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Mineral Industry Surveys

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FLUORSPAR IN THE SECOND QUARTER 2013

Reported fluorspar consumption in the second quarter was 107,000 metric tons (t), a 3% decrease compared with that of the previous quarter and 6% less than that in the second quarter of 2012. Stocks remained high, totaling 256,000 t at the end of the second quarter, a 3% decrease compared with those at the end of the previous quarter. Fluorspar imports in the second quarter were 147,000 t, a 15% decrease compared with those of the previous quarter.

Industry News

Hastie Mining & Trucking Co.'s Klondike II fluorspar mine in Livingston County, KY, has begun limited mine production. Fluorspar ore was being stockpiled until sufficient quantities were accumulated to allow a regular stream of feedstock through the company's heavy media plant. The company intended to produce acid-grade and metallurgical-grade fluorspar and was considering production of fluorspar briquettes (Don Hastie, Hastie Mining & Trucking Co., oral commun., August 28, 2013).

Canada Fluorspar Inc. continued exploration of prospective fluorspar vein deposits in the St. Lawrence area of Newfoundland and Labrador. The company was focusing most of its trenching and drilling activities on the Director and Grebes Nest veins. Available data indicated that ore grades and widths of the ore bodies for the two veins equal or exceed those veins targeted for mining by the Newspar project. The company planned to establish a National Instrument 43-101 compliant resource on the Director and/or Grebes Nest vein by third quarter of 2013 (Canada Fluorspar Inc., 2013).

Vanoil Energy Ltd., a Canadian-based oil and gas company with a portfolio of assets in East Africa, announced it had finalized its acquisition of Fluormin Plc (Vanoil Energy Ltd., 2013). No information was available concerning the company's previously announced plans to dispose of Fluormin's fluorspar assets in South Africa and Tunisia.

Lagging demand by the global fluorochemicals industry has resulted in a decrease in Chinese acidspar prices. According to Industrial Minerals, by the end of the second quarter, China's acidspar prices had fallen by an average of 23% compared with those at yearend 2012. As a result, some Chinese prices were at their lowest levels since early 2011 (Miller, 2013).

Fluorochemical News

Babcock & Wilcox Conversion Services LLC announced that between October 1, 2011, and March 1, 2013, it shipped more than 7.6 million liters of hydrofluoric acid (HF). The company processed depleted uranium hexafluoride (DUF_6) at special treatment facilities constructed at U.S. Government gaseous diffusion plants in Kentucky and Ohio. The process reduces the hazards associated with DUF_6 by converting the DUF_6 to depleted uranium dioxide (UO_2), depleted triuranium octoxide (U_3O_8), and HF. The UO_2 and U_3O_8 are more stable compared with DUF_6 and are acceptable for near-surface disposal at low-level radioactive waste disposal sites. The DUF_6 was a byproduct of uranium enrichment performed at the two gaseous diffusion facilities, which over decades had accumulated 700,000 t of the material. In 1998, Congress mandated (Public Law 105-204) that these materials be converted to a stable chemical form that was acceptable for transportation, beneficial reuse, or disposal. Both conversion plants went online in 2010 and the project was expected to take approximately 25 years (Babcock & Wilcox Conversion Services LLC, 2013; U.S. Department of Energy, [undated]).

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TABLE 1
SALIENT FLUORSPAR STATISTICS[1]

(Metric tons, unless otherwise specified)

	2012				2013		
	2d quarter	3d quarter	4th quarter	1st quarter–4th quarter	1st quarter	2d quarter	1st quarter–2d quarter
Fluorspar:							
Imports for consumption	141,000	189,000	139,000	620,000	172,000	147,000	319,000
Exports	5,350	6,720	5,670	23,800	5,360	3,460	8,810
End of the period stocks, consumer	156,000	171,000	234,000	234,000	264,000	256,000	256,000
Reported consumption	114,000	109,000	65,800	416,000	110,000	107,000	218,000
Other compounds, imports for consumption:							
Aluminum fluoride	11,600	14,500	9,720	50,000	11,700	13,500	25,100
Cryolite	1,800	1,760	2,400	8,140	1,960	3,240	5,200
Hydrofluoric acid	36,500	32,000	29,200	133,000	31,700	30,600	62,300

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

TABLE 2

CONSUMPTION OF FLUORSPAR BY END USE AND ASSAY RANGE[1]
(DOMESTIC AND FOREIGN IN THE UNITED STATES)

(Metric tons)

	Hydrofluoric acid and other uses[2]	Metallurgical	Total	Stocks, end of period[3]
2012:				
2d quarter:				
More than 97% calcium fluoride	99,700	2,990	103,000	139,000
Not more than 97% calcium fluoride	--	11,500	11,500	16,400
Total	99,700	14,500	114,000	156,000
3d quarter:				
More than 97% calcium fluoride	98,000	2,990	101,000	155,000
Not more than 97% calcium fluoride	--	8,250	8,250	16,500
Total	98,000	11,200	109,000	171,000
4th quarter:				
More than 97% calcium fluoride	55,000	2,990	58,000	219,000
Not more than 97% calcium fluoride	--	7,830	7,830	15,100
Total	55,000	10,800	65,800	234,000
1st quarter–4th quarter	368,000	47,800	416,000	234,000
2013:				
1st quarter:				
More than 97% calcium fluoride	99,200	2,990	102,000	248,000
Not more than 97% calcium fluoride	--	8,280	8,280	16,000
Total	99,200	11,300	110,000	264,000
2d quarter:				
More than 97% calcium fluoride	96,400	2,990	99,400	237,000
Not more than 97% calcium fluoride	--	7,840	7,840	18,900
Total	96,400	10,800	107,000	256,000
1st quarter–2d quarter	196,000	22,100	218,000	256,000

-- Zero.

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

[2]May include cement, enamel, glass and fiberglass, steel castings, hydrofluoric acid, and welding rod coatings.

[3]Stocks include some distributor stocks and consumer stocks for hydrofluoric acid.

TABLE 3

U.S. IMPORTS FOR CONSUMPTION OF FLUORSPAR, BY COUNTRY AND VALUE[1, 2]

	2012						2013					
	2d quarter		3d quarter		4th quarter		1st quarter		2d quarter		1st quarter–2d quarter	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Containing more than 97% calcium fluoride:												
China	3,740	$1,850	31,200	$15,000	17,400	$8,600	8,870	$4,640	22	$28	8,890	$4,670
Mexico	85,300	20,400	91,500	19,300	61,600	13,800	121,000	22,500	76,900	16,700	198,000	39,200
Mongolia	--	--	9,910	4,890	--	--	12,000	5,220	13,000	5,960	25,000	11,200
South Africa	12,100	3,280	5,320	1,940	19,200	7,040	6,870	3,100	10,600	4,420	17,500	7,520
Spain	12,000	4,440	--	--	--	--	--	--	--	--	--	--
United Kingdom	2	7	275	145	2	8	2	8	22	8	24	16
Total	113,000	29,900	138,000	41,200	98,200	29,400	149,000	35,400	101,000	27,100	249,000	62,600
Containing not more than 97% calcium fluoride:												
China	--	--	--	--	262	28	--	--	--	--	--	--
Mexico	27,900	2,750	51,200	4,920	39,100	3,740	20,700	2,060	45,600	4,690	66,400	6,750
Mongolia	--	--	--	--	1,050	98	2,640	251	432	47	3,070	298
Total	27,900	2,750	51,200	4,920	40,400	3,870	23,400	2,310	46,100	4,740	69,400	7,050
Grand total	141,000	32,700	189,000	46,100	139,000	33,300	172,000	37,700	147,000	31,900	319,000	69,600

-- Zero.

[1]Imports for consumption include imports of immediate entry and warehouse withdrawals.

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

Source: U.S. Census Bureau.

TABLE 4
IMPORTS FOR CONSUMPTION OF HYDROFLUORIC ACID[1]

	2012						2013					
	2d quarter		3d quarter		4th quarter		1st quarter		2d quarter		1st quarter–2d quarter	
	Quantity (metric tons)	Value[2] (thousands)	Quantity (metric tons)	Value[2] (thousands)	Quantity (metric tons)	Value[2] (thousands)	Quantity (metric tons)	Value[2] (thousands)	Quantity (metric tons)	Value[2] (thousands)	Quantity (metric tons)	Value[2] (thousands)
Canada	3,220	$9,530	1,480	$4,990	1,500	$5,080	2,010	$5,940	2,620	$7,510	4,640	$13,400
China	1,980	2,860	1,560	2,230	1,270	1,610	1,340	1,770	1,290	1,740	2,630	3,510
Germany	37	122	72	172	37	117	74	196	146	380	220	576
Japan	316	753	388	922	377	922	283	678	332	730	615	1,410
Mexico	30,800	50,900	28,400	47,200	25,900	42,500	27,800	43,500	26,100	40,900	53,900	84,400
Spain	38	117	19	58	38	116	57	145	38	113	95	258
Other	66	216	58	138	101	322	64	212	58	177	122	389
Total	36,500	64,500	32,000	55,700	29,200	50,600	31,700	52,500	30,600	51,600	62,300	104,000

[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Cost, insurance, and freight at U.S. ports.

Source: U.S. Census Bureau.

TABLE 5
END OF QUARTER FLUORSPAR PRICES

(Dollars per metric ton)

	2012			2013	
	2d quarter	3d quarter	4th quarter	1st quarter	2d quarter
Acidspar:					
Chinese, dry basis, cost, insurance, and freight, Gulf port, filtercake	480–600	480–600	480–600	480–530	480–530
Chinese, free on board (f.o.b.) China, wet filtercake	450–500	420–440	400–415	400–415	350–370
Mexican, f.o.b. Tampico, filtercake	400–450	400–450	400–450	400–450	350
Mexican, f.o.b. Tampico, arsenic <5 parts per million	540–550	540–550	540–550	540–550	450
South African, f.o.b. Durban, filtercake	380–450	380–450	380–450	380–450	380–450
Metspar, Mexican, f.o.b. Tampico	230–270	230–270	230–270	230–270	230–270

Source: Industrial Minerals magazine (London).