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STATE OF ILLINOIS
DEPARTMENT OF REGISTRATION AND EDUCATION



MINERAL PRODUCTION IN ILLINOIS IN 1963

W. L. Busch

ILLINOIS STATE GEOLOGICAL SURVEY
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ABSTRACT

The value of minerals produced in Illinois in 1963 amounted to 615 million dollars. A record high value of 631 million dollars was established in 1962. Illinois minerals include coal, oil, stone, sand and gravel, fluorspar, lead, zinc, and other items such as clay products, cement, and lime. The total annual value of these minerals has been in excess of 600 million dollars for each year, 1956-1963. The quantity and value of minerals produced in 1963 are summarized in the tables and maps of this report.

SUMMARY OF 1963 MINERAL PRODUCTION

Illinois mineral production in 1963 was valued at 615 million dollars. This amount was about 2.5 percent less than the all-time high of 631 million dollars recorded for the 1962 mineral production of this state. Although the total mineral value for 1963 was slightly lower than that reported for 1962, some mineral commodities produced in Illinois showed increases in value for 1963 while other minerals had only small declines from the corresponding 1962 value (tables 1 and 2).

The value of fuels produced in Illinois during 1963 amounted to about 68.2 percent of the value of all minerals. A decrease in the total value of these fuels—coal and crude oil and associated products—as compared to the 1962 value, amounted to about 6.5 million dollars. The decline in the value of oil, with associated products, was equal to the entire decrease of 16 million dollars in the state's overall mineral value for 1963. The value of coal produced in 1963, on the other hand, showed an increase of almost 10 million dollars over the 1962 coal value.

Stone products produced in Illinois include crushed stone, cement, and lime and make up the second most important group of minerals produced in this state. As a group, these commodities contributed 15.2 percent of the 1963 total value. The tonnage and total value of crushed stone reported produced by commercial operators during 1963 showed somewhat of a decline from the amounts reported for 1962. Shipments of Portland and masonry cements were up slightly in 1963 as compared to 1962. The value of lime produced in Illinois in 1963 registered a 12.5 percent increase over the 1962 value.

The value of Illinois clay products reported for 1963 amounted to 53.9 million dollars, or 8.8 percent of the state's overall mineral products value. This total, about 4.5 percent less than the 1962 value, indicates that the industry in general maintained a high level of activity throughout the year. Illinois clay products include face brick and common brick, structural tile, drain and sewer tile, refractories, and pottery and whiteware.

Illinois sand and gravel production in 1963 showed a small decrease in both tonnage and value as compared to 1962 totals. This group of minerals, including common sand and gravel, silica sand, and natural bonded molding sand, furnished about 5.9 percent of the state's total mineral value in 1963.

Fluorspar, lead, and zinc, which are produced from Illinois mines, as a group, showed somewhat of a decline in value from the 1962 combined value. These three minerals had a total value of 11.8 million dollars in 1963, about 1.9 percent of the state's entire mineral value. Fluorspar recorded a small gain in value for 1963 over the 1962 value, while the value of lead showed a slight decline. The amounts of recoverable zinc and lead metals produced from Illinois mines in 1963 were less than the amounts of metal produced in 1962. Since the final price per ton of zinc in 1963 and 1962 was the same, the total value of zinc in 1963 was less than the 1962 value due to a drop in the number of tons of metal produced (tables 3 and 4).

COAL

In 1963 Illinois produced more than 51.6 million tons of bituminous coal and was the fourth-ranking coal-producing state in the nation. During 1963 Illinois contributed more than 11 percent of all coal produced in the United States and was exceeded in coal production only by the states of West Virginia, Kentucky, and Pennsylvania.

The value of coal produced in Illinois during 1963 amounted to 196.2 million dollars. Although the price per ton was slightly less in 1963, the increased tonnage in 1963 made the total value of this commodity worth almost 10 million dollars more than the 1962 value. Coal contributed about 31.9 percent to the state's total mineral value in 1963.

Production

The 1963 record for Illinois coal production is shown in tables 5 and 6. Table 5 summarizes the 1963 production in terms of tons of coal produced, type of mine (strip or underground), number of mines, and the approximate value of the product for each producing county. Of the 35 coal-producing counties, 13 produced more than one million tons each for a combined total of 90 percent of the state's 1963 output. Coal recovery by stripping methods was important in more than half of the producing counties in 1963 and accounted for more than 52 percent of the total tonnage.

The production of coal by counties since 1882, when mining records were begun, is shown in table 6. During this 82 year period more than 3.7 billion tons of coal has been recovered from Illinois mines. Of the 71 counties that have recorded coal production since 1882, 11 have produced more than 100 million tons of coal each, and as a group have accounted for more than three-fourths of the

state's entire output. Table 6 also shows the total number of years that each county has produced coal since 1882 and the last year it produced coal.

The 35 Illinois counties that produced coal in 1963 are indicated by the county map in figure 1, with the intensity of mining activity illustrated by the degree of shading.

PETROLEUM

Illinois oil production for 1963 was estimated at 74,796,000 barrels, about a five percent decline from the 78,800,000 barrels produced in 1962. Illinois was the eighth most important oil producing state in the nation in 1963, supplying about 2.7 percent of the national total, and was again the leading oil producing state among states lying principally east of the Mississippi River.

The value of oil produced in Illinois during 1963 amounted to about 221.4 million dollars. A small decrease in the average price per barrel for Illinois oil made the value of this commodity, with natural gas and natural gas liquids, worth about 16 million dollars less than the 1962 total value. These products supplied about 36.3 percent of the state's total mineral value in 1963.

Production

Table 7 gives, by county, the estimated amount and value of oil produced in 1963 and each county's percentage of the state total. Also shown in this table are figures giving the total estimated oil production for each county for the period 1888 through 1963. The map in figure 2 shows the 41 counties in Illinois that produced oil in 1963 and indicates the major oil-producing counties.

Drilling has declined somewhat in recent years, but production has remained fairly level because secondary methods of oil recovery in Illinois, chiefly water-flooding, have been contributing increasing amounts to the total oil produced. Since 1954 the value of crude oil has been the largest single segment of the state's total annual mineral value.

STONE, SAND, AND GRAVEL

Stone

During 1963 Illinois commercial quarry operators produced 35.8 million tons of crushed and broken stone, which was valued at 47.7 million dollars. The tonnage reported for 1963 is about 7 percent less than the 38.5 million tons reported in 1962. In 1963 crushed stone used for building and road purposes recorded a marked decrease as compared to the amount of stone used for these purposes in 1962. The amount of crushed stone reported produced for agricultural purposes in 1963 showed a 30 percent increase over the 3.7 million tons produced in 1962. Stone reported produced for all other uses was 2.1 million tons in 1962 and 1963.

A detailed accounting is given in table 8 of stone production in Illinois according to region (fig. 3) and according to three major categories of use—stone for road and building, agriculture, and all other uses. Table 8 also lists every

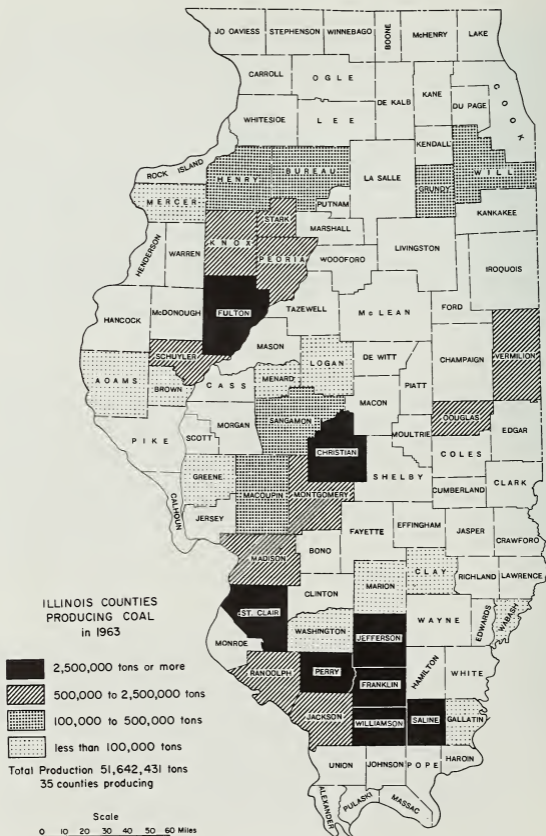


Figure 1 - Illinois coal production by counties in 1963.

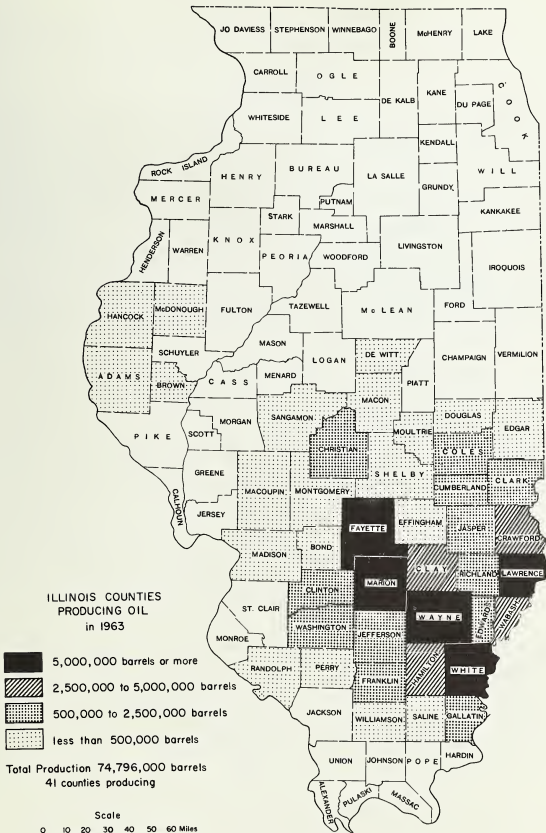


Figure 2 - Illinois oil production by counties in 1963.

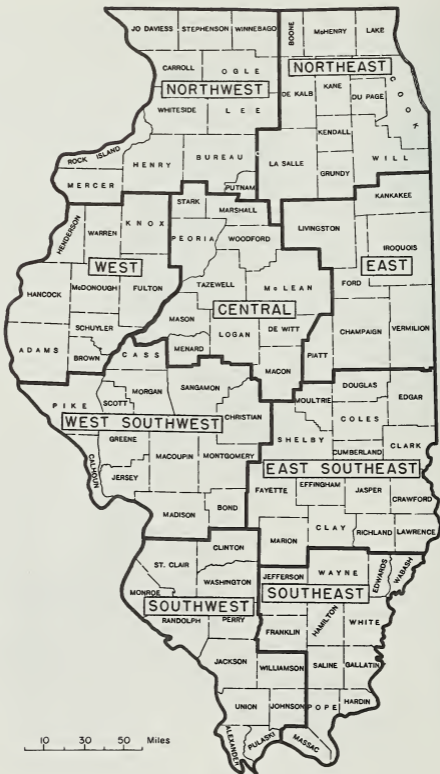


Figure 3 - County outline map of Illinois showing area division.

county reported to have had stone production and the average value at the quarry for all categories of stone in all regions for 1963.

Sand and Gravel

Illinois common sand and gravel are used extensively in the construction industry, in building and maintaining highway and railway roadbeds, and for many other uses. Table 9 gives a detailed review of common sand production in Illinois for 1963 according to region (fig. 3) and according to three major categories of use—sand for road paving purposes, for building, and for all other uses. Table 9 shows that the Northeast Region of Illinois is a heavy producer of common sand, especially for paving and building purposes. The Northwest and Central Regions are the next most important producers of common sand. Table 10 shows that the Northeast Region of Illinois is a substantial producer of gravel and that the Central and Northwest Regions are also important producers of this material (fig. 3).

Common sand and gravel reported used for paving in 1963 totaled 12.8 million tons compared with 18.0 million tons for 1962. Sand and gravel used for building purposes increased to 11.4 million tons over the 9.4 million tons recorded for 1962. All other common sand and gravel used in 1963 amounted to 2.8 million tons while the 1962 total was 2.5 million tons.

Special Sands

Special sands in Illinois includes the natural bonded molding sand that is produced in small quantities each year. In 1963 about 25,400 tons was produced, valued at \$48,000 (table 11). Natural bonded molding sand can be used in molds for the casting of metals without the addition of a binding substance, such as clay, because the sand already contains the proportion of fine clay to permit molding use.

The other special sand, silica sand, is produced in substantial quantities in LaSalle County and in lesser amounts in Ogle County. During 1963 about 2.9 million tons of silica sand was produced for various uses and was valued at more than 11.3 million dollars (table 11). According to 1963 production figures, the largest individual use for Illinois silica sand was in the manufacture of glass. The second most important use for the state's silica sand was for molding sand purposes.

CLAY PRODUCTS

The manufacture of Illinois clay products reported for 1963 amounted to more than 53.9 million dollars. Clay products include such items as face brick and common brick, sewer pipe and drain tile, flue pipe, building tile, vitreous plumbing fixtures, glazed tile, electrical porcelains, and pottery and whiteware. Also included in the list of Illinois clay products are the various forms of special heat-resistant fire brick and silica brick used by the metallurgical industries. Table 12 summarizes the production of clay products for the years 1962 and 1963. Fifty-five clay product plants located in 29 counties throughout Illinois reported production for 1963.

CEMENT

Three counties possess the state's present four cement manufacturing plants: two in LaSalle County at Oglesby and at LaSalle; one in Lee County at Dixon; and one in Massac County at Joppa. Figures in table 1 show that Illinois shipped a total of more than 9.7 million barrels of all types of cement in 1963, valued at more than 32 million dollars.

FLUORSPAR

Illinois shipped about 132,000 tons of finished fluorspar in 1963, which was 66.1 percent of all finished fluorspar produced and shipped in the United States. Illinois, the nation's leading fluorspar producer, supplied about 17.9 percent of all fluorspar (domestic and foreign) consumed in the United States (table 13).

Fluorspar, an important raw material for the iron and steel, aluminum, chemical, glass, and ceramics industries, was mined principally in Hardin County, with small amounts produced in Pope County, in the southern part of the state.

METALS

Production figures for 1963 indicate that mine output of zinc in Illinois amounted to 20,337 tons and was valued at more than 4.6 million dollars. Illinois lead production totaled 2,901 tons, with a value of \$626,616 for 1963 (table 14). Zinc and lead are produced 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.

TABLE 1 - SUMMARY OF ILLINOIS MINERAL PRODUCTION, 1962-1963^a

Material	Unit	1962 ^b			1963 ^b		
		Quantity	Value at plants		Quantity	Value at plants	
			Total	Average		Total	Average
Coal - bituminous	tons	48,353,913	\$186,646,104	\$ 3.86	51,642,431	\$196,241,238	\$ 3.80
Crude oil	bbls.	78,800,000	236,400,000	3.00	74,796,000	221,396,160	2.96
Limestone and dolomite	tons	38,528,222	52,313,576	1.36	35,887,632	47,754,695	1.33
Cement - Portland	376 lb. bbls.	9,145,495	30,205,447	3.30	9,281,110	30,576,701	3.29
Cement - Masonry	280 lb. bbls.	440,367	1,320,002	3.00	471,566	1,440,172	3.05
Clay products	-	-	56,495,460	-	-	53,921,080	-
Sand	tons	13,880,962	11,943,268	0.86	12,556,556	10,698,382	0.85
Gravel	tons	16,123,325	15,040,907	0.93	14,558,143	14,099,915	0.97
Special sands	-	-	12,026,071	-	-	11,414,907	-
Fluorspar	tons	132,830	6,391,673	48.12	132,060	6,547,149	49.58
Zinc	tons	27,413	6,304,990	230.00	20,337	4,677,510	230.00
Lead	tons	3,610	664,240	184.00	2,901	626,616	216.00
Other materials ^c	-	-	15,248,262	-	-	15,605,475	-
Total value			\$631,000,000			\$615,000,000	

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

^b Subject to revision.

^c Includes natural gas, natural gas liquids, and lime.

TABLE 2 - VALUE OF ILLINOIS MINERAL PRODUCTION, 1948-1962
(thousands of dollars)

Year	Mineral production	Year	Mineral production	Year	Mineral production
1948	\$567,624	1953	\$501,926	1958	\$611,625
1949	487,808	1954	519,242	1959	606,300
1950	539,236	1955	570,653	1960	615,800
1951	542,031	1956	613,364	1961	604,000
1952	500,820	1957	612,755	1962	631,000

TABLE 3 - PERCENTAGE OF TOTAL VALUE CONTRIBUTED BY VARIOUS SEGMENTS OF THE ILLINOIS MINERAL INDUSTRY, 1948-1962

Year	Coal	Petroleum products	Stone products	Clay products	Sand and gravel	Fluorspar and metals	Total percent
1948	45.2	34.5	7.5	7.9	3.0	1.9	100
1950	43.0	33.6	8.2	9.0	3.5	2.7	100
1952	37.4	35.2	11.3	8.7	4.0	3.4	100
1954	30.7	41.6	11.8	9.1	4.9	1.9	100
1956	30.0	40.6	12.2	9.6	5.0	2.6	100
1958	28.7	40.5	13.7	9.0	5.8	2.3	100
1960	29.8	38.0	15.0	9.2	5.5	2.5	100
1962	29.6	38.0	15.2	8.9	6.2	2.1	100

TABLE 4 - AVERAGE PRICES OF ILLINOIS MINERAL PRODUCTS, 1954-1962

Year	Coal (ton)	Crude oil (bbl.)	Crushed stone (ton)	Cement (bbl.)	Lime (ton)	Silica sand (ton)
1954	\$ 3.82	\$ 3.00	\$ 1.27	\$ 2.57	\$ 13.95	\$ 3.07
1956	3.84	2.95	1.36	2.93	15.25	3.05
1958	4.02	3.00	1.33	3.21	16.69	3.06
1960	4.01	2.98	1.38	3.36	16.37	3.07
1962	3.86	3.00	1.36	3.29	16.29	3.59

Year	Sand (ton)	Gravel (ton)	Fluorspar (ton)	Zinc (ton)	Lead (ton)	Silver (ounce)
1954	\$.73	\$.78	\$ 55.54	\$216.00	\$274.00	\$.905
1956	.75	.83	47.51	274.00	314.00	.905
1958	.90	.95	52.15	204.00	234.00	No
1960	.89	.94	51.55	258.00	234.00	production
1962	.86	.93	48.12	230.00	184.00	reported

TABLE 5 - ILLINOIS COAL PRODUCTION BY COUNTIES IN 1963^a

County	Number of mines	Tons mined		Total tons	Total value ^b
		Underground	Strip		
Adams	1	-	33,509	33,509	\$ 127,334
Brown	1	-	18	18	69
Bureau	1	-	322,214	322,214	1,224,413
Christian	1	5,351,930	-	5,351,930	20,337,334
Clay	1	-	801	801	3,044
Douglas	1	527,221	-	527,221	2,003,440
Franklin	3	5,227,110	-	5,227,110	19,863,018
Fulton	17	-	6,222,217	6,222,217	23,644,425
Gallatin	2	50,617	-	50,617	192,345
Greene	1	-	3,868	3,868	14,698
Henry	1	102,128	-	102,128	388,086
Jackson	7	79,136	1,181,505	1,260,641	4,790,436
Jefferson	3	2,699,311	7,513	2,706,824	10,285,931
Kankakee	1	-	656,743	656,743 ^c	2,495,623
Knox	3	-	1,553,006	1,553,006	5,901,423
Logan	1	19,826	-	19,826	75,339
Macoupin	1	286,787	-	286,787	1,089,791
Madison	2	580,240	-	580,240	2,204,912
Marion	1	6,398	-	6,398	24,312
Menard	1	3,164	-	3,164	12,023
Mercer	2	61,670	2,528	64,198	243,952
Montgomery	1	2,020,981	-	2,020,981	7,679,728
Peoria	7	16,300	927,750	944,050	3,587,390
Perry	3	1,410	3,515,918	3,517,328	13,365,846
Randolph	3	858,494	1,046,915	1,905,409	7,240,554
St. Clair	7	1,264,794	4,446,984	5,711,778	21,704,756
Saline	12	1,305,575	2,333,596	3,639,171	13,828,850
Sangamon	2	126,399	-	126,399	480,316
Schuyler	2	-	584,868	584,868	2,222,498
Stark	1	-	534,207	534,207	2,029,987
Vermilion	7	47,341	1,106,716	1,154,057	4,385,417
Wabash	1	-	3,076	3,076	11,689
Washington	1	22,981	-	22,981	87,328
Williamson	17	3,766,196	2,732,470	6,498,666	24,694,931
Total	116	24,426,009	27,216,422	51,642,431	\$196,241,238

- ^a Source: Production figures, Illinois State Department of Mines and Minerals.
^b Average value for Illinois coal f.o.b. mine, estimated at \$3.80 per ton, 1963.
^c Includes 326,592 tons mined in Grundy County and 330,151 tons mined in Will County.

TABLE 6 - COAL PRODUCTION BY ILLINOIS COUNTIES, 1882-1963^a

County	Total production (tons)	Total years active	Last year active	County	Total production (tons)	Total years active	Last year active
Adams	233,172	20	1963	Marshall	12,516,141	70	1951
Bond	7,355,569	57	1942	Menard	13,449,300	82	1963
Brown	65,347	40	1963	Mercer	15,231,557	76	1963
Bureau	53,564,123	79	1963	Monroe	8,284	13	1941
Calhoun	96,247	27	1912	Montgomery	99,190,075	82	1963
Cass	212,477	53	1941	Morgan	190,787	64	1951
Christian	254,377,915	79	1963	Moultrie	2,032,236	16	1924
Clark	4,482	2	1955	Peoria	71,177,433	82	1963
Clay	801	1	1963	Perry	189,353,919	82	1963
Clinton	38,656,325	79	1960	Pike	5,081	8	1942
Coles	198,932	6	1888	Pope	1,562	11	1938
Crawford	45,400	16	1961	Putnam	10,071,893	29	1938
Douglas	5,389,600	18	1963	Randolph	84,061,461	82	1963
Edgar	915,698	41	1952	Richland	154	1	1890
Effingham	796	1	1890	Rock Island	3,846,169	67	1948
Franklin	508,581,472	65	1963	St. Clair	264,594,972	82	1963
Fulton	221,695,282	82	1963	Saline	213,119,448	82	1963
Gallatin	5,893,159	79	1963	Sangamon	233,379,363	82	1963
Greene	681,115	80	1963	Schuyler	6,538,667	81	1963
Grundy	41,585,354	80	1963	Scott	612,476	61	1942
Hamilton	22,097	16	1905	Shelby	4,119,763	67	1950
Hancock	771,281	72	1958	Stark	2,799,060	73	1963
Hardin	40	1	1890	Tazewell	17,633,802	75	1956
Henry	22,822,818	82	1963	Vermilion	159,713,870	82	1963
Jackson	92,766,087	82	1963	Wabash	197,123	35	1963
Jasper	23,739	11	1939	Warren	685,466	73	1954
Jefferson	36,297,288	60	1963	Washington	17,997,674	82	1963
Jersey	120,350	59	1951	White	1,676,741	36	1940
Johnson	244,004	52	1956	Will	39,181,002	82	1963
Kankakee	8,752,960	43	1962	Williamson	354,956,618	82	1963
Knox	45,131,194	82	1963	Woodford	7,810,160	70	1951
LaSalle	65,547,638	79	1960	Total (1882-1963)		3,749,423,534	
Livingston	10,111,437	80	1961	Estimated production (1833-1881)		73,386,123	
Logan	14,434,309	79	1963	Total production (1833-1963)		3,822,809,657	
Macon	11,000,468	65	1947				
Macoupin	264,076,587	82	1963				
McDonough	2,634,903	69	1951				
McLean	5,544,139	47	1928				
Madison	164,168,950	82	1963				
Marion	39,247,722	82	1963				

^a Source: Illinois State Department of Mines and Minerals.

TABLE 7 - ESTIMATED OIL PRODUCTION BY ILLINOIS COUNTIES, 1888-1963^a

County	Total production ^b 1888-1963	1963 Production		1963 value ^c
		Thousands of barrels	Percent of state total	
Adams	137	32	0.04	\$ 94,720
Bond	6,278	189	0.25	559,440
Brown	197	35	0.05	103,600
Christian	19,130	919	1.23	2,720,240
Clark-Cumberland	83,205	923	1.24	2,732,080
Clay	104,552	2,692	3.60	7,968,320
Clinton	73,416	1,696	2.27	5,020,160
Coles	17,309	654	0.88	1,935,840
Crawford	199,738	3,792	5.07	11,224,320
DeWitt	275	275	0.37	814,000
Douglas	2,867	164	0.22	485,440
Edgar	2,483	63	0.08	186,480
Edwards	36,783	1,162	1.55	3,439,520
Effingham	10,691	403	0.54	1,192,880
Fayette	312,457	14,909	19.93	44,130,640
Franklin	57,533	1,701	2.27	5,034,960
Gallatin	39,416	1,467	1.96	4,342,320
Hamilton	102,754	3,946	5.27	11,680,160
Hancock-McDonough	4,989	43	0.06	127,280
Jasper	38,527	667	0.89	1,974,320
Jefferson	66,924	2,016	2.70	5,967,360
Lawrence	322,028	7,173	9.59	21,232,080
Macon	750	114	0.15	337,440
Macoupin	195	8	0.01	23,680
Madison	15,122	279	0.37	825,840
Marion	348,725	9,069	12.12	26,844,240
Monroe	2	-	-	-
Montgomery	104	4	0.01	11,840
Moultrie	51	4	0.01	11,840
Perry	478	37	0.05	109,520
Randolph	3,081	163	0.22	482,480
Richland	80,335	2,082	2.78	6,162,720
St. Clair	2,883	-	-	-
Saline	13,602	485	0.65	1,435,600
Sangamon	723	120	0.16	355,200
Schuyler	1	-	-	-
Shelby	1,001	122	0.16	361,120
Wabash	83,463	2,829	3.78	8,373,840
Washington	21,973	852	1.14	2,521,920
Wayne	180,259	5,692	7.61	16,848,320
White	209,905	7,950	10.63	23,532,000
Williamson	412	65	0.09	192,400
Total	2,464,754	74,796	100.00	\$221,396,160

a Subject to revision.

b In thousands of barrels.

c Average price estimated at \$2.96 per barrel.

TABLE 8 - ILLINOIS STONE PRODUCTION BY REGIONS, 1963^{a,b}

Producing counties and operations ^c		Stone use	Tons	Value	Average per ton
NORTHWEST					
Carroll	Ogle	Road and			
Henry	Rock Island	building	3,229,543	\$ 3,843,837	\$1.19
Jo Davies	Stephenson	Agstone	566,809	739,649	1.30
Lee	Whiteside	All other	139,372	111,940	0.80
Mercer	Winnebago	Total	3,935,724	\$ 4,695,426	\$1.19
Operations - 55					
WEST					
Adams	Knox	Road and			
Brown	McDonough	building	1,054,196	\$ 1,350,092	\$1.28
Hancock	Schuyler	Agstone	396,593	589,226	1.49
Henderson	Warren	All other	323,132	816,971	2.53
Operations - 22		Total	1,773,921	\$ 2,756,289	\$1.55
WEST SOUTHWEST					
Bond	Madison	Road and			
Calhoun	Montgomery	building	1,960,778	\$ 3,026,204	\$1.54
Christian	Pike	Agstone	476,990	729,356	1.53
Greene	Scott	All other	17,943	67,006	3.73
Jersey		Total	2,455,711	\$ 3,822,566	\$1.56
Operations - 25					
SOUTHWEST					
Clinton	Randolph	Road and			
Jackson	St. Clair	building	3,258,817	\$ 4,587,827	\$1.41
Johnson	Union	Agstone	1,058,381	1,551,462	1.47
Monroe	Washington	All other	1,417,054	1,968,663	1.39
Pulaski		Total	5,734,252	\$ 8,107,952	\$1.41
Operations - 20					
NORTHEAST					
Boone	Kendall	Road and			
Cook	LaSalle	building	14,936,444	\$18,308,389	\$1.23
DeKalb	McHenry	Agstone	418,043	606,867	1.45
DuPage	Will	All other	97,490	123,058	1.26
Kane		Total	15,451,977	\$19,038,314	\$1.23
Operations - 27					
EAST					
Kankakee		Road and			
Livingston		building	2,457,193	\$ 3,161,051	\$1.29
Vermilion		Agstone	951,395	1,277,973	1.34
Operations - 8		All other	164,291	446,319	2.72
		Total	3,572,879	\$ 4,885,343	\$1.37
CENTRAL					
Logan		Road and			
Menard		building	908,420	\$ 1,299,048	\$1.43
Peoria		Agstone	245,726	401,885	1.64
Operations - 6		All other	-	-	-
		Total	1,154,146	\$ 1,700,933	\$1.47
EAST SOUTHEAST					
Clark	Fayette	Road and			
Clay	Marion	building	529,174	\$ 866,237	\$1.64
Coles	Shelby	Agstone	456,308	785,181	1.72
Operations - 9		All other	-	-	-
		Total	985,482	\$ 1,651,418	\$1.68
SOUTHEAST					
Hardin		Road and			
Jefferson		building	552,642	\$ 725,501	\$1.31
Massac		Agstone	270,898	370,953	1.37
Operations - 5		All other	-	-	-
		Total	823,540	\$ 1,096,454	\$1.33
STATE TOTALS					
Counties - 60		Road and			
Operations - 177		building	28,887,207	\$37,168,186	\$1.29
		Agstone	4,841,143	7,052,552	1.46
		All other	2,159,282	3,533,957	1.64
		Total	35,887,632	\$47,754,695	\$1.33

a Based on U. S. Bureau of Mines figures. All values at the quarry.

b Dimension stone and stone used for cement and lime not included.

c Summary of commercial stone production. Figure 3 shows regions and counties.

TABLE 9 - ILLINOIS COMMON SAND PRODUCTION BY REGIONS, 1963^a

Producing counties and operations ^b		Sand use	Tons	Value	Average per ton
NORTHWEST					
Bureau	Ogle				
Carroll	Rock Island	Paving	763,784	\$ 651,984	\$0.85
Henry	Stephenson	Building	1,122,298	996,020	0.89
Jo Daviess	Whiteside	All other	362,891	186,090	0.51
Lee	Winnebago	Total	2,248,973	\$ 1,834,094	\$0.82
Operations - 30					
WEST					
Adams		Paving	57,624	\$ 36,888	\$0.64
Fulton		Building	74,003	80,682	1.09
Schuyler		All other	16,290	14,487	0.89
Operations - 6		Total	147,917	\$ 132,057	\$0.89
WEST SOUTHWEST					
Bond		Paving	286,798	\$ 251,911	\$0.88
Madison		Building	479,754	440,746	0.92
Pike		All other	116,645	66,283	0.57
Sangamon		Total	883,197	\$ 758,940	\$0.86
Operations - 9					
SOUTHWEST					
Alexander		Paving	232,501	\$ 196,834	\$0.85
Jackson		Building	241,481	226,181	0.94
Pulaski		All other	48,394	43,442	0.90
Randolph		Total	522,376	\$ 466,457	\$0.89
St. Clair					
Operations - 5					
CENTRAL					
Logan	Feoria	Paving	603,850	\$ 591,793	\$0.98
McLean	Tazewell	Building	632,467	640,527	1.01
Macon	Woodford	All other	225,715	148,722	0.66
Marshall		Total	1,462,032	\$ 1,381,042	\$0.94
Operations - 18					
NORTHEAST					
Boone	Kendall				
Cook	Lake	Paving	2,274,860	\$ 2,108,940	\$0.93
DeKalb	LaSalle	Building	3,314,860	2,775,094	0.84
DuPage	McHenry	All other	787,630	493,679	0.63
Grundy	Will	Total	6,377,350	\$ 5,377,713	\$0.84
Kane					
Operations - 50					
EAST					
Champaign	Livingston	Paving	88,940	\$ 83,577	\$0.94
Ford	Piatt	Building	178,685	157,093	0.88
Kankakee	Vermilion	All other	76,092	32,800	0.43
Operations - 11		Total	343,717	\$ 273,470	\$0.80
EAST SOUTHEAST					
Clark	Fayette	Paving	181,123	\$ 106,694	\$0.59
Coles	Lawrence	Building	69,438	57,014	0.82
Crawford	Richland	All other	46,670	30,918	0.66
Cumberland	Shelby	Total	297,231	\$ 194,626	\$0.65
Operations - 13					
SOUTHEAST					
Gallatin		Paving	108,900	\$ 118,500	\$1.09
Wabaash		Building	116,936	110,819	0.95
White		All other	47,927	50,664	1.06
Operations - 5		Total	273,763	\$ 279,983	\$1.02
STATE TOTALS					
Counties - 57					
Operations - 147		Paving	4,598,380	\$ 4,147,121	\$0.90
		Building	6,229,922	5,484,176	0.88
		All other	1,728,254	1,067,085	0.62
		Total	12,556,556	\$10,698,382	\$0.85

a Based on U. S. Bureau of Mines figures. All values at the pit.

b Summary of commercial sand production. Figure 3 shows regions and counties.

TABLE 10 - ILLINOIS GRAVEL PRODUCTION BY REGIONS, 1963^a

Producing counties and operations ^b			Gravel use	Tons	Value	Average per ton
NORTHWEST						
Bureau			Paving	928,465	\$ 950,899	\$1.02
Carroll	Lee	Stephenson	Building	737,895	814,563	1.10
Henry	Ogle	Whiteside	All other	41,481	27,585	0.67
Jo Daviess	Rock Island	Winnebago	Total	1,707,841	\$ 1,793,047	\$1.05
Operations - 35						
WEST						
Adams			Paving	176,528	\$ 223,888	\$1.27
Fulton			Building	83,397	126,233	1.51
Knox			All other	-	-	-
Schuyler			Total	259,925	\$ 350,121	\$1.35
Operations - 5						
WEST SOUTHWEST						
Bond			Paving	119,519	\$ 136,937	\$1.15
Calhoun			Building	81,749	105,829	1.29
Pike			All other	95,763	84,263	0.88
Sangamon			Total	297,031	\$ 327,029	\$1.10
Operations - 8						
SOUTHWEST						
Alexander			Paving	8,808	\$ 8,010	\$0.91
Jackson			Building	-	-	-
Union			All other	-	-	-
Operations - 3			Total	8,808	\$ 8,010	\$0.91
CENTRAL						
DeWitt			Paving	2,177,147	\$ 2,683,514	\$1.23
Logan	Marshall	Stark	Building	324,592	430,897	1.33
McLean	Mason	Tazewell	All other	182,411	152,162	0.83
Macon	Peoria	Woodford	Total	2,684,150	\$ 3,266,573	\$1.22
Operations - 35						
NORTHEAST						
Boone	Grundy		Paving	3,988,579	\$ 3,581,756	\$0.90
Cook	Kane	LaSalle	Building	3,789,454	3,268,911	0.86
DeKalb	Kendall	McHenry	All other	558,583	352,018	0.63
DuPage	Lake	Will	Total	8,336,616	\$ 7,202,685	\$0.86
Operations - 68						
EAST						
Champaign	Livingston		Paving	269,326	\$ 287,120	\$1.07
Ford	Piatt		Building	69,369	91,507	1.32
Iroquois	Vermilion		All other	103,450	54,314	0.53
Operations - 20			Total	442,145	\$ 432,941	\$0.98
EAST SOUTHEAST						
Clark	Fayette		Paving	392,044	\$ 358,795	\$0.92
Coles	Lawrence		Building	28,091	32,500	1.16
Crawford	Richland		All other	148,150	77,100	0.52
Cumberland	Shelby		Total	568,285	\$ 468,395	\$0.82
Operations - 14						
SOUTHEAST						
Gallatin			Paving	176,683	\$ 169,659	\$0.96
Wabash			Building	76,659	81,455	1.06
White			All other	-	-	-
Operations - 7			Total	253,342	\$ 251,114	\$0.99
STATE TOTALS						
			Paving	8,237,099	\$ 8,400,578	\$1.02
			Building	5,191,206	4,951,895	0.95
			All other	1,129,838	747,442	0.66
Counties - 59	Operations 195		Total	14,558,143	\$14,099,915	\$0.97

^a Based on U. S. Bureau of Mines figures. All values at the pit.^b Summary of commercial gravel production. Figure 3 shows regions and counties.

TABLE 11 - SPECIAL SANDS IN ILLINOIS, 1962-1963^a

Uses	1962		1963	
	Tons	Value	Tons	Value
Silica sand: Glass sand	1,437,885	\$ 3,380,767	1,431,265	\$ 3,400,159
Molding sand	647,743	2,237,552	732,082	2,360,519
Other uses ^b	588,966	3,985,718	581,987	2,880,208
Ground silica ^c	181,379	2,365,429	204,004	2,725,942
Total silica sand	-	\$11,969,466	-	\$11,366,828
Natural bonded molding sand	30,462	56,605	25,486	48,079
Total special sands	-	\$12,026,071	-	\$11,414,907

^a Based on U. S. Bureau of Mines figures.

^b Grinding and polishing, blast, fire and furnace, engine, filter.

^c For abrasives, ceramics, foundry, and filler from ground siliceous material.

TABLE 12 - PRODUCTION OF ILLINOIS CLAY PRODUCTS, 1962-1963

Clay products reported	1962		1963	
	Amount	Value	Amount	Value
Face brick	155,226,452	\$ 6,696,424	177,281,183	\$ 7,666,253
Common brick	167,585,352	4,787,503	149,184,119	3,780,862
Structural tile (tons)	35,972	507,694	43,805	530,853
Drain and sewer tile (tons)	155,425	4,997,366	149,092	4,772,295
Other structural products	-	2,738,877	-	3,448,505
Clay and silica refractories	-	8,453,929	-	7,599,389
Pottery and whiteware	-	28,313,667	-	26,122,923
Total		\$56,495,460		\$53,921,080

TABLE 13 - UNITED STATES AND ILLINOIS SHIPMENTS OF FLUORSPAR, AND TOTAL FLUORSPAR CONSUMED IN THE UNITED STATES, 1959-1963^a (in tons)

Year	Fluorspar Shipments			Fluorspar ^b consumed in United States	Illinois shipments as percent of U.S. consumption
	United States	Illinois	Illinois as percent of U.S.		
1959	185,091	112,469	60.8	589,979	19.1
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	199,843	132,060	66.1	736,350	17.9

^a U.S. Bureau of Mines tonnage figures.

^b Fluorspar consumed includes domestic and foreign material.

TABLE 14 - ILLINOIS ZINC AND LEAD PRODUCTION, 1959-1963^a

Year ^b	Zinc		Lead	
	Tons	Value	Tons	Value
1959	26,815	\$6,167,450	2,570	\$591,100
1960	29,550	7,623,900	3,000	702,000
1961	26,795	6,162,850	3,430	706,580
1962	27,413	6,304,990	3,610	664,240
1963	20,337	4,677,510	2,901	626,616

^a Mine production of recoverable metal.

^b Source: U.S. Bureau of Mines.

Table 15 of this report was designed as a quick and convenient reference to the counties in Illinois producing any of the 14 major mineral products of this state. The table indicates the different mineral products produced by any county in the state, and the numbers show the position held by each county among all counties producing a selected mineral product.

TABLE 15 - SUMMARY OF MINERALS PRODUCED BY ILLINOIS COUNTIES, 1963

Counties	Cement	Clay products	Coal	Crude oil	Fluorspar	Lead	Lime	Natural bonded molding sand	Common sand	Common gravel	Silica sand	Stone	Tripoli	Zinc
Adams	-	-	27	37	-	-	2	-	37	49	-	16	-	-
Alexander	-	-	-	-	-	-	-	-	30	57	-	-	1	-
Bond	-	-	-	26	-	-	-	-	29	34	-	60	-	-
Boone	-	-	-	-	-	-	-	-	40	38	-	54	-	-
Brown	-	28	35	36	-	-	-	-	-	-	-	55	-	-
Bureau	-	25	21	-	-	-	-	-	14	7	-	-	-	-
Calhoun	-	-	-	-	-	-	-	-	-	52	-	59	-	-
Carroll	-	-	-	-	-	-	-	-	52	50	-	33	-	-
Cass	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Champaign	-	-	-	-	-	-	-	-	17	21	-	-	-	-
Christian	-	-	4	16	-	-	-	-	-	-	-	41	-	-
Clark	-	-	-	20	-	-	-	-	36	39	-	25	-	-
Clay	-	-	34	9	-	-	-	-	-	-	-	50	-	-
Clinton	-	-	-	13	-	-	-	-	-	-	-	35	-	-
Coles	-	-	-	19	-	-	-	-	28	37	-	24	-	-
Cook	-	2	-	-	-	-	1	-	6	12	-	1	-	-
Crawford	-	6	-	7	-	-	-	-	47	31	-	-	-	-
Cumberland	-	-	-	23	-	-	-	-	34	35	-	-	-	-
DeKalb	-	-	-	-	-	-	-	-	22	19	-	39	-	-
DeWitt	-	-	-	25	-	-	-	-	-	32	-	-	-	-
Douglas	-	-	18	27	-	-	-	-	-	-	-	-	-	-
DuPage	-	-	-	-	-	-	-	-	18	17	-	9	-	-
Edgar	-	-	-	33	-	-	-	-	-	-	-	-	-	-
Edwards	-	-	-	15	-	-	-	-	-	-	-	-	-	-
Effingham	-	-	-	22	-	-	-	-	-	-	-	-	-	-
Fayette	-	24	-	1	-	-	-	3	48	46	-	52	-	-
Ford	-	-	-	-	-	-	-	-	42	28	-	-	-	-
Franklin	-	-	5	12	-	-	-	-	-	-	-	-	-	-
Fulton	-	-	2	-	-	-	-	-	26	15	-	-	-	-
Gallatin	-	-	26	14	-	-	-	-	20	36	-	-	-	-

TABLE 15 - CONTINUED

Counties	Cement	Clay products	Coal	Crude oil	Fluorspar	Lead	Lime	Natural bonded molding sand	Common sand	Common gravel	Silica sand	Stone	Tripoli	Zinc
Greene	-	29	31	-	-	-	-	-	-	-	-	30	-	-
Grundy	-	10	20	-	-	-	-	-	5	6	-	-	-	-
Hamilton	-	-	-	6	-	-	-	-	-	-	-	-	-	-
Hancock	-	-	-	41	-	-	-	-	-	-	-	26	-	-
Hardin	-	-	-	-	1	1	-	-	-	-	-	14	-	2
Henderson	-	-	-	-	-	-	-	-	-	-	-	29	-	-
Henry	-	-	24	-	-	-	-	2	49	41	-	53	-	-
Iroquois	-	-	-	-	-	-	-	-	-	51	-	-	-	-
Jackson	-	-	12	-	-	-	-	-	31	59	-	37	-	-
Jasper	-	-	-	18	-	-	-	-	-	-	-	-	-	-
Jefferson	-	-	8	11	-	-	-	-	-	-	-	45	-	-
Jersey	-	-	-	-	-	-	-	-	-	-	-	42	-	-
Jo Daviess	-	-	-	-	-	2	-	-	13	56	-	23	-	1
Johnson	-	-	-	-	-	-	-	-	-	-	-	8	-	-
Kane	-	8	-	-	-	-	-	-	2	2	-	28	-	-
Kankakee	-	14	-	-	-	-	-	-	53	-	-	4	-	-
Kendall	-	-	-	-	-	-	-	-	43	22	-	46	-	-
Knox	-	5	11	-	-	-	-	-	-	47	-	32	-	-
Lake	-	16	-	-	-	-	-	-	10	8	-	-	-	-
LaSalle	1	1	-	-	-	-	-	-	12	9	1	34	-	-
Lawrence	-	-	-	4	-	-	-	-	39	14	-	-	-	-
Lee	2	-	-	-	-	-	-	-	24	27	-	17	-	-
Livingston	-	17	-	-	-	-	-	-	45	24	-	5	-	-
Logan	-	3	29	-	-	-	-	-	19	26	-	40	-	-
McDonough	-	4	-	34	-	-	-	-	-	-	-	27	-	-
McHenry	-	21	-	-	-	-	-	-	1	1	-	57	-	-
McLean	-	-	-	-	-	-	-	-	27	11	-	-	-	-
Macon	-	-	-	31	-	-	-	-	25	20	-	-	-	-
Macoupin	-	-	22	38	-	-	-	-	-	-	-	-	-	-
Madison	-	9	16	24	-	-	-	-	16	-	-	12	-	-
Marion	-	-	30	2	-	-	-	-	-	-	-	49	-	-
Marshall	-	18	-	-	-	-	-	-	46	16	-	-	-	-
Mason	-	-	-	-	-	-	-	1	-	54	-	-	-	-
Massac	3	-	-	-	-	-	-	-	-	-	-	51	-	-
Menard	-	27	32	-	-	-	-	-	-	-	-	18	-	-
Mercer	-	20	25	-	-	-	-	-	-	-	-	44	-	-
Monroe	-	-	-	-	-	-	-	-	-	-	-	21	-	-
Montgomery	-	-	9	39	-	-	-	-	-	-	-	15	-	-
Morgan	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Moultrie	-	-	-	40	-	-	-	-	-	-	-	-	-	-
Ogle	-	-	-	-	-	-	-	-	21	13	2	20	-	-

TABLE 15 - CONTINUED

Counties	Cement	Clay products	Coal	Crude oil	Fluorspar	Lead	Lime	Natural bonded molding sand	Common sand	Common gravel	Silica sand	Stone	Tripoli	Zinc
Peoria	-	-	14	-	-	-	-	-	7	4	-	19	-	-
Perry	-	-	7	35	-	-	-	-	-	-	-	-	-	-
Piatt	-	-	-	-	-	-	-	-	54	55	-	-	-	-
Pike	-	-	-	-	-	-	-	-	50	30	-	22	-	-
Pope	-	-	-	-	2	3	-	-	-	-	-	-	-	3
Pulaski	-	23	-	-	-	-	-	-	51	-	-	36	-	-
Putnam	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Randolph	-	-	10	28	-	-	-	-	23	-	-	7	-	-
Richland	-	-	-	10	-	-	-	-	57	58	-	-	-	-
Rock Island	-	26	-	-	-	-	-	4	9	29	-	6	-	-
St. Clair	-	19	3	-	-	-	-	-	15	-	-	2	-	-
Saline	-	-	6	21	-	-	-	-	-	-	-	-	-	-
Sangamon	-	15	23	30	-	-	-	-	8	23	-	-	-	-
Schuylar	-	-	15	-	-	-	-	-	55	45	-	58	-	-
Scott	-	22	-	-	-	-	-	-	-	-	-	43	-	-
Shelby	-	-	-	29	-	-	-	-	44	42	-	56	-	-
Stark	-	-	17	-	-	-	-	-	-	44	-	-	-	-
Stephenson	-	-	-	-	-	-	-	-	38	43	-	38	-	-
Tazewell	-	12	-	-	-	-	-	-	11	5	-	-	-	-
Union	-	-	-	-	-	-	-	-	-	53	-	10	-	-
Vermilion	-	13	13	-	-	-	-	-	33	40	-	11	-	-
Wabash	-	-	33	8	-	-	-	-	32	25	-	-	-	-
Warren	-	11	-	-	-	-	-	-	-	-	-	47	-	-
Washington	-	-	28	17	-	-	-	-	-	-	-	48	-	-
Wayne	-	-	-	5	-	-	-	-	-	-	-	-	-	-
White	-	-	-	3	-	-	-	-	35	33	-	-	-	-
Whiteside	-	-	-	-	-	-	-	-	41	48	-	31	-	-
Will	-	7	19	-	-	-	-	-	3	3	-	3	-	-
Williamson	-	-	1	32	-	-	-	-	-	-	-	-	-	-
Winnebago	-	-	-	-	-	-	-	-	4	10	-	13	-	-
Woodford	-	-	-	-	-	-	-	-	56	18	-	-	-	-

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CIRCULAR 373

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