

Mineral Industry Surveys

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VANADIUM IN MAY 2007

Reported domestic consumption of vanadium in May 2007 was slightly more than that of the previous month, and was about 8% more than that of May 2006, according to the U.S. Geological Survey. Consumer stocks of vanadium, in all forms, were 296 metric tons (t) at the beginning of 2007 and 310 t at the end of May.

According to Ryan's Notes (2007), U.S. ferrovanadium (FeV) prices ranged from \$19.389 to \$19.833 per pound of vanadium content in May, as compared with \$19.000 to \$19.500 in April. European FeV prices ranged from \$39.000 to \$41.000 per kilogram in May, as compared \$39.813 to \$41.438 in April. Vanadium pentoxide (V₂O₅) prices ranged from \$8.000 to \$8.250 per pound in May, as compared with \$7.688 to \$8.094 in April.

In July 2006, Evraz Group SA acquired a 24.9% interest in Highveld Steel and Vanadium Corp. Ltd. and an option to acquire additional stake once regulatory approval was obtained. The European Commission and South African authorities

granted approvals in February and April, 2007, respectively, with the stipulation that Evraz divest some of the Highveld assets. Evraz agreed to sell the Vanchem operations in Witbank, South Africa; divest its 50% interest in South Africa Japan Vanadium Ltd.; and both grant access to Highveld's Mapochs Mine and maintain existing vanadium feedstock supply agreements with certain customers. As Evraz then controlled 54.1% of Highveld, under South African law, Evraz had to make a purchase offer to all outstanding Highveld stockholders within 30 days of the date its ownership stake exceeded 35% (Platts Metals Week, 2007).

References Cited

Platts Metals Week, 2007, Evraz buys Highveld stake: Platts Metals Week, volume 78, no. 20, May 14, p. 5.
Ryan's Notes, 2007, [untitled]: Ryan's Notes, v. 13, no. 23, June 4, p. 10.

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

(Kilograms, contained vanadium)

	2006 ^P		2007					
			April		May		Year to date	
	Consumption	Stocks	Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovandium ²	3,350,000	247,000	286,000	300,000	292,000	271,000	1,440,000	271,000
Vanadium-aluminum alloy	W	W	W	W	W	W	W	W
Other ³	298,000	48,100	68,400	48,600	66,800	38,800	311,000	38,800
Total	3,650,000	296,000	355,000	349,000	358,000	310,000	1,750,000	310,000

^PPreliminary. 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)

	2006 ^P	2007		
		April	May	Year to date
Steel:				
Carbon	931,000	82,100	85,100	411,000
High-strength low-alloy	1,020,000	106,000	106,000	499,000
Stainless and heat-resisting	60,700	5,110	5,110	25,600
Full alloy	1,020,000	101,000	96,800	482,000
Tool	322,000	37,300	43,400	191,000
Total steel	3,350,000	331,000	337,000	1,610,000
Superalloys	4,130	673	685	2,870
Miscellaneous and unspecified ²	296,000	22,600	21,100	136,000
Total consumption	3,650,000	355,000	358,000	1,750,000

^PPreliminary.

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:				
2006	102,000	\$312,000	121,000	\$5,270,000
2007:				
March	797,000	1,120,000	--	--
April:				
Year to date	797,000	1,120,000	--	--
Exports:				
2006	17,000,000	54,500,000	491,000	3,160,000
2007:				
March	1,750,000	7,730,000	--	--
April:				
Canada	716,000	2,240,000	--	--
Germany	110	2,820	--	--
India	1,060	13,700	--	--
Japan	46,400	692,000	--	--
Mexico	2,540,000	7,330,000	--	--
United Kingdom	6,030	57,100	--	--
Total	3,310,000	10,300,000	--	--
Year to date	8,100,000	27,800,000	--	--

-- 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:						
2006	2,140,000	\$90,500,000	1,920,000	\$45,200,000	129,000	\$3,370,000
2007:						
March	299,000	8,020,000	254,000	4,570,000	--	--
April:						
Austria	19,900	616,000	183	19,000	8,390	249,000
Canada	88,700	2,190,000	--	--	--	--
China	19,000	563,000	17,000	469,000	--	--
Czech Republic	60,200	2,030,000	--	--	--	--
Germany	226	12,600	--	--	--	--
Korea	29,400	780,000	--	--	--	--
South Africa	--	--	92,100	2,050,000	--	--
Total	217,000	6,190,000	109,000	2,530,000	8,390	249,000
Year to date	1,030,000	26,900,000	607,000	12,200,000	8,390	249,000
Exports:						
2006	389,000	11,400,000	341,000	7,150,000	832,000	7,780,000
2007:						
March	27,000	1,080,000	14,600	189,000	61,000	758,000
April:						
Belgium	--	--	--	--	18,400	323,000
Brazil	--	--	--	--	2,710	38,900
Canada	12,100	231,000	--	--	217	3,320
Germany	--	--	2,070	41,700	6,540	91,100
Mexico	396	13,200	--	--	--	--
Russia	--	--	--	--	45,700	407,000
Total	12,500	245,000	2,070	41,700	73,600	864,000
Year to date	54,400	1,910,000	37,200	607,000	149,000	1,790,000

-- 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
2006	637,000	\$7,320,000	1,140,000	\$1,130,000
2007:				
March	127,000	1,520,000	81,800	125,000
April:				
Canada	--	--	76,700	57,700
Mexico	115,000	848,000	--	--
Total	115,000	848,000	76,700	57,700
Year to date	337,000	3,390,000	285,000	357,000

-- 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
2006	16	\$26,700	115,000	\$3,330,000
2007:				
March	21,200	206,000	22,700	447,000
April:				
China	--	--	11,200	386,000
Germany	--	--	6,280	195,000
Total	--	--	17,500	581,000
Year to date	81,400	772,000	57,300	1,400,000

-- Zero.

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

Source: U.S. Census Bureau.