

Mineral Industry Surveys

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SULFUR IN SEPTEMBER 2012

During September 2012, production of recovered elemental sulfur was 689,000 metric tons (t), which was 6% less than that of August 2012 and slightly more than that of September 2011. Shipments were 695,000 t, which was 5% less than those of August 2012. Producers' ending stocks for September 2012 were 142,000 t.

Imports of recovered sulfur for September 2012 were estimated to be 233,000 t; exports were 192,000 t. Imports of sulfuric acid for September 2012 were 232,000 t; exports were 17,000 t.

U.S. sulfur consumption, calculated as shipments minus exports plus imports, was 736,000 t in September 2012. This was about 11% less than that of August 2012 and about 6% less than that of September 2011.

Significant adjustments have been made to the sulfur import data. The U.S. Census Bureau appears to underreport sulfur imports, especially material from Canada. The revised figures are based on Census information and data from personal communications with industry experts.

TABLE 1
SALIENT SULFUR STATISTICS¹

(Thousand metric tons)

Period	Production			Shipments, all sources	Stocks, end of period ³
	Petroleum ²	Natural gas	Total		
2011:					
January–December	7,080	1,130	8,210	8,190	176
January–September	5,240	846 ^r	6,080 ^r	6,070	156
September	586	93	678	676	156
October	602	86	688	687	161
November	590	94	684	689	157
December	656	101	756	738	176
2012:					
January	584	98	682	696	161
February	564	97	661	661	162
March	585	96	681	693	151
April	573	96	668	683	137
May	636	87	724	720	143
June	616	76	692	678	158
July	671	95	766	771	152
August	635	98	734	730 ^r	152
September ^p	606	83	689	695	142
January–September	5,470	827	6,300	6,330	142

^pPreliminary. ^rRevised.

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

²Includes a small quantity from coking operations.

³Subject to inventory adjustments.

TABLE 2
U.S. IMPORTS OF SULFUR¹

(Thousand metric tons and thousand dollars)

Period	Canada		Mexico		Venezuela		Total, all countries ²	
	Quantity ^e	Value ³	Quantity	Value ³	Quantity ^e	Value ³	Quantity ^e	Value ³
2011:								
January–December	2,700	188,000	303	54,500	99	16,400	3,270	301,000
January–September	2,020	140,000	231	40,800	69	12,000	2,490	235,000
September	230	15,600	29	5,400	8	1,510	267	22,900
October	230	16,300	14	3,240	--	--	245	19,800
November	220	13,700	29	5,420	10	1,370	259	20,800
December	230	17,600	29	5,010	20	2,970	279	25,800
2012:								
January	240	13,700	29	5,230	--	--	269	19,200
February	220	12,800	29	3,930	13	1,820	263	18,900
March	240	15,400	29	3,410	12	1,610	281	20,700
April	190 ^r	12,300	49	7,990	13	1,790	252 ^r	22,300
May	200 ^r	13,100	43	6,260	10	1,360	253 ^r	21,000
June	190 ^r	15,800	35	5,980	--	--	225 ^r	22,200
July	190 ^r	13,400	16	4,350	20	839	226 ^r	18,800
August	190 ^r	13,800	30	4,590	20	3,310	241 ^r	22,100
September	190	12,100	30	3,920	12	1,620	233	17,800
January–September	1,850	122,000	290	45,700	100	12,300	2,240	183,000

^eEstimated. ^rRevised. -- Zero.

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

²May include other countries not listed.

³Declared customs valuation.

Sources: U.S. Census Bureau data as adjusted by U.S. Geological Survey and ICIS PentaSul North America Sulphur Service.

TABLE 3
U.S. IMPORTS OF SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Canada			Mexico			Total, all countries ²		
	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³
2011:									
January–December	1,820	596	158,000	433	142	29,400	2,670	871	244,000
January–September	1,310	429 ^r	109,000	324	106 ^r	22,000	1,990	651	182,000
September	141	46	15,600	30	10	2,130	175	57	19,600
October	179	59	17,600	35	11	2,440	230	75	21,600
November	155	51	14,600	31	10	2,180	188	61	17,100
December	178	58	16,900	43	14	2,860	257	84	23,200
2012:									
January	192	63	16,600	32	10	2,320	291	95	26,500
February	146	48	12,300	39	13	2,870	203	66	17,800
March	167	55	14,000	47	15	3,540	272	89	22,400
April	169	55	13,400	37	12	2,670	225	74	19,600
May	156	51	11,500	37	12	2,740	203	66	16,800
June	162	53	11,800	37	12	2,660	239	78	19,500
July	179	59	13,300	45	15	3,090	241	79	19,900
August	166	54	12,500	34	11	2,350	228	75	17,900
September	151	49	12,000	31	10	2,130	232	76	19,000
January–September	1,490	487	117,000	339	110	24,400	2,130	698	179,000

^rRevised.

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

²May include other countries not listed.

³Declared customs valuation.

Source: U.S. Census Bureau.

TABLE 4
U.S. EXPORTS OF SULFUR AND SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Sulfur		Sulfuric acid		
	Quantity	Value ²	Quantity	Sulfur content	Value ²
2011:					
January–December	1,310	266,000	332	109	41,500
January–September	1,020	198,000	285	93	32,100
September	160	30,100	24	8	3,740
October	79	17,900	11	4	1,830
November	117	26,500	23	8	5,510
December	90	23,400	13	4	2,080
2012:					
January	155	32,900	15	5	2,760
February	66	11,000	10	3	2,030
March	216	60,200	10	3	1,950
April	89	17,800	11	4	2,410
May	178	33,800	15	5	2,850
June	190	33,700	11	4	2,530
July	111	20,900	24	8	4,810
August	141	26,000	11	4	2,480
September	192	38,600	17	6	2,830
January–September	1,340	275,000	124	42	24,600

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

²Declared f.a.s. (free alongside ship) valuation.

Source: U.S. Census Bureau.

TABLE 5
U.S. CONSUMPTION OF SULFUR¹

(Thousand metric tons)

Period	Domestic sources ²	Imports ^e	Consumption
2011:			
January–December	6,880	3,270	10,100
January–September	5,050 ^r	2,490	7,540 ^r
September	516	267	783
October	608	245	853
November	572	259	831
December	648	279	927
2012:			
January	541	269	810
February	595	263	858
March	477	281	758
April	594	252 ^r	846 ^r
May	542	253 ^r	795 ^r
June	488	225 ^r	713 ^r
July	660	226 ^r	886 ^r
August ^f	589	241	830
September	503 ^p	233	736
January–September	4,990	2,240	7,230

^eEstimated. ^pPreliminary. ^rRevised.

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

²Calculated as shipments minus exports.

TABLE 6
RECOVERED SULFUR PRODUCED AND SHIPPED IN THE UNITED STATES,
BY PAD (PETROLEUM ADMINISTRATION FOR DEFENSE) DISTRICT¹

(Thousand metric tons)

District and source	January–September 2011 ²		August 2012		September 2012 ^p		January–September 2012 ^{p, 2}	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	50	50	16	17	16	15	89	92
Natural gas	10	10	1	1	1	1	10	10
Total	59	60	17	18	17	17	99	102
PAD 2:								
Petroleum and coke	746	759	89	91	81	81	804	804
Natural gas	16	16	1	1	1	1	13	13
Total	762	775	90	92	82	83	817	817
PAD 3: ³								
Petroleum and coke	3,490	3,470	415	411	409	415	3,600	3,630
Natural gas	345	347	39	36	37	33	342	328
Total	3,840	3,810	454	446	446	448	3,940	3,960
PAD 4 and 5:								
Petroleum and coke	949	952	116	118	100	102	976	984
Natural gas	473	476	57	55 ^r	44	46	462	465
Total	1,420	1,430	173	173 ^r	144	148	1,440	1,450
Grand total	6,080	6,070	734	730 ^r	689	695	6,300	6,330

^pPreliminary. ^rRevised.

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

²May include revisions to previously published data.

³Includes the U.S. Virgin Islands.

TABLE 7
COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS¹

(Million metric tons per year [annualized basis] and dollars per metric ton for period shown)

	2011	2012		
		August	September	Total
Production	8.21	8.64	8.38 ^P	8.39
Shipments	8.19	8.60 ^r	8.46 ^P	8.43
Exports of sulfur	1.31	1.66	2.34	1.78
Imports of sulfur:				
Canada ^e	2.70	2.24 ^r	2.31	2.46
Mexico	0.30	0.35	0.37	0.39
Venezuela ^e	0.10	0.24	0.15	0.13
Total ^{e,2}	3.27	2.84 ^r	2.83	2.99
Exports of H ₂ SO ₄	0.33	0.13	0.21	0.17
Imports of H ₂ SO ₄ :				
Canada	1.82	1.95	1.84	1.98
Mexico	0.43	0.40	0.38	0.45
Total ²	2.67	2.68	2.82	2.84
Consumption:				
Domestic sources	6.88	6.97	6.12	6.65
Imports ^e	3.27	2.84 ^r	2.83	2.99
Total	10.20	9.77 ^r	8.95	9.63
Sulfur export values ³	203	185	201	206
Sulfur import values: ³				
Canada	70	72 ^r	64	66
Mexico	180	153	131	157
Venezuela	165	165	135	123
Average ²	92	92 ^r	76	82
H ₂ SO ₄ export values ³	125	226	166	199
H ₂ SO ₄ import values: ³				
Canada	86	75	79	79
Mexico	68	69	69	72
Average ²	91	78	82	84

^eEstimated. ^PPreliminary. ^rRevised.

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

²Includes other countries not listed.

³Average value per ton.