

# Mineral Industry Surveys

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## SULFUR IN MAY 2014

During May 2014, production of recovered elemental sulfur was 759,000 metric tons (t), which was slightly lower than that of April 2014 and 6% higher than that of May 2013. Shipments were 738,000 t, which was 4% lower than those of April 2014. Producers' ending stocks for May 2014 were 149,000 t.

Imports of recovered sulfur for May 2014 were estimated to be 145,000 t; exports were 107,000 t. Imports of sulfuric acid for May 2014 were 250,000 t; exports were 11,000 t.

U.S. sulfur consumption, calculated as shipments minus exports plus imports, was 776,000 t in May 2014. This was about the same as that of April 2014 and 15% less than that of May 2013.

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.

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TABLE 1  
SALIENT SULFUR STATISTICS<sup>1</sup>

(Thousand metric tons)

Period	Production			Shipments, all sources	Stocks, end of period <sup>3</sup>
	Petroleum <sup>2</sup>	Natural gas	Total		
2013:					
January–December <sup>p</sup>	7,580 <sup>r</sup>	1,020	8,600 <sup>r</sup>	8,590 <sup>r</sup>	161
January–May <sup>r</sup>	2,940	442	3,380	3,390	130
May	629	85	714	707	130
June	603	73	676	667	137
July	666 <sup>r</sup>	85	751 <sup>r</sup>	746 <sup>r</sup>	144 <sup>r</sup>
August	673 <sup>r</sup>	80	753 <sup>r</sup>	764 <sup>r</sup>	132 <sup>r</sup>
September	644 <sup>r</sup>	75	719 <sup>r</sup>	708 <sup>r</sup>	144 <sup>r</sup>
October	665 <sup>r</sup>	89	755 <sup>r</sup>	753 <sup>r</sup>	148 <sup>r</sup>
November	665 <sup>r</sup>	92	756 <sup>r</sup>	769 <sup>r</sup>	137 <sup>r</sup>
December	718	85	803	793	161
2014:					
January	669	89	758	791	129
February	591	82	672	671	133
March	667	87	754	757	134
April	676 <sup>r</sup>	88 <sup>r</sup>	763 <sup>r</sup>	772 <sup>r</sup>	128
May <sup>p</sup>	678	81	759	738	149
January–May	3,280	427	3,710	3,730	149

<sup>p</sup>Preliminary. <sup>r</sup>Revised.

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

<sup>2</sup>Includes a small quantity from coking operations.

<sup>3</sup>Subject to inventory adjustments.

TABLE 2  
U.S. IMPORTS OF SULFUR<sup>1</sup>

(Thousand metric tons and thousand dollars)

Period	Canada		Mexico		Venezuela		Total, all countries <sup>2</sup>	
	Quantity <sup>e</sup>	Value <sup>3</sup>	Quantity	Value <sup>3</sup>	Quantity <sup>e</sup>	Value <sup>3</sup>	Quantity <sup>e</sup>	Value <sup>3</sup>
2013:								
January–December	2,420	135,000	448 <sup>r</sup>	48,200	115	13,400	2,990 <sup>r</sup>	202,000
January–May	1,020 <sup>r</sup>	67,000 <sup>r</sup>	157 <sup>r</sup>	22,100	50	5,100	1,230 <sup>r</sup>	96,900
May	220	10,500 <sup>r</sup>	51	6,530	--	--	271	17,600 <sup>r</sup>
June	210	13,900 <sup>r</sup>	51	6,530	14	1,600	275	22,500 <sup>r</sup>
July	200	15,400	50	5,420	8	967	260	22,300 <sup>r</sup>
August	200	12,600	44	4,040	14	1,550	259	18,700 <sup>r</sup>
September	200	6,760	34	3,170	--	--	234	10,600 <sup>r</sup>
October	200	7,210	35	2,600	--	--	235	10,100 <sup>r</sup>
November	190	6,820	48	2,880	1	43	239	9,940
December	200	5,340	29	1,460	28	4,150	260	11,400
2014:								
January	100	6,130	39	3,320	28	1,360	169	11,400
February	90	3,990	45	4,130	--	--	136	8,570
March	100	5,270	18	4,950	14	1,030	133	11,800
April	100	7,030	36	4,570	19	1,630	157	13,800
May	100	6,600	44	3,560	--	--	145	10,700
January–May	490	29,000	182	20,500	61	4,010	740	56,200

<sup>e</sup>Estimated. <sup>r</sup>Revised. -- Zero.

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

<sup>2</sup>May include other countries not listed.

<sup>3</sup>Declared 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 ACID<sup>1</sup>

(Thousand metric tons and thousand dollars)

Period	Canada			Mexico			Total, all countries <sup>2</sup>		
	Quantity	Sulfur content	Value <sup>3</sup>	Quantity	Sulfur content	Value <sup>3</sup>	Quantity	Sulfur content	Value <sup>3</sup>
2013:									
January–December	2,050	673	145,000 <sup>r</sup>	555	182	34,800	2,980	973	211,000 <sup>r</sup>
January–May	870	284	64,200	220	72	13,900	1,270	416	87,400
May	173	57	10,900	47	15	2,870	286	93	16,800 <sup>r</sup>
June	149	49	9,370 <sup>r</sup>	62	20	3,950	232	76	16,100
July	178	58	12,600	60	20	3,810	265	87	20,100
August	187	61	13,100 <sup>r</sup>	55	18	3,500	254	83	19,600 <sup>r</sup>
September	183	60	12,700 <sup>r</sup>	45	15	2,800	270	88	20,600 <sup>r</sup>
October	160	52	10,800 <sup>r</sup>	48	16	2,950	257	84	17,800 <sup>r</sup>
November	173	57	11,600 <sup>r</sup>	40	13	2,500	245	80	16,000 <sup>r</sup>
December	154	50	10,500 <sup>r</sup>	25	8	1,330	180	59	13,300 <sup>r</sup>
2014:									
January	152	50	9,110	62	20	3,610	277	91	16,100
February	168	55	9,940	59	19	3,170	245	80	14,100
March	173	57	10,400	65	21	3,450	284	93	15,600
April	156	51	10,900	54	18	2,890	228	75	15,400
May	149	49	11,200	54	18	2,920	250	82	18,400
January–May	798	262	51,600	294	96	16,000	1,280	421	79,700

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

<sup>2</sup>May include other countries not listed.

<sup>3</sup>Declared customs valuation.

Source: U.S. Census Bureau.

TABLE 4  
U.S. EXPORTS OF SULFUR AND SULFURIC ACID<sup>1</sup>

(Thousand metric tons and thousand dollars)

Period	Sulfur		Sulfuric acid		
	Quantity	Value <sup>2</sup>	Quantity	Sulfur content	Value <sup>2</sup>
2013:					
January–December	1,750	234,000 <sup>r</sup>	165	54	30,100 <sup>r</sup>
January–May	655 <sup>r</sup>	118,000	71	23	13,200
May	62 <sup>r</sup>	12,000 <sup>r</sup>	17	6	3,100
June	116	19,500	12	4	2,430
July	113 <sup>r</sup>	18,600	15	5	3,360
August	257	18,100	12 <sup>r</sup>	4 <sup>r</sup>	2,790 <sup>r</sup>
September	161	14,200 <sup>r</sup>	14 <sup>r</sup>	5	2,500 <sup>r</sup>
October	94	8,960	16	5	2,100
November	96 <sup>r</sup>	7,910 <sup>r</sup>	11	4	1,830 <sup>r</sup>
December	258 <sup>r</sup>	28,800 <sup>r</sup>	14	5	1,860
2014:					
January	206	23,400	9	3	1,840
February	234	33,400	13	4	1,670
March	198	26,100	10	3	2,090
April	152	31,300	20	7	2,450
May	107	17,600	11	4	1,610
January–May	897	132,000	63	21	9,660

<sup>1</sup>Revised.

<sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>3</sup>Declared f.a.s. (free alongside ship) valuation.

Source: U.S. Census Bureau.

TABLE 5  
U.S. CONSUMPTION OF SULFUR<sup>1</sup>

(Thousand metric tons)

Period	Domestic sources <sup>2</sup>	Imports <sup>e</sup>	Consumption
2013:			
January–December <sup>pr</sup>	6,840	2,990	9,830
January–May <sup>f</sup>	2,730	1,230	3,960
May	645	271	916
June	551	275	826
July	633 <sup>r</sup>	260	893 <sup>r</sup>
August	507 <sup>r</sup>	259	766 <sup>r</sup>
September	547 <sup>r</sup>	234	781 <sup>r</sup>
October	659 <sup>r</sup>	235	894 <sup>r</sup>
November	673 <sup>r</sup>	239	912 <sup>r</sup>
December	535 <sup>r</sup>	260	795 <sup>r</sup>
2014:			
January	585	169	754
February	437	136	573
March	559	133	692
April	620 <sup>r</sup>	157	777 <sup>r</sup>
May <sup>p</sup>	631	145	776
January–May	2,830	740	3,570

<sup>a</sup>Estimated. <sup>p</sup>Preliminary. <sup>r</sup>Revised.

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

<sup>2</sup>Calculated as shipments minus exports.

TABLE 6  
RECOVERED SULFUR PRODUCED AND SHIPPED IN THE UNITED STATES,  
BY PAD (PETROLEUM ADMINISTRATION FOR DEFENSE) DISTRICT<sup>1</sup>

(Thousand metric tons)

District and source	January–May 2013 <sup>2</sup>		April 2014		May 2014 <sup>p</sup>		January–May 2014 <sup>p, 2</sup>	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	73	73	17	18	18	17	85	85
Natural gas	5	5	1	1	1	1	5	5
Total	78	79	18	19	19	18	91	90
PAD 2:								
Petroleum and coke	432	433	100	100	108	107	493	489
Natural gas	6	6	1	--	1	1	1	1
Total	438	439	101	100	109	108	494	490
PAD 3:								
Petroleum and coke	1,920 <sup>r</sup>	1,920 <sup>r</sup>	447 <sup>r</sup>	449 <sup>r</sup>	444	429	2,170	2,180
Natural gas	181 <sup>r</sup>	182 <sup>r</sup>	33 <sup>r</sup>	35	36	36	172	174
Total	2,100 <sup>r</sup>	2,100	481 <sup>r</sup>	485 <sup>r</sup>	481	466	2,340	2,350
PAD 4 and 5								
Petroleum and coke	518	520	112	112	108	108	535	550
Natural gas	249 <sup>r</sup>	248 <sup>r</sup>	52	56	43	39	247	247
Total	767 <sup>r</sup>	768 <sup>r</sup>	164	168	151	147	782	797
Grand total	3,380 <sup>r</sup>	3,390 <sup>r</sup>	763 <sup>r</sup>	772 <sup>r</sup>	759	738	3,710	3,730

<sup>p</sup>Preliminary. <sup>r</sup>Revised. -- Zero.

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

<sup>2</sup>May include revisions to previously published data.

TABLE 7  
COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS<sup>1</sup>

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

	2013	2014		
		April	May	January– May
Production	8.60 <sup>P, r</sup>	9.28 <sup>r</sup>	8.94 <sup>P</sup>	8.96
Shipments	8.59 <sup>P, r</sup>	9.39 <sup>r</sup>	8.69 <sup>P</sup>	9.01
Exports of sulfur	1.75	1.85	1.26	2.17
Imports of sulfur:				
Canada <sup>e</sup>	2.42	1.22	1.18	1.18
Mexico	0.47	0.44	0.52	0.44
Venezuela <sup>e</sup>	0.12	0.23	--	0.15
Total <sup>e, 2</sup>	2.99 <sup>r</sup>	1.91	1.71	1.79
Exports of H <sub>2</sub> SO <sub>4</sub>	0.17	0.24	0.13	0.15
Imports of H <sub>2</sub> SO <sub>4</sub> :				
Canada	2.05	1.90	1.75	1.93
Mexico	0.56	0.66	0.64	0.71
Total <sup>2</sup>	2.98	2.77	2.94	3.10
Consumption:				
Domestic sources	6.84 <sup>r</sup>	7.54 <sup>r</sup>	7.43	6.85
Imports <sup>e</sup>	2.29 <sup>r</sup>	1.91	1.71	1.79
Total	9.13 <sup>r</sup>	9.45 <sup>r</sup>	9.14	8.63
Sulfur export values <sup>3</sup>	134	206	164	147
Sulfur import values: <sup>3</sup>				
Canada	56	70	66	59
Mexico	108 <sup>r</sup>	127	81	113
Venezuela	117	86	XX	66
Average <sup>2</sup>	68 <sup>r</sup>	88	74	76
H <sub>2</sub> SO <sub>4</sub> export values <sup>3</sup>	182 <sup>r</sup>	123	146	153
H <sub>2</sub> SO <sub>4</sub> import values: <sup>3</sup>				
Canada	71 <sup>r</sup>	70	75	65
Mexico	63	54	54	55
Average <sup>2</sup>	71	67	74	62

<sup>e</sup>Estimated. <sup>P</sup>Preliminary. <sup>r</sup>Revised. XX Not applicable. -- Zero.

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

<sup>2</sup>Includes other countries not listed.

<sup>3</sup>Average value per ton.