

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

Wanda G. Wooten (Data)
Telephone: (703) 648-7967
Fax: (703) 648-7975
E-mail: wwooten@usgs.gov

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

VANADIUM IN JULY 2012

Reported domestic consumption of vanadium in July 2012 was 3% less than that of the previous month and was slightly more than that of July 2011. Consumer stocks of vanadium, in all forms, were 185 metric tons (t) at the beginning of 2012 and 253 t at the end of July.

According to Ryan's Notes, U.S. ferrovanadium (FeV) prices ranged from \$14.539 to \$17.000 per pound of vanadium content in July, as compared with \$15.078 to \$16.500 in June. European FeV prices ranged from \$25.500 to \$26.000 per kilogram in both June and July. Vanadium pentoxide (V_2O_5) prices ranged from \$6.500 to \$7.000 per pound in both June and July.

Evrax Group S.A. (Moscow, Russia) reported total production of vanadium slag decreased 11% to 5,222 t in the second quarter

of 2012, compared with 6,026 t in the first quarter of 2012, owing to lower iron production in Russia and South Africa. FeV production at Evraz's own plants and third party facilities decreased 10% to 3,760 t FeV in the second quarter of 2012, compared with 4,183 t in the second quarter of 2011. The company attributed the decrease to weaker demand (Ryan's Notes, 2012).

Reference Cited

Ryan's Notes, 2012, Ferroalloy notes: Ryan's Notes, v. 18, no. 30, July 23, p. 2-3.

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

(Kilograms, contained vanadium)

	2011 ^P		2012					
	Consumption	Stocks	June		July		January–July	
			Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovandium ²	4,240,000	122,000 ^r	348,000	183,000 ^r	337,000	180,000	2,380,000	180,000
Vanadium-aluminum alloy and other forms ³	882,000 ^r	63,300	71,900	69,400	67,800	72,600	493,000	72,600
Total	5,120,000	185,000 ^r	419,000 ^r	252,000 ^r	405,000	253,000	2,870,000	253,000

^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		
		June	July	January–July
Steel:				
Carbon	677,000	69,600 ^r	51,800	412,000
Full alloy	2,120,000	W	W	W
High-strength low-alloy	W	5,120	5,120	35,800
Stainless and heat resisting	61,500	170,000	177,000	1,210,000
Tool	W	W	W	W
Total steel	2,860,000	244,000 ^r	234,000	1,660,000
Superalloys	15,300	677	578	3,840
Miscellaneous and unspecified ²	W	W	W	W
Total	5,120,000	419,000 ^r	405,000	2,870,000

^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	278,000	\$1,210,000	43,900	\$1,930,000
2012:				
June	24,700	140,000	18,500	532,000
July, Germany	--	--	18,900	580,000
January–July	90,300	611,000	82,000	2,600,000
Exports:				
2011	920,000	6,930,000	102,000	3,340,000
2012:				
June	2,020,000	5,330,000	3	2,630
July:				
Australia	600	7,800	--	--
Brazil	2,500	32,600	--	--
Canada	337,000	894,000	--	--
India	18,400	149,000	--	--
Israel	2,550	34,700	--	--
Japan	--	--	10,200	276,000
Mexico	1,980,000	4,900,000	--	--
New Zealand	1,450	6,750	--	--
Singapore	808	10,500	--	--
Total	2,340,000	6,040,000	10,200	276,000
January–July	13,600,000	38,200,000	10,800	304,000

-- 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:						
2011	2,220,000	\$64,600,000	2,800,000	\$45,800,000	886,000	\$17,400,000
2012:						
June	241,000	6,540,000	230,000	3,660,000	87,900	1,260,000
July:						
Austria	24,100	727,000	--	--	8,370	200,000
Canada	56,800	1,500,000	--	--	--	--
China	--	--	32,800	425,000	--	--
Czech Republic	260,000	6,680,000	--	--	--	--
Germany	394	25,100	--	--	--	--
India	16,300	392,000	--	--	--	--
Korea, Republic of	37,800	1,070,000	--	--	--	--
South Africa	--	--	44,200	958,000	238,000	3,230,000
Taiwan	--	--	10,000	241,000	--	--
Total	396,000	10,400,000	87,100	1,620,000	247,000	3,430,000
January–July	2,560,000	67,200,000	873,000	15,500,000	851,000	11,800,000
Exports:						
2011	314,000	9,970,000	88,700	1,410,000	254,000	2,390,000
2012:						
June	15,100	429,000	14,700	316,000	29,000	465,000
July:						
Brazil	--	--	103	5,200	--	--
Canada	39,400	1,160,000	--	--	286	5,460
Germany	--	--	--	--	11,200	155,000
Korea, Republic of	3,340	139,000	923	8,030	--	--
Mexico	--	--	998	31,200	--	--
United Kingdom	--	--	--	--	59	4,050
Total	42,700	1,300,000	2,020	44,500	11,500	165,000
January–July	307,000	7,610,000	22,200	448,000	106,000	1,430,000

-- 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:						
June	188,000	343,000	--	--	46,400,000	4,330,000
July:						
Austria	--	--	--	--	14,900	217,000
Belgium	11,200	262,000	--	--	--	--
Canada	157,000	385,000	--	--	26,500,000	1,730,000
South Africa, Republic of	--	--	--	--	20,000	283,000
United Kingdom	26,500	213,000	--	--	38,400	196,000
Total	195,000	860,000	--	--	26,500,000	2,430,000
January–July	953,000	2,680,000	49,600	126,000	82,300,000	9,480,000

-- 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
2011	42,200	\$738,000	303,000	\$7,400,000
2012:				
June	7,040	93,900	56,100	1,190,000
July:				
China	156	13,600	6,620	210,000
South Africa	--	--	27,400	522,000
Total	156	13,600	34,000	732,000
January–July	19,200	245,000	216,000	4,730,000

-- Zero.

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

Source: U.S. Census Bureau.