^g	1,822+
Kaiser-Francis No. 1 Dekat	SE SE SE 29-9-9E	1,178	807	953	1,250 ^b	1,387 ^h	1,809	1,888	2,036 ^g	2,043+
Tennessee Gas & Oil Co. No. 1 Mansfield	NW NW NE 19-9-10E	1,019	577	736	1,020 ^b	1,158 ^h	1,473	1,578	1,718 ^g	1,724+
Tennessee Gas & Oil Co. No. 1 Riata	N2 NW SE 30-9-10E	1,078	656	817	922 ^k	1,260 ^h	1,538	1,612	1,773 ^g	1,779+

Keener Oil Co. No. 1 Bernard Burns	SE SE SW 2-10-8E	1,066	750	888	1,340 ^h	-----	-----	-----	1,431
*George F. Johnston, Jr. No. 1 Olson	NE NW NE 6-10-10E	1,125	634	791	1,070 ^b	-----	-----	-----	1,170 ^k 1,176+
PRATT COUNTY									
Peel-Hardman No. 1 Fuiks	SW NW NE 2-26-11W	1,839	3,378	3,565	4,027	4,098	4,239	4,330	4,401 4,455
*Natural Gas & Oil Corp. No. 1 Hartsell	SE SW NE 1-26-12W	1,865	3,441	3,623	-----	-----	-----	-----	----- 3,954
*Mull Drlg. Co., Inc. No. 1 Schoonover	NE NE SW 20-26-14W	2,012	3,703	3,892	4,326	4,356	4,426	4,499	4,576 4,595
E. K. Edmiston Drlg. Co., Inc. No. 1 Reed	C SW NW 7-26-15W	2,053	3,737	3,900	4,368	4,395	4,454	-----	1,010 ^a 4,474
Braden Drlg. Co. No. 1 Repp	NW NW NE 32-27-13W	1,942	3,674	3,857	4,349	765 ^a	4,390	4,437	4,561 4,571
Anderson-Pritchard Oil Corp. No. 1 Barnes Unit	NE NE SW 33-28-12W	1,906	3,606	3,806	4,270	4,335	4,398	4,501	4,612 4,640
Virginia Drlg. Co., Inc. No. 1 Buckner	SE SE SE 9-28-13W	1,898	3,636	3,832	4,312	-----	-----	4,400	4,535 4,570
Braden Drlg., Inc. No. 1 Hertlein	SW SW SW 31-28-13W	1,985	3,778	3,981	4,461	-----	4,496	4,528	4,633 4,673
Strata Drlg., Inc. No. 1 Pride	NE NE NE 7-29-12W	1,892	3,637	3,836	4,300	4,370	4,421	4,541	4,646 4,675
National Drlg. Co., Inc. No. 1 Bryant	C NW SE 8-29-15W	2,031	3,919	4,100	4,584	4,695	-----	-----	----- 4,700
*Rupp-Ferguson Oil Co. No. 1 Clark	SW SE NE 34-29-15W	1,895	-----	3,957	-----	4,344 ^b	4,495	4,604	----- 4,690

TABLE 29.—Dry wildcat tests drilled in 1960, continued

County, company, and farm	Location	Surface eleva- tion, feet	Depth to top of formation, feet						Total depth, feet	
			Heebner	Lans- K.C.	Missis- sippian	"Kinder- hook"	Viola	Simp- son		Ar- buckle
RAWLINS COUNTY										
Murfin-Rains, et al. No. 1 Vap	C NW SW 28-1-33W	2,950	3,849	3,896	4,522	2,781 ^a	4,183 ^b	-----	4,575	4,790
British-American Oil Prod. Co. No. 1 Horinek	C NE SE 12-1-34W	3,076	3,932	3,982	-----	2,920 ^a	4,263 ^b	-----	4,628 ^c	4,640+
Amerada Petroleum Corp. No. 1 Christenson	C NE NE 21-1-35W	3,229	-----	4,166	4,826	3,108 ^a	4,432 ^b	-----	-----	4,880
Amerada Petroleum Corp. No. 1 Cooper	C SW SE 30-2-34W	3,038	3,912	3,961	4,570	2,820 ^a	4,219 ^b	-----	-----	4,668
James Oil Co. No. 1 Harrison	C SE SE 32-4-36W	3,377	4,222	4,269	4,930	3,098 ^a	4,518 ^b	-----	-----	5,010
Empire Drig. Co. No. 1 Latimer	NE NE NE 12-5-31W	2,830	3,822	3,870	-----	2,558 ^a	4,095 ^b	-----	-----	4,110
RENO COUNTY										
Cities Service Oil Co. No. 1 Ekholm	SW SE NW 16-22-5W	1,582	2,614	2,836	3,471	3,712	3,969	3,992	4,066	4,100
*J. Hurd & J. Wagler No. 1 Newman	NW NE NE 10-22-9W	1,709	2,908	3,085	3,412	3,452	3,694	3,738	-----	3,755
Lee Phillips Oil Co. No. 1 Stout	SE SE NE 1-22-10W	1,754	2,931	3,101	-----	-----	3,455	3,538	3,604	3,650
*Thunderbird Drig., Inc. No. 1 Wolf	NE NE SE 11-23-5W	1,567	2,544	2,761	3,441	3,796 ^h	3,925	3,945	-----	3,955
*Shawver-Armour, Inc. No. 1 Schardein	NE NE SW 24-23-8W	1,619	-----	3,103	3,659	3,774	4,007	4,012	-----	4,050

Drlg. & Exploration Co., Inc. No. 1 Baker	NE NW SW 4-24-5W	1,506	2,551	2,738	3,405	3,600	3,841	3,863	3,746 ^h	3,900
Sinclair Oil & Gas Co. No. 1 Gingerich SWD	NW NW NE 14-24-6W	1,551	-----	-----	-----	-----	-----	-----	4,122	4,330
Virginia Drlg. Co., Inc. No. 1 Thompson	C SE SE 27-24-7W	1,562	2,903	3,092	3,730	3,861	4,076	4,111	4,200	4,222
Rio Hondo, et al. No. 1 Krantz	C NE 5-25-5W	1,571	2,520	2,753	3,471	3,203 ^b	-----	-----	-----	3,552
Shawver-Armour, Inc. No. 1 Schmitz	SW SW SE 22-26-4W	1,492	-----	2,854	3,654	3,992	4,099	4,109	3,350 ^b	4,206
*Beverly Oil No. 1 Smith	NW NW SW 6-26-7W	1,638	-----	3,263	3,905	4,045	-----	4,274	3,644 ^b	4,300
RICE COUNTY										
*Atlantic Refg. Co. No. 16 Odessa Field Unit	SW NW SW 33-18-4W	1,669	-----	-----	-----	"Tight Hole"	-----	-----	-----	3,160
Chief Drlg. Co., Inc. No. 1 Jennings	NW NW NW 16-19-6W	1,632	2,572	2,768	-----	3,224	3,458	3,505	3,571	3,580
*Donald T. Ingling No. 1 Johanssen	SW NE NW 29-20-6W	1,649	-----	2,868	3,413	-----	-----	-----	-----	3,430
*K & E Drlg., Inc. No. 1 Snider "B"	SW NW SE 4-21-10W	1,727	2,846	3,006	-----	-----	-----	3,336	3,376	3,426
*Hellar Drlg. Co., Inc. No. 1 Keeley	NW NW SE 20-21-10W	1,737	2,906	3,050	-----	-----	3,362	3,396	3,460	3,486
*Isern-Wells No. 1 Heckel "B"	SE NE NW 23-21-10W	1,710	2,870	3,040	-----	-----	-----	3,417	3,462	3,512
*Drillers Production Co., Inc. No. 1 Harp	C SE SE 24-21-10W	1,703	2,849	3,014	-----	-----	-----	3,401	3,464	3,545

TABLE 29.—Dry wildcat tests drilled in 1960, continued

County, company, and farm	Location	Surface elevation, feet					Depth to top of formation, feet			Total depth, feet
		Heebner	Lans- K C.	Missis- sippian	"Kinder- hook"	Viola	Simp- son	Ar- buckle		
RILEY COUNTY										
*Edwin G. Bradley No. 1 Kaump	SE SE SW 11-6-6E	1,272	1,071	1,117	1,443 ^b	1,697 ^h	-----	-----	-----	1,706
Rupp-Ferguson Oil Co. No. 1 Miller	C SE SE 22-10-7E	1,036	850	1,002	1,462 ^h	1,405	1,956	2,073	2,168 ^g	2,189+
*George F. Johnston, Jr. No. 1 Roepke	SE SE SE 18-10-9E	1,007	654	793	1,249 ^h	-----	-----	-----	-----	1,275
Rupp-Ferguson Oil Co. No. 1 Longren	C NE NW 3-11-7E	1,150	977	1,133	1,620 ^h	1,530	2,120	2,240	2,339 ^g	2,360+
*R. A. Cook No. 1 Erichsen	NE SW SE 16-11-7E	1,154	-----	1,190 ^k	1,570	-----	-----	-----	1,600 ^g	1,601+
R. A. Cook No. 1 Toy	SE SW SE 21-11-7E	1,142	1,024	1,191	1,661	1,713	-----	-----	-----	1,761
*R. A. Cook No. 2 Toy	NE NE SW 21-11-7E	1,117	1,015	-----	1,620	1,676	-----	-----	-----	1,680
Cities Service Oil Co. No. 1 Willig	S $\frac{1}{2}$ SW NE 13-11-8E	1,312	-----	-----	"Tight Hole"	-----	-----	-----	-----	1,618
*George F. Johnston, Jr. No. 1 Durein Est.	NW NW NE 15-11-9E	1,308	-----	959	1,243 ^b	-----	-----	-----	1,340 ^g	1,342+
*Rupp-Ferguson Oil Co. No. 1 Durein Est.	NW NW SW 21-11-9E	1,387	1,035	1,220	1,737 ^h	1,715	2,196	-----	-----	2,225
*George F. Johnston, Jr. No. 1 1st Natl. Bk. of Topeka	SE SW SW 27-11-9E	1,482	1,083	1,273	1,756 ^h	-----	2,073	2,152	-----	2,205

ROOKS COUNTY

K. & E Drig., Inc. No. 1 Dryden "B"	C SW NW 16-6-19W	2, 171	3, 343	3, 382	-----	1, 735 ^a	3, 586 ^b	-----	3, 662+
Woodman & Iannitti Drig. Co. No. 1 Maddy	SW SW SW 36-7-18W	1, 894	3, 038	3, 080	-----	1, 287 ^a	3, 299 ^b	-----	3, 396 3, 425
*Petroleum, Inc. No. 1 Walker "F"	NW NE SE 23-7-19W	1, 912	3, 058	3, 099	-----	1, 385 ^a	3, 323 ^b	-----	3, 406 3, 433
National Drig. Co., Inc. No. 1 Chesney	C NW SW 20-8-16W	1, 935	3, 051	3, 092	-----	1, 240 ^a	3, 340 ^b	-----	3, 474 3, 506
*M. P. Springer No. 1 McComb	SE SE SW 30-8-16W	1, 898	3, 001	3, 044	-----	1, 190 ^a	3, 288 ^b	-----	3, 372 3, 388
*D. G. Hansen No. 1 Bird "A"	SW SE SE 16-8-18W	1, 936	3, 078	3, 119	-----	-----	3, 340 ^b	-----	3, 397 3, 430
*Continental Oil Co. No. 1 McHose	NW NW SW 30-8-18W	2, 045	3, 219	3, 262	-----	1, 455 ^a	-----	-----	3, 548 3, 560

RUSH COUNTY

Mast Drig., Inc. No. 1 Krebs	SE SE SE 36-16-16W	2, 004	3, 238	3, 298	-----	1, 080 ^a	3, 520 ^b	-----	3, 576 3, 610
*John O. Farmer, Inc. No. 1 Degenhart	C SW NE 21-16-17W	2, 015	3, 241	3, 290	-----	1, 165 ^a	3, 516 ^b	-----	3, 580 3, 602
Kaiser-Francis No. 1 Herrman "A"	NW NW NW 39-16-17W	2, 016	3, 240	3, 290	-----	1, 139 ^a	3, 520 ^b	3, 624 ^r	3, 594 3, 685
*Rupp-Ferguson Oil Co. No. 1 Werth	SW NE NE 5-16-18W	2, 021	3, 270	3, 317	-----	1, 176 ^a	-----	-----	3, 607 3, 632
Imperial Oil of Kansas, Inc. No. 2 Herrman "B"	SW SW SE 13-16-18W	2, 029	3, 254	3, 304	-----	1, 150 ^a	-----	-----	3, 610 3, 675
Kaiser-Francis No. 1 Herrman "B"	SW SW NE 17-16-18W	2, 009	3, 256	3, 306	-----	1, 172 ^a	3, 550 ^b	3, 616 ^r	3, 597 3, 630

TABLE 29.—Dry wildcat tests drilled in 1960, continued

County, company, and farm.	Location	Surface elevation, feet	Depth to top of formation, feet					Total depth, feet			
			Hebner	Lans-K.C.	Mississippian	"Kinderhook"	Viola		Simpson	At-buckle	
Kaiser-Francis No. 1 Littler	NE NE NW 22-16-19W	2,070	3,347	3,391	-----	1,280 ^a	-----	3,712 ^r	-----	3,741	
Kaiser-Francis No. 1 Boomhower "A"	SW SW SW 5-17-18W	2,064	3,326	3,374	-----	1,210 ^a	3,631 ^b	-----	-----	3,719 ^s	3,722+
Kaiser-Francis No. 1 Ransom	SE SE NE 14-17-18W	2,097	3,332	3,381	-----	1,212 ^a	3,634 ^b	-----	-----	3,724 ^s	3,729+
Imperial Oil of Kansas, Inc. No. 1 Weigand	SW SW SE 34-17-18W	2,037	3,369	3,421	-----	1,190 ^a	-----	-----	-----	3,839	3,888
Continental Oil Co. No. 1 Bott	SW SW NW 2-19-20W	2,161	3,678	3,724	4,285	1,404 ^a	-----	-----	-----	-----	4,310
Natl. Coop. Refg. Assn. No. 1 Kober Ut	SW SE SW 18-19-20W	2,300	3,806	3,849	4,424	1,530 ^a	-----	-----	-----	-----	4,454
RUSSELL COUNTY											
Rex & Morris Drig. Co., et al. No. 1 Woodward	C NW NW 33-11-12W	1,745	2,917	2,989	3,504	730 ^a	3,588	3,812	3,873	3,873	3,920
*Rudy Herman Oil Operations No. 1 Kruf	SE NW NW 30-12-14W	1,371	-----	2,829	-----	700 ^a	-----	-----	-----	-----	3,130
*Fred J. Haynes No. 1 Kingsley	NE NW SE 23-12-15W	1,781	2,892	2,944	-----	845 ^a	-----	-----	-----	3,229	3,252
*Fred J. Haynes No. 1 Mellard	NW NW NW 24-12-15W	1,775	-----	-----	-----	833 ^a	2,676 ^t	-----	-----	-----	2,687
Tomlinson & Kathol No. 1 Witt	NE SE SE 27-12-15W	1,839	2,961	3,012	-----	910 ^a	-----	-----	-----	3,294	3,345
*R. W. Shields, et al. No. 1 Holland	SE SE NW 35-12-15W	1,784	2,911	2,960	-----	855 ^a	2,690 ^t	-----	-----	3,229	3,241

*M. P. Springer No. 1 Woelk "A"	CW2 NW SE 6-13-14W	1,616	2,734	2,787	-----	658 ^a	2,511 ^t	-----	3,063	3,075
*Clarence Wilhelm No. 1 Zimmerman	NW SW SE 3-13-15W	1,687	2,824	2,873	-----	753 ^a	2,602 ^t	-----	-----	3,189
*A. F. Schmidt No. 1 Mermis "C"	SE NW NW 4-13-15W	1,835	2,965	3,015	-----	918 ^a	2,746 ^t	-----	-----	3,310
*Womer Oil Co. No. 1 Mills Estate	SW NE SE 21-13-15W	1,892	3,010	3,059	-----	930 ^a	2,785 ^t	-----	3,351	3,385
*Shields Oil Prod., Inc. No. 1 Nowalk "A"	NW NW NW 30-13-15W	1,937	3,075	3,121	-----	1,012 ^a	2,850 ^t	-----	3,426	3,437
*J. E. Ehrlich No. 1 Washburn	CE2 W2 NW 30-14-11W	1,703	-----	-----	-----	561 ^a	-----	-----	-----	1,460
Quivira Exploration No. 1 Lawrence	E2 W2 NE 14-14-12W	1,742	-----	-----	-----	602 ^a	1,540 ^f	-----	-----	1,590
SALINE COUNTY										
Kewanee Oil Co. No. 1 Cambria	SW SW NE 34-13-2W	1,204	2,944 ^h	1,920	2,588	2,790	3,160	3,280	3,340	3,600
*White & Ellis Drilg., Inc. No. 1 Beemer	NW NW SW 24-16-1W	1,309	1,789	2,000	2,658	-----	-----	-----	-----	2,680
SCOTT COUNTY										
Peel-Hardman No. 1 Herron	C SW NE 21-17-33W	2,968	3,911	-----	4,713	4,362 ^b	-----	-----	-----	4,770
Imperial Oil of Kansas, Inc. No. 1 Carpenter	C NW SE 11-18-32W	2,976	3,899	3,947	4,612	4,327 ^b	-----	-----	-----	4,713
Pet-Ex Co. No. 1 Patton	C NW SE 20-19-33W	2,985	3,882	3,928	4,738	4,356 ^b	2,220 ^a	2,830 ^f	-----	4,840
James E. Ely No. 1 Ely	NE NE NE 11-20-32W	3,020	4,011	4,060	4,784	4,492 ^b	2,260 ^a	2,936 ^f	-----	5,186

TABLE 29.—Dry wildcat tests drilled in 1960, continued

County, company, and farm	Location	Surface expos- ure, feet	Depth to top of formation, feet					Total depth, feet	
			Heebner	Lans- K.C.	Missis- sippian	"Kinder- hook"	Viola		Simp- son	Ar- buckle
*Imperial Oil of Kansas, Inc. No. 1 Corn "A"	C SW NE 27-20-33W	2,944	3,794	3,839	4,651	4,296 ^b	-----	-----	4,781
SEDCWICK COUNTY									
*E. H. Adair Oil Co. No. 1 Wright	SW SW NE 7-25-1E	1,382	-----	2,301	3,036	2,735 ^b	-----	-----	3,050
*Stelbar Oil Corp., Inc. No. 1 Lee	SE SE SE 33-25-1E	1,378	2,023	2,273	3,060	3,386	3,491	3,512	3,454 ^h 3,539
*Beardmore Drig. Co. No. 1 Fiedler	SE SE NE 36-25-1E	1,427	-----	2,230	3,041	3,352	3,452	3,476	3,428 ^h 3,510
*John P. Gaty No. 1 Erdwien	CN2 NE NW 26-25-2E	1,346	-----	2,387 ^k	-----	2,544 ^b	-----	-----	2,827
*John P. Gaty No. 1 Oacker	W2 NW NE 26-25-2E	1,345	-----	2,386 ^k	2,809	2,547 ^b	-----	-----	2,840
O. A. Sutton No. 1 Wilson	SW SW NE 26-26-2E	1,383	1,865	2,069	2,879	3,147	3,226	3,244	3,328 3,345
*E. H. Adair Oil Co. No. 1 Millhaubt	NE NE NE 27-27-2E	1,365	-----	2,132	2,906	-----	3,231	3,236	3,219 ^h 3,254
*Shawver-Armour No. 1 Sunde	NE SE SW 12-28-2E	1,358	-----	2,112	2,923	3,159	-----	-----	2,667 ^b 3,245
*John C. Graves & Co. No. 1 Mueller	NE NE NE 25-25-1W	1,355	2,092	2,317	3,128	3,438	3,571	3,594	3,529 ^h 3,605
Barbara Oil Co. No. 1 Wilbur	NW SW SW 36-25-2W	1,380	2,290	2,544	3,391	3,795	3,884	3,905	3,997 4,015
Kewance Oil Co. No. 1 Hope Smith	SW SW NE 12-25-3W	1,412	3,880 ^h	2,590	3,422	3,852	3,938	3,952	4,054 4,075

*Petroleum, Inc. No. 1 Gaddy	NW SE SE 24-26-1W	1,332	-----	2,386	3,052	3,380	3,447	-----	2,743 ^b	3,453
*Brunson-Spines, Inc. No. 1 Weninger	NW NW SW 35-26-2W	1,359	-----	2,656	3,444	2,860 ^k	3,068 ^b	-----	-----	3,502
Artnell Co. No. 1 Winters	SE SE SE 1-26-3W	1,402	2,382	3,474	3,874	3,960	3,980	3,980	4,076	4,100
*Stelbar Oil Corp., Inc. No. 1 Slegar	SW NE NW 14-27-2W	1,371	-----	2,625	3,509	2,643 ^s	2,902 ^k	-----	-----	3,616
*Time Petroleum Co. No. 1 Dold	SW SW SE 24-27-3W	1,458	3,083 ^k	2,872	3,671	4,052	4,147	4,162	3,296 ^b	4,181
*Leben Drlg., Inc., et al. No. 1 McCormick	NE NE NE 22-28-1W	1,288	2,175	2,499	3,375	2,747 ^k	2,941 ^b	-----	-----	3,425
Jones-Gebert Oil Co. No. 1 Thome	C SE SW 2-28-2W	1,385	2,338	2,732	3,504	3,856	3,958	3,972	4,054	4,075
Crescent Oil & Gas Corp. No. 1 Johnson	NW NW NW 14-28-2W	1,385	2,363	2,760	3,545	3,907	2,674 ^s	4,010	4,094	4,140
Stelbar Oil Corp., Inc. No. 1 Corr	NE NE NE 7-29-2W	1,340	-----	3,016 ^k	3,648	-----	-----	-----	-----	3,677
SEWARD COUNTY										
*Cities Service Oil Co. No. 2 Adams "E"	C SW NE 18-31-33W	2,910	4,072	4,178	5,586	1,672 ^a	-----	-----	-----	5,785
Shell Oil Co. No. 1-21 Lahey	C NE SW 21-31-34W	2,772	3,923	4,051	5,377	-----	-----	-----	-----	5,635
Sinclair Oil & Gas Co. No. 1 Lemert	C NW SE 21-32-33W	2,770	4,070	4,202	5,577	-----	6,818	6,960	7,033	7,264
Shell Oil Co. No. 1-6 Davis	C SW NE 6-32-34W	2,891	4,208	4,334	5,783	-----	-----	-----	-----	6,180
Edwin L. Cox No. 1 Fullmer	C NW [†] 9-34-32W	2,796	4,381	4,559	5,948	-----	-----	-----	-----	6,560

TABLE 29.—Dry wildcat tests drilled in 1960, continued

County, company, and farm	Location	Surface eleva- tion, feet	Depth to top of formation, feet					Total depth, feet	
			Heebner	Lans- K.C.	Missis- sippian	"Kinder- hook"	Viola		Simp- son	Ar- buckle
SHERIDAN COUNTY									
John O. Farmer, Inc. No. 1 Wente	C SW SE 36-6-26W	2,606	3,682	3,720	-----	3,927 ^b	-----	-----	3,945
Empire Drlg. Co. No. 1 Carswell	NW NW NW 6-6-30W	2,890	3,898	3,943	-----	4,171 ^b	-----	-----	4,185
John O. Farmer, Inc. No. 1 Morrison	C SE SE 25-9-28W	2,737	3,864	3,906	4,456	4,140 ^b	-----	-----	4,524
*Empire Drlg. Co. No. 1 Patmon "B"	SW SW SW 10-9-29W	2,809	3,887	3,925	-----	2,427 ^a	-----	-----	4,135
Empire Drlg. Co. No. 1 Chapman	SE SE NE 9-10-28W	2,758	3,833	3,868	-----	4,118 ^b	2,319 ^a	-----	4,130
Imperial Oil of Kansas, Inc. No. 1 Kinderknecht	C NE SE 24-10-28W	2,625	3,716	3,747	-----	2,170 ^a	-----	-----	3,985
SHERMAN COUNTY									
Norbla Oil Co. No. 1 Hoyt	C SW NW 16-6-37W	3,435	4,226	4,281	4,980	4,550 ^b	-----	-----	5,054
*James Oil Co. No. 1 Kuhrt	C NW NW 28-6-38W	3,560	4,252	4,305	5,021	4,589 ^b	-----	-----	5,150
Schafer Oil Corp. No. 1 Hicks	C NE SW 35-6-38W	3,531	4,324	4,377	5,098	4,662 ^b	-----	-----	5,175
John O. Farmer, Inc. No. 1 Zimbelman	C SW SE 9-6-39W	3,592	4,358	4,410	5,168	4,705 ^b	-----	-----	5,272
Skelly Oil Co. No. 1 Mullender	C NW NE 13-8-37W	3,444	4,168	4,197	4,930	4,527 ^b	-----	-----	5,000

SMITH COUNTY

*Wico Oil Co. No. 1 Greib	SE NW SE 31-2-11W	1,845	2,870	2,915	3,605	-----	3,917	4,103	4,173	4,185
*Kim Oil Co., Inc. No. 1 Anderson	SW SW SW 19-5-12W	1,661	3,812 ^b	2,960	3,692	3,777	3,946	4,150	4,245	4,275
STAFFORD COUNTY										
*Petroleum, Inc. No. 1 Meggers	NE SW NW 24-21-11W	1,739	2,919	3,068	-----	-----	3,353	3,389	3,439	3,445
Raymond Oil Co. Inc., et al. No. 1 Heim	SE SE NE 28-21-11W	1,742	2,950	3,102	-----	450 ^a	-----	3,392	3,439	3,489
*Hudson Petroleum Co. No. 1 Spatz	C N2 SE 26-22-13W	1,886	3,227	3,382	-----	3,620 ^b	3,637	3,693	3,747	3,763
Petroleum, Inc. No. 1 Sutton "C"	C SW SW 31-22-14W	1,947	3,428	3,566	-----	3,801 ^b	3,912	4,011	4,061	4,066
*Dunne-Gardner Drilg. Co., Inc. No. 1 Love	SW SW NE 6-23-12W	1,853	3,204	3,362	-----	-----	3,660	3,716	3,783	3,803
*Lee Phillips Oil Co. No. 1 Flandermeier	NE NW SW 13-23-12W	1,845	3,194	3,363	-----	3,630 ^b	3,702	3,742	-----	3,750
*Prime Drilg. Co. No. 1 Tanner	NE SW NW 18-23-14W	1,976	3,450	3,603	-----	3,841 ^b	3,958	4,042	4,092	4,105
*Western Petroleum Co., Inc. No. 1 Busche	NW NE SW 2-24-13W	1,915	3,367	3,527	-----	3,790 ^b	3,869	3,982	4,036	4,061
D. R. Lauck Oil Co., Inc. No. 1 Kennedy	C NE SE 34-25-15W	2,026	3,689	3,847	4,302	4,352	-----	4,517	4,579	4,610
Arvel C. Smith No. 1 Smith	NW NW SE 36-25-15W	2,014	3,654	3,833	4,284	4,296	4,354	4,504	4,558	4,600

TABLE 29.—Dry wildcat tests drilled in 1960, continued

County, company, and farm	Location	Surface eleva- tion, feet	Depth to top of formation, feet					Total depth, feet
			Heebner	Lans- KC	Missis- sippian	"Kinder- hook"	Viola		Simp- son	Ar- buckle
STANTON COUNTY								
I. W. Seigle No. 1 Collingwood	C NE NE 28-27-43W	3,596	3,683	3,811	5,507	-----	-----	5,668
Sunray Mid-Continent Oil Co. No. 1 Santa Fe - Wheeler	C NW 4 31-29-42W	3,576	3,610	3,748	5,476	-----	-----	5,600
Superior Oil Co. No. 1 Bearce	C NW 4 10-29-43W	3,592	3,601	3,663	5,498	-----	-----	5,540
Rupp-Ferguson Oil Co. No. 1 Israel	CEN SE 33-30-43W	3,646	3,527	3,660	5,491	4,108 ^b	-----	5,615
STEVENS COUNTY								
Shell Oil Co. No. 1 Shriver	C NE SW 33-31-35W	3,017	4,144	4,268	5,854	4,903 ^b	2,744 ^f	6,155
SUMNER COUNTY								
*Shawver-Armour, Inc. No. 1 Watkins	CS2 NE NW 5-31-1E	1,228	2,522 ^s	2,814 ^k	3,457	3,821	3,069 ^b	3,877
*Shawver-Armour, Inc., et al. No. 1 Stratman	NW NE SE 8-31-1E	1,247	2,485 ^s	2,854 ^k	3,501	3,868	3,101 ^b	3,928
Pure Oil Co. No. 1 Gifford	NW SE SE 21-31-1E	1,297	2,609 ^s	2,901 ^k	3,548	3,926	3,147 ^b	3,955
A. W. Holiday Oil Co. No. 1 Elpers	SE SW NW 25-31-1E	1,260	2,200	2,845 ^k	3,483	3,892	2,533 ^s	3,916
Thunderbird Drilg., Inc. No. 1 Sharp "A"	SE SE SE 30-31-1E	1,282	-----	2,942 ^k	3,610	-----	-----	4,077
*H. E. Bangert No. 1 Barner	SW SW NE 4-31-2E	1,194	2,317 ^s	2,636 ^k	3,226	3,589	2,886 ^b	3,651

*A. E. Perkins No. 1 Wenrich	NE NE SW 4-32-2E	1,242	2,455 ^S	2,798 ^k	3,363	-----	3,029 ^b	-----	3,403
Lario Oil & Gas Co. No. 1 Heskett	C SW NE 5-34-1E	1,229	2,395	3,223 ^k	3,840	4,211	2,738 ^S	4,272	4,315
*Shawver-Armour, Inc. No. 1 Knowles	SW SW NE 25-30-1W	1,262	2,592 ^S	2,895 ^k	3,535	3,132 ^b	-----	-----	3,588
*O. A. Sutton No. 1 Marshall	SW SW NE 29-30-1W	1,280	-----	2,990 ^k	3,617	3,952	-----	3,999	4,016
Walters Drlg. Co., et al. No. 1 Curry	C SW SE 30-30-3W	1,376	2,727	3,336 ^k	3,952	4,330	3,003 ^S	4,410	4,419
Thunderbird Drlg., Inc. No. 1 Lygrisse	CN $\frac{1}{2}$ N $\frac{1}{2}$ NW 11-30-4W	1,394	2,760	3,351 ^k	3,977	4,318	3,070 ^S	4,398	4,415
*Petroleum, Inc. No. 1 Miles "B"	SW SE NW 22-30-4W	1,455	3,193 ^S	3,471 ^k	4,110	4,484	-----	4,542	4,550
Thunderbird Drlg., Inc. No. 1 Rogers	SE SE SE 1-31-1W	1,305	2,635 ^S	2,945 ^k	3,595	-----	-----	4,013	4,048
*Shawver-Armour, Inc. No. 1 Meills	SW SE SW 2-31-1W	1,312	2,709 ^S	3,009 ^k	3,644	3,977	-----	4,030	4,071
Walters Drlg. Co. No. 1 Wedman "C"	SW SW SW 32-31-3W	1,276	2,985 ^S	3,286 ^k	3,942	4,323	3,548 ^b	4,411	4,450
Birmingham-Bartlett Drlg. Co. No. 1 Ast	C SE SE 10-31-4W	1,376	3,152 ^S	3,434 ^k	4,094	4,451	-----	4,544	4,597
Leben Drlg., Inc., et al. No. 1 Wartick	NE NW NE 34-32-1W	1,264	2,785 ^S	3,146 ^k	3,818	4,197	3,404 ^b	4,264	4,322
Dorset Co. No. 1 Salthouse	SW SE SE 5-32-2W	1,292	2,882 ^S	3,202 ^k	3,860	4,230	-----	4,293	4,297
*Pickrell Drlg. Co. No. 1 Wade	NE SE SW 16-32-2W	1,279	-----	3,234 ^k	3,890	4,278	-----	4,347	4,350

TABLE 28.—Dry wildcat tests drilled in 1960, continued

County, company, and farm	Location	Surface eleva- tion, feet	Depth to top of formation, feet					Total depth, feet		
			Heebner	Lans- K.C.	Missis- sippian	"Kinder- hook"	Viola		Simp- son	Ar- buckle
*Petroleum, Inc. No. 1 Lauterbach "D"	SE NE NE 32-32-2W	1,239	2,931 ^S	3,237 ^k	3,932	4,270	3,519 ^b	4,362	-----	4,386
Pickrell Drlg. Co. No. 1 Oblander	NW NW NE 14-32-3W	1,265	2,965 ^S	3,272 ^k	3,945	4,277	3,552 ^b	4,345	-----	4,396
McKnab & Lindsay No. 1 Cox	C SW NW 19-32-3W	1,192	2,944 ^S	3,242 ^k	3,936	4,254	3,514 ^b	4,345	-----	4,368
Shawver-Armour, Inc. No. 1 Miller	NE SE SE 23-32-3W	1,230	2,947 ^S	3,250 ^k	3,916	4,300	3,528 ^b	4,374	-----	4,386
*Walters Drlg. Co. No. 1 Pettigrew	CS2 S2 SE 10-33-1W	1,240	2,844 ^S	3,234 ^k	3,876	4,262	-----	4,340	-----	4,377
Leben Drlg., Inc., et al. No. 1 Hess	C NE SE 17-33-2W	1,179	3,042 ^S	3,325 ^k	3,990	4,367	990 ^f	4,440	-----	4,449
Imperial Oil of Kansas, Inc. No. 1 Lungren	SE SE SE 25-33-3W	1,156	3,120 ^S	3,421 ^k	4,109	4,468	3,555 ^b	4,532	-----	4,549
*Robinowitz Oil Co. No. 1 Norton	NE NE NE 17-34-1W	1,158	-----	3,410 ^k	4,061	4,430	-----	4,499	-----	4,535
*Thunderbird Drlg., Inc. No. 1 Moore	NW NW NW 25-34-1W	1,136	2,782 ^S	3,346 ^k	3,898	4,185	3,423 ^b	4,261	-----	4,274
Kimray, Inc. No. 1 McMillen	NE NE SW 14-34-2W	1,115	2,932 ^S	3,415 ^k	4,052	4,431	3,604 ^b	4,506	-----	4,528
Pickrell Drlg. Co. No. 1 Fuhrmann	NE NW SE 18-34-2W	1,129	3,070 ^S	3,525 ^k	4,157	4,522	4,587	4,605	3,720 ^b	4,641
Natural Gas & Oil Corp. No. 1 Neal	NE SW SE 20-34-2W	1,142	3,045 ^S	3,518 ^k	4,177	4,552	4,609	3,711 ^b	-----	4,660
Herndon Drlg. Co. No. 1 Johnson	SW NE NW 22-34-2W	1,114	2,954 ^S	3,438 ^k	4,094	4,462	3,626 ^b	4,530	-----	4,581

Time Petroleum Co. No. 1 Woodson Estate	C SE NW 36-34-3W	1,152	3,275 ^b	3,660 ^k	4,344	4,691	4,770	4,788	-----	4,856
*Allied Materials Corp. No. 1 Larsen "B"	C SE SE 14-35-3W	1,190	3,261 ^b	3,802	4,515	4,908	4,951	4,968	-----	5,025
THOMAS COUNTY										
Schuerman-Eisenhower No. 1 Ziegelmeier	C SW SW 29-6-32W	3,083	3,998	4,046	4,643	2,720 ^a	4,297 ^b	-----	-----	4,700
A. K. Mery, et al. No. 1 Donn	C NW NW 4-6-34W	3,136	4,030	4,080	4,715	2,848 ^a	4,354 ^b	-----	-----	4,782
Schafer Oil Corp. No. 1 Amos	C NE SE 26-6-34W	3,171	4,067	4,112	4,721	2,812 ^a	4,392 ^b	-----	-----	4,765
Norbla Oil Co. No. 1 Lacey	C NW SW 10-6-35W	3,287	4,122	4,170	4,792	2,910 ^a	4,422 ^b	-----	-----	4,900
James Oil Co. No. 1 Hazen	C NW SW 16-6-36W	3,386	4,216	4,266	4,910	3,042 ^a	4,523 ^b	-----	-----	5,010
E. J. Athens No. 1 Nickel	C NE NE 26-7-35W	3,198	4,064	4,110	4,698	2,795 ^a	4,385 ^b	-----	-----	4,766
Natl. Coop. Refg. Assn. No. 1 Guise	SW SW SE 15-7-36W	3,398	4,205	4,252	4,905	2,998 ^a	4,522 ^b	-----	-----	5,061
John O. Farmer, Inc. No. 1 Bertrand	C NW NW 24-10-34W	3,180	4,080	4,117	4,760	2,690 ^a	4,407 ^b	-----	-----	4,820
TREGO COUNTY										
Sinclair Oil & Gas Co. No. 1 Montgomery	C SE NW 15-15-24W	2,376	3,688	3,728	4,311	-----	4,522	4,646	4,674	4,723
WABAUNSEE COUNTY										
Musgrove Drilg. Co. No. 1 Gross	SE SW NW 30-10-12E	1,040	890	1,125	2,186	2,366	2,982	3,111	2,583 ^b	3,120

TABLE 28.—Dry wildcat tests drilled in 1960, concluded

County, company, and farm	Location	Surface eleva- tion, feet	Depth to top of formation, feet					Total depth, feet		
			Hebner	Lans- K.C.	Missis- sippian	"Kinder- hook"	Viola		Simp- son	Ar- buckle
*William Gruenerwald, et al. No. 1 Glotzbach	C SE SE 23-11-11E	992	810	1,031	2,066	2,200	2,746	2,852	2,448 ^h	2,986
Natural Gas & Oil Corp. No. 1 Whitacre	NE NE SE 2-12-9E	1,339	890	1,084	1,191 ^k	-----	-----	-----	1,551 ^k	1,580 ⁺
*Continental Oil Co. No. 1 Leonard	NW SE NW 14-12-10E	1,048	2,678 ^h	1,207	2,198	2,488	2,993	3,109	3,196	3,220
Musgrove Drlg. Co. No. 1 Hussey	NW NW NW 9-12-11E	1,133	1,030	1,263	2,321	2,535	3,049	3,145	3,254	3,273
*Musgrove Drlg. Co. No. 1 Burrow-Wingate	SE SE NW 16-14-10E	1,498	3,220 ^h	1,684	2,680	3,042	3,429	3,545	3,606	3,638
*Musgrove Drlg. Co. No. 1 Schiesener	SW SW SE 25-14-10E	1,537	2,026 ^b	1,662	2,688	3,030	3,365	3,462	3,195 ^h	3,510
William Gruenerwald, et al. No. 1 Bower	NE NE SE 9-14-12E	1,303	993	1,258	2,350	2,669	2,966	3,050	3,147	3,158
R. W. Shields No. 1 Eberhart	C NW SE 11-15-9E	1,484	1,395	1,657	2,620	2,898	3,263	3,043 ^h	-----	3,313
WALLACE COUNTY										
Cities Service Oil Co. No. 1 Pearce	NW SE SW 10-14-41W	3,772	4,159	4,216	5,084	2,848 ^a	4,592 ^b	-----	-----	5,180
Coop. Refy. Assn. No. 1 Goodrich "B"	C NW SE 9-14-42W	3,859	4,153	4,210	5,084	2,854 ^a	4,586 ^b	-----	-----	5,398
WASHINGTON COUNTY										
Kewanee Oil Co. No. 1 Carlson	C NW NW 25-4-1E	1,392	1,590	1,690	2,222 ^h	2,095	2,594	2,794	2,920	3,038 ⁺

WICHITA COUNTY

Anadarko Prod. Co. No. 1 Honeywell	C SE NE 7-16-37W	3,395	4,057	4,158	5,060	-----	5,488	5,570	5,581	5,800
Anadarko Prod. Co. No. 1 A-23 Pearson	C SE NE 23-16-37W	3,342	3,983	4,077	4,886	4,435 ^b	5,425	-----	5,530	5,730
Shell Oil Co. No. 1 Shumi	C SE NW 8-20-38W	3,451	3,988	4,036	5,112	2,340 ^a	-----	-----	-----	5,212

- a - Anhydrite
- b - Base of the Kansas City
- c - "Bartlesville"
- f - Fort Riley
- g - Granite basement
- h - "Hunton"
- k - Kansas City Group
- p - Penn. basal congl.
- r - Reagan
- s - "Stalnakar"
- t - Topeka
- + - Well penetrated Precambrian
- * - No electric or radioactivity logs available.

TABLE 30
OIL PRODUCTION IN KANSAS
DURING 1960

FOOTNOTES

- Field extends into adjacent county or counties.
- Corrected cumulative.

Table 30 -- Oil production in Kansas during 1960

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- Wells producing ind. wells 1960	Name	Producing zone	
			during 1960	to end, 1960			Depth	Thickness, feet
ALLEN COUNTY								
Bronson-Xenia*	17-25-21E	2,170	123,569		214	"Bartlesville"	700	18
a		30	50					
b		220	1,528					
Colony West* ('22)	15-23-18E	60	81		14	5 "Squirrel"	820	
a		60	247					
b		40	165					
Davis-Bronson*	24-21E	160	828		122	"Bartlesville"	720	45
a		880	28,881					
b		80	1,532		61	"Bartlesville"	650	24
Elsmore Shoestring ('08)	5-26-21E	470	9,088		17	"Bartlesville"	775	20
a		140	6,953					
b		60	240					
c		40	30		1,058	29 "Bartlesville"	850	
Humboldt-Chanute*	26-18E	60	153					
a		70	1,759					
b		170	10,315					
c		8,870	336,124					
d		940	61,410					
e		200	9,010					
f		50	359					
g		940	16,564					
h		30	119					
Iola ('37)	24-18E	2,590	290,288		505	11 "Bartlesville"	850	
a		160	4,325					
b		130	254					
c		150	740					
d		30	620					
e		30	206					
f								

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing abdl. wells 1960	Producing zone	
			during 1960	to end, 1960		Depth, ft.	Thickness, ft.
g		140	674				
h		420	35,502				
Moran ('03)	25-20E				95 2	"Bartlesville"	820
a		750	18,635				
b		170	5,018				
c		260	19,639				
d		120	6,934				
e		30	495				
f		30	7,189				
g		30	3,292				
Neosho Falls-Leroy* ('05)	35-22-16E				10	"Squirrel" Mississippian	965 1,200
a		120	2,619				
b		30	368				
c		30	302				
Seibert	5-26-20E				17	"Bartlesville"	680
a		250	2,630				
b		60	2,667				
Miscellaneous		40	720		4+		
Total Allen County		21,310	1,012,122	22,431,416	2,117		47
				recorded			
ANDERSON COUNTY							
Bush City Shoestring ('21)	28-20-21E				780 7	"Squirrel" "Bartlesville"	620 20 34
a		2,840	249,118				
b		30	238				
Centerville* ('20)	10-21-22E				61 1	"Bartlesville"	480 15
a		90	4,064				
b		200	1,303				
Colony-Welda ('16)	4-23-19E				205	"Weiser" "Squirrel"	600 15 780
a		220	23,753				
b		400	7,655				
c		250	3,620				
d		540	34,319				
e		80	191				
f		90	576				

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing abbl. wells 1960	Producing zone		Thick- ness, ft.	Ave. R. & V.
			during 1960	to end, 1960		sq. ft.	Name		
Eads* ('58)	4-30-14W	80	19,724	36,035	3	Simpson	4,561	9	
Elsea ('56)	27-32-14W	160	1,099	10,098	4	Marmaton Mississippian	4,625	20	
Elwood ('56)	34-34-13W	1,040	1,287	9,512	9	"Elgin" Mississippian	3,662	10	
Farley ('56)	32-34-14W		Combined and designated Aetna Gas Area			Mississippian	4,732	18	
Gudeman ('54)	10-35-10W	40	1,464	12,949	1	Viola	5,152	10	
Hardner ('54)	31-34-12W	2,380	75,362	474,888	53	Mississippian	4,782	6	
Highway ('56)	14-32-11W	200	20,684	113,391	5	Douglas	3,587	16	
Lake ('59)	26-31-14W	40	4,045	6,664	1	Arbuckle	4,747	5	
Lake City ('37)	7-31-13W		no report	307,865		Viola Simpson Arbuckle	4,435 4,530 4,607	43	
Landis ('55)	21-34-11W	40	425	5,252	1	Mississippian	4,630	10	
Little Bear Creek ('54)	12-32-14W		no report	1,801	1	Douglas Viola	3,808 4,670	16 10	
McGuire-Goemann ('55)	29-32-10W	500	3,939	28,197	10	Mississippian	4,433	20	
McReynolds ('59)	19-31-10W	20	1,250	1,520	1	Mississippian	4,520	2	
Medicine Lodge-Boggs ('37)	13-33-13W	4,000	260,014	4,571,331	50	Marmaton Mississippian	4,664 4,495	18 6	
Medicine Lodge North ('54)	25-32-13W	1,240	100,291	630,948	30	(Producing wells in T. 33S. R. 14W. removed and added to Aetna Gas Area)	4,806	26	
Medicine Lodge Southwest ('54)	6-34-13W		Combined and designated Aetna Gas Area			Mississippian	4,480	13	
Nippawalla ('51)	13-33-12W	80	155	1,711	1	Douglas	3,659	9	
Palmer ('58)	30-32-13W	160	22,772	88,626	3	Marmaton	4,477	11	
			30,654		7	Mississippian	4,524	22	
			9,002		2	Viola	4,923	7	
Palmer West ('59)	25-32-14W		Combined with Palmer			Marmaton Viola	4,504 4,923	7 44	
Rhodes ('49)	15-33-11W	5,480	305,378	5,846,282	145	Mississippian	4,551	26	
Rhodes Northeast ('56)	2-33-11W	500	5,425	15,982	13	Viola	4,803	10	
Rhodes South ('57)	6-34-11W	300	42,935	123,354**	8	Mississippian	4,564	30	
Roundup South ('53)	33-33-11W	40	400	1,098**	1	Mississippian	4,457	1	
Sharon* ('55)	13-32-10W	800	32,364	179,254	6	Mississippian	4,355	10	

Sharon Northwest ('56)	11-32-10W	860	5,748	23,031	17	Mississippian	4,347	10
Skinner ('43)	29-31-14W	600	35,841	2,132,062	8	1 Viola	4,626	38 30
Stumph ('52)	7-32-14W	540	26,481	240,391	12	Simpson	4,422	
Sun City ('41)	35-30-15W	640	11,054	1,622,566	7	Mississippian	4,801	4
Turkey Creek East ('57)	21-30-15W	640	105,882	478,078	18	Lans.-K.C.	4,344	31
Wells ('57)	18-34-15W	40	no runs	2,570	1	Cherokee	4,557	5 36
Whelan ('34)	32-31-11W	1,080	33,982	3,479,919	16	Mississippian	4,768	24 30
Whelan East ('54)	21-31-11W	40	no runs	61	1	"Chat"	4,355	27
Whelan Southwest ('54)	11-32-12W	40	1,124	16,612	1	Douglas	3,746	
Whelan West ('55)	25-31-12W	40	no report	12,887	1	Mississippian	4,229	11
Wolgamott ('57)	16-35-14W	40	580	1,671	1	Mississippian	4,284	8
Pools or fields abandoned				77,150		Cherokee	4,865	4
Total Barber County		41,040	1,399,886	23,182,725**	524	15		

BARTON COUNTY

Ainsworth South ('37)	10-17-13W	3,260	244,713	5,353,392	69	1 Lans.-K.C.	3,170	
Ameh ('51)	19-18-11W	80	11,913	58,173	2	Arbuckle	3,390	
Ames ('43)	22-18-11W	1,360	104,296	2,006,784	36	Lans.-K.C.	3,103	50
Ames Northwest ('47)	9-18-11W	40	2,197	57,613	1	Lans.-K.C.	3,042	10 35
Axman ('49)	19-17-14W	80	2,999	185,512	1	Arbuckle	3,348	6 40
Bailey ('56)	30-18-11W	180	33,579	178,028	4	Arbuckle	3,312	11 43
Barrett ('43)	36-16-14W	580	12,911	306,726	7	Lans.-K.C.	3,136	11 43
Bart-Staff* ('51)	4-21-14W	600	60,646	930,308	13	Arbuckle	3,400	5 40
Batchman ('50)	19-20-12W	320	5,689	98,322	3	Arbuckle	3,270	5
Beaver ('34)	16-16-12W	2,480	138,998	4,475,721	47	Arbuckle	3,396	21 39
						Lans.-K.C.	3,355	5 40
						Arbuckle	3,463	5 40
						Lans.-K.C.	3,572	5 40
						Arbuckle	3,459	21 35
						Arbuckle	2,885	6 35
						Oread	2,938	
						Toronto	3,348	5
						Arbuckle	3,348	5
						Reagan	3,335	

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- Wells producing abdl. wells 1960	Producing zone	
			during 1960	to end, 1960		Depth	Thickness
Beaver North* ('37)	4-16-12W	300	6,515	747,926	3	2	Topeka
Beaver South ('45)	27-16-12W	2,500	173,800	1,640,593	44	2	Arbuckle Lans.-K.C. "Sooy"
Behrens ('44)	6-20-15W	580	5,638	654,489	5		Arbuckle
Behrens Northeast ('55)	29-19-15W		no report	275			Arbuckle
Bernard ('50)	10-19-11W	320	18,917	424,466	11		Shawnee Lans.-K.C. Arbuckle
Bissell Point ('54)	10-19-13W		no report	4,549			Arbuckle
Bloomer* ('36)	36-17-11W	1,180	160,400	12,162,898	54	3	Lans.-K.C. Lans.-K.C. Arbuckle
Bottoms ('58)	36-18-12W	80	22,852	56,340**	4		Lansing
Boyd ('42)	4-18-14W	3,840	346,818	9,492,487	121	2	Lans.-K.C. Arbuckle
Burmeister ('59)	33-19-11W		no report	244			Precambrian
Capitol View ('50)	9-17-14W	520	18,147	194,182	6		Douglas Lans.-K.C. Arbuckle
Carroll ('44)	21-17-14W	2,400	183,682	4,077,963	63	2	Lans.-K.C. Arbuckle
Carroll Southwest ('47)	32-17-14W	100	1,930	72,618	3		Lans.-K.C.
Chase-Sillica* ('31)	32-19-9W	22,120	1,699,940	94,688,011	538	16	Douglas Lans.-K.C. Arbuckle
Cheyenne ('59)	4-19-12W	640	83,614	83,744	13		Arbuckle
Cheyenne East ('60)	3-19-12W		Combined with Cheyenne				Lans.-K.C.
Cheyenne View ('49)	12-19-12W	2,680	280,922	4,417,884	115		Lans.-K.C. Penn. congl.
Cheyenne View East ('57)	13-19-12W	40	8,131	38,218	1	1	Arbuckle Lans.-K.C.
Claflin ('54)	3-18-11W		no report	7,614	1		Lans.-K.C. Arbuckle
Claflin Northeast ('55)	3-18-11W		no report	27,596			Lans.-K.C.
Clairence ('53)	35-19-15W	40	3,254	16,193	1		Lans.-K.C. Reagan

Clarence Northwest ('54)	35-19-15W	40	9,216	68,952	1	Lansing	3,194	8
Davidson* ('30)	4-16-11W	40	2,500	268,424	1	PreCambrian Lans.-K.C. "Sooy"	3,531 3,016 3,317	12 38 9
Deines ('59)	16-16-14W	no report		1,512	1	Arbuckle	3,314	4
Demel ('57)	6-17-11W	80	25,781	51,468	2	Lansing	3,190	4
Dist. 65 ('60)	24-18-14W	40	1,965			Lansing	3,053	10
Eberhardt ('35)	14-19-11W	320	6,795	504,193	1	Arbuckle	3,306	16
Ellinwood North ('37)	33-19-11W	880	62,019	1,170,584	5	Lans.-K.C.	3,162	5
Esfeld ('47)	15-16-11W	no report		14,584	28	Lans.-K.C.	3,194	3
Ess ('53)	13-19-14W	40	2,779	44,095	1	Lans.-K.C.	3,090	3
Feist ('58)	29-18-11W	200	24,648	160,687	5	Lans.-K.C.	3,328	8
Feist North ('59)	20-18-11W	60	10,253	13,190	2	Arbuckle	3,343	4
Feltes North ('59)	2-16-12W	Combined with Kraft-Prusa				Lans.-K.C.	3,326	9
Finn ('59)	31-17-13W	40	1,678	3,563	2	Lans.-K.C.	3,104	8
Fleske ('53)	3-20-15W	40	248	6,459	1	Lans.-K.C.	3,410	4
Fort Zarah ('50)	30-19-12W	3,200	238,030	5,237,963	93	Arbuckle	3,340	4
Fort Zarah North ('51)	19-19-12W	120	4,086	127,797	2	Lans.-K.C.	3,109	2
Frees ('60)	23-16-11W	40	1,063	1,063	1	Arbuckle	3,332	4
Galatia ('58)	11-16-15W	40	10,164	24,787	2	Lansing	3,470	4
Galatia East ('59)	12-16-15W	40	2,154	8,288	1	Lans.-K.C.	3,157	6
Great Bend Airport ('52)	26-19-14W	640	56,434	571,570	15	Arbuckle	3,384	3
Great Bend Northwest ('55)	24-19-14W	Combined with Great Bend Townsite				Lans.-K.C.	3,208	6
Great Bend Southeast ('60)	1-20-13W	40	629	629	1	Arbuckle	3,436	3
Great Bend Southwest ('52)	25-19-14W	100	4,071	102,060	2	Lans.-K.C.	3,366	9
Great Bend Townsite ('53)	21-19-13W	1,200	88,663	887,936	34	Lans.-K.C.	3,193	3
Great Bend West ('51)	23-19-14W	40	1,318	74,898	1	Arbuckle	3,152	8
Haberman ('59)	32-18-13W	80	8,090	10,202	3	Lans.-K.C.	3,320	4
Hall-Gurney* ('31)	30-14-13W	600	119,075	2,479,760	33	Arbuckle	3,473	4
						Shawnee	3,415	13
						Lans.-K.C.	3,315	3
						"Sooy"	3,460	5
						Arbuckle	3,192	7
						Lans.-K.C.	3,322	4
						Lans.-K.C.	3,196	3
						Arbuckle	3,441	4
						Lans.-K.C.	3,332	5
						Arbuckle	3,400	2
						Lans.-K.C.	3,066	4
						Arbuckle		

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro-ducting wells, 1960	Name	Producing zone	
			during 1960	to end, 1960			Feet	Thickness, feet
Hammeke ('50)	17-19-11W	160	5,009	132,366	4	Lans.-K.C.	3,065	32 40
Hammeke Southeast ('50)	17-19-11W	80	5,278	101,812	2	Lans.-K.C.	3,089	7 40
Hammeke West ('59)	18-19-11W	180	34,308	61,144	5	Lansing Arbuckle	3,078	3 41
Hammer ('40)	35-19-12W	1,100	220,038	2,567,572	42	1 Lans.-K.C. Arbuckle	3,345	6 41
Harrison ('42)	18-20-13W	180	5,455	38,415	3	Arbuckle	3,348	8 41
Hawkins ('52)	3-19-13W	320	9,532	125,061	5	Lans.-K.C. Arbuckle	3,403	6 37
Heizer ('35)	16-19-14W	40	1,465	60,710	1	Arbuckle	3,158	16 40
Heizer Southwest ('52)	21-19-14W	300	4,797	93,710	3	Lans.-K.C. Arbuckle	3,228	2 39
Heizer West ('55)	17-19-14W	160	3,634	90,305	5	Lans.-K.C. Arbuckle	3,552	11 38
Herres ('55)	33-17-13W	260	18,659	214,340	10	2 Lans.-K.C. Arbuckle	3,546	4 39
Hiss ('36)	31-20-13W	1,000	51,465	1,016,838	15	Lans.-K.C.	3,270	5 40
Hiss East ('52)	33-20-13W	40	2,489	61,811	1	Lans.-K.C. Arbuckle	3,363	18 38
Hiss South ('50)	31-20-13W	80	8,738	121,672	3	Arbuckle	3,549	31 36
Hiss Southeast ('48)	32-20-13W	160	10,248	212,954	5	Lans.-K.C. Arbuckle	3,414	16 36
Hlavaty ('59)	31-17-14W	20	6,282	12,415	1	Lans.-K.C.	3,172	3 41
Holsington ('38)	21-17-13W	640	61,652	1,807,909	31	7 Lans.-K.C. Arbuckle	3,222	4 37
Holsington East ('54)	23-17-13W	160	12,442	118,847	4	1 Lans.-K.C. Arbuckle	3,140	5 37
Holsington Southwest ('54)	20-17-13W	80	4,503	41,178	2	Lans.-K.C. Arbuckle	3,338	3 38
Homestead West ('55)	21-18-13W		no report	2,511		Arbuckle	3,262	21 38
Hood ('59)	3-20-12W	80	4,809	5,921	2	Lansing	3,300	10 38
Jettie ('54)	27-20-14W	40	8,258	76,213	2	Simpson	3,108	2 38
Kath ('60)	1-19-13W		no report	none		Arbuckle	3,534	6 6
Kimpler ('55)	31-18-11W	140	12,612	128,860	4	Arbuckle	3,364	6 40
Klepper ('51)	2-19-11W	300	13,565	203,562	6	Lans.-K.C. Arbuckle	3,164	3 40
						Lans.-K.C.	3,220	38 38

Klepper North ('59)	2-19-11W	40	3,787	3,787	1	Lans.-K.C.	3,019	3
Klug ('46)	28-17-13W	40	1,920	60,561	1	Arbuckle	3,414	7 28
Klug North ('48)	27-17-13W	120	8,239	191,065	3	Arbuckle	3,377	10 37
Klug Northwest ('57)	28-17-13W	80	17,533	36,088	2	1 Arbuckle	3,423	4
Klug West ('56)	33-17-13W	60	13,435	68,733	3	Lans.-K.C.	3,149	28 37
Koopman ('53)	23-19-13W	40	2,082	35,359	1	Arbuckle	3,394	5
Kowalsky* ('41)	32-20-11W	1,400	120,271	2,328,731	41	Lans.-K.C.	3,220	3 37
Kraft-Prusa* ('37)	10-17-11W	23,200	2,482,782	95,227,534	712	Arbuckle	3,398	11
						Lans.-K.C.	3,185	4 49
						Shawnee	3,378	
						Douglas	2,885	42
						Lans.-K.C.	2,997	
						"Gorham"	3,160	
						Arbuckle	3,335	
						Reagan	3,281	
						Precambrian	3,310	43
Kraft-Prusa Northeast ('41)	36-16-11W	240	15,023	456,490	6	Lans.-K.C.	3,250	8 38
Kruckenbergl ('58)	13-19-15W	40	2,250	24,902	1	Arbuckle	3,351	
Lake Barton ('48)	21-18-13W	40	2,387	22,261	1	Arbuckle	3,562	6
Lake Barton West ('60)	29-18-13W	40	4,045	4,045	2	Arbuckle	3,372	30
Lanterman ('34)	15-19-11W	900	19,472	1,030,051	9	Lans.-K.C.	3,402	14 34
Larkin ('51)	10-17-14W	40	4,061	127,718	1	Arbuckle	3,109	3 35
Leoville ('50)	7-17-14W	700	110,903	1,434,457	22	Lans.-K.C.	3,235	6 37
						Lans.-K.C.	3,280	6 37
						Penn. congl.	3,287	38
						Arbuckle	3,439	2
						Arbuckle	3,464	
Liberty ('52)	23-20-14W	40	3,198	14,417	1	Lans.-K.C.	3,341	5
McCauley ('49)	34-17-13W	40	1,815	22,772	1	Lans.-K.C.	3,276	4 35
Marquis ('60)	4-17-14W	40	5,016	5,016	1	Arbuckle	3,366	
Mary Ida* ('50)	31-18-10W	400	35,024	581,484	9	Lans.-K.C.	3,198	4 41
Mary Ida North ('52)	25-18-11W	40	17,305	44,351	2	Lans.-K.C.	3,033	5 36
Meadowside ('49)	24-18-11W	280	30,292	536,072	8	Arbuckle	3,272	7 38
						Lans.-K.C.	3,304	12
						Arbuckle	3,079	2 38
Meadowside Northwest ('59)	23-18-11W	20	7,264	7,915	1	Arbuckle	3,284	4 31
Merten Northeast ('46)	36-18-15W	300	8,757	249,243	1	Lansing	3,299	4 31
						Arbuckle	3,214	4
						Arbuckle	3,494	35
Moses ('58)	14-20-14W	60	7,065	7,065	2	Arbuckle	3,540	14

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing wells, 1960	Producing zone	
			during 1960	to end, 1960		Name	Producing zone
Ney South ('58)	1-16-13W	140	29,990	148,028	7	Topeka	2,940 10
Ney Southwest ('59)	2-16-13W	40	9,456	26,899	1	Lansing	3,120 3 41
Nuss* ('55)	5-16-14W	400	28,295	117,292	6	Lansing -K.C. Arbuckle	3,093 10 41 3,183 4 36 3,387 8
Odin ('48)	3-17-12W	320	9,081	335,159	3	Arbuckle	3,321 2 31
Olmitz ('58)	1-18-15W	40	1,050	9,348	2	Lansing -K.C. Arbuckle	3,295 4 36 3,540 4 36
Otis-Albert* ('35)	30-18-15W	9,640	150,836	6,602,230	97	Reagan	3,601
Pawnee Rock* ('36)	13-20-16W	40	1,029	246,440	1	Arbuckle	3,832 16
Phillips ('57)	12-16-13W	240	41,307	123,207	7	Arbuckle	3,366 4 38
Popp ('58)	3-16-14W		no report	1,453		Arbuckle	3,352 5
Prairie View ('50)	20-19-11W	360	23,392	389,649	8	Lansing -K.C.	3,080 36 40
Pritchard* ('44)	34-20-14W	1,600	121,431	3,392,635	38	Lansing -K.C. Marmaton Simpson Arbuckle	3,253 8 35 3,625
Putnam ('51)	7-17-13W	40	1,626	75,639	1	Lansing -K.C.	3,455 3
Putnam East ('60)	7-17-13W		no report	none		Lansing -K.C.	3,286 7 39
Putnam West ('51)	1-17-14W	80	4,380	71,519	3	Lansing -K.C.	3,203 22 42
Red Brick ('53)	23-19-13W	240	5,129	53,145	4	Lansing -K.C. Penn. congl.	3,225 8 38 3,240 7
Redwing ('50)	31-17-12W	320	10,028	268,630	5	Arbuckle	3,414 2 3,448 33
Redwing East ('55)	33-17-12W	380	70,051	399,109	13	Lansing -K.C. Arbuckle	3,083 7 40 3,335
Redwing Southeast ('60)	8-18-12W	40	970	970	1	Arbuckle	3,120 5
Redwing Southwest ('59)	1-18-13W	180	29,941	41,548	4	Arbuckle	3,352 2
Reif South ('50)	31-16-12W	100	2,041	54,294	3	Lansing -K.C.	3,350 4 40
Reimer ('56)	25-17-15W	40	1,214	13,792	1	Lansing -K.C.	3,327 3 39
Rick* ('36)	1-19-11W	640	30,260	1,288,671	15	Lansing -K.C. Arbuckle	3,172 5 38 3,357 4 36 3,106 41
Roesler* ('43)	14-18-11W	1,320	115,847	1,785,000	29	Lansing -K.C.	3,208
Rolling Green* (revived) ('60)	36-20-13W		no report	16,333		Arbuckle Lansing	3,291 7 3,238 5 39

Rolling Green East ('49)	30-20-12W	580	81,766	176,216	17	1	Arbuckle	3,491	6	35
St. Peter ('44)	5-19-11W	1,280	248,198	2,267,465	46	1	Shawnee Lans.-K.C. Penn. congl. Arbuckle	2,910 3,121 3,391 3,387	7	3
St. Peter East ('56)	34-18-11W	520	18,375	722,412	2	2	Topeka Lans.-K.C. Arbuckle	2,870 3,116 3,374	3	14
Sandford ('51)	25-17-14W	80	2,946	57,251	1	1	Arbuckle	3,375	19	26
Sandrock ('51)	21-20-13W	640	29,878	487,734	11	1	Lans.-K.C.	3,412	8	35
Sandrock North ('59)	21-20-13W	40	5,103	9,891	1	1	Lansing	3,262	11	30
Shaeffer Northeast* ('60)	35-20-13W	40	11,898	11,898	1	1	Lans.-K.C. Arbuckle	3,259 3,525	5	28
Sieker* ('60)	5-21-12W	no report	no report	none			Arbuckle	3,458	7	40
South Bend ('54)	9-20-13W	100	4,550	115,922	3	1	Lans.-K.C.	3,317	8	48
Stiles ('58)	7-16-12W	60	4,393	15,059	2	2	Arbuckle	3,353	4	39
Sunny Valley ('49)	7-20-12W	160	7,145	354,496	5	5	Lans.-K.C.	3,230	9	34
Sunny Valley Northeast ('54)	6-20-12W	220	18,838	195,942	6	6	Arbuckle	3,422	12	35
Templing ('55)	23-16-14W	180	18,673	139,807	4	4	Lans.-K.C. Arbuckle	3,332 3,402	8	39
Trapp* ('36)	23-15-14W	11,520	729,297	55,028,382	309	12	Shawnee Douglas Lans.-K.C. Arbuckle	2,889 2,966 3,062 3,252	7	48
Unruh ('45)	24-20-15W	640	4,984	227,505	8	8	Arbuckle	3,641	3	39
Unruh South ('59)	25-20-15W	20	8,021	13,210	1	1	Arbuckle	3,628	1	37
Weikert ('53)	36-18-12W	120	4,652	75,760	3	3	Lans.-K.C.	3,169	7	42
Werner-Robl ('51)	30-19-11W	920	32,085	369,263	8	8	Lans.-K.C. Arbuckle	3,106 3,364	16	37
Wondra North ('59)	10-17-12W	100	15,350	16,360	3	3	Arbuckle	3,305	13	39
Workman Northwest ('56)	21-20-12W	1,840	292,111	1,688,967	57	57	Lans.-K.C.	3,167	6	44
Workman West ('56)	28-20-12W	180	31,268	118,495	5	5	Arbuckle	3,438	10	39
Pools or fields abandoned				799,805						
Total Barton County		123,400	10,245,807	342,462,571	3,166	103				

BOURBON COUNTY

Bronson-Xenia*	17-25-21E	480	2,388		47		"Bartlesville"	665		
a		100	136							
b										

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing abn- wells 1960	Name	Producing zone		
			during 1960	to end, 1960			Depth, ft.	Thick- ness, ft.	
c		80	2,660						
d		350	4,203						
Davis-Bronson*	23-21E				16	1	"Bartlesville"	560	
a		150	6,274						
b		30	236						
c		330	6,719						
Heppler* ('17)	27-22E				40	7	"Bartlesville"		
a		360	5,241						
b		30	195						
Lost Creek			no report						
Savonburg			no report						
Miscellaneous		20	286		2+				
Total Bourbon County		1,930	28,338	985,268 recorded	105	8			
BROWN COUNTY									
Livengood ('44)	3-1-15E		no report	90,394			"Hunton"	2,580	
BUTLER COUNTY									
Allen-Robison ('43)	1-26-3E	720	10,919		24		Mississippian	2,700	
Asmusson ('57)	16-29-4E	560	43,564	837,559	14		Lansing	1,840	
							"Misener"	2,856	
					29		Arbuckle	2,695	
Augusta ('14)	21-28-4E		210,297	40,028,194	165		Lansing	1,700	
a		60	324				Kansas City	2,000	
b		5,040	243,437				Marmaton	2,200	
							Ordovician	2,445	
Augusta North ('14)	28-27-4E	1,050	65,684	15,371,782	65		Arbuckle	2,600	
							Lansing	1,650	
							Kansas City	1,950	
							Ordovician	2,380	
							Arbuckle	2,410	
Ballard ('60)	6-25-3E	30	5,157	5,157	2		Mississippian	2,726	

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Bausinger ('29)	24-27-3E	40	1,643	2	Simpson	3,050
Benton ('25)	26-3E	40	1,652	1	"Chat"	2,965
Berndsen ('58)	15-26-4E	200	194,603	22	Simpson	2,423 17
Blankenship* ('21)	26-8E	980	57,022	78	"Bartlesville"	2,650 50
a		30	545			
b		50	4,996			
c		70	153			
d		100	36,184			
Blood ('58)	29-29-4E	140	11,703	4	Mississippian	2,716
Brandt-Sensenbaugh ('25)	22-28-7E	30	1,450	35	"Chat"	2,692
a		890	18,879			
b		50	2,365			
c		90	2,687	6	"Chat"	2,692 19 40
d		70	no report			
Brickley ('51)	2-27-7E	90	no report			
Brickley East ('60)	1-27-7E	70	542	1	Mississippian	2,748 5 38
Brickley Southwest ('52)	3-27-7E	70	542			
Butwick ('49)	7-26-3E	70	no report			
Butwick Northeast ('49)	7-26-3E	70	no report			
Clay ('60)	32-29-6E	30	443	1	Mississippian	2,825 14 38
Combs* ('47)	5-30-5E	100	9,700	6	"Bartlesville"	2,820
Combs Northeast ('48)	27-29-5E	70	3,359	3	Mississippian	2,850
DeGraff ('55)	8-24-5E	40	no report			
Dixon ('46)	12-27-6E	40	1,134	1	"Bartlesville"	2,810 42
Douglass ('16)	21-29-4E	60	3,322	8	"Burgess"	2,440
a		30	94			
b		70	4,064			
c		70	no report			
Douglass Townsite ('58)	20-29-4E	60	3,322	8	Mississippian	1,790 36
Eckel ('40)	7-27-7E	30	1,045			
Edgecomb ('51)	9-25-3E	50	2,149	1	Lansing	1,880 10
Edmonds* ('53)	31-22-4E	60	1,220	1	Mississippian	2,759
Edmonds Southwest ('60)	1-23-3E	30	7,652	2	Mississippian	2,471
Elbing* ('18)	18-23-4E	210	30,729	74	Mississippian	2,498 25 40
a		1,360	222,428			
b		20	1,498			
Elbing East ('50)	27-23-4E	20	1,498	1	Viola	2,530
Elbing South ('58)	32-23-4E	20	no report			
			no report			
			39,979		Lans.-K.C.	1,799
			none		Kansas City	2,041 14

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing abdl. wells 1960	Producing zone		Thick- ness, ft.	Aver- age depth
			during 1960	to end, 1960		Name	Depth		
El Dorado ('15)	29-25-5E	26,030	4,291,069	245,473,915	1,549	4	Admire	630	37
							Lansing	1,700	34
							Kansas City	2,000	36
							Viola	2,500	37
							Simpson	2,510	
							"Wilcox"	2,600	37
							Arbuckle	2,550	38
							Simpson	2,515	4
							Mississippian	2,647	40
							Mississippian	2,443	17
							Simpson	3,069	3
							"Bartlesville"	2,730	25
							"Bartlesville"	2,837	11
							"Bartlesville"	2,760	
							Viola	2,924	
							Kansas City	2,120	
							"Bartlesville"	2,700	
							Mississippian	2,480	
							"Bartlesville"	2,685	
							Mississippian	2,700	
							"Bartlesville"	2,650	
							Simpson	3,148	
Keighley ('25)	22-27-7E	1,280	38,894		54		Lans.-K.C.		
a		170	11,973		61		Simpson	3,000	
b							Arbuckle	3,040	
Kramer-Stern ('26)	3-28-6E	1,480	162,341		4		Mississippian	2,788	14
a		180	8,393		4		"Bartlesville"		37
b		30	27,914	33,062	28		"Chat"		
Latham ('59)	14-29-7E	620	26,730	3,699,258			Viola	2,660	
Leon ('22)	19-27-6E						Mississippian	2,780	33
Long ('49)	15-26-7E	30	1,298	27,368	1		Mississippian	2,753	5
Long Northeast ('53)	11-26-7E	30	1,216	14,422	1		"Bartlesville"	2,700	2
McCaig ('59)	13-28-6E	30	3,565	10,107	2		Mississippian	2,765	29
McCann ('33)	7-25-3E	50	156	2,890	1		"Burgess"		
Mann ('60)	29-26-4E		no report	none			Kansas City	2,114	5
Mellor ('57)	1-24-3E	140	18,639	117,707	11	1	Mississippian	2,442	6

Mellor East ('58)	7-24-4E	240	9,490	53,298	5	1	Mississippi 2,492
Mellor Northeast ('58)	6-24-4E		no report	none			Mississippi 2,441 10
Mt. Tabor ('53)	36-29-4E	340	20,369	152,461	10		"Bartlesville" 2,757 8
Muddy Creek ('50)	13-29-4E	580	15,269	638,862	31		"Bartlesville" 2,813 40
Murdock ('52)	23-25-3E	60	901	10,644	1		Mississippi 2,709 10 43
Parsley ('49)	3-26-3E	100	3,164	126,129	6		Mississippi 2,700 48
Paul ('59)	26-25-3E	40	2,157	3,082	1		Mississippi 2,730 3 31
Paulson ('58)	35-23-3E	990	458,463	732,526	93		Mississippi 2,519 10
a		110	24,171				
b		30	Combined with Paulson				
Paulson Northeast ('58)	24-23-3E	30	Combined with Paulson		1		Mississippi 2,467
Phares ('57)	5-26-3E	1,240	92,576	3,545	45		Mississippi 2,756 2
Pierce ('26)	28-25-4E		Combined with Pierce				"Chat" 2,550 43
Pierce Northwest ('54)	21-25-4E		Combined with Pierce				Mississippi 2,569 14
Pierce West ('51)	20-25-4E	150	2,120	11,391	4		Mississippi 2,515 29
Plum Grove ('58)	24-24-4E		Abandoned during 1960				Mississippi 2,515 10
Pontiac Southwest ('56)	23-26-6E	3,640	no report	1,886	109	1	Kansas City 2,550
Potwin ('17)	31-24-4E		91,381	8,778,532			Mississippi 2,660
Powell ('25)	12-24-3E	30	472	3,294	1		Mississippi
Reynolds-Schaffer ('22)	9-27-6E	2,620	109,469		62		Kansas City 2,375
Rombold ('49)	4-26-3E	40	2,132	56,968	1		Mississippi 2,780
Salter ('46)	23-28-3E	360	43,076	1,593,036	20		Viola 3,141
Shinn ('46)	19-29-8E	210	79,659	1,053,056	21		Mississippi 2,770 39
Shinn Northeast ('56)	17-29-8E	180	31,711	91,826	3		Simpson 3,000
Smock-Sluss ('17)	2-27-5E	800	75,183		55		Mississippi 2,766
a		60	25,299				"Bartlesville" 2,700 35
b		200	26,918				Viola 3,000
c		1,410			53		Lans.-K.C. 2,060 35
Snowden-McSweeney ('30)	34-28-6E						"Peru" 2,404
Steinhoff ('26)	28-29-6E	70	2,202				"Bartlesville" 2,810
Steinhoff East ('60)	26-29-6E	30	1,341	1,341	2		Mississippi 2,833
Towanda ('48)	5-26-4E	250	139,669	2,964,118	26	1	Mississippi 2,803
Whitewater ('49)	32-25-4E	90	21,438	472,355	8		Kansas City 2,118 8 35
Wiebe ('59)	30-23-6E	30	806	2,000	1		Mississippi 2,400
							Viola 2,460
							Viola 2,625 37
							Lansing 1,592 6 34

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing ab-d., wells	Name	Producing zone		
			during 1960	to end, 1960			Depth	Thick-ness, ft.	
Young ('20)	27-26-7E	340	20,260		46	Mississippian	2,650		
a		340	20,260						
b		78,888	78,888						
Miscellaneous		200	16,714		20+				
Total Butler County		67,790	7,799,582	445,315,949	3,220	II			
				recorded					
CHASE COUNTY									
Atyeo-Pixlee* ('23)	7-22-10E	80	7,319		11	"Bartlesville"	2,250		
a		60	4,997						
b		280	9,752						
c		80	7,135	8,723	3	Viola	2,052	21	
Koegboehn ('59)	19-19-6E	80	7,135		32	"Bartlesville"	2,500		
Tee* ('20)	16-23-9E	720	74,531		46				
Total Chase County		1,220	103,734	658,844					
				recorded					
CHAUTAQUA COUNTY									
Berlin ('30)	32-11E	40	668		1	Marmaton	1,780		
Borroum ('26)	20-34-9E	220	3,438		6	"Peru"	1,520		
Elgin ('17)	34-10E	360	1,482		163				
a		1,360	19,552						
b		160	1,018						
c		240	334						
d		360	3,835						
e		520	23,798						
f		200	6,085						
g		60	238		1	"Burgess"	1,360		
Elk City* ('27)	32-13E	120	1,391		3	"Peru"	1,520		
Frazier ('27)	33-13E	120	1,391		56	"Peru"	1,160		
Hale-Inge* ('07)	32-12E	60	234						
a		60	234						
b		280	4,759						

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TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro. Wells during 1960	Name	Producing zone		
			during 1960	to end, 1960			Producing zone	Thick-ness, ft.	
Wigram	34-32-10E	120	768		3	"Weiser"	1,600		
Miscellaneous		20	6,574		2+				
Total Chautauqua County		44,280	866,298	50,582,892	2,073	17 recorded			
CHEYENNE COUNTY									
Alexander ('59)	13-4-38W	40	2,347	2,347	1	Marmaton	4,669	5 38	
Ken ('59)	16-2-37W	20	1,734	3,804	1	Cherokee	4,762	28 25	
Rueb ('58)	13-3-42W	40	6,306	19,081	2	Lansing	4,537	5	
Rueb South ('59)	36-3-42W	20	3,532	5,031	1	Lansing	4,445	7 23	
Total Cheyenne County		120	13,919	30,263	5	1			
CLARK COUNTY									
Ashland ('51)	35-32-23W	160	7,111	107,618	3	Lans.-K.C.	4,673	42	
Cavalry Creek ('55)	3-31-21W		no report	5,656		Viola	6,526		
Harper Ranch ('53)	9-34-21W	4,300	178,696	1,864,542	39	Mississippian	5,195	34	
Harper Ranch North ('54)	22-33-21W		Combined with Harper Ranch			Morrowan	5,318	39	
McKinney* ('50)	2-34-26W	640	8,868	29,097	18	Morrowan	5,762		
Morrison Northeast ('54)	10-32-21W	80	1,279	7,146	2	Morrowan	5,193	14	
Snake Creek ('52)	21-34-21W		no report	5,214		Morrowan	5,452	38	
Snake Creek East ('56)	24-34-21W		no report	5,883		Morrowan	5,480	4 39	
Snake Creek Southwest ('59)	32-34-21W		no report	none		Morrowan	5,516	28	
Tuttle West ('57)	10-35-21W	40	695	3,612	1	Morrowan	5,625		
Total Clark County		5,220	196,649	2,028,768	63	1			
CLAY COUNTY									
Griffith ('57)	3-9-4E	80	10,340	57,802	3	Mississippian	1,908	30	

COFFEY COUNTY

Crandall ('53)	6-23-16E	160	396	3	Mississippi	1,022	5
Dunaway* ('22)	23-22-13E	560	7,411	19	"Burgess"	1,850	
Evans* ('38)	23-15E		no report		Mississippi	1,878	
Finnerty ('53)	12-21-13E	320	8,481	6	Arbuckle	2,200	
					"Peru"	1,382	10
Hatch ('35)	22-16E	60	403	1	"Burgess"	1,728	11
Leroy North				11	"Burgess"	1,825	
		280	3,628		"Squirrel"		
		60	625				
Neosho Falls-Leroy* ('05)	35-22-16E	2,480	28,137	90	"Squirrel"	965	
		80	232				
"Parmely"	29-22-17E	120	142	1	"Squirrel"		
Virgil North* ('20)	22-23-13E	1,440	36,295	59	"Bartlesville"	1,585	
					Mississippi	1,838	
Winterscheid*	23-14E	1,600	13,148	33	"peru"	1,170	
		40	1,738		"Bartlesville"	1,630	
		10	36	1+	Mississippi	1,750	
Miscellaneous		7,210	100,672	224			
Total Coffey County				2,423,809			
				recorded			

COMANCHE COUNTY

Mule Creek ('55)	5-31-18W	100	19,454	3	Mississippi	5,066	5
Nescatunga ('60)	22-32-18W	40	2,109	1	Mississippi	5,106	36
					Viola	5,600	17
Perry Ranch ('58)	12-32-16W	40	1,554	1	Mississippi	4,785	
Robbins Ranch ('53)	23-31-16W		no report		Mississippi	4,915	41
Total Comanche County		180	23,117	5			

COWLEY COUNTY

Albright ('56)	3-34-5E	1,800	88,298	36	Mississippi	3,126	10
Atlanta ('58)	11-30-6E	400	73,058	18	Shawnee	1,631	7
					"Stalnakar"	1,816	4

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing abdl. wells 1960	Name	Producing zone	Thick- ness, ft.	Aven- ues
			during 1960	to end, 1960					
Bernstorf ('58)	33-31-4E	220	56,628	76,233	9	Kansas City	2,174	6	
Biddle ('22)	7-32-5E	1,240	70,744		41	Mississippian	2,869	28	
						Arbuckle	3,274		
						"Bartlesville"	3,043	18	
Box ('48)	28-30-7E	600	13,537	274,187	13	Kansas City	2,000	20	
Brandenburg ('55)	3-35-3E	60	8,276	25,507	1	"Layton"	2,300		
Brown (revived) ('44)	13-31-7E	40	3,690		1	Mississippian	2,840	15	
Bruce ('50)	9-30-4E	200	15,882	84,198	4	Simpson	3,664	7	
Burden ('26)	31-31-6E	1,560	29,516		52	2 Kansas City	2,100		
						Arbuckle	3,306	25	
						"Layton"		40	
						"Peru"		40	
Burden Townsite ('58)	3-32-6E	no report				"Bartlesville"	2,900	35	
Cabin Valley ('52)	31-33-6E	660	125,542	1,355,792	37	"Layton"	2,205	39	
Canfield ('52)	13-34-3E	440	18,159	284,010	11	"Layton"	2,188	9	
						Lans.-K.C.	2,651	4	
						"Bartlesville"	2,839	42	
Cedarvale ('53)	9-34-8E	no report		2,168		"Bartlesville"	3,375		
Centennial North ('53)	1-33-3E	Included with Graham				Mississippian	2,365	10	
Church ('54)	13-31-6E	80	1,698	19,704	1	"Bartlesville"	3,256	4	
Churchill Northeast ('55)	18-31-3E	40	1,697	14,162	1	1 Mississippian	2,935	12	
Combs* ('47)	5-30-5E	440	33,539	697,593	17	Kansas City	2,420	34	
						"Bartlesville"	2,823	40	
						Mississippian	2,850		
Copeland ('52)	5-35-4E	no report		2,008		Mississippian	3,211	13	
Couch ('37)	13-30-5E	1,520	128,876	2,625,589	56	"Bartlesville"	2,800	15	
Countryman ('25)	4-33-7E	800	31,494		16	"Layton"	1,950	12	
						Mississippian	2,870	34	
David ('35)	35-30-4E	2,460	51,343	3,819,338	162	3 "Bartlesville"	2,900	40	
						Arbuckle	3,463		
Deichman ('41)	24-31-4E	640	90,175	467,519	20	"Bartlesville"	2,900	35	
						Mississippian	3,000		
Denton ('21)	33-6E	no report		746		Mississippian	2,750		
Dexter ('14)	21-34-7E	40	no report	947	1	Lans.-K.C.			
Donelson ('55)	30-5E	no report		2,075					
Dunbar ('38)		no report		8,923					

Eastman ('24)	5-31-6E	1,100	33,553		30	"Bartlesville"2,890	20	36
Elrod ('26)	4-32-5E	320	14,295		4	"Layton"	2,411	
Elrod East ('59)	3-32-5E	40	202	1,170	2	"Layton"	2,340	3
Enterprise Northeast ('52)	35-33-3E		no report	45,072		Mississippi	3,335	12
Enterprise Southwest ('53)	3-34-3E		no report	7,258	1	"Bartlesville"3,360	10	39
Estep ('58)	21-34-6E	40	9,178	19,660	1	"Stalnaker"	1,803	4
Estep West ('59)	29-34-6E	40	1,237	1,654	1	Mississippi	3,130	8
Estes ('54)	12-32-6E	1,420	54,573	614,618	43	"Layton"	2,190	13
Falls City (revived) ('60)	17-35-7E	260	11,075	11,075	4	"Bartlesville"2,694	19	
Ferguson Northwest ('50)	16-30-8E		no report	41,710		Kansas City	2,200	
Ferguson West ('34)	21-30-8E		no report		39	Kansas City	2,180	
Frog Hollow ('37)	20-32-5E	800	105,398	5,138,536	10	"Bartlesville"3,000	20	
Frog Hollow East ('41)	15-32-5E	480	13,654	397,426		"Bartlesville"3,000	8	
^a		40	707			Mississippi	3,077	20
^b		40	707			"Cleveland"	2,984	2
Geuda Springs ('25)	5-34-3E	2,560	124,942	1,843,697	67	"Bartlesville"3,300	14	
Gibson ('41)	29-34-3E	1,440	124,679	3,072,257	90	"Chat"	3,345	25
Graham ('24)	3-33-3E	2,440	230,486	3,784,318	71	"Bartlesville"3,350	35	
						Mississippi	3,400	12
						Simpson	3,774	6
						Arbuckle	3,780	11
						"Layton"	2,550	15
						"Bartlesville"3,213	50	
						Mississippi	3,284	16
						Arbuckle	3,518	5
Grand Summit* ('26)	4-31-8E	40	328		1	Kansas City	2,000	19
Grouse Creek ('51)	16-30-7E	160	3,568	40,684	4	Mississippi	2,890	37
Hackney ('56)	19-33-4E		no report	2,454		Mississippi	3,246	12
Hackney North ('59)	18-33-4E		no report	none		Mississippi	3,236	6
Harvey ('52)	23-34-3E	120	5,153	1,327,302	42	"Layton"	2,574	18
^a		680	53,057			"Bartlesville"3,278		
^b		80	438			Kansas City	2,690	9
Henderson ('42)	26-32-3E	80	438	136,696	1	Arbuckle	3,419	
Higby ('57)	31-34-6E	60	3,983	10,119	1	Mississippi	3,180	10
Hittle ('26)	28-31-4E	600	54,074	9,806,725	26	Kansas City	2,400	20
						Arbuckle	3,280	
Kanok ('56)	15-35-5E	80	8,302	63,647	3	Mississippi	3,172	4
Kanok North ('57)	3-35-5E		no report	140		Mississippi	3,136	4
Lady ('60)	35-34-6E	80	1,220	1,220	1	"Hoover"	1,421	4

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing abd., wells 1960	Producing zone	
			during 1960	to end, 1960		ft. thick	average depth
Lauppe ('59)	6-32-6E	80	145	396	1	"Burgess"	3,079 8
Loveil ('59)	9-35-3E	40	1,070	2,937	1	"Bartlesville"	3,458 4 40
McKay ('51)	17-35-4E	800	46,452	566,963	34	"Bartlesville"	3,314
Maddix North ('57)	12-33-5E	380	84,743	169,135	13	Mississippian	3,014 13
Mahannah ('59)	6-30-8E	80	14,800	37,576	3	"Layton"	2,170 16
Mansur ('49)	25-31-6E	160	3,409	118,282	6	"Layton"	2,206 3 36
Mansur Southwest ('59)	26-31-6E		no report			"Bartlesville"	3,067 6
Maple ('58)	2-30-3E		no report	1,354	43	"Bartlesville"	3,450 10
Murphy* ('33)	7-35-3E	160	2,479			"Chat"	3,500
a		1,120	22,651			"Bartlesville"	3,281
b		40	1,385	12,157	1	"Bartlesville"	
Nigger Creek ('51)	22-34-3E	140	18,918	98,871	7	"Stalnaker"	1,845 6
Olsen ('21)	1-35-7E	140			3	"Chat"	3,017 50
Otto ('27)	25-34-6E	120	1,212				
a		60	236				
b		240	no report	935	9 1	"Layton"	2,464 6
Peck ('58)	9-35-4E		no report	198,528		"Cleveland"	2,751 10
Posey ('56)	21-33-4E					"Prue"	2,953 4
						Mississippian	3,164 14
						Lans.-K.C.	2,332
Pudden ('55)	16-35-4E		no report	30,045		"Cleveland"	2,684 18 38
Quarry ('54)	28-34-5E		no report		32	"Bartlesville"	2,900 30
Rahn ('39)	13-34-5E	1,440	114,155	71,193		"Bartlesville"	2,902
Rahn Northeast ('49)	27-33-6E		no report		77	"Burgess"	3,200 50
Rainbow Bend* ('23)	20-33-3E	2,020	255,328	17,836,367		Arbuckle	3,550
						Mississippian	3,356 18
Rainbow Bend Southwest ('54)	31-33-3E		no report	7,861	4	"Bartlesville"	3,358 6
Rauchman ('56)	18-34-3E	160	4,478	44,683	120	"Bartlesville"	2,800 30
Rock ('23)	15-30-4E	3,900	554,142	6,819,563		"Bartlesville"	2,800
Rock North ('37)	3-30-4E		Combined with Rock		1	"Layton"	2,480 7
Rock Southwest ('60)	26-31-3E	40	2,800	2,800	1	Mississippian	3,050 2
Salem ('57)	2-31-5E	40	3,013	14,838	54	"Layton"	2,114 6 34
School Creek North ('53)	10-32-7E	740	98,093	1,373,592	9	"Bartlesville"	2,826 9
Seacat ('44)	26-33-4E	480	13,820	134,701		"Layton"	2,385
						Mississippian	3,100 43

Shannon ('59)	26-31-5E	920	360,577	363,743	52	"Layton"	2,314	3
Shannon North ('60)	23-31-5E	Combined with Shannon				"Layton"	2,280	4
Slick-Carson* ('24)	19-32-3E	360	16,202	7,764,279	15	"Layton"	2,600	
						"Bartlesville"3,150	3,450	
Smith ('17)	31-3E	160	4,107		3	Arbuckle	3,050	12
State ('26)	15-32-4E	60	4,744		11	"Layton"	2,400	12
		240	8,118			Arbuckle	3,300	
		320	2,042		4	"Bartlesville"3,100	8	33
Stayton ('49)	32-32-4E	320	2,042	148,985	5	"Bartlesville"3,165	23	40
Stayton South ('53)	5-33-4E	240	2,142	61,200	2	Simpson	3,500	5
Thurlow ('27)	8-33-3E	120	1,160		24	"Bartlesville"2,875	25	
Trees ('35)	19-30-4E	600	14,719	303,557	3	"Layton"	2,232	15
Turner ('37)	30-32-6E	120	2,867	11,897	1	Mississippi	3,054	38
Turner West ('52)	25-32-5E	60	748		4	Shawnee	2,850	38
Udall ('26)	28-30-3E	120	5,230			Arbuckle	1,821	2
		640	35,106	130,146	11	"Stalnaker"	3,080	12
Waldschmidt ('57)	8-34-6E	440	18,571	187	6	Mississippi	3,188	8
Walnut Bend ('40)	11-34-4E	320	no report	3,019,200	14	"Stalnaker"	2,080	15
Walnut Bend North ('56)	36-33-4E					Lans.-K.C.	2,480	12
Weathered ('35)	28-31-3E	320	32,473		8	"Bartlesville"3,018	6	
		240	29,605	116,247		Mississippi	3,020	8
Werner ('56)	31-32-6E	160	1,524		7	Arbuckle	3,250	5
		420	14,968			"Layton"	2,460	13
		320	20,104	137,319	22	Mississippi	3,074	8
Wilmot-Floral ('25)	31-5E	320	4,870		5	"Cattleman"	2,880	
		200	9,351	11,280	4	"Bartlesville"2,910		
Windsor ('57)	6-32-8E	200	80,380	137,319	82	"Layton"	1,935	10
Windsor Southeast ('58)	7-32-8E	1,520		98,792	4	"Layton"	1,858	18
Windsor Southwest ('58)	7-32-8E				1	"Layton"	1,894	10
Winfield ('14)	32-5E					Admiral	1,600	38
						"Peacock"	1,400	15
						"Layton"	2,300	20
Winfield South ('45)	1-33-4E	180	7,834	116,259	7	"Bartlesville"3,050	12	
		40	3,302			Arbuckle	3,300	5
						"Hoover"	1,400	38

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- Wells producing addl. wells 1960	Producing zone	
			during 1960	to end, 1960		Depth, ft.	Thickness, ft. Aver.
Miscellaneous		10	11,853		1+		
Total Cowley County		46,490	3,672,337	104,018,919	1,648	16	
CRAWFORD COUNTY							
Hepler* ('17)	27-22E	80	3,550		8	"Bartlesville"	
a		40	61				
b		80	281		7		
"Houston" ('47)	3-31-22E	240	1,867				
a		180	4,019		208	"Bartlesville"	
b		40	760				
McCune ('29)	30-22E	40	38				
a		1,240	9,713				
b		240	1,998		28	"Bartlesville"	425
St. Paul-Walnut*	28-21E	120	1,282				
a		280	717				
b		1,220	15,405		95	"Bartlesville"	400
c		120	191		47		15
d		420	689				
e		80	38				
Miscellaneous		10	142		1+		
Total Crawford County		4,430	40,751	931,307	347	47	
				recorded			
DECATUR COUNTY							
Adell Northwest ('52)	34-5-27W	640	112,952	993,443	14	Lans., -K.C.	3,664
Feely ('52)	2-5-27W	180	9,801	237,523	7	Lans., -K.C.	3,590
Hardesty ('52)	22-5-27W	640	35,377	400,211	7	Lans., -K.C.	3,642
Jennings ('51)	25-4-27W	860	43,473	547,998	17	Wabaunsee	3,156
						Lans., -K.C.	3,478
							4 35

Jennings Southeast ('57)	6-5-26W	40	1,748	7,403	1	Lans.-K.C.	3,581	4	34
Jorn ('56)	29-2-28W	220	16,385	73,613	7	Lans.-K.C.	3,562	8	40
Monaghan ('52)	15-2-27W	160	4,733	81,149	4	Lans.-K.C.	3,514	55	32
Pollnow ('53)	4-3-29W	700	74,659	419,267	16	Lans.-K.C.	3,734	7	37
Prairie Dog ('59)	29-5-29W	40	9,003	9,581	1	Lansing	3,863	5	35
Van Fleet ('56)	9-1-27W	40	no runs	2,861	1	Lans.-K.C.	3,356	11	28
Vavroch ('59)	4-4-28W	120	21,235	21,235	3	Lans.-K.C.	3,699	8	
Warner ('56)	11-1-27W	640	47,165	335,031	20	Lans.-K.C.	3,324	17	35
				507		"Penn sand"	3,483		
Pools or fields abandoned									
Total Decatur County		4,280	376,531	3,129,822	98			4	

DICKINSON COUNTY

Ash Grove ('54)	5-15-1E	400	15,114	157,623	7	Mississippian	2,569	3	
Bonaccord ('43)	30-14-1E		no report	44,108		"Burgess"	2,483	2	
Bonaccord Northeast ('56)	29-14-1E	60	7,919	30,990	3	"Burgess"	2,502	3	
Lost Springs* ('27)	16-4E				58	"Chat"	2,300		
a		200	3,311						
b		60	850						
c		-1,840	32,935						
Miscellaneous		30	1,876	4,324	3+				
Total Dickinson County		2,590	62,005	1,514,030	71			5	
				recorded					

DOUGLAS COUNTY

Baldwin* ('19)	12-15-20E				60	"Squirrel"	800		
a		1,280	40,802						
b		120	2,039						
c		60	140						
Eudora South ('29)	13-21E		no report			"Squirrel"	700		
Total Douglas County		1,460	42,981	173,520	60			2	
				recorded**					

EDWARDS COUNTY

Belpre ('42)	8-25-16W	40		90	1	Lans.-K.C.	3,800		
						Mississippian	4,278		

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing abdl. wells 1960	Producing zone			
			during 1960	to end, 1960		50-60	Thick- ness, ft.	Aver- age	
Bradbridge ('48)	2-24-16W	120	3,106	125,722	3	Arbuckle	4,020		
Carpenter, Southeast ('59)	31-23-16W	40	1,790	1,790	1	Mississippian	4,247	6 37	
Edstaff ('55)	12-25-16W	140	62	1,685	4	Penn. congl.	4,230		
Emby ('53)	23-24-16W	220	2,472	28,414	7	Lans.-K.C.C. "Kinderhook"	3,789 4,292	4 32 38	
English ('59)	31-25-16W	40	4,448	8,397	1	Mississippian	4,479	7 35	
Enlow ('53)	9-24-16W	240	17,655	250,495	7	Lans.-K.C.	3,736	7 29	
Fatzer ('59)	14-26-17W		no report	790		Mississippian	4,504	15 38	
Hawley ('59)	7-24-16W	40	217	617	1	Mississippian	4,241	18 36	
Kirk ('55)	26-26-16W	80	7,883	26,973	2	"Kinderhook"	4,481	20	
McClanahan ('58)	2-26-18W	160	17,310	43,821	4	Penn. congl.	4,612	4 38	
Sturgeon ('54)	33-26-18W	80	6,781	45,737	2	Lans.-K.C. Viola	4,223 4,721	5 38 4	
Trousdale ('56)	21-26-16W	180	24,317	118,573	10	Cherokee	4,486	4	
Trousdale North ('58)	8-26-16W	120	2,651	7,467	3	Mississippian	4,458	10	
Trousdale Northeast ('58)	15-26-16W	80	2,174	3,377	2	"Kinderhook"	4,392		
Wayne ('56)	28-24-17W		no report	8,184		Mississippian	4,368	16	
Will* ('57)	26-25-16W	1,720	686,138	1,420,882	79	2 "Kinderhook"	4,324		
Will West ('60)	29-25-16W	40	579	879**	1	1 Mississippian	4,365	10 38	
Pools or fields abandoned				108,027					
Total Edwards County		3,340	777,673	2,201,920**	128	6			
ELK COUNTY									
Adams ('56)	29-29-13E		no report			"Burgess"	1,680	3	
Arbuckle	31-9E	360	9,404		8	"Burgess"	2,250		
Bush-Denton ('20)	4-30-9E				69	"Stalnakar"	1,060	10	
a		220	3,896			"Peru"	2,135		
b		640	16,923			"Burgess"	2,300	5	
Clubine	30-10E	40	1,147		1				
Collyer ('24)	30-30-11E				10	Kansas City	1,286	10	
a		60	1,225			Fort Scott	1,518		
b		160	5,703						
Cummings ('60)	26-31-9E	40	318	318	1	Mississippian	2,226	27	
Dory ('29)	18-30-9E	160	924		4	Mississippian	2,570		

Dunkleberger ('20)	34-29-10E	520	25,973	31	Kansas City	1,300	10
Elk City*	31-13E	320	1,023	4	Mississippian	1,970	
Ferguson East	23-30-8E		no report	1	"Burgess"	1,360	
Fleming ('50)	8-29-9E	40	2,091	1	Arbuckle	2,900	
Grand Summit* ('26)	3-31-8E	400	11,803	12	Kansas City	2,656	
Hale-Inge* ('07)	31-12E	100	658	46	"Peru"	2,000	
a		60	954			1,160	
b		540	4,254				
c		40	1,506				
d		40	1,826				
Key ('30)	31-10E	160	580	2	Arbuckle	2,270	
Kipfer	29-13E	40	3,275	2	"New Albany"		
Liscoe ('26)	31-10E	40		1			
Logsdan ('25)		180	23,274	6			
a		40	777				
b		480	5,559	27	Mississippian		12
Longton	31-12E	60	2,078				
a		100	813	5			
b		160	815	3	Mississippian	2,370	
Longton North ('27)	29-12E	40	26	1			
Love ('21)	30-9E		no report	1			
Mills ('27)		840	2,878	19	"Wayside"	560	20
Moline ('28)	16-31-10E	120	12,143				
New Albany	29-13E		no report	10	Kansas City	2,050	10
Perkins ('54)	1-30-9E	40	4,332	2	Arbuckle	3,000	4
Porter	29-8E	40	13,949	4	Lans.-K.C.	1,550	
				4	Arbuckle	2,873	3
Rettig	31-10E	360	18,809	12	Kansas City	1,520	22
Roby ('56)	20-28-9E	40	1,978				
Schrader ('28)	12-31-8E	40	no report				
a			no report	8	Kansas City	1,200	13
b		60	931		Mississippian	2,330	
Severy* ('22)	8-28-11E	380	10,759		Kansas City	1,550	
Starr ('37)	12-31-9E	60	1,263	1	Mississippian	1,671	
Walker ('27)	5-31-10E	820	21,901	48	Kansas City	1,300	
a					Fort Scott	1,650	
b							
Ware ('55)	5-31-9E						
Webb ('25)	23-31-10E						

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- Wells producing abdn., wells 1960	Producing zone	
			during 1960	to end, 1960		Depth, ft.	Thickness, ft.
Youngmeyer ('41)		240	6,365	15,672	8	Mississippian	1,975
Miscellaneous		20	4,145		2+	Arbuckle	2,300
Total Elk County		8,040	226,278	15,985,967	348		8
				recorded			
ELLIS COUNTY							
Air Base ('57)	27-13-16W	640	130,075	253,852	18	"Gorham"	3,453
Air Base East ('59)	25-13-16W	320	30,473	41,646	5	Lansing	3,088
			10,950		3	Arbuckle	3,348
Air Base West ('60)	28-13-16W	40	647	647	1	Lans.-K.C.	3,216
Air-Braun ('58)	27-13-16W	40	no runs	3,687	1	Lans.-K.C.	3,502
Antonino ('47)	27-14-19W	40	1,588	148,169	1	Arbuckle	3,712
						Reagan	3,726
Beeching ('43)	34-15-16W	500	9,732	310,215	6	Lans.-K.C.	3,156
Bemis-Shutts* ('35)	16-11-17W	31,000	4,380,755	173,445,867	1,045	Shawnee	2,967
					23	Lans.-K.C.	3,408
						Penn. congl.	3,416
						Simpson	3,603
						Arbuckle	3,380
Bielman ('52)	24-15-18W	140	17,818	131,375	3	Arbuckle	3,496
Blue Hill ('37)	14-12-16W	1,360	112,918	2,908,628	38	1 Topeka	3,030
						Lans.-K.C.	3,072
						"Gorham"	3,348
						Arbuckle	3,360
Blue Hill Northeast ('59)	36-11-16W	40	1,186	2,065	1	Lansing	2,962
Blue Hill Northwest ('58)	3-12-16W	720	195,422	322,350	26	Lans.-K.C.	3,022
						Penn. congl.	3,333
						Arbuckle	3,300
Blue Hill Southeast ('59)	24-12-16W	160	8,760	8,760	4	Arbuckle	3,338
Boos ('56)	20-15-17W	80	10,661	39,484	3	Arbuckle	3,532
Braun ('53)	34-13-16W	120	8,488	91,620	3	1 Penn. congl.	3,459
Brungardt* ('52)	35-10-17W	200	See Rooks Co.	86,638	7	Lans.-K.C.	3,194
Burnham ('59)	11-14-18W	40	1,001	1,001	1	Arbuckle	3,542

Catharine ('36)	3-13-17W	480	118,173	1,614,229	24	2	Lans.-K.C. Arbuckle	3,262 24 48 3,516 13
Catharine Northwest ('44)	4-13-17W	420	51,215	926,978	14		Lans.-K.C. Arbuckle	3,590 21 21 3,292 12 32
Catharine South ('46)	15-13-17W	1,500	317,523	3,304,844	58		Lans.-K.C. Penn. congl. Arbuckle	3,538 6 3,555 8 3,418 13
Catharine Townsite ('49)	9-13-17W	100	12,923	139,864	4		Lansing Arbuckle	3,585 18 25 3,042 3 19
Chris ('58)	34-11-16W	120	16,733	35,367	4		Lans.-K.C. Arbuckle	3,395 3 3,038 4
Chrisler ('49)	22-11-16W	40	9,275	60,647	2		Shawnee	3,100 35 39 3,158 3 37
Chrisler South ('58)	27-11-16W	120	28,270	61,745	4		Lans.-K.C.	3,328 10 18
Cochran ('53)	8-11-18W	100	8,699	96,226	3		Lans.-K.C. Arbuckle	3,565 3 3,446 8
Cromb ('45)	15-11-20W	320	30,054	176,882	5		Lans.-K.C.	3,468 6
Dechant ('56)	7-15-18W	80	11,663	44,489	2		Lansing Arbuckle	3,627 6 38 3,417 8 38
Degenhart ('53)	15-15-17W	320	15,916	194,413	5		Lans.-K.C. Arbuckle	3,521 10 3,445 5
Degenhart Southeast ('57)	23-15-17W	140	4,884	39,375	4		Lans.-K.C. Arbuckle	3,520 5 3,624 12 34
Dinges ('54)	9-15-18W	80	19,152	84,628	2		Arbuckle	3,120 16 31
Drelling ('49)	21-14-16W	580	53,463	1,040,811	22	2	Lans.-K.C. Arbuckle	3,367 32 3,072 6 32
Dreiling Southeast ('53)	27-14-16W	540	31,362	410,366	13		Lans.-K.C. Arbuckle	3,377 3,368 12 33
Eagle Creek ('54)	11-11-20W	540	54,686	528,159	10	1	Lans.-K.C.	3,348 5
Eagle Creek East ('58)	2-11-20W	40	7,717	19,006	1		Leasing	3,832 8 40
Ellis* ('42)	31-12-20W	1,780	85,861	1,619,887	25	1	Arb.-Reagan	3,262 7 39
Emmeram ('37)	4-13-16W	160	11,875	361,121	5		Lans.-K.C.	3,272
Emmeram Northeast ('49)	27-12-16W	1,100	60,411	1,124,436**	26		Lans.-K.C. Arbuckle	3,541 3 39 3,291 32
Emmeram Townsite ('52)	6-13-16W		no report	35,410			Lans.-K.C.	3,520 10
Engel ('56)	34-14-18W	120	11,599	156,276	3		Arbuckle	3,350 6
Engel West ('56)	33-14-18W				1		Lans.-K.C.	"Penn. sand"
Erbert ('53)	20-12-20W	40	2,142	31,778	1		Arbuckle	3,612 4 34 3,368 4 40 3,527 34

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Acre. acres	Oil production, bbl.		Pro- ducing abdl. wells 1960	Producing zone	
			during 1960	to end. 1960		Sec. 4	Other
Fairport* ('23)	8-12-15W	1,800	151,992	4,252,947	46	2,950	12 32
						3,211	
						3,312	5
						3,350	
Fort Hays State College ('50)	1-14-19W	180	22,575	85,800	3	3,458	19
						3,806	20 28
Gasaway ('58)	2-11-19W		no report	2,327	1	3,079	8
Ger ('60)	15-13-20W	40	1,368	1,368	1	3,807	6 32
Glinther ('52)	17-11-19W	80	6,311	82,571	2	3,439	9
						3,554	4
Gottschalk ('57)	36-15-18W		no report	4,204		3,251	7
Herbert ('58)	18-13-20W	180	9,179	74,325	3	3,521	4
						3,870	96
						3,907	19 40
Herbert North ('60)	18-13-20W	40	1,651	1,651	7	3,470	7 36
Herbert Southeast ('60)	19-13-20W		Included with Herbert		1	3,874	6
Herl ('51)	28-14-17W	240	5,476	177,617	5	3,382	28
						3,453	8
						3,476	28
Hertel Southwest ('52)	17-14-16W		no report	16,501		3,215	4 38
Herzog ('40)	30-13-16W	1,280	111,569	2,008,832	23	3,232	
						3,450	8
Herzog South ('59)	5-14-16W	20	2,292	6,694	1	3,207	6 27
Heyl ('56)	20-14-17W		no report	17,305	1	3,513	7 29
Heyl Southeast ('59)	21-14-17W	40	10,511	10,849	2	3,509	9
Holy Cross ('53)	26-12-18W	40	1,835	81,533	1	3,423	4 34
Holz ('59)	18-13-16W	20	3,185	4,402	1	3,276	5 35
Irvin ('46)	6-14-19W	3,200	6,502	4,086,531	2	3,553	
			540,563		79	3,860	39
Irvin East ('55)	4-14-19W	40	2,252	26,030	2	3,628	18 35
						3,855	30
Jacob ('51)	6-11-19W		no report	16,946		3,542	4 23
Kaiser ('59)	30-13-20W	100	33,194	47,474	4	3,565	5 41
Koblitz West ('59)	21-12-18W	20	3,302	6,803	1	3,408	7 32
Kraus ('36)	22-14-19W	2,520	328,490	961,778	58	3,660	5
						3,834	4
						3,735	5
						3,732	39
							Arbuckle

Krueger* ('48)	35-10-16W	960	687,156	1,964,852	29	Toronto	3,235 25
						Lans.-K.C.	3,552
Leiker ('43)	14-15-18W	980	60,774	1,237,635	9	Lans.-K.C.	3,292 40
						Penn. congl.	3,582
Leiker East ('53)	12-15-18W	1,200	144,849	2,470,294	19	Arbuckle	3,591 5
						Lans.-K.C.	3,321 8
Leiker North ('56)	2-15-18W	180	36,593	155,100	5	Arbuckle	3,576 13 45
Leiker Southeast ('54)	14-15-18W	320	23,306	231,432	9	Lans.-K.C.	3,601 5 34
Leinmiller ('59)	2-12-19W	80	12,647	13,487	7	Arbuckle	3,292 19 36
Lieb ('56)	17-11-16W	160	20,535	173,246	3	Arbuckle	3,695 13
Lieb East ('57)	16-11-16W	180	40,954	62,551	6	Lansing	3,356 7 28
						Arbuckle	2,982 8
Meistrell Southwest ('59)	9-11-18W	40	11,495	14,487	2	Arbuckle	3,346 6
Mendota ('51)	5-11-20W	140	6,935	108,839	3	Lansing	3,289 4 32
						Lans.-K.C.	3,530 10 35
						Arbuckle	3,668
Neddham ('57)	16-11-18W	60	4,764	25,435	2	Lans.-K.C.	3,162 8
Nellie Belle ('55)	15-13-17W	80	11,392	74,474	3	Arbuckle	3,521 1 27
Nicholson* ('45)	30-11-20W	1,300	154,955	1,329,252	30	Arbuckle	3,842 12 34
Nicholson North ('52)	19-11-20W	Combined with Nicholson				Lans.-K.C.	3,610 4 34
North ('56)	20-15-20W	80	8,724	58,560	2	Lans.-K.C.	3,562 8
						Penn. congl.	3,862 5 38
Penny-Wann ('36)	13-15-20W	80	6,303	223,548	2	"Sooy"	3,653 3 30
Pleasant ('44)	2-14-20W	1,880	216,994	2,970,243	47	Shawnee	
						Lans.-K.C.	3,569
						Marmaton	3,805
						Penn. congl.	
Pleasant Southeast ('60)	12-14-20W		no report	none		Arb.-Reagan	3,833 38
Polifka ('48)	7-13-17W	440	74,204	437,370	13	Arbuckle	3,771 6
Potter ('56)	20-11-16W	640	9,153	414,342	1	Pleasanton	3,640 33 31
						Arbuckle	3,309 7 32
Raynesford ('52)	17-13-20W	120	7,587	80,205	3	Lans.-K.C.	3,535 5 30
						Penn. congl.	3,870
Raynesford East ('52)	16-13-20W	320	29,764	244,249	5	Arbuckle	3,861 9 39
Reed ('49)	5-13-17W	40	3,205	44,611	1	Lans.-K.C.	3,424 12
						Arbuckle	3,596
Reichert (revived) ('60)	4-15-19W	40	1,745	2,237**	1	Lans.-K.C.	3,360 10 32
Richards ('56)	5-11-18W	40	4,473	130,569	1	Toronto	3,295 2
						Lans.-K.C.	3,466 8
Riverview ('43)	19-11-18W	1,020	79,795	2,536,494	21	Arbuckle	3,610 18

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing abdl. wells 1960	Name	Producing zone	
			during 1960	to end, 1960			sp. ft.	thick- ness, ft.
Riverview South ('56)	32-11-18W	120	13,857	75,337	3	Lans.-K.C.	3,367	5 33
Ruder ('35)	17-15-18W	640	35,166	1,482,143	8	Lans.-K.C.	3,422	35
Ruder North ('57)	4-15-18W	120	4,854	38,580	3	Arbuckle	3,572	10
Ruder Southwest ('59)	18-15-18W		no report	513		Arbuckle	3,619	9 30
Sauer ('60)	29-13-20W		no report	none		Arbuckle	3,634	4
Schmeidler ('44)	28-12-17W	1,280	64,256	1,095,875	18	Lansing	3,561	6
Schmeidler Northwest ('53)	20-12-17W	220	21,019	145,752	6	Lans.-K.C.	3,389	6
Schoenchen ('46)	21-15-18W	1,000	65,889	1,438,883	22	Arbuckle	3,540	10 26
Schoenchen Townsite ('56)	28-15-18W	40	2,850	37,891	1	Lans.-K.C.	3,696	6
Scurlock ('57)	20-15-16W		no report	6,418		Penn. congl.	3,569	9 31
Sessin ('52)	15-11-19W	920	125,227	1,238,355	24	Shawnee	3,255	4 39
Solomon ('36)	28-11-19W	3,500	286,608	4,772,066	87	Arbuckle	3,431	5 33
					4	Wabaunsee	2,969	7
						Topeka	3,499	3
						Lans.-K.C.	3,013	4
						Lans.-K.C.	2,990	19
						Lans.-K.C.	3,229	3 19
Solomon South ('57)	33-11-19W	80	13,756	64,409	2	Arbuckle	3,629	3 19
Solomon Southeast ('57)	35-11-19W	220	21,855	119,516	6	Arbuckle	3,652	3
Stockrange ('57)	21-15-20W	40	3,224	22,368	1	Arbuckle	3,682	4 18
Sugarloaf ('41)	17-13-17W	640	43,517	967,758	9	Penn. congl.	3,864	6 38
Sugarloaf Southeast ('41)	28-13-17W	2,200	453,698	3,314,547	60	Lans.-K.C.	3,391	30
					2	Arbuckle	3,645	9
						Lans.-K.C.	3,312	8 30
						Arbuckle	3,520	
Sunnydale ('52)	1-14-20W		no report	5,570		Arbuckle	3,850	
Sweet William ('50)	10-12-20W	40	1,892	26,467	1	Lans.-K.C.	3,700	35
Sweet William Northwest ('56)	4-12-20W	40	1,761	15,837	1	Arbuckle	3,908	
Toulon ('35)	3-14-17W	1,080	120,864	1,332,369	28	Lans.-K.C.	3,739	8 36
						Marmaton	3,910	8
Toulon South ('58)	14-14-17W	200	43,747	162,165	5	Arbuckle	3,298	5 34
			26,715		3	Lans.-K.C.	3,512	45
Toulon Southeast ('58)	11-14-17W		no report	43		Arbuckle	3,302	10
						Lansing	3,523	10 32
						Lansing	3,348	4 36

Toulon Southwest ('55)	16-14-17W	220	28,864	112,716	6	Lansing	3,272	8	
Arbuckle						Arbuckle	3,504	4	
Trico* ('51)	30-10-20W	320	50,469	215,604	7	Arbuckle	3,610	10	
Turkville ('53)	11-11-17W	160	6,779	99,703	4	Lans. -K.C.	3,165	24	
						Arbuckle	3,359	34	
Turkville West ('59)	10-11-17W	40	10,746	16,688	2	Arbuckle	3,378	6	
Ubert ('36)	12-13-18W	180	37,583	392,773	7	Lans. -K.C.	3,707	32	
						Arbuckle	3,600	31	
Ubert North ('51)	31-12-17W	240	41,100	376,536	6	Arbuckle	3,339	33	
Ubert Northwest ('52)	1-13-18W	540	84,913	999,883	18	Lans. -K.C.	3,592	33	
Upper Turkville (revived) ('60)	9-11-17W	80	10,762	11,532	2	Arbuckle	3,356	5	
Victoria North ('53)	6-14-16W	100	16,737	36,880	3	Toronto	3,182	1	
						Lans. -K.C.	3,208	6	
Wagner ('56)	36-14-16W	40	1,812	15,934	1	Arbuckle	3,471	35	
Warren ('49)	12-11-20W	40	3,366	66,690	1	Lans. -K.C.	3,458	31	
Werth ('58)	2-13-20W	60	12,010	35,701	2	Arbuckle	3,833	6	
Wheatland ('49)	18-15-17W	500	29,541	466,199	11	Lans. -K.C.	3,307	14	
						Arbuckle	3,571	32	
Wheatland Northwest ('53)	12-15-18W	120	9,678	70,755	4	Arbuckle	3,566	6	
Wheatland Southeast ('55)	28-15-17W	120	15,844	112,794	3	Lans. -K.C.	3,335	14	
						Penn. congl.	3,526		
Wheatland Southwest ('53)	19-15-17W	580	2,531	966,858	1	Arbuckle	3,516	5	
						Lans. -K.C.	3,252	32	
Windholz ('57)	32-12-16W	109,028	no report	3,835	21	Arbuckle	3,554	9	
Younger ('44)	6-14-17W	560	51,724	647,656	14	Lans. -K.C.	3,348	5	
						Lans. -K.C.	3,331	8	
Younger South ('54)	8-14-17W	80	9,080	66,359	2	Arbuckle	3,574	18	
Younger Southwest ('59)	7-14-17W	40	1,006	2,136	1	Arbuckle	3,546	7	
Younger ('59)	9-12-19W	40	6,889	11,388	1	Lansing	3,550	12	
Zimm ('59)	23-13-20W	40	3,187	7,048	1	Lansing	3,493	10	
Pools or fields abandoned				158,983		Lansing	3,477	4	
Total Ellis County		80,860	11,231,495	238,121,434	2,339	53			
ELLSWORTH COUNTY									
Andrews ('52)	4-17-8W	180	4,563	146,672	4	Arbuckle	3,302	3	

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing abdl. wells 1960	Producing zone	
			during 1960	to end, 1960		Name	Sp. Prod. Thick- ness, ft.
Bloomer* ('36)	36-17-11W	2,480	232,598	15,541,665	81	2	Lans.-K.C. Arbuckle 3,044 3,257 43
Geneseo-Edwards* ('34)	25-18-8W	3,480	538,311	20,908,672	122	2	Simpson Arbuckle 3,157 3,278 41
Green Garden ('54)	1-17-9W	40	4,817	39,814	2		Lans.-K.C. Arbuckle 3,046 4 40
Heiken ('30)	25-17-10W	640	63,477	772,300	18		Lans.-K.C. Penn. congl. 2,974 3,226
Heiken North ('42)	24-17-10W	80	6,095	229,594	2	1	Arbuckle 3,269 3,212 2 40
Kraft-Prusa* ('37)	10-17-11W	840	43,644	1,337,747	13		Shawnee 2,885 Lans.-K.C. "Gorham" 3,335 3,160
Lorraine ('34)	13-17-9W	1,700	44,546	11,105,079	26		Arbuckle Reagan 3,281 3,310
Lorraine North ('53)	12-17-9W	120	16,040	160,557	4		Lans.-K.C. Arbuckle 3,200 3,066 5
Maes ('52)	26-17-8W	460	41,405	1,277,764	16		Arbuckle 3,341 16 36
Progress ('55)	10-16-10W	140	25,474	326,626	4		Arbuckle 3,402 8
Progress Northwest ('55)	4-16-10W	300	74,372	688,776	18	1	Arbuckle 3,303 8 40
Stoltenberg ('31)	22-16-10W	9,280	648,082	42,552,979	270	8	Lans.-K.C. Simpson 3,260 42 3,379 2
West ('51)	20-17-10W	40	2,286	48,585	1		Arbuckle 3,333 14 39
Wilkins Southeast ('42)	32-17-9W	400	9,081	507,155	8		Arbuckle 3,287 3,230 9 42
Pools or fields abandoned				35,597			
Total Ellsworth County		20,180	1,754,791	95,679,582	589	14	

FINNEY COUNTY

Beyer ('52)	24-26-33W		no report	23,340			Lans.-K.C. 4,398 8 36
Damme ('51)	21-22-33W	1,520	6,979	931,757	1		Marmaton 4,417 5
Damme Northeast ('53)	16-22-33W	40	129,593	7,380	21		Morrowan 4,700
Finnup ('53)	34-22-33W	320	56,005	520,732	8		Mississippian 4,639 10 27
							Mississippian 4,756 6 10

Finnup East ('53)	25-22-33W	40	846	13,104	1	Marmaton	4,442	16	30
Ivanhoe ('59)	17-26-33W	60	12,019	16,796	2	Morrowan	4,922	5	27
Nunn ('38)	27-21-34W	1,300	97,569	2,646,153	28	Kansas City		13	31
						Marmaton			34
						Cherokee	4,550		
Nunn North ('57)	22-21-34W		Included with Nunn			Mississippi	4,654	10	27
Pleasant Prairie* ('54)	4-27-34W		Included with	981,044		Marmaton	4,382	12	
			Haskell County			Marmaton	4,460	10	
						Morrowan	4,959	9	
Sequoyah ('56)	17-23-34W	160	12,927	75,914	4	Mississippi	5,041	34	
Sondergerger ('52)	21-22-31W		no report	6,543		Morrowan	4,694	10	34
Stewart ('52)	6-23-30W	40	3,755	32,434	1	Mississippi	4,737	29	
Wampler ('59)	17-21-33W	280	16,645	38,411	3	Mississippi	4,710	28	
			17,678		2	Marmaton	4,252	12	34
Total Finney County		3,760	361,396	5,347,573	72	Morrowan	4,573	4	31

FORD COUNTY

Konda ('56)	11-27-22W		no report	6,010	2	Mississippi	5,010	32	36
Pleasant Valley ('50)	34-27-21W		no report	18,341		Mississippi	4,954		
Willroads ('60)	26-27-24W	40	8,444	8,444	1	Marmaton	4,663	9	38
Total Ford County		40	8,444	32,795	1				

FRANKLIN COUNTY

Baldwin* ('19)	15-20E	60	338		3	"Squirrel"	800		
LeLoup	15-20E				4	"Squirrel"	750		
a		60	212						
b		120	1,405						
Norwood	15-20E		no report		3				
Ottawa ('27)	17-19E		no report						
Paola-Rantoul* (1860)	17-21E				790	"Knobtown"	300		
a		200	2,819			Hepler	400		
b		5,200	231,507			"Prue"	500		
c		400	9,628			"Squirrel"	600		
d		3,280	48,197			"Bartlesville"	700		
e		240	2,602						
f		1,800	35,581						
g		80	399						

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- Wells producing abnd. wells 1960	Producing zone			
			during 1960	to end, 1960		Name	Thickness, ft.	Depth, ft.	Average
		4 ¹)	140						
h		120	720						
i		50	426						
Miscellaneous				5+					
Total Franklin County		11,650	333,974	11,452,168**	802	10			
				recorded					
GEARY COUNTY									
Ge-See* ('59)	27-11-8E	20	1,958	1,958	1	Cherokee	1,749	12	
Wingfield ('59)	35-11-7E		no report	none	1	Mississippian	1,793	7	
GOVE COUNTY									
Coberly ('51)	15-14-29W	80	no runs	71,172	2	Lans.-K.C. Marmaton	4,122	10 35	
Gove ('51)	26-13-30W	120	no runs	32,605	3	Lans.-K.C. Mississippian	4,122	3 30	
Grinnell ('59)	16-12-30W	40	889	1,439	1	Mississippian	4,547	33	
Lundgren South ('52)	31-14-29W	80	9,364	112,815	2	Mississippian	4,489	6 35	
Pools or fields abandoned				10,534		Mississippian	4,277	6 40	
Total Gove County		320	10,253	228,565	8				
GRAHAM COUNTY									
Alda ('44)	15-7-22W	40	916	87,065	1	Lans.-K.C.	3,518	3 37	
Allodium ('55)	19-6-25W	80	3,692	49,549	2	Lans.-K.C.	3,740	5 36	
Blazier ('55)	21-7-25W	480	107,663	492,899	12	Lans.-K.C.	3,785	8	
Blazier Northwest ('57)	20-7-25W	80	12,899	45,334	2	Lans.-K.C.	3,844	6 40	
Brassfield ('56)	2-10-22W	640	45,119	257,123	15	Lans.-K.C.	3,688	45 39	
Brassfield South ('58)	2-10-22W		no report	880	1	Lans.-K.C.	3,764	5 39	
Brush Creek ('55)	4-9-23W	720	106,139	553,144	19	Lans.-K.C.	3,768	4 40	
Brush Creek Northwest ('57)	32-8-23W	160	21,069	82,892	4	Lans.-K.C.	3,818	3 38	
Bryan ('59)	9-10-24W	80	3,795	4,144	2	Lansing	3,838	6 36	
Conness ('58)	23-10-23W	160	22,382	77,896	5	Lans.-K.C.	3,712	4	

Cooper* ('43)	5-10-20W	9,320	769,508	11,866,999	197	4	Lans.-K.C. Arbuckle	3,619 3,778	6 31
Diebolt* ('53)	33-10-23W	1,460	169,954	2,847,604	84	1	Lans.-K.C.	3,779	6
Elrick ('55)	15-10-25W	2,320	9,401	1,215,223	2	2	Toronto	3,770	8
			449,770		56		Lans.-K.C. Cherokee	3,931	5
			15,194		1			4,212	10
Elrick East ('59)	14-10-25W	280	16,123	23,673	5		Lansing	3,774	3
Elrick Southeast ('59)	23-10-25W	180	18,978	24,215	3		Lansing	3,751	6
Emor ('57)	34-9-25W	580	174,997	308,312	18	1	Lansing	4,016	12
			6,108	6,108	1		Lans.-K.C.	3,867	5
Emor North ('60)	27-9-25W	40	1,277	12,515	1		Lans.-K.C.	3,711	2
Evergreen ('56)	22-9-23W	40	1,277	12,515	1		Lans.-K.C.	3,711	2
Evergreen Northwest ('57)	17-9-23W	680	66,830	363,084	19		Lans.-K.C.	3,826	4
Fabricius ('58)	25-7-23W	640	172,134	423,000	19		Lansing	3,637	3
Fabricius South ('58)	36-7-23W	200	27,845	63,664	5		Lansing	3,669	3
Fargo West ('51)	34-9-22W	no report	4,540				Lans.-K.C.	3,755	
Faul ('58)	22-10-22W	100	10,722	46,935	3		Lansing	3,760	4
Faulkner ('45)	27-10-22W	40	4,650	238,546	1		Lans.-K.C. Marmaton	3,629	2
			5,062	98,621	2			3,844	
Gettysburg ('41)	7-8-23W	80	22,834	36,716	5		Lans.-K.C.	3,725	30
Glen Dale Southeast ('58)	24-9-24W	120	12,351	51,094	2	1	Lansing	3,932	3
Glen Dale Southwest ('57)	28-9-24W	80	74,148	128,059	8		Lans.-K.C.	4,026	8
Gra-Sher ('59)	6-10-25W	280	30,153	56,141	4		Lansing	3,815	4
Gurk ('58)	18-10-25W	120	29,337	314,701	7		Lansing	3,824	3
Harmony ('51)	32-7-22W	400	59,531	107,392	5		Lans.-K.C. Arbuckle	3,597	37
			5,972	28,317	1			3,578	8
Harmony South ('58)	7-8-22W	180	7,925	75,059	5		Lansing	3,885	5
Harrold ('57)	29-9-21W	40	68,605	214,775	12		Arbuckle	3,722	8
Hatcher ('56)	6-9-21W	80	1,341	20,474	1		Lans.-K.C.	3,710	4
Higer ('57)	20-8-23W	200	23,052	54,428	3		Lans.-K.C.	3,644	5
Higer Northeast ('57)	17-8-23W	580	23,052	54,428	3		Lans.-K.C.	3,616	37
Highland ('51)	20-8-22W	40	442	8,276	1		Lans.-K.C.	3,584	3
Highland Southwest ('58)	29-8-22W	100	250,861	2,732,130	116		Lansing	3,601	3
Hill City ('58)	24-8-23W	40	34,537	260,121	6	1	Lans.-K.C.	3,900	6
Holley ('54)	3-9-24W	4,640	5,559	35,572	2		Lans.-K.C.	3,897	9
Holley North ('55)	29-8-24W	180	41,351	177,725	8		Lans.-K.C.	3,831	5
Holley Northwest ('57)	25-8-25W	200	211,100	1,332,916	29		Lans.-K.C.	3,960	5
Holley Southwest ('57)	10-9-24W	800	44,209	58,229	5		Lans.-K.C.	3,674	10
Hoof ('54)	9-10-23W	640	24,402	88,814	4		Lansing	3,934	11
Hoof East ('59)	14-10-23W	140	21,065	135,585	5		Lans.-K.C.	3,903	5
Hoof Northwest ('57)	6-10-23W	160	44,278	201,425	5		Lans.-K.C.	3,832	8
Hoof West ('55)	8-10-23W	200							
Huntington ('55)	7-7-25W	200							

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing wds. wells 1960	Wells shut in 1960	Name	Producing zone	
			during 1960	to end, 1960				Acres	Producing zone
Hutton ('58)	1-8-24W	40	4,060	17,566	1		Lans. -K.C.	3,764	3
Ironclad ('50)	23-9-22W	780	52,006	720,781	14		Lans.-K.C.	3,756	6 37
Kenyon ('57)	5-8-21W	80	2,560	8,129	2		Lans.-K.C.	3,360	5 38
Knoll ('57)	4-9-25W	no report	none				Lans.-K.C.	3,875	4
Knoll Northwest ('58)	5-9-25W	80	3,949	13,588	2		Lansing	3,981	5 33
Kobler ('58)	27-8-24W	160	31,277	69,432	4		Lans.-K.C.	3,841	15 36
Lacerte ('56)	32-10-22W	40	3,182	26,213	1		Lans.-K.C.	3,602	4 36
Law ('51)	34-9-23W	900	63,544	1,100,152	15		Lans.-K.C.	3,922	10 38
							Penn. congl.	4,126	
Law Northwest ('57)	28-9-23W	320	84,277	302,870	12		Lans.-K.C.	3,826	6 38
Law Southeast ('55)	12-10-23W	400	60,706	379,732	12		Lans.-K.C.	3,869	29
							Penn. congl.	4,088	11 40
Lindeman ('59)	31-6-25W	80	13,929	18,893	2		Lansing	3,672	36 38
McVey ('58)	7-10-22W	40	605	7,103	1		Lans.-K.C.	3,853	2 40
Mickleston ('52)	27-8-22W	140	16,737	117,912	4		Lans.-K.C.	3,502	34
Mildreter ('55)	12-9-23W	500	4,940	75,259	6		Arbuckle	3,759	16 24
Mildreter Southeast ('58)	12-9-23W	no report	none				Lansing	3,814	2 38
Mitchell ('58)	20-9-24W	no report	none				Lansing	3,854	4 36
Montgomery ('58)	8-8-23W	100	19,628	57,134	3		Lans.-K.C.	4,053	3
Montgomery East ('58)	4-8-23W	40	2,695	10,658	1		Lans.-K.C.	3,511	33
Morel ('38)	15-9-21W	9,000	1,298,500	27,339,847	228		Lans.-K.C.	3,706	4
							"Sooy"	3,676	3 26
							Arbuckle	3,712	12 27
Morel North ('55)	3-9-21W	40	864	13,857	1		Penn. congl.	3,667	5 38
Mt. Etna ('59)	11-7-23W	no report	none	2,036			Lansing	3,651	5 38
Mount Vernon ('58)	6-7-22W	160	53,173	116,349	4		Lansing	3,759	5 38
Nana ('53)	4-8-24W	540	74,408	989,107	21		Lansing	3,759	5 38
Nana Northwest ('58)	33-7-24W	220	59,711	118,750	7		Lansing	3,873	8
Penokee ('40)	11-8-24W	130	7,753	301,197	4		Lans.-K.C.	3,873	4 41
Prairie Glen ('54)	25-10-23W	100	6,309	64,438	3		Lans.-K.C.	3,750	16 43
Prairie Glen Southeast ('55)	31-10-22W	100	7,381	80,575	3		Lans.-K.C.	3,596	4 33
Prairie Glen Southwest ('58)	35-10-23W	40	3,097	10,036	1		Lansing	3,734	5
Ray* ('49)	32-5-20W	no report	none	1,240			Lans.-K.C.	3,297	

Red Line ('55)	32-9-22W	420	23,751	191,322	7	Arbuckle	3,575
Red Line North ('55)	20-9-22W	40	2,780	25,678	1	Reagan	3,540
Robin ('59)	18-10-22W	40	2,911	9,935	1	Lans.-K.C.	3,776
Sand Creek ('54)	27-8-21W	no report	no report	10,647	1	Lans.-K.C.	3,676
						Penn. cong'l.	4,031
						Lans.-K.C.	3,387
						Arbuckle	6,30
Schmied ('52)	21-8-25W	1,280	173,809	1,575,117	28	Lans.-K.C.	3,578
Schmied Northeast ('54)	10-8-25W	160	7,688	83,538	4	Lans.-K.C.	3,740
Schmied Northwest ('57)	5-8-25W	220	5,127	52,528	5	Lans.-K.C.	3,867
Schmied South ('57)	28-8-25W	no report	no report	none	1	Lans.-K.C.	25,46
Schneibly ('52)	8-8-22W	40	1,682	65,941	1	Lans.-K.C.	3,952
Shiloh ('51)	1-9-25W	40	10,672	92,551	1	Lans.-K.C.	3,931
Swank ('58)	4-9-22W	no report	no report	8,780	1	Lans.-K.C.	3,507
						Arbuckle	4,013
						Lans.-K.C.	3,611
						Arbuckle	4,22
Trico* ('51)	30-10-20W	1,760	371,779	2,564,983	53	Lans.-K.C.	3,903
						Arbuckle	10,22
						Lans.-K.C.	3,651
						Arbuckle	7
Van ('54)	14-9-22W	480	117,027	573,765	16	Lans.-K.C.	3,786
						Arbuckle	5,22
Vesper ('57)	36-9-23W	1,260	247,768	808,840	29	Lans.-K.C.	3,871
Vesper North ('59)	23-9-23W	40	1,057	2,582	2	Lans.-K.C.	3,849
Wheeler ('57)	8-10-21W	200	17,631	59,489	1	Lansing	2,41
						Lans.-K.C.	3,699
						Marmaton	2,34
							3,702
							8,28
Pools or fields abandoned				128,442			3,783
Total Graham County		47,110	6,116,015	63,560,726	1,221		9

Hick ('59)	23-30-35W	40	2,195	3,778	1	Mississippian	5,392
Pollyana ('59)	36-27-35W	40	7,986	9,094	1	Lansing	20,41
Total Grant County		80	10,181	12,872	2		4,090
							13,32

GREENWOOD COUNTY							
Atyeo-Pixlee* ('23)	7-22-10E	1,680	175,700		67	"Bartlesville"	2,350
Beaumont ('20)	27-8E	700	23,916		31	Mississippian	2,400
						"Peru"	1,830
						Mississippian	2,445
						Arbuckle	2,740
Beaumont North ('19)	27-9E	no report	no report			Mississippian	2,477
						Arbuckle	2,800

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducting wells, 1960	Name	Producing zone	Thick- ness, ft.	Aver- age grav- ity
			during 1960	to end, 1960					
Beaumont South ('35)	2-28-8E	120	5,307		5	Mississippian	2,500		
Blackwell ('25)	16-24-13E	480	6,474		12	Mississippian	1,650		
Blankenship* ('21)	26-8E	160	4,984		11	"Bartlesville"	2,650		
Brinegar	26-13E	240	5,367		5	"New Albany"	427	11	
Browning ('24)	22-10E	1,800	400,291		129	"Bartlesville"	2,314	51	
Burkett ('23)	24-23-10E	1,700	109,695		79	"Bartlesville"	2,000	38	
Burt ('49)	8-26-11E	40	1,867		2	Mississippian	1,945		
Climax ('25)	27-11E	60	667		1	Mississippian	1,900	15	
DeMalorie-Souder ('24)	22-10E	2,720	257,409		148	"Bartlesville"	2,150	55	
Dunaway* ('22)	34-22-13E	1,360	65,482		53	Mississippian	1,800	12	
Eureka ('27)	31-25-11E	1,280	43,001		43	Fort Scott	1,750	10	
Fancy ('56)	25-26-12E	120	11,663		7	Mississippian	2,000	5	
Fankhouser* ('26)	4-22-12E	1,160	41,463		31	Mississippian	1,643	5	
Ferrell North ('44)	28-8E		no report		12	"Bartlesville"	1,850	24	
Gaffney ('26)	18-24-11E	420	25,148		11	"Bartlesville"	1,850	24	
Hamilton ('25)	7-24-12E		Combined with Seeley-Wick						
Hinchman ('27)	17-24-13E	240	4,973		8	Mississippian	1,800	25	
Hollis ('27)	16-23-10E	80	3,241		3	Mississippian	1,615		
Hubbard	22-13E	40	867		2	"Bartlesville"	2,150		
Jackson	25-8E	160	3,885		4	Cherokee	1,500		
Jackson Southwest ('57)	34-25-8E	120	26,943		6	"Bartlesville"	2,608	16	
Jobs	24-13E		no report		59	Mississippian	1,700	39	
Lamont ('26)	29-22-13E	1,560	94,887		7	"Bartlesville"	1,700	42	
Lane ('58)	5-26-12E	60	1,507	3,835	2	Mississippian	1,853	7	
Ly-Green* ('54)	5-22-11E	40	67		1	"Bartlesville"	1,858	13	
Madison	14-22-11E		Combined with Seeley-Wick		1	"Bartlesville"	1,800	38	
Mignot ('51)	9-22-11E	40	1,355		1	"Bartlesville"	1,921	10	
Ott	7-22-13E		no report			Simpson	2,236		
Polhamus ('22)	25-9E	1,020	89,822		41	"Bartlesville"	2,180	34	
Quincy* ('26)	11-25-13E	800	21,267		40	"Bartlesville"	1,500	20	
a		340	14,165						
b		140	959						
c									
a	24-26-9E	1,220	17,051		17	Kansas City	1,380	12	
					4	Mississippian	2,100		

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing ac- tual wells, 1960	Name	Producing zone	
			during 1960	to end, 1960			Depth, ft.	Average thickness, ft.
HAMILTON COUNTY								
Gould ('59)	30-25-41W	40	9,658	18,831	1	Morrowan	5,119	8 40
Helfrich ('55)	6-25-42W	40	3,567	36,311	1	Morrowan	5,040	10 39
Total Hamilton County		80	13,225	55,142	2			
HARPER COUNTY								
Attica ('58)	16-32-8W	Abandoned during 1960				1 Mississippi	4,364	8 35
Banner ('54)	27-32-7W	80	9,186	133,299	2	Viola-Simpson	4,833	6 43
Gerber ('57)	28-31-5W	140	11,409	63,006	2	Lans.-K.C. Simpson	3,570	6
Gish ('57)	17-31-6W	640	6,942	588,415	2	Mississippi	4,642	2 45
Goheen ('58)	12-31-7W	no report	67,795	3,571	16	Simpson	4,700	6 46
Grant ('57)	20-31-7W	300	176,034	270,120	14	Mississippi	4,310	24
Harper ('58)	11-32-7W	160	6,994	19,997	4	2 Viola Simpson	4,696	13 46
Hibbard ('57)	23-34-9W	120	5,381	8,993	4	Mississippi	4,714	40
Miller ('55)	11-33-8W	40	1,458	18,732	1	"Misener"	4,586	14
Muir ('60)	4-32-7W	no report		none		Simpson	4,895	5 45
Runnymede ('53)	23-31-6W	160	30,119	140,847	4	Simpson	4,734	1 43
Sharon* ('55)	13-32-10W	1,280	89,624	440,485	24	Mississippi	4,648	47
Sharon Northeast ('57)	5-32-9W	Combined with Sharon				Mississippi	4,355	10
Spivey-Grabs* ('49)	13-31-9W	9,000	723,900	3,823,340	157	1 Mississippi	4,330	16 30
Stohrville ('57)	36-33-6W	300	27,732	91,273	7	Mississippi	4,400	14 29
Zuercher ('59)	9-32-7W	220	55,550	65,107	5	Mississippi	4,461	7 36
Pools or fields abandoned			46,426			Simpson	4,723	13 36
Total Harper County		12,440	1,212,124	5,713,611	242	5		
HARVEY COUNTY								
Alta Mills ('58)	29-22-2W	160	16,679	43,025	5	Simpson	3,677	5

Burrton ('31)	1-23-4W	960	205,849	113	MISSISSIPPIAN "Hunton"	3,266 3,583
Burrton East ('56)	23-3W	40	1,045	1	"Chat"	3,224
Burrton Northeast ('42)	3-23-3W	120	7,515	19	"Burgess"	3,830 8
DuBois* ('57)	3-25-2E	860	141,510	4	"Burgess"	2,835 10 41
DuBois East ('59)	36-24-2E	40	3,502	2	"Burgess"	2,831 2
Gingrass ('57)	17-24-2E	220	32,192	9	"Hunton"	3,226 2
Graber* ('34)	32-21-1W	40	1,555	1	"Misener"	3,323 41
Halstead ('29)	36-22-2W	1,240	30,347	15	"Hunton"	3,274 24
Halstead West ('60)	10-23-2W	540	17,336	6	Lans.-K.C.	2,665 3
Harmac*	35-21-3W	180	16,092	4	"Chat"	3,005 30
Hollow-Nikkel* ('31)	30-22-3W	1,740	104,354	32	"Hunton"	3,160 6 26
Sperling ('35)	23-22-2W	320	25,960	7	Vioia	3,292 20 29
Sperling South ('57)	23-22-2W	no report	341	11	Simpson	3,299 10
West Branch ('58)	23-23-2E	160	7,489	4	"Hunton"	3,521
Pools or fields abandoned					"Chat"	3,195 13 40
Total Harvey County		6,620	677,006	235	"Hunton"	3,507 14
			25,970,329**		Simpson	3,500
			124,440		"Hunton"	3,279 16
			29,043		Mississippi	2,954 13
			no report		Vioia	3,386 6
			7,489		"Burgess"	2,773 2

HASKELL COUNTY

Eubank ('58)	28-28-34W	1,280	506,428	32	Lansing	4,112 34
Eubank East ('59)	23-28-34W	60	16,267	2	Marmaton	4,692 17 46
Eubank North ('59)	4-28-34W	100	11,983	2	Cherokee	4,843 36
Eubank South ('60)	21-29-34W	40	10,037	1	Morrowan	5,171 22 37
Eubank Southeast ('59)	35-28-34W	40	10,037	1	Mississippi	5,439 6 37
Hopkins* ('60)	34-30-33W	80	18,665	2	Morr.-Chest.	5,238 30 32
Koenig ('58)	12-29-34W	3,840	1,818,758	86	Morrowan	5,195 7 37
Pleasant Prairie* ('54)	4-27-34W	3,840	3,627,570**	86	Chesteran	5,314 82 40
			Includes Finney County		Lansing	4,080 6 39
			Production		Mississippi	5,378 7 30
					Morrowan	5,294 8 29
					Mississippi	4,959 9
					Mississippi	5,041 34

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing abdl. wells	1960 Name	Producing zone	Depth, ft.	Thickness, feet	Average
			during 1960	to end, 1960						
Satanta ('57)	21-30-34W	80	15,642	85,896	2	Morrowan	5,370	10	38	
Satanta North ('60)	4-30-34W	80	36,731	36,731	2	Morrowan Chesteran	5,208 5,380	18 7	38	
Victory ('60)	32-30-33W	40	1,241	1,241	1	Lansing	4,126	10	39	
Total Haskell County		5,600	2,427,089	4,824,573**	123					
HODGEMAN COUNTY										
Cam ('60)	30-22-24W	40	545	545	1	Mississippian	4,620	4		
Goebel ('59)	14-21-24W	40	1,334	5,591	1	Mississippian	4,420	5	37	
Hallet ('56)	15-22-25W	680	191,482	589,651	20	Mississippian	4,598	40	38	
Jetmore ('50)	24-22-24W	40	248	87,790	1	Mississippian	4,580	12	37	
Jetmore East ('59)	30-22-23W	40	21,337	21,715	2	Cherokee	4,534	3		
Jetmore West ('57)	23-22-24W	40	4,510	18,966	1	Mississippian	4,558	8	30	
Nova ('59)	30-22-23W	80	23,305	31,135	2	Mississippian	4,622	20	32	
Nova North ('60)	17-22-23W	80	14,712	14,712	2	Mississippian	4,625	7	37	
Ploger ('57)	10-21-25W		no report	none		Cherokee	4,280			
Purdyville ('51)	3-24-24W	240	38,568	813,125	6	Penn. congl. Mississippian	4,651 4,663	18	36	
Saw Log Creek ('53)	36-23-22W	180	15,953	167,856	5	Marmaton	4,284	11	21	
Valley ('58)	7-21-24W	40	2,135	5,514	1	Mississippian	4,391	3		
Wieland ('56)	16-21-22W	40	4,579	12,968	1	Mississippian	4,380	16	38	
Wieland North ('59)	9-21-22W	160	53,476	59,081	4	Mississippian	4,346	10	38	
Wieland West ('60)	18-21-22W	160	34,335	34,335	4	Mississippian	4,364	16	36	
Total Hodgeman County		1,860	406,519	1,862,984	51					
JOHNSON COUNTY										
Dallas ('38)	8-13-25E	40	1,176		3					
^a		40	72							
^b		360	3,852		8	Marmaton				
Gardner ('39)	14-22E		no report			"Squirrel"				
Prairie Center ('39)					2	Marmaton				

Miscellaneous	10	135	1+
Total Johnson County	450	5,235	12 2
KEARNY COUNTY			
Lakin ('57)	80	23,979	2
Patterson ('41)	160	32,474	3
Pleasant Prairie* ('54)	80	19,884	2
Total Kearny County	320	76,337	7
KINGMAN COUNTY			
Alameda ('58)	40	9,205	1
Bartholomew* ('48)		24,366	6
Basil ('53)	3,900	65,175	5
		1,977,937	101
		Included with Sedgwick Co.	
		635,000	8
		71,914	2
Basil Northeast ('60)	80	8,084	7
Bolinger ('57)	240	58,069	30
Broadway ('50)	1,100	87,483	6
Broadway West ('54)	320	25,446	10
Casley ('52)	360	21,780	20
Cunningham* ('31)	840	48,196	1
Dale ('59)	40	365	8
Dewey ('50)	640	28,124	1
Dresden ('51)	80	4,167	6
		1,047,442	3
		270,235	3
		515,060	15
		109,235	1
		2,763	1
		130	1
		1,055	1
		27,680	1
		4,978	1
		2,070	1
		87,696	2
		664,128	3
		72,317	2
		824,141	7
		24,366	1
		65,175	6
		1,977,937	101
		8,084	8
		127,468	2
		1,480,147	7
		52,719	2
		285,303	7
		3,445,753	30
		365	6
		513,839	10
		1,047,442	20
		270,235	1
		515,060	1
		109,235	1
		2,763	1
		130	1
		1,055	1
		27,680	1
		4,978	1
		2,070	1
		87,696	2
		664,128	3
		72,317	2
		824,141	7
		24,366	1
		65,175	6
		1,977,937	101
		8,084	8
		127,468	2
		1,480,147	7
		52,719	2
		285,303	7
		3,445,753	30
		365	6
		513,839	10
		1,047,442	20
		270,235	1
		515,060	1
		109,235	1
		2,763	1
		130	1
		1,055	1
		27,680	1
		4,978	1
		2,070	1
		87,696	2
		664,128	3
		72,317	2
		824,141	7
		24,366	1
		65,175	6
		1,977,937	101
		8,084	8
		127,468	2
		1,480,147	7
		52,719	2
		285,303	7
		3,445,753	30
		365	6
		513,839	10
		1,047,442	20
		270,235	1
		515,060	1
		109,235	1
		2,763	1
		130	1
		1,055	1
		27,680	1
		4,978	1
		2,070	1
		87,696	2
		664,128	3
		72,317	2
		824,141	7
		24,366	1
		65,175	6
		1,977,937	101
		8,084	8
		127,468	2
		1,480,147	7
		52,719	2
		285,303	7
		3,445,753	30
		365	6
		513,839	10
		1,047,442	20
		270,235	1
		515,060	1
		109,235	1
		2,763	1
		130	1
		1,055	1
		27,680	1
		4,978	1
		2,070	1
		87,696	2
		664,128	3
		72,317	2
		824,141	7
		24,366	1
		65,175	6
		1,977,937	101
		8,084	8
		127,468	2
		1,480,147	7
		52,719	2
		285,303	7
		3,445,753	30
		365	6
		513,839	10
		1,047,442	20
		270,235	1
		515,060	1
		109,235	1
		2,763	1
		130	1
		1,055	1
		27,680	1
		4,978	1
		2,070	1
		87,696	2
		664,128	3
		72,317	2
		824,141	7
		24,366	1
		65,175	6
		1,977,937	101
		8,084	8
		127,468	2
		1,480,147	7
		52,719	2
		285,303	7
		3,445,753	30
		365	6
		513,839	10
		1,047,442	20
		270,235	1
		515,060	1
		109,235	1
		2,763	1
		130	1
		1,055	1
		27,680	1
		4,978	1
		2,070	1
		87,696	2
		664,128	3
		72,317	2
		824,141	7
		24,366	1
		65,175	6
		1,977,937	101
		8,084	8
		127,468	2
		1,480,147	7
		52,719	2
		285,303	7
		3,445,753	30
		365	6
		513,839	10
		1,047,442	20
		270,235	1
		515,060	1
		109,235	1
		2,763	1
		130	1
		1,055	1
		27,680	1
		4,978	1
		2,070	1
		87,696	2
		664,128	3
		72,317	2
		824,141	7
		24,366	1
		65,175	6
		1,977,937	101
		8,084	8
		127,468	2
		1,480,147	7
		52,719	2
		285,303	7
		3,445,753	30
		365	6
		513,839	10
		1,047,442	20
		270,235	1
		515,060	1
		109,235	1
		2,763	1
		130	1
		1,055	1
		27,680	1
		4,978	1
		2,070	1
		87,696	2
		664,128	3
		72,317	2
		824,141	7
		24,366	1
		65,175	6
		1,977,937	101
		8,084	8
		127,468	2
		1,480,147	7
		52,719	2
		285,303	7
		3,445,753	30
		365	6
		513,839	10
		1,047,442	20
		270,235	1
		515,060	1
		109,235	1
		2,763	1
		130	1
		1,055	1
		27,680	1
		4,978	1
		2,070	1
		87,696	2
		664,128	3
		72,317	2
		824,141	7
		24,366	1
		65,175	6
		1,977,937	101
		8,084	8
		127,468	2
		1,480,147	7
		52,719	2
		285,303	7
		3,445,753	30
		365	6
		513,839	10
		1,047,442	20
		270,235	1
		515,060	1
		109,235	1
		2,763	1
		130	1
		1,055	1
		27,680	1
		4,978	1
		2,070	1
		87,696	2
		664,128	3
		72,317	2
		824,141	7
		24,366	1
		65,175	6
		1,977,937	101
		8,084	8
		127,468	2
		1,480,147	7
		52,719	2
		285,303	7
		3,445,753	30
		365	6
		513,839	10
		1,047,442	20
		270,235	1
		515,060	1
		109,235	1
		2,763	1
		130	1
		1,055	1
		27,680	1
		4,978	1
		2,070	1
		87,696	2
		664,128	3
		72,317	2
		824,141	7
		24,366	1
		65,175	6
		1,977,937	101
		8,084	8
		127,468	2
		1,480,147	7
		52,719	2
		285,303	7
		3,445,753	30
		365	6
		513,839	10
		1,047,442	20
		270,235	1
		515,060	1
		109,235	1
		2,763	1
		130	1
		1,055	1

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pre-1960 wells	Wells producing abnd. 1960	Name	Producing zone	Dip	Thickness, ft.	Ave. # of wells
			during 1960	to end, 1960							
Orsemus ('53)	30-29-5W	140	42,826	280,867	4	4	Viola Simpson	4,455 4,468	12 43		
Orsemus South ('54)	31-29-5W		no report	450			Viola	4,483			
Pat Creek ('46)	20-28-9W	120	14,732	297,341	3	1	Mississippian Viola	4,129 4,406	5 6	41	
Reida ('55)	18-30-6W	80	2,056	20,012	2	1	Simpson	4,475	18		
Reida South ('57)	19-30-6W	80	16,573	60,676	2	2	Mississippian	4,502	43		
Reida West ('55)	23-30-7W		no report	12,762			Mississippian	4,170	8	33	
Rosedale ('54)	32-29-6W	480	72,366	395,988	14	14	Lans.-K.C.	3,691	5	43	
Rosedale Northeast ('60)	28-29-6W	140	556	7,770	1	1	Lans.-K.C. Mississippian	3,555 4,149	5 7	40	
Smoots Creek ('59)	1-27-8W	40	2,885	4,329	1	1	"Misener"	4,495	3		
Spivey-Grabs* ('49)	13-31-9W	12,640	8,945	18,639	1	1	Kansas City	3,350	3	40	
Trenton ('54)	27-29-7W		Combined with Basil	8,386,154	299	6	Mississippian	4,205	29		
Trenton South ('57)	3-30-7W		Combined with Basil				Mississippian	4,117	6		
Willowdale ('54)	11-29-9W	640	40,378	1,079,281	14	14	Mississippian Viola	4,160 4,502	20 41	38	
Pools or fields abandoned				63,189							
Total Kingman County		23,500	3,174,208	20,473,628	578	18					
KIOWA COUNTY											
Alford ('44)	14-30-19W	40	3,560	19,437	1	1	Mississippian	5,040			
Fralick ('60)	14-27-20W	40	5,103	5,103	1	1	Mississippian	4,790	5	32	
Fruit ('60)	28-27-16W	40	no report	none			Mississippian	4,621	6	33	
Greensburg ('56)	35-27-18W	40	935	4,737	1	1	"Kinderhook"	4,742			
G R W ('58)	36-30-16W		no report	1,190			Viola	4,734	10	38	
Haviland ('55)	17-28-16W	160	4,548	31,860	3	3	"Kinderhook"	4,761	9	36	
Johannsen ('54)	24-28-19W	240	3,698	26,282	2	2	Lans.-K.C.	4,284	4	38	
Mullinville ('55)	11-28-20W		no report	32,040			Mississippian	4,890	8	38	
Nichols ('55)	20-29-18W	2,320	794,721	3,187,554	77	1	Mississippian	4,997			
Pyle ('55)	16-29-16W	40	2,331	71,847	1	1	Mississippian	4,666	14	38	
Soldier Creek ('55)	24-29-16W	40	879	42,954	1	1	Cherokee Mississippian	4,599 4,598	10 10	42	
Trousdale South ('56)	4-27-16W	40	1,435	8,394	1	1	"Kinderhook"	4,525	33		

Wellsford ('55)	15-28-16W	180	10,743	79,088	4	Marionton Cherokee	4,680	4,723	10	36
Pools or fields abandoned										
Total Kiowa County		3,140	827,953	3,565,023	92					3
LABETTE COUNTY										
Altamont	33-19E		no report			"Bartlesville"	540			
Banzet	35-19E		no report			Arbuckle	850			23
Chetopa	36-34-20E	320	5,373		5	"Wayside"	400			
Coffeyville-Cherryvale*	32-17E				63	Fort Scott	600			
a		580	864			"Bartlesville"	1,000			
b		520	44,740							
c		240	44,811							
d		240	6,697							
e		120	713							
f		240	2,015							
g		160	366							
Dartnell	31-17E				7	3 "Bartlesville"				
a		240	1,037							
b		280	831							
Edna ('25)	34-18E	240	1,837		5	"Bartlesville"	580			24
Indenbro	31-19E					Arbuckle	1,191			
Lake Creek	1-35-19E									
a		20	no report		3	1 Arbuckle				
b		20	1,610							
Mound Valley	32-18E				26	1 "U. Bart."	630			
a		160	10,910			"L. Bart."	700			
b		200	4,441			Mississippian	900			
Price ('17)	33-18E	720	26,942		39	"Bartlesville"	600			30
Valeda										
Miscellaneous		10	no report		1+					
			111							
Total Labette County		4,310	109,598	1,145,162	149					5
LEAVENWORTH COUNTY										
Banker's Life ('41)	3-10-20E		no report			"McLouth"	1,450			

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TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl		Pro- ducing abal wells, 1960	Producing zone		
			during 1960	to end, 1960		Name	Depth, ft	Thickness, ft	Aver. Grav.
LINN COUNTY								
Beagle*	19-22E		no report					
Blue Mound			no report					
Centerville* ('20)	10-21-22E	360	8,115		123	"Squirrel" "Bartlesville"	480 720	
a		40	54					
b		120	7,833					
c		200	1,435					
d								
Critzer	22-22E		no report		171	Cherokee "Squirrel" "Bartlesville"	600 700	20
Goodrich-Parker ('22)	25-20-21E	460	2,154					
a		40	160					
b		320	2,268					
c		240	1,562					
d		540	21,400					
e								
LaCygne-Cadmus	20-24E	80	7,908		95	Bandera Labette	150 200	20
a		240	210					
b		240	14,119					
c		60	85					
Miscellaneous		2,940	67,303		6+			
Total Linn County			1,324,073**		395			
			recorded					
LOGAN COUNTY								
Monument ('59)	18-11-33W	40	3,902		1	Lansing	4,154	4
LYON COUNTY								
Atyeo-Pixlee* ('23)	7-22-10E	920	45,246		36	"Bartlesville"	2,200	32
Bradfield ('21)	24-21-10E	720	67,982		38	3 Viola	2,500	
Fankhouser* ('26)	4-22-12E	480	24,559		40	2 "Bartlesville"	1,850	41
a		440	6,721					
b								

Ly-Green* ('54)	80	1,353	3	"Bartlesville"1,858
Ritchey-Moore ('25)	20	1,819	1	Mississippi 2,170
Rock Creek ('47)	200	9,680	5	"Bartlesville"1,900
Welch-Mohr ('53)	no report	no report		"Bartlesville"2,293
Total Lyon County	2,860	157,160	123	5
				8,373,467
				recorded

McPHERSON COUNTY

Battle Hill ('45)	40	no report	1	"Chat"	2,825	10	36
Battle Hill North ('48)	40	6,063	1	Mississippi	2,811	17	36
Burch ('59)	40	14,747	1	Mississippi	2,655	10	30
Burk ('48)	140	6,435	3	Mississippi	2,781	3	31
Carbon North ('36)	540	23,136	12	"Chat"	2,803	29	34
Chindberg ('29)	540	27,846	16	Lans.-K.C.	2,363	19	37
				"Chat"	3,007		
Coons ('40)	40	2,127	1	"Chat"			
Crowther ('42)	1,240	74,473	29	"Chat"	2,778		34
Elyria ('58)	640	74,566	19	Mississippi	3,068		
Fanska South* ('60)	no report	no report		Mississippi	2,819	80	36
Georob ('47)	1,480	125,476	42	"Chat"	2,665	3	34
Goessel ('58)	320	40,327	16	"Hunton"	3,407	3	33
Gottland ('59)	no report	no report		1 Simpson	3,634	10	29
Graber* ('34)	3,180	283,304	104	"Misener"	3,323	41	
				"Hunton"	3,274	24	
Graber North ('51)	40	170	1	Mississippi	2,955		
Groveland ('53)	no report	no report		Viola	3,728	8	38
Groveland Northeast ('58)	100	11,128	4	"Misener"	3,715	6	
Groveland South ('53)	480	105,431	20	1 Viola	3,719	6	
Gypsum Creek* ('44)	380	14,338	9	"Chat"	2,619	14	36
Harmac* ('55)	700	152,162	20	"Hunton"	3,521	4	40
Henne ('40)	800	20,917	15	"Chat"	2,658	5	36
Hollow-Nikkel* ('31)	900	45,943	12	"Chat"	3,195	13	40
Jenday ('44)	840	28,447	23	"Chat"	2,984	15	37
Johnson ('32)	960	43,217	12	"Chat"	3,032	14	36
Johnson South ('50)	40	3,234	2	Mississippi	3,043	36	
				Simpson	3,514	6	
Larson ('58)	300	99,676	18	Mississippi	2,965	15	37
Larson North ('60)	40	1,578	2	Mississippi	2,919	12	35
Larson Southwest ('59)	Combined with Larson			Mississippi	2,964	14	

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing abbl. wells 1960	Producing zone	
			during 1960	to end, 1960		Name	Acres
Lindsborg* ('38)	8-17-3W	4,960	187,006	9,178,381	88	Viola	3,352 21 35
Lindsborg South ('55)	6-18-3W	160	16,180	104,624	3	Simpson	3,360 10
McMurtry ('60)	13-18-4W	40	2,813	2,813	1	Maquoketa	3,476 6 35
McPherson ('26)	29-18-2W	1,700	91,869	2,179,833	57	Lans.-K.C. "Chat"	2,340 38 2,967 11
Maxwell ('48)	17-18-1W	180	4,151	57,462	4	Viola	3,140 6
Paden ('43)	10-18-1W	1,880	294,696	5,015,225	90	Mississippian "Chat"	2,846 11 36 2,752 18 42
Ritz-Canton ('29)	1-20-2W	17,000	1,197,371	53,581,012	384 15	Lans.-K.C. "Chat"	3,153 41 2,324 31 2,935 31
Round Hill ('56)	28-18-1W	160	16,487	96,026	4	Maquoketa Viola	3,395 3 3,412 4
Roxbury ('38)	18-17-1W	940	47,129	3,488,177	23 2	Mississippian	2,832 9 38 2,853 10
Roxbury South ('42)	30-17-1W	600	14,142	525,609	9	Simpson	3,278
Vosheill ('29)	9-21-3W	3,320	164,832	30,087,658	58 5	"Chat"	2,658 7 35 3,095 15 41
Welch-Bornholdt* ('24)	35-20-6W	3,160	261,381	14,378,826	108 5	Viola "Chat"	3,301 3 3,370 34
Pools or fields abandoned			279,377				
Total McPherson County		47,880	3,502,798	151,772,104	1,211 47		

MARION COUNTY

Covert-Sellers ('20)	28-21-4E	840	37,497		30	Viola	2,400
a		240	3,020				
b		40	1,809	1,809	3	Mississippian	2,367 6 37
Dobbs ('60)	22-19-3E	40	6,466	33,631	2	"Hunton"	2,891 8
Doyle Creek ('58)	6-22-3E	80	16,748	225,637	6	Viola	2,899 2
Durham ('53)	34-18-2E	320	43,964	584,099	19	Mississippian	2,471 3
Edmonds* ('53)	31-22-4E	560	6,281		6	Kansas City	2,120
Eibing* ('18)	18-23-4E	160				Mississippian	2,400 35

Elbing North ('47)	27-22-4E	160	2,681	92,269	4	Viola	2,530
Fairplay ('57)	25-21-4E	200	102,477	285,206	11	"Chat" "Hunton"	2,439 2,458
Fanska ('43)	6-17-1E	60	3,035		3	Viola	2,429
Fanska South* ('60)	18-17-1E	100	5,816	5,816	3	"Chat"	2,680
Florence ('20)	18-21-5E	40	1,077		7	Mississippian	2,819
		560	16,705		1	Viola	2,300
		40	85		2	Simpson	3,020
French Creek ('55)	22-19-2E	40	3,714		6	Mississippian	2,470
Hillsboro ('28)	7-19-3E	40	442		2	Viola	2,820
		920	95,555	95,555	32	Mississippian	2,444
Hillsboro East ('59)	17-19-3E	340	66,760	70,334	15	Viola	2,757
Kianda ('59)	12-19-3E	1,160	93,895	94,423	31	Mississippian	2,346
Kianda Northwest ('59)	2-19-3E	160	10,554	10,554	5	Mississippian	2,345
Kianda Southwest ('60)	14-19-3E	40	3,926	25,086	1	Mississippian	2,414
Lalouette ('57)	10-21-5E	220	6,192	127,829	4	"Hunton"	2,231
Lehigh ('46)	27-19-1E		no report	9,668	553	Mississippian	2,800
Lehigh North ('53)	23-19-1E	27,910	1,870,721		22	Viola	3,225
Lost Springs* ('26)	22-17-4E	60	212		23	Mississippian	2,365
		80	3,012		1	Mississippian	2,439
		100	2,589	691	2	Viola	2,500
Nonken ('59)	28-22-4E	20	691		1	Mississippian	2,439
Peabody ('20)	9-22-4E	400	35,408		23	Viola	2,500
		700	53,714		2	Viola	3,135
Ratzlaff ('56)	7-19-2E	160	4,773	51,226	1	Mississippian	2,474
Shank ('52)	12-22-3E	160	543	94,995	2	Mississippian	2,474
Shank South ('59)	13-22-3E	20	5,851	8,256	1	Mississippian	2,510
Unger ('55)	8-21-3E	20	1,256	4,264,692	129	Mississippian	2,809
		3,240	771,765		16	"Hunton"	
Wenger ('47)	11-21-3E	400	12,826	976,374	11	"Hunton"	2,770
Youk ('54)	20-18-2E	100	5,360		4	Viola	3,017
Total Marion County		39,690	3,297,420	46,790,344	911	Viola	3,21
				recorded	43		

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl		Pro- ducing abst. wells 1960	Name	Producing zone	
			during 1960	to end, 1960			Oil	Feet
MEADE COUNTY								
Adams Ranch ('48)	8-35-30W	6,800	67,301	197,351	21	Marmaton	5,346	40 40
Angell ('56)	30-32-29W	80	1,740	4,490	2	Chesteran	5,930	32 39
Bond ('54)	32-33-30W	120	310	11,859	3	Atokan	5,619	12 38
Borchers North ('59)	5-33-28W	220	18,585	19,463	7	Mississippian	5,860	26
Borchers Northwest ('59)	1-33-29W	120	11,453	19,828	3	Morrowan	5,521	56
Bromwell ('52)	7-34-29W	40	no runs	3,958	1	Morrowan	5,907	8 37
Bruno ('53)	20-33-30W	40	9,612	93,393	1	Morrowan	5,656	18 37
Bruno Northeast ('53)	16-33-30W	40	6,303	67,522	1	Morrowan	5,721	10 39
Cimarron Bend ('59)	12-35-29W	80	no report	none	2	Mississippian	5,810	17
Fincham ('56)	14-35-27W	80	1,292	6,401	2	Mississippian	6,275	
Hockett ('57)	8-31-29W	160	1,790	5,255	5	Morrowan	5,390	4 23
Kismet* ('48)	23-33-31W	100	827	6,598	2	Mississippian	5,095	
Kismet East ('53)	30-33-30W		Combined with Kismet			Marmaton	5,645	
McKinney* ('50)	2-34-26W	1,300	33,144	230,397	46	Mississippian	5,762	66 65
Mohler ('57)	35-33-29W	140	11,534	77,468	3	Marmaton	5,259	8 42
			10,059		4	Morrowan	5,769	15
Mohler Northeast ('58)	36-33-29W	320	7,566	25,280	11	Morrowan	5,690	8
Novinger ('51)	26-33-30W	2,400	411,409	2,838,121	34	Marmaton	5,270	20 41
						Morrowan	5,765	21
						Mississippian	5,803	
Novinger East ('57)	36-33-30W	80	949	1,259	2	Morrowan	5,780	86
Novinger Northwest ('55)	15-33-30W	80	12,420	90,544	2	Lans.-K.C.	4,553	5 37
Plains ('56)	17-32-30W	120	274	2,037	3	Morrowan	5,611	33
Sanders ('56)	13-32-29W	80	no runs	689	2	Mississippian	3,695	15
Singley ('55)	20-33-29W	660	98,769	554,359	25	Mississippian	5,550	
						Morrowan	5,803	16 40
Stevens ('52)	32-32-30W	2,220	307,898	1,725,870	37	Mississippian	5,889	5
						Morrowan	5,560	38
Thiessen ('59)	8-33-27W	540	5,337	5,337	5	Mississippian	5,713	
Total Meade County		15,740	1,018,572	5,987,479	222	Morrowan	5,690	

MIAMI COUNTY

Beagle	19-22E	no report			
Black	18-24E	80	267		
Block	18-24E	320	1,414	3	"Squirrel"
a		40	81	16	
Louisburg ('27)	17-25E	480	79,450	121	5 "Knobtown"
a		80	38		"Peru"
b		120	535		"Squirrel"
c		440	10,342		
d		20	1,160		
e					
Paoia-Rantoul* (1860)	17-23E	5,150	192,576	1,119	10 "Knobtown"
a		360	4,353		Hepler
b		1,200	43,569		"Peru"
c		40	2,497		"Squirrel"
d		40	288		"Bartlesville"
e		80	443		
f		120	433		
g		1,040	32,714		
h		80	303		
i		80	127		
j		80	1,651		
k		400	3,020		
l		300	6,536		
m		60	108		
n		280	3,656		
o		80	169		
p		200	2,006		
q		200	664		
r		180	807		
s		520	14,465		
t		80	560		
u		60	1,000		
v		80	269		
w		120	1,291		
Miscellaneous		12,410	406,792	12+	
Total Miami County			18,577,795	1,271	15
			recorded**		

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing abn. wells	1960 Name	Producing zone	
			during 1960	to end, 1960			Depth, ft.	Thickness, ft. Aver.
MONTGOMERY COUNTY								
Brewster	32-16E				34	"Bartlesville"	900	
a		280	1,592			Arbuckle		
b		40	150					
c		80	134					
d		360	12,731					
e		40	575					
Caney	35-14E				37	"Bartlesville"	1,320	21
a		880	4,198					
b		40	555					
c		80	2,506					
Coffeyville-Cherryvale* ('02)	33-17E				323	"Wayside"	400	
a		5,280	47,928			Fort Scott	600	
b		320	5,353			"Bartlesville"	1,000	
c		40	252			Arbuckle	1,300	
d		200	186					
e		440	22,231					
f		80	137					
g		120	559					
h		160	2,964					
i		80	357					
j		120	684					
k		200	187					
l		200	2,349					
m		210	2,243					
n		540	9,129					
o		160	272					
p		160	582					
q		40	183					
r		50	542					
Coleman ('21)	28-32-14E	120	1,342		4	Arbuckle	1,700	
Elk City*	31-13E					Marmaton		
Jefferson-Sycamore ('03)	18-33-15E		no report		274	"Weiser"	800	15
a		80	6,700					
b		120	5,776			"Bartlesville"	1,200	

c	360	6,785	
d	600	5,967	
e	220	615	
f	40	138	
g	1,320	26,649	
h	40	1,810	
i	980	8,404	
j	400	4,166	
k	620	3,271	
l	80	1,258	
m	80	409	
n	40	811	
o	200	681	
p	80	267	
q	40	1,522	
r	140	9,124	
s	360	2,857	
t	440	35,946	
u	120	4,479	
v	60	7	
w	160	971	
x	80	3,061	71 4 "Bartlesville" 950
Neodesha*			
a	720	6,701	
b	400	5,647	
c	40	167	
d	280	4,966	
e	60	39	
Sorghum Hollow			
Tyro ('04)	2,100	34,502	130 8 "Weiser" 800 59 1 "Bartlesville" 1,250
a	1,360	22,619	
b	240	3,168	
c	200	309	
d	120	2,043	
e	80	371	
Wayside-Havana* ('04)			
a	60	141	744 2 "Wayside" 575 22 "Weiser" 700
b	10,060	160,814	"Bartlesville" 1,200
Miscellaneous	140	1,211	14+
Total Montgomery County	32,840	494,293	46,715,538 1,690 131 recorded

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl		Pro- ducing abnl wells 1960	Name	Producing zone	
			during 1960	to end, 1960			Oil	Water-bearing thickness, ft
MORRIS COUNTY								
Burdick ('49)	15-17-5E	40	1,423	37,999	4	Mississippian	2,220	45
Comiskey Northeast ('56)	24-16-9E	300	19,111	130,407	7	Viola	2,929	3
John Creek ('53)	26-15-9E	1,880	394,913	1,649,868	56	Viola	3,090	6
Latimer ('59)	14-15-5E		no report	721	1	Mississippian	2,157	24
Three Mile Creek ('50)	25-16-5E	160	1,374	102,425	3	Mississippian	2,208	50
Three Mile Creek South ('50)	35-16-5E	180	8,201	164,208	10	Mississippian	2,183	24
Total Morris County		2,560	425,022	2,086,316	80	I		
				recorded				
MORTON COUNTY								
Boehm ('51)	14-33-42W	320	28,669	94,501	9	Morrowan		
Elkhart West ('57)	17-35-43W	80	4,462	10,754	2	Morrowan		
Interstate ('54)	29-34-43W	2,900	992,588	3,507,180	78	Morrowan	4,210	38
Kinsler Southeast ('60)	12-32-40W	40	143	143	1	Morrowan	5,504	
Richfield ('48)	17-32-40W	240	4,011	120,497	9	Atokan	4,990	
Strauner ('60)	18-35-42W	40	399	399	1	Morrowan	4,312	4
Sparks* ('54)	34-30-42W	80	1,746	3,886	2	Morrowan	5,245	
Taloga ('55)	34-34-42W	1,500	269,338	799,429	28	Morrowan	4,428	42
Taloga Northeast ('57)	19-34-41W	160	37,422	97,196	4	Cherokee	4,397	11
Wilburton ('59)	32-34-41W	580	1,737	1,737	5	Morrowan	4,674	10
Total Morton County		5,940	1,340,515	4,635,722	139	Morrowan	4,808	
NEMAHA COUNTY								
Sabetha ('50)	13-2-14E	60	1,510	68,857	2	"Hunton"	2,826	8
Strahm ('48)	27-2-14E	120	8,536	210,403	3	"Hunton"	2,879	2
Strahm East ('53)	26-2-14E		no report	7,744		Viola	3,559	
Total Nemaha County		180	10,046	287,004	5	"Hunton"	2,826	11

NEOSHO COUNTY

Erie ('03)	28-20E	520	1,704	355	"Bartlesville"	650	25
a		2,080	35,145				
b		320	933				
c		40	91				
d		40	656				
e		680	16,251				
f							
Humboldt-Chanute*	27-18E	240	1,730	1,177	7	"Bartlesville"	700
a		10,980	245,911				23
b		20	596				
c		280	12,570				
d		40	1,607				
e		380	7,480				
f		80	178				
g		200	296				
h		40	669				
i		610	13,135				
j		520	3,669				
k		40	268				
l		120	716				
m		160	2,603				
n		20	no report	5	1	"Bartlesville"	850
Kimball	27-21E	20	327	46			
Ladore							
Morehead ('38)	30-30-18E	680	9,010				
a		100	663				
b							
St. Paul-Walnut*	29-21E	1,160	47,674	212		"Bartlesville"	550
a		40	89				
b		80	1,047				
c		560	1,311				
d		40	60				
e							
Thayer	29-17E	420	5,639	12			
a		20	186				
b							
Trent	28-21E	80	1,194	132		"Bartlesville"	530
a		160	3,609				
b		1,320	58,631				
c							

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing abdl. wells, 1960	Producing zone	
			during 1960	to end, 1960		Name	Depth, ft.
Urbana	28-18E	480	11,292		35	"Bartlesville"	750
Miscellaneous		50	1,272		5+		
Total Neosho County		22,600	488,212	26,425,611	1,979	8	
				recorded			
NESS COUNTY							
Aldrich ('29)	7-18-25W	5,100	169,615	4,444,199	50	Warsaw	4,428 2 34
Aldrich Northeast ('54)	23-17-25W	820	158,592	850,938	22	Marmaton Penn. congl. Mississippian Fort Scott Warsaw	4,325 4 4,334 10 4,398 7 34 4,436 21 36 4,528
Arnold ('43)	22-16-25W	300	22,394	523,802	6	Warsaw	4,528
Cruce ('56)	4-19-26W	40	3,818	30,901	1	Mississippian	4,556 5 38
Davenport ('55)	36-16-21W	320	71,853	362,671	9	Cherokee	4,045 2 41
Elmore* ('58)	12-18-21W	80	12,150	27,914	2	Cherokee	4,116 12 42
Franklin ('59)	25-19-24W	40	3,773	7,747	1	Fort Scott	4,269 12 40
Guzzlers Gulch ('59)	24-20-25W	140	50,325	59,514	5	Mississippian	4,410 10 39
Hair ('60)	4-20-24W		no report	none		Mississippian	4,374 1 35
Margheim ('58)	17-19-21W	40	668	9,410	1	Mississippian	4,339 8 40
Pabst ('58)	24-18-21W	140	34,143	97,410	5	Cherokee	4,054 5 42
Petersilie ('57)	14-20-24W	280	50,966	132,985	10	Mississippian	4,386 38
Ryersee ('56)	35-18-21W	80	11,108	72,097	1	Cherokee	4,100 22 41
Ryersee Southwest ('57)	3-19-21W		no report	3,779	2	Mississippian	4,209 6
Schoharie ('56)	22-19-23W	40	1,220	8,806	1	Mississippian	4,270 5 40
Vermillion ('55)	6-17-24W	40	2,523	23,311	1	Marmaton	4,272 58 39
Pools or fields abandoned				65,686		Marmaton	4,385 11 36
Total Ness County		7,460	594,957	6,721,170	117	4	
NORTON COUNTY							
Densmore ('57)	12-5-22W	120	11,955	42,146	3	Lansing Reagan	3,314 8 3,543 5 24
Horesky ('59)	15-3-23W		Abandoned during 1960			Arbuckle	3,685 9

Norton ('53)	36-3-24W	2,140	544,056	5,129,829	116	Arbuckle	3,778	12	31
Ray* ('40)	32-5-20W	520	94,273	747,592	13	Reagan Lans.-K.C. Arbuckle	3,297 3,575 3,540	13	32
Ray North ('54)	13-5-21W		no report	none		Arbuckle	3,544		
Ray Northwest ('53)	22-5-21W		Combined with Ray West			Arbuckle	3,605	1	31
Ray West ('45)	26-5-21W	1,280	228,544	803,687	39	Arbuckle	3,650	9	31
Spieess ('58)	35-5-25W	40	3,317	10,207	1	Lansing	3,645	3	35
Pools or fields abandoned				32,505					
Total Norton County		4,100	882,145	6,765,966	172				
OSBORNE COUNTY									
Ruggles ('52)	23-10-15W	640	64,690	690,858	13	Shawnee	2,986	30	
Ruggles South ('57)	27-10-15W	40	2,326	13,949	1	Lans.-K.C.	3,024		
Worley ('59)	33-10-15W		no report	1,643		Penn. congl.	3,394	16	
Total Osborne County		680	67,016	706,450	14	Lans.-K.C. Penn. congl.	3,038 3,408	4 5	28 36
PAWNEE COUNTY									
Benson ('45)	30-23-15W	1,640	50,380	1,179,569	21	Lans.-K.C.	3,853	68	27
Bow ('58)	31-22-15W	80	13,321	36,091	2	Lansing	3,625	7	
Browns Grove ('57)	17-20-20W	80	5,852	43,103	2	Arbuckle	3,966	2	
Carpenter ('55)	25-23-17W	40	2,253	31,898	1	Mississippian	4,325	3	
Dunes ('53)	22-22-15W	680	45,174	504,886	8	Maraton	4,123		
Dunes Southwest ('53)	33-22-15W		no report	36,653		Penn.-Miss.	4,158	10	
Dunes West ('58)	21-22-15W		no report	1,541		"Kinderhook"	4,270	6	
Evers ('51)	1-22-16W	400	9,934	375,455	5	Arbuckle	3,956	24	36
Garfield ('47)	17-23-17W	7,780	464,405	6,918,611	236	1 Lans.-K.C. Arbuckle Penn. congl. Simpson	3,728 3,974 3,525 3,861	8 6 6 4	20 31 34
						Arbuckle	3,908	11	
						Penn.-Miss.	4,279		
						"Kinderhook"	4,276	5	

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TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing abn- duced wells, 1960	Producing zone	
			during 1960	to end, 1960		zone	acres
Hearn ('53)	35-23-15W	120	265	32,191	3	Lans.-K.C.	3,833
Jac ('58)	30-21-15W	40	no runs	137	1	Arbuckle	4,130
Jay ('54)	3-23-15W	360	27,491	291,636	10	Lans.-K.C.	3,871
Jay South ('56)	9-23-15W	80	2,614	37,577	2	Simpson	3,668
Jessie ('58)	36-21-15W	40	3,974	13,065	1	Lans.-K.C.	4,025
Larned ('49)	28-21-16W	2,240	388,677	4,101,315	58	Arbuckle	4,101
Lovett ('54)	35-22-15W	80	6,111	53,355	2	Lans.-K.C.	3,601
Merritt ('57)	35-21-20W		no report	none		Cherokee	3,877
Newsom ('56)	25-20-20W		no report	2,483		Mississippian	3,682
Oro ('53)	9-20-19W	640	107,456	843,166	14	Penn. congl.	4,208
Pawnee Rock* ('36)	13-20-16W	2,660	105,407	4,685,422	45	Arbuckle	4,270
Rice ('59)	12-23-15W	40	5,933	7,419	1	Arbuckle	3,832
Rutherford ('46)	8-20-16W	300	9,286	358,935	4	Arbuckle	4,028
Ryan* ('45)	35-19-16W		no report	575,146		Arbuckle	3,815
Ryan Southeast ('45)	12-20-16W	80	339	342,644	2	Arbuckle	3,656
Shady ('48)	35-22-16W		no report	6,038		Arbuckle	3,688
Shady Southwest ('53)	3-23-16W		no report	80,167		Lans.-K.C.	4,067
Shiley ('54)	14-20-20W	200	12,585	214,386	4	Arbuckle	3,705
Shiley East ('54)	18-20-19W	120	28,487	258,311	5	Penn. congl.	4,094
Sweeney ('53)	8-21-15W	100	3,290	61,501	2	Cherokee	4,173
Sweeney Southwest ('55)	25-21-16W		no report	6,833		Arbuckle	4,223
Sweeney West ('57)	14-21-16W	80	8,351	45,264	3	Simpson	3,901
Zook ('42)	16-23-16W		no report	7,016		Arbuckle	3,781
Pools or fields abandoned				382,196		Arbuckle	3,833
Total Pawnee County		17,880	1,301,585	21,534,030	432	Arbuckle	4,066
PHILLIPS COUNTY							
Beckman ('51)	3-4-19W	40	1,935	18,174	1	Lans.-K.C.	3,201
Bow Creek ('39)	25-5-18W		no report	85,736		Lans.-K.C.	3,111
Dayton ('41)	36-2-19W	1,640	26,531	1,323,963	24	Lans.-K.C.	3,430

Fredericksburg ('52)	4-1-18W	160	13,274	45,571	6	Lans.-K.C.	3,457	3
Glenwood ('51)	21-1-17W	no report		31,705		Lans.-K.C.	3,597	21 37
Hansen ('43)	14-5-20W	1,300	171,440	3,465,797	38	Lans.-K.C.	3,363	40
Hansen West ('52)	15-5-20W	40	3,266	42,817	1	Arbuckle	3,530	6
Huffstutter ('49)	6-2-18W	5,880	350,402	4,825,074	155	Lans.-K.C.	3,543	11
Huffstutter Southwest ('51)	23-2-19W	200	16,091	198,105	5	Lans.-K.C.	3,444	36 35
Logan ('45)	3-5-20W	420	25,849	606,387	12	Lans.-K.C.	3,458	4 36
Mont-Sol ('54)	1-4-19W	200	13,790	150,195	6	Arbuckle	3,149	37
Ray* ('40)	32-5-20W	4,000	1,195,032	24,343,561	150	Lans.-K.C.	3,381	10
Slinker ('51)	25-4-20W	540	63,611	271,079	10	Lans.-K.C.	3,255	10
Stony Point ('59)	18-5-20W	40	2,522	4,952	1	Reagan	3,297	30
Stuttgart ('50)	14-3-19W	580	23,662	448,059	11	Arbuckle	3,575	32
Stuttgart South ('51)	23-3-19W	80	4,765	35,203	2	Lans.-K.C.	3,540	13 32
Van Dyke ('59)	1-2-19W	40	1,094	1,506	1	Lans.-K.C.	3,215	8 36
Pools or fields abandoned				10,576		Lans.-K.C.	3,265	9 33
Total Phillips County		15,160	1,913,264	35,908,460	423	Lans.-K.C.	3,146	3 37

PRATT COUNTY

Blowout ('52)	8-27-14W	40	1,644	17,269	1	Lans.-K.C.	3,929	7 34
Cairo North ('54)	6-28-11W	40	3,523	63,596	1	Vioia	4,314	4 38
Carver-Robbins ('55)	21-27-15W	80	1,903	6,405	2	Penn. congl.	4,472	38
Carver-Robbins Northeast ('56)	10-27-15W	80	1,003	13,464	2	Mississippian	4,509	5
Chance ('46)	4-27-13W	1,320	102,833	3,797,092	67	1 Penn. congl.	4,400	9
					4	Marmaton	4,137	34
					67	Mississippian	4,254	34
						Vioia	4,250	10
Chance Northwest ('54)	29-26-13W	80	5,670	85,203	2	Simpson	4,380	
Chitwood ('43)	23-28-12W	2,000	546,010	11,035,884	67	Arbuckle	4,432	25
					2	Simpson	4,422	8 35
					67	Lans.-K.C.	4,422	40
						Vioia		
Clara* ('48)	36-29-14W	140	3,595	214,297	4	Simpson	4,396	14
						Arbuckle		
					4	Simpson	4,472	4 40

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing abdl. wells, 1960	Name	Producing zone	Total thickness, feet
			during 1960	to end, 1960				
Coats ('44)	24-29-14W	120	2,612	457,464	3	5 Simpson	4,402	12
Coats North ('54)	12-29-14W	80	1,290	108,314	2	Arbuckle Marmaton	4,342	10 28
Cullison ('56)	25-28-15W		no report	5,536		Simpson	4,584	16
Cunningham* ('31)	7-28-11W	3,400	79,597	5,213,997	70	Mississippian Lans.-K.C. Viola	4,943	13 39
Eads* ('59)	33-29-14W	120	26,573	51,337	3	Viola	3,390	7 41
Earl ('54)	36-28-14W	100	5,198	111,097	2	1 Lans.-K.C. Simpson	4,501	10 35
Earl North ('55)	36-28-14W	40	9,084	47,923	1	Simpson	4,223	
Fitzsimmons ('53)	30-27-13W	120	5,146	148,135	3	Simpson	4,520	14
Fitzsimmons South ('54)	31-27-13W	320	18,842	234,791	8	Lans.-K.C. Simpson	4,493	17 38
Frisbie ('43)	5-26-13W	400	21,108	569,419	8	Lans.-K.C.	4,056	3 36
Frisbie Northeast ('48)	4-26-13W	400	14,609	417,807	10	Lans.-K.C. Viola	4,124	38
Haskins ('56)	5-27-14W	80	4,151	37,008	2	Simpson	4,435	10 38
Hopewell ('58)	17-26-15W	40	693	1,008	1	Lans.-K.C.	3,947	8 33
Iuka-Carmi ('37)	11-27-13W	9,000	702,156	22,164,949	246	12 Lans.-K.C. Marmaton	3,788	19 27
Iuka-Carmi Northwest ('53)	26-26-13W	160	13,683	176,884	5	Mississippian Viola	4,170	17
Lion Northeast ('54)	21-27-11W	80	7,016	61,150	2	Arbuckle	4,274	
Ludwick ('44)	4-29-13W		no report	39,310		Lans.-K.C.	4,118	8 31
Ludwick Northeast ('60)	28-28-13W	40	3,350	3,350	1	Viola	4,418	8
Moore ('49)	1-26-14W	300	20,047	367,610	6	Lans.-K.C. Viola	4,104	31 37
						Simpson	4,012	7
						Mississippian	4,112	24
						Viola	4,195	
						Simpson	4,292	
						Arbuckle	4,554	
						Viola	4,217	16 37
						Simpson	4,276	
						Arbuckle	4,358	18 37
						Lans.-K.C.	3,796	3 38
						Simpson	4,490	27 39
						Simpson	4,418	5 36
						Lans.-K.C.	3,906	
						Viola	4,234	37
						Simpson	4,348	

Moore Southwest ('53)	11-26-14W	640	26,301	221,289	8	Lans.-K.C. "Kinderhook"	3,846 4,246	38
Moore West ('59)	4-26-14W	80	14,278	20,053	2	Simpson	4,364 3,810	2 32
Park ('59)	14-27-11W	40	9,277	16,529	1	Lansing	3,620	4 34
Randle ('55)	5-26-14W	80	11,430	69,759	1	Lans.-K.C.	3,946	8 35
Rell ('57)	10-29-14W	40	1,360	7,740	1	Marmaton	4,439	5
Rollingson ('58)	30-27-12W	220	92,034	179,636	10	Simpson	4,306	6 38
Sawyer ('57)	26-29-13W	580	63,909	121,054	12	Lans.-K.C. Simpson	4,096 4,607	4 4
Sawyer North ('60)	24-29-13W	40	3,282	3,282	1	Arbuckle	4,678	5
School Teacher ('57)	27-28-11W	40	1,120	5,120	1	Lans.-K.C.	3,926	13
Shriver ('44)	33-29-14W	300	12,700	838,031	6	Viola Simpson	4,331 4,557	16 40 7 39
Stark ('41)	18-26-11W	Abandoned during 1960				Lans.-K.C.	3,601	41
Stoops ('46)	7-29-12W	Abandoned during 1960				Viola	4,121	2
Tatlock ('54)	28-26-15W	40	5,464	80,059	2	Viola	4,446	39
Tatlock Southwest ('58)	30-26-15W	40	338	647	1	Lans.-K.C. Congl. sand "Kinderhook"	3,925 4,376	4 39
Pools or fields abandoned Total Pratt County		20,720	1,842,825	1,016,147 48,029,645	566		24	

RAWLINS COUNTY

Arbor ('59)	17-4-33W	40	4,602	9,667	1	Lansing	4,023	21 31
Brumm ('56)	7-2-36W	120	5,305	20,908	3	Topeka Lans.-K.C.	4,168 4,312	31 17
Cahoj ('59)	17-1-34W	1,360	453,192	503,524	46	Lansing	4,030	9 32
Kompus ('59)	33-1-32W	40	120	24,493	1	Lansing	3,890	3 30
Sappa Creek ('58)	24-4-34W	80	12,601	24,981	2	Marmaton	4,430	6
Waterman ('58)	15-4-33W	80	4,487	11,445	2	Lansing Marmaton	3,913 4,280	14 8
Wilhelm ('59)	20-1-32W	480	65,108	70,180	9	Lansing	3,880	9 33
Wilhelm East ('60)	15-1-32W	no report		none		Lansing	3,896	3 34
Total Rawlins County		2,200	545,415	641,198	64			

RENO COUNTY

Abbyville ('27)	24-24-8W	1,000	21,453	1,093,647	12	Lans.-K.C.	3,540	9 38
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TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl		Pro- ducing abdl. wells 1960	Producing zone			
			during 1960	to end, 1960		Mississippian	Lans.-K.C.	"Chat"	Other
Abbyville Southwest ('60)	26-24-8W	40	1,409	1,409	1	Mississippian	3,758	4	36
Albion ('48)	14-26-6W	140	5,548	66,386	4	Lans.-K.C.	3,342	3	31
						"Chat"	3,654		
Bacon ('53)	36-23-5W	40	8,784	56,359	1	Mississippian	3,382	28	38
Beck ('55)	24-23-9W	120	12,167	90,231	3	penn. cong1.	3,711	4	34
Buhler ('38)	25-22-5W	1,100	35,411	1,478,462	14	1 Viola	3,890	5	
						Simpson	3,897	42	
Burton* ('31)	1-23-4W	10,000	433,608	52,826,285	217	1 Mississippian	3,266	33	
						"Hunton"	3,583	42	
Castleton ('55)	29-25-6W	80	8,545	26,697	2	"Misener"	3,992	6	36
Haven ('51)	9-25-4W	Abandoned during 1960				Simpson	3,977	4	30
Hilger ('34)	16-26-4W	200	22,267	4,877,506	3	Viola	4,062	5	38
Hilger Southwest ('55)	29-26-4W	200	28,984	301,841	9	"Misener"	3,955		
						Viola	4,012	4	40
Lorado ('37)	10-26-9W	860	10,292	185,640	29	Mississippian	3,857		
Morton ('42)	17-24-8W	40	1,793	56,284	1	Lans.-K.C.	3,180	12	38
Morton Southeast ('51)	16-24-8W	40	1,599	19,271	1	Lans.-K.C.	3,423	12	38
Nicklaus ('52)	3-26-4W	120	19,910	201,164	3	1 Lans.-K.C.	3,249	3	38
Prettyman ('57)	11-23-9W	40	856	7,513	1	Lansing	3,244	6	
Rino* ('60)	33-21-9W	40	527	527	1	Arbuckle	3,524	7	
Sterling* ('51)	4-23-8W	400	18,355	231,528	7	Mississippian	3,385	12	34
Stroud ('58)	34-23-5W	40	4,728	16,686	1	Simpson	3,850	3	38
Stroud South ('59)	33-23-5W	40	2,404	5,895	1	"Hunton"	3,724	4	20
Wisby ('57)	18-22-9W	640	88,536	263,736	22	Simpson	3,614	4	32
Wisby North ('57)	6-22-9W	180	13,752	33,716	6	Simpson	3,610	10	40
Wisby South ('59)	19-22-9W	120	36,989	74,151	4	Simpson	3,630	13	43
Yoder ('35)	34-24-5W		no report	93,285		"Chat"	3,450	51	35
Zenith-Peace Creek* ('41)	21-23-10W	Included with Stafford County			5	Viola	3,773		
Pools or fields abandoned									
Total Reno County		15,480	777,917	2,666,082	343	II			
			64,674,301						

RICE COUNTY

Bell ('53)	9-21-10W	140	16,197	183,392	4	Arbuckle	3,391	4	39
Bloomer* ('36)	36-17-11W	1,300	286,038	16,743,051	67	8 Lans.-K.C.	3,044	43	
						Arbuckle	3,257	8	43

Bredfeldt ('48)	7-18-9W	120	5,606	128,318	3	Arbuckle	3,226	8	31
Bredfeldt Northwest ('56)	12-18-10W		no report	11,107		1 Arbuckle	3,250	5	43
Bull Creek ('60)	26-21-8W	40	260	260	1	Mississippian	3,354	5	34
Calf Creek ('50)	28-18-10W	320	29,225	331,074	12	Lans.-K.C.	3,006	12	
						Penn. congl.	3,270	10	
Calf Creek North ('52)	28-18-10W	40	705	15,493	1	Precambrian	3,143	10	40
Chase-Sillica* ('31)	32-19-9W	33,000	1,493,174	123,287,479	691	Arbuckle	3,248	13	
					29	Wabaunsee	2,285		
						Lans.-K.C.	2,942	10	40
						"Penn. sand"	3,355	8	
						Simpson	3,242		
Click Southeast ('47)	11-18-7W	120	5,012	94,625	3	Arbuckle	3,252	10	48
						Lans.-K.C.	3,065	5	26
						Penn. congl.	3,154	4	
Cow Creek ('46)	28-18-9W	80	7,388	22,763	2	Lans.-K.C.	2,950	5	
Crawford ('53)	12-18-7W	280	19,901	283,041	9	Penn. congl.	3,194	7	40
Crawford Southeast ('54)	20-18-6W	40	1,247	25,546	1	Penn. congl.	3,276	6	40
Dymond ('55)	18-21-7W		Abandoned during 1960			Mississippian	3,392	10	36
Farmer ('52)	24-18-10W	600	22,124	475,688	16	Arbuckle	3,222	6	40
Farmer North ('57)	18-18-9W	80	3,816	24,093	2	1 Arbuckle	3,326	6	32
Frederick ('51)	10-18-9W	700	27,088	857,585	3	Penn. congl.	3,213	26	37
			132,717		19	Simpson	3,280	10	
Galt ('52)	8-18-7W		no report	92,814		Arbuckle	3,193	4	
Geneseo-Edwards* ('34)	25-18-8W	5,640	1,026,863	45,047,002	247	Lans.-K.C.	2,787	39	
						Penn. congl.	3,222		
						Simpson	3,180	39	
						Arbuckle	3,132	41	
Glen Sharrald ('50)	20-18-10W	40	667	39,158	1	Lans.-K.C.	3,118	25	39
Heinz ('38)	8-18-10W	300	Abandoned during 1960			Arbuckle	3,000	41	
			6,460	365,748	7	Lans.-K.C.	3,254	14	
Ix1 ('50)	4-19-10W	820	60,197	506,415	19	Lans.-K.C.	3,068	44	
Lyons ('49)	14-20-8W		Abandoned during 1960			Arbuckle	3,308	22	
						Lans.-K.C.	3,226		
						Penn. congl.			
Mary Ida* ('50)	31-18-10W	640	42,513	825,532	15	"Misener"	3,315	16	37
						Arbuckle	3,277		
						Lans.-K.C.	3,033	36	
Mary Ida South ('57)	6-19-10W	420	33,085	179,058	6	Arbuckle	3,272	5	36
			63,174		8	Lansing	3,038	4	
Mooney Southeast ('59)	8-19-10W	160	11,231	11,231	4	Arbuckle	3,342	5	40
						Arbuckle	3,322	6	39

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro. Wells during abd. wells 1960	Name	Producing zone	
			during 1960	to end, 1960			Sp. Prod.	Thick. Feet
Munyon ('50)	34-18-10W	120	6,781	118,527	3	"Sooy"	3,270	43
Munyon South ('51)	3-19-10W	140	3,083	152,939	4	Arbuckle	3,275	43
Odessa ('49)	32-18-6W	640	79,509	589,199	15	Lans.-K.C.	3,300	13 43
Odessa South ('49)	9-19-6W	Included with Odessa				Lans.-K.C.	3,092	6 29
Orth ('32)	27-18-10W	1,180	72,913	3,495,208	28	Shawnee	3,069	6 38
						Lans.-K.C.	2,915	10 40
						"Sooy"	3,187	21
Orth West ('44)	21-18-10W	520	20,714	790,779	16	Precambrian	3,240	27 40
						Shawnee	2,688	37 41
Ponce ('36)	28-21-7W	160	10,313	138,182	4	Arbuckle	3,235	34
Ponce Southeast ('59)	27-21-7W	no report		1,365	1	Mississippian	3,388	40 34
Prosper East ('50)	5-18-9W	160	5,798	223,137	4	Arbuckle	3,414	18 37
Rellim ('57)	3-19-6W	640	66,980	283,164	18	Penn.-Miss.	3,222	16 46
Rick* ('36)	1-19-11W	40	2,256	68,758	1	Lans.-K.C.	3,295	18 35
						Arbuckle	3,106	41
Rickard ('35)	22-18-9W	40	2,042	211,530	1	Arbuckle	3,324	7
Rick Southeast ('47)	18-19-10W	120	16,920	176,104	5	Lans.-K.C.	3,026	36
						Arbuckle	3,334	5
Ringwald ('49)	32-18-10W	500	43,997	916,612	12	Lans.-K.C.	2,947	5 37
						Precambrian	3,072	5 37
Rino* ('60)	33-21-9W	80	3,590	3,590	2	Arbuckle	3,524	7
Roesler* ('43)	14-18-11W	220	19,754	317,398	5	Arbuckle	3,291	7
Smyres North ('57)	23-19-6W	40	no runs	1,219	1	Mississippian	3,360	8 38
Sterling* ('51)	4-22-8W	200	2,857	50,196	3	Mississippian	3,385	12
Union East ('50)	27-20-8W	140	2,263	77,747	2	"Sooy"	3,305	9 36
Volkland ('43)	27-18-9W	240	9,535	797,888	4	Arbuckle	3,221	30 38
Welch-Bornholdt* ('24)	35-20-6W	9,100	617,063	18,111,726	305	"Chat"	3,370	34
Wherry ('33)	11-21-7W	7,640	171,587	13,728,660	109	"Sooy"	3,358	22
Wisby Northeast ('58)	32-21-9W	120	22,181	29,737	4	Simpson	3,553	6
Pools or fields abandoned				496,755				
Total Rice County		66,920	4,474,824	230,330,893	1,687			68

RILEY COUNTY

Ge-See* ('59)	27-11-8E	20	2,030	1	Cherokee	1,749	12
Yaeger ('59)	25-11-8E	600	210,205	24	1 Penn. congl. "Hunton"	1,578	10
Total Riley County		620	212,235	25	I	1,682	8 33

ROOKS COUNTY

Arpin ('57)	5-9-20W	40	2,050	1	Arbuckle	3,655	5 24
Arpin East ('58)	4-9-20W	40	3,130	1	Arbuckle	3,751	21 29
Arpin South ('57)	8-9-20W	80	7,169	2	Arbuckle	3,714	12 49
Barry ('42)	11-9-19W	2,100	85,958	14	Lans.-K.C.	35	32
			389,689	51	Arbuckle	3,435	5
Barry East ('47)	6-9-18W	560	24,167	9	Lans.-K.C.	3,280	9 22
			854,596	9	Arbuckle	3,489	6
Barry Southeast ('46)	13-9-19W	700	76,634	24	Lans.-K.C.	3,228	26
			2,252,547	24	Arbuckle	3,479	7
Baum ('42)	10-10-16W	40	1,238	1	Lans.-K.C.	3,057	15 30
Baumgarten ('50)	25-9-19W	1,300	97,395	25	Lans.-K.C.	3,401	24
Bemis-Shutts* ('35)	16-11-17W	700	91,200	29	Arbuckle	3,621	7
			2,534,557	29	Lans.-K.C.	3,093	4 38
Berland Southeast ('53)	29-10-19W	no report	87,367	1	Arbuckle	3,570	8 32
Bray ('60)	20-8-19W	40	140	1	Arbuckle	3,755	5 26
Brungardt* ('52)	35-10-17W	500	38,677	13	Lans.-K.C.	3,460	4 17
			465,948	13	Penn. congl.	3,194	16 37
Brungardt Northwest ('53)	34-10-17W	no report	15,693	1	Arbuckle	3,644	2
			113,306	3	Penn. congl.	3,441	2
Carmichael ('55)	33-8-18W	120	10,383	6	Arbuckle	3,477	7 30
Chesney ('59)	12-8-17W	160	38,132	6	Lans.-K.C.	3,210	8 37
Colby ('53)	27-10-17W	no report	70,566	1	Lansing	3,066	34
Collins ('60)	34-9-18W	40	749	1	Lans.-K.C.	3,384	3
Cooper* ('43)	5-10-20W	1,600	180,990	41	Simpson	3,640	3 24
			2,213,789	41	Lans.-K.C.	3,619	6
Cresson ('56)	11-9-20W	80	3,963	2	Arbuckle	3,824	19
Dancer ('52)	4-8-17W	no report	36,492	2	Arbuckle	3,618	8
Dopita ('34)	31-8-17W	4,000	344,886	86	Lans.-K.C.	3,140	12 26
			3,494,368	86	Lans.-K.C.	3,212	5 33
Dopita East ('52)	29-8-17W	380	35,490	7	Arbuckle	3,409	10
			363,842	7	Lans.-K.C.	3,304	6 25
					Arbuckle	3,421	

Table 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing wells, 1960	Name	Producing zone		
			during 1960	to end, 1960			Depth	Thickness	Area
Dorr ('42)	20-9-16W	1,000	96,148	1,787,155	47	Toronto	3,178	10	
Eilers ('59)	22-10-18W	320	47,982	1,05,490	8	Lans.-K.C.	3,230	21	36
			2,046		1	Lansing	3,322	56	30
			27,855		4	Simpson	3,647		
Faubion ('36)	12-6-18W	40	2,388	69,520	1	Arbuckle	3,667	3	35
Fehnel ('52)	16-10-19W	80	5,536	77,918	2	Lans.-K.C.	3,162	14	36
Finney ('47)	14-10-18W	80	5,410	60,094	3	Lans.-K.C.	3,419	3	35
Finney South ('58)	24-10-18W	200	19,115	57,990	6	Lansing	3,447	48	33
Flagler ('55)	15-10-18W	40	6,799	34,711	1	Lans.-K.C.	3,445	6	
Ganoung ('53)	31-9-17W	80	2,633	41,886	1	Lans.-K.C.	3,281		
Gick ('47)	30-9-19W	260	20,008	382,092	7	Penn. congl.	3,524	7	
Gra-Rook ('48)	30-9-20W	760	142,656	1,991,518	18	Arbuckle	3,578	12	34
Gra-Rook North ('56)	18-9-20W	280	10,593	68,469	4	Penn. congl.	3,810		
Gra-Rook Northeast ('59)	17-9-20W	40	4,865	10,163	1	Arbuckle	3,746	14	32
Grover ('50)	22-7-19W	400	16,314	220,695	9	Arbuckle	3,767	5	30
						Lans.-K.C.	3,272	40	32
Hayden ('49)	31-8-19W	400	25,570	757,407	14	Arbuckle	3,408	13	
						Lans.-K.C.	3,289	3	32
Jelinek ('47)	23-9-19W	2,500	354,460	6,315,646	75	Arbuckle	3,513	4	
Kern ('50)	28-9-20W	200	27,796	482,221	6	Lans.-K.C.	3,220	23	
Kern West ('58)	29-9-20W	40	3,611	9,590	1	Arbuckle	3,537	15	
Krueger* ('48)	35-10-16W		Included with Ellis County	624,975		Arbuckle	3,855	5	
Kruse ('51)	3-10-16W	440	17,883	366,907	11	Lans.-K.C.	3,094	26	38
Kruse Northwest ('53)	34-9-16W	120	4,259	56,293	3	Lans.-K.C.	3,200	6	
Laton ('27)	11-9-16W	4,100	256,989	5,762,870	105	Lans.-K.C.	3,228	33	30
LeSage ('60)	18-7-20W	120	7,655	7,655	3	Lans.-K.C.	3,308	44	37
Locust Grove ('49)	8-7-19W	100	20,355	50,291	3	Shawnee	3,130	4	
						Arbuckle	3,450	14	25
Lone Star ('48)	4-8-17W	900	53,409	662,650	20	Lans.-K.C.	3,259		
Lynd ('51)	32-9-19W	1,040	34,121	555,789	15	Arbuckle	3,382	17	25
Lynd Southwest ('52)	5-10-19W	40	1,981	26,490	1	Arbuckle	3,750	7	27
						Arbuckle	3,759	4	29

Lynd West ('60)	32-9-19W	40	4,374	4,374	1	Arbuckle	3,754	6	27
McClellan ('45)	9-9-19W	no report	no report	73,742		Lans.-K.C.	3,343	5	34
McHale ('48)	8-9-18W	580	13,639	526,692	5	Lans.-K.C.	3,436	26	
McMullen ('52)	33-8-17W	40	3,855	4,550	1	Arbuckle	3,494	2	
Marc ('48)	18-9-19W	80	360	22,339	2	Lansing	3,166	8	37
Marcotte ('43)	15-10-20W	12,640	1,423,490	22,139,278	341	Lans.-K.C.	3,370	6	
Mayhew ('51)	24-9-19W	460	32,842	186,826	8	Arbuckle	3,752	27	
Medicine Creek ('52)	18-8-16W	80	1,253	34,486	1	Arbuckle	3,613	25	
Mt. Ayr ('52)	13-10-18W	120	10,959	27,240	2	Lans.-K.C.	3,054	17	36
Nettie ('48)	34-9-17W	740	89,936	1,428,668	34	Lans.-K.C.	3,554	12	
						Penn. congl.	3,648		
						Topeka	3,024	8	36
						Lans.-K.C.	3,243	36	
						Simpson	3,499		
Nettie Southeast ('55)	2-10-17W	40	3,771	18,605	1	Arbuckle	3,513	32	
Newlin ('58)	29-9-16W	40	4,571	21,112	1	Arbuckle	3,268	3	38
Northampton ('48)	26-9-20W	1,200	13,424	5,155,199	1	Lansing	3,305	4	41
			340,333		2	Lans.-K.C.	3,596	4	27
Nyra ('46)	16-9-17W	520	40,409	346,420	52	Arbuckle	3,803	11	
O'Brien ('60)	14-9-18W	no report	no report	none	16	Lans.-K.C.	3,429	34	
Ordway ('58)	20-10-18W	40	1,567	7,742		Arbuckle	3,501	5	
Ordway East ('59)	21-10-18W	40	5,714	7,290	1	Lansing	3,499	2	31
					1	Toronto	3,604	5	32
Palco Townsite ('45)	20-9-20W	80	1,942	47,826	2	Lansing	3,328	5	32
Paradise Creek ('47)	21-9-18W	1,100	81,729	2,758,004	35	Arbuckle	3,354	27	
Paradise Creek West ('53)	20-9-18W	200	22,921	272,872	2	Arbuckle	3,847	15	29
Plainville ('48)	31-9-17W	40	4,982	49,420	5	Lans.-K.C.	3,400	26	
Pywell ('58)	31-9-18W	40	2,829	13,750	2	Arbuckle	3,576	13	
Ray Southeast ('42)	9-6-20W	no report	no report	87,180	1	Lans.-K.C.	3,477	38	38
Riffe ('51)	4-7-19W	240	78,333	195,494	3	Reagan	3,600	6	38
Schindler ('59)	17-8-17W	40	2,327	5,609	11	Lans.-K.C.	3,230	36	
Simons ('60)	11-7-17W	60	4,727	4,727	1	Arbuckle	3,325	11	26
Slate ('51)	31-6-19W	120	4,877	55,169	2	Lans.-K.C.	2,922	29	41
					3	Lans.-K.C.	3,291	26	
Stockton ('37)	35-7-17W	400	13,778	266,430	8	Arbuckle	3,545	15	
						Shawnee	2,692		
						Lans.-K.C.	3,180	62	39

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- Wells during abbd. wells 1960	Producing zone	
			during 1960	to end, 1960		Dpth	Thickness, ft.
Trico* ('51)	30-10-20W	3,860	282,412	2,405,595	55	1	Lans.-K.C. Arbuckle 3,543 3,749 18
Vohs ('45)	14-10-19W	960	115,475	2,889,742	26		Lans.-K.C. 3,365 7 29
Vohs Northwest ('47)	9-10-19W	40	3,445	144,086	1		Lans.-K.C. Arbuckle 3,446 8 34 3,738
Vohs Southeast ('59)	24-10-19W	40	1,703	1,703	1		Lansing 3,200
Webster ('46)	27-8-19W	2,600	89,322	3,153,327	45	1	Shawnee 3,180 12 Arbuckle 3,403 5 23
Westhusin ('36)	11-9-17W	1,360	70,695	2,735,722	33	1	Lans.-K.C. Arbuckle 3,231 11 37 3,408
Whisman ('50)	9-9-20W	140	3,361	21,346	4		Lans.-K.C. Arbuckle 3,427 29
Williams ('53)	9-10-18W	600	43,926	466,983	8		Arbuckle Toronto 3,650 21 3,386 Lans.-K.C. 3,459 Simpson 3,717
Williams North ('56)	32-9-18W	200	23,799	106,611	7		Arbuckle 3,733 6 19 3,714 3 Penn. congl. 3,714 3 29 Simpson
Williams Northwest ('53)	6-10-18W	40	18,098	52,204	2		Arbuckle 3,725 3 Lans.-K.C. 3,409 46 26 Simpson 3,725 5
Williams Southeast ('53)	16-10-18W	640	64,517	358,177	14		Lans.-K.C. 3,444 3 36 Simpson 3,660
Windy Ridge ('58)	25-10-18W	40	1,167	1,167	1		Arbuckle 3,426 19
Yohs ('49)	4-9-18W	40	2,558	60,358	1		Lans.-K.C. 3,266 24 37
Zurich ('35)	26-10-19W	800	18,553	520,136	9		Shawnee 3,087 37 Lans.-K.C. 3,340 9 Lans.-K.C. 3,385 9 28
Zurich Southwest ('52)	34-10-19W	40	1,651	31,191	1		Lans.-K.C. 3,385 9 28
Zurich Townsite ('44)	27-9-19W	360	34,506	688,595	9		Lans.-K.C. 3,462 6 28 Arbuckle
Pools or fields abandoned				154,121			
Total Rooks County		56,800	5,634,607	92,172,250	1,443	10	

RUSH COUNTY

Basgall ('60)

5-16-17W

40

2,770

2,770

1

Arbuckle

3,520 10 29

Elmore* ('58)	12-18-21W	80	8,972	18,503	2	Cherokee	4,116	12
Herr North ('58)	12-16-18W	80	9,323	9,696	2	Lans.-K.C.	3,267	2 36
Kober ('59)	18-19-20W	40	9,542	13,762	1	Arbuckle	3,527	2
Lohrey ('56)	35-17-17W	80	1,918	3,229	2	Cherokee	4,323	14 37
Loretto Northeast ('57)	14-16-17W	80	2,963	21,477	2	1 Penn. congl.	3,563	
McCracken ('57)	19-17-20W	no report	no report	19,135	2	Granite Wash	3,578	
Old Maids Fork ('60)	20-19-20W	40	3,845	3,845	1	Lans.-K.C.	3,452	7
Otis-Albert* ('34)	10-18-16W	2,820	92,832	6,404,896	61	Cherokee	4,090	3
Pechanec ('56)	2-19-17W	40	1,059	6,189	9	Cherokee	4,300	4 41
Reichel ('53)	23-17-17W	no report	no report	6,189	1	Reagan	3,827	9 34
Rush Center ('47)	16-18-18W	940	55,997	572,587	10	Arbuckle	3,330	11 44
Rush Center Northeast ('54)	10-18-18W	40	2,383	59,057	1	Lans.-K.C.	3,330	15 37
Ryan* ('45)	35-19-16W	1,320	15,655	2,126,760	12	Arbuckle	3,783	5
Webs ('54)	16-19-20W	200	66,798	428,039	8	Arbuckle	3,656	5 32
Webs Northwest ('55)	8-19-20W	80	5,827	39,788	2	1 Penn. congl.	4,202	10 31
Webs Southwest ('56)	16-19-20W	140	21,197	155,416	3	1 Penn. congl.	4,240	
Weitzel ('47)	1-16-20W	no report	no report	46,773		Cherokee	4,302	2 35
Pools or fields abandoned						"Penn. sand"		
Total Rush County		6,020	301,081	9,996,729	109	Mississippian	4,400	4
						"Gorham"	3,674	35

RUSSELL COUNTY

Beaver North* ('37)	4-16-12W	60	6,516	91,805	2	Arbuckle	3,316	10 39
Beisel ('44)	15-14-12W	40	4,619	41,856	1	Penn. congl.	3,249	4
Boxberger ('35)	36-15-15W	40	1,900	250,407	1	Arbuckle	3,272	7 29
Boxberger West ('57)	34-15-15W	40	9,085	32,494	1	Lans.-K.C.	3,147	4 41
Brundage ('57)	9-12-15W	120	61,442	333,557	11	Lans.-K.C.	3,195	5 40
Brundage South ('58)	16-12-15W	100	80,088	60,032	10	Lans.-K.C.	2,852	4 39
Clausen ('44)	27-12-14W	200	13,699	126,081	3	Arbuckle	3,136	4
Coal Creek ('51)	22-15-11W	40	3,122	19,502	5	Lansing	2,971	5
Davidson* ('30)	4-16-11W	160	18,029	278,392	1	Arbuckle	3,240	6 30
Donovan ('35)	10-15-15W	120	3,839	277,740	3	Lans.-K.C.	2,855	39
						1 Penn. congl.	3,178	38
						1 Lans.-K.C.	3,016	
						"Sooey"	3,317	9
						Arbuckle	3,314	
						Lans.-K.C.	3,193	7 39

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing abdl. wells 1960	Producing zone	
			during 1960	to end, 1960		Sp. Prod.	Thick- ness, ft.
Dreher ('59)	23-11-15W	80	4,801	5,993	2	Arbuckle	3,313 10
Driscoll ('56)	30-15-11W	220	6,243	110,593	5	Penn. congl.	3,303 2 37
Driscoll West ('60)	25-15-12W	40	760	760	1	Arbuckle	3,306 10 36
Dubuque ('35)	34-15-12W	700	30,809	1,332,376	11	Lans.-K.C.	3,275 3 41
Eulert ('49)	35-11-15W	540	86,052	1,253,582	17	Arbuckle	3,330 5
Eulert West ('54)	34-11-15W	40	6,732	35,207	1	Arbuckle	3,316 13 22
Fairport* ('23)	8-12-15W	6,320	838,864	27,671,567	220	Lans.-K.C.	2,984 6 42
						"Sooy"	2,950 12 32
						"Gorham"	3,137 5
Gorham ('26)	32-13-15W	17,000	1,310,776	69,368,200	485	Simpson	3,211
						Arbuckle	3,316
						Arbuckle	3,312
						Reagan	3,350
						Shawnee	2,765
						Lans.-K.C.	2,908 48 37
						"Gorham"	3,152 5 32
						Arbuckle	3,289 5
Hagerman ('59)	28-11-15W	40	9,462	14,099	1	Reagan	3,299 5
Hall-Gurney* ('31)	30-14-13W	29,000	3,109,512	83,576,412	1,189 10	Arbuckle	3,273 6 28
						Tarkio	1,985 39
						Wabaunsee	2,400
						Topeka	2,675
						Oread	2,813
						Lans.-K.C.	2,985 28
						"Gorham"	3,165
						Arbuckle	3,192
						Precambrian	3,156
Heim ('53)	21-14-12W	320	33,253	279,087	7 1	Lans.-K.C.	2,897 37
						Penn. congl.	3,189 11 37
						Arbuckle	3,238
Janne ('43)	24-15-12W	300	10,855	335,256	6 1	Lans.-K.C.	3,319 5 22
Jerry ('42)	4-15-14W	40	2,633	77,435	1	Wabaunsee	2,985 38
						Lans.-K.C.	2,985
						Arbuckle	3,004 15 28
Kune ('56)	17-13-15W	120	16,753	76,205	5	Lans.-K.C.	3,334 16
Lang ('57)	30-15-12W		no report	none		Arbuckle	

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- Wells producing abd. wells 1960	Name	Producing zone	Thickness, feet	Acreage, acres
			during 1960	to end, 1960					
Olsson ('29)	10-16-3W	900	122,811	830,833	31	2 Viola	3,303	12	35
Salina ('43)	30-14-2W	1,440	35,347	1,209,945	15	Viola	3,223	8	34
Salina South ('46)	32-14-2W	640	48,910	351,653	16	Viola	3,246	8	34
Smolan ('50)	19-15-3W	3,200	143,113	4,428,224	100	Viola	3,386	6	37
Swenson ('50)	34-15-3W	140	10,620	62,110	4	Viola	3,353	3	35
Pools or fields abandoned				11,285					
Total Saline County		11,100	648,244	11,200,785	289	4			
SCOTT COUNTY									
Grigston ('54)	10-19-31W	120	no runs	32,803	3	Mississippian	4,577		
Keystone ('50)	25-18-32W	120	16,237	275,693	3	Arbuckle	5,050	4	
Newby ('60)	23-18-32W	40	3,450	3,450	1	Lans.-K.C.	4,001	6	25
Rothfelder ('57)	7-20-33W	80	8,736	31,912	2	Lans.-K.C.	3,923	2	23
Shallow Water ('35)	15-20-33W	900	14,535	1,954,743	6	Marmaton	4,335	2	23
Shallow Water Northeast ('59)	12-20-33W	40	6,465	6,465	1	Morrowan	4,672	23	25
Total Scott County		1,300	49,423	2,305,066	16	1	Mississippian	4,660	16
							Cherokee	4,432	5
SEDGWICK COUNTY									
Bartholomew* ('48)	30-27-4W	2,000	92,373	2,895,110	66	Kansas City	3,270	10	
Bentley ('29)	24-25-2W		no report	22,250	3	Mississippian	2,866	24	
Brumley ('55)	19-29-1E	220	11,508	88,493		Lans.-K.C.	2,863	2	
Butwick ('58)	32-25-1E	40	955	955	1	Mississippian	3,352	8	
Buzzi ('58)	140	28,239	40,688		4	Simpson	3,754	1	
Chambers ('48)	10-29-2W	100	5,846	117,770	2	"Hunton"	3,192	2	
						"Hunton"	3,436	1	
						Kansas City	2,916	5	

Chambers Northeast ('56)	2-29-2W	200	16,140	120,655	5	Mississippi	3,540	4	44
Clearwater ('44)	22-29-2W	200	12,746	201,708	5	Mississippi	3,570	5	
Cross ('29)	27-25-1W	40	8,669	115,548	1	Lans.-K.C.	2,913	11	
						Lans.-K.C.	2,690	40	36
Curry ('47)	11-27-1W	460	33,687	749,660	17	"Hunton"	3,574	5	
						Lans.-K.C.	2,715		
						Viola	3,400		
DuBois* ('57)	3-25-2E	700	271,110	670,433	33	"Burgess"	3,830	8	
Eastborough ('29)	19-27-2E	940	33,913	9,220,403	14	"Chat"	2,956		
						Viola	3,238		
Eastborough North ('52)	8-27-2E	40	1,660	40,830	1	Arbuckle	3,376	25	
Fairview ('48)	8-26-2E	280	11,200	425,387	5	Lans.-K.C.	2,500	44	
						"Burgess"	2,960	2	
						Mississippi	2,991	4	
Fairview North		40	3,837	3,837	2				
Fairview Northeast ('59)	4-26-2E	160	3,615	12,900	4	"Burgess"	2,904	7	42
						Mississippi	2,860	3	
Furlow ('58)	10-25-2E	180	80,621	109,158	21	"Burgess"	2,857	13	40
Gehring-Rick ('52)	16-28-2E	80	2,156	24,824	2	Mississippi	2,950	40	
Gladys ('54)	30-28-1E	37,200	763,075	8,294,475	227	Lans.-K.C.	2,773	9	40
						Mississippi	3,176		
Gladys South ('55)	5-29-1E	no report	no report	10,131		Mississippi	3,194	16	
Gladys Southeast ('55)	4-29-1E	80	1,289	17,891	2	Mississippi	3,150	15	
Goodrich ('28)	16-25-1E	840	96,715	5,268,308	25	Lans.-K.C.	2,614	2	
						"Chat"	3,010	16	
						"Kinderhook"	3,334		
						Arbuckle	3,339	3	
						"Chat"	2,865	3	
Greenwich ('29)	14-26-2E	1,640	186,075	12,912,175	44	Viola	3,321	5	
						Lans.-K.C.	2,779	5	
Hohn ('45)	22-27-1W	40	2,176	150,738	1	"Burgess"	3,009	2	
Kechi ('29)	13-26-1E	no report	no report	34,321		"Burgess"	3,016	1	41
Kuske ('29)	24-25-1E	720	32,607	1,002,647	18	Lans.-K.C.	3,117	5	
Latta North ('56)	33-29-2W	40	3,393	19,862	1	Simpson	3,338	8	37
Luening ('51)	33-26-2E	40	1,937	25,826	1	Arbuckle	3,247	4	34
Minneha ('51)	11-27-2E	160	3,153	74,516	4	Arbuckle	3,285	7	40
Minneha North ('60)	2-27-2E	40	1,480	1,480	1	"Burgess"	2,785	5	
Neuman ('57)	11-25-2E	140	18,222	61,965	6	Mississippi	2,784	2	
						Viola	3,387	1	
Petrie ('45)	36-26-1W	40	9,182	166,547	1	Viola	3,445	2	
Petrie Northwest ('51)	35-26-1W	no report	no report	42,135	1	Viola	3,445	2	
Robbins ('29)	20-28-1E	860	113,361	5,160,997	34	Mississippi	3,090	12	39
Schulte ('47)	7-28-1W	no report	no report	215,345		Mississippi	3,349	45	

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing abdi. wells 1960	Producing zone	
			during 1960	to end, 1960		Dpph	Thick- ness, ft.
Schulte South ('55)	18-28-1W	40	2,892	8,937	1	Simpson	3,658
Ulmer ('59)	28-25-2E	no report	none	none	1	Mississippian	3,390 11
Ulmer South ('59)	33-25-2E	60	33,627	42,314	3	"Burgess"	2,908 10
Valley Center ('28)	1-26-1W	920	54,883	22,365,380	17	Lans.-K.C.	2,917 4 38
						"Kinderhook"	2,860
						Viola	3,380
White Cotton ('48)	30-26-2E	560	15,844	627,105	10	"Burgess"	3,366 2
Wichita ('57)	4-27-1E	1,000	299,573	1,187,634	43	Viola	2,957 2
			17,920		3	Simpson	3,325 4
Pools or fields abandoned				209,593			
Total Sedgwick County		50,240	2,281,774	72,760,931	630		
SEWARD COUNTY							
Adamson ('58)	11-34-34W	100	1,857	1,857	2	Chesteran	6,064
Hawks ('52)	18-35-31W	no report	no report	2,467	1	Morrowan	5,927
Holt ('54)	28-32-34W	40	124	687	1	Shawnee	
Hopkins* ('60)	34-30-33W	no report	no report	none		Mississippian	5,378 7 30
Kismet* ('48)	23-33-31W	320	21,687	76,234	10	Marmaton	5,095 3 38
						Morrowan	5,576 5 34
Kismet Northwest ('53)	10-33-31W	40	341	2,080	1	Morrowan	5,584
Kismet South ('52)	26-33-31W	Combined with Kismet				Mississippian	5,770 90 39
Kneeland ('51)	23-34-31W	40	713	12,013	1	Marmaton	5,332 14 41
Liberal-Light ('51)	11-35-32W	1,740	3,905	234,625	12	Lans.-K.C.	5,103 40
						Morrowan	6,005
Liberal Southeast ('47)	15-35-33W	160	3,872	104,626	4	Morrowan	6,202
Massoni ('58)	4-33-31W	100	612	8,024	3	Marmaton	5,031 10 38
Plains West ('56)	16-32-31W	40	145	1,710	1	Morrowan	5,600 14
Shuck ('55)	20-33-34W	40	333	3,983	2	Morrowan	5,987
						Mississippian	6,038 13
Thirty-One ('53)	18-31-31W	40	430	2,847	1	Morrowan	5,448
Thirty-Three ('60)	33-33-33W	40	14,552	14,552	1	Chesteran	5,898 13 40
Three Star ('58)	17-35-32W	80	2,743	4,485	2	Lans.-K.C.	4,546
						Morrowan	5,866
						Chesteran	6,089

Wide Awake ('54)	4-35-34W	40	4,354	9,995	2	Toronto Mississippian
Total Seward County		2,820	55,668	480,185	43	2
SHERIDAN COUNTY						
Adell ('44)	11-6-27W	1,900	275,842	5,076,290	50	Lans.-K.C. 3,755 4 42
Advance ('56)	26-8-27W	40	4,504	59,616	1	Lans.-K.C. 3,883 9 41
Custer ('55)	12-10-26W	100	12,231	64,251	3	Lans.-K.C. 4,024 5 39
Custer Northwest ('59)	2-10-26W	40	7,504	8,115	1	Lansing 3,849 3 42
George ('52)	17-9-26W	100	11,638	93,012	3	Lans.-K.C. 4,023 11 41
George Southwest ('58)	18-9-26W	40	11,294	20,396	1	Lansing 3,860 10
Hortonville ('53)	20-6-26W	100	6,996	74,148	2	1 Lans.-K.C. 3,789 23 29
Hoxie ('56)	6-9-28W	140	35,322	126,156	4	Toronto 3,810 6
			8,336		1	Lansing 3,901 3
Parnell ('59)	30-7-29W	40	668	1,060	1	Lansing 3,972 6 28
Studley ('43)	23-8-26W	320	62,135	577,481	6	Lans.-K.C. 3,810 9 47
Studley South ('59)	27-8-26W	40	442	2,087	1	Lansing 3,746 2 27
Studley Southeast ('55)	26-8-26W	80	2,862	28,815	1	Lans.-K.C. 3,872 8 42
Studley Southwest ('45)	32-8-26W	80	3,484	120,491	1	Lans.-K.C. 3,758 26 37
Wessel ('53)	27-6-29W		no report	115,562		Lans.-K.C. 3,985 4 38
Wessel North ('53)	16-6-29W	120	4,698	53,025	2	Lans.-K.C. 4,081 4
Pools or fields abandoned				954		
Total Sheridan County		3,140	447,956	6,421,459	78	3
SHERMAN COUNTY						
Llanos ('58)	10-6-37W	160	120,696	272,286	9	Kansas City 4,439 12 36 Marmaton 4,504 5 37 Cherokee 4,804 8 22
STAFFORD COUNTY						
Albano ('57)	12-25-14W	80	19,607	69,689	2	Lans.-K.C. 3,812 6 Mississippian 10 Viola 4,099 16 Arbuckle 4,270
Bart-Staff* ('51)	4-21-14W	320	19,392	292,981	7	Lans.-K.C. 3,572 40 Arbuckle

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- Wells producing abnl. wells, 1960	Producing zone		Total thick. feet	Ave. thickness
			during 1960	to end, 1960		Oil	Gas		
Bayer ('51)	16-21-14W	640	7,865 3,574 71,153	491,170	1 1 8	1 1 8	3,543 3,702 3,736	4 10 13	31
Bedford ('40)	21-23-12W	640	20,478	1,834,721	9	9	3,832 3,859 3,574	16 36 8	36
Besthorn ('56)	9-22-13W		no report	none			3,574	8	
Brenn ('54)	19-23-13W	620	30,975	321,103	9	9	3,651	6	33
Brock ('44)	12-23-12W		no report	437,146			3,366	14	
Byron East ('54)	3-21-12W		no report	none			3,680	4	20
Byron Southeast ('51)	10-21-12W	40	555	59,862	1	1	3,478	5	
Centerview ('54)	28-24-13W	380	39,823	299,270	9	9	3,500	3	
Cephas ('53)	10-25-14W	480	14,799	341,863	3	3	4,188	5	
Cephas North ('54)	35-24-14W	80	1,789	37,149	2	2	3,794	8	38
Chase-Sillica* ('31)	32-19-9W	640	26,053	560,798	15	5	3,383	10	40
Cleveland ('53)	21-23-14W	80	2,101	38,738	2	1	3,690	7	
Cline ('58)	25-24-13W	40	6,031	20,682	1	1	3,594	3	
Crissman ('52)	16-23-14W	400	26,162	302,795	10	10	3,664	8	34
Curtis ('42)	6-22-13W	780	62,225	1,509,344	25	25	3,984	16	
Dell ('50)	7-21-13W	120	3,361	121,906	2	2	4,006	6	
Dell East ('51)	5-21-13W	320	31,968	640,683	14	14	3,514	7	30
Dell Northeast ('51)	5-21-13W	80	2,999	34,422	2	2	3,693	3	
Dillwin ('56)	16-24-14W	780	145,607	830,542	19	1	3,446	13	30
Drach ('37)	12-22-13W	1,400	201,496	7,071,017	40	2	3,471	8	36
Duggan ('51)	30-21-11W	Combined with Sand Hills					3,438	3	36
							3,612	6	31
							4,295	5	31
							3,642	5	35
							3,690	12	35
							3,312	6	40
							3,479	6	8
							3,505	8	
							3,514	8	

Emerson ('57)	29-25-14W	100	4,388	23,534	2	Lans.-K.C.	3,905	10	32
Farmington ('43)	34-24-15W	380	14,137	1,245,665	8	Lans.-K.C.	3,769		39
						"Kinderhook"			
						Simpson	4,378	6	
						Arbuckle	4,417	16	
Farmington Northeast ('55)	26-24-15W	220	24,554	80,302	5	Arbuckle	4,416	12	34
Farmington Northwest ('56)	29-24-15W	100	3,003	33,687	2	Lans.-K.C.	3,904	8	25
						"Kinderhook"	4,272	10	
Frey ('50)	7-21-14W	700	37,101	929,733	12	Arbuckle	3,717	7	40
Gates ('33)	27-21-13W	6,300	688,655	11,838,240	155	Lans.-K.C.	3,530		38
						Penn. cong1.	3,643		
						Viola	3,635		
						Arbuckle	3,679	37	39
Glasscock ('59)	32-24-13W	180	20,266	38,771	4	Lansing	3,642	10	
						Arbuckle	4,233	3	
Glen ('54)	14-23-14W	60	11,856	53,781	1	Lans.-K.C.	3,651	6	
Gray ('46)	11-24-13W	80	2,201	62,434	2	Lans.-K.C.	3,672		30
Green Ridge ('53)	30-23-14W	40	3,089	26,477	1	Lans.-K.C.	3,788	22	31
Green Valley ('53)	2-23-14W	40	918	28,221	1	Lans.-K.C.	3,640	10	40
Grow ('49)	16-21-13W	500	37,224	578,751	10	Lans.-K.C.	3,463	7	35
						Arbuckle	3,705		
Grunder ('58)	11-25-15W	300	50,435	88,079	9	Mississippi	4,173		
						Arbuckle	4,424	4	32
Grunder Southwest ('59)	15-25-15W	120	12,028	16,543	3	Lansing	3,784	3	
						Mississippi	4,200	7	36
H A H ('58)	17-24-13W	40	3,352	19,218	1	Lans.-K.C.	3,658	8	
Hahn East ('57)	22-22-13W	40	4,762	19,218	1	Arbuckle	3,828	5	22
Hammond ('57)	9-25-14W	160	no report	6,558		Lans.-K.C.	3,924	15	36
Happy Valley ('52)	15-23-13W	80	8,946	47,855	2	Lans.-K.C.	3,430	60	
						Arbuckle	3,810	9	35
Happy Valley Northeast ('55)	11-23-13W	40	2,483	59,018	1	Arbuckle	3,857	10	31
						Lans.-K.C.	3,767		39
Harter ('50)	30-24-13W	160	7,262	121,405	4	Simpson	4,167		
						Arbuckle	4,181		34
Harter North ('56)	19-24-13W	80	10,043	47,400	2	Lans.-K.C.	3,785	5	32
Haynes ('59)	22-25-15W	80	3,890	9,926	1	Mississippi	4,232	9	35
Haynes East ('60)	23-25-15W	40	1,610	1,610	2	Mississippi	4,254	16	38
Hazel ('42)	21-21-13W	640	25,971	1,035,913	20	Lans.-K.C.	3,380		
						Arbuckle	3,692	9	37
Hazel West ('50)	20-21-13W	640	61,054	1,365,929	25	Lans.-K.C.	3,488	6	35
						Arbuckle	3,673		

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing wells, 1960	Producing zone	
			during 1960	to end, 1960		Oil field	Thickness, ft.
Helene ('59)	17-22-12W	80	3,673	30,333**	2	Arbuckle	3,691 4 35
Heyen ('43)	24-22-12W	460	61,805	903,268	14	Lans.-K.C. Arbuckle	3,321 12 39
Heyen East ('56)	13-22-12W	640	Combined with Heyen	1,061,387	21	Arbuckle	3,633 2
Hickman ('51)	27-21-14W					Lans.-K.C.	3,522 10 24
Hickman South ('52)	34-21-14W	40	794	45,875	1	Simpson	6
Hickman West ('59)	33-21-14W	160	42,364	52,800	5	Lans.-K.C.	3,567 8 37
Huford ('48)	33-21-13W	440	50,644	1,187,457	16	Lansing	3,419 5 34
Jordan ('36)	15-25-14W	420	36,680	1,114,703	12	1 Lans.-K.C.	3,499 30
Kachelman ('50)	7-25-13W	120	20,957	93,596	4	Arbuckle	3,755 7
Keeley ('59)	5-21-14W	60	6,715	16,354	2	1 Lans.-K.C.	3,722 5 34
Keenan ('57)	20-22-13W	40	4,612	19,917	1	Lans.-K.C.	3,946
Kelly West ('59)	34-23-12W	40	7,796	8,859	1	Viola	4,075 33
Kenilworth ('47)	15-22-13W	400	26,818	590,615	10	Arbuckle	4,294
Kipp ('37)	27-25-14W	300	10,433	714,934	4	Lansing	3,322 5 26
Kipp North ('54)	23-25-14W	80	8,048	78,568	2	Lans.-K.C.	3,572 6 30
Kipp Northeast ('46)	23-25-14W	120	9,236	287,030	3	Lans.-K.C.	3,396 6 34
Kipp Southwest ('57)	28-25-14W	140	26,858	67,649	5	Lans.-K.C.	3,505 34
Knoche South ('57)	17-24-12W	120	19,671	58,197	3	Arbuckle	3,808
Koelsch ('52)	24-24-14W	360	16,890	344,205	9	Lans.-K.C.	3,827 79 32
Koelsch Southeast ('52)	25-24-14W	280	11,543	506,854	4	Simpson	4,243 6
Koelsch West ('59)	23-24-14W	40	7,282	12,955	1	Lans.-K.C.	3,748 10 32
Kowalsky* ('41)	32-20-11W	200	52,166	334,844	6	Lans.-K.C.	3,850 8 34
Kowalsky Southwest ('50)	6-21-11W	360	29,169	313,593	9	Viola	3,872 5
Krankenber ('56)	19-22-12W	740	no report	6,158	4	Lans.-K.C.	3,750 8 35
Leesburgh ('38)	12-25-13W	740	122,787	2,984,094	16	Simpson	4,181 4 41
Leiss ('56)	23-25-13W	80	2,874	46,746	2	Arbuckle	4,187
					1	Lansing	3,612 4 34
					6	Lans.-K.C.	3,279 50
					9	Simpson	3,398 23 46
					16	Arbuckle	3,424 46
					16	Simpson	3,711 5 38
					16	Lans.-K.C.	3,837 30 38
					2	Simpson	4,060 24 38
					2	Arbuckle	4,153 10
					2	Simpson	4,215 7 40

Leo ('50)	7-21-13W	120	4,248	105,819	3	Lans.-K.C.	3,475	26
Lincoln ('51)	29-21-14W	160	16,644	249,818	4	Arbuckle	3,636	4
McCandless ('44)	30-25-13W	540	81,415	1,498,243	14	Lans.-K.C.	3,543	8 33
			80,471		11	Lans.-K.C.	3,863	
McCandless Northeast ('60)	20-25-13W	40	4,280	4,280	1	Simpson	4,251	16 37
McGinty Northwest ('51)	14-21-14W	no report	no report	33,444	1	Arbuckle	4,322	5 35
Macksville East ('54)	14-24-15W	80	4,335	58,557	2	Lans.-K.C.	3,483	5 31
						Viola	4,126	20 37
						Arbuckle	4,091	4
Max ('38)	35-21-12W	5,000	287,388	8,443,801	90	Lans.-K.C.	3,356	16 35
						Simpson	3,615	2
						Arbuckle	3,570	7
Max North ('55)	27-21-12W	40	8,664	45,414**	1	Arbuckle	3,628	2 38
Merle ('49)	32-23-13W	380	3,230	339,272	9	Lans.-K.C.	3,669	10 34
Moody ('56)	7-25-14W	580	144,412	373,814	20	Mississippian	4,168	14
Mopac ('54)	30-24-11W	200	23,087	189,481	7	Viola	3,908	5
Morning Star ('58)	1-25-14W	160	37,393	121,498	4	Mississippian	4,025	18
			13,548		2	Arbuckle		
Mt. View ('52)	29-22-13W	120	21,392	141,858	3	Lans.-K.C.	3,641	8 36
						Arbuckle	3,858	
Mueller ('38)	29-21-12W	4,600	326,108	8,171,707	91	Lans.-K.C.	3,356	
						Arbuckle	3,594	8 36
Nagel ('58)	10-24-15W	160	24,734	27,455	4	Lans.-K.C.	3,735	6
Nealie East ('60)	27-22-14W	40	6,829	6,829	1	Lans.-K.C.	3,503	7 30
Neola ('48)	15-25-11W	80	2,519	44,002	2	Viola	3,921	4 40
Newell ('53)	7-25-11W	160	8,539	87,880	3	Lans.-K.C.	3,537	3 36
						Viola	3,913	3
North Star ('52)	27-24-12W	600	4,565	355,821	5	Viola	3,915	16 40
						Simpson	4,063	9
O'Connor ('48)	8-24-15W	40	2,413	31,867	1	Lans.-K.C.	3,768	11 29
Omlor ('57)	10-22-14W	120	20,602	59,672	3	Simpson	4,022	23 31
Oscar ('49)	24-22-14W	140	2,669	207,973	2	Lans.-K.C.	3,550	9 35
						Viola	3,503	35
						Arbuckle	3,777	7
Oscar North ('51)	14-22-14W	440	57,787	807,496	12	Arbuckle	3,798	9
Oscar South ('53)	26-22-14W	440	11,917	190,032	5	Lans.-K.C.	3,780	3 35
						Arbuckle	3,810	
Oscar West ('52)	22-22-14W	900	72,622	931,479	23	Arbuckle	3,817	2
Pleasant Grove ('52)	26-22-12W	260	18,095	183,089	6	Lans.-K.C.	3,593	8 35
Praeger ('59)	36-24-15W	220	12,711	101,228	2	Lans.-K.C.	3,462	8 37
						Mississippian	4,209	5
						Arbuckle	4,392	6 35

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- Wells producing in 1960	Producing zone		Thickness, ft.
			during 1960	to end, 1960		Producing zone	Thickness, ft.	
Prairie Home South ('53)	11-21-13W	40	889	25,005	1	Lans.-K.C.	3,395	3 35
Pritchard* ('44)	34-20-14W	380	23,759	373,578	6	Lans.-K.C.	3,483	3 483
Pundsack ('47)	19-21-13W	1,640	103,203	1,926,324	34	Arbuckle	3,579	4
					3	Lans.-K.C.	3,575	8 27
Pundsack North ('50)	18-21-13W	100	8,617	158,453	3	Arbuckle	3,735	8
					3	Lans.-K.C.	3,494	8
Radium Townsite ('53)	5-22-14W	640	111,947	648,138	17	Arbuckle	3,674	7 26
					1	Lans.-K.C.	3,584	6 28
						Viola	3,754	12
						Simpson	3,820	6
Radke ('53)	25-23-14W	40	545	19,392	1	Arbuckle	3,852	20 28
Radke East ('54)	24-23-14W	40	1,399	17,381	1	Lans.-K.C.	3,688	12 35
Rattlesnake ('38)	13-24-14W	120	3,089	226,330	3	Lans.-K.C.	3,676	4 28
					3	Lans.-K.C.	3,608	48 32
Rattlesnake East ('56)	7-24-13W	160	15,768	135,225	3	Lans.-K.C.	3,694	6 35
Rattlesnake North ('59)	2-24-14W	40	4,045	8,563	1	Mississippian	3,880	4
Rattlesnake Southeast ('54)	13-24-14W	320	20,756	122,546	3	Penn. congl.	3,964	18 35
					3	Lans.-K.C.	3,758	6 35
Rattlesnake Southwest ('50)	14-24-14W	40	8,138	130,379	7	Lans.-K.C.	3,936	6
Rattlesnake West ('44)	11-24-14W	120	6,434	196,549	3	Mississippian	3,760	35
					3	Lans.-K.C.	3,759	7 37
Richardson ('30)	36-22-12W	1,500	283,107	14,751,033	61	Mississippian	4,025	
						Lans.-K.C.	3,264	42
Riley ('40)	28-23-11W		no report	147,193		Arbuckle	3,537	62
Rolling Green* (revived) ('60)	36-20-13W		no report	none		Lans.-K.C.	3,323	15 30
						Lansing	3,238	55
Rose Valley ('52)	36-25-13W	40	2,314	47,033	1	Lans.-K.C.	3,824	6
Rothgarn ('43)	10-21-13W	600	23,633	416,847	8	Viola	4,137	13
					8	Lans.-K.C.	3,369	37
Rothgarn Southeast ('50)	14-21-13W	160	13,681	263,783	4	Arbuckle	3,569	5
					4	Lans.-K.C.	3,378	37
St. John ('35)	23-24-13W	840	49,679	2,927,816	13	Arbuckle	3,544	7
					13	Lans.-K.C.	3,588	32 38
St. John East ('59)	24-24-13W	40	415	3,625	1	Arbuckle	4,075	12
St. John North ('52)	20-23-13W		no report	26,537		Lansing	3,543	6
						Lans.-K.C.	3,603	4 38

St. John Northwest ('52)	20-23-13W	180	9,649	119,514	5	Lans.-K.C. Arbuckle	3,644 3,956	6 33
St. John Townsite ('44)	33-23-13W	300	8,559	476,198	6	Lans.-K.C. Arbuckle	3,919 3,480	5 32
Sandago ('47)	12-21-12W	240	12,593	201,871	5	Arbuckle	3,189	6
Sand Hills ('44)	19-21-11W	260	33,424	315,608	6	Lans.-K.C. Simpson	3,481 3,548	5 36
Saterlee ('54)	31-24-14W	180	15,451	97,642	4	1 Penn. congl. Mississippian	4,166 4,172	13 6
Saundra ('46)	14-21-12W	780	28,427	390,112	11	Arbuckle Lans.-K.C.	4,385 3,282	4 37
Seevers ('54)	6-25-13W	160	12,877	114,834	4	Arbuckle	3,546	18
Seevers Northwest ('56)	6-25-13W	640	204,836	638,142	26	1 Lans.-K.C. Lans.-K.C. Mississippian	3,893 3,826 4,042	49 3 8
Shaeffer ('41)	3-21-13W	640	60,698	981,126	14	Arbuckle Lans.-K.C. Penn. congl. Simpson	4,192 3,404 3,519 3,536	4 40 4 4
Shaeffer Northeast* ('60)	35-20-13W	40	4,379	4,379	1	Arbuckle	3,546	4
Shepherd ('51)	16-22-11W	300	11,496	355,711	7	Lans.-K.C. Arbuckle	3,259 3,525	5 18
Shepherd North ('54)	9-22-11W	140	10,652	79,077	3	Arbuckle	3,548	40
Shepherd Northwest ('56)	8-22-11W	40	6,007	35,455	1	Lans.-K.C. Penn. congl. Simpson	3,297 3,446 3,528	5 8 40
Sieker* ('60)	5-21-12W	40	1,377	1,377	1	Arbuckle	3,516	12
Silver Bell ('49)	10-22-13W	120	23,962	201,988	3	Arbuckle	3,458	7
Sittner ('37)	33-21-12W	380	19,787	846,339	6	Lans.-K.C. Arbuckle	3,774 3,278	11 36
Smallwood ('51)	2-22-14W	800	47,764	1,001,303	17	Lans.-K.C. Arbuckle	3,600 3,474	9 29
Snider ('36)	3-21-11W	280	76,540	668,408	9	1 Penn. congl. Simpson	3,576 3,362	11 26
Snider South ('38)	16-21-11W	500	74,374	1,833,899	10	Arbuckle	3,402	6
Spangenberg ('43)	21-22-12W	900	no report	84,508	5	Arbuckle	3,691	6
Stafford ('40)	15-24-12W	900	12,379	3,713,376	2	Viola Arbuckle	3,836 3,945	14 10

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- Wells producing abt., wells, 1960	Producing zone			
			during 1960	to end, 1960		Name	5	4	3
Steve ('60)	24-21-12W		no report	none		Arbuckle	3,556	23	35
Strobel ('52)	9-22-14W	200	19,293	144,720	7	Lans.-K.C. Simpson	3,659	4	37
Strobel Northwest ('52)	8-22-14W	40	1,580	47,078	1	Arbuckle	3,864	8	
Sutton ('54)	21-22-14W	120	12,227	62,350	3	Simpson	3,852	2	
Syms Southeast ('52)	27-21-12W	80	10,921	87,148	2	Arbuckle	3,874		
Taylor ('52)	15-21-14W	140	20,179	110,105	4	Lans.-K.C. Arbuckle	3,638	3	34
Taylor Northeast ('57)	11-21-14W	340	115,111	182,178	13	Lans.-K.C.	3,482	5	
Taylorville ('53)	29-25-12W	40	850	28,763	1	Viola	3,690	10	46
Taylor West ('59)	16-21-14W	40	1,260	4,400	1	Simpson	3,462	6	37
Van Lieu East ('60)	21-24-13W	40	3,838	3,838	1	Arbuckle	3,704	4	32
Van Winkle Southeast ('50)	26-21-14W	80	5,179	102,217	2	Lans.-K.C.	4,072	2	37
Vogel (revived) ('60)	10-25-11W	40	3,278	3,278	1	Lans.-K.C.	3,569	8	31
Waters ('58)	33-24-14W		no report	2,296		"Kinderhook"	3,442	7	35
Waters East ('59)	33-24-14W		no report	952		Lansing	4,153	4	37
Wendelburg ('51)	19-23-11W		no report	19,381		Arbuckle	3,683	4	36
White Cloud ('56)	28-22-11W	40	1,764	33,927	1	Simpson	3,729	4	37
Widener ('54)	26-21-12W	240	21,243	172,140	7	Arbuckle	3,575	5	
Wil* ('57)	26-25-16W	120	13,157	33,005	4	Arbuckle	3,636	2	39
Wood ('53)	33-22-14W	120	5,270	73,950**	3	"Kinderhook"	3,574	7	41
Zenith-Peace Creek* ('37)	23-24-11W	5,480	320,416	40,665,890	100	Lans.-K.C. Simpson	4,324	7	28
Pools or fields abandoned				841,780		Arbuckle	3,932	50	28
Total Stafford County		61,280	5,737,031	144,205,806	1,434	Lans.-K.C. Viola	3,965	3,481	41
				841,780			3,860		
STANTON COUNTY									
Beauchamp ('59)	23-30-41W	40	6,464	7,913	1	Mississippian	5,337	6	39
Shore ('59)	22-30-40W	40	15,803	18,487	1	Mississippian	5,316	49	45

Sparks* ('54)		220	8,840	33,908	7	Morrowan	5,254
Total Stanton County		300	31,107	60,308	9		
STEVENS COUNTY							
Perrill ('59)	7-31-37W	120	9,170	9,170	3	Morrowan	5,326
SUMNER COUNTY							
Anson ('48)	35-30-2W	700	105,089	769,439	26	Lans.-K.C.	3,264
Anson Southeast ('58)	12-31-2W	140	5,503	83,042	1	Mississippi	3,742 13
Ashton ('54)	19-34-2E	160	3,476	27,418	3	Lans.-K.C.	
Ashton Northwest ('59)	13-34-1E	120	18,464	49,529	4	Mississippi	3,738 14
Attebery ('59)	20-33-1W	120	19,221	18,464	3	"Cleveland"	3,210 22 34
Badger Creek ('58)	1-34-1E	80	10,381	19,221	3	Mississippi	3,584 12 45
Beatie ('56)	21-31-2W	80	no report	34,733	2	Simpson	3,966 6
Bellman ('45)	15-30-1E	80	15,178	18,381	2	Simpson	4,189 3
Bellman West ('57)	16-30-1E	no report		354,196	2	Simpson	3,798 5
Belsley ('60)	13-31-2W	40	9,736	19,874	1	Simpson	3,801 9
Bitter Creek ('57)	1-35-1E	180	61,052	353,969	9	Mississippi	3,757 9
Caldwell ('29)	17-35-3W	140	12,896	1,658,084	3	"Stalnaker"	2,353 13
Caldwell Northwest ('52)	8-35-3W	no report		61,749		Mississippi	3,500 15 37
Churchill ('26)	25-31-2E	1,140	36,082	19,992,601		Mississippi	4,408 8
						Simpson	4,765 19
						"Stalnaker"	4,835 20 39
						Layton"	1,820 25
						buckle	1,874 1
						Simpson	2,632 24
						Simpson	4,403 4 47
						Simpson	4,370 6 42
						Simpson	4,475
						"Layton"	3,245 5
						Simpson	4,746 50 46
						Simpson	4,710 5 35
						Lans.-K.C.	3,028 45 45
						Simpson	3,854 10
						Arbuckle	3,969
						"Burgess"	3,797 2
						Mississippi	3,304 6

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- Wells during abdl. wells 1960	Producing zone		Thick- ness, ft.	Aver- age
			during 1960	to end, 1960		Name	Oil prod.		
Horsch ('58)	4-31-1W	40	4,281	12,521	1	Mississippian	3,664	8	
Interchange ('59)	19-32-1E	100	26,863	33,813	3	Simpson	4,053	7	42
Kerley ('59)	1-30-1W	40	3,858	4,431	1	Simpson	3,828	6	
Kerschen ('55)	17-31-3W	580	104,006	626,715	18	Lans.-K.C.	3,267		
						Mississippian	3,912	10	
Latta ('27)	9-30-2W	540	52,566	1,625,045	11	Lans.-K.C.	3,042	14	
						Mississippian	3,656	12	
Latta Northwest ('56)	5-30-2W	320	83,437	167,498	13	Kansas City	3,172	4	
Lee ('51)	33-32-2E	240	23,101	140,134	6	Mississippian	3,349	8	
McIlhenny ('58)	1-31-4W	40	3,892	9,850	1	Kansas City	3,575	3	
Margaret ('46)	36-32-2E	80	5,347	114,866	2	Arbuckle	3,474	5	
Markley ('58)	22-30-1E	240	87,697	135,687	9	Simpson	3,809	5	
Mayfield ('57)	19-32-2W	80	3,841	27,492	2	Simpson	4,278	5	
Meills ('60)	5-34-2E	100	9,537	9,537	3	"Bartlesville"	3,435	8	
						Mississippian	3,459	9	
Metz ('51)	7-32-2E		no report	56,080		Simpson	3,735	6	37
						Arbuckle	3,773	4	
Milan ('60)	2-32-3W		no report	none		Mississippian	3,909	12	
Moyer ('58)	12-31-3W	180	38,734	71,907	6	Kansas City	3,344	2	
Moyer Northwest ('59)	2-31-3W	120	26,879	34,308	3	Kansas City	3,173	2	38
Murphy* ('33)	7-35-3E	4,000	238,008	5,149,050	214	"Layton"	2,808		
						"Bartlesville"	3,472	10	
Norris ('55)	3-34-2E		no report	10,693		"Layton"	2,785	3	30
O'Hara ('55)	18-32-1W	420	36,651	245,613	14	Lans.-K.C.	3,256	8	
Olive Branch ('60)	11-33-3W	120	29,969	29,969	3	Simpson	4,444	4	45
Oxford ('27)	14-32-2E	800	39,832	16,719,540	29	"Hoover"	1,930		
						"Stalnaker"	2,020	16	
						"Layton"	2,510	20	
Oxford West ('26)	17-32-2E	300	17,846	892,078	8	Arbuckle	2,890	5	
						Simpson	3,681		31
Padgett ('25)	12-34-2E	5,400	105,490	3,418,251	60	Arbuckle	3,095		
						"Cleveland"	3,187	8	
						Marmaton	3,424		
						"Bartlesville"	3,474	16	
Padgett West ('54)	21-34-2E		no report	9,584		Mississippian	3,744		
						Simpson	2,829	8	34
						"Layton"			

Perth ('45)	12-33-2W	500	43,871	1,229,648	8	Mississippian	3,519
Portland ('50)	16-34-1E	360	50,704	693,067	9	Simpson	4,264 14 41
Portland South ('56)	28-34-1E	80	17,065	51,548	2	"Layton"	4,002 4
Priddy ('57)	35-33-1W	180	19,242	85,412	5	"Layton"	3,040
Rainbow Bend* ('25)	24-33-2E	40	502	453,502	1	Simpson	4,332 3
Rusk ('59)	8-32-1E	120	26,165	27,940	3	Arbuckle	
Rutter ('26)	21-33-2E	420	12,845	235,669	10	Simpson	4,007 10 42
Rutter Southwest ('57)	29-33-2E	100	9,362	55,131	4	"Bartlesville"	3,268 10
Seydell ('58)	17-30-1E	640	28,056	434,221	4	Mississippi	3,283
Slate Creek ('52)	9-33-2E	80	4,300	50,809	2	Arbuckle	3,413 10
Slick-Carson* ('24)	19-32-3E	80	3,699	198,491	26	Simpson	3,551 5
South Haven ('54)	2-35-1W	240	53,349	366,815	6	Arbuckle	3,544 9
Subera ('57)	22-34-3W	340	43,511	271,926	8	Kansas City	2,747 6
Trekell ('59)	19-31-1W	300	46,594	61,148	6	Simpson	3,826 10
Val Verde ('45)	23-33-2E	40	286	9,515	1	Lans -K.C.	2,804 12
Voils ('58)	17-30-1W	40	6,682	16,106	1	"Bartlesville"	3,124
Walta ('59)	25-33-4W	120	33,604	38,829	2	Simpson	4,189 5 37
Wellington ('29)	33-31-1W	3,000	528,115	11,001,783	139	Simpson	4,740 4
Wellington Northeast ('55)	27-31-1W	340	58,071	442,597	17	Mississippian	3,715 9 42
Wusk ('58)	18-31-1W	340	79,373	145,136	12	Mississippian	3,280 15 40
Zyba ('37)	7-30-1E	560	26,191	605,647	7	Mississippi	3,499 13
Zyba Southwest ('44)	22-30-1W	400	59,694	1,594,208	10	Mississippi	4,502 5 48
Pools or fields abandoned				1,297,122		"Chat"	3,655 11
Total Summer County		27,100	3,070,483	75,964,022	843	Mississippian	3,659 5
						Mississippi	3,711 4
						Simpson	3,866 3 30
						Simpson	3,918 12
THOMAS COUNTY							
Kindig ('56)	30-8-32W		no report	11,867		Cherokee	4,595 31
Lanisia ('59)	12-6-35W		no report	390		Tarkio	3,728 4 27
Mingo ('52)	19-9-32W	40	1,944	22,892	1	Marmaton	4,414
Total Thomas County		40	1,944	35,149	1	Mississippian	4,680

TABLE 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- duc- ing abnl. wells 1960	Producing zone	
			during 1960	to end, 1960		Depth, ft.	Thick- ness, ft.
TREGO COUNTY							
Adair ('53)	21-12-21W	40	213	23,162	1	Marmaton	3,879 5 37
Adair Southwest ('56)	28-12-21W	40	1,461	10,739	1	Marmaton	3,856 10
Bin ('58)	31-11-22W	40	no report	2,920		Lansing	3,776 6
Cotton ('45)	15-12-21W	40	2,590	52,149	1	Arbuckle	3,958 34 30
Cotton East ('47)	14-12-21W	40	3,342	69,002	1	Arbuckle	3,942 6 40
Diebolt* ('53)	33-10-23W	640	59,439	648,569	14	Lans.-K.C.	3,779 6 35
Egger ('58)	12-13-21W	120	8,341	57,907	2	Lans.-K.C.	3,450 6
Ellis* ('42)	31-12-20W	1,200	52,574	767,920	14	Arbuckle	3,825 3
						Lans.-K.C.	3,632 4
						Arb.-Reagan	3,832 8
Ellis Northwest ('44)	26-12-21W	160	6,588	254,673	3	Arbuckle	3,925 2 35
Ellis Southwest ('59)	2-13-21W	40	4,309	6,945	1	Arbuckle	3,797 8 40
Groff ('52)	26-14-21W	1,200	74,459	800,432	23	Lans.-K.C.	3,493 10 36
						Marmaton	3,755 17
						Penn. congl.	3,822 10
Hixson East (revived) ('60)	20-11-22W	40	1,555	1,555	1	Marmaton	3,873 3 34
Homburg ('55)	11-13-21W	80	2,739	16,615	2	Marmaton	3,800 10 32
Kutina ('53)	29-15-21W	200	41,264	210,898	5	Mississippian	4,151
Newcomer ('56)	12-12-23W	640	65,815	538,215	20	Lans.-K.C.	3,733 3 37
Newcomer Northwest ('56)	2-12-23W	520	100,480	424,810	15	Lans.-K.C.	3,763 5 38
Nicholson* ('45)	30-11-20W	40	1,908	18,058	1	Arbuckle	3,842 12 34
Ogallah ('51)	26-12-22W	3,800	591,299	5,623,378	78	Arbuckle	3,961 24 38
Ogallah Northwest ('57)	21-12-22W	40	1,635	15,893	1	Lans.-K.C.	3,724 3 38
Rhoden ('56)	24-12-23W	200	11,955	106,092	6	Lans.-K.C.	3,764 6 32
Ridgeway ('52)	26-12-21W	400	19,639	311,147	8	Lans.-K.C.	3,693 13 36
Riga Northeast ('57)	9-13-21W	100	7,859	30,546	3	Arbuckle	3,896
						Lansing	3,503 28
Spaulding South ('54)	1-11-21W	40	52,657	152,416	4	Arbuckle	3,915 2 39
Sunny Slope ('52)	21-14-21W	640	37,018	469,985	11	Lans.-K.C.	3,538 4 35
Sunny Slope Northwest ('58)	21-14-21W	40	no runs	2,052	1	Marmaton	3,848 14 39
Trico* ('51)	30-10-20W	980	285,949	1,574,223	45	Penn. congl.	3,944 5
						Lans.-K.C.	3,573 7
						Arbuckle	3,688 7
Voda ('57)	28-11-24W	120	21,674	68,409	3	Lans.-K.C.	4,008 4 36
Wakeoney ('34)	14-11-23W	640	14,548	936,776	5	Lans.-K.C.	3,619 8 38

Wakeoney East ('49)	24-11-23W	40	7,097	31,716	1	Lans.-K.C.	3,624	4	38
Walz ('50)	12-11-21W	900	65,091	783,334	18	Lans.-K.C. Arbuckle	3,428	9	35
Walz Northwest ('57)	12-11-21W	160	24,262	101,338	4	Arbuckle	3,666	11	
Pools or fields abandoned				97,136					
Total Trego County		13,140	1,584,441	14,209,010	294				3,693
WABAUNSEE COUNTY									
Ashburn ('58)	29-14-10E	120	31,248	46,562	4	Viola			3,255
Davis Ranch ('49)	33-13-10E	880	21,063	2,633,801	3	Lans.-K.C. "Hunton"			1,850
Mill Creek ('50)	2-13-10E	160	163,896	287,787	18	Viola			2,929
Newbury ('50)	11-11-11E	240	16,258	305,911	4	Viola			3,201
Wheat ('51)	10-15-11E		no report	18,630	6	Viola			2,923
Wilmington ('59)	29-14-12E	40	6,720	24,807	1	Simpson			2,901
Woodbury ('51)	11-15-10E	120	13,547	115,472	2	Viola			3,230
Total Wabaunsee County		1,560	280,329	3,439,629	40	Simpson			2,996
					40	Viola			3,099
					40	I			3,328

WICHITA COUNTY

Carwood ('57)	16-17-37W	40	no runs	1,369	1	Marmaton			4,528
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WILSON COUNTY

Altoona ('03)	10-29-16E	320		919	112	"Squirrel"			650
a		240		2,794		"Bartlesville"			900
b		440		4,186					
c		40		633					
d		600		27,846					
e		20		3,473					
f		20		176					
g		120		724					
h		120		8,341					
i		60		410					
j		300		5,189					
Altoona East ('35)	29-17E				33	"Bartlesville"			900

Table 30.—Oil production in Kansas during 1960, continued

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing abcd. wells 1960	Name	Producing zone	
			during 1960	to end, 1960			Depth, ft.	Thick- ness, ft.
Benedict	28-15E				19	"Bartlesville"	1,000	
a		40	230					
b		100	1,626					
c		40	555					
d		160	10,809					
Buffalo* ('24)	27-16E				124	"Bartlesville"	1,025	
a		40	132			Cherokee	1,150	
b		320	5,537					
c		800	41,422					
d		550	4,579					
e		160	367					
f		40	350					
Coyville West ('54)	27-13E	160	497		5	Cherokee		
Fredonia ('90)	29-15E				28	"Burgess"	1,050	
a		20	524					
b		20	202					
c		320	4,810					
d		40	204					
Humboldt-Chanute*	28-17E	120	1,483		11	"Bartlesville"	850	
Neodesha*	30-16E				253	6 "Bartlesville"	950	
a		40	282					
b		40	274					
c		320	21,024					
d		40	698					
e		80	60					
f		320	1,724					
g		520	1,134					
h		2,880	33,520					
i		20	299					
j		40	30					
k		260	7,403			Cherokee		
Neodesha East	30-17E		no report					
"Stryker"	28-13E		no report		13	1 "Bartlesville"	1,000	
Vilas ('05)	27-17E	300	2,350		2+			
Miscellaneous		20	264					
Total Wilson County		10,090	197,080		600	13		
			6,747,081					recorded

WOODSON COUNTY

Annabelle ('56)	32-25-15E	no report	572	"Squirrel"	1,173	5
Big Sandy ('23)	23-26-14E	67,624	63	"Bartlesville"	1,230	50
Buffalo* ('24)	26-16E	40	89	"Bartlesville"	950	6
a		138		Cherokee	1,150	
b		60				
c		480				
Evans ('38)	21-23-15E	27,934	4	Mississippian	1,540	
"Gordon" ('54)	13-24-15E	2,207	18	"Squirrel"	1,080	16
Humboldt-Chanute*	25-17E	14,185	52	"Bartlesville"	900	1
a		1,040				
b		60				
McWherter ('55)	35-26-13E	1,006	1	Mississippian	1,417	
Neosho Falls-Leroy* ('05)	35-22-16E	20	83	"Squirrel"	965	2
a		190		Mississippian	1,200	
b		1,160				
c		360				
Perry-Halligan	26-17E	1,480	133			
Piqua ('38)	22-24-17E	200	6	Mississippian	1,190	1
a		1,898				
b		40				
Quincy* ('32)	14-25-13E	1,540	90	"Bartlesville"	1,500	5
Rose East ('54)	16-26-16E	800	34	"Bartlesville"	1,109	15
Silver City ('46)	19-23-15E	520	17	Cherokee		
Stange ('38)		no report				
Steele ('52)	20-23-15E	20	1	Mississippian	1,525	17
Stephenson ('26)		no report				
Toronto*		no report				
Vernon ('56)	23-16E	no report		"Peru"	1,000	
a		2,700	94	"Bartlesville"	1,700	6
b		1,040		"Squirrel"	1,068	
Virgil North* ('20)	22-23-13E	1,260	36	Mississippian	1,420	1
Winterscheid*	23-14E	13,190	337	"Bartlesville"	1,585	2
Wissman ('36)	3-24-15E	264,984	8	Mississippian	1,840	15
a		400		"Bartlesville"	1,630	15
b		160		Mississippian	1,750	
Yates Center	28-25-15E	no report		Mississippian	1,520	
a		40	32	Mississippian	1,480	

TABLE 30.—Oil production in Kansas during 1960, concluded

Field name and year of discovery	Discovery well location	Area, acres	Oil production, bbl.		Pro- ducing wells 1960	Name	Producing zone	
			during 1960	to end, 1960			Depth ft.	Thick- ness, ft.	Aver. grav.
b		1,360	14,006					
Miscellaneous		90	1,392					
Total Woodson County		29,850	803,162	11,893,631	9+	1,107	21	
				recorded				

* Field extends into adjacent county or counties.

** Corrected cumulative.

TABLE 31

GAS PRODUCTION IN KANSAS

DURING 1960

FOOTNOTES

- **Field extends into adjacent county or counties.**
- **All figures at base of 14.65 psia.**
- † **Estimated.**
- **Prorated by Conservation Division, Kansas Corporation Commission.**

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TABLE 31.—Gas production in Kansas during 1960

Pool or field name and year of discovery	Location of discovery well	Gas production, M cu. ft.**			No. wells	Producing zone	
		Area, acres	During 1960	To end of 1960		Name	Depth, ft.
ALLEN COUNTY							
Humboidt-Chanute* (Misc.)	26-18E	1,200	84,667+		53+	"Squirrel" "Bartlesville"	740 850
ANDERSON COUNTY							
Colony-Weida	No longer productive; used for gas storage only (Capacity 31,014,497)						
BARBER COUNTY							
Aetna Gas Area ('35) ^a	13-34-15W	2,300	7,990,063	15,436,205	55	Mississippian Viola	4,850 5,215
Aetna ('35)	13-34-15W	Now Aetna Gas Area					
Aetna Northeast ('56)	9-34-14W	Combined with Aetna Gas Area					
Blunk ('56)	30-34-13W	Combined with Aetna Gas Area					
Blunk South ('56)	1-35-14W	Combined with Aetna Gas Area					
Boggs Southwest ('55)	30-33-12W	3,700	4,856,001	37,151,900	30	Mississippian	4,456
Canama ('56)	24-33-11W	100	20,207	20,207	2	Mississippian	4,553
Cedar ('57)	25-33-10W	no report					
Clara ('44)	2-30-14W	no report					
				803,532		Marmaton	4,381
						Simpson	4,435
						Viola	4,509
						Arbuckle	4,540
						Simpson	4,582
Cottonwood Creek ('48)	21-30-14W	no report					
Deerhead ('42)	26-32-15W	no report					
DeGeer ('48)	2-33-15W	no report					
				1,896,083		Viola	4,931
				140,442		Mississippian	4,902
						Viola	5,176
Donald ('46)	33-31-15W	360	1,872,936		8	"Miss. lime"	4,697
Eisea ('56) ^a	27-32-14W	200	504,535	2,345,173	4	Mississippian	4,662
Elwood ('56) ^a	34-34-13W	500	1,104,441	5,314,013	8	"Elgin"	3,662
Farley ('56)	32-34-14W	Combined with Aetna Gas Area					
Hardtner ('54) ^a	31-34-12W	5,600	7,810,960	58,456,211	54	Mississippian	4,742
						Cherokee	4,791
ILS ('56)	9-31-11W	100	34,289	34,289	2	Mississippian	4,782
						Simpson	4,865

ILS Southwest ('59)	17-31-11W	no report	none	Douglas	3,766
Lake City ('45)	7-31-13W	Included with Skinner		Viola	4,435
Little Bear Creek ('54)	12-32-14W	40	61,629	"Douglas sand"	3,808
McGuire-Goemann ('56) ^a	24-32-11W	860	1,096,500	Viola	4,670
McReynolds ('59)	19-31-10W	no report	6,651,548	Mississippi	4,403
Medicine Lodge-Boggs ('27)	13-33-13W	13,000	3,176,729 ^a	Mississippi	4,530
			81,298	"Douglas sand"	3,812
			3,418,652	Mississippi	4,480
			"Boggs" ^a	Simpson	4,860
			T. 33S.-R. 14W. now in Aetna		
			Gas Area		
Medicine Lodge North ('54)	25-32-13W	200	637,943	Mississippi	4,480
Medicine Lodge Southwest ('54)	6-34-13W	Combined with Aetna Gas Area	1,385,826	Mississippi	4,889
Nippawalla ('51)	13-33-12W	120	37,262	"Douglas sand"	3,659
Nurse ('53)	23-31-13W	120	49,617	Mississippi	4,541
Palmer ('58)	30-32-13W	120	231,493	"Douglas sand"	3,599
Palmer West ('59)	25-32-14W	Combined with Palmer	244,422	Mississippi	4,530
Perry Ranch* ('59)	12-32-16W	40	5,580	Mississippi	4,552
Rhodes ('54)	4-33-11W	7,500	6,819,523	Mississippi	4,785
			54,589,189	"Douglas sand"	3,548
Rhodes Northeast ('56) ^a	2-33-11W	1,400	4,740,675	Mississippi	4,551
Rhodes South ('57) ^a	6-34-11W	1,000	2,529,695	Mississippi	4,500
Roundup South ('53)	33-33-11W	120	1,313,366	Mississippi	4,564
Sharon* ('55)	13-32-10W	no report	2,931,227	Mississippi	4,457
Sharon Northwest ('56) ^a	11-32-10W	2,100	2,733,832	Mississippi	4,355
Skinner ('43)	29-31-14W	200	159,290	Mississippi	4,347
			28,761,130	"Douglas sand"	4,023
				Lans.-K. C.	4,109
				Marmaton	4,294
				Simpson	4,422
				Viola	4,630
Stumph ('52)	7-32-14W	700	815,322	Marmaton	4,718
Traffas ('55)	6-33-10W	no report	3,901,233	Mississippi	4,590
Turkey Creek East ('57)	21-30-15W	40	300	Viola	4,557
Wells ('58)	18-34-15W	no report	none	Marmaton	4,694
Whelan ('34)	32-31-11W	160	738,727	Douglas	3,598
				"Chat"	4,355
Whelan East ('54)	21-31-11W	40	54,318	"Douglas sand"	3,746
Wolgamott ('57)	16-35-14W	40	62,018	Cherokee	4,865
Pools or fields abandoned			73,929		
Total Barber County		40,660	53,315,227		356
			505,300,301		

Table 31.—Gas production in Kansas during 1960, continued

Pool or field name and year of discovery	Location of discovery well	Area, acres	Gas production, M cu. ft.**		No. wells	Name	Producing zone	Depth, ft.
			During 1960	To end of 1960				
BARTON COUNTY								
Adolph ('47)	16-20-15W	120	23,536		3	Arbuckle		3,734
Behrens ('44)	6-20-15W	200	162,545		4	Arbuckle		3,639
Behrens Northeast ('55)	29-19-15W		no report	none		Arbuckle		
Chase-Silica ('36)	6-19-9W		Included with Rice County			Arbuckle		3,783
Converse ('53)	20-20-15W	60	396,467		2	Arbuckle		3,507
"Dundee" ('45)	29-20-14W	40	5,339	398,567	1	Arbuckle		
Eberhardt ('35)	14-19-11W	40	16,025		1			
Fort Zarah	28-19-12W	60	63,030	1,033,497	2	Penn. congl.		3,496
Heizer Southwest ('52)	21-19-14W	80	26,555	884,178	3			
Krier ('44)	30-16-11W		Within Kraft-Prusa field					
Merten Southwest ('58)	7-19-15W		no report	none		Reagan		3,597
Otis-Albert* ('30)	11-18-16W		Included with Rush County			Neva		
Pawnee Rock* ('36)	13-20-16W		no report	403,810		Reagan		3,507
Rick* ('41)	11-19-11W		no report	14,720,919		Arbuckle		3,355
Unruh ('45)	24-20-15W	120	26,736	2,917,696	3	Arbuckle		3,641
Pools or fields abandoned								
Total Barton County		720	720,233	25,038,885	19			
BUTLER COUNTY								
Andover South*	31-27-3E		no report			"Stalnakner"		2,006
CHASE COUNTY								
Altemus	26-18-8E		no report					
Davis ('29)	18-8E		no report			L. Permian		350-400
Elmdale	19-7E	300	13,434		8	L. Permian		500
Hyer	18-7E		no report			Wabaunsee		800
Lipps	32-18-7E		Included with Elmdale					
Neva	19-7E		no report					

Miscellaneous		800	21,106	31	
Total Chase County		1,100	34,540	39	
CHAUTAQUA COUNTY					
Coach Lines ('60)	10-32-8E		no report		"Layton" 1,725
Hewins Northwest ('56)	27-34-9E		no report		Mississippian 2,072
Miscellaneous		400	102,454	9	
CHEROKEE COUNTY					
Miscellaneous		40	1,904	1	
CLARK COUNTY					
Ashland ('51)	35-32-23W		no report	1,795,172	
Cavalry Creek ('55)	3-31-21W	100	19,403		1 Mississippian 5,195
Clark Creek ('59)	8-35-22W	500	103,073		3 Morrow 5,630
Harper Ranch ('53)	9-34-21W	5,000	4,535,074		28 Morrow 5,437
Harper Ranch North ('54)	22-33-21W		Combined with Harper Ranch		Morrowan 5,318
McKinney* ('50)a	2-34-26W	7,500	1,854,788		17 Mississippian 5,762
Morrison Northeast ('54)	10-32-21W	1,200	298,938		3 Morrow 5,193
Sitka ('59)	13-33-22W		no report	none	Morrowan 5,266
Sitka Northeast ('60)	5-33-21W		no report	none	Morrowan 5,243
Snake Creek ('52)	21-34-21W		no report	none	Morrowan 5,452
Snake Creek Northeast ('59)	13-24-21W		no report	none	Morrowan 5,444
Snake Creek Southwest ('59)	30-34-21W		no report	none	Morrowan 5,526
Tuttle West ('57)	10-35-21W		no report	none	Morrowan 5,625
Total Clark County		14,300	6,811,276	26,584,966	52
COFFEY COUNTY					
Crandall ('53)	6-23-16E		no report		Mississippian 1,022
"Gridley"	22-14E		no report		
Miscellaneous		60	721	3	

TABLE 31.—Gas production in Kansas during 1960, continued

Pool or field name and year of discovery	Location of discovery well	Area, acres	Gas production, M cu. ft. **		No. wells	Name	Producing zone	Depth, ft.
			During 1960	To end of 1960				
COMANCHE COUNTY								
Beals ('55)	5-34-17W		no report	none		Lans.-K.C.	4,393	
Glick* ('57)	31-30-16W		Included with Kiowa County			Simpson	5,670	
Necatunga ('60)	22-32-18W		no report	none		Mississippian	4,880	
						Mississippian	5,106	
						Viola	5,600	
Perry Ranch* ('58)	12-32-16W		no report	none		Mississippian	4,785	
Robbins Ranch ('53)	23-31-16W		no report	538,864		Mississippian	4,915	
Tuttie ('57)	6-35-20W		no report	none		Morrowan	5,538	
COWLEY COUNTY								
Biddle	32-5E	40	571		1	Admire	1,568	
Brown West ('51)	14-31-7E		no report			Douglas	2,220	
Burden ('26)	31-31-6E		no report			"Layton"	"Bartlesville"	2,900
Denton	35-4E	80	4,826		1	Douglas	1,568	
Estes	32-6E	360	127,041		8	Douglas	3,000	
Frog Hollow ('37)	32-5E		no report			"Bartlesville"	1,568	
Gibson ('41)	34-3E	500	253,053		6	"Bartlesville"	3,300	
						"Severy sand"		
Gibson East ('59)	27-34-3E		no report			"Stalnaker"	2,169	
Graham	9-33-3E	1,800	907,368		41	"Bartlesville"	2,170	
Mansur ('49)	31-7E	40	56,684		1	"Layton"	3,206	
Peck ('58)	9-35-4E		no report			"Bartlesville"	3,358	
Rauckman ('56)	18-34-3E		no report			"Bartlesville"	3,358	
School Creek North ('53)	10-32-7E	160	28,813		3+	"Layton"	2,114	
						"Cleveland"	2,443	
Tisdale	32-5E	200	17,457		2	"Bartlesville"	2,975	
Trees ('34)	30-4E		no report					
Turner West			no report					
Waldschmidt ('58)	17-34-6E		no report			"Stalnaker"	1,821	
Werner ('56)	31-32-6E	40	17,457		1	Kansas City	2,460	
Wilmot-Floral	31-5E		no report			"Cattlemen"	2,880	
Winfield	32-4E		no report			"Peacock"	1,400	
Total Cowley County		3,220	1,413,270		64			

		CRAWFORD COUNTY			
McCune	30-22E	no report		"Bartlesville"	300
St. Paul-Walnut (Misc.)	29-21E	800	28,651	"Bartlesville"	24
EDWARDS COUNTY					
Belpre ('42)	8-25-16W	400	58,074	Lans.-K. C.	3,800
Bradbridge* ('48)	6-24-15W		"Edstaff Northwest"	Mississippian	4,278
Bradbridge Southwest ('59)	11-24-16W		no report	Lans.-K. C.	3,686
Edstaff ('55)	12-25-16W		no report	Arbuckle	4,020
Emby ('55)	23-24-16W	1,500	1,090,152	Arbuckle	4,120
Fatzer ('59)	14-26-17W			Penn. congl.	4,202
Fellsburg ('60)	35-25-17W			Mississippian	4,231
Kirk ('55)	26-26-16W			"Kinderhook"	4,292
McCarty ('54)	31-25-17W			Mississippian	4,530
McCarty Northeast ('30)	22-25-17W			Cherokee	4,490
McClanahan ('58)	2-26-18W	100	28,805	Cherokee	4,392
Trousdale Northeast ('58)	15-26-16W			Penn. congl.	4,528
Trousdale South ('56)	33-26-16W			Penn. congl.	4,452
Wil* ('57)	26-25-16W	5,000	231,926	Penn. congl.	4,392
Wokaty ('54)	25-25-17W		371,398 ^a	"Kinderhook"	4,472
Total Edwards County		7,000	1,780,355	Cherokee	4,525
				"Kinderhook"	4,324
				Penn. congl.	4,390
ELK COUNTY					
Adams ('56)	29-29-13E			"Burgess"	1,680
Bush-Denton ('20)	4-30-9E			Kansas City	660
Longton ('02)	31-8E	100	11,196	Kansas City	3
Schrader ('28)		500	140,112		10
Miscellaneous		600	151,308		13
Total Elk County					

TABLE 31.—Gas production in Kansas during 1960, continued

Pool or field name and year of discovery	Location of discovery well	Area, acres	Gas production, M cu. ft.**		No. wells	Producing zone	
			During 1960	To end of 1960		Name	Depth, ft.
ELLSWORTH COUNTY							
Satran (revived) ('60)	5-14-9W	160	no report	483,223	2	Herington	1,276
Stoltenberg ('47)	18-17-9W		39,332			Shawnee	2,728
FINNEY COUNTY							
Hugoton Gas Area* ('32) ^a	16-25-34W	410,000	53,961,070	430,895,323	607	Chase Group	2,200
Nunn ('38)	27-21-34W		no report	146,075			
Total Finney County		410,000	53,961,070	431,041,398	607		
FORD COUNTY							
Pleasant Valley ('38)	34-27-21W	1,000	389,851		3	Mississippian	4,954
GRAHAM COUNTY							
Law ('51)	34-9-23W		no report	12,656			
GRANT COUNTY							
Hugoton Gas Area* ('30) ^a	12-29-38W	380,000	91,748,893	1,112,690,744	580	Chase Group	2,200
Panoma Gas Area* ('56)	35-31-34W		Included with Stevens County			Council Grove	2,710
HAMILTON COUNTY							
Bradshaw ('57)	36-22-41W		no report	none		Chase Group	2,546
Hugoton Gas Area ('46) ^a	12-26-39W	35,500	4,548,756	39,334,516	38	Chase Group	2,200
Medway ('59)	16-24-41W		no report	none		Winfield	2,305
Wedel ('58)	1-22-41W		no report	none		Winfield	2,746

HARPER COUNTY

Crystal Springs ('59)	18-32-7W	no report	none	Mississippi	4,420
Harper ('58)	11-32-7W	474,410	1,117,579	Viola-Simpson	4,714
Hibbard ('57)	23-34-9W	100	134,876	Mississippi	4,586
Runnymede ('53)	23-31-6W	no report	none	Simpson	4,648
Sharon* ('55)	13-32-10W	300	409,257	Mississippi	4,355
Sharon Northeast ('57)	5-32-9W	Combined with Sharon		Mississippi	4,330
Spivey-Grabs* ('49)	13-31-9W	7,600	1,177,472	Mississippi	4,400
			2,731,851 ^a		
Total Harper County		8,400	4,860,913	18,848,000	48

HARVEY COUNTY

Burrton* ('30)	23-23-4W	200	98,917	2 Mississippi	3,298
Burrton North ('56)	32-22-3W	Includes Reno County		Mississippi	3,280
Burrton Northeast ('42)	3-23-3W	Included with Burrton		Mississippi	3,226
Graber* ('55)	22-1W	700	188,473	Mississippi	2,958
Hollow-Nikkel	22-3W	no report	141,997	"Chat"	
Sperling ('35)	23-22-2W	no report	no report	"Chat"	2,955
Sperling South	22-2W	100	7,513,363	Mississippi	2,954
Wall ('51)	25-22-3W	no report	51,699	Mississippi	3,150
Total Harvey County		1,000	339,089	10,123,816	10

HASKELL COUNTY

Eubank ('58)	28-28-34W	5,400	1,276,631	1,276,631	10	Marmaton	4,699
Hugoton Gas Area* ('31)a	29-30-34W	282,000	34,428,502	401,306,343	433	Chase Group	2,200
Koenig ('58)	12-29-34W	160	240,241	363,671	1	Morrowan	5,294
Total Haskell County		287,560	35,945,374	402,946,645	444		

JEFFERSON COUNTY

McLouth
No longer productive; used for gas storage only
(Capacity 12,913,757)

TABLE 31.—Gas production in Kansas during 1960, continued

Pool or field name and year of discovery	Location of discovery well	Area, acres	Gas production, M cu. ft. **		No. wells	Producing zone	
			During 1960	To end of 1960		Name	Depth, ft.
JOHNSON COUNTY							
Craig	No longer productive; used for gas storage only	500			14		
Miscellaneous	(Capacity 6,075,820)	76,816					
KEARNY COUNTY							
Hugoton Gas Area* ('37) a	32-25-35W	425,000	69,931,846	795,991,282	625	Chase Group	2,200
Panama Gas Area* ('56)	12-31-38W		Included with Stevens County			Council Grove	2,843
KINGMAN COUNTY							
Basil ('53)	16-29-7W	6,000	2,694,577	4,599,414	38	Mississippian	4,150
Broadway ('48)	21-28-5W	500	185,886	3,338,142	8	Mississippian	3,833
Broadway West ('54)	19-28-5W	500	260,589	965,442	8	Mississippian	3,884
Cunningham* ('31)	7-28-11W		no report			Permian	1,993
						Wabaunsee	2,969
						Viola	4,278
Dale ('59)	35-28-6W	100	18,094	18,094	1	Arbuckle	4,094
Dewey ('50)	9-28-5W	1,000	162,977	3,717,074	5	Mississippian	3,928
Dresden ('51)	13-27-10W		no report	3,870		Mississippian	3,801
Freemeyer ('60)	20-27-6W		no report	none		Mississippian	3,822
Gilchrist ('55)	15-30-7W	100	25,905	25,905	1	Mississippian	4,084
Goetz ('56) a	29-29-9W	400	46,014	958,688	3	Mississippian	4,156
			60,765 a			Viola	4,408
Hurn ('60)	28-27-5W	160	48,986	48,986	2	Mississippian	3,777
Klaver ('60)	9-29-6W		no report	none		Mississippian	4,074
Moorhouse ('57)	20-28-5W		Combined with Broadway West			Mississippian	3,852
Settle ('56)	18-29-7W	100	58,801	226,287	1	Mississippian	4,110
Spivey-Grabs* ('49)	13-31-9W	8,000	4,000,000+	54,717,103	133	Lans.-K.C.	3,876
Trenton ('55)	27-29-7W		11,419,494 a			Mississippian	4,205
Total Kingman County		16,860	18,982,088	69,758,050	200	Mississippian	4,117

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KIOWA COUNTY

Alford ('44)	14-30-19W	8,500	no report	75,270	16	Spergen	5,040
Glick* ('57)	31-30-16W		Includes Comanche County			Mississippi	4,880
			no report	3,384		"Kinderhook"	4,742
Greensburg ('56)	35-27-18W	100	43,627	83,754	1	Mississippi	4,675
Greensburg Northeast ('56)	17-27-17W	160	89,459	244,771	2	Mississippi	4,804
Hardy ('56)	23-28-18W	80	39,156	258,198	1	"Kinderhook"	4,761
Haviland ('55)	17-28-16W		no report	46,214		Mississippi	4,864
Johannsen ('54)	13-28-19W	60	17,658	57,022	1	Mississippi	4,920
Joy Station ('57)	20-28-19W		no report	none		Mississippi	4,908
Kane ('56)	12-30-18W	4,000	1,004,478	11,706,078	21	Mississippi	4,997
Nichols ('55)a	20-29-18W		1,848,121a				
Nichols South	8-30-18W	400	no report	none	2	Mississippi	4,994
Wellsford ('55)	15-28-16W		266,444	1,269,041		Marmaton	4,680
Total Kiowa County		13,300	3,384,213	13,825,253	44	Mississippi	4,729

LABETTE COUNTY

Coffeyville-Cherryvale*	32-17E		no report				
Valeda	34-18E	600	no report				
Miscellaneous					39		

LEAVENWORTH COUNTY

Roberts-Maywood*	11-22E	400	4,225		5	Knobtown	400
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LINN COUNTY

LaCygne-Cadmus (Misc.)	20-24E		no report				
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MCPHERSON COUNTY

Coons ('40)	13-19-1W		no report			"Chat"	2,897
Elyria ('58)	22-20-3W	200	35,122	114,722	3	Mississippi	3,068
Graber North ('51)	4-21-1W		no report	none		Mississippi	2,955

TABLE 31.—Gas production in Kansas during 1960, continued

Pool or field name and year of discovery	Location of discovery well	Gas production, M cu. ft.**			Producing zone	Depth, ft.		
		Area, acres	During 1960	To end of 1960				
McPherson ('26)	29-18-2W	100	47,811		1	Lans.-K. C. "Chat" Viola "Chat"	2,340 2,967 3,140 2,935	
Ritz-Canton ('29)	12-20-2W	800	172,449		6			
Voshehl	33-20-3W	60	4,938		1			
Total McPherson County		1,160	260,320		II			
MARION COUNTY								
Dobbs ('60)	22-19-3E		no report	none		Mississippian	2,367	
French Creek ('55)	22-19-2E	40	2,566	2,566	1	Mississippian		
Hillsboro ('58)	7-19-3E	40	23,143	23,143	1	Mississippian	2,440	
Hillsboro East ('59)	17-19-3E	400	256,958	346,858	6	Mississippian	2,345	
Kianda ('59)	12-19-3E	40	11,563	11,563	1	Mississippian	2,355	
Kianda Northwest ('59)	2-19-3E	460	93,612	93,612	11	Mississippian	2,414	
Kianda Southwest ('60)	14-19-3E	260	1,680	1,680	4	Mississippian	2,770	
Lehigh North ('53)	23-19-1E	40	48,285	48,285	1	Mississippian	2,350	
Lost Springs ('26)	22-17-4E	1,500	546,329	546,329	19	Mississippian	2,691	
Ratzlaff ('60)	8-19-2E	40	4,564	4,564	1	Mississippian	2,691	
Tajchman ('60)	21-19-5E		no report	none		Mississippian	2,231	
Total Marion County		2,820	988,700		45			
MEADE COUNTY								
Adams Ranch ('45)	8-35-30W	6,400	2,138,670	4,447,478	28	Toronto Morrovan	4,402 5,708	
Angell ('56)	30-32-29W	120	246,218	306,695	1	Mississippian	5,850	
Baragrey ('59)	25-34-28W		no report	none		Morrovan	5,608	
Bond ('54)	32-33-30W	360	48,989	561,118	2	Council Grove	3,066	
Borchers ('59)	21-33-28W		no report	none		Mississippian	5,860	
Borchers North ('59)	5-33-28W	3,600	2,669,952	2,669,952	10	Morrovan Marmaton Morrovan	5,719 5,082 5,544	
Borchers Northwest ('59)	1-33-29W	1,800	151,589	151,589	4	Mississippian	5,484	
Bruno Northeast ('53)	16-33-30W		no report	none		Morrovan	5,721	
Cimarron Bend ('59)	1-35-29W		no report	none		Mississippian	6,076	

Fincham ('56)	14-35-27W	600	212,370	1,105,188	2	Mississippi	6,275
Hockett ('57)	8-31-29W	900	171,781	519,099	5	Morrow	5,390
Horace ('56)	9-34-29W		no report	none		Mississippi	5,430
Horace South ('59)	26-34-29W		no report	none		Morrow	5,815
Kismet ('48)	23-33-31W	900	120,049	1,078,096	2	Council Grove	3,228
Kismet East ('53)	30-33-30W		Combined with Kismet			Toronto	4,390
McKinney* ('50)a	2-34-26W	14,000	5,033,074	30,432,742	46	Morrow	5,645
Mohler ('57)	35-33-29W	1,000	34,422	2,714,808	4	Mississippi	5,762
Mohler Northeast ('58)	36-33-29W	1,800	36,924 ^a			Morrow	5,769
Novinger East ('59)	36-33-30W		283,563	1,059,612	10	Morrow	5,690
Novinger Northwest ('53)	15-33-30W	360	no report	none		Morrow	5,793
Plains ('56)	17-32-30W	100	47,499	291,171	4	Morrow	5,718
Sanders ('56)	13-32-29W	200	85,725	370,008	1	Morrow	5,611
Singley ('55)	20-33-29W	4,100	925,967	6,633,288	2	Mississippi	5,692
Stevens ('52)	32-32-30W	4,000	1,379,228	12,811,313	13	Morrow	5,533
Stevens West ('57)	6-33-30W		no report	none		Mississippi	5,550
Thiessen ('59)	8-33-27W		no report	none		Morrow	5,803
Total Meade County		40,240	14,312,613	65,856,833	153	Morrow	5,560
						Mississippi	5,713
						Morrow	5,596
						Morrow	5,690

MIAMI COUNTY

Louisburg 17-25E no report

MONTGOMERY COUNTY

Coffeyville-Cherryvale* ('02) 33-17E no report "Bartlesville"

50+

338,631+

MORRIS COUNTY

Veal ('55) 30-17-7E 360 399,972 10 Ireland 1,234

TABLE 31.—Gas production in Kansas during 1960, continued

Pool or field name and year of discovery	Location of discovery well	Gas production, M cu. ft.**			No. wells	Producing zone
		Area, acres	During 1960	To end of 1960			Name
Miscellaneous		40	23,933		1+	
Total Morris County		400	428,895		11+	
MORTON COUNTY						
Berryman ('59)	21-33-41W		no report	none		Wabaunsee
Boehm ('51)	14-33-42W	1,800	519,009	8,880,310	4	Morrowan
Elkhart ('55)	11-35-43W	640	27,902	412,391	1	Morrowan
Elkhart West ('57)		1,600	234,749	519,226	3	Morrowan
Greenwood Gas Area ('51)a	14-33-42W	209,000	38,694,476	274,735,559	252	Wabaunsee
						Shawnee
						Lans.-K. C.
Hugoton Gas Area* ('30)a	24-30-40W	115,000	31,126,201	348,725,913	307	Chase Group
Interstate ('54)	29-34-43W	640	22,307	47,281	1	Morrowan
Kinsler ('59)	33-31-40W		no report	none		Des Moinesan
						Morrowan
						St. Louis
Kinsler Southeast ('60)	12-32-40W	640	48,767	48,767	1	Morrowan
Panoma Gas Area* ('56)a	12-31-38W		Included with Stevens County			Council Grove
Patsy ('57)	16-31-41W		no report	none		Morrowan
Reyer ('57)	17-32-43W	1,800	39,559	45,553	3	Marmaton
Richfield ('48)	17-32-40W	6,600	43,952	26,355,653	2	Topeka
			1,189,950a		10	Atokan-Morrowan
Rolla ('59)	22-34-40W		no report	none		Lansing
Sparks*	34-30-42W	6,400	3,418,362	3,418,362	10	"Keyes"
Taloga ('55)	34-34-42W	2,000	400,425	23,561,985	4	Morrowan
"C"			197,710a		2	Cherokee
"F"						
"G"						
"Keyes"			84,687a		1	
"Marmaton"			902,071a		5	
Wilburton ('59)	32-34-41W		no report	none		Topeka
						Morrowan
Total Morton County		346,120	76,950,127	686,751,000	606	

		NEOSHO COUNTY		53+
Miscellaneous		600	117,744+	
PAWNEE COUNTY				
Benson ('45)	30-23-15W	400	671,154	4
Carpenter Southeast ('59)	31-23-16W	no report	no report	Arbuckle
Evers ('51)	32-21-16W	no report	no report	Mississippian
Evers South ('56)	12-22-16W	200	651,005	Arbuckle
Garfield ('54)	35-22-17W	200	106,554	Arbuckle
Hearn ('53)	35-23-15W	200	106,554	Penn. congl.
Hearn North ('55)	23-23-15W	no report	no report	Lans.-K.C.
Jac ('58)	30-21-15W	no report	no report	Simpson
Larned ('49)	28-21-16W	no report	no report	Simpson
Pawnee Rock* ('36)	19 & 20-15 & 16W	no report	no report	Arbuckle
Ryan*	35-19-16W	no report	no report	Arbuckle
Ryan Southeast ('45)	12-20-16W	100	34,316	Reagan
Shady ('45)	34-22-16W	160	217,714	Arbuckle
Shady North ('55)	14-22-16W	no report	no report	Viola
Shady Southwest ('53)	3-23-16W	180	188,252	Arbuckle
Snowberger ('57)	29-22-16W	no report	no report	Arbuckle
Sweeney ('53)	8-21-15W	3,500	1,000,288	Penn. congl.
Zook ('42)	16-23-16W	no report	no report	Penn. congl.
				Arbuckle
				Simpson
				Arbuckle
Total Pawnee County		4,740	2,869,283	26
			43,415,354	
PRATT COUNTY				
Carver-Robbins ('55)	21-27-15W	200	348,154	3
Carver-Robbins Northeast Chance ('46)	10-27-15W 4-27-13W	160	108,281	Penn. congl. Mississippian
Chitwood ('43)	23-28-12W	no report	no report	Mississippian
Cullison ('56)	25-28-15W	no report	no report	Viola
			10,089,598	Mississippian
			none	Mississippian
				4,340
				4,543

TABLE 31.—Gas production in Kansas during 1960, continued

Pool or field name and year of discovery	Location of discovery well	Area, acres	Gas production, M cu. ft.**		Name	Producing zone	Depth, ft.
			During 1960	To end of 1960			
Cunningham* ('31)	7-28-11W		no report		Permian	1,993	
Frisbie Northeast ('54)	4-26-13W	100	12,296		Wabaunsee	2,969	
Hopewell ('58)	17-26-15W	100	129,567	254,490	Viola	4,278	
Luka-Carmi ('42)	29-26-12W	100	131,051	4,317,481	Arbuckle	4,094	
Sawyer ('57)	26-29-13W	200	409,702	659,474	Lans.-K.C.		
Shriver ('49)	27-29-14W		no report	104,191	Mississippian	1	
Stark ('41)	13-26-12W		Abandoned during 1960		Lans.-K.C.	3,887	
Tatlock Southwest ('58)	30-26-15W	260	234,371	553,865	Viola	4,121	
Ward ('41)	11-26-12W		no report	none	Congl. sand	4,376	
White ('59)	35-27-15W		Combined with Carver-Robbins		"Kinderhook"	4,129	
Total Pratt County		1,120	1,364,422	23,141,982	Cherokee	4,471	
RENO COUNTY							
Burton* ('30)	23-23-4W		Included with Harvey County		Mississippian	3,298	
Lerado ('37)	10-26-9W	2,700	3,958,322	15,675,548	Mississippian	3,925	
Plevna ('59)	15-24-9W		no report	none	Viola	4,128	
Yoder ('35)	34-24-5W		no report		Mississippian	3,765	
Zenith-Peace Creek* ('37)	23-24-11W	60	4,881		"Chat"	3,402	
Total Reno County		2,760	3,963,203	15,923,683	Viola	3,860	
RICE COUNTY							
Bredfeldt ('48)	7-18-9W		no report	165,890	Arbuckle	3,226	
Calf Creek ('57)	33-18-10W	40	11,940	74,638	Lans.-K.C.	3,006	
Chase-Silica* ('36)	6-19-9W	120	135,577	2,072,725	Arbuckle	3,192	
Humphreys ('56)	3-21-8W	160	68,528	601,508	Penn. congl.	3,272	
Lyons ('88)	35-19-8W		Abandoned during 1960		Mississippian	3,278	
					Simpson	3,290	
					Arbuckle	3,277	

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Lyons Southwest ('55)	22-20-8W	40	15,224	1	Penn. congl.	3,251
Orth ('33)	27-18-10W		no report		Lans.-K.C.	2,906
Sterling ('51)	4-22-8W	40	7,995	1	Mississippian	3,385
Union ('50)	28-20-8W	400	218,906	4	Penn. congl.	3,275
Pools or fields abandoned			29,794,228			
Total Rice County		800	458,170	13		
			36,011,360			

RUSH COUNTY

Lohrey ('56)	35-17-17W	160	760,161	4	Penn. congl.	3,563
Otis-Albert* ('30)	11-18-16W	4,000	211,159	22	Granite Wash	3,578
Reichel ('53)	23-17-17W	400	659,801		Neva	
			Includes Barton County			
			3,385,123	5	Topeka	3,006
Rothe ('55)	31-17-16W	60	47,929	1	Lans.-K.C.	3,330
Ryan*	35-19-16W	60	1,954	1	Lans.-K.C.	3,446
Ryan East ('54)	36-19-16W		no report	1	Reagan	3,507
Total Rush County		4,680	1,681,004	33	Arbuckle	3,648

RUSSELL COUNTY

Beisel	27-13-14W	60	19,407	1		
Gorham	20-14-14W	60	19,012	1		
Hall-Gurney	30-14-13W	690	116,389	13		
Heim Northeast ('57)	14-14-12W	60	8,690	1	Fort Riley	1,530
Mahoney (revived) ('60)	8-14-12W	80	63,156	2	Tarkio	2,368
Russell ('46)	34-13-14W	60	33,705	1	Wabaunsee	
Trapp	9-15-13W	120	19,346	3		
Total Russell County		1,130	279,705	22		

SCOTT COUNTY

Keystone ('50)	25-18-32W		no report		Chase Group	
						45,122

SEDGWICK COUNTY

Bartholomew ('46)	30-27-4W	100	16,375	1	Kansas City	3,270
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STAFFORD COUNTY

Bradbridge* ('48)	6-24-15W	no report	none	Arbuckle	4,020
Childs ('59)	17-25-15W	100	51,838	Mississippian	4,231
Dallwin West ('60)	18-24-14W	no report	none	Mississippian	4,097
Farmington ('48)	27-24-15W	200	110,899	Mississippian	4,207
Farmington North ('56)	23-24-15W	200	112,583	"Kinderhook"	4,120
Farmington Northwest ('56)	30-24-15W	no report	none	"Kinderhook"	4,272
Farmington West ('52)	6-25-15W	200	183,292	"Penn. sand"	4,164
Gates ('50)	26-21-13W	200	30,990	Lans.-K.C.	3,473
Grunder ('58)	11-25-15W	200	42,723	Mississippian	4,173
Grunder Southwest ('59)	15-25-15W	no report	none	Lansing	3,915
Haynes Southwest ('59)	27-25-15W	80	164,297	Cherokee	4,254
Macksville (revived) ('60)	3-24-15W	no report	no report	Viola	4,020
O'Connor ('47)	16-24-15W	no report	no report	Arbuckle	4,061
Rattlesnake	13-24-14W	80	247,899		
Rattlesnake East ('56)	7-24-13W	80	43,697	Mississippian	3,880
Rattlesnake Southeast	28-24-13W	40	52,594	Mississippian	3,908
Van Lieu ('43)	20-24-13W	60	86,958	Arbuckle	4,069
Will* ('57)	26-25-16W	60	22,093	"Kinderhook"	4,324
Zenith-Peace Creek* ('37)	23-24-11W	no report	no report	Viola	3,860
Pools or fields abandoned			10,968,337		
Total Stafford County		1,500	1,149,863		19

STANTON COUNTY

Beauchamp East ('59)	24-30-41W	no report	none	Morrowan	5,018
Hugoton Gas Area* ('44)a	32-30-39W	168,000	19,186,135	Chase Group	2,200
Panoma Gas Area* ('56)	12-31-38W	Included with Stevens County	171,606,282	Council Grove	2,843
Sparks* ('54)a	34-30-42W	3,000	2,533,920	Morrowan	5,254
Sparks East ('57)	29-30-41W	1,200	128,381	Morrowan	5,152
Sparks West ('58)	26-30-43W	no report	none	Morrowan sand	5,260
Total Stanton County		172,200	21,846,436		245

STEVENS COUNTY

Center ('60)	26-33-37W	no report	none	Morrowan	5,800
Hanke ('56)	6-35-36W	no report	none	Morrowan	6,267
Hugoton Gas Area* ('27)a	31-33-37W	612,000	119,563,106	Chase Group	2,200
Panoma Gas Area* ('56)a	12-31-38W	15,000	1,402,394	Council Grove	2,843

TABLE 31.—Gas production in Kansas during 1960, concluded

Pool or field name and year of discovery	Location of discovery well	Area, acres	Gas production, M cu. ft.**		Producing zone		
			During 1960	To end of 1960	Name	Depth, ft.	
Perrill ('59)	7-31-37W	1,800	1,039,632 ^a	1,039,632	3	Morrowan	5,326
Walkemeyer ('59)	35-33-36W		"Panoma Gas Area - Morrowan"	no report	none	Morrowan	6,145
Total Stevens County		628,800	122,005,132	1,900,356,110	772		
SUMNER COUNTY							
Fall Creek ('50)	3-35-3W		no report			Simpson	4,746
Murphy	35-3E	1,000	330,709		8		
Padgett ('24)	23-34-2E	60	8,417		1	"Miss. lime"	3,474
Pride ('58)	34-31-2E		no report			Marmaton	3,187
Wellington ('29)	33-31-1W		no report			Elmont	1,738
Total Sumner County		1,060	339,126		9	"Chat"	3,655
WALLACE COUNTY							
Sexson ('56)	19-13-42W		no report		none	Morrowan	5,008
WILSON COUNTY							
Altoona	29-16E	40	3,762		1		
Neodesha*	30-16E		no report				
Miscellaneous		40	149,694+		28+		
Total Wilson County		80	153,456		29		
WOODSON COUNTY							
Gordon ('54)	13-24-15E		no report			"Squirrel"	1,080
Piqua			No longer productive; used for gas storage only (Capacity 3,230,472)				
Vernon	23-16E		no report				
Winterscheid	3-24-15E		no report		2		

Miscellaneous	300	6,774+	3,
WYANDOTTE COUNTY			
Roberts-Maywood*	11-23E	Included with Leavenworth County	"Peru" "Squirrel"

* Field extends in adjacent county or counties.
 ** All figures at base of 14.65 psia.
 + Estimated.
 a Prorated by Conservation Division, Kansas Corporation Commission.

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