

Mineral Industry Surveys

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VANADIUM IN APRIL 2012

Reported domestic consumption of vanadium in April 2012 was slightly more than that of the previous month, and was slightly less than that of April 2011, according to the U.S. Geological Survey. Consumer stocks of vanadium, in all forms, were 165 metric tons (t) at the beginning of 2012 and 228 t at the end of April.

According to Ryan's Notes, U.S. ferrovanadium (FeV) prices ranged from \$15.256 to \$16.838 per pound of vanadium content in April, as compared with \$15.028 to \$16.206 in March. European FeV prices ranged from \$25.250 to \$25.750 per kilogram in April, as compared with \$25.639 to \$26.072 in March. Vanadium pentoxide (V_2O_5) prices ranged from \$6.500 to \$7.000 per pound in April, as compared with \$6.222 to \$6.722 in March.

Nevado Resources Corp. announced an inferred mineral resource estimate of 101.7 million metric tons grading 0.33%

V_2O_5 , at a 5.1% titanium dioxide (TiO_2) equivalent cutoff grade, for its Farrell-Taylor vanadium-titanium-iron deposit at the La Blache project, in the Upper North Shore region of Quebec, Canada. The company was expected to start testing with a 1-metric-ton-per-day pilot plant in the third quarter of 2012 to confirm the V_2O_5 (99.9%), TiO_2 , and iron oxide recoveries (Nevado Resources Corp. 2012).

Reference Cited

Nevado Resources Corp., 2012, Nevado announces over 100 million tons of high-grade vanadium-titanium-iron mineral resources at Farrell-Taylor: Montreal, Quebec, Canada, Nevado Resources Corp., May 23. (Accessed June 20, 2012, at http://204.61.223.114/~nevadore/uploads/news/Nevado_LaBlacheResourceEstimateANG.pdf.)

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

(Kilograms, contained vanadium)

	2011 ^p		2012					
	Consumption	Stocks	March		April		January–April	
			Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovandium ²	4,040,000	103,000	340,000 ^r	174,000 ^r	339,000	167,000	1,360,000	167,000
Vanadium-aluminum alloy and other forms ³	869,000	62,300	65,600	69,700	74,100	61,100	273,000	61,100
Total	4,910,000	165,000	406,000 ^r	244,000 ^r	413,000	228,000	1,630,000	228,000

^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		
		March	April	January–April
Steel:				
Carbon	677,000	57,600	62,100	238,000
High-strength low-alloy	W	W	W	W
Stainless and heat-resisting	61,500	5,120	5,120	20,500
Full alloy	2,060,000	174,000 ^r	169,000	686,000
Tool	W	W	W	W
Total steel	2,800,000	236,000 ^r	236,000	944,000
Superalloys	12,400	492 ^r	570	2,010
Miscellaneous and unspecified ²	W	W	W	W
Total	4,910,000	406,000 ^r	413,000	1,630,000

^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:				
March	--	--	14,700	480,000
April:				
China	2,890	18,200	--	--
Germany	--	--	9,340	303,000
Total	2,890	18,200	9,340	303,000
January–April	61,500	443,000	33,400	1,100,000
Exports:				
2011	10,600,000	36,700,000	102,000	3,340,000
2012:				
March	1,510,000	4,230,000	--	--
April:				
Australia	370	4,810	--	--
Brazil	992	12,900	--	--
Canada	459,000	1,210,000	--	--
Germany	--	--	104	4,010
Mexico	1,520,000	4,140,000	--	--
Philippines	594	7,990	--	--
United Kingdom	29,200	550,000	79	3,050
Total	2,010,000	5,920,000	183	7,060
January–April	6,760,000	20,100,000	564	21,700

-- 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:						
March	315,000	7,770,000	162,000	3,150,000	68,100	859,000
April:						
Austria	22,400	599,000	14,700	187,000	--	--
Canada	50,500	1,540,000	--	--	--	--
China	--	--	36,000	565,000	--	--
Czech Republic	212,000	5,020,000	--	--	--	--
Korea, Republic of	238,000	6,720,000	--	--	--	--
South Africa	--	--	19,900	280,000	139,000	1,680,000
Thailand	--	--	8,830	245,000	--	--
Total	523,000	13,900,000	79,500	1,280,000	139,000	1,680,000
January–April	1,530,000	39,400,000	409,000	7,760,000	433,000	5,610,000
Exports:						
2011	444,000	9,970,000	88,700	1,410,000	254,000	2,390,000
2012:						
March	62,600	1,780,000	4,100	43,900	11,700	161,000
April:						
Canada	21,500	577,000	--	--	--	--
China	--	--	--	--	809	7,200
Korea, Republic of	556	13,900	--	--	--	--
Mexico	--	--	415	12,700	--	--
Total	22,100	591,000	415	12,700	809	7,200
January–April	174,000	4,310,000	5,120	74,300	49,600	580,000

-- 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:						
March	175,000	497,000	--	--	98,300	23,700
April:						
Canada	86,000	230,000	--	--	8,050,000	1,750,000
Germany	--	--	--	--	29,100	4,970
Italy	--	--	--	--	41,700	50,100
Total	86,000	230,000	--	--	8,120,000	1,800,000
January–April	440,000	1,120,000	49,600	126,000	8,610,000	1,950,000

-- 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:				
March	--	--	18,600	467,000
April:				
China	18	3,840	6,630	209,000
Germany	--	--	364	32,100
South Africa	--	--	11,700	176,000
Total	18	3,840	18,700	417,000
January-April	7,250	91,500	77,200	1,830,000

-- Zero.

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

Source: U.S. Census Bureau.