

Mineral Industry Surveys

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VANADIUM IN JUNE 2007

Reported domestic consumption of vanadium in June 2007 was about 3% less than that of the previous month, and was about 7% more than that of June 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 326 t at the end of June.

According to Ryan's Notes (2007b), U.S. ferrovanadium (FeV) prices ranged from \$19.889 to \$20.194 per pound of vanadium content in June, as compared with \$19.389 to \$19.833 in May. European FeV prices ranged from \$38.500 to \$40.111 per kilogram in June, as compared with \$39.000 to \$41.000 in May. Vanadium pentoxide (V₂O₅) prices ranged from \$7.667 to \$7.944 per pound in June, as compared with \$8.000 to \$8.250 in May.

Strategic Minerals Corp. (Stratcor) subsidiary Vametco Alloys (South Africa) increased its vanadium pentoxide production capacity by 25% to about 3,800 t (8.4 million pounds). All additional vanadium pentoxide production was being used to produce Nitrovan vanadium, Stratcor's proprietary nitrided-vanadium product. Vametco is a fully integrated facility from ore production at its Britt Mine to finished vanadium products. Vametco also recovers vanadium from pig iron slag obtained from a nearby steel mill (Ryan's Notes, 2007a).

References Cited

- Ryan's Notes, 2007a, Ferroalloy notes: Ryan's Notes, v. 13, no. 26, June 25, p. 4.
Ryan's Notes, 2007b, [untitled]: Ryan's Notes, v. 13, no. 27, July 2, p. 10.

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

(Kilograms, contained vanadium)

	2006 ^P		2007					
			May		June		Year to date	
	Consumption	Stocks	Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovandium ²	3,350,000	247,000	292,000	271,000	274,000	285,000	1,710,000	285,000
Vanadium-aluminum alloy	W	W	W	W	W	W	W	W
Other ³	298,000	48,100	66,900	38,800	72,000	41,300	383,000	41,300
Total	3,650,000	296,000	358,000	310,000	346,000	326,000	2,090,000	326,000

^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		
		May	June	Year to date
Steel:				
Carbon	931,000	85,100	85,900	497,000
High-strength low-alloy	1,020,000	106,000	106,000	605,000
Stainless and heat-resisting	60,700	5,110	5,110	30,700
Full alloy	1,020,000	96,800	90,400	572,000
Tool	322,000	43,400	31,700	223,000
Total steel	3,350,000	337,000	319,000	1,930,000
Superalloys	4,130	686	692	3,560
Miscellaneous and unspecified ²	296,000	21,100	26,300	162,000
Total consumption	3,650,000	358,000	346,000	2,090,000

^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:				
April	-- ^r	-- ^r	--	--
May:				
Year to date	797,000	1,120,000	--	--
Exports:				
2006	17,000,000	54,500,000	491,000	13,200,000
2007:				
April	3,310,000	10,300,000	--	--
May:				
Belgium	16,300	54,000	--	--
Brazil	2,250	55,400	--	--
Canada	929,000	2,960,000	--	--
Czech Republic	204	4,840	--	--
Germany	7,170	172,000	--	--
Japan	10,900	266,000	--	--
Korea, Republic of	22,600	154,000	--	--
Mexico	402,000	2,130,000	--	--
United Kingdom	5,550	54,100	--	--
Total	1,400,000	5,850,000	--	--
Year to date	9,490,000	33,600,000	--	--

-- 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:						
April	218,000	6,190,000	109,000	2,530,000	8,390	249,000
May:						
Canada	78,300	1,670,000	--	--	--	--
China	--	--	174,000	3,200,000	--	--
Czech Republic	60,200	2,040,000	--	--	--	--
Germany	363	19,300	--	--	--	--
Korea, Republic of	40,000	1,210,000	--	--	--	--
Russia	--	--	131,000	2,300,000	--	--
South Africa	--	--	67,500	1,460,000	--	--
Total	179,000	4,940,000	373,000	6,950,000	--	--
Year to date	1,030,000	31,900,000	980,000	19,200,000	8,390	249,000
Exports:						
2006	389,000	11,400,000	341,000	7,150,000	832,000	7,780,000
2007:						
April	12,500	245,000	2,070	41,700	73,600	864,000
May:						
Belgium	--	--	18,000	323,000	--	--
Canada	6,090	303,000	--	--	--	--
Germany	--	--	7,030	114,000	4,010	58,600
India	--	--	26,600	343,000	--	--
Korea, Republic of	--	--	61,200	581,000	--	--
Mexico	15,300	483,000	--	--	--	--
Turkey	--	--	--	--	359	3,190
Total	21,400	786,000	113,000	1,360,000	4,370	61,800
Year to date	75,800	2,700,000	150,000	1,970,000	153,000	1,860,000

-- 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
2006	637,000	\$7,320,000	1,140,000	\$1,130,000
2007:				
April	115,000	848,000	76,700	57,700
May:				
Canada	--	--	13,100	39,800
Mexico	54,500	526,000	--	--
Total	54,500	526,000	13,100	39,800
Year to date	392,000	3,920,000	298,000	397,000

-- 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:				
April	--	--	17,500	581,000
May:				
China	--	--	42	8,170
Germany	--	--	245	28,200
South Africa	--	--	21,900	312,000
United Kingdom	--	--	7,640	37,500
Total	--	--	29,900	385,000
Year to date	81,400	772,000	87,200	1,780,000

-- Zero.

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

Source: U.S. Census Bureau.