

NATURAL GRAPHITE STATISTICS<sup>1</sup>

U.S. GEOLOGICAL SURVEY

[All values in metric tons (t) gross weight unless otherwise noted]

Last modification: October 12, 2012

Year	Production	Shipments	Imports	Exports	Apparent consumption	Unit value (\$/t)	Unit value (98\$/t)	World production
1900	3,050	NA	14,600	NA	17,700	95.00	1,900	81,600
1901	2,530	NA	14,600	NA	17,100	62.00	1,200	77,100
1902	6,090	NA	18,500	NA	24,600	63.00	1,200	81,600
1903	17,100	NA	16,300	NA	33,400	74.00	1,300	77,100
1904	17,900	NA	12,900	NA	30,800	70.00	1,300	77,100
1905	22,700	NA	15,800	NA	38,500	62.00	1,100	90,700
1906	18,000	NA	23,100	NA	41,100	67.00	1,200	104,000
1907	26,600	NA	20,800	NA	47,400	85.00	1,500	109,000
1908	2,350	NA	10,400	NA	12,700	73.00	1,300	95,300
1909	7,480	NA	19,300	NA	26,800	96.00	1,700	95,300
1910	3,810	NA	22,900	NA	26,700	82.00	1,400	95,300
1911	3,280	3,280	18,800	NA	22,100	80.00	1,400	109,000
1912	3,480	3,480	23,300	2,110	24,600	74.00	1,200	118,000
1913	4,330	4,330	26,200	2,440	28,100	80.50	1,320	136,000
1914	3,930	3,930	19,900	1,780	22,100	70.10	1,140	104,000
1915	W	4,280	20,900	480	24,700	107	1,720	113,000
1916	W	7,340	38,900	724	45,600	187	2,790	172,000
1917	W	12,300	38,600	2,330	48,600	232	2,950	209,000
1918	W	11,800	17,700	865	28,600	175	1,890	181,000
1919	W	6,730	24,200	571	30,300	123	1,160	122,000
1920	W	8,630	19,100	551	27,200	89.40	728	118,000
1921	W	2,210	7,420	836	8,800	60.90	555	90,700
1922	W	2,840	11,300	516	13,600	41.80	406	104,000
1923	W	5,480	17,600	824	22,300	34.80	333	95,300
1924	W	4,510	14,900	927	18,400	26.90	256	95,300
1925	W	4,230	16,100	857	19,500	51.30	477	122,000
1926	W	4,960	14,700	367	19,300	62.80	579	136,000
1927	W	4,720	15,800	1,650	18,900	45.70	429	154,000
1928	W	5,090	15,900	2,000	19,000	50.30	479	150,000
1929	W	5,860	21,800	1,460	26,200	48.90	465	150,000
1930	W	NA	15,200	1,410	13,800	41.20	402	118,000
1931	W	NA	7,670	1,080	6,590	34.70	371	77,100
1932	W	NA	5,770	717	5,050	26.10	312	72,600
1933	W	NA	6,660	829	5,830	31.70	399	86,200
1934	W	NA	12,300	1,130	11,200	39.80	485	109,000
1935	W	NA	14,900	1,340	13,600	35.30	419	145,000
1936	W	NA	20,400	740	19,700	27.70	326	150,000
1937	W	NA	26,100	1,370	24,700	28.80	327	159,000
1938	W	NA	15,000	892	14,100	24.90	288	177,000
1939	W	NA	19,500	885	18,700	21.80	256	222,000
1940	W	NA	28,200	1,480	26,700	31.60	368	254,000
1941	2,490	NA	37,300	1,560	38,300	54.20	600	231,000
1942	6,460	NA	39,700	3,720	42,400	63.00	630	272,000
1943	9,020	NA	27,000	2,730	33,200	35.60	335	277,000
1944	4,910	NA	23,600	2,020	26,500	53.80	498	263,000
1945	4,430	NA	32,800	1,190	36,000	43.30	393	136,000
1946	5,060	NA	30,100	2,100	33,000	44.20	369	95,300
1947	3,980	NA	39,600	1,400	42,200	38.20	279	122,000
1948	9,030	NA	47,400	950	55,400	43.20	293	163,000
1949	5,540	NA	28,800	1,230	33,100	43.80	299	168,000
1950	4,630	NA	39,400	1,270	42,800	52.70	357	159,000

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U.S. GEOLOGICAL SURVEY

[All values in metric tons (t) gross weight unless otherwise noted]

Last modification: October 12, 2012

Year	Production	Shipments	Imports	Exports	Apparent consumption	Unit value (\$/t)	Unit value (98\$/t)	World production
1951	6,470	NA	49,300	1,360	54,500	61.00	383	195,000
1952	5,090	NA	38,500	1,620	42,000	74.30	456	177,000
1953	5,700	NA	46,300	1,380	50,600	60.70	370	168,000
1954	W	NA	36,900	726	36,100	61.90	375	168,000
1955	W	NA	44,100	1,270	42,800	54.20	330	272,000
1956	W	NA	43,400	998	42,400	59.80	359	263,000
1957	W	NA	37,600	1,180	36,500	56.00	324	372,000
1958	W	NA	24,600	1,090	23,500	49.00	276	318,000
1959	W	NA	33,600	1,270	32,300	45.50	254	372,000
1960	W	NA	43,600	1,720	41,900	40.20	221	435,000
1961	W	NA	26,900	1,450	25,400	49.60	270	413,000
1962	W	NA	31,600	1,090	30,500	56.40	304	535,000
1963	W	NA	47,000	816	46,200	42.50	226	679,000
1964	W	NA	42,800	1,810	41,000	45.40	239	620,000
1965	W	NA	52,700	2,900	49,800	45.30	234	607,000
1966	W	NA	51,300	2,900	48,400	49.60	249	484,000
1967	W	NA	51,100	3,240	47,900	45.90	224	358,000
1968	W	NA	61,500	3,780	57,700	40.50	190	437,000
1969	W	NA	53,000	9,310	52,600	45.60	203	376,000
1970	W	NA	60,200	5,250	45,400	50.30	211	393,000
1971	W	NA	52,100	5,200	54,400	52.30	211	394,000
1972	W	NA	57,800	6,610	63,500	60.80	237	361,000
1973	W	NA	69,900	7,220	62,600	59.20	217	395,000
1974	W	NA	73,500	11,100	62,600	73.40	243	497,000
1975	W	NA	58,300	9,600	50,000	92.80	281	451,000
1976	W	NA	70,500	11,100	60,700	91.30	261	449,000
1977	W	NA	76,500	12,500	66,900	101	271	493,000
1978	W	NA	87,700	8,710	82,000	129	322	534,000
1979	W	NA	75,100	7,820	70,400	169	379	626,000
1980	NA	NA	52,300	8,060	47,600	294	583	597,000
1981	NA	NA	59,600	10,300	49,300	321	575	589,000
1982	W	NA	48,200	9,380	38,800	325	549	562,000
1983	W	NA	39,500	8,560	31,000	302	493	604,000
1984	W	NA	52,800	6,440	46,400	276	433	625,000
1985	NA	NA	47,800	7,580	40,300	338	513	584,000
1986	NA	NA	38,800	7,030	31,800	406	604	625,000
1987	NA	NA	43,300	11,700	31,600	407	584	643,000
1988	W	NA	53,900	11,100	42,800	431	595	575,000
1989	W	NA	62,300	11,500	50,900	541	711	1,010,000
1990	NA	NA	50,200	11,500	38,700	701	875	946,000
1991	NA	NA	33,500	19,400	14,200	648	775	771,000
1992	NA	NA	49,700	20,200	29,500	513	596	670,000
1993	NA	NA	52,200	17,400	34,800	573	646	648,000
1994	NA	NA	53,100	20,300	32,900	507	557	517,000
1995	NA	NA	60,700	37,300	23,500	496	530	584,000
1996	NA	NA	53,400	26,000	27,400	536	557	555,000
1997	NA	NA	58,100	39,700	18,400	558	566	685,000
1998	NA	NA	61,600	28,000	33,600	565	565	651,000
1999	NA	NA	55,800	29,400	26,400	624	609	692,000
2000	NA	NA	60,800	21,800	39,000	535	506	846,000
2001	NA	NA	52,100	23,900	28,200	447	412	816,000

**NATURAL GRAPHITE STATISTICS<sup>1</sup>**

**U.S. GEOLOGICAL SURVEY**

[All values in metric tons (t) gross weight unless otherwise noted]

Last modification: October 12, 2012

<b>Year</b>	<b>Production</b>	<b>Shipments</b>	<b>Imports</b>	<b>Exports</b>	<b>Apparent consumption</b>	<b>Unit value (\$/t)</b>	<b>Unit value (98\$/t)</b>	<b>World production</b>
2002	NA	NA	45,100	21,600	23,600	495	448	932,000
2003	NA	NA	52,300	22,200	30,000	467	413	999,000
2004	NA	NA	63,700	46,100	17,600	469	405	1,010,000
2005	NA	NA	64,500	22,100	42,400	537	448	1,030,000
2006	NA	NA	52,600	22,200	30,400	553	447	1,020,000
2007	NA	NA	58,600	15,700	42,900	636	500	1,120,000
2008	NA	NA	58,300	7,950	50,300	826	625	975,000
2009	NA	NA	33,100	11,400	21,700	897	682	744,000
2010	NA	NA	65,400	5,600	59,800	797	596	1,130,000
2011	NA	NA	71,800	6,280	65,500	1,130	820	1,150,000

NA Not available. W Withheld to avoid disclosing company proprietary data.

<sup>1</sup>Compiled by J.L. Sznoppek (retired) and D.W. Olson.

Data are calculated, estimated, or reported. See notes for more information.

## Natural Graphite Worksheet Notes

### Data Sources

The sources of data for the natural graphite 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.

### Production

Production data were from published values in the MR and the MYB for 1900–14 and 1941–53. For 1915–40, 1954–79, 1982–84, and 1988–89, production data were withheld. For 1980–81, 1985–87, and 1990 to the most recent year, production data were not available. Shipment data were reported for 1911–29. For 1911–14, shipment data were reported as being equal to production data. Reported shipment data were used as an estimate in the absence of production data for 1915–29.

### Imports

For 1931–80, the import numbers shown in the MYB include artificial and natural graphite. Therefore, the import numbers listed in the spreadsheet were adjusted by subtracting the artificial graphite totals from the gross number. Import data were from the published values in the MR and the MYB.

### Exports

Export data for 1927–35 include manufactured graphite because there was no specific data available to allow separating manufactured graphite from natural graphite. Prior to 1912, export data were not available. Data were reported in the MR and the MYB.

### Apparent Consumption

For 1985 to the most recent year, apparent consumption was from the MYB. Prior to 1985, there were no data, so apparent consumption was calculated using the formula:

$$\text{APPARENT CONSUMPTION} = \text{PRODUCTION} + \text{IMPORTS} - \text{EXPORTS}.$$

### Unit Value (\$/t)

Unit value is defined as the value of 1 metric ton (t) of natural graphite apparent consumption in current dollars. Apparent consumption data were not reported for 1900–68 and were withheld for 1982–84. Production and shipment data were not available or withheld for most of the century, which prevented the calculation of apparent consumption. The unit value was based solely on imports.

### 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 production data were reported in the MR and 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, 1904–27, Mineral Resources of the United States, 1902–23.
- U.S. Geological Survey, 1995–present, Minerals Yearbook, v. I. (Available via <http://minerals.usgs.gov/minerals/>.)

### Recommended Citation Format:

U.S. Geological Survey, [year of last update, e.g., 2005], [Mineral commodity, e.g., Gold] statistics, *in* Kelly, T.D., and Matos, G.R., comps., Historical statistics for mineral and material commodities in the United States: U.S. Geological Survey Data Series 140, accessed [date], at <http://pubs.usgs.gov/ds/2005/140/>.

### For more information, please contact:

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