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STATE OF ILLINOIS

DEPARTMENT OF REGISTRATION AND EDUCATION



# MINERAL PRODUCTION IN ILLINOIS IN 1970

W. L. Busch

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# ABSTRACT

The value of minerals produced in Illinois in 1970 totaled 716.3 million dollars. This amount was 23.4 million dollars higher than the value of the 1969 record production, and 1970 marked the fifth successive year that a new all-time high in value was attained in mineral production in the state. Increases in the total values of coal, stone, sand, gravel, fluorspar, zinc, and lead from 1969 to 1970 more than offset the declines in total values of crude oil, cement, clay products, and other materials in the same period. The quantity and value of minerals produced in Illinois in 1970, and in other years, are summarized in the tables and maps of this report.

# PRODUCTION OF MINERAL PRODUCTS SUMMARIZED IN LISTED TABLES

Material	Table Number	Material	Table Number
Coal	1, 2, 4, 5, 6, 7, 8, 17	Silica sand	1, 2, 5, 13, 17
Crude oil	1, 2, 4, 5, 9, 17	Fluorspar	1, 2, 5, 15, 17
Stone	1, 2, 5, 10, 17	Zinc	1, 2, 5, 16, 17
Cement	1, 2, 5, 17	Lead	1, 2, 5, 16, 17
Clay products	1, 2, 4, 14, 17	Lime*	5, 17
Sand	1, 2, 5, 11, 17	Tripóli*	5, 17
Gravel	1, 2, 5, 12, 17	Natural bonded molding sand*	17

<sup>\*</sup>Production figures not available for publication.

# ILLINOIS MINERAL INDUSTRY

The value of minerals produced in Illinois in 1970 set a record annual high of 716.3 million dollars. This amount was 23.4 million dollars, or 3.4 percent, more than the previous all-time high of 692.9 million dollars achieved in 1969. The total value of minerals produced in 1968 was 670.6 million dollars, in 1967 the value was 650.0 million dollars, and in 1966 the value was 644.0 million dollars. Each of these figures represented a record annual output.

In 1970 the value of coal accounted for 44.6 percent of the value of all minerals produced in the state, and the value of crude oil constituted 19.9 percent. The combined value of these fuels amounted to 64.5 percent of the value of all minerals for the year. The quantity and total value of coal produced in 1970 were greater than those of the 1969 production; however, the amount and total value of crude oil produced in 1970 were less than those of the 1969 production.

The second most valuable group of minerals produced in Illinois is the stone products, which include crushed stone, cement, and lime. In 1970 the quantity and value of crushed stone increased from those of the 1969 production. In 1970 the production of portland and masonry cement declined in both quantity and value from the 1969 production of these materials. Lime tonnage and total value had small declines in 1970. As a group, these stone products contributed 17.5 percent of the state's total mineral value in 1970.

Clay products produced in Illinois, amounting to 53.9 million dollars, represented 7.5 percent of the 1970 state total mineral products value. Illinois clay products include face brick and common brick, drain and sewer tile, refractories, lightweight aggregate, and pottery and whiteware. The value of clay products reported for 1970 showed a decline from the value reported for 1969.

Illinois sand and gravel recorded a positive pattern of production in 1970. The tonnage of common sand and gravel produced in 1970 was slightly greater than the 1969 tonnage, and the total value was somewhat higher than the 1969 total value. Silica sand production in 1970 showed a small loss in amount produced, but scored a gain in total value from 1969. The combined values for special sands produced in 1970 were a little lower than the total value reported for special sands for 1969. All sands and gravel produced in Illinois furnished 8.5 percent of the state's entire mineral products value in 1970.

Fluorspar, lead, and zinc, as a group, recorded a sharp gain in total combined value from 1969 to 1970. In 1970 these three minerals accounted for 2.0 percent of the state's total mineral value.

# Record of the Illinois Mineral Industry, 1970

Each of the 17 tables published in this report is summarized here under its table number and title.

# Table 1 - Summary of Illinois Mineral Production, 1969-1970

Items listed in table 1 for the years 1969 and 1970 are the minerals produced in Illinois, the amounts reported produced by commercial operators, the total annual value for each product, and the state-wide average value per ton or barrel for each product. The values of the mineral products listed under footnote "c" were combined to avoid revealing the output of any individual producer of these commodities.

# Table 2 - Comparison of Illinois Mineral Production in 1969 and 1970

All of the mineral products listed in table 1 are also listed in table 2. The figures entered in table 2 indicate by the amounts and values whether the 1970 production and value of each product were greater or less than the 1969 production and value. The balance of increases and declines in value for the mineral products shows a total net gain of 23.4 million dollars, or an increase of 3.4 percent, for 1970 over 1969.

# Table 3 - Value of Illinois Mineral Production, 1941-1970

General increases in mineral production throughout the state during the 30 years indicated in table 3, plus gradual price increases for various mineral products of Illinois, have brought about greater total annual values for the state. Each of the five most recent years, 1966-1970, established a new all-time high in value for mineral production in Illinois.

# Table 4 - Value of Illinois Mineral Products as Percentage of State Total Mineral Products Value, 1956-1970

The percentage figures given in table 4 show that the value of fuels—coal and crude oil—accounted for almost two-thirds of the state's entire mineral products value in 1970. However, the value of coal accounted for about two-thirds of the total value of the fuels in 1970. During the years 1956-1970 the percentage value of crude oil in the total value of all minerals produced in the state declined steeply.

During recent years the value of building and construction materials (stone, cement, sand, and gravel) has increased its percentage share of the state's total annual value of mineral products. The annual value of clay products shows a gradual percentage decline, and the combined annual values of fluorspar, zinc, and lead, as a percentage of the state total value, usually show only slight change from year to year.

# Table 5 - Average Value of Illinois Mineral Products at Plant Site, 1962-1970

The plant site values for Illinois mineral products recorded in table 5 give some indication of recent prices per ton or per barrel for the various products listed.

# Table 6 - Illinois Coal Production by Counties, 1970

In 1970 twenty-four Illinois counties reported a total production of 64.9 million tons of bituminous coal, valued at 319.2 million dollars, for an average value of \$4.92 per ton. The state of Illinois ranked fourth in 1970 among coal-producing states of the nation and was exceeded in production only by West Virginia, Kentucky, and Pennsylvania. Illinois mines supplied about 11.0 percent of all bituminous coal produced in the United States in 1970. Of the 64.9 million tons of coal mined in Illinois during 1970, approximately 48.7 percent came from underground mines and about 51.3 percent was produced by strip mines.

The value of coal produced in 1970 amounted to 44.6 percent of the value of all mineral products produced in Illinois for the year. Table 4 indicates the annual percentage that the value of coal contributed to the total value of all minerals

produced in the state each year from 1956 through 1970. Table 5 lists the Illinois average value per ton of coal at the mine for the years 1962-1970, and table 17 shows the position held by each county among all Illinois counties producing coal in 1970. The 24 counties of Illinois that produced coal in 1970 are highlighted on the county map in figure 1, and the intensity of mining activity is indicated by the degree of shading.

# Table 7 - Illinois Coal Production by Years, 1951-1970

Table 7 is of special interest because it shows the drop-off of coal production in the post-World War II period of the 1950's and then the increased production of the 1960's. Figures in table 7 also trace the growth of strip mining in Illinois, for a period of 20 years, and the rather level annual production of coal from Illinois underground mines during the years 1954-1968. Table 7 also records the tons of coal produced during the final years of hand mining in Illinois coal fields.

# Table 8 - Coal Production by Illinois Counties, 1882-1970

The cumulative coal production by Illinois counties from 1882 through 1970 is shown in table 8. More than 4.1 billion tons of coal were produced from Illinois mines during this period of 89 years. Of the 71 counties that have produced some coal since 1882, 13 counties have produced more than 100 million tons of coal each. As a group, these counties supplied about 3.3 billion tons, or 80.5 percent, of the state's total coal output from 1882 through 1970. Table 8 also records the total number of years that each county produced coal during this period and the most recent year that it was productive during this time.

# Table 9 - Estimated Oil Production by Illinois Counties, 1888-1970

Crude oil produced in Illinois during 1970 was estimated at about 43.7 million barrels, which was valued at 142.2 million dollars, for an average price of \$3.25 per barrel. The estimated amount and value of oil produced by Illinois counties in 1970 are shown in table 9 with the percentage of oil that each producing county contributed to the 1970 total production. The indicated total oil production for each county from 1888 through 1970 is also included in table 9. Of the 42 counties producing oil in 1970 (fig. 2), 12 counties produced more than 1 million barrels each, for a total of 36.2 million barrels, or about 82.7 percent, of the state's entire oil production for 1970.

The annual percentage that the value of oil contributed to the state total value of all minerals produced each year from 1956 through 1970 is shown in table 4. Table 5 lists the average price per barrel for Illinois oil from 1962 through 1970. The relative position held by each county producing oil in 1970 is tabulated in table 17.

# Table 10 - Illinois Stone Production by Regions, 1970

A total of 52.7 million tons of crushed and broken stone was reported produced by commercial quarry operators in 1970. The value of this processed stone amounted to 83.2 million dollars, for an average of \$1.58 per ton. The tonnage produced in 1970 was supplied by 228 operations located in 59 counties throughout the state.

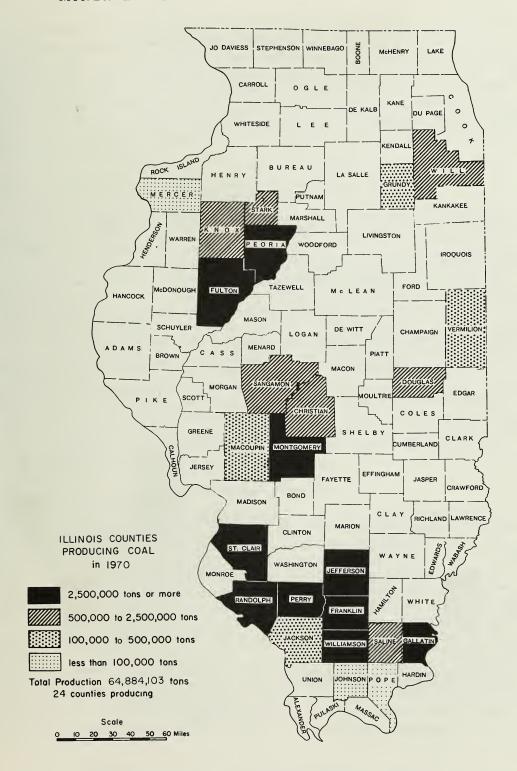


Fig. 1 - Illinois coal production by counties in 1970.

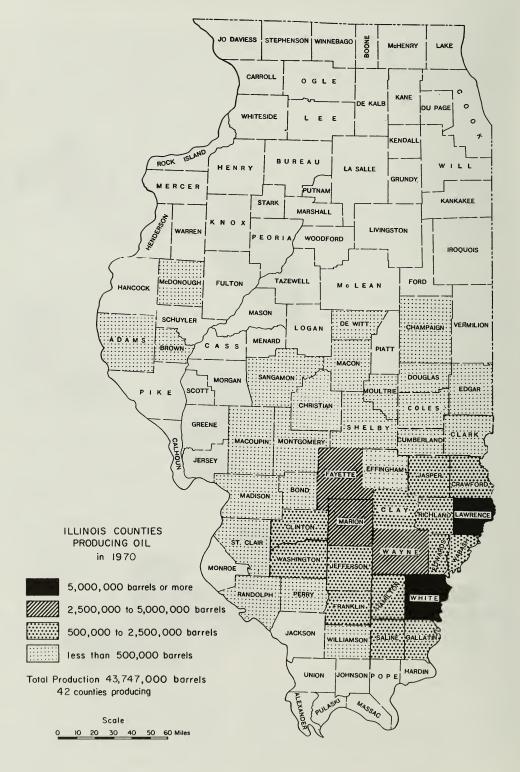


Fig. 2 - Illinois oil production by counties in 1970.

The record of stone production in Illinois by regions (fig. 3) and according to three categories of use—road and building, agriculture, and all other uses—is given in table 10. This table also lists all counties reporting stone production and the average value at the quarry for all stone uses in all regions for 1970. The value of crushed stone, plus the values of the stone products, cement and lime, furnished about 17.5 percent (table 4) of the total Illinois mineral products value for 1970. The yearly average value per ton of stone at the quarry from 1962 through 1970 is given in table 5. The position held by each county producing stone in 1970 is reported in table 17.

Table 11 - Illinois Common Sand Production by Regions, 1970 Table 12 - Illinois Gravel Production by Regions, 1970

In 1970 commercial producers in Illinois reported the production of 39.1 million tons of common sand and gravel. The combined value of these materials amounted to about 43.1 million dollars.

The northeast region of the state (fig. 3) produced the largest amounts of sand and gravel in 1970. (Figure 3 is a county outline map of Illinois showing the regional divisions of the state.) The second most important sand and gravel producing area in the state in 1970 was the central region, and the northwest region was in third place.

With the exception of some counties that border on the Mississippi, Ohio, or Wabash Rivers, the southern part of Illinois has comparatively few sand and gravel operations. Table II (common sand) and table 12 (gravel) indicate the amount and value of sand and gravel produced in each region of the state. These tables also list all counties producing sand and gravel and the average value at the pit for all uses of sand or gravel in all regions in 1970. The annual average value of sand and gravel for the years 1962 through 1970 is given in table 5. Table 17 lists in numerical order the relative position held by each county producing sand and gravel in 1970.

# Table 13 - Illinois Silica Sand Production, 1969-1970

Silica sand is produced in Illinois primarily in La Salle County and in smaller amounts in Ogle County. The most important use for Illinois silica sand in 1969 and 1970 was for the manufacture of glass, according to table 13. The second most important use for this material was for molding sand purposes. Underground silica sand is also used for grinding, blast, engine, filtration, and oil sand. Ground silica sand is used as an abrasive, as a filler, and as an ingredient in enamel, glass, and pottery; it also has chemical, foundry, and other uses.

A total of 4.3 million tons of silica sand, which was valued at 16.7 million dollars, was produced in Illinois during 1970. Silica sand production in 1969 totaled 4.4 million tons with a value of 15.8 million dollars. The combined value of all sands and gravel produced in Illinois during 1970 amounted to 8.5 percent of the value of all minerals produced in the state (table 4). Table 5 shows the average annual values per ton of common sand, gravel, and silica sand from 1962 through 1970. Table 17 indicates that La Salle and Ogle Counties are the only counties in Illinois producing silica sand.



Fig. 3 - County outline map of Illinois showing regional divisions of the state.

# Table 14 - Production of Illinois Clay Products, 1969-1970

The value of clay products reported produced in Illinois during 1970 amounted to 53.9 million dollars; their total value was 58.5 million dollars in 1969. In 1970, 34 clay products plants located in 22 counties throughout Illinois reported production; however, in 1969, 38 plants located in 23 counties reported production. The total value of clay products produced in 1970 was about 7.5 percent of the value of all minerals produced in the state (table 4). The rank of each county in the state reporting the production of clay products for 1970 is recorded in table 17 of this report.

# Table 15 - Fluorspar Shipped and Consumed, 1960-1970

Fluorspar figures indicate that in 1970 Illinois producers shipped a total of 148,208 tons, which was valued at 8.6 million dollars (table 1), for an average price of \$58.28 per ton (table 5). Illinois fluorspar shipments during 1970 amounted to 55.5 percent of all fluorspar produced and shipped in the United States (table 15). Of the 1.3 million tons of domestic and foreign fluorspar consumed in the United States in 1970, Illinois fluorspar shipments supplied about 11.1 percent.

Illinois is the nation's leading fluorspar-producing state. This material is mined principally in Hardin County, with small amounts produced in Pope County. Both counties are located in the southern part of the state. Other information regarding Illinois fluorspar may be found in tables 2 and 17.

# Table 16 - Illinois Zinc and Lead Production, 1960-1970

Zinc and lead are recovered in Illinois from primary metal mines in Jo Daviess County, located in the northwestern part of the state, and as by-products of fluorspar mining in Hardin and Pope Counties in southern Illinois.

In 1970 Illinois mines produced 16,797 tons of zinc, valued at 5.1 million dollars, and 1,532 tons of lead, valued at \$478,600 (table 16). The combined value of fluorspar shipments and zinc and lead produced in Illinois contributed about 2.0 percent (table 4) of the state's 1970 total mineral products value of 716.3 million dollars. Further information concerning the production of zinc and lead in Illinois may be found in tables 1, 2, 5, and 17.

# Table 17 - Summary of Minerals Produced by Illinois Counties, 1970

Table 17 is a convenient reference to the 102 counties of Illinois producing any of 14 mineral products. The table indicates the various mineral products produced in the state, and the numbers show the relative position held by each county among all counties producing a selected mineral product.

TABLE 1 - SUMMARY OF ILLINOIS MINERAL PRODUCTION, 1969-19708

			1969 <sup>b</sup>			1970 <sup>b</sup>	
			Value at plants	plants		Value at plants	plants
Material	Unit	Quantity	Total	Average	Quantity	Total	Average
Coal - bituminous	tons	64,832,584	\$280,076,763	\$ 4.32	64,884,103	\$319,229,787	\$ 4.92
Crude oil	bbls	50,724,000	161,302,320	3.18	43,747,000	142,177,750	3.25
Limestone and dolomite	tons	51,681,297	78,428,150	1.52	52,738,643	83,153,858	1.58
Cement - portland 376 lb	bbls	8,720,263	29,996,460	3.44	7,945,922	25,251,894	3.18
Cement - masonry 280 lb	bbls	602,917	2,136,945	3.54	507,782	1,874,417	3.69
Clay products	i	i	58,466,631	I	1	53,934,711	1
Sand	tons	17,593,298	17,275,700	0.98	17,750,187	18,349,982	1.03
Gravel	tons	21,267,490	23,054,205	1.08	21,378,490	24,731,904	1.16
Silica sand	tons	4,394,950	15,770,919	3.59	4,365,968	16,769,037	3.84
Fluorspar	tons	88,480	4,676,065	52.85	148,208	8,637,000	58.28
Zinc	tons	13,765	004,610,4	292.00	16,797	5,146,200	306.00
Lead	tons	191	235,700	298.00	1,532	478,600	312.00
Other materials <sup>c</sup>	I	i	17,460,742	İ	ı	16,564,860	i
Total value			\$692,900,000			\$716,300,000	

agable based on figures from the U.S. Bureau of Mines, the Illinois State Department of Mines and Minerals, and the Illinois State Geological Survey.

bSubject to revision. Includes lime, tripoli, natural gas, natural bonded molding sand, and sandstone.

TABLE 2 -- COMPARISON OF ILLINOIS MINERAL PRODUCTION IN 1969 and 1970\*

		Product	Production change, 1969-1970	069-1970	Valu	Value change, 1969-1970	1970
Material	Unit	Increase	Decrease	Percent	Increase	Decrease	Percent
Coal - bituminous	tons	51,519	-	+ 0.1	\$39,153,024	- <del> </del>	+ 1 <sup>4</sup> .0
Crude oil	bbls	1	6,977,000	- 13.7	1	19,124,570	- 11.8
Limestone and dolomite	tons	1,057,346	ı	+ 2.0	4,725,708	ı	0.9 +
Cement - portland 376 lb	bbls	1	774,341	- 8.9	1	7,744,566	- 15.8
Cement - masonry 280 lb	bbls	1	95,135	- 15.8	1	262,528	- 12.3
Clay products	1	ı	1	ı	1	4,531,920	- 7.7
Sand	tons	156,889	ı	6.0 +	1,074,282	1	+ 6.2
Gravel	tons	111,000	1	÷ 0.5	1,677,699	1	+ 7.3
Silica sand	tons	1	28,982	T.0 -	998,118	ı	+ 6.3
Fluorspar	tons	59,728	1	+ 67.5	3,960,935	1	7.48 +
Zinc	tons	3,032	ı	+ 22.0	1,126,800	1	+ 28.0
Lead	tons	741	I	+ 93.7	242,900	1	+103.0
Other materials	1	1	1	1	1	895,882	- 5.1
Total values					\$52,959,466	\$29,559,466	I
1970 net increase over 1969 value	value				\$23,400,000	1	+ 3.4

Table 2 based on figures tabulated in table 1.

TABLE 3 -	VALUE	OF	ILLINOIS	MINI	ERAL	PRODUCTION,	1941-1970
		(	thousands	of	dol	Lars)	

Year	Mineral production	Year	Mineral production	Year	Mineral production
1941	\$335,504	1951	\$542,031	1961	\$604,000
1942	341,998	1952	500,820	1962	631,000
1943	337,912	1953	501,926	1963	615,000
1944	342,832	1954	519,242	1964	618,000
1945	344,431	1955	570,653	1965	618,500
1946	379,673	1956	613,364	1966	644,000
1947	458,737	1957	612,755	1967	650,000
1948	567,624	1958	611,625	1968	670,600
1949	487,808	1959	606,300	1969	692,900
1950	539,236	1960	615,800	1970	716,300

TABLE 4 - VALUE OF ILLINOIS MINERAL PRODUCTS AS PERCENTAGE OF STATE TOTAL MINERAL PRODUCTS VALUE, 1956-1970

Year	Coal	Crude oil	Stone products	Clay products	Sand and gravel	Fluorspar and metals	Total percent
1956	30.0	40.6	12.2	9.6	5.0	2.6	100
1957	30.5	40.1	12.3	9.9	4.8	2.4	100
1958	28.7	40.5	13.7	9.0	5.8	2.3	100
1959	30.4	38.7	13.7	9.6	5.5	2.1	100
1960	29.8	38.0	15.0	9.2	5.5	2.5	100
1961	29.2	39.1	14.5	9.3	5.8	2.1	100
1962	29.6	38.0	15.2	8.9	6.2	2.1	100
1963	31.9	36.3	15.2	8.8	5.9	1.9	100
1964	33.6	<b>3</b> 3.5	16.4	8.3	6.5	1.7	100
1965	35.2	30.3	17.1	8.5	6.6	2.3	100
1966	37.8	29.0	16.0	8.5	6.7	2.0	100
1967	38.7	28.0	16.9	7.1	6.8	2.5	100
1968	37.2	25.9	18.9	8.0	7.9	2.1	100
1969	40.4	23.3	18.3	8.4	8.3	1.3	100
1970	44.6	19.9	17.5	7.5	8.5	2.0	100

TABLE 5 - AVERAGE VALUE OF ILLINOIS MINERAL PRODUCTS AT PLANT SITE, 1962-1970

Year	Coal (ton)	Crude oil (bbl)	Crushed stone (ton)	Cement (bbl)	Lime (ton)	Silica sand (ton)
1962 1963 1964 1965 1966 1967 1968 1969 1970	\$3.86 3.80 3.79 3.74 3.85 3.88 4.01 4.32 4.92	\$3.00 2.96 2.93 2.93 3.00 3.02 3.07 3.18 3.25	\$1.36 1.33 1.35 1.34 1.35 1.41 1.47 1.52	\$3.29 3.28 3.30 3.26 3.11 3.32 3.47 3.45 3.21	\$16.29 16.51 16.61 15.73 15.53 15.38 15.05 15.61	\$3.96 3.61 3.27 3.30 3.41 3.37 3.43 3.59 3.84
Year	Sand (ton)	Gravel (ton)	Fluorspar (ton)	Zinc (ton)	Lead (ton)	Tripoli (ton)
1962 1963 1964 1965 1966 1967 1968 1969 1970	\$0.86 0.85 0.87 0.85 0.84 0.85 0.88 0.98	\$0.93 0.97 1.01 0.91 0.91 0.96 1.03 1.08	\$48.12 49.58 50.62 49.40 45.42 46.90 48.50 52.85 58.28	\$230.00 230.00 272.00 292.00 290.00 277.00 270.00 292.00 306.00	\$184.00 216.00 262.00 312.00 302.00 280.00 264.00 298.00 312.00	\$26.13 26.90 26.88 26.59 26.56 31.03 26.37 26.41 26.48

TABLE 6 — ILLINOIS COAL PRODUCTION BY COUNTIES, 1970<sup>a</sup>

		Tons	mined		_
County	Number of mines	Underground	Strip	Total tons	Total value <sup>b</sup>
Christian	1 <sup>c</sup>	1,965,669		1,965,669	\$ 9,671,091
Douglas	1	1,140,162	_	1,140,162	5,609,597
Franklin	4	8,324,034		8,324,034	40,954,247
Fulton	5		6,080,343	6,080,343	29,915,288
Gallatin	3	2,149,259	749,481	2,898,740	14,261,801
Grundy	1d		288,938	288,938	1,421,575
Jackson	2		134,486	134,486	661,671
Jefferson	4	6,394,612	48,000	6,442,612	31,697,651
Johnson	2		4,016	4,016	19,759
Knox	1	_	1,675,974	1,675,974	8,245,792
Macoupin	1	261,563	_	261,563	1,286,890
Mercer	2	35,613	6,057	41,670	205,016
Montgomery	2c	3,727,899		3,727,899	18,341,263
Peoria	3	_	2,698,913	2,698,913	13,278,652
Perry	3	<del></del>	8,389,306	8,389,306	41,275,385
Pope	2	_	11,968	11,968	58,883
Randolph	3	827,459	2,773,404	3,600,863	17,716,246
St. Clair	6	825,334	5,348,524	6,173,858	30,375,381
Saline	6	1,519,116	901,039	2,420,155	11,907,163
Sangamon	С	1,938,438	<del>-</del>	1,938,438	9,537,115
Stark	1	_	727,568	727,568	3,579,635
Vermilion	3	65,098	184,873	249,971	1,229,857
Will	d	_	687,081	687,081	3,380,439
Williamson	_8	2,441,314	2,558,562	4,999,876	24,599,390
Total	64	31,615,570	33,268,533	64,884,103	\$319,229,787

TABLE 7 - ILLINOIS COAL PRODUCTION BY YEARS, 1951-1970\*

		Tons of	of coal produced by		
			Ţ	Inderground mines	
Year	All mines Total	Strip mines Total	Total	Mined by machine	Mined by hand
1970 1969 1968 1967 1966 1965 1964 1963 1962 1961 1960 1959 1958 1957 1956	64,884,103 64,832,584 62,143,076 64,814,771 63,212,697 58,232,480 54,834,488 51,642,431 48,353,913 45,132,526 45,820,632 45,374,626 43,777,130 46,682,889 47,804,040 45,711,555 41,775,752 45,966,114	33,268,533 34,659,957 36,058,646 37,164,771 36,080,526 32,661,038 29,956,137 27,216,422 24,603,873 22,926,945 22,707,527 22,006,206 20,608,567 19,883,979 19,658,854 18,715,621 16,425,532 16,680,336	31,615,570 30,172,627 26,084,430 27,650,000 27,132,171 25,571,442 24,878,351 24,426,009 23,750,040 22,205,581 23,113,105 23,368,420 23,168,563 26,798,910 28,145,186 26,995,934 25,350,220 29,285,778	31,615,570 30,172,627 26,084,430 27,650,000 27,132,171 25,571,442 24,878,351 24,426,009 23,750,040 22,203,257 23,099,304 23,355,034 23,147,089 26,767,434 28,100,001 26,935,614 25,219,084 29,132,106	2,324 13,801 13,386 21,474 31,476 45,185 60,320 131,136 153,672
1954	41,775,752	16,425,532	25,350,220	25,219,084	131,13

<sup>\*</sup> Source: Illinois State Department of Mines and Minerals.

a Production figures, Illinois State Department of Mines and Minerals.

b Average mine value for Illinois coal estimated at \$4.92 per ton, 1970.

c One mine operated in Christian, Montgomery, and Sangamon Counties.

d One mine operated in Grundy and Will Counties.

TABLE 8 — COAL PRODUCTION BY ILLINOIS COUNTIES, 1882-1970\*

production years year production y	Potal Years active	Last year active
Adams 341,924 26 1969 Marshall 12,516,141	70	1951
Bond 7,355,569 57 1942 Menard 13,462,005	84	1965
Brown 65,347 40 1963 Mercer 15,411,386	83	1970
Bureau 53,823,055 80 1964 Monroe 8,284	13	1941
Calhoun 96,247 27 1912 Montgomery 120,553,562	89	1970
70,21,	• ,	
Cass 212,477 53 1941 Morgan 190,787	64	1951
Christian 289,280,465 86 1970 Moultrie 2,032,236	16	1924
Clark 4,482 2 1955 Peoria 83,694,612	89	1970
Clay 801 1 1963 Perry 244,397,997	89	1970
Clinton 38,656,325 79 1960 Pike 5,081	8	1942
700 000 ( 3000 B	7.0	3050
Coles 198,932 6 1888 Pope 13,530	12	1970
Crawford 45,400 16 1961 Putnam 10,071,893	29	1938
Douglas 10,723,728 25 1970 Randolph 108,969,660	89	1970
Edgar 915,698 41 1952 Richland 154	1	1890
Effingham 796 1 1890 Rock Island 3,846,169	67	1948
Franklin 559,805,990 72 1970 St. Clair 308,112,147	89	1970
Fulton 274,356,528 89 1970 Saline 233,578,699	89	1970
Gallatin 13,146,540 86 1970 Sangamon 235,388,045	84	1970
Greene 693,191 84 1967 Schuyler 7,747,691	84	1966
Grundy 43,809,559 87 1970 Scott 612,476	61	1942
Hamilton 22,097 16 1905 Shelby 4,119,763	67	1950
	80	
Hancock 771,281 72 1958 Stark 7,100,154 Hardin 40 1 1890 Tazewell 17,633,802		1970 1956
	75 89	1970
	36	1964
Jackson 97,282,128 89 1970 Wabash 198,226	20	1904
Jasper 23,739 11 1939 Warren 685,466	73	1954
Jefferson 61,585,607 67 1970 Washington 18,165,386	88	1969
Jersey 120,350 59 1951 White 1,676,741	36	1940
Johnson 279,261 55 1970 Will 43,171 775	89	1970
Kankakee 8,858,008 44 1969 Williamson 396,684,622	89	1970
Woodford 7,810,160	70	1951
Knox 55,069,151 89 1970		
To Gollo 65 5) 7 628 70 1060	4,182,3	77 733
Livingston 10,111,437 00 1961	+,±02,3	11,123
Logan 14,533,376 84 1968 Estimated production		
Macon 11,000,468 65 1947 Estimated production (1833–1881)	73,3	86,123
Macounin 266 216 253 88 1070		
MaDaranah 0.631,003 60 1051 Total production		C= C=C
McLean 5,544,139 47 1928 (1833-1970)	4,255,7	63,856
Madison 164,295,772 83 1964		
Marion 39,247,722 82 1963		
3,,-1,,1= 32 2,03		

<sup>\*</sup> Production figures, Illinois State Department of Mines and Minerals.

TABLE 9 — ESTIMATED OIL PRODUCTION BY ILLINOIS COUNTIES, 1888-1970 a

		1070 pm	oduction	
	Total b			
Country	production	Thousands	Percent of	1970 value <sup>c</sup>
County	1888-1970	of barrels	state total	1970 Value
Adams	172	3	0.01	\$ 9,750
Bond	7,022	68	0.16	221,000
Brown	218	1	_	3,250
Champaign	7	1	_	3,250
Christian	23,459	452	1.03	1,469,000
Clark-Cumberland	87,908	499	1.14	1,621,750
Clay	123,698	2,168	4.96	7,046,000
Clinton	80,519	743	1.70	2,414,750
Coles	21,756	342	0.78	1,111,500
Crawford	220,296	2,010	4.59	6,532,500
De Witt	1,955	<b>1</b> 92	0.44	624,000
Douglas	3,468	50	0.11	162,500
Edgar	3,051	95	0.22	308,750
Edwards	43,132	732	1.67	2,379,000
Effingham	14,364	452	1.03	1,469,000
Fayette	369,936	4,780	10.93	15,535,000
Franklin	67,403	956	2.19	3,107,000
Gallatin Gallatin	46,647	833	1.90	2,707,250
Howilton	106 209	1 620	2.75	E 206 750
Hamilton Hancockd-McDonoug	126,398 h 5,264	1,639	3.75	5,326,750
Jasper	46,890	39 1 <b>,</b> 058	0.09 2.42	126,750 3,438,500
Jefferson	77,010	1,133	2.59	3,682,250
Lawrence	366,783	5 <b>,</b> 230	11.95	16,997,500
Macon	873	9	0.02	29,250
Macoupin	235	3	0.01	9,750
Madison	16,642	121	0.28	393,250
Marion Monroe	387 <b>,</b> 402 2	3,584	8.19	11,648,000
Montgomery	115			3 <b>,</b> 250
Moultrie	85	4	0.01	13,000
_	600		1	· ·
Perry	688	19	0.04	61,750
Randolph	3,932	118	0.27	383,500
Richland	94,266	1,716	3.92	5,577,000
St. Clair	3,108	115	0.26	373,750
Saline	19,355	556	1.27 0.46	1,807,000
Sangamon	2,028	201	0.40	653,250
Schuyler	1		_	
Shelby	1,446	43	0.10	139,750
Wabash	100,102	1,770	4.05	5,752,500
Washington	26,390	760	1.74	2,470,000
Wayne	219,917	4,861	11.11	15,798,250 20,254,000
White Williamson	256,651 995	6,232 158	14.25 0.36	513,500
Total	2,871,589	43,747	100.00	\$142,177,750

<sup>&</sup>lt;sup>a</sup>Subject to revision. <sup>b</sup>In thousands of barrels.

cAverage price estimated at \$3.25 per barrel.
dNo oil production reported for Hancock County in 1970.

TABLE 10 - ILLINOIS STONE PRODUCTION BY REGIONS, 1970 $^{\mathrm{a,b}}$ 

	g counties rations c	Stone use	Tons	Value	Averag
		NORTHWEST		<del></del>	
Carroll	Ogle	Road and			
Henry	Rock Island	building	4,299,983	\$5,565,947	\$1.29
Jo Davies		Agstone	479,309	760,922	1.59
Lee	Whiteside	All other	98,273	117,736	1.20
Mercer	Winnebago	THE CONCE	90,213	111,130	1.20
dercer	Operations — 97	Total	h 877 565	\$6,444,605	\$1.32
	operations — 91		4,877,565	φο,444,00)	Ψ1.3
	V	WEST Road and			
dams	Knox		2 262 015	40.0(0.00)	40.14
rown	McDonough	building	2,062,845	\$3,063,884	\$1.49
lancock	Schuyler	Agstone	419,597	683,216	1,6
enderson	Warren	All other	311,679	1,005,406	3.23
	Operations — 25	Total	2,794,121	\$4,752,506	\$1.70
		WEST SOUTHWE	ST		
alhoun	Madison	Road and			
hristian		building	2,950,745	\$5,125,194	\$1.70
reene	Pike			732,944	1.4
		Agstone	514,880		1.69
ersey acoupin	Scott	All other	296,047	499,060	1.0
oupril	Operations - 27	Total	3,761,672	\$6,357,198	\$1.6
		SOUTHWEST			
linton	Rondol nh				
linton	Randolph	Road and	h 01:2 200	40 300 071	da (
ackson	St. Clair	building	4,943,380	\$8,103,974	\$1.6
ohnson	Union	Agstone	687,152	1,026,418	1.4
onroe	Washington	All other	2,680,395	4,668,892	1.7
ulaski	Operations - 21	Total	8,310,927	\$13,799,284	\$1.6
		NORTHEAST	!		
oone	Kendall	Road and			
ook	La Salle	building	18,970,117	\$29,129,837	\$1.5
e Kalb	McHenry	Agstone	346,046	494,777	1.4
u Page	Will	All other	2,217,439	3,920,310	1.7
ane	Operations — 23	Total	21,533,602	\$33,544,924	\$1.5
	5,000		,,,,,,,	10012	
		EAST			
ankakee		Road and			
ivingsto	on	building	5,376,613	\$8,245,053	\$1.5
ermilion	1	Agstone	815,443	1,223,449	1.5
		All other	222,872	469,791	2.1
	Operations — 12	Total	6,414,928	\$9,938,293	\$1.5
			, - ,		
ogan		CENTRAL Road and			
enard		building	1,184,886	\$2,024,125	\$1.7
eoria		Agstone	191,008	362,986	1.9
COLIS		All other	191,000	302,300	
	Operations — 5	Total	1,375,894	\$2,387,111	\$1.7
				ΨC 9 30 1 9 T T T	Ψ
171	Percent	EAST SOUTHEA Road and	AST		
lark	Fayette		1 512 966	\$2,653,348	\$1.7
lay	Marion	building	1,513,866		
oles	Shelby	Agstone	392,593	754,207	1.9
	Operations — 10	All other			
	operations — 10	Total	1,906,459	\$3,407,555	\$1.7
		SOUTHEAST	?		
ardin		Road and		1- 41	4
assac		building	1,085,553	\$1,645,772	\$1.5
		Agstone	153,892	232,053	1.5
		All other	524,030	644,557	1.2
	Operations — 8	Total	1,763,475	\$2,522,382	\$1.1
		STATE TOTAL	S		
		DIAID TOTAL	~		
Count i es	50	Road and			
Counties		Road and	lia 387 088	\$65 557 13)	\$1.5
Counties	— 59 Operations — 228	building	42,387,988	\$65,557,134	
Counties		building Agstone	3,999,920	6,270,972	1.5
counties		building			\$1.5 1.5 1.7

<sup>&</sup>lt;sup>a</sup>Based on U.S. Bureau of Mines figures. All values at the quarry.

blimension stone and stone used for cement and lime not included. CSummary of commercial stone production. Figure 3 shows regions and counties.

TABLE 11 — ILLINOIS COMMON SAND PRODUCTION BY REGIONS, 1970 a

Producing counties and operationsb	3	Sand use	Tons	Value	Average per to
		NORTHWES			
Bureau	Ogle				
Carroll	Rock Island	Paving	939,297	\$ 717,217	\$0.76
Henry	Stephenson	Building	961,077	963,611	1.00
Jo Daviess	Whiteside	All other	438,754	278,876	0.64
Lee	Winnebago				
Operation		Total	2,339,128	\$1,959,704	\$0.84
		, man			
\dama	Cohumilan	WEST Paving	225 801	\$ 190,202	\$0.84
Adams Brown	Schuyler	Building	225,801		
Fulton		All other	55,182 74, <b>1</b> 79	71,009 66,303	1.29 0.89
Operation	ns 9				
operation.		Total	355,162	\$ 327,514	\$0.92
		WEST SOUTHV	VEST		
ond	Pike	Paving	434,949	\$ 508,791	\$1.17
Madison	Sangamon	Building	828,576	919,496	1.11
forgan	Scott	All other	205,997	189,276	0.92
Operation		Total	1,469,522	\$1,617,563	\$1.10
		10001	1,707,722	Ψ1,011,703	Ψ1.10
		SOUTHWES			
lexander	Randolph	Paving	431,800	\$ 443,250	\$1.03
linton	St. Clair	Building	165,568	159,926	0.97
ackson	Union	All other	112,481	105,466	0.94
ulaski	0	Total	709,849	\$ 708,642	\$1.00
Operation	s — o	i i i i i i i i i i i i i i i i i i i			
e Witt	Mason	CENTRA	L		
ogan	Peoria	Paving	1,356,560	\$1,470,782	\$1.08
icLean	Stark	Building	545,527	665,296	1.22
facon	Tazewell	All other	379,628	343,866	0.91
iarshall	Woodford			3.3,	
Operation	ıs — 35	Total	2,281,715	\$2,479,944	\$1.09
				1-3-12-32	,,
oone	Kane	NORTHEAS	5T		
look	Lake	Paving	4,320,913	\$4,730,786	\$1.09
e Kalb	La Salle	Building	3,123,174	3,596,757	1.15
u Page	McHenry	All other	951,551	802,712	0.84
rundy	Will				
Operation	ıs — 51	Total	8,395,638	\$9,130,255	\$1.09
		100-2	0,3,7,030	+> <b>,</b> =3+ <b>,</b> =>>	7=
		EAST	1-0	4 1-6	
hampaign	Kankakee	Paving	498,019	\$ 496,727	\$1.00
ord .	Livingston	Building	174,274	174,240	1.00
roquois	Vermilion	Ail other	139,763	73,276	0.52
Operation	15 — 19	Total	812,056	\$ 744,243	\$0.92
		EAST SOUTH	RASTP		
lark	Effingham	Paving	392,224	\$ 481,927	\$1.23
oles	Fayette	Building	155,936	141,151	0.9
rawford	Lawrence	All other	149,199	119,214	0.80
umberland	She1by				
Operation	ns — 16	Total	697,359	\$ 7·2 <b>,</b> 292	\$1.06
		COLUMN	zm		
dwards	Wabash	SOUTHEAS Paving	369 <b>,</b> 250	\$ 304,900	\$0.83
allatin	White	Building	272,015	301,805	1.11
CALL TO LII	1111 OC	All other	48,493	33,120	0.68
lassac	ns — 10	Total	689,758	\$ 639,825	\$0.93
Massac Operation		Total	009,150	ψ 039,02)	Ψ0.93
		amarm mom	AT.S		
Operation		STATE TOT.			
Operation Counties — 66		Paving	8,968,813	\$9,344,582	
Massac Operation Counties — 66 Operation	ns — 189	Paving Building	8,968,813 6,281,329	6,993,291	1.13
Operation Counties — 66	ns — 189	Paving	8,968,813		\$1.0½ 1.11 0.80

<sup>&</sup>lt;sup>a</sup>Based on U.S. Bureau of Mines figures. All values at the pit. <sup>b</sup>Summary of commercial sand production. Figure 3 shows regions and counties

TABLE 12 — ILLINOIS GRAVEL PRODUCTION BY REGIONS, 1970<sup>a</sup>

Producing counti and operations		Gravel use	Tons	Value	Average per tor
		<u> </u>	I		
Bureau	Putnam	NORTHWE	ST		
sureau Carroll	Rock Island	Paving	741,360	\$ 786,256	\$1.06
Jo Daviess	Stephenson	Building	853,295	1,019,840	1.20
lee	Whiteside	All other	56,706	49,041	0.86
	Winnebago	AII Other	50,100	49,041	0.00
gle		Total	1,651,361	¢1 0cc 107	\$1.12
Uperati	ons — 37	Total	1,051,361	\$1,855,137	\$1.12
		WEST			
dams	Schuyler	Paving	274,035	\$ 427,621	\$1.56
rown		Building	44,999	79,880	1.78
ulton		All other	<u></u>		
	lons — 8	Total	210, 02)	\$ 507 501	\$1.59
-		Total	319,034	\$ 507,501	Φ1.59
		WEST SOUTH	WEST		
ond	Scott	Paving	136,750	\$ 166,860	\$1.22
ike		Building	182,386	348,278	1.91
angamon		All other	21,607	103,973	4.81
	ions — 10				\$1.82
•		Total	340,743	\$ 619,111	\$1.02
		SOUTHWE	ST .		
llexander	Union	Paving	26,540	\$ 19,334	\$0.73
linton		Building		->,,55	_
ulaski		All other			
Operati	lons — 5		26. 510	\$ 19.334	¢0.73
•		Total	26,540	\$ 19,334	\$0.73
		CENTRA	T,		
e Witt	Mason				
ogan	Peoria	Paving	2,197,367	\$3,217,264	\$1.46
icLean	Stark	Building	485,600	769,202	1.58
Macon	Tazewell	All other	214,105	238,207	1.11
farshall	Woodford			\$4,224,673	\$1.46
Operati	ions — 53	Total	2,897,072	φ4,224,013	Ψ1.40
-		NORTHEA	ST		
loone	Kendal1				
look	Lake	Paving	7,212,192	\$8,681,541	\$1.20
e Kalb	La Salle	Building	5,750,959	5,789,752	1.01
u Page	McHenry	All other	1,006,992	718,996	0.71
rundy	Will	Total	13,970,143	\$15,190,289	\$1.09
ane		Total	13,910,143	Ψ17,190,209	Ψ1.09
0perati	ions — 72				
		EAST			
hampaign	Kankakee	Paving	473,214	\$ 634,261	\$1.34
Ford	Livingston	Building	44,175	64,562	1.46
roquois	Vermilion	All other	52,454	21,238	0.40
	ions — 19		569,843	\$ 720,061	\$1.26
•		Total	709,043	Ψ [20,001	ψ1.20
		EAST SOUTH	EAST		
lark	Fayette	Paving	627,782	\$ 651,500	\$1.04
Coles	Lawrence	Building	186,476	253,094	1.36
Crawford	Moultrie	All other	140,341	102,770	0.73
Cumberland	Shelby				
	ions — 15	Total	954,599	\$1,007,364	\$1.06
22	11-22-	SOUTHEA		¢ = 1,2 0=9	\$0.88
Edwards	Wabash	Paving	618,271	\$ 543,958 44,476	1.44
Gallatin	White	Building	30,884	44,410	1.44
Massac	i ema	All other			
Operat:	ions — 9	Total	649,155	\$ 588,434	\$0.91
		STATE TO	PALS		
Counties — 62		Paving	12,307,511	\$15,128,595	\$1.23
	ions — 228	Building	7,578,774	8,369,084	1.10
operat.	2010 — 220	All other	1,492,205	1,234,225	0.83
			21,378,490	\$24,731,904	\$1.16
		Total			

 $<sup>^{\</sup>rm a}{\rm Based}$  on U.S. Bureau of Mines figures. All values at the pit.  $^{\rm b}{\rm Summary}$  of commercial gravel production. Figure 3 shows regions and counties.

TABLE 13 — ILLINOIS SILICA SAND PRODUCTION, 1969-1970 a

	1	969	19	70
Silica sand use	Tons	Value	Tons	Value
Glass sand Molding sand Other usesb Ground silica sand	2,136,890 1,149,621 795,228 313,211	\$ 5,101,987 4,282,548 3,550,171 2,836,213	2,140,476 1,100,298 812,535 312,659	\$ 5,429,124 4,280,945 4,173,065 2,885,903
Total silica sand	4,394,950	\$15,770,919	4,365,968	\$16,769,037

<sup>&</sup>lt;sup>a</sup>Based on U.S. Bureau of Mines figures.

TABLE 14 - PRODUCTION OF ILLINOIS CLAY PRODUCTS, 1969-1970

	196	9	1970					
Clay products reported	Amount	Value	Amount	Value				
Face brick (number)	143,958,741	\$ 6,938,584	95,277,375	\$ 4,782,544				
Common brick (number)	123,298,257	3,671,564	96,522,679	3,996,687				
Drain and sewer tile (tons)	159,240	6,793,255	138,963	6,573,053				
Lightweight aggregate (tons)	539,750	3,203,803	530,998	3,266,125				
Other clay products		823,446	_	· -				
Clay and silica refractories	_	12,511,043		11,408,848				
Pottery and whiteware	_	24,524,936	_	23,907,454				
Total		\$58,466,631		\$53,934,711				

TABLE 15 — FLUORSPAR SHIPPED AND CONSUMED, 1960-1970 a

		Fluorspar Shipme	nts	Fluorspar	Illinois shipments
Year	United States	Illinois	Illinois as percent of U.S.	consumed in b	as percent of U.S. consumption
1960	229,782	134,529	58.5	643,759	20.9
1961	197,354	116,908	59.2	687,940	17.0
1962	206,026	132,830	64.5	652,888	20.3
1963	199,948	132,060	66.1	736,350	17.9
1964	217,137	127,454	58.7	831,561	15.3
1965	240,932	159,140	66.1	930,127	17.1
1966	253,068	176,175	69.6	1,065,124	16.5
1967	295,643	210,207	71.1	1,091,158	19.3
1968	252,411	188,325	74.6	1,243,414	15.1
1969	182,567	88,480	48.5	1,356,624	6.5
1970	267,191	148,208	55.5	1,333,894	11.1

TABLE 16 — ILLINOIS ZINC AND LEAD PRODUCTION, 1960-1970

		Zine		Lead					
Year	Tons	Value	Average per ton	Tons	Value	Average per ton			
1960 1961 1962 1963 1964	29,550 26,795 27,413 20,337 13,800	\$7,623,900 6,162,850 6,304,990 4,677,510 3,753,600	\$258.00 230.00 230.00 230.00 230.00 272.00	3,000 3,430 3,610 2,901 2,180	\$702,000 706,580 664,240 626,616 571,160	\$234.00 206.00 184.00 216.00 262.00			
1965 1966 1967 1968 1969	18,314 15,192 20,416 18,182 13,765 16,797	5,347,688 4,405,680 5,552,374 4,909,140 4,019,400 5,146,200	292.00 290.00 277.00 270.00 292.00 306.00	3,005 2,285 2,384 1,467 791 1,532	937,560 690,756 667,520 387,641 235,700 478,600	312.00 302.00 280.00 264.00 298.00 312.00			

<sup>&</sup>lt;sup>a</sup>Based on U.S. Bureau of Mines figures. bMine production of recoverable metal.

Based on U.S. bureau of Files lightes.

BBlast, engine, filtration, grinding, oil, other.

CFor abrasives, ceramics, foundry, filler, chemical.

<sup>&</sup>lt;sup>a</sup>Fluorspar figures, in tons, U.S. Bureau of Mines. <sup>b</sup>Fluorspar consumed includes domestic and foreign material.

# TABLE 17 - SUMMARY OF MINERALS PRODUCED BY ILLINOIS COUNTIES, 1970

This table is a convenient reference to the counties of Illinois producing any of 14 mineral products. The numbers show the position held by each county among all counties producing a selected mineral product.

County	Cement	Clay products	Coal	Crude oil	Fluorspar	Lead	Lime	Natural bonded molding sand	Common sand	Common gravel	Silica sand	Stone	Tripoli	Zinc
Adams Alexander Bond Boone Brown	-	- - - - 21	-	38 - 31 - 41	-	-	2	-	52 46 25 47 56	55 54 29 34 60	-	16 - - 35 57	- 1 - -	-
Bureau Calhoun Carroll Cass Champaign	- - - -	-	-	- - - 42	- - -	-	-	=	21 - 59 - 12	5 - 45 - 23	-	56 30 -	- - - -	-
Christian Clark Clay Clinton Coles	-	-	12	19 21 6 16 22	-	-	-	- - - -	51 - 45 23	26 - 58 28	-	36 17 48 52 26	- - - -	-
Cook Crawford Cumberland De Kalb De Witt	- - - -	1 5 - -	-	- 7 26 - 24	-	-	1	-	11 50 32 26 39	8 15 38 24 22	-	1 - - 34 -	- - - -	-
Douglas Du Page Edgar Edwards Effingham	- - - -	- 7 - -	15 - - - -	32 - 30 17 20	-	-	-	-	- 18 - 62 58	- 4 - 41 -	-	15 - - -	- - - -	-
Fayette Ford Franklin Fulton Gallatin	- - - -	19 - - -	- 2 5 9	14 - 13 - 14	-	-	-	3 - - -	48 28 - 19 22	42 33 - 16 51	-	33 - - -	- - - -	-
Greene Grundy Hamilton Hancock Hardin	-	22 8 - -	18 - - -	- 10 - -	- - - 1	- - - 1	- - - -	- - - -	2 -	57 - - -	-	37 - - 28 6	- - - -	- - - 1

TABLE 17 — Continued

	,		,	,			,	<b></b>						
County	Cement	Clay products	Coal	Crude oil	Fluorspar	Lead	Lime	Natural bonded molding sand	Common sand	Common gravel	Silica sand	Stone	Tripoli	Zinc
Henderson Henry Iroquois Jackson Jasper	- - - -	-	- - 21 -	- - - - 12	-	-	- - - -	- 1 - -	54 49 36	- 61 -	- - - -	40 41 - 31	-	-
Jefferson Jersey Jo Daviess Johnson Kane	-	- - - 6	3 - - 24 -	11 - - -	-	- 2 -	-	- - - -	- 30 - 1 <sub>4</sub>	- 53 - 1	-	49 27 9 13	-	- 2 -
Kankakee Kendall Knox Lake La Salle	- - - 1	17 - 4 12 2	- 14 -	- - - -	-	- - - -	-	-	53 - - 7 14	40 19 - 6 14	- - - 1	5 39 38 - 46	- - - -	-
Lawrence Lee Livingston Logan McDonough	- 2 - -	- - 15 - 3	- - - -	2 - - 34	-	-	-	- - - -	38 34 64 27	20 35 47 31	-	- 18 4 45 32	=	-
McHenry McLean Macon Macoupin Madison	-	- - - - 11	- - - 19	- 36 39 27	-	-	-	-	1 15 16 - 9	2 7 21 -	-	59 - - 47 14	-	-
Marion Marshall Mason Massac Menard	- - 3 -	-	-	5 - - -	-	-	-	- - - -	35 42 43	- 17 59 46	-	50 - - 54 20	-	- - - -
Mercer Monroe Montgomery Morgan Moultrie	-	-	22 - 7 -	- 40 - 37	-	- - - -	-	- - - -	- - 63 -	- - - - 49	-	53 42 11 -	-	-
Ogle Peoria Perry Piatt Pike	- - - -	-	- 10 1 -	- 35 -	-	- - - -	-	- - - -	29 13 - - 61	32 10 - - 30	2	24 22 - - 23	- - - -	- - - -

Continued on page 22

TABLE 17 — Continued

County	Cement	Clay products	Coal	Crude oil	Fluorspar	Lead	Lime	Natural bonded molding sand	Common sand	Common gravel	Silica sand	Stone	Tripoli	Zinc
Pope Pulaski Putnam Randolph Richland	-	- 13 - -	23 - - 8 -	- - 28 9	2	3	-	- - - - -	- 55 - 24	- 56 48 - -	-	- 44 - 7 -	-	3
Rock Island St. Clair Saline Sangamon Schuyler	-	20 - 18 -	- 4 11 13 -	29 18 23	-	-	-	2	5 20 - 8 57	27 - - 25 43	-	10 3 - - 58	-	- - - -
Scott Shelby Stark Stephenson Tazewell	-	16 - - -	- 16 -	33 - - -	:	-	-	- - - -	66 33 65 44 10	62 36 52 44 9	-	51 55 - 21	-	-
Union Vermilion Wabash Warren Washington Wayne	-	- 14 - 9 -	20	- 8 - 15 3	-	-	-	-	60 37 40 -	50 18 39 - -	-	12 8 - 19 25 -	-	-
White Whiteside Will Williamson Winnebago Woodford	-	- 10 - -	- 17 6 -	1 - - 25 -	-	-	-	-	17 31 3 - 6 41	11 37 3 - 12 13	-	- 43 2 - 29	-	-

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