

Mineral Industry Surveys

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VANADIUM IN MARCH 2009

Reported domestic consumption of vanadium in March 2009 was slightly more than that of the previous month, and was about 9% less than that of March 2008, according to the U.S. Geological Survey. Consumer stocks of vanadium, in all forms, were 308 metric tons (t) at the beginning of 2009 and 286 t at the end of March.

According to Ryan's Notes (2009), U.S. ferrovanadium (FeV) prices ranged from \$9.889 to \$10.417 per pound of vanadium content in March, as compared with \$11.038 to \$11.656 in February. European FeV prices ranged from \$22.100 to \$23.028 per kilogram in March, as compared with \$23.713 to \$24.469 in February. Vanadium pentoxide (V₂O₅) prices ranged from \$4.639 to \$5.139 per pound in March, as compared with \$5.000 to \$5.500 in February.

Australian junior mining company NiPlats Australia Ltd. (2009) announced that it completed an initial beneficiation study of a potential open pit development at the Speewah vanadium project in Western Australia. The study estimated mineral resources of 851 million metric tons at 0.32% V₂O₅. The company announced that further studies were required to examine the cost competitiveness of the proposed operation.

References Cited

- NiPlats Australia Ltd., 2009, High grade vanadium concentrate produced at Speewah: Perth, Australia, NiPlats Australia Ltd., March 24, 4 p. (Accessed October 15, 2009, at http://www.niplats.com.au/images/stories/announcements/2009/nip_asx00000058_-_high_grade_vanadium.pdf.)
- Ryan's Notes, 2009, [untitled]: Ryan's Notes, v. 15, no. 14, April 6, p. 9.

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

(Kilograms, contained vanadium)

	2008		2009					
	Consumption	Stocks	February		March		January-March	
			Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovandium ²	4,030,000	231,000	332,000	234,000	331,000	230,000	994,000	230,000
Vanadium-aluminum alloy	W	W	W	W	W	W	W	W
Other ³	817,000	76,400	56,300	75,100	60,900	56,000	176,000	56,000
Total	4,850,000	308,000	388,000	309,000	392,000	286,000	1,170,000	286,000

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)

	2008	2009		
		February	March	January-March
Steel:				
Carbon	760,000	47,700	47,000	142,000
High-strength low-alloy	1,540,000	128,000	128,000	385,000
Stainless and heat-resisting	116,000	5,110	5,110	15,300
Full alloy	2,000,000	160,000	160,000	482,000
Tool	151,000	34,700	34,700	104,000
Total steel	4,570,000	376,000	376,000	1,130,000
Superalloys	2,490	375	218	752
Miscellaneous and unspecified ²	275,000	11,200	15,800	40,900
Total consumption	4,850,000	388,000	392,000	1,170,000

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:				
2008	1,110,000	\$2,110,000	3,620	\$198,000
2009:				
January	29,300	140,000	--	--
February				
Belgium	--	--	1	3,440
Canada	--	--	312	110,000
China	--	--	38	18,400
Mexico	194,000	592,000	--	--
Total	194,000	592,000	351	131,000
Year to date	223,000	732,000	351	131,000
Exports:				
2008:	21,900,000	76,200,000	57,100	3,740,000
2009:				
January	1,190,000	2,800,000	11,300	507,000
February:				
Canada	53,100	117,000	--	--
Germany	499	12,400	--	--
Japan	--	--	3,020	181,000
Mexico	1,350,000	2,820,000	--	--
Total	1,400,000	2,950,000	3,020	181,000
Year to date	2,590,000	5,760,000	14,300	687,000

-- 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:						
2008	2,800,000	\$159,000,000	3,700,000	\$115,000,000	144,000	\$4,320,000
2009:						
January	70,500	3,090,000	85,200	1,870,000	--	--
February:						
Austria	15,500	484,000	--	--	--	--
Canada	21,100	739,000	--	--	--	--
China	--	--	8,480	214,000	--	--
Korea, Republic of	7,670	348,000	--	--	--	--
South Africa	--	--	119,000	1,970,000	--	--
Taiwan	--	--	12,000	180,000	--	--
Total	44,300	1,570,000	140,000	2,370,000	--	--
Year to date	115,000	4,660,000	225,000	4,240,000	--	--
Exports:						
2008	281,000	12,600,000	249,000	5,650,000	1,040,000	11,300,000
2009:						
January	49,200	1,480,000	44,400	801,000	6,410	57,000
February:						
Canada	2,530	52,900	--	--	--	--
China	22,700	400,000	--	--	--	--
France	18,300	205,000	--	--	--	--
Korea, Republic of	12,500	418,000	--	--	--	--
Mexico	90	6,560	--	--	--	--
Netherlands	15,000	395,000	--	--	42,400	377,000
Saudi Arabia	--	--	--	--	--	--
Total	71,100	1,480,000	--	--	42,400	377,000
Year to date	120,000	2,960,000	--	--	48,800	434,000

-- 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
2008	1,040,000	\$18,000,000	601,000	\$795,000
2009:				
January	114,000	1,970,000	42,700	37,700
February:				
Canada	--	--	28,000	38,200
Mexico	136,000	2,240,000	--	--
Total	136,000	2,240,000	28,000	38,200
Year to date	250,000	4,210,000	70,700	75,800

-- 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
2008	2,160	\$119,000	187,000	\$4,230,000
2009:				
January	--	--	--	--
February:				
Germany	--	--	74	19,500
India	--	--	45	7,350
Total	--	--	119	26,900
Year to date	--	--	119	26,900

-- Zero.

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

Source: U.S. Census Bureau.