# SULFUR STATISTICS<sup>1</sup> U.S. GEOLOGICAL SURVEY

[All values are in metric tons (t) sulfur unless otherwise noted]

Last modification: December 3, 2008

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<b>3</b> 7.00 m	D., a J., a4: a.,	T	E	Ch:	C4 o also	Apparent		Unit value	
$\overline{}$		Imports	Exports	Shipments	Stocks	consumption	(\$/t)	(98\$/t)	production
1900	86,100	328,000				652,000	9.73	191	1,420,000
1901	242,000	375,000				767,000	5.12	100	
1902	208,000	389,000				770,000	4.48		
1903	233,000	400,000		c1 000		791,000	4.69	85.30	
1904	334,000	338,000		61,000		549,000	10.20	186	
1905	326,000	336,000		165,000		620,000	14.30	259	1,420,000
1906	405,000	368,000	22,600	188,000		768,000	14.90	270	1,320,000
1907	292,000	330,000	36,500	276,000		721,000	20.40	357	1,320,000
1908	465,000	348,000		210,000		804,000	16.20	294	1,220,000
1909	378,000	368,000		262,000		702,000	18.20	331	1,320,000
1910	348,000	424,000	31,200	255,000		767,000	17.70	311	1,420,000
1911	431,000	521,000		258,000		254,000	17.70	311	1,420,000
1912	1,080,000	505,000		310,000		279,000	17.10	289	1,630,000
1913	782,000			324,000		249,000	17.30	285	1,830,000
1914	735,000	529,000		347,000		272,000	17.90	292	1,070,000
1915	896,000	499,000	49,500	299,000		286,000	16.60	268	1,290,000
1916	1,100,000	631,000	141,000	779,000		670,000	15.70	235	1,440,000
1917	1,680,000	477,000	165,000	1,140,000		984,000	21.10	268	1,980,000
1918	1,880,000	246,000	145,000	1,290,000		1,150,000	21.70	234	2,140,000
1919	1,570,000	192,000	231,000	689,000		461,000	14.90	140	
1920	1,680,000	164,000	489,000	1,540,000	1,120,000		19.50	159	1,590,000
1921	1,970,000	106,000	290,000	970,000		679,000	17.50	160	2,230,000
1922	1,930,000	137,000	496,000	1,370,000		872,000	16.10	156	2,090,000
1923	2,150,000	129,000	482,000	1,640,000			15.80	151	2,380,000
1924	1,310,000	122,000	492,000	1,560,000			16.00	153	3,860,000
1925	1,500,000	135,000	642,000	1,960,000	2,290,000	1,250,000	14.80	138	4,780,000
1926	1,990,000	179,000	592,000	2,400,000		1,510,000	17.20	158	5,490,000
1927	2,470,000	126,000	816,000	2,410,000		1,290,000	17.50	164	5,890,000
1928	2,400,000	229,000	716,000	2,460,000			16.80	160	5,690,000
1929	2,810,000	253,000	887,000	2,800,000			16.90	161	6,200,000
1930	3,000,000	180,000	619,000	2,350,000			16.70	163	6,400,000
1931	2,490,000	172,000	426,000	1,730,000			16.30	175	5,180,000
1932	1,110,000	124,000	366,000	1,350,000			16.80	199	
1933	1,690,000								
1934	1,750,000	185,000	526,000	1,960,000			16.00		5,080,000
1935	2,000,000	196,000	420,000	2,010,000			15.70		5,690,000
1936	2,440,000	211,000	576,000	2,370,000			15.90	187	5,390,000
1937	3,210,000	257,000	700,000	2,910,000			16.20		5,990,000
1938	2,820,000	166,000	601,000	2,040,000			14.50	168	5,590,000
1939	2,550,000	250,000	663,000	2,660,000			14.20	167	7,320,000
1940	3,260,000	227,000	779,000	3,030,000			14.30	166	
1941	3,710,000	209,000	773,000	3,920,000			14.60	161	7,520,000
1942	4,080,000	173,000		3,690,000			14.30		
1943	3,230,000	142,000					14.10	133	
1944	3,940,000	88,400		4,210,000			15.00		
1945	4,440,000	91,200		4,460,000			15.60	141	6,200,000
1946	4,570,000		1,270,000				15.20		
1947	5,190,000		1,370,000	5,580,000			16.00	117	
1948	5,600,000		1,320,000	5,720,000			16.30	110	
1949	5,480,000		1,480,000	5,500,000			16.30	112	
1950	6,080,000	102,000	1,500,000	6,340,000	2,700,000	5,070,000	17.80	120	10,800,000

# SULFUR STATISTICS<sup>1</sup> U.S. GEOLOGICAL SURVEY

[All values are in metric tons (t) sulfur unless otherwise noted]

Last modification: December 3, 2008

			1	ast modificat	ion. Decen	· · · · · · · · · · · · · · · · · · ·	4	4	
				~ .	a	Apparent		Unit value	
	Production			Shipments		consumption	( <b>\$/t</b> )	(98\$/t)	production
1951	6,300,000		1,330,000		2,880,000		19.60		11,400,000
1952	6,390,000	,	1,360,000		3,210,000	4,910,000	19.70		12,100,000
1953	6,350,000		1,290,000		3,180,000		24.30		11,700,000
1954	6,780,000		1,700,000		3,390,000		24.20		, ,
1955	7,140,000		1,660,000		3,350,000		25.50	155	
1956	7,940,000		1,700,000		4,120,000	5,840,000	24.10	145	
1957	7,120,000		1,620,000		4,650,000	, ,	21.90	127	17,000,000
1958	6,240,000		1,630,000		4,690,000		23.40	132	16,100,000
1959	6,270,000	789,000	1,660,000		4,010,000	6,010,000	23.10	129	17,200,000
1960	6,770,000		1,820,000		3,840,000	5,960,000	22.80	125	, ,
1961	7,290,000	982,000	1,620,000		4,890,000		22.80	124	20,600,000
1962	6,870,000	1,150,000	1,560,000	6,810,000	5,010,000	6,340,000	21.50	116	21,300,000
1963	6,750,000	1,490,000	1,640,000	6,830,000	4,760,000	6,710,000	19.60	104	21,900,000
1964	7,210,000	1,610,000	1,960,000	7,990,000	4,290,000	7,370,000	19.80	104	23,500,000
1965	8,340,000	1,670,000	2,680,000	9,310,000	3,480,000	8,110,000	22.10	114	25,200,000
1966	9,300,000	1,700,000	2,410,000	9,920,000	2,750,000	9,290,000	25.30	127	26,500,000
1967	9,280,000	1,670,000	2,230,000	9,960,000	1,990,000	9,400,000	32.10	156	28,400,000
1968	9,890,000	1,740,000	1,630,000	9,060,000	2,700,000	9,220,000	39.00	182	29,500,000
1969	9,690,000	1,820,000	1,580,000	9,070,000	3,390,000	9,320,000	26.60	118	30,700,000
1970	9,710,000	1,690,000	1,460,000	8,100,000	3,890,000	9,380,000	22.80	95.70	41,900,000
1971	9,730,000	1,450,000	1,560,000	8,450,000	4,190,000	9,320,000	17.20	69.20	42,700,000
1972	10,400,000	1,210,000	1,880,000	9,690,000	3,860,000	10,000,000	16.80	65.40	45,500,000
1973	11,100,000	1,240,000	1,800,000	10,000,000	3,990,000	10,400,000	17.60	64.50	48,200,000
1974	11,600,000	2,180,000	2,710,000	10,600,000	4,020,000	11,000,000	28.40	94.00	51,200,000
1975	11,400,000	1,930,000	1,370,000	9,120,000	5,210,000	10,800,000	44.90	136	50,700,000
1976	10,900,000	1,760,000	1,290,000	9,150,000	5,650,000	10,900,000	45.70	131	50,900,000
1977	10,700,000				5,560,000	11,700,000	44.40	119	
1978	11,200,000				5,350,000	12,600,000	45.20	113	
1979	12,100,000			11,600,000			55.80	125	
1980	11,900,000			11,500,000			89.10		55,000,000
1981	12,100,000			10,100,000			111	200	
1982	9,790,000				4,220,000		108	183	50,600,000
1983			1,050,000		3,220,000		87.20		49,800,000
1984	10,700,000								52,500,000
1985	11,600,000				2,800,000		106		53,800,000
1986	11,100,000		, ,		2,750,000		105		53,700,000
1987	10,500,000				2,320,000		89.80		57,000,000
1988	10,700,000						86.00		59,200,000
1989	11,600,000						86.60		58,900,000
1990	11,600,000				· ·	, ,	80.10		57,800,000
1991	10,800,000						71.50		54,600,000
1992	10,700,000						48.10		50,700,000
1993	11,000,000						31.90		51,600,000
1994	11,500,000						30.10		53,400,000
1995	11,800,000						44.50		54,800,000
1996	11,800,000						34.10		55,200,000
1997	12,000,000						36.10		56,900,000
1998	11,700,000						29.10		57,400,000
1999	11,500,000						37.80		57,400,000
2000	10,500,000						24.70		59,300,000
2001	9,470,000						10.00		59,500,000
2001	<i>γ</i> , <del>τ</del> / υ,υυυ	2,170,000	700,000	∕, <del>⊤</del> ∠∪,∪∪∪	232,000	10,700,000	10.00	9.40	57,500,000

# SULFUR STATISTICS<sup>1</sup> U.S. GEOLOGICAL SURVEY

[All values are in metric tons (t) sulfur unless otherwise noted]

Last modification: December 3, 2008

						Apparent	Unit value	Unit value	World
Year	<b>Production</b>	Imports	<b>Exports</b>	Shipments	Stocks	consumption	( <b>\$/t</b> )	(98\$/t)	production
2002	9,330,000	2,910,000	757,000	9,320,000	181,000	11,500,000	11.80	10.70	62,000,000
2003	9,650,000	3,160,000	907,000	9,690,000	206,000	11,900,000	28.70	25.40	64,100,000
2004	10,100,000	3,630,000	1,020,000	10,100,000	185,000	12,800,000	32.60	28.10	66,200,000
2005	9,500,000	3,700,000	794,000	9,480,000	160,000	12,400,000	30.90	25.80	67,000,000
2006	9,050,000	3,740,000	714,000	8,960,000	221,000	12,000,000	32.90	26.60	66,800,000
2007	9,090,000	3,780,000	1,030,000	9,120,000	187,000	11,900,000	36.30	28.50	68,400,000

<sup>1</sup>Compiled by D.A. Buckingham (retired) and J.A. Ober.
Data are calculated, estimated, or reported. See notes for more information.

## **Sulfur Worksheet Notes**

#### **Data Sources**

The sources of data for the sulfur worksheet are the mineral statistics publications of the U.S. Bureau of Mines and the U.S. Geological Survey—Minerals Yearbook (MYB) and its predecessor, Mineral Resources of the United States (MR). The years of publication and corresponding years of data coverage are listed in the References section below. Blank cells in the worksheet indicate that data either were not available or were withheld because they are proprietary.

### **Production**

Production is in terms of the sulfur content of Frasch, recovered, and native sulfur; pyrites; byproduct sulfuric acid; and other forms. Data for "Other Forms" were not separately reported before 1939, and then only in terms of their sulfur content; pyrites were included in this category in 1983. Sulfur content data of pyrites for the years 1928–49 are estimated using the published percentage sulfur content. For the years 1900–24, the sulfur content is estimated using the average percentage of 39.7 percent sulfur content reported for pyrites over the years 1925–82. Included in total pyrite production for the years 1922–27 is byproduct pyrite production from Tennessee and Wisconsin. The sulfur content of sulfuric acid for the years 1911–20 and years 1927–46 was estimated based on the quality (50° or 60° Baumé) of sulfuric acid. No sulfuric acid data are available prior to 1911. Data are from the MR and the MYB.

## **Imports**

Imports report the sulfur content of Frasch and recovered sulfur, pyrites, and sulfuric acid. Frasch sulfur import data for the years 1920–30 and 1949–69 include some sulfur ores. Pyrite imports for the years 1900–72 are pyrites only. The sulfur content of imported pyrite for the years 1900–48 is estimated using the average percentage of 48.1 percent sulfur content reported for pyrites for the years 1949 to the most recent. Sulfur content of imported sulfuric acid for the years 1913–20 is estimated based on 100 percent sulfuric acid. No sulfuric acid data are available prior to 1913. Data are from the MR and the MYB.

## **Exports**

Exports report the sulfur content of Frasch sulfur, recovered sulfur, and sulfuric acid. Pyrite export data are not available. Data are not available for Frasch and recovered sulfur exports prior to 1906. For the years 1906–20, data include some crude sulfur exports. The sulfur content of exported sulfuric acid for the years 1913–20 is calculated base on 100 percent sulfuric acid. Data are from the MR and the MYB.

### **Shipments**

Shipments are in terms of the sulfur content of mine shipments of Frasch, recovered, and native sulfur; pyrites; byproduct sulfuric acid; and other sulfur forms. Data are from the MR and the MYB.

#### **Stocks**

Stocks are in terms of the sulfur content of mine stocks as of the end of year, December 31. Data are from the MR and the MYB.

### **Apparent Consumption**

Sulfur apparent consumption data are in terms of the sulfur content. Data are from the MR and the MYB. Consumption data for the years 1900–03 include Frasch sulfur, native sulfur, and pyrites. Data for the years 1904–45 include only Frasch and native sulfur consumption. For the years 1946 to the most recent, consumption data include Frasch, recovered, and native sulfur; pyrites; sulfuric acid; and other forms of sulfur.

#### Unit Value (\$/t)

Unit value is defined as the value of 1 metric ton (t) of sulfur apparent consumption. Data for the years 1900–08 are estimated by using the sulfur production unit value. For the years 1909 to the most recent, data are estimated using the sulfur shipments unit value.

# Unit Value (98\$/t)

The Consumer Price Index conversion factor, with 1998 as the base year, is used to adjust unit value in current U.S. dollars to the unit value in constant 1998 U.S. dollars.

### **World Production**

World sulfur production data include all forms of sulfur and are in terms of their sulfur content. Data prior to 1936 include elemental sulfur production from principal producing countries and world pyrite production. Data for the years 1936 to the most recent are world production of all forms of sulfur. Data are from the MR and the MYB.

#### References

- U.S. Bureau of Mines, 1927–34, Mineral Resources of the United States, 1924–31.
- U.S. Bureau of Mines, 1933–96, Minerals Yearbook, 1932–94.
- U.S. Geological Survey, 1901–27, Mineral Resources of the United States, 1900–23.
- U.S. Geological Survey, 1997–2008, Minerals Yearbook, v. I, 1995–2007.

## **Recommended Citation Format:**

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## For more information, please contact:

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