

Mineral Industry Surveys

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SULFUR IN NOVEMBER 2020

During November 2020, production of recovered elemental sulfur was 559,000 metric tons (t), which was slightly lower than that of October 2020 and 18% lower than that of November 2019. Total production for January through November was 6.70 million metric tons (Mt), which was 9% lower than that in the same period of 2019. Shipments were 546,000 t, which were about the same as those of October 2020. Total shipments for January through November were 6.68 Mt, which were 9% lower than those in the same period of 2019. Producers' ending stocks for November 2020 were 104,000 t, which were 3% higher than those of October 2020 (table 1).

Imports of recovered sulfur for November 2020 were estimated to be 176,000 t; exports were 57,000 t. Total imports of recovered sulfur for January through November were an estimated 2.00 Mt, which were 17% higher than those in the same period of 2019. Total exports of recovered sulfur for January through November were 1.21 Mt, which were 41% lower than those in the same period of 2019 (tables 2, 4).

Imports of sulfuric acid for November 2020 were 300,000 t; exports were 13,000 t. Total imports for January through

November were 3.35 Mt, which were 25% higher than those in the same period of 2019. Total exports of sulfuric acid for January through November were 186,000 t, which were 5% lower than those in the same period of 2019 (tables 3, 4).

U.S. sulfur consumption, calculated as shipments minus exports plus imports, was 665,000 t in November 2020. This was slightly higher than that of October 2020 and 11% lower than that of November 2019. Total consumption for January through November was 7.47 Mt, which was 6% 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	124
January–November	7,070 ^r	294 ^r	7,360 ^r	7,360 ^r	116
November	658	27	685	676	116
December	723	29	751	746	124
2020:					
January	701	28	729	742	111
February	628	25	653	645	119
March	642	27	669	688	100
April	578	24	602	593	110
May	574	22	595	592	113
June	566	20	585	580	119
July	605	20	625	644	100
August	561	19	580	565	115
September	516	21	537	534	102
October	537	22	560	548	101
November ^p	537	22	559	546	104
January–November	6,450	250	6,700	6,680	104

^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–November	1,320 ^r	63,600 ^r	1,720 ^r	134,000
November	119	2,790	121	3,860
December	127	2,230	129	3,270
2020:				
January	127	2,970	129	4,190
February	104	3,200	143	7,580
March	131	4,710	183	9,320
April	159	5,150	252	13,700
May	148	8,230	149	8,700
June	145	4,960	181	8,610
July	130	5,320	271	17,000
August	108	4,800	161	10,200
September	130	4,380	186	9,300
October	120 ^e	6,990	172 ^e	10,900
November	120 ^e	6,080	176 ^e	10,600
January–November	1,420 ^e	56,800	2,000 ^e	110,000

^eEstimated. ^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–November	1,740	569	135,000	426	139	26,400	2,690	879	219,000
November	109	36	8,110	34	11	1,900	166	54	13,200
December	180	59	13,700	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
April	154	50	11,300	50	16	4,980	284	93	22,100
May	193	63	13,900	43	14	3,700	332	109	22,100
June	158	52	12,100	38	12	1,710	217	71	16,800
July	153	50	8,250	73	24	4,390	313	102	18,200
August	159	52	8,010	47	15	3,610	319	104	18,100
September	156	51	7,840	91	30	5,760	334	109	18,900
October	166	54	8,880	59	19	4,620	328	107	20,200
November	148	48	8,010	85	28	5,470	300	98	18,700
January–November	1,760	575	113,000	644	211	47,600	3,350	1,100	223,000

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	2,200	172,000	220	72	31,200
January–November	2,040 ^r	161,000 ^r	195	64	29,500
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 ^r
April	87	7,520	31	10	2,350
May	136	9,040	17	6	2,780
June	67	6,020	11	4	1,400
July	98	6,750 ^r	22	7	1,610
August	125	8,210 ^r	17	6	2,020
September	77	5,400	16	5	2,040
October	65	6,700	16	5	2,000
November	57	4,940	13	4	1,220
January–November	1,210	83,400	186	61	23,700

^rRevised.

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	5,900	1,850	7,750
January–November	5,320	1,720 ^r	7,030 ^r
November	623	121	744
December	589	129	718
2020:			
January	645	129	774
February	455	143	598
March	478	183	661
April	506	252	758
May	456	149	605
June	513	181	694
July	546	271	817
August	440	161	601
September	457	186	643
October	483	172 ^e	655
November ^p	489	176 ^e	665
January–November	5,470	2,000 ^e	7,470

^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–November 2019 ²		October		November ^p		January–November ^{p, 2}	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	165	165	12	12	11	11	161	162
Natural gas	12	12	1	1	1	1	12	12
Total	178	178	13	13	12	12	173	174
PAD 2:								
Petroleum and coke	1,220	1,220	110	104	108	104	1,180	1,170
Natural gas	2	2	--	--	--	--	--	1
Total	1,220	1,220	110	104	108	104	1,180	1,170
PAD 3:								
Petroleum and coke	4,340	4,330	313	311	323	318	3,930	3,940
Natural gas	108	107	9	9	9	10	102	104
Total	4,440	4,440	322	320	332	328	4,040	4,040
PAD 4 and 5:								
Petroleum and coke	1,350	1,350	103	97	96	90	1,170	1,150
Natural gas	171	172	12	13	12	12	136	136
Total	1,520	1,530	115	111	107	102	1,300	1,290
Grand total	7,360	7,360	560	548	559	546	6,700	6,680

^pPreliminary. -- 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	October	November	January– November
Production	8.11	6.61	6.82 ^P	7.32
Shipments	8.10	6.47	6.66 ^P	7.29
Exports of sulfur	2.20	0.77	0.70	1.32
Imports of sulfur:				
Canada	1.45	1.42	1.46	1.55
Total ²	1.85	2.03	2.15	2.19
Exports of H ₂ SO ₄	0.22	0.19	0.16	0.20
Imports of H ₂ SO ₄ :				
Canada	1.92	1.96	1.81	1.92
Mexico	0.49	0.70	1.04	0.70
Total ²	2.97	3.87	3.66	3.66
Consumption:				
Domestic sources	5.90	5.70	5.97	5.97
Imports	1.85	2.03	2.15	2.19
Total	7.75	7.73	8.11	8.16
Sulfur export values ³	78	103	87	69
Sulfur import values: ³				
Canada	46	58	51	40
Average ³	74	64	60	55
H ₂ SO ₄ export values ³	142	125	94	128
H ₂ SO ₄ import values: ³				
Canada	77	53	54	64
Mexico	61	78	64	74
Average ²	81	62	62	66

^PPreliminary.

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.