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Mineral Industry Surveys

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VANADIUM IN JANUARY 2008

Reported domestic consumption of vanadium in January 2008 was about 17% more than that of the revised figure for the previous month, and was about 23% more than that of January 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 272 t at the end of January.

According to Ryan's Notes (2008b), U.S. ferrovanadium (FeV) prices ranged from $19.625 to $20.375 per pound of vanadium content in January, as compared with $18.321 to $18.821 in December. European FeV prices ranged from $39.688 to $41.125 per kilogram in January, as compared with $36.000 to $37.000 in December. Vanadium pentoxide (V_2O_5) prices ranged from $8.013 to $8.288 per pound in January, as compared with $7.200 to $7.586 in December.

South African FeV producers Highveld Steel and Vanadium Corp. Ltd. and Xstrata Alloys expected to be without power for several weeks after South African power producer Eskom Holdings announced power interruptions. European traders raised FeV prices to $44 per kilogram in anticipation of supply shortages. The European Commission (EC) further extended the deadline to April 20, 2008, for Evraz Group S.A. to sell the vanadium assets of Highveld, including Vanchem, a 50% interest in South Africa Japan Vanadium, and an equity interest in the Mapochs iron ore mine, South Africa. Evraz agreed to the EC condition in the summer of 2007 in order to complete the takeover of Highveld Steel (Ryan's Notes, 2008a).

References Cited

Ryan's Notes, 2008a, Ferroalloy notes: Ryan's Notes, v. 14, no. 4, January 28, p. 6.
Ryan's Notes, 2008b, [untitled]: Ryan's Notes, v. 14, no. 5, February 4, p. 10.

TABLE 1
U.S. CONSUMPTION AND CONSUMER STOCKS OF VANADIUM, BY FORM[1]

(Kilograms, contained vanadium)

	2006		2007 December		2007 January-December		2008 January	
	Consumption	Stocks	Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovanadium[2]	3,410,000	275,000	273,000 r	253,000 r	3,320,000 r	253,000 r	348,000	235,000
Vanadium-aluminum alloy	W	W	W	W	W	W	W	W
Other[3]	618,000	55,000	77,600 r	42,400 r	809,000 r	42,400 r	63,600	36,800
Total	4,030,000	330,000	350,000 r	295,000 r	4,130,000 r	295,000 r	412,000	272,000

rRevised. W Withheld to avoid disclosing company proprietary data; included with "Other."

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

[2]Includes other vanadium-iron-carbon alloys as well as vanadium oxides added directly to steel.

[3]Includes 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 USE[1]

(Kilograms, contained vanadium)

	2006	2007 December	2007 January-December	2008 January
Steel:				
Carbon	1,210,000	53,500 r	882,000 r	54,100
High-strength low-alloy	1,020,000	132,000 r	1,270,000 r	132,000
Stainless and heat-resisting	61,400	5,110 r	61,400 r	5,110
Full alloy	1,030,000	106,000 r	1,180,000 r	181,000
Tool	323,000	21,400 r	420,000 r	21,400
Total steel	3,650,000	318,000 r	3,810,000 r	393,000
Superalloys	39,500	513 r	7,180 r	406
Miscellaneous and unspecified[2]	335,000	31,800 r	314,000 r	18,000
Grand total	4,030,000	350,000 r	4,130,000 r	412,000

rRevised.

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

[2]Includes 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 SCRAP[1]

(Kilograms, gross weight)

	Aluminum-vanadium master alloy		Vanadium metal, including waste and scrap	
	Quantity	Value	Quantity	Value
Imports for consumption:				
2006	102,000	$312,000	122,000	$5,280,000
2007:				
October	--	--	823	107,000
November	236,000	625,000	263	48,000
December:				
Romania	56,400	281,000	--	--
United Kingdom	2,370	22,400	--	--
Total	58,800	304,000	--	--
Year to date	1,110,000	2,110,000	3,620	198,000
Exports:				
2006	17,000,000	54,500,000		
2007:				
October	1,910,000	5,730,000	--	--
November	2,070,000	6,060,000	7,840	832,000
December:				
Belgium	39,900	519,000	--	--
Canada	394,000	1,090,000	342	11,700
Japan	44,000	572,000	--	--
Mexico	349,000	2,270,000	--	--
Sri Lanka	263	3,410	--	--
Total	828,000	4,450,000	342	11,700
Year to date	21,100,000	72,700,000	49,400	2,690,000

-- Zero.

[1]Data 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 VANADIUM[1]

(Kilograms, contained vanadium)

	Ferrovanadium		Vanadium pentoxide (anhydride)[2]		Other oxides and hydroxides of vanadium	
	Quantity	Value	Quantity	Value	Quantity	Value
Imports for consumption:						
2006	2,140,000	$90,500,000	1,920,000	$45,200,000	129,000	$3,370,000
2007:						
October	137,000	5,240,000	223,000	4,170,000	13,900	446,000
November	188,000	7,210,000	221,000	4,700,000	--	--
December:						
Austria	16,000	637,000	--	--	--	--
Brazil	16,000	532,000	--	--	--	--
Canada	15,200	548,000	--	--	--	--
China	--	--	39,000	585,000	--	--
Czech Republic	32,300	1,330,000	--	--	--	--
Germany	268	24,400	--	--	5,480	262,000
Korea, Republic of	90,100	3,290,000	--	--	--	--
Russia	--	--	94,500	1,350,000	--	--
South Africa	--	--	39,400	651,000	--	--
Taiwan	15,700	584,000	--	--	--	--
Total	186,000	6,950,000	173,000	2,580,000	5,480	262,000
January-December	2,220,000	81,300,000	2,390,000	46,800,000	41,900	1,400,000
Exports:						
2006	389,000	11,400,000	341,000	7,150,000	832,000	7,780,000
2007:						
October	15,400	518,000	8,380	274,000	115,000	1,770,000
November	7,740	355,000	9,220	110,000	27,400	309,000
December:						
Canada	10,000	438,000	--	--	1,450	12,900
Italy	--	--	14,400	265,000	--	--
Mexico	--	--	1,000	26,200	--	--
Netherlands	--	--	20	2,600	--	--
Russia	--	--	20,600	364,000	45,700	407,000
Saudia Arabia	--	--	3,250	64,400	--	--
Total	10,000	438,000	39,300	722,000	47,100	420,000
January-December[3]	154,000	5,810,000	327,000	5,460,000	626,000	7,530,000

-- Zero.

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

[2]May include catalysts containing vanadium pentoxide.

[3]May include revisions to previous months data.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF VANADIUM-BEARING ASH, SLAG[1]

(Kilograms, contained vanadium pentoxide)

	Ash and residues		Ash and residues (not from the manufacture of iron and steel)	
	Quantity	Value	Quantity	Value
2006	637,000	$7,320,000	1,140,000	$1,130,000
2007:				
October	114,000	1,320,000	51,200	87,600
November	14,600	92,200	54,300	75,100
December				
Canada	--	--	9,740	8,590
Mexico	102,000	945,000	--	--
Total	102,000	945,000	9,740	8,590
January-December	1,000,000	9,960,000	641,000	913,000

-- Zero.

[1]Data 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 CHEMICALS[1]

(Kilograms, contained vanadium)

	Sulfates		Vanadates	
	Quantity	Value	Quantity	Value
2006	16	$26,700	115,000	$3,330,000
2007:				
October	2	11,100	66,500	582,000
November	--	--	200,000	3,380,000
December, South Africa	--	--	11,000	179,000
January-December	80,200	783,000	211,000	3,550,000

-- Zero.

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

Source: U.S. Census Bureau.