

Mineral Industry Surveys

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VANADIUM IN JUNE 2008

Reported domestic consumption of vanadium in June 2008 was about 3% less than that of the previous month, and was about 27% more than that of June 2007, according to the U.S. Geological Survey. Consumer stocks of vanadium, in all forms, were 295 metric tons (t) at the beginning of 2008 and 292 t at the end of June.

According to Ryan's Notes (2008), U.S. ferrovanadium (FeV) prices ranged from \$36.500 to \$37.250 per pound of vanadium content in June, as compared with \$35.889 to \$36.444 in May. European FeV prices ranged from \$77.375 to \$79.188 per kilogram in June, as compared with \$72.000 to \$74.111 in May. Vanadium pentoxide (V₂O₅) prices ranged from \$17.063 to \$17.563 per pound in June, as compared with \$14.833 to \$15.389 in May.

The South African Competition Commission raided the offices of Highveld Steel and Vanadium Corp. Ltd. in South Africa amidst concerns raised by various stakeholders regarding pricing practices. The raid was part of a wider investigation into price fixing. In 2007, the Commission found Arcelor Mittal South Africa guilty of excessive pricing and fined the company \$86 million (American Metal Market, 2008).

References Cited

- American Metal Market, 2008, S. African authorities raid steel offices in price-fixing probe: American Metal Market, June 23, p. 1. (Accessed February 6, 2009, via <http://www.amm.com/>.)
Ryan's Notes, 2008, [untitled]: Ryan's Notes, v. 14, no. 27, July 7, p. 10.

TABLE 1
U.S. CONSUMPTION AND CONSUMER STOCKS OF VANADIUM, BY FORM¹

(Kilograms, contained vanadium)

	2007		2008					
	Consumption	Stocks	May		June		Year to date	
			Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovandium ²	3,320,000	253,000	385,000	247,000	363,000	233,000	2,150,000	233,000
Vanadium-aluminum alloy	W	W	W	W	W	W	W	W
Other ³	809,000	42,400	68,300	57,000	77,300	58,900	435,000	58,900
Total	4,130,000	295,000	453,000	304,000	441,000	292,000	2,590,000	292,000

W Withheld to avoid disclosing company proprietary data; included with "Other."

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes other vanadium-iron-carbon alloys as well as vanadium oxides added directly to steel.

³Includes other vanadium alloys, vanadium metal, vanadium pentoxide, vanadates, chlorides, other specialty chemicals, and items indicated by symbol W.

TABLE 2
U.S. CONSUMPTION OF VANADIUM, BY END USE¹

(Kilograms, contained vanadium)

	2007	2008		
		May	June	Year to date
Steel:				
Carbon	882,000	73,300	71,000	390,000
High-strength low-alloy	1,270,000	132,000	132,000	792,000
Stainless and heat-resisting	61,400	21,400	15,100	57,000
Full alloy	1,180,000	182,000	169,000	1,050,000
Tool	420,000	21,400	21,400	128,000
Total steel	3,810,000	430,000	408,000	2,420,000
Superalloys	7,180	529	615	2,950
Miscellaneous and unspecified ²	314,000	22,500	31,600	161,000
Total consumption	4,130,000	453,000	441,000	2,590,000

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes cast irons, alloys excluding steel and superalloys, chemical and ceramic uses, and other miscellaneous and unspecified uses.

TABLE 3
U.S. IMPORTS AND EXPORTS OF ALUMINUM-VANADIUM MASTER ALLOY AND VANADIUM
METAL, INCLUDING WASTE AND SCRAP¹

(Kilograms, gross weight)

	Aluminum-vanadium master alloy		Vanadium metal, including waste and scrap	
	Quantity	Value	Quantity	Value
Imports for consumption:				
2007	1,110,000	\$2,110,000	3,620	\$198,000
2008:				
April	49,300	207,000	--	--
May:				
Greece	61,600	302,000	--	--
Total	61,600	302,000	--	--
Year to date	155,000	649,000	2	5,300
Exports:				
2007	21,100,000	72,700,000	49,400	2,690,000
2008:				
April	1,840,000	6,480,000	620	44,400
May:				
Australia	4,320	25,900	--	--
Belgium	21,400	278,000	--	--
Canada	746,000	2,470,000	378	13,000
China	374	4,860	--	--
Japan	25,700	335,000	8,000	510,000
Mexico	1,000,000	3,280,000	--	--
United Kingdom	1,110	14,400	--	--
Total	1,800,000	6,410,000	8,380	523,000
Year to date	9,800,000	32,500,000	25,600	1,850,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS AND EXPORTS OF FERROVANADIUM, VANADIUM PENTOXIDE (ANHYDRIDE) AND
OTHER OXIDES AND HYDROXIDES OF VANADIUM¹

(Kilograms, contained vanadium)

	Ferrovanadium		Vanadium pentoxide (anhydride) ²		Other oxides and hydroxides of vanadium	
	Quantity	Value	Quantity	Value	Quantity	Value
Imports for consumption:						
2007	2,220,000	\$81,300,000	2,390,000	\$46,800,000	41,900	\$1,400,000
2008:						
April	281,000	18,200,000	244,000	8,120,000	--	--
May:						
Austria	16,000	1,310,000	--	--	--	--
Brazil	539	48,700	--	--	--	--
Canada	46,800	2,070,000	--	--	--	--
China	--	--	95,600	3,240,000	--	--
Germany	462	65,100	76	8,060	--	--
Japan	--	--	447	53,600	--	--
Korea, Republic of	208,000	13,700,000	--	--	--	--
Russia	--	--	132,000	4,160,000	--	--
South Africa	--	--	161,000	7,410,000	--	--
Total	272,000	17,200,000	390,000	14,900,000	--	--
Year to date	1,410,000	70,500,000	1,580,000	42,100,000	42,200	1,190,000
Exports:						
2007	206,000	5,810,000	327,000	5,460,000	626,000	7,530,000
2008:						
April	13,600	591,000	6,400	139,000	13,600	205,000
May:						
Canada	28,300	1,220,000	--	--	1,460	13,000
China	--	--	--	--	2,820	13,200
Germany	--	--	--	--	10,500	163,000
Mexico	4,750	192,000	--	--	--	--
Netherlands	--	--	--	--	9,230	155,000
Trinidad and Tobago	--	--	4,500	198,000	--	--
Total	33,100	1,410,000	4,500	198,000	24,000	344,000
Year to date	151,000	6,290,000	148,000	3,220,000	384,000	3,860,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include catalysts containing vanadium pentoxide.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF VANADIUM-BEARING ASH, SLAG¹

(Kilograms, contained vanadium pentoxide)

	Ash and residues		Ash and residues (not from the manufacture of iron and steel)	
	Quantity	Value	Quantity	Value
2007	1,000,000	\$9,960,000	641,000	\$913,000
2008:				
April	54,500	607,000	43,000	66,600
May:				
Canada	--	--	42,900	66,600
Mexico	75,900	1,270,000	--	--
Total	75,900	1,270,000	42,900	66,600
Year to date	362,000	4,450,000	236,000	294,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF MISCELLANEOUS VANADIUM CHEMICALS¹

(Kilograms, contained vanadium)

	Sulfates		Vanadates	
	Quantity	Value	Quantity	Value
2007	80,200	\$783,000	211,000	\$3,550,000
2008:				
April	2	15,100	25,400	281,000
May:				
India	6	7,860	99	13,800
South Africa	--	--	22,200	587,000
United Kingdom	--	--	8,710	219,000
Total	6	7,860	31,000	820,000
Year to date	9	34,000	117,000	2,070,000

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.