

Mineral Industry Surveys

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SULFUR IN MARCH 2020

During March 2020, production of recovered elemental sulfur was 669,000 metric tons (t), which was slightly higher than that of February 2020 and slightly lower than that of March 2019. Total production for January through March was 2.05 million metric tons (Mt), which was slightly higher than that in the same period of 2019. Shipments were 688,000 t, which was 7% higher than those of February 2020. Total shipments for January through March were 2.08 Mt, which was 3% higher than those in the same period of 2019. Producers' ending stocks for March 2020 were estimated at 120,000 t (table 1).

Imports of recovered sulfur for March 2020 were 183,000 t; exports were 210,000 t. Total imports of recovered sulfur for January through March were 455,000 t, which was 13% lower than those in the same period of 2019. Total exports for January through March of recovered sulfur were 498,000 t, which was 19% lower than those in the same period of 2019 (tables 2, 4).

Imports of sulfuric acid for March 2020 were 310,000 t; exports were 18,000 t. Total imports for January through March were 927,000 t, which was 20% higher than those in the same

period of 2019. Total exports for January through March of sulfuric acid were 44,000 t, which was 6% lower than those in the same period of 2019 (tables 3, 4).

U.S. sulfur consumption, calculated as shipments minus exports plus imports, was 661,000 t in March 2020. This was 11% higher than that of February 2020 and 7% lower than that of March 2019. Total consumption for January through March was 2.03 Mt, which was 5% higher than that in the same period of 2019 (table 5).

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TABLE 1
SALIENT SULFUR STATISTICS¹

(Thousand metric tons)

Period	Production			Shipments, all sources	Stocks, end of period ³
	Petroleum ²	Natural gas	Total		
2019:					
January–December	7,790	322	8,110	8,100 ^r	124
January–March	1,940	83 ^r	2,020 ^r	2,020 ^r	124 ^r
March	650	28	678	664	120
April	625	27	652	666	107
May	621	21	642	640	107
June	624	28	652	647	113
July	690	30	720	725	107
August	677	25	703	699	111
September	620	25	644	641	114
October	611	28	639	643	109
November	658	27	685	676	119
December	721	29	749	744	124
2020:					
January	701	28	729	742	111
February	628	25	653 ^r	645 ^r	120
March ^p	642	27	669	688	120 ^e
January–March	1,970	80	2,050	2,080	120 ^e

^eEstimated. ^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		Total, all countries ²	
	Quantity	Value ³	Quantity	Value ³
2019:				
January–December	1,450	65,900	1,850	137,000
January–March	379 ^r	24,800	526	51,200
March	144	8,240	191	15,400
April	137	7,370	182	14,200
May	119	6,180	120	7,060
June	108	4,980	207	16,200
July	126	6,730	132	13,000
August	109	4,000	152	9,380
September	97	3,490	99	4,480
October	124	3,360	178	14,500
November	119	2,790	121	3,870
December	127	2,230	129	3,270
2020:				
January	127 ^r	2,970	129 ^r	4,190
February	104 ^r	3,200	143 ^r	7,580
March	131	4,710	183	9,320
January–March	362	10,900	455	21,100

^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.

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

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
2019:									
January–December	1,920	628	149,000	485	159	29,700	2,970	971	240,000
January–March	440	144	32,100 ^r	142	46	7,860	772	252	50,400
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	77	23,300
July	178	58	14,200	34	11	2,140	251	82	21,700
August	190	62	13,300	29	9	1,800	262	86	20,500
September	156	51	11,000	38	12	2,290	198	65	15,200
October	185	60	14,400	37	12	1,990	320	105	24,300
November	109	36	8,110	34	11	1,900	166	54	13,200
December	180	59	13,600	59	19	3,320	281	92	21,200
2020:									
January	150	49	11,200	58	19	4,670	306	100	23,400
February	147	48	10,500	51	17	4,350	311	102	21,600
March	178	58	12,700	51	17	4,390	310	101	22,500
January–March	474	155	34,400	159	53	13,400	927	303	67,500

^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
2019:					
January–December	2,190	171,000	220	72	31,200
January–March	612	60,300	47 [†]	15 [†]	8,570
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
August	296	13,100	17	6	2,630
September	152	11,100	18	6	2,520
October	320	8,690	28	9	2,310
November	53	4,750	11	4	1,530
December	157	11,200	25	8	1,650
2020:					
January	97	4,720	16	5	2,650
February	190	10,100	10	3	2,240
March	210	14,100	18	6	3,420
January–March	498	28,900	44	14	8,310

[†]Revised.

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	Consumption
2019:			
January–December	5,910	1,850	7,760
January–March	1,410 ^r	526	1,930 ^r
March	520	191	711
April	550	182	732
May	430	120	550
June	497	207	704
July	605	132	737
August	403	152	555
September	489	99	588
October	323	178	501
November	623	121	744
December	587	129	716
2020:			
January	645	129 ^r	774 ^r
February	455 ^r	143 ^r	598 ^r
March ^p	478	183	661
January–March	1,580	455	2,030

^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–March 2019 ²		February 2020		March 2020 ^p		January–March 2020 ^{p, 2}	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	40	42	19	18	18	19	58	57
Natural gas	3	3	1	1	1	1	3	3
Total	43	45	20	19	19	20	61	61
PAD 2:								
Petroleum and coke	327	323	117	115	118	122	363	365
Natural gas	1	1	--	--	--	1	--	1
Total	328	324	117	115	118	122	363	366
PAD 3:								
Petroleum and coke	1,210	1,210	372	367	384	394	1,180	1,190
Natural gas	31	29	9	9	10	9	27	28
Total	1,240	1,240	381	376	393	403	1,210	1,220
PAD 4 and 5:								
Petroleum and coke	367	368	120 ^r	120	121	126	370	378
Natural gas	48	48	16	15	17	17	50	49
Total	415	417	136	134	138	142	420	427
Grand total	2,020	2,020	653	645 ^r	669	688	2,050	2,080

^pPreliminary. ^rRevised. -- Zero.

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

²May include revisions to previously published data.

TABLE 7
COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS¹

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

	2019	2020		
		February	March	January– March
Production	8.11	8.24 ^r	7.90 ^p	8.25
Shipments	8.10	8.14 ^r	8.12 ^p	8.35
Exports of sulfur	2.19	2.40	2.48	2.00
Imports of sulfur:				
Canada	1.45	1.31	1.55	1.46
Total ²	1.85	1.80	2.16	1.83
Exports of H ₂ SO ₄	0.22	0.13	0.21	0.18
Imports of H ₂ SO ₄ :				
Canada	1.92	1.86	2.10	1.91
Mexico	0.49	0.64	0.60	0.64
Total ²	2.97	3.93	3.66	3.73
Consumption:				
Domestic sources	5.91	5.74 ^r	5.64	6.34
Imports	1.85	1.80	2.16	1.83
Total	7.76	7.55 ^r	7.80	8.17
Sulfur export values ³	78	53	67	58
Sulfur import values: ³				
Canada	46	31	36	30
Average ³	74	53	51	46
H ₂ SO ₄ export values ³	142	224	190	189
H ₂ SO ₄ import values: ³				
Canada	77	71	71	73
Mexico	61	85	86	84
Average ²	81	69	73	73

^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.