

Mineral Industry Surveys

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VANADIUM IN MARCH 2013

Reported domestic consumption of vanadium in March 2013 was 10% more than that of the previous month, and was about 11% more than that of March 2012. Consumer stocks of vanadium, in all forms, were 228 metric tons (t) at yearend 2012 and 235 t at the end of March.

According to Ryan's Notes, U.S. ferrovanadium (FeV) prices ranged from \$14.800 to \$15.106 per pound of vanadium content in March, compared with \$14.575 to \$14.806 in February. European FeV prices ranged from \$31.278 to \$32.111 per kilogram in February, compared with \$30.875 to \$31.563 in March. Vanadium pentoxide (V₂O₅) prices ranged from \$6.356 to \$6.556 per pound in March, compared with \$6.269 to \$6.513 in February.

Russian steelmaker Evraz Group S.A. announced that it will sell its 85% stake in South Africa's Evraz Highveld Steel & Vanadium Ltd. to black empowerment consortium Nemascore Pty Ltd. for approximately \$320 million. Evraz Highveld reported a loss of \$102 million in 2012, which it attributed to strikes that took place in July as well as to a reduction in sales owing to the availability of lower cost imports, notably from China. The deal was expected to close in the second quarter of 2013 (Metal Bulletin, 2013).

Reference Cited

Metal Bulletin, 2013, Evraz agrees to sell Highveld stake to Nemascore for \$320m: Metal Bulletin, March 28. (Accessed June 4, 2013, via <http://www.metalbulletin.com>.)

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

(Kilograms, contained vanadium)

	2012		2013					
	January–December		February		March		January–March	
	Consumption	Stocks	Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovandium ²	2,950,000	172,000	256,000 ^r	170,000 ^r	289,000	162,000	780,000	162,000
Vanadium-aluminum alloy and other forms ³	818,000	56,400	69,300	73,500	69,300	72,500	209,000	72,500
Total	3,770,000	228,000	325,000 ^r	244,000 ^r	359,000	235,000	988,000	235,000

^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)

	2012		2013	
	January–December	February	March	January–March
Steel:				
Carbon	602,000	49,200 ^r	52,500	149,000
Full alloy	1,440,000	116,000	146,000	375,000
High-strength low-alloy	W	W	W	W
Stainless and heat resisting	61,500	4,950 ^r	4,940	14,800
Tool	W	W	W	W
Total steel	2,110,000	170,000 ^r	204,000	539,000
Superalloys	5,390	491	452	102,000
Miscellaneous and unspecified ²	W	W	W	W
Total	3,770,000	325,000 ^r	359,000	988,000

^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:				
2012	103,000	\$681,000	154,000	\$4,840,000
2013:				
February	--	--	4,090	126,000
March:				
Belgium	5,180	29,800	--	--
Netherlands	2,610	10,600	--	--
Norway	19,600	53,400	--	--
Total	27,300	93,800	--	--
January–March	27,300	93,800	4,090	126,000
Exports:				
2012	23,900,000	65,300,000	26,000	698,000
2013:				
February	1,970,000	5,220,000	130	5,000
March:				
Australia	1,170	15,200	--	--
Brazil	1,520	13,200	--	--
Canada	140,000	359,000	--	--
China	18,900	152,000	--	--
Israel	164	3,930	--	--
Japan	13,700	393,000	--	--
Korea, Republic of	15,200	120,000	--	--
Mexico	1,310,000	3,630,000	--	--
United Kingdom	14,900	249,000	--	--
Total	1,510,000	4,940,000	--	--
January–March	5,730,000	16,400,000	5,290	136,000

-- 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:						
2012	4,190,000	\$108,000,000	1,640,000	\$26,500,000	905,000	\$12,800,000
2013:						
February	339,000	8,410,000	92,600	1,700,000	--	--
March:						
Austria	36,400	844,000	--	--	--	--
Canada	40,200	1,140,000	--	--	--	--
China	--	--	19,900	293,000	--	--
Czech Republic	323,000	8,240,000	--	--	--	--
Japan	29,900	834,000	--	--	--	--
Korea, Republic of	16,200	435,000	--	--	--	--
South Africa	--	--	70,500	1,230,000	--	--
Total	445,000	11,500,000	90,400	1,530,000	--	--
January–March	1,010,000	25,700,000	421,000	6,300,000	8,340	180,000
Exports:						
2012	454,000	11,000,000	61,800	1,160,000	287,000	3,540,000
2013:						
February	68,700	1,760,000	1,300	51,900	19,200	163,000
March:						
Bermuda	21,500	489,000	--	--	--	--
Canada	405	10,100	--	--	--	--
China	--	--	--	--	5,140	86,700
Germany	--	--	--	--	11,200	155,000
Israel	2,000	54,500	--	--	--	--
Italy	--	--	14,400	225,000	--	--
Korea, Republic of	2,850	116,000	--	--	--	--
Mexico	1,000	28,500	--	--	56,400	505,000
Peru	3,130	104,000	--	--	--	--
Russia	--	--	--	--	87,200	776,000
Total	30,900	802,000	14,400	225,000	160,000	1,520,000
January–March	156,000	3,780,000	15,700	277,000	194,000	1,890,000

-- 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
	2012	2,040,000	\$9,880,000	175,000	\$141,000	108,000,000
2013:						
February	272,000	1,690,000	--	--	206,000	762,000
March:						
Belgium	24,500	197,000	--	--	--	--
Canada	346,000	2,030,000	--	--	48,400	27,000
Mexico	--	--	--	--	24,700	20,300
Netherlands	4,470	36,000	--	--	--	--
Saudi Arabia	23,400	188,000	--	--	--	--
South Africa	--	--	--	--	107,000	1,650,000
Total	398,000	2,450,000	--	--	181,000	1,700,000
January–March	715,000	4,390,000	5,560	11,500	611,000	2,660,000

-- 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
2012	29,100	\$370,000	280,000	\$6,190,000
2013:				
February	6,000	43,600	33,500	550,000
March:				
Austria	--	--	4,060	119,000
China	--	--	6,630	204,000
Total	--	--	10,700	324,000
January–March	6,000	43,600	85,700	1,750,000

-- Zero.

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

Source: U.S. Census Bureau.