

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

Glenn W. Walker (Data)
Telephone: (703) 648-7953
Fax: (703) 648-7975
E-mail: gwwalker@usgs.gov

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

VANADIUM IN MARCH 2012

Reported domestic consumption of vanadium in March 2012 was slightly more than that of the previous month, and was about 7% less than that of March 2011. Consumer stocks of vanadium, in all forms, were 165 metric tons (t) at the beginning of 2012 and 250 t at the end of March.

According to Ryan's Notes, U.S. ferrovanadium (FeV) prices ranged from \$15.028 to \$16.206 per pound of vanadium content in March, compared with \$13.925 to \$14.975 in February. European FeV prices ranged from \$25.313 to \$25.956 per kilogram in February, compared with \$25.639 to \$26.072 in March. Vanadium pentoxide (V_2O_5) prices ranged from \$6.222 to \$6.722 per pound in March, compared with \$5.563 to \$6.281 in February.

After additional drilling, Atlantic Ltd. increased the resource estimate at its Windimurra project, in Western Australia, by 16% to 243 million metric tons of ore, grading 0.48% V_2O_5 .

According to the company, the Windimurra plant ramp up remained on track after the first FeV production in early January (Atlantic Ltd., 2012a). Atlantic announced that it was expected to achieve full production of 6,300 metric tons per year of contained vanadium in the first calendar quarter of 2013 (Atlantic Ltd., 2012b).

References Cited

- Atlantic Ltd., 2012a, Windimurra project update: Perth, Western Australia, Australia, Atlantic Ltd., April 4. (Accessed May 30, 2012, at <http://atlantictd.com.au/upload/documents/InvestorRelations/asx/120404WindimurraProjectUpdate.pdf>.)
- Atlantic Ltd., 2012b, Windimurra vanadium project overview: Perth, Western Australia, Australia, Atlantic Ltd., February 13. (Accessed June 4, 2012, at <http://atlantictd.com.au/projects/windimurra>.)

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

(Kilograms, contained vanadium)

	2011 ^P		2012					
	Consumption	Stocks	February		March		January–March	
			Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovandium ²	4,040,000	103,000	336,000 ^r	116,000	337,000	180,000	1,020,000	180,000
Vanadium-aluminum alloy and other forms ³	869,000	62,300	66,400	73,200	65,600	69,700	199,000	69,700
Total	4,910,000	165,000	403,000 ^r	189,000	403,000	250,000	1,220,000	250,000

^PPreliminary. ^rRevised.

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 vanadium-aluminum alloy, other vanadium alloys, vanadium metal, vanadium pentoxide, vanadates, chlorides, and other specialty chemicals.

TABLE 2
U.S. CONSUMPTION OF VANADIUM, BY END USE¹

(Kilograms, contained vanadium)

	2011 ^P	2012		
		February	March	January–March
Steel:				
Carbon	677,000	56,900	57,600	178,000
High-strength low-alloy	W	W	W	W
Stainless and heat-resisting	61,500	5,110	5,120	15,400
Full alloy	2,060,000	172,000	171,000	515,000
Tool	W	W	W	W
Total steel	2,800,000	234,000	234,000	708,000
Superalloys	12,400	552	552	1,660
Miscellaneous and unspecified ²	W	W	W	W
Total	4,910,000	403,000 ^r	403,000	1,220,000

^PPreliminary. ^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Total."

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:				
2011	1,350,000	\$3,800,000	43,900	\$1,930,000
2012:				
February	22,500	205,000	9,120	270,000
March, Germany	--	--	14,700	480,000
January–March	58,600	424,000	24,100	796,000
Exports:				
2011	10,600,000	36,700,000	102,000	3,340,000
2012:				
February	1,450,000	4,270,000	--	--
March:				
Australia	292	3,800	--	--
Canada	263,000	663,000	--	--
Israel	220	2,860	--	--
Mexico	1,220,000	3,440,000	--	--
Mongolia	20,300	53,800	--	--
Philippines	572	7,340	--	--
United Kingdom	5,160	58,300	--	--
Total	1,510,000	4,230,000	--	--
January–March	4,750,000	14,200,000	381	14,700

-- 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:						
2011	2,220,000	\$64,600,000	2,800,000	\$45,800,000	886,000	\$17,400,000
2012:						
February	290,000	6,860,000	48,300	713,000	144,000	1,930,000
March:						
Austria	64,700	1,840,000	14,800	193,000	8,390	177,000
Canada	79,900	2,190,000	--	--	--	--
China	--	--	28,600	519,000	--	--
Czech Republic	154,000	3,260,000	--	--	--	--
Germany	205	28,300	--	--	--	--
Korea, Republic of	16,200	452,000	--	--	--	--
South Africa	--	--	98,800	2,010,000	59,700	683,000
Taiwan	--	--	20,100	427,000	--	--
Total	315,000	7,770,000	162,000	3,150,000	68,100	859,000
January–March	1,010,000	25,500,000	330,000	6,480,000	294,000	3,930,000
Exports:						
2011	444,000	9,970,000	88,700	1,410,000	254,000	2,390,000
2012:						
February	49,700	1,040,000	--	--	35,800	400,000
March:						
Canada	31,400	669,000	--	--	465	5,830
Germany	--	--	--	--	11,200	155,000
Japan	--	--	4,100	43,900	--	--
Mexico	11,200	339,000	--	--	--	--
Trinidad and Tobago	20,000	774,000	--	--	--	--
Total	62,600	1,780,000	4,100	43,900	11,700	161,000
January–March	152,000	3,720,000	4,700	61,600	48,800	573,000

-- 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, unless otherwise specified)

	Ash and residues		Ash and residues (not from the manufacture of iron and steel)		Slag, from the manufacture of iron and steel	
	Quantity	Value	Quantity	Value	Quantity (gross weight)	Value
2011	1,420,000	\$1,570,000	89,600	\$479,000	189,000,000	\$5,170,000
2012:						
February	121,000	300,000	--	--	264,000	68,300
March:						
Belgium	3,760	7,880	--	--	--	--
Canada	156,000	380,000	--	--	66,600	19,300
Germany	--	--	--	--	31,600	4,470
Netherlands	14,500	109,000	--	--	--	--
Total	175,000	497,000	--	--	98,300	23,700
January–March	354,000	893,000	49,600	126,000	489,000	141,000

-- 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, unless otherwise specified)

	Sulfates		Vanadates	
	Quantity	Value	Quantity	Value
2011	42,200	\$738,000	303,000	\$7,400,000
2012:				
February	7,230	87,600	6,830	228,000
March:				
Austria	--	--	5,280	95,400
South Africa	--	--	13,300	372,000
Total	--	--	18,600	467,000
January–March	7,230	87,600	58,400	1,410,000

-- Zero.

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

Source: U.S. Census Bureau.