INDUSTRIAL GARNET STATISTICS ${ }^{1}$
U.S. GEOLOGICAL SURVEY
[All values in metric tons (t) industrial garnet unless otherwise noted]
Last modification: September 28, 2007

| Year | Production | Sold or used | Imports | Exports | Stocks | Apparent consumption | Unit value (\$/t) | $\begin{array}{\|c\|} \hline \text { Unit value } \\ (98 \$ / t) \\ \hline \end{array}$ | World <br> production |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1900 | 2,890 |  |  |  |  | 2,900 | 42.70 | 840 |  |
| 1901 | 4,030 |  |  |  |  | 4,000 | 39.20 | 770 |  |
| 1902 | 3,560 |  |  |  |  | 3,600 | 37.30 | 700 |  |
| 1903 | 3,580 |  |  |  |  | 3,600 | 37.00 | 670 |  |
| 1904 | 3,500 |  |  |  |  | 3,500 | 33.60 | 610 |  |
| 1905 | 4,580 |  |  |  |  | 4,600 | 32.30 | 590 |  |
| 1906 | 4,220 |  |  |  |  | 4,200 | 37.20 | 680 |  |
| 1907 | 6,400 |  |  |  |  | 6,400 | 33.10 | 580 |  |
| 1908 | 1,810 |  |  |  |  | 1,800 | 35.70 | 650 |  |
| 1909 | 2,700 |  |  |  |  | 2,700 | 38.00 | 690 |  |
| 1910 | 3,460 |  |  |  |  | 3,500 | 32.80 | 580 |  |
| 1911 | 3,700 |  |  |  |  | 3,700 | 32.90 | 580 |  |
| 1912 | 4,490 |  |  |  |  | 4,500 | 36.40 | 620 |  |
| 1913 | 4,820 |  |  |  |  | 4,800 | 38.10 | 628 | 4,820 |
| 1914 | 3,840 |  |  |  |  | 3,800 | 37.90 | 618 | 3,840 |
| 1915 | 3,900 |  |  |  |  | 3,900 | 35.80 | 577 | 3,900 |
| 1916 | 5,600 |  |  |  |  | 5,600 | 37.30 | 558 | 5,600 |
| 1917 | 4,530 |  |  |  |  | 4,500 | 43.80 | 558 | 4,530 |
| 1918 | 4,260 |  |  |  |  | 4,300 | 58.30 | 629 | 4,260 |
| 1919 | 4,490 |  |  |  |  | 4,500 | 69.20 | 652 | 5,290 |
| 1920 | 4,970 |  |  |  |  | 5,000 | 87.40 | 713 | 5,170 |
| 1921 | 2,770 |  |  |  |  | 2,800 | 94.30 | 859 | 2,770 |
| 1922 | 6,400 |  |  |  |  | 6,400 | 88.60 | 859 | 9,800 |
| 1923 | 8,170 |  |  |  |  | 8,200 | 84.30 | 803 | 13,900 |
| 1924 |  | 7,520 | 1,020 |  |  | 8,500 | 89.60 | 855 | 12,500 |
| 1925 |  | 7,650 | 1.81 |  |  | 7,600 | 93.20 | 868 | 11,400 |
| 1926 |  | 5,800 | 0 |  |  | 5,800 | 90.30 | 831 | 5,800 |
| 1927 |  | 5,750 | 0 |  |  | 5,800 | 99.70 | 935 |  |
| 1928 | 6,000 |  | 1.81 |  |  | 6,000 | 76.50 | 729 |  |
| 1929 | 5,410 |  | 0 |  |  | 5,400 | 80.50 | 767 |  |
| 1930 | 4,540 |  | 0 |  |  | 4,500 | 69.20 | 675 |  |
| 1931 | 2,670 |  | 1.81 |  |  | 2,700 | 72.20 | 774 |  |
| 1932 | 1,770 |  | 4.54 |  |  | 1,800 | 83.30 | 992 |  |
| 1933 | 2,540 |  | 0 |  |  | 2,500 | 88.70 | 1,110 |  |
| 1934 | 2,350 |  | 0 |  |  | 2,400 | 91.40 | 1,110 |  |
| 1935 |  | 2,780 | 0 |  |  | 2,800 | 92.40 | 1,100 |  |
| 1936 | 3,470 |  | 0 |  |  | 3,500 | 91.20 | 1,070 |  |
| 1937 |  | 4,410 | 0 |  |  | 4,400 | 86.70 | 982 |  |
| 1938 |  | 2,420 | 1.68 |  |  | 2,400 | 79.20 | 915 |  |
| 1939 |  | 3,680 | 0 |  |  | 3,700 | 75.70 | 887 |  |
| 1940 |  | 4,280 | 0 |  |  | 4,300 | 60.60 | 706 |  |
| 1941 |  | 4,990 |  |  |  | 5,000 | 74.50 | 826 |  |
| 1942 |  | 3,950 |  |  |  | 4,000 | 75.90 | 759 |  |
| 1943 | 5,380 |  |  |  |  | 5,400 | 79.70 | 751 |  |
| 1944 |  |  | 0.181 |  |  | 5,500 | 72.70 | 673 |  |
| 1945 | 5,720 |  | 2.77 |  |  | 5,700 | 65.60 | 594 |  |
| 1946 | 7,020 |  | 17.6 |  |  | 7,000 | 81.20 | 679 |  |
| 1947 | 7,910 |  | 0.573 |  |  | 7,900 | 77.60 | 567 |  |
| 1948 | 7,290 |  | 1.41 |  |  | 7,300 | 80.60 | 545 |  |
| 1949 | 5,970 |  |  |  |  | 6,000 | 84.70 | 580 |  |
| 1950 | 8,440 |  | 2.80 |  |  | 8,400 | 94.00 | 636 |  |
| 1951 | 12,700 |  |  |  |  | 13,000 | 97.80 | 613 |  |

INDUSTRIAL GARNET STATISTICS ${ }^{1}$
U.S. GEOLOGICAL SURVEY
[All values in metric tons (t) industrial garnet unless otherwise noted]
Last modification: September 28, 2007

| Year | Production | Sold or used | Imports | Exports | Stocks | $\begin{array}{\|c\|} \hline \text { Apparent } \\ \text { consumption } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Unit value } \\ (\$ / \mathbf{t}) \\ \hline \end{array}$ | Unit value (98\$/t) | World production |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1952 | 10,300 |  | 1.81 |  |  | 10,000 | 95.00 | 584 |  |
| 1953 | 9,540 |  |  |  |  | 9,500 | 104 | 633 |  |
| 1954 |  | 12,900 |  |  |  | 13,000 | 75.50 | 457 |  |
| 1955 |  | 10,700 |  |  |  | 10,700 | 111 | 675 |  |
| 1956 |  | 8,900 | 1.81 |  |  | 8,890 | 121 | 722 |  |
| 1957 |  | 8,870 | 1.81 |  |  | 8,890 | 122 | 706 |  |
| 1958 |  | 11,200 |  |  |  | 11,200 | 77.90 | 439 |  |
| 1959 |  | 13,200 | 1.81 |  |  | 13,200 | 91.60 | 513 |  |
| 1960 |  | 9,550 |  |  |  | 9,530 | 103 | 569 | 11,800 |
| 1961 |  | 10,900 |  |  |  | 10,900 | 94.70 | 516 | 13,400 |
| 1962 |  | 12,900 |  |  |  | 12,900 | 91.20 | 492 | 15,300 |
| 1963 |  | 13,300 |  |  |  | 13,300 | 106 | 567 | 15,700 |
| 1964 |  | 14,600 | 0 |  |  | 14,600 | 111 | 583 | 17,200 |
| 1965 |  | 17,500 | 0 |  |  | 17,500 | 97.90 | 507 | 20,000 |
| 1966 |  | 19,900 | 0 |  |  | 19,900 | 105 | 528 | 20,700 |
| 1967 |  | 18,600 | 0 |  |  | 18,600 | 99.50 | 485 | 19,600 |
| 1968 |  | 20,100 | 0 |  |  | 20,100 | 95.70 | 448 | 20,900 |
| 1969 |  | 18,600 | 0 |  |  | 18,600 | 101 | 448 | 21,100 |
| 1970 |  | 17,100 | 0 |  |  | 17,100 | 113 | 476 | 19,000 |
| 1971 |  | 17,200 | 0 |  |  | 17,200 | 112 | 452 | 18,900 |
| 1972 |  | 17,200 | 0 |  |  | 17,200 | 114 | 445 | 20,900 |
| 1973 |  | 20,700 | 0 |  |  | 20,700 | 115 | 423 | 24,000 |
| 1974 |  | 22,400 | 0 |  |  | 22,400 | 114 | 377 | 26,600 |
| 1975 |  | 15,600 | 0 |  |  | 15,600 | 134 | 406 | 19,800 |
| 1976 | 23,300 | 22,300 | 0 |  |  | 22,300 | 160 | 459 | 26,500 |
| 1977 | 19,900 | 18,200 |  |  |  | 18,200 | 183 | 491 | 21,900 |
| 1978 | 18,900 | 20,000 |  | 3,080 |  | 16,900 | 196 | 489 | 24,900 |
| 1979 | 19,300 | 21,100 |  | 3,180 |  | 18,000 | 220 | 494 | 29,900 |
| 1980 | 24,400 | 24,100 | 0 | 3,450 | 5,770 | 20,600 | 205 | 405 | 30,900 |
| 1981 | 23,200 | 23,200 | 0 | 2,970 | 5,710 | 20,200 | 225 | 403 | 32,100 |
| 1982 | 24,800 | 24,200 | 0 | 3,080 | 6,290 | 21,100 | 229 | 388 | 32,200 |
| 1983 | 27,000 | 27,500 | 0 | 2,900 | 5,810 | 24,600 | 217 | 355 | 36,400 |
| 1984 | 26,900 | 25,100 | 0 | 3,080 | 7,600 | 22,000 | 226 | 355 | 39,700 |
| 1985 | 33,300 | 27,800 | 0 | 2,900 | 13,100 | 24,900 | 220 | 333 | 49,100 |
| 1986 | 29,300 | 28,900 | 363 | 4,990 | 12,700 | 24,300 | 234 | 347 | 45,100 |
| 1987 | 38,400 | 35,800 | 2,720 | 4,990 | 7,010 | 33,500 | 216 | 310 | 79,700 |
| 1988 | 42,500 | 41,900 | 4,540 | 7,980 | 5,440 | 38,400 | 266 | 366 | 94,800 |
| 1989 | 42,600 | 41,300 | 5,000 | 9,720 | 5,440 | 36,600 | 236 | 311 | 92,100 |
| 1990 | 47,000 | 45,900 | 5,000 | 10,000 | 2,210 | 44,200 | 257 | 321 | 108,000 |
| 1991 | 50,900 | 48,100 | 5,000 | 10,000 | 11,100 | 44,000 | 270 | 323 | 108,000 |
| 1992 | 54,100 | 46,100 | 12,100 | 7,600 | 8,640 | 45,700 | 282 | 328 | 106,000 |
| 1993 | 44,000 | 51,500 | 12,200 | 11,400 | 10,000 | 44,800 | 243 | 274 | 120,000 |
| 1994 | 44,700 | 41,100 | 6,000 | 10,000 | 5,000 | 43,600 | 260 | 286 | 101,000 |
| 1995 | 46,300 | 39,900 | 5,000 | 9,000 | 5,900 | 38,000 | 253 | 271 | 133,000 |
| 1996 | 60,900 | 46,200 | 8,000 | 13,000 | 14,600 | 34,500 | 242 | 252 | 173,000 |
| 1997 | 64,900 | 53,600 | 11,000 | 11,000 | 19,900 | 46,300 | 233 | 237 | 215,000 |
| 1998 | 74,000 | 51,900 | 20,000 | 12,000 | 39,900 | 39,900 | 243 | 243 | 300,000 |
| 1999 | 60,700 | 43,900 | 12,000 | 10,000 | 52,100 | 33,700 | 264 | 259 | 214,000 |
| 2000 | 60,200 | 51,300 | 23,000 | 10,000 | 50,100 | 66,300 | 273 | 258 | 291,000 |
| 2001 | 52,700 | 46,200 | 29,600 | 10,000 |  | 72,300 | 292 | 269 | 283,000 |
| 2002 | 38,500 | 37,500 | 27,200 | 10,400 |  | 55,300 | 296 | 268 | 277,000 |
| 2003 | 29,200 | 33,100 | 34,800 | 11,000 |  | 53,000 | 329 | 292 | 277,000 |

## INDUSTRIAL GARNET STATISTICS ${ }^{1}$

## U.S. GEOLOGICAL SURVEY

[All values in metric tons (t) industrial garnet unless otherwise noted]
Last modification: September 28, 2007

| Year | Production | Sold or <br> used | Imports | Exports | Stocks | Apparent <br> consumption | Unit value <br> $\mathbf{( \$ / t )}$ | Unit value <br> $\mathbf{( 9 8 \$ / t )}$ | World <br> production |
| ---: | ---: | :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 2004 | 28,400 | 30,400 | 36,500 | 10,900 |  | 54,000 | 329 | 284 | 302,000 |
| 2005 | 40,100 | 23,100 | 41,800 | 13,400 |  | 68,600 | 268 | 224 | 324,000 |
| 2006 | 34,100 | 16,800 | 50,800 | 13,300 |  | 71,600 | 318 | 257 | 325,000 |

${ }^{1}$ Compiled by D.A. Buckingham and D.W. Olson.
Data are calculated, estimated, or reported. See notes for more information.

## Industrial Garnet Worksheet Notes

## Data Sources

Sources of data for the industrial garnet 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); and the Mineral Commodity Summaries (MCS) and its predecessor, Commodity Data Summaries (CDS). 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 were either not available or were withheld in order to avoid disclosing proprietary data.

## Production

Data are crude industrial garnet production. For the year 1944, data were withheld in order to avoid disclosing proprietary data. Production data were not available for the years 1924-27, 1935, 1937-42, and 1954-75. Sold or used data were substituted when production data were not available. Data are reported in the MR and the MYB.

## Sold or Used

Datum for the year 1944 was withheld in order to avoid disclosing proprietary data. Sold or used data were not available for the years 1900-23, 1928-34, 1936, 1943, and 1945-53. Data are reported in the MR and the MYB.

## Imports

Import data were first reported in 1924, however value data was reported for imports in some prior years. Import data for the years 1924-40, 1944-48, 1950, 1952, 1956-57, 1959, and 1988-2006 are from the MR and the MYB. Import data for the years 1964-87 are from the MCS. Tonnage data were not available for all other years.

## Exports

The United States is generally a net exporter of industrial garnet. Export data were not reported prior to 1977. Export data for the years 1978-87 are from the MCS. Data for the years 1988-2006 are reported in the MYB.

## Stocks

Stock data were not available prior to 1980. Stock data for the years 1980-2000 represent the quantity of industrial garnet held within domestic producer stockpiles. Data are reported in the MCS. Data for the years 2001-06 were not available.

## Apparent Consumption

Apparent consumption was estimated using production data for the years 1900-23, 1941-43, 1949, 1951, and 1953-54, and rounded to two significant figures. Where data for exports and imports were not available, they were assumed to be zero for this calculation. A graph "INDUSTRIAL GARNET STATISTICS" shown below, illustrates that exports and imports were relatively insignificant compared to production, until the late 1970s, which validates the assumption that production is approximately equal to apparent consumption for the years noted. Data for the years 1924-40, 1945-48, 1950, and 1952 were estimated using the following equation:

$$
\text { APPARENT CONSUMPTION }=(\text { PRODUCTION }+ \text { IMPORTS })-(\text { EXPORTS }) \pm(\text { STOCK CHANGES }) .
$$

Production data were withheld, import data are zero, and export data were not available for the year 1944. Apparent consumption datum for the year 1944 is estimated with interpolation based on apparent consumption data from the years 1943 and 1945; the interpolated apparent consumption was estimated to two significant figures. Apparent consumption data for the years 1955-2000 are reported in the CDS and the MCS. Data for the years 2001-06 were estimated using the following equation:

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



## INDUSTRIAL GARNET STATISTICS

## Unit Value (\$/t)

Unit value is defined as the value of 1 metric ton ( $t$ ) apparent consumption in current dollars. Unit value was based on the production value for the years 1900-23, 1928-34, 1936, 1943, and 1945-53. Unit value for the years 1924-27, 1935, 1937-42, and 1954-2006 was based on the sold or used value data. Unit value datum was withheld for the year 1944 in order to avoid disclosing proprietary data. Unit value datum was estimated for the year 1944 with interpolation using unit value data for the years 1943 and 1945.

## 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 for the years 1900-12 and 1927-59 were not available. World production data for the years 1913-26 are reported in the MR and the MYB. World production data for the years 1960-2006 and are from the CDS and MCS.

## References

U.S. Bureau of Mines, 1927-33, Mineral Resources of the United States, 1924-31.
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U.S. Geological Survey, 1901-26, Mineral Resources of the United States, 1900-23.
U.S. Geological Survey, 1997-2007, Mineral Commodity Summaries, 1997-2007.
U.S. Geological Survey, 1997-2007, Minerals Yearbook, v. I, 1995-2006.
U.S. Geological Survey and U.S. Bureau of Mines, 1996, Mineral Commodity Summaries, 1996.

## 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, available online at http://pubs.usgs.gov/ds/2005/140/. (Accessed [date].)

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