

Mineral Industry Surveys

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SULFUR IN SEPTEMBER 2013

During September 2013, production of recovered elemental sulfur was 724,000 metric tons (t), which was 5% lower than that of August 2013 and 5% higher than that of September 2012. Shipments were 717,000 t, which was 8% lower than those of August 2013. Producers' ending stocks for September 2013 were 144,000 t.

Imports of recovered sulfur for September 2013 were estimated to be 234,000 t; exports were 161,000 t. Imports of sulfuric acid for September 2013 were 270,000 t; exports were 15,000 t.

U.S. sulfur consumption, calculated as shipments minus exports plus imports, was 790,000 t in September 2013. This was slightly higher than that of August 2013 and 7% more than that of September 2012.

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 other published data.

TABLE 1
SALIENT SULFUR STATISTICS¹

(Thousand metric tons)

Period	Production			Shipments, all sources	Stocks, end of period ³
	Petroleum ²	Natural gas	Total		
2012:					
January–December	7,360	1,040	8,400	8,440	130
January–September ^f	5,480	826	6,310	6,340	141
September	607	82	689	695	141
October	612	76	688	698	127
November	622	61	683	679	132
December	653 ^r	76	729 ^r	730 ^r	132 ^r
2013:					
January	615	85	700	703	127
February	527	89	617	621	122
March	593	92	685	677	134
April	595	91	686	696	124
May	629	85	714	707 ^r	130
June	603	73	676	667	137
July	679 ^r	85	764 ^r	757 ^r	148
August	686 ^r	80	766 ^r	777 ^r	136
September ^p	652	72	724	717	144
January–September	5,580	752	6,330	6,320	144

^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
2012:								
January–December	2,440	163,000	366	56,000	115	14,200	2,930	238,000
January–September	1,850	122,000	289 ^r	45,700	99 ^r	12,300	2,240	183,000
September	190	12,100	30	3,920	12	1,620	233	17,800
October	200	13,600	30	3,870	--	--	231	18,100
November	190	14,000	30	3,630	--	--	220	18,000
December	200	13,500	16	2,840	15	1,840	233	18,900
2013:								
January	190	15,300	2	122	--	--	193	16,000
February	170	11,800	63	8,040	20	2,580	254	22,700
March	190	14,100	30	3,730	--	--	222	18,500
April	210	15,300	31	3,660	30	2,520	271	21,800
May	220	10,600	51	6,530	--	--	271	17,800
June	210	13,800	51	6,530	14	1,600	275	22,200
July	200 ^r	15,400	50	5,420	8	967	260 ^r	22,400
August	200 ^r	12,600	44	4,040	14	1,550	259 ^r	18,900
September	200	6,760	34	3,170	--	--	234	10,300
January–September	1,790	116,000	356	41,200	86	9,210	2,240	171,000

^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
2012:									
January–December	1,980	646	155,000	471	154	33,700	2,850	933	239,000
January–September	1,490	486 ^r	117,000	339	111 ^r	24,400	2,130	698	179,000
September	151	49	12,000	31	10	2,130	232	76	19,000
October	169	55	13,200	49	16	3,400	279	91	23,200
November	166	54	12,900	43	14	3,060	211	69	17,100
December	153	50	11,900	40	13	2,840	230	75	19,600
2013:									
January	170	56	13,500	38	12	2,500	236	77	18,000
February	162	53	13,000	39	13	2,460	201	66	15,500
March	186	61	14,700	45	15	2,930	269	88	19,500
April	179	59	12,100	51	17	3,170	280	92	17,600
May	173	57	10,900	47	15	2,870	286	93	16,700
June	149	49	9,380	62	20	3,950	232	76	16,100
July	178	58	12,600	60	20	3,810	265	87	20,100
August	187	61	12,900	55	18	3,500	254	83	19,500
September	183	60	12,500	45	15	2,800	270	88	20,500
January–September	1,570	512	112,000	442	145	28,000	2,290	750	164,000

^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
2012:					
January–December	1,850	366,000	161	53	33,000
January–September	1,340	275,000	124	42	24,600
September	192	38,600	17	6	2,830
October	232	41,100	15	5	3,060
November	104	18,800	10	3	1,810
December	174	31,300	12	4	3,530
2013:					
January	77	15,900	15	5	2,900
February	130	22,600	8	3	1,820
March	155	30,000	20	7	3,090
April	227	35,200	11	4	2,290
May	64	14,400	17	6	3,100
June	116	19,500	12	4	2,430
July	111	18,600	15	5	3,360
August	257	18,100	14	5	2,830
September	161	14,100	15	5	2,520
January–September	1,300	188,000	127	44	24,300

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
2012:				
January–December	6,590		2,930	9,510
January–September	5,000 ^r		2,240	7,240 ^r
September	503		233	736
October	466		231	697
November	575		220	795
December	546		233	779
2013:				
January	626		193	819
February	491		254	745
March	522		222	744
April	469		271	740
May	643 ^r		271	914 ^r
June	551		275	826
July ^r	646		260	906
August ^r	520		259	779
September ^p	556		234	790
January–September	5,020		2,240	7,260

^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 2012 ²		August 2013		September 2013 ^p		January–September 2013 ^{p, 2}	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	88	92	16	16	16	15	133	133
Natural gas	10	10	1	1	1	1	10	10
Total	97	102	18	17	17	16	143	143
PAD 2:								
Petroleum and coke	818	818	98	96	92	93	790	788
Natural gas	13	13	1	1	1	1	11	11
Total	832	832	99	97	93	94	801	799
PAD 3: ³								
Petroleum and coke	3,600	3,630	450 ^r	455 ^r	433	424	3,690	3,670
Natural gas	342	329	37	38 ^r	35	35	326	327
Total	3,940	3,960	487 ^r	492 ^r	468	459	4,010	4,000
PAD 4 and 5								
Petroleum and coke	976	984	122 ^r	122 ^r	110	113	970	976
Natural gas	461	463	41	49	35	35	405	408
Total	1,440	1,450	162 ^r	170 ^r	145	148	1,380	1,380
Grand total	6,310	6,340	766 ^r	777 ^r	724	717	6,330	6,320

^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)

	2012	2013		
		August	September	January– September
Production	8.40	9.02 ^r	8.81 ^p	8.46
Shipments	8.43	9.15 ^r	8.72 ^p	8.45
Exports of sulfur	1.85	3.03	1.76	1.74
Imports of sulfur:				
Canada ^e	2.44	2.35 ^r	2.43	2.39
Mexico	0.37	0.52	0.41	0.48
Venezuela ^e	0.12	0.16	--	0.11
Total ^{e,2}	2.93	3.05 ^r	2.85	2.99
Exports of H ₂ SO ₄	0.16	0.16	0.18	0.17
Imports of H ₂ SO ₄ :				
Canada	1.98	2.20	2.23	2.10
Mexico	0.47	0.65	0.55	0.59
Total ²	2.85	2.99	3.29	3.07
Consumption:				
Domestic sources	6.58	6.12 ^r	6.76	6.72
Imports ^e	2.93	3.05 ^r	2.85	2.99
Total	9.51	9.17 ^r	9.61	9.71
Sulfur export values ³	198	70	89	145
Sulfur import values: ³				
Canada	67	63 ^r	34	65
Mexico	153	92	93	116
Venezuela	123	111	--	107
Average ²	81	73 ^r	44	77
H ₂ SO ₄ export values ³	205	202	169	192
H ₂ SO ₄ import values: ³				
Canada	79	69	68	71
Mexico	71	64	62	63
Average ²	84	78	76	71

^eEstimated. ^pPreliminary. ^rRevised. -- Zero.

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.