

Mineral Industry Surveys

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VANADIUM IN NOVEMBER 2008

Reported domestic consumption of vanadium in November 2008 was about 5% more than that of the previous month, and was about 26% more than that of November 2007, according to the U.S. Geological Survey. Consumer stocks of vanadium, in all forms, were 295 metric tons (t) at the beginning of 2008 and 327 t at the end of November.

According to Ryan's Notes (2008), U.S. ferrovanadium (FeV) prices ranged from \$19.643 to \$20.857 per pound of vanadium content in November, as compared with \$27.167 to \$28.389 in October. European FeV prices ranged from \$34.000 to \$36.000 per kilogram in November, as compared with \$53.500 to \$55.333 in October. Vanadium pentoxide (V₂O₅) prices ranged from \$8.400 to \$8.857 per pound in November, as compared with \$11.867 to \$12.722 in October.

Highveld Steel and Vanadium Corp. Ltd. reported record earnings for the first 3 quarters of 2008, owing largely to price increases in steel and vanadium products. However, Highveld announced that such earnings could not be sustained for the last quarter of 2008, because of significant reduction in demand. Therefore, Highveld was expected to reduce production to reflect the current level of demand (Metals Place, 2008).

References Cited

Metals Place, 2008, Hiveld [sic] puts the brakes on: Metals Place. (Accessed April 29, 2009, via <http://www.metalsplace.com>.)
Ryan's Notes, 2008, [untitled]: Ryan's Notes, v. 14, no. 48, December 3, p. 12.

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

(Kilograms, contained vanadium)

	2007		2008					
			October		November		Year to date	
	Consumption	Stocks	Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovandium ²	3,320,000	253,000	319,000	250,000	351,000	240,000	3,920,000	240,000
Vanadium-aluminum alloy	W	W	W	W	W	W	W	W
Other ³	809,000	42,400	63,500	65,100	51,200	87,700	770,000	87,700
Total	4,130,000	295,000	383,000	315,000	402,000	327,000	4,690,000	327,000

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)

	2007	2008		
		October	November	Year to date
Steel:				
Carbon	882,000	55,700	56,800	715,000
High-strength low-alloy	1,270,000	132,000	132,000	1,450,000
Stainless and heat-resisting	61,400	5,110	5,110	111,000
Full alloy	1,180,000	166,000	167,000	1,900,000
Tool	420,000	5,220	34,700	232,000
Total steel	3,810,000	364,000	396,000	4,420,000
Superalloys	7,180	396	391	4,880
Miscellaneous and unspecified ²	314,000	17,800	5,560	267,000
Total consumption	4,130,000	383,000	402,000	4,690,000

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:				
2007	1,110,000	\$2,110,000	3,620	\$198,000
2008:				
September, Greece	142,000	659,000	--	--
October, Greece	19,500	92,200	--	--
Year to date	553,000	2,450,000	3,880	307,000
Exports:				
2007	21,100,000	72,700,000	49,400	2,690,000
2008:				
September	2,420,000	8,820,000	--	--
October:				
Australia	7,970	177,000	--	--
Barbados	790	23,200	--	--
Canada	410,000	1,180,000	678	19,500
France	1,140	19,700	--	--
Germany	7,070	208,000	--	--
Japan	27,000	794,000	13,200	903,000
Mexico	1,630,000	5,100,000	--	--
Netherlands	814	23,900	--	--
Singapore	727	21,400	--	--
Total	2,080,000	7,550,000	13,800	923,000
Year to date	19,200,000	67,300,000	41,500	2,820,000

-- 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:						
2007	2,220,000	\$81,300,000	2,390,000	\$46,800,000	41,900	\$1,400,000
2008:						
September	198,000	12,300,000	495,000	16,100,000	12,900	633,000
October:						
Austria	15,900	1,050,000	--	--	--	--
Canada	57,100	3,790,000	--	--	--	--
China	--	--	34,900	2,020,000	--	--
Germany	182	15,700	--	--	--	--
India	750	75,000	--	--	--	--
Japan	5,850	265,000	7,900	131,000	--	--
Korea, Republic of	96,500	5,490,000	--	--	--	--
Russia	--	--	--	--	--	--
South Africa	--	--	100,000	4,390,000	--	--
Taiwan	--	--	--	--	--	--
United Kingdom	--	--	--	--	--	--
Total	176,000	10,700,000	143,000	6,540,000	--	--
Year to date	2,620,000	148,000,000	3,420,000	107,000,000	135,000	3,810,000
Exports:						
2007	206,000	5,810,000	327,000	5,460,000	626,000	7,530,000
2008:						
September	35,100	1,890,000	14,900	286,000	93,200	830,000
October:						
Brazil	--	--	--	--	2,720	39,000
Canada	38,800	1,720,000	--	--	--	--
Germany	--	--	--	--	2,890	25,800
Italy	--	--	--	--	--	--
Japan	--	--	--	--	--	--
Korea, Republic of	2,330	77,600	--	--	--	--
Mexico	--	--	--	--	--	--
Netherlands	--	--	--	--	9,240	155,000
Russia	--	--	--	--	182,000	1,620,000
Saudi Arabia	--	--	--	--	464	4,130
Total	41,200	1,800,000	--	--	197,000	1,850,000
Year to date	263,000	11,800,000	217,000	5,100,000	1,020,000	11,100,000

-- 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
2007	1,000,000	\$9,960,000	641,000	\$913,000
2008:				
September	92,200	2,160,000	118,000	116,000
October:				
Canada	--	--	43,500	38,300
Mexico	218,000	5,730,000	--	--
Total	218,000	5,730,000	43,500	38,300
Year to date	761,000	13,400,000	548,000	748,000

-- 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
2007	80,200	\$783,000	211,000	\$3,550,000
2008:				
September	101	11,200	11,100	350,000
October, India	18	4,160	5	14,400
Year to date	154	63,900	186,000	4,220,000

-- Zero.

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

Source: U.S. Census Bureau.