

BAUXITE STATISTICS

By David A. Buckingham and Patricia A. Plunkert
[All values are in metric tons (t) unless otherwise noted]

Last modification: August 13, 2004

Year	Reported production	Reported shipments	Reported imports	Reported exports	Reported industry stocks	Reported Government stocks	Calculated apparent consumption	Estimated unit value (\$/t)	Estimated unit value (98\$/t)	Reported world production
1900	23,600	23,800	8,800	1,020			31,300	3.75	74.00	88,000
1901	19,200	20,200	18,600	1,020			36,800	3.60	71.00	106,000
1902	27,800	27,800	16,000				43,800	3.40	64.00	136,000
1903	48,900	45,400	15,100				64,000	3.29	60.00	189,000
1904	48,400	51,800	15,600				64,000	3.15	57.00	133,000
1905	48,900	57,500	11,900				60,800	3.91	71.00	159,000
1906	76,500	71,700	18,100				94,600	3.49	63.00	201,000
1907	99,300	95,900	25,500				125,000	3.66	64.00	269,000
1908	53,000	50,900	22,000				75,000	3.99	73.00	243,000
1909	131,000	134,000	19,000				150,000	4.42	80.00	275,000
1910	151,000	153,000	15,900				167,000	4.13	72.00	356,000
1911	158,000	160,000	43,900				202,000	3.74	66.00	425,000
1912	162,000	164,000	26,600				189,000	3.58	61.00	435,000
1913	214,000	214,000	21,800				235,000	3.94	64.90	539,000
1914	223,000	222,000	25,200	5,460			243,000	3.82	62.30	236,000
1915	302,000	305,000	3,480	16,300			289,000	4.92	79.40	321,000
1916	432,000	432,000	30	18,200			414,000	2.85	42.60	701,000
1917	578,000	578,000	7,810	22,100			563,000	3.71	47.30	1,030,000
1918	615,000	615,000	3,710	20,000			599,000	3.99	43.10	818,000
1919	383,000	383,000	6,180	18,000			371,000	5.95	56.10	569,000
1920	530,000	530,000	43,600	22,600			551,000	5.77	47.00	901,000
1921	142,000	142,000	28,000	6,040			164,000	5.88	53.50	318,000
1922	315,000	315,000	24,000	19,900			319,000	3.91	37.90	701,000
1923	531,000	531,000	121,000	79,800			572,000	4.91	46.80	1,200,000
1924	353,000	353,000	205,000	78,300			480,000	4.43	42.20	1,160,000
1925	322,000	319,000	359,000	79,900			601,000	4.31	40.10	1,380,000
1926	399,000	399,000	286,000	89,200			596,000	4.15	38.20	1,380,000
1927	326,000	326,000	362,000	124,000			565,000	4.34	40.70	1,880,000
1928	381,000	381,000	356,000	115,000			622,000	4.31	41.10	2,030,000
1929	372,000	372,000	387,000	136,000			623,000	4.54	43.30	2,150,000
1930	336,000	336,000	416,000	106,000			646,000	4.79	46.80	1,630,000
1931	199,000	199,000	311,000	89,800			421,000	4.80	51.50	1,150,000
1932	97,900	98,000	209,000	28,900			278,000	4.99	59.40	1,000,000
1933	157,000	157,000	152,000	22,100			286,000	5.92	74.20	1,100,000
1934	172,000	172,000	169,000	52,200			255,000	7.10	86.40	1,330,000
1935	249,000	272,000	203,000	83,800			332,000	7.13	84.80	1,770,000

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1936	386,000	376,000	328,000	85,800			557,000	7.22	84.70	2,830,000
1937	432,000	440,000	516,000	125,000			741,000	7.00	79.20	3,750,000
1938	316,000	297,000	463,000	58,700			721,000	7.61	88.00	3,870,000
1939	381,000	355,000	529,000	52,500			857,000	7.12	83.50	4,340,000
1940	446,000	456,000	640,000	83,200			999,000	6.72	78.20	4,390,000
1941	952,000	953,000	1,130,000	137,000			1,960,000	6.58	73.00	6,110,000
1942	2,640,000	2,490,000	898,000	265,000	1,570,000		2,870,000	6.62	66.20	8,360,000
1943	6,330,000	6,040,000	1,570,000	242,000	4,480,000		5,420,000	6.91	65.10	14,000,000
1944	2,870,000	2,740,000	569,000	149,000	4,220,000		3,520,000	6.75	62.50	6,960,000
1945	997,000	1,090,000	751,000	128,000	3,640,000		2,470,000	7.02	63.60	3,430,000
1946	1,120,000	1,040,000	866,000	99,400	3,570,000		1,920,000	6.89	57.60	4,360,000
1947	1,220,000	1,180,000	1,850,000	95,900	3,780,000		2,610,000	6.42	46.90	6,320,000
1948	1,480,000	1,400,000	2,530,000	55,000	4,090,000		2,770,000	6.26	42.30	8,360,000
1949	1,170,000	1,200,000	2,730,000	35,500	4,250,000		2,720,000	5.98	41.00	8,230,000
1950	1,360,000	1,360,000	2,570,000	46,100	3,870,000		3,380,000	6.15	41.60	8,180,000
1951	1,880,000	1,560,000	2,880,000	91,400	4,140,000		4,010,000	6.21	38.90	10,900,000
1952	1,690,000	1,930,000	3,550,000	42,000	4,760,000	4,070,000	4,300,000	6.53	40.20	12,800,000
1953	1,610,000	1,770,000	4,390,000	28,400	4,700,000	4,580,000	5,720,000	6.63	40.50	13,800,000
1954	2,030,000	1,790,000	5,170,000	16,400	5,120,000	5,160,000	6,530,000	6.79	41.10	16,200,000
1955	1,820,000	1,750,000	5,070,000	14,300	5,090,000	5,340,000	7,100,000	7.39	44.90	17,800,000
1956	1,770,000	1,660,000	5,910,000	15,200	4,980,000	5,720,000	7,880,000	7.71	46.20	18,800,000
1957	1,440,000	1,790,000	7,280,000	62,000	5,410,000	6,520,000	7,760,000	8.44	49.00	20,500,000
1958	1,330,000	1,430,000	8,070,000	12,100	5,230,000	9,070,000	7,150,000	8.72	49.20	21,400,000
1959	1,730,000	1,670,000	8,390,000	17,700	5,090,000	10,400,000	8,760,000	8.89	49.80	23,100,000
1960	2,030,000	1,680,000	9,000,000	29,800	5,480,000	12,400,000	9,030,000	8.79	48.40	27,600,000
1961	1,250,000	1,140,000	9,420,000	153,000	5,540,000	14,200,000	8,760,000	9.50	51.80	29,400,000
1962	1,390,000	1,560,000	10,900,000	263,000	5,330,000	16,600,000	10,700,000	11.35	61.30	31,100,000
1963	1,550,000	1,570,000	9,590,000	206,000	5,140,000	16,600,000	11,500,000	12.24	65.20	30,700,000
1964	1,630,000	1,610,000	10,700,000	283,000	3,020,000	17,500,000	12,700,000	12.45	65.50	33,400,000
1965	1,680,000	1,810,000	11,800,000	149,000	3,090,000	17,500,000	13,800,000	11.30	58.50	37,400,000
1966	1,820,000	1,750,000	12,100,000	63,000	3,780,000	17,400,000	14,300,000	11.36	57.20	40,700,000
1967	1,680,000	1,860,000	12,500,000	2,200	3,640,000	17,400,000	14,700,000	12.85	62.70	44,600,000
1968	1,690,000	1,780,000	12,200,000	7,440	3,640,000	17,300,000	14,300,000	12.58	58.90	46,000,000
1969	1,870,000	1,870,000	13,300,000	5,360	3,000,000	17,300,000	15,800,000	13.04	57.90	51,800,000
1970	2,120,000	2,110,000	14,100,000	3,330	3,280,000	18,300,000	15,900,000	12.19	51.20	57,800,000
1971	2,020,000	1,990,000	14,200,000	34,500	3,720,000	17,400,000	15,900,000	12.26	49.30	62,100,000

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1972	1,840,000	2,050,000	13,100,000	29,500	3,650,000	16,700,000	15,600,000	13.00	50.70	64,900,000
1973	1,910,000	2,040,000	13,900,000	12,200	3,930,000	15,600,000	16,900,000	12.52	46.00	70,400,000
1974	1,980,000	2,050,000	15,500,000	16,000	4,590,000	15,400,000	17,200,000	25.14	83.10	79,600,000
1975	1,800,000	1,870,000	12,100,000	20,000	5,790,000	15,300,000	12,600,000	20.34	61.60	74,800,000
1976	1,990,000	1,970,000	13,100,000	15,000	5,450,000	15,300,000	14,000,000	23.78	68.10	77,400,000
1977	2,010,000	1,870,000	13,200,000	26,000	7,950,000	15,100,000	14,500,000	25.32	68.10	81,900,000
1978	1,670,000	1,660,000	14,100,000	13,000	8,360,000	14,700,000	14,700,000	26.34	65.90	81,000,000
1979	1,820,000	2,130,000	14,000,000	15,000	8,580,000	14,700,000	15,700,000	25.46	57.20	85,500,000
1980	1,560,000	1,840,000	14,500,000	21,000	8,340,000	14,700,000	16,000,000	23.25	51.90	89,200,000
1981	1,510,000	1,660,000	13,100,000	20,000	8,290,000	14,700,000	13,500,000	28.30	50.70	85,300,000
1982	732,000	1,250,000	10,300,000	49,000	7,160,000	16,300,000	9,200,000	32.62	55.10	79,300,000
1983	679,000	913,000	7,800,000	74,000	5,610,000	16,300,000	9,100,000	28.71	47.00	78,700,000
1984	856,000	1,230,000	9,700,000	82,000	4,880,000	17,300,000	10,500,000	29.79	46.70	87,200,000
1985	674,000	989,000	7,500,000	56,000	3,640,000	18,500,000	8,200,000	28.95	43.90	84,200,000
1986	510,000	740,000	6,800,000	69,000	3,320,000	18,500,000	6,900,000	27.54	41.00	88,200,000
1987	576,000	680,000	9,500,000	201,000	3,020,000	18,500,000	9,500,000	23.32	33.50	91,600,000
1988	588,000	688,000	10,300,000	63,000	3,020,000	18,500,000	10,100,000	23.90	32.90	97,400,000
1989			11,400,000	44,000	2,520,000	18,500,000	11,800,000	26.84	35.30	103,000,000
1990			12,700,000	53,000	2,320,000	18,500,000	12,000,000	27.23	34.00	113,000,000
1991			12,200,000	66,000	2,620,000	18,500,000	12,200,000	30.36	36.30	111,000,000
1992			11,300,000	63,000	2,320,000	17,800,000	11,900,000	28.58	33.20	105,000,000
1993			11,800,000	90,000	1,590,000	16,900,000	12,200,000	27.84	31.40	110,000,000
1994			11,000,000	129,000	1,560,000	17,200,000	11,200,000	25.64	28.20	106,000,000
1995			10,600,000	108,000	1,730,000	16,300,000	10,900,000	23.51	25.10	112,000,000
1996			10,600,000	132,000	1,930,000	15,700,000	11,000,000	26.89	27.90	117,000,000
1997			11,100,000	85,000	2,260,000	14,300,000	11,500,000	24.64	25.00	122,000,000
1998			11,400,000	99,000	1,860,000	11,000,000	12,700,000	22.69	22.70	123,000,000
1999			10,200,000	149,000	1,440,000	6,800,000	11,700,000	21.56	21.10	129,000,000
2000			8,860,000	142,000	1,300,000	5,710,000	10,800,000	23.09	21.90	136,000,000
2001			8,540,000	81,000	1,740,000	2,070,000	9,770,000	23.27	21.40	137,000,000
2002			7,580,000	42,000	1,260,000	1,770,000	9,970,000	20.35	18.40	144,000,000

ALUMINA STATISTICS

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Last modification: August 13, 2004

Year	Reported production	Reported shipments	Reported imports	Reported exports	Reported industry stocks	Calculated apparent consumption	Estimated unit value (\$/t)	Estimated unit value (98\$/t)	Reported world production
1935			68						
1936			119						
1937			185						
1938			65						
1939			1						
1940			11						
1941			61						
1942			22,100						
1943			12,600						
1944									
1945			182						
1946			4						
1947									
1948			6						
1949			160						
1950			197						
1951			875						
1952			593						
1953									
1954									
1955	2,900,000					2,900,000			
1956	3,120,000	3,120,000				3,120,000			
1957	3,120,000	3,110,000	271			3,120,000			
1958	2,890,000		47,200			2,940,000			
1959	3,640,000	3,640,000	115,000			3,760,000			
1960	3,650,000	3,650,000	79,800			3,730,000			
1961	3,490,000	3,510,000	171,000			3,660,000	63.50	347	
1962	4,150,000	4,080,000	158,000			4,310,000	58.60	317	
1963	4,520,000	4,570,000	173,000			4,690,000	61.30	326	
1964	4,980,000	4,980,000	191,000			5,170,000	59.10	311	
1965	5,240,000	5,220,000	206,000	290,000		5,160,000	65.90	342	
1966	5,540,000		443,000	290,000		5,690,000	61.80	310	
1967	5,800,000	6,260,000	865,000	499,000		6,170,000	58.00	283	
1968	5,740,000	5,650,000	1,190,000	780,000		6,150,000	61.30	288	17,200,000
1969	6,540,000	6,480,000	1,730,000	885,000	761,000	7,390,000	78.90	350	19,200,000
1970	6,350,000	6,320,000	2,340,000	998,000	950,000	7,500,000	65.90	277	20,800,000
1971	6,350,000	6,330,000	2,190,000	980,000	982,000	7,530,000	64.00	258	22,800,000
1972	6,110,000	6,110,000	2,590,000	797,000	982,000	7,900,000	67.10	262	23,500,000
1973	6,660,000	6,660,000	3,090,000	694,000	1,110,000	8,930,000	68.40	251	26,400,000
1974	6,880,000	6,870,000	3,290,000	927,000	1,230,000	9,120,000	82.20	272	28,500,000
1975	5,140,000	5,150,000	3,180,000	933,000	1,320,000	7,290,000	116	352	26,100,000
1976	5,800,000	5,800,000	3,290,000	1,050,000	1,300,000	8,060,000	123	352	27,200,000
1977	6,030,000	5,960,000	3,760,000	857,000	1,520,000	8,710,000	137	368	29,700,000
1978	5,960,000	6,020,000	3,970,000	878,000	1,420,000	9,150,000	148	370	29,800,000
1979	6,450,000	6,480,000	3,840,000	849,000	1,420,000	9,440,000	162	364	31,400,000
1980	6,810,000	6,660,000	4,360,000	1,140,000	1,530,000	9,920,000	180	356	33,400,000
1981	5,960,000	6,090,000	3,980,000	730,000	1,420,000	9,320,000	211	378	32,100,000
1982	4,130,000	4,020,000	3,180,000	590,000	1,360,000	6,780,000	244	412	28,000,000
1983	4,000,000	3,950,000	4,030,000	602,000	1,690,000	7,100,000	201	329	29,300,000
1984	4,550,000	4,620,000	4,290,000	648,000	1,710,000	8,170,000	219	343	33,700,000

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1985	3,470,000	3,430,000	3,830,000	316,000	1,630,000	7,060,000	203	308	32,200,000
1986	3,110,000	3,120,000	3,600,000	487,000	2,040,000	5,810,000	159	236	32,800,000
1987	4,150,000	4,140,000	4,070,000	1,130,000	2,730,000	6,400,000	141	202	34,900,000
1988	4,770,000	5,540,000	4,630,000	1,040,000	1,960,000	9,130,000	181	249	38,900,000
1989	5,000,000	5,090,000	4,310,000	1,330,000	1,970,000	7,970,000	280	368	41,500,000
1990	5,230,000	5,150,000	4,070,000	1,260,000	2,100,000	7,910,000	305	380	42,600,000
1991	5,230,000	5,310,000	4,590,000	1,340,000	1,900,000	8,680,000	234	280	42,300,000
1992	5,190,000	5,260,000	4,700,000	1,140,000	1,720,000	8,930,000	182	211	41,100,000
1993	5,290,000	5,230,000	3,940,000	1,240,000	1,730,000	7,980,000	182	205	41,700,000
1994	4,860,000	4,910,000	3,120,000	1,040,000	1,520,000	7,150,000	182	200	40,800,000
1995	4,530,000	4,630,000	4,000,000	1,040,000	1,420,000	7,590,000	212	227	42,300,000
1996	4,700,000	4,700,000	4,330,000	918,000	1,360,000	8,170,000	221	230	44,000,000
1997	5,090,000	5,090,000	3,830,000	1,270,000	1,340,000	7,670,000	246	250	46,000,000
1998	5,650,000	5,640,000	4,050,000	1,280,000	1,330,000	8,430,000	215	215	47,500,000
1999	5,140,000	5,130,000	3,810,000	1,230,000	1,310,000	7,740,000	203	199	47,400,000
2000	4,790,000	4,770,000	3,820,000	1,090,000	1,330,000	7,500,000	226	214	49,100,000
2001	4,340,000	4,440,000	3,100,000	1,250,000	1,400,000	6,120,000	206	190	48,900,000
2002	4,340,000	4,310,000	3,010,000	1,270,000	1,410,000	6,070,000	186	169	50,900,000

Bauxite and Alumina Worksheet Notes

Data Sources

Sources of data for the alumina and bauxite worksheets 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 are not available.

Reported Production

Bauxite data are domestic mine production of ore in terms of “dried bauxite equivalents.” Domestic bauxite production data for the years 1989–96, are withheld in order to avoid disclosing proprietary data. Data for the years after 1996 are not available.

Alumina production data are in terms of “calcined alumina equivalents.” Calcined alumina production data were not available prior to 1955. For the years 1950–54 data are reported as “Alumina Production.” All data are from the MR and MYB.

Reported Shipments

Bauxite data are reported as “quantity as shipped.” For the years 1900–18, shipments are bauxite shipped from domestic producers to the U.S. industry. For the years 1919–33, shipments are sales of bauxite by domestic producers to the U.S. industry. For the years 1934–88, shipments are domestic “dried bauxite equivalents” shipments from mines and processing plants to the U.S. industry. Shipments data for the years 1989–96, are withheld in order to avoid disclosing proprietary data. Data for the years after 1996 are not available.

Alumina shipments data for the years 1956–69 are “quantity as shipped.” The exceptions are for the years 1958 and 1966 when no data were reported. After 1969, shipments data are reported in “calcined alumina equivalents.” All data are from the MR and MYB.

Reported Imports

Bauxite imports into the United States for the years 1900–49 are crude and dried bauxite only. After 1949, imports include crude and dried bauxite, plus calcined bauxite; data are reported as “quantity as shipped.”

For the years 1935–52, alumina imports into the United States consist of alumina. Data for the years after 1969 consist of alumina plus the “calcined alumina equivalents” of aluminum hydroxide imports. Alumina data for 1944 is reported as “less than one-half unit.” All data are from the MR and MYB.

Reported Exports

Bauxite data includes bauxite and calcined bauxite, reported as “quantity as shipped” exported from the United States. Data are not available for the years 1902–13.

Alumina export data prior to 1965 included other aluminum compounds and are not considered here. Alumina exports include aluminum oxide for the years 1965–69 and aluminum oxide plus the calcined equivalent of aluminum hydroxide for the years after 1969. All data are from the MR and MYB.

Reported Stocks

Stock levels at the end of year, December 31. Bauxite industry stocks include both producers and consumers. For the years 1942–63 and 1969 onward, stocks are reported as “dried bauxite equivalents”; for the years 1964–68 stocks are as reported. Bauxite government stocks are the strategic stockpile stocks reported in dry equivalents. Bauxite stock data are not available prior to 1942.

Alumina industry stocks, for the years 1969 onward, are reported in “calcined alumina equivalents.” Data prior to 1969 are not available. All data are from the MR and MYB.

Calculated Bauxite Apparent Consumption

Bauxite consumption data for the years 1900–40 are published apparent consumption data. Because published apparent consumption data are unavailable after 1940, published consumption data are used. Data for the years 1900–33 are reported as “quantity as shipped,” and for the years after 1933, data are reported as “dried bauxite equivalents.” Bauxite consumption data are from the MR and MYB.

Calculated Alumina Apparent Consumption

Alumina consumption data are not published and therefore were calculated from data published in the MR and MYB. Data for the years 1900–54 were insufficient for this calculation. Data for the years 1955–69 are calculated using the following equation:

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

Data for the years after 1969 are calculated using the following equation:

$$\text{ALUMINA APPARENT CONSUMPTION} = \text{PRODUCTION} + \text{IMPORTS} - \text{EXPORTS} \pm \text{ADJUSTMENTS FOR INDUSTRY STOCK CHANGES.}$$

All data shown are expressed as “calcined alumina equivalents.”

Estimated Unit Value (\$/t)

Bauxite unit value data in dollars per metric ton (t) are the average U.S. import price of bauxite, port of shipment (FAS).

Alumina unit value data are the average U.S. import price of calcined alumina, port of shipment (FAS). All data are from the MR and MYB.

Estimated 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.

Reported World Production

World mine production of bauxite is reported on a “dried bauxite equivalents” basis. U. S. bauxite production data are withheld from the total for the years 1989–2002.

Alumina world production data are reported as “quantity produced” (alumina), for the years 1968–71, and as “calcined alumina equivalents” for the years after 1971. All data are from the MR and MYB.

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