

Mineral Industry Surveys

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VANADIUM IN MAY 2006

Reported domestic consumption of vanadium in May 2006 was about 6% more than that of the previous month, and was about 3% more than that of May 2005, according to the U.S. Geological Survey. Consumer stocks of vanadium, in all forms, were 361 metric tons (t) at the beginning of 2006 and 361 t at the end of May.

According to Ryan's Notes (2006b), U.S. ferrovanadium (FeV) prices ranged from \$19.556 to \$20.056 per pound of vanadium content in May, as compared with \$18.063 to \$18.563 in April. European FeV prices ranged from \$40.000 to \$42.000 per kilogram in May, as compared with \$36.000 to \$37.875 in April. Vanadium pentoxide (V₂O₅) prices ranged from \$8.178 to \$8.467 per pound in May, as compared with \$7.913 to \$8.150 in April.

Shieldalloy Metallurgical Corp. formed a long term alliance with Hascor International Group (Mexico) under which

ferroalloy powders produced by Hascor at its Tampico, Mexico, facilities will be marketed by Shieldalloy to wear plate, welding electrode, and powder metallurgy producers in the United States and Canada. Hascor will market the powders to producers of cored wire. Shieldalloy will transfer ferroalloy production equipment from its Newfield, NJ, plant to the Hascor facility. The alliance expanded Hascor's product line and increased its capacity. Shieldalloy will continue to produce aluminum alloy products at its Newfield plant (Ryan's Notes, 2006a).

References Cited

Ryan's Notes, 2006a, Ferroalloy notes: Ryan's Notes, v. 12, no. 18, May 8, p. 3.
Ryan's Notes, 2006b, [untitled]: Ryan's Notes, v. 12, no. 22, June 5, p. 10.

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

(Kilograms, contained vanadium)

	2005 ^p		2006			
	Consumption	Stocks	April		May	
			Consumption	Stocks	Consumption	Stocks
Ferrovandium ²	3,430,000	335,000	293,000 ^r	330,000 ^r	310,000	335,000
Vanadium-aluminum alloy	W	W	W	W	W	W
Other ³	260,000	25,700	19,300	17,100	22,100	26,900
Total	3,690,000	361,000	312,000 ^r	347,000 ^r	332,000	361,000

^pPreliminary. ^rRevised. 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)

	2005 ^p	2006		
		April	May	Year to date
Steel:				
Carbon	902,000	79,100	88,000	392,000
High-strength low-alloy	1,060,000	86,700	91,300	431,000
Stainless and heat-resisting	59,900	5,060	5,060	25,300
Full alloy	1,000,000	89,500 ^r	93,800	448,000
Tool	401,000	32,600	31,800	133,000
Total steel	3,430,000	293,000 ^r	310,000	1,430,000
Superalloys	9,610	274 ^r	277	1,580
Miscellaneous and unspecified ²	253,000	19,100	21,900	110,000
Total consumption	3,690,000	312,000 ^r	332,000	1,540,000

^pPreliminary. ^rRevised.

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:				
2005	1,010	\$15,500	54,800	\$3,800,000
2006:				
February	--	--	3,540	462,000
March	--	--	116	81,600
April:				
Belgium	--	--	124	11,500
Canada	--	--	787	9,870
Germany	--	--	19,400	651,000
Russia	--	--	829	135,000
United Kingdom	--	--		
Total	--	--	21,100	807,000
Year to date	--	--	26,000	1,490,000
Exports:				
2005	14,100,000	42,000,000	293,000	1,640,000
2006:				
February	668,000	3,420,000	18,000	699,000
March	2,100,000	6,720,000	18,000	873,000
April:				
Brazil	14,200	71,700	--	--
Canada	123,000	488,000	--	--
China	11,900	61,800	114,000	199,000
Germany	246	3,200	1,870	26,000
India	4,860	23,900	--	--
Japan	628,000	1,420,000	2,130	112,000
Korea, Republic of	726	3,050	--	--
Mexico	1,600,000	4,950,000	--	--
Netherlands	231	3,000	--	--
Poland	1,270	8,340	--	--
Thailand	179,000	585,000	--	--
United Kingdom	12,200	63,800	20,100	658,000
Total	2,580,000	7,690,000	138,000	995,000
Year to date	9,970,000	23,700,000	207,000	4,210,000

-- 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)

	Ferrovandium		Vanadium pentoxide (anhydride) ²		Other oxides and hydroxides of vanadium	
	Quantity	Value	Quantity	Value	Quantity	Value
Imports for consumption:						
2005	12,000,000	\$131,000,000	1,410,000	\$52,900,000	213,000	\$6,540,000
2006:						
February	171,000	7,750,000	28,400	1,050,000	--	--
March	146,000	6,290,000	275,000	6,880,000	31,700	967,000
April:						
Canada	30,000	1,490,000	--	--	--	--
China	--	--	34,900	1,140,000	--	--
Czech Republic	96,700	3,950,000	--	--	--	--
Germany	--	--	2,000	103,000	--	--
South Africa	--	--	99,900	2,110,000	18,600	308,000
Switzerland	48,300	1,990,000	--	--	--	--
Trinidad and Tobago	--	--	--	--	4,030	68,200
United Kingdom	--	--	5	5,220	11,300	159,000
Total	175,000	7,430,000	137,000	3,350,000	34,000	535,000
Year to date	672,000	30,300,000	763,000	26,800,000	72,600	1,940,000
Exports:						
2005	500,000	19,100,000	247,000	5,340,000	822,000	14,500,000
2006:						
February	54,400	1,510,000	855	44,100	89,200	794,000
March	53,300	1,740,000	63,900	1,360,000	116,000	1,040,000
April:						
Brazil	--	--	--	--	2,730	40,200
Canada	41,000	872,000	--	--	65,000	582,000
China	11,000	121,000	--	--	--	--
Italy	--	--	16,200	348,000	57,000	230,000
Mexico	4,360	180,000	--	--	--	--
Netherlands	--	--	--	--	9,080	148,000
Taiwan	--	--	2,950	28,000	--	--
Venezuela	--	--	17,000	397,000	--	--
Total	56,300	1,170,000	36,200	773,000	134,000	1,000,000
Year to date	176,000	4,860,000	140,000	3,000,000	416,000	4,120,000

-- 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
2005	4,360,000	\$9,820,000	6,850,000	\$1,100,000
2006:				
February	86,400	930,000	85,100	88,300
March	22,700	263,000	107,000	96,400
April:				
Canada	--	--	103,000	96,000
Total	--	--	103,000	96,000
Year to date	128,000	1,450,000	453,000	429,000

-- 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
2005	35,000	\$77,000	91,700	\$2,800,000
2006:				
February	--	--	15,100	547,000
March	--	--	12,600	384,000
April:				
Germany	--	--	168	277,000
South Africa	--	--	6,260	188,000
Total	--	--	6,430	465,000
Year to date	--	--	51,700	1,760,000

-- Zero.

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

Source: U.S. Census Bureau.