

Mineral Industry Surveys

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VANADIUM IN OCTOBER 2008

Reported domestic consumption of vanadium in October 2008 was about 10% less than that of the previous month, and was about 17% more than that of October 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 315 t at the end of October.

According to Ryan's Notes (2008), U.S. ferrovanadium (FeV) prices ranged from \$27.167 to \$28.389 per pound of vanadium content in October, as compared with \$30.694 to \$31.667 in September. European FeV prices ranged from \$53.500 to \$55.333 per kilogram in October, as compared with \$61.222 to \$63.111 in September. Vanadium pentoxide (V₂O₅) prices ranged from \$11.867 to \$12.722 per pound in October, as compared with \$14.311 to \$14.922 in September.

Rocky Mountain Resources Corp. completed a scoping study on its Gibellini Vanadium Project in Nevada. The base case study considered a 2-million-ton-per-year heap leach operation with a 9.5-year mine life producing approximately 8.4 million pounds of V₂O₅ per year. A feasibility study to further demonstrate the potential viability of the project to become the sole domestic producer of primary vanadium in North America was expected to be launched shortly, according to the company (Rocky Mountain Resources Corp., undated).

References Cited

Rocky Mountain Resources Corp., [undated], Projects—The Gibellini Property: Rocky Mountain Resources Corp. (Accessed April 10, 2009, at <http://www.rkyresources.com/projects.html>.)
Ryan's Notes, 2008, [untitled]: Ryan's Notes, v. 14, no. 44, November 3, p. 12.

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

(Kilograms, contained vanadium)

	2007		2008					
	Consumption	Stocks	September		October		Year to date	
			Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovandium ²	3,320,000	253,000	348,000	249,000	319,000	250,000	3,570,000	250,000
Vanadium-aluminum alloy	W	W	W	W	W	W	W	W
Other ³	809,000	42,400	77,900	51,300	63,500	65,100	719,000	65,100
Total	4,130,000	295,000	426,000	301,000	383,000	315,000	4,290,000	315,000

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		
		September	October	Year to date
Steel:				
Carbon	882,000	66,100	55,700	659,000
High-strength low-alloy	1,270,000	132,000	132,000	1,320,000
Stainless and heat-resisting	61,400	5,110	5,110	106,000
Full alloy	1,180,000	169,000	166,000	1,740,000
Tool	420,000	21,400	5,220	198,000
Total steel	3,810,000	394,000	364,000	4,020,000
Superalloys	7,180	371	396	4,490
Miscellaneous and unspecified ²	314,000	32,200	17,800	262,000
Total consumption	4,130,000	426,000	383,000	4,290,000

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:				
August	156,000	705,000	3,200	272,000
September, Greece	142,000	659,000	--	--
Year to date	534,000	2,360,000	3,880	307,000
Exports:				
2007	21,100,000	72,700,000	49,400	2,690,000
2008:				
August	2,430,000	9,420,000	--	--
September:				
Australia	30,800	190,000	--	--
Belgium	19,200	565,000	--	--
Canada	718,000	2,370,000	--	--
China	15,800	96,700	--	--
Japan	20,800	613,000	--	--
Mexico	1,620,000	4,940,000	--	--
Singapore	1,540	45,200	--	--
Total	2,420,000	8,820,000	--	--
Year to date	17,100,000	59,800,000	27,600	1,900,000

-- 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:						
August	235,000	15,500,000	434,000	15,400,000	24,000	483,000
September:						
Austria	15,800	1,030,000	4,150	250,000	8,390	549,000
Canada	48,400	2,380,000	--	--	--	--
China	--	--	45,300	2,120,000	--	--
Germany	266	43,500	1,390	71,700	--	--
Korea, Republic of	134,000	8,820,000	--	--	--	--
Russia	--	--	397,000	11,300,000	--	--
South Africa	--	--	40,300	1,870,000	--	--
Taiwan	--	--	7,230	489,000	--	--
United Kingdom	--	--	--	--	4,470	84,100
Total	198,000	12,300,000	495,000	16,100,000	12,900	633,000
Year to date	2,450,000	137,000,000	3,280,000	100,000,000	135,000	3,810,000
Exports:						
2007	206,000	5,810,000	327,000	5,460,000	626,000	7,530,000
2008:						
August	3,130	146,000	17,100	388,000	155,000	1,950,000
September:						
Brazil	--	--	499	19,300	--	--
Canada	24,100	1,300,000	--	--	7,980	71,000
Italy	--	--	14,400	267,000	--	--
Japan	--	--	--	--	1,010	9,010
Mexico	11,000	590,000	--	--	--	--
Russia	--	--	--	--	84,200	750,000
Total	35,100	1,890,000	14,900	286,000	93,200	830,000
Year to date	222,000	10,000,000	217,000	5,100,000	825,000	9,260,000

-- 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:				
August	--	--	47,200	96,800
September:				
Canada	--	--	118,000	116,000
Mexico	92,200	2,160,000	--	--
Total	92,200	2,160,000	118,000	116,000
Year to date	543,000	7,630,000	505,000	710,000

-- 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 CHEMICAL¹

(Kilograms, contained vanadium)

	Sulfates		Vanadates	
	Quantity	Value	Quantity	Value
2007	80,200	\$783,000	211,000	\$3,550,000
2008:				
August	--	--	22,500	725,000
September:				
India	101	11,200	--	--
South Africa	--	--	11,100	350,000
Total	101	11,200	11,100	350,000
Year to date	136	59,700	186,000	4,210,000

-- Zero.

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

Source: U.S. Census Bureau.