

# Mineral Industry Surveys

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## **SULFUR IN JULY 2019**

During July 2019, production of recovered elemental sulfur was 720,000 metric tons (t), which was 11% higher than that of June 2019 and 7% lower than that of July 2018. Shipments were 725,000 t, which was 13% higher than those of June 2019. Producers' ending stocks for July 2019 were 107,000 t (table 1).

Imports of recovered sulfur for July 2019 were estimated to be 126,000 t; exports were 120,000 t. Imports of sulfuric acid for July 2019 were 251,000 t; exports were 15,000 t (tables 2–4).

U.S. sulfur consumption, calculated as shipments minus exports plus imports, was 731,000 t in July 2019. This was 5%

higher than that of June 2019 and 7% lower than that of July 2018 (table 5).

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 $\label{eq:table 1} \textbf{TABLE 1} \\ \textbf{SALIENT SULFUR STATISTICS}^1$ 

## (Thousand metric tons)

		Production	Shipments,	Stocks,		
Period	Petroleum <sup>2</sup>	Natural gas	Total	all sources	end of period <sup>3</sup>	
2018:						
January-December	8,380	626	9,010	9,020	122	
January–July	4,810	373 <sup>r</sup>	5,190	5,210	112	
July	728	44	772	789	112	
August	751	54	805	809	107	
September	690	38	728	722	113	
October	663	53	717	713	117	
November	696	54	750	762	105	
December	766	54	820	803	122	
2019:						
January	699	47	746	767	101	
February	592	26	618	613	109	
March	650	28	678	664	120	
April	625	28 <sup>r</sup>	652	666 <sup>r</sup>	108	
May	621	25	647	646	107	
June	623	22 <sup>r</sup>	647 <sup>r</sup>	639	113	
July <sup>p</sup>	691	28	720	725	107	
January–July	4,500	205	4,710	4,720	107	

<sup>&</sup>lt;sup>p</sup>Preliminary. <sup>r</sup>Revised.

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

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

<sup>&</sup>lt;sup>3</sup>Subject to inventory adjustments.

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

## (Thousand metric tons and thousand dollars)

	Cana	da	Total, all countries <sup>2</sup>		
Period	Quantity	Value <sup>3</sup>	Quantity	Value <sup>3</sup>	
2018:					
January-December	1,510	90,600	2,230	205,000	
January–July	839 r	45,400 <sup>r</sup>	1,310 <sup>r</sup>	118,000	
July	98	6,200	198	20,600	
August	151	9,040	214	18,800	
September	120	8,200	155	13,700	
October	139	9,310	190	17,700	
November	135	9,250	185	26,600	
December	125	9,390	173	10,500	
2019:	<u></u>				
January	131	10,100	180	19,800	
February	107	6,400	157	16,000	
March	146	8,240	193	15,400	
April	138	7,370	183	14,200	
May	118	6,180	119	7,060	
June	109	4,980	209	16,200	
July	120 e	6,730	126 <sup>e</sup>	13,000	
January–July	870	50,000	1,170	102,000	

<sup>&</sup>lt;sup>e</sup>Estimated. <sup>r</sup>Revised.

Sources: U.S. Census Bureau as adjusted by U.S. Geological Survey and Acuity Commodities.

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

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

<sup>&</sup>lt;sup>3</sup>Declared customs valuation.

TABLE 3 U.S. IMPORTS OF SULFURIC ACID<sup>1</sup>

## (Thousand metric tons and thousand dollars)

		Canada			Mexico		Tot	al, all countri	es <sup>2</sup>
		Sulfur			Sulfur			Sulfur	
Period	Quantity	content	Value <sup>3</sup>	Quantity	content	Value <sup>3</sup>	Quantity	content	Value <sup>3</sup>
2018:									
January-December	1,900	622	88,100	470	154	18,400	3,050	997	170,000
January–July	1,110	364	50,600 r	272	89	10,800	1,800	590 <sup>r</sup>	97,400 <sup>1</sup>
July	167	54	8,030	49	16	2,990	275	90	16,800
August	149	49	6,720	39	13	1,420	236	77	14,200
September	153	50	6,420	33	11	1,260	252	82	13,300
October	164	53	7,990	21	7	780	266	87	16,300
November	136	45	6,810	46	15	1,870	220	72	14,000
December	187	61	9,480	57	19	2,200	272	89	15,000
2019:									
January	139	46	7,280	36	12	1,470	237	77	14,200
February	118	39	6,380	43	14	1,890	185	61	12,000
March	183	60	9,220	63	21	4,490	350	114	24,200
April	157	51	16,300	65	21	4,320	250	82	24,700
May	175	57	19,100	23	8	2,310	233	76	25,700
June	151	49	15,600	24	8	1,810	237	78	23,300
July	178	58	14,200	34	11	2,140	251	82	21,700
January–July	1,100	360	88,100	289	94	18,400	1,740	570	146,000

rRevised.

Source: U.S. Census Bureau.

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

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

<sup>&</sup>lt;sup>3</sup>Declared customs valuation.

 $\label{eq:table 4} \textbf{U.S. EXPORTS OF SULFUR AND SULFURIC ACID}^1$ 

(Thousand metric tons and thousand dollars)

				Sulfuric acid	
	Su	lfur			
Period	Quantity	Value <sup>2</sup>	Quantity	content	Value <sup>2</sup>
2018:					
January-December	2,390	299,000	342	112	40,400
January–July	1,320	167,000 <sup>r</sup>	228 <sup>r</sup>	74 <sup>r</sup>	23,500 °
July	204	26,600	33	11	4,730
August	173	23,100	25	8	3,820
September	217	31,100	32	10	4,110
October	172	24,300	15	5	2,210
November	193	27,100	16	5	2,680
December	318	26,400	28	9	4,050
2019:					
January	349	29,800	16	5	2,980
February	119	15,800	18	6	2,990
March	144	14,700	13	4	2,610
April	116	14,000	21	7	4,240
May	210	21,900	21	7	2,910
June	150	13,600	18	6	1,920
July	120	12,400	15	5	2,890
January–July	1,210	122,000	122	40	20,500

Revised.

Source: U.S. Census Bureau.

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

<sup>&</sup>lt;sup>2</sup>Declared f.a.s. (free alongside ship) valuation.

 $\label{eq:table 5} \text{U.s. Consumption of sulfur}^1$ 

## (Thousand metric tons)

	Domestic		
Period	sources <sup>2</sup>	Imports	Consumption
2018:			
January-December	6,620	2,230	8,850
January–July	3,890	1,310 <sup>r</sup>	5,200 <sup>r</sup>
July	585	198	783
August	636	214	850
September	505	155	660
October	541	190	731
November	569	185	754
December	485	173	658
2019:			
January	418	180	598
February	494	157	651
March	520	193	713
April	550 <sup>r</sup>	183	733 <sup>r</sup>
May	436	119	555
June	489 <sup>r</sup>	209	698 <sup>r</sup>
July <sup>p</sup>	605	126	731
January–July	3,510	1,170	4,680

<sup>&</sup>lt;sup>p</sup>Preliminary. <sup>r</sup>Revised.

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

<sup>&</sup>lt;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  $^1$ 

# (Thousand metric tons)

	January–J	July 2018 <sup>2</sup>	June 2019 July 2019 <sup>p</sup>		2019 <sup>p</sup>	January–Ju	ly 2019 <sup>p.2</sup>	
District and source	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	139	138	14	12	18	20	97	98
Natural gas	8	8	1	1	1	1	8	8
Total	147	146	15	13 <sup>r</sup>	20	21	105	106
PAD 2:	_							
Petroleum and coke	802	807	106	103	122	125	751	752
Natural gas	4	4	1				2	2
Total	806	812	107	103 <sup>r</sup>	122	125	753	754
PAD 3:								
Petroleum and coke	3,010	3,010	383	380	423	425	2,800	2,800
Natural gas	74	74	10 <sup>r</sup>	9	10	10	71	68
Total	3,080	3,080	393	390 <sup>r</sup>	433	435	2,870	2,870
PAD 4 and 5:								
Petroleum and coke	865	880	121	122	128	128	852	860
Natural gas	288	286	11	11	17	17	124	130
Total	1,150	1,170	132 <sup>r</sup>	133	145	144	976	989
Grand total	5,190	5,210	647 <sup>r</sup>	639	720	725	4,710	4,720

<sup>&</sup>lt;sup>p</sup>Preliminary. <sup>r</sup>Revised. -- Zero.

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

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

 ${\it TABLE~7} \\ {\it COMPARATIVE~SULFUR~AND~SULFURIC~ACID~STATISTICS}^1 \\$ 

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

		2019			
				January–	
	2018	June	July	July	
Production	9.01	7.87 <sup>r</sup>	8.48 <sup>p</sup>	8.11	
Shipments	9.02	7.77 <sup>r</sup>	8.54 <sup>p</sup>	8.12	
Exports of sulfur	2.39	1.83	1.42	2.08	
Imports of sulfur:					
Canada	1.51	1.33	1.41	1.50	
Total <sup>2</sup>	2.23	2.54	1.48	2.01	
Exports of H <sub>2</sub> SO <sub>4</sub>	0.34	0.22	0.17	0.21	
Imports of H <sub>2</sub> SO <sub>4</sub> :					
Canada	1.90	1.83	2.10	1.89	
Mexico	0.47	0.29	0.40	0.50	
Total <sup>2</sup>	3.05	2.89	2.95	3.00	
Consumption:					
Domestic sources	6.62	5.94 <sup>r</sup>	7.12	6.04	
Imports	2.23	2.54	1.48	2.01	
Total	8.85	8.49 <sup>r</sup>	8.60	8.05	
Sulfur export values <sup>3</sup>	125	90	103	101	
Sulfur import values: <sup>3</sup>					
Canada	60	46	56	58	
Average <sup>2</sup>	92	78	103	87	
H <sub>2</sub> SO <sub>4</sub> export values <sup>3</sup>	118	106	199	168	
H <sub>2</sub> SO <sub>4</sub> import values: <sup>3</sup>					
Canada	46	104	80	80	
Mexico	39	76	63	64	
Average <sup>2</sup>	56	98	87	84	

<sup>&</sup>lt;sup>p</sup>Preliminary. <sup>r</sup>Revised.

 $<sup>^{\</sup>rm 1}{\rm Data}$  are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Includes other countries not listed.

<sup>&</sup>lt;sup>3</sup>Average value per ton.