

Mineral Industry Surveys

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FLUORSPAR IN THE THIRD QUARTER 2013

Reported fluorspar consumption in the third quarter was 118,000 metric tons (t), a 10% increase compared with that of the previous quarter and 8% more than that in the third quarter of 2012. Stocks totaled 287,000 t at the end of the third quarter, a 12% increase compared with those at the end of the previous quarter. Fluorspar imports in the third quarter were 190,000 t, a 29% increase compared with those of the previous quarter. Cryolite imports increased by 208% compared with those of the previous quarter. Based on the average unit import value, most of the increase was likely recycled cryolite (also termed crushed bath or bath cryolite) from the aluminum industry. Aluminum smelters generate excess cryolite, which is collected, crushed, and reused in aluminum smelters to start up new pots or to compensate for electrolyte losses.

Industry News

Tertiary Minerals plc announced results of the phase 1 drilling program on its MB fluorspar project in Eureka County, NV. The objective of the phase 1 short drilling program was to establish the most cost-effective drilling technique, test suitable analytical techniques for fluorine, and to collect diamond drill core for use in preliminary metallurgical testing. Phase 1 comprised two pair of drill holes at separate locations. Company reported highlights indicated one hole that hit zones of fluorspar grading 10.5% to 14.6% calcium fluoride (CaF₂) with the another hole hitting zones of

fluorspar grading 12.4% to 26.1% CaF₂. In addition, one hole identified significant intervals of zinc, tungsten, and beryllium mineralization (Tertiary Minerals plc, 2013). Tertiary Minerals is exploring a large low-grade fluorspar deposit in Nevada, which was drilled previously in the 1960s and early 1970s.

Byron Capital Markets Ltd. released a report analyzing acid-grade fluorspar prices. The report discussed historical prices, industry background, demand, supply, and a price outlook. The outlook is for prices to soften in the medium term as a result of increasing supply, but for prices to trend upward in the longer term driven by increasing demand. The forecast date extends to the year 2020. The report can be accessed via the Web address cited in the references cited section below (Klein, 2013).

References Cited

- Klein, Greg, 2013, Fluorspar set for steady price increases after 2015, says Byron Capital Markets: Resource clips, News archive, August 6. (Accessed December 16, 2013, via <http://resourceclips.com/2013/08/06/byron-capital-markets-issues-fluorspar-report/>).
- Tertiary Minerals plc, 2013, MB fluorspar project—Phase 1 drilling results: Macclesfield, United Kingdom, Tertiary Minerals plc AIM announcement, September 11, 3 p. (Accessed December 9, 2013, at [http://www.tertiaryminerals.com/uploads/Tertiary Minerals plc RNS MB Fluorspar Project Update 11 Sept 2013.pdf](http://www.tertiaryminerals.com/uploads/Tertiary%20Minerals%20plc%20RNS%20MB%20Fluorspar%20Project%20Update%2011%20Sept%202013.pdf)).

TABLE 1
SALIENT FLUORSPAR STATISTICS¹

(Metric tons, unless otherwise specified)

	2012			2013			
	3d quarter	4th quarter	1st quarter– 4th quarter	1st quarter	2d quarter	3d quarter	1st quarter– 3d quarter
Fluorspar:							
Imports for consumption	189,000	139,000	620,000	172,000	147,000	190,000	508,000
Exports	6,720	5,670	23,800	5,360	3,460	3,480	12,300
End of the period stocks, consumer	171,000	234,000	234,000	264,000	256,000	287,000	287,000
Reported consumption	109,000	65,800	416,000	110,000	107,000	118,000	336,000
Other compounds, imports for consumption:							
Aluminum fluoride	14,500	9,720	50,000	11,700	13,500	10,800	35,900
Cryolite	1,760	2,400	8,140	1,960	3,240	9,970	15,200
Hydrofluoric acid	32,000	29,200	133,000	31,700	30,600	31,700	94,000

¹Data 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 RANGE¹
 (DOMESTIC AND FOREIGN IN THE UNITED STATES)

(Metric tons)

	Hydrofluoric acid and other uses ²	Metallurgical	Total	Stocks, end of period ³
2012:				
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
3d quarter:				
More than 97% calcium fluoride	107,000	2,990	110,000	269,000
Not more than 97% calcium fluoride	--	7,950	7,950	18,700
Total	107,000	10,900	118,000	287,000
1st quarter–3d quarter	303,000	33,100	336,000	287,000

-- Zero.

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

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

³Stocks 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							
	3d quarter		4th quarter		1st quarter		2d quarter		3d quarter		1st quarter-3d quarter	
	Quantity (metric tons)	Value (thousands)										
Containing more than 97% calcium fluoride:												
China	31,200	\$15,000	17,400	\$8,600	8,870	\$4,640	22	\$28	37,400	\$14,400	46,300	\$19,100
Germany	--	--	--	--	--	--	--	--	26	16	26	16
Mexico	91,500	19,300	61,600	13,800	121,000	22,500	76,900	16,700	96,300	18,700	294,000	57,900
Mongolia	9,910	4,890	--	--	12,000	5,220	13,000	5,960	13,200	5,090	38,200	16,300
South Africa	5,320	1,940	19,200	7,040	6,870	3,100	10,600	4,420	13,100	4,130	30,600	11,600
United Kingdom	275	145	2	8	2	8	22	8	249	132	273	148
Total	138,000	41,200	98,200	29,400	149,000	35,400	101,000	27,100	160,000	42,500	410,000	105,000
Containing not more than 97% calcium fluoride:												
China	--	--	262	28	--	--	--	--	--	--	--	--
Mexico	51,200	4,920	39,100	3,740	20,700	2,060	45,600	4,690	29,000	2,790	95,400	9,530
Mongolia	--	--	1,050	98	2,640	251	432	47	432	40	3,500	338
Total	51,200	4,920	40,400	3,870	23,400	2,310	46,100	4,740	29,500	2,830	98,900	9,870
Grand total	189,000	46,100	139,000	33,300	172,000	37,700	147,000	31,900	190,000	45,300	508,000	115,000

-- Zero.

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

²Data 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 ACID¹

	2012				2013							
	3d quarter		4th quarter		1st quarter		2d quarter		3d quarter		1st quarter–3d quarter	
	Quantity (metric tons)	Value ² (thousands)										
Canada	1,480	\$4,990	1,500	\$5,080	2,010	\$5,940	2,620	\$7,510	2,680	\$7,230	7,320	\$20,700
China	1,560	2,230	1,270	1,610	1,340	1,770	1,290	1,740	1,190	1,550	3,820	5,070
Germany	72	172	37	117	74	196	146	380	250	629	470	1,210
Japan	388	922	377	922	283	678	332	730	350	680	965	2,090
Mexico	28,400	47,200	25,900	42,500	27,800	43,500	26,100	40,900	27,200	42,400	81,200	127,000
Spain	19	58	38	116	57	145	38	113	38	113	133	371
Other	58	138	101	322	64	212	58	177	23	57	145	446
Total	32,000	55,700	29,200	50,600	31,700	52,500	30,600	51,600	31,700	52,700	94,000	157,000

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

²Cost, 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		
	3d quarter	4th quarter	1st quarter	2d quarter	3d quarter
Acidspar:					
Chinese, dry basis, cost, insurance, and freight, Gulf port, filtercake	480–600	480–600	480–530	480–530	480–530
Chinese, free on board (f.o.b.) China, wet filtercake	420–440	400–415	400–415	350–370	290–320
Mexican, f.o.b. Tampico, filtercake	400–450	400–450	400–450	350	350
Mexican, f.o.b. Tampico, arsenic <5 parts per million	540–550	540–550	540–550	450	540–550
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).