

Mineral Industry Surveys

For information, contact:

Désirée E. Polyak, Vanadium Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4909, Fax: (703) 648-7757
E-mail: dpolyak@usgs.gov

Shonta E. Osborne (Data)
Telephone: (703) 648-7960
Fax: (703) 648-7975
E-mail: sosborne@usgs.gov

Internet: <http://minerals.usgs.gov/minerals>

VANADIUM IN FEBRUARY 2009

Reported domestic consumption of vanadium in February 2009 was slightly less than that of the previous month, and was about 7% less than that of February 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 309 t at the end of February.

According to Ryan's Notes (2009b), U.S. ferrovanadium (FeV) prices ranged from \$11.038 to \$11.656 per pound of vanadium content in February, as compared with \$12.513 to \$13.000 in January. European FeV prices ranged from \$23.713 to \$24.469 per kilogram in February, as compared with \$25.600 to \$26.875 in January. Vanadium pentoxide (V₂O₅) prices ranged from \$5.000 to \$5.500 per pound in February, as compared with \$5.688 to \$6.188 in January.

Windimurra Vanadium Ltd. announced that it had been placed in bankruptcy, and its Windimurra vanadium mine in

Western Australia was put on care and maintenance owing to the economic downturn. In late December 2008, Windimurra acknowledged that it needed an additional \$81 million for construction labor costs and pushed the operational date back to the second quarter of 2009. Windimurra has been in and out of legal disputes since former owner Xstrata Alloys Ltd. bought a 40% stake from Precious Metals Australia Ltd. and then shut down production in 2004, citing global oversupply (Ryan's Notes, 2009a).

References Cited

Ryan's Notes, 2009a, Windimurra placed on care and maintenance: Ryan's Notes, v. 15, no. 8, February 23, p. 1.
Ryan's Notes, 2009b, [untitled]: Ryan's Notes, v. 15, no. 9, March 2, p. 10.

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

(Kilograms, contained vanadium)

	2008		2009					
	Consumption	Stocks	January		February		January-February	
			Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovandium ²	4,030,000	231,000	332,000	234,000	332,000	234,000	663,000	234,000
Vanadium-aluminum alloy	W	W	W	W	W	W	W	W
Other ³	817,000	76,400	59,000	74,300	56,300	75,100	115,000	75,100
Total	4,850,000	308,000	391,000	308,000	388,000	309,000	779,000	309,000

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		
		January	February	January-February
Steel:				
Carbon	760,000	47,100	47,700	94,800
High-strength low-alloy	1,540,000	128,000	128,000	257,000
Stainless and heat-resisting	116,000	5,110	5,110	10,200
Full alloy	2,000,000	161,000	160,000	322,000
Tool	151,000	34,700	34,700	69,400
Total steel	4,570,000	377,000	376,000	753,000
Superalloys	2,490	159	375	534
Miscellaneous and unspecified ²	275,000	13,900	11,200	25,100
Total consumption	4,850,000	391,000	388,000	779,000

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	618,000	\$2,760,000	4,600	\$322,000
2009, January:				
Belgium	18,000	50,500	--	--
Netherlands	11,300	90,000	--	--
Total	29,300	140,000	--	--
Exports:				
2008:	21,900,000	76,200,000	57,100	3,740,000
2009, January:				
Brazil	643	19,200	--	--
Canada	3,620	7,170	--	--
Japan	--	--	11,300	507,000
Mexico	1,180,000	2,770,000	--	--
Singapore	380	11,200	--	--
Total	1,190,000	2,800,000	11,300	507,000

-- 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:						
Brazil	535	48,700	--	--	--	--
Canada	42,300	1,970,000	--	--	--	--
China	--	--	8,490	285,000	--	--
India	2,350	87,700	--	--	--	--
Korea, Republic of	25,400	981,000	--	--	--	--
South Africa	--	--	69,500	1,360,000	--	--
Taiwan	--	--	7,250	229,000	--	--
Total	70,500	3,090,000	85,200	1,870,000	--	--
Exports:						
2008	281,000	12,600,000	249,000	5,650,000	1,040,000	11,300,000
2009, January:						
Brazil	--	--	9,980	140,000	--	--
Canada	19,400	602,000	--	--	5,510	49,100
France	12,400	389,000	17,900	277,000	--	--
Italy	--	--	14,400	337,000	--	--
Japan	--	--	--	--	895	7,960
Korea, Republic of	907	49,600	--	--	--	--
Mexico	1,150	31,700	--	--	--	--
Netherlands	15,400	412,000	--	--	--	--
Saudi Arabia	--	--	392	7,570	--	--
Trinidad and Tobago	--	--	1,820	39,900	--	--
Total	49,200	1,480,000	44,400	801,000	6,410	57,000

-- 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:				
Canada	--	--	42,700	37,700
Mexico	114,000	1,970,000	--	--
Total	114,000	1,970,000	42,700	37,700

-- 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:	--	--	--	--

-- Zero.

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

Source: U.S. Census Bureau.