

Mineral Industry Surveys

For information, contact:

Lori E. Apodaca, Sulfur Commodity Specialist
National Minerals Information Center
Telephone: (703) 648-7724
Email: lapodaca@usgs.gov

Mana Saedi (Data)
Telephone: (703) 648-7971
Email: msaedi@usgs.gov

Internet: <https://www.usgs.gov/centers/national-minerals-information-center/mineral-industry-surveys>

SULFUR IN JUNE 2023

During June 2023, production of recovered elemental sulfur was 673,000 metric tons (t), which was 3% lower than that in May 2023 and unchanged from that in June 2022. Total production for January through June was 3.99 million metric tons (Mt), which was slightly higher than that in the same period of 2022. Shipments in June 2023 were 673,000 t, which was 4% lower than that in May 2023 and essentially unchanged from that in June 2022. Total shipments for January through June were 4.01 Mt, which were slightly higher than those in the same period of 2022. Producers' ending stocks for June 2023 were 102,000 t (table 1).

Imports of recovered sulfur in June 2023 were estimated to be 111,000 t; exports were 83,000 t. Total imports of recovered sulfur for January through June were estimated to be 736,000 t, which were 26% lower than those in the same period of 2022. Total exports of recovered sulfur for January through June were 829,000 t, which were 14% higher than those in the same period of 2022 (tables 2, 4).

Imports of sulfuric acid in June 2023 were 308,000 t; exports were 16,000 t. Total imports for January through June were 1.59

Mt, which were 4% lower than those in the same period of 2022. Total exports of sulfuric acid for January through June were 106,000 t, which were 15% lower than that in the same period of 2022 (tables 3, 4).

U.S. sulfur consumption, calculated as shipments minus exports plus imports, was estimated to be 702,000 t in June 2023. This was 9% lower than the that in May 2023 and essentially unchanged from that in June 2022. Total consumption for January through June was estimated to be 3.92 Mt, which was 6% lower than that in the same period of 2022 (table 5).

List services and web feed subscribers are the first to receive notification of USGS minerals information publications and data releases. For information on how to subscribe, go to <https://www.usgs.gov/centers/national-minerals-information-center/minerals-information-publication-list-services>.

TABLE 1
SALIENT SULFUR STATISTICS¹

(Thousand metric tons)

Period	Production			Shipments, all sources	Stocks, end of period ²
	Petroleum ³	Natural gas	Total		
2022:					
January–December	7,500	504	8,000	7,990	125
January–June	3,680	233	3,910	3,910	112 ^r
June	640	34	674	682	112
July	651	47	697	688	122
August	651	48	699	707	114
September	623	43	666	661	119
October	629	45	673	671	121
November	649	45	695	690	125
December	614	43	657	657	125
2023:					
January	620	45	664	673	116
February	586	42	628	630	114
March	636	45	681	691	103
April	616	33	648	640	111
May	655	39	694	703	102
June ^p	639	35	673	673	102
January–June	3,750	237	3,990	4,010	102

^pPreliminary. ^rRevised.

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

²Subject to inventory adjustments.

³Includes a small quantity from coking operations.

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
2022:				
January–December	1,490	283,000	1,670	338,000
January–June	825 ^r	160,000	992 ^r	210,000
June	144	37,300	146	38,500
July	145	43,900	146	44,800
August	151	35,800	152	36,500
September	85	11,200	86	12,100
October	85	12,100	87	13,000
November	98	9,360	98	10,000
December	106	10,400	106	11,300
2023:				
January	101 ^r	9,850	103 ^r	10,600
February	117 ^r	10,900	171 ^r	20,800
March	117 ^r	10,300	119 ^r	11,300
April	110 ^{r,e}	16,400	112 ^{r,e}	18,000
May	120 ^{r,e}	9,660	121 ^{r,e}	11,200
June	110 ^e	7,800	111 ^e	8,830
January–June	676 ^e	64,800	736 ^e	80,800

^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
2022:									
January–December	1,820	594	173,000	720	235	140,000	3,230	1,060	469,000
January–June	917	300	68,400	402	131	80,900	1,660	542	230,000
June	153	50	14,500	69	23	14,200	254	83	39,600
July	154	50	17,400	66	22	14,400	266	87	45,700
August	167	55	19,400	53	17	10,100	300	98	45,600
September	149	49	17,200	44	14	7,770	269	88	41,500
October	149	49	18,100	45	15	7,580	223	73	33,400
November	146	48	17,000	37	12	7,050	217	71	30,400
December	136	44	15,800	74	24	12,600	298	97	41,700
2023:									
January	147	48	23,200	59	19	9,950	273	89	45,100
February	157	51	26,800	47	15	7,310	237	77	36,700
March	144	47	24,800	70	23	8,340	236	77	36,100
April	146	48	18,000	51	17	6,380	269	88	33,700
May	154	50	21,400	24	8	3,240	265	87	29,100
June	176	58	22,100	57	19	7,380	308	101	35,200
January–June	924	302	136,000	308	101	42,600	1,590	519	216,000

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.

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
2022:					
January–December	1,740	479,000	377	123	36,800
January–June	730 [†]	256,000 [†]	125	41	16,300
June	132	63,800	16	5	2,200
July	193	87,500	21	7	2,930
August	169	42,000	18	6	2,790
September	134	20,700	68	22	2,800
October	219	37,000	54	18	4,130
November	156	18,400	51	17	3,550
December	139	17,600	39	13	4,300
2023:					
January	176	23,100	32	10	3,650
February	185	27,300	13	4	3,620
March	177	30,900	19	6	2,920
April	155	21,500	10	3	2,210
May	55	7,120	17	5	4,350
June	83	8,630	16	5	4,550
January–June	829	118,000	106	35	21,300

[†]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.

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

TABLE 5
U.S. CONSUMPTION OF SULFUR¹

(Thousand metric tons)

Period	Domestic sources ²	Imports	Consumption
2022:			
January–December	6,250	1,670	7,920
January–June	3,180	846 ^r	4,030 ^r
June	550	146	695
July	495	146	640
August	538	152	689
September	527	86	613
October	453	87	540
November	534	98	632
December	518	106	624
2023:			
January	498	103 ^r	600
February	445	171 ^r	616
March	515	119 ^r	633
April	485	112 ^{r,e}	597 ^e
May	648	121 ^{r,e}	769 ^e
June ^p	591	111 ^e	702 ^e
January–June	3,180	736 ^e	3,920 ^e

^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–June 2022 ²		May 2023		June 2023 ^p		January–June 2023 ^{p, 2}	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	90	91	10	10	9	9	66	68
Natural gas	7	7	1	1	1	1	7	7
Total	97	98	11	11	10	10	72	75
PAD 2:								
Petroleum and coke	695	694	118	121	105	106	686	689
Natural gas	--	--	--	--	--	--	--	--
Total	695	694	118	121	105	106	686	689
PAD 3:								
Petroleum and coke	2,200	2,200	417	418	406	405	2,330	2,340
Natural gas	33	33	6	6	5	5	40	41
Total	2,240	2,230	423	424	411	410	2,370	2,380
PAD 4 and 5:								
Petroleum and coke	690 ^r	694 ^r	110	110	119	119	671	675
Natural gas	193	197	31	36	28	27	190	191
Total	884 ^r	891 ^r	141	146	147	147	861	866
Grand total	3,910	3,910	694	703	673	673	3,990	4,010

^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)

	2023			
	2022	May	June	January– June
Production	8.00	8.17	8.19 ^P	8.05
Shipments	7.99	8.28	8.19 ^P	8.09
Exports of sulfur	1.74	0.65	1.00	1.67
Imports of sulfur:				
Canada	1.49	1.41 ^r	1.34	1.36
Total ²	1.67	1.43 ^r	1.35	1.48
Exports of H ₂ SO ₄	0.38	0.20	0.19	0.21
Imports of H ₂ SO ₄ :				
Canada	1.82	1.81	2.14	1.86
Mexico	0.72	0.28	0.70	0.62
Total ²	3.23	3.12	3.75	3.21
Consumption:				
Domestic sources	6.25	7.63	7.19	6.41
Imports	1.67	1.43 ^r	1.35	1.48
Total	7.91	9.06 ^r	8.54	7.90
Sulfur export values ³	275	130	105	142
Sulfur import values: ³				
Canada	190	81 ^r	71	96
Average ³	203	92 ^r	79	110
H ₂ SO ₄ export values ³	98	260	291	201
H ₂ SO ₄ import values: ³				
Canada	95	139	125	147
Mexico	195	138	128	138
Average ²	145	110	114	136

^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.