

Mineral Industry Surveys

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SULFUR IN APRIL 2004

During the month, production of recovered elemental sulfur was 766,000 metric tons, according to the U.S. Geological Survey. April production was about the same as March 2004, and slightly lower than that of April 2003. Shipments were virtually the same as those of March 2004. Producers' ending stocks for April 2004 were 173,000 tons.

Import and export data for April 2004 were not available at the time of publication and will be published in the Sulfur in May 2004 Mineral Industry Surveys along with apparent consumption. Imports of recovered sulfur for March 2004 were

estimated to be 205,000 tons; exports were 84,000 tons. Imports of sulfuric acid for March 2004 were 176,000 tons; exports were 14,000 tons.

Significant adjustments have been made to the sulfur import data. Reports from the U.S. Census Bureau appear to underreport sulfur imports especially material from Canada. The revised figures are based on Census information, data and personal communications with industry experts. Better strategies for estimating import data from Canada are being explored.

TABLE 1
SALIENT SULFUR STATISTICS¹

(Thousand metric tons)

Period	Production			Shipments, all sources
	Petroleum ²	Natural gas	Total	
2003:				
January-December ^f	6,970	1,950	8,920	8,910
January-April	2,310	685	3,000	2,970
April	626 ^r	168 ^r	794	810
May	625 ^r	148 ^r	773	769
June	543 ^r	145 ^r	688	680
July	601 ^r	154 ^r	755	760
August	553 ^r	169 ^r	722	723
September	544 ^r	154 ^r	698	708
October	548 ^r	166 ^r	714	715
November	615 ^r	160 ^r	775	783
December ^f	630	168	798	804
2004:				
January	577	165	742	762
February ^f	525	155	680	691
March ^f	597	176	773	782
April ^p	613	164	776	781
Total	2,310	660	2,970	3,020

^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.

TABLE 2
U.S. IMPORTS OF SULFUR¹

(Thousand metric tons and thousand dollars)

Period	Canada		Mexico		Total, all countries ²	
	Quantity ^e	Value ³	Quantity	Value ³	Quantity ^e	Value ³
2003:						
January-December	2,080	32,000	535	26,500	2,810	69,100
January-March	550	6,480	134	6,440	684	13,600
March	200	2,870	45	2,130	245	5,660
April	190	2,950	44	2,380	234	5,230
May	200	4,160	45	2,530	266	7,760
June	180	2,940	44	2,410	241	6,270
July	160	2,440	45	2,180	241	6,390
August	160	2,040	45	1,940	267	4,820
September	160	2,910	44	2,070	213	6,160
October	160	2,460	49	2,470	229	5,760
November	160	2,850	45	2,170	205	6,860
December	160	2,770	40	1,960	230	6,180
2004:						
January	160	1,720	50	2,400	247	5,850
February	160	3,130	35	3,050	225	7,930
March ^e	160	3,660	25	2,570	205	7,210
Total	480	8,510	110	8,030	677	20,900

^eEstimated.

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 data as adjusted by U.S. Geological Survey and PentalSul North America Sulphur Service.

TABLE 3
U.S. IMPORTS OF SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Canada			Europe			Total, all countries ²		
	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³
2003:									
January-December	387	126	16,200	266	86	5,870	905	298	28,800
January-March	110	37	4,150	73	23	1,630	187	62	6,740
March	42	14	1,740	19	6	279	63	21	2,480
April	44	14	1,680	--	--	--	54	18	2,200
May	34	11	1,320	29	10	638	75	25	2,710
June	26	8	963	40	13	1,350	84	27	2,770
July	23	8	1,020	19	6	318	82	27	1,950
August	19	6	980	74	24	751	103	34	2,410
September	22	7	1,150	9	3	382	70	23	2,230
October	35	11	1,520	1	(4)	36	104	34	1,550
November	33	11	1,590	1	(4)	36 ^e	71	23	3,350
December	41	13	1,880	20	7	734	75	25	2,900
2004:									
January	97	32	3,930	--	--	--	114	37	4,610
February	179	58	7,480	21	7	488	204	69	8,450
March	167	54	6,760	6	2	163	176	58	7,280
Total	443	144	18,200	27	9	651	494	164	20,300

^eEstimated. -- Zero.

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.

⁴Less than 1/2 unit.

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
2003:					
January-December	742	46,100	207	68	18,800
January-February	208	10,800	39	12	3,880
March	34	2,830	11	3	1,360
April	94	4,030	12	4	1,430
May	41	2,430	22	7	1,610
June	70	6,650	21	7	1,790
July	55	4,700	28	10	2,430
August	57	2,190	27	9	2,060
September	50	2,090	23	7	1,910
October	72	4,360	12	4	1,200
November	27	4,880	12	4	1,170
December	67	3,920	12	4	1,360
2004:					
January	18	1,740	10	3	1,120
February	6	1,530	13	4	1,520
March	84	5,930	14	5	3,190
Total	108	9,190	37	12	5,830

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 ^c	Consumption
2003:			
January-December	8,170 ^r	2,810	11,000 ^r
January-March	2,760 ^r	654	3,420 ^r
March	702	245	947
April	716	234	950
May	728	266	994
June	610	241	851
July	705	241	946
August	666	267	933
September	658	213	871
October	643	229	872
November	756	205	961
December	731 ^r	230	961 ^r
2004:			
January	744 ^r	247	991 ^r
February	685 ^r	225	910 ^r
March	698	205	903
Total	2,130	677	2,800

^cEstimated. ^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	April 2004 ^p		March 2004		Total 2004 ²		Year to date 2003 ²	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	19	19	22	24 ^r	79	80	74	75
Natural gas	2	2	2	2	7	7	8	8
Total	21	21	24	26 ^r	86	87	83	84
PAD 2:								
Petroleum and coke	68	70	66	70	283	292	297	291 ^r
Natural gas	4	4	4	4	15	16	14 ^r	15 ^r
Total	71	74	70	74	297	307	331 ^r	305 ^r
PAD 3:³								
Petroleum and coke	410	409	392 ^r	394 ^r	1,530	1,550	1,460 ^r	1,470 ^r
Natural gas	44	44	47 ^r	45 ^r	180	182	177	175 ^r
Total	454	453	438 ^r	440 ^r	1,710	1,730	1,640 ^r	1,640 ^r
PAD 4 and 5:⁴								
Petroleum and coke	116	120	117 ^r	120 ^r	421	432	479 ^r	468 ^r
Natural gas	114	113	123 ^r	123 ^r	457	458	486 ^r	473 ^r
California	83	85	84	86	309	316	377 ^r	374 ^r
Total	231	233	240 ^r	240 ^r	878	891	964 ^r	941 ^r
Grand total	776	781	773 ^r	782 ^r	2,970	3,020	3,000 ^r	2,970 ^r

^pPreliminary. ^rRevised.

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

²May include revisions to prior months.

³Includes the U.S. Virgin Islands.

⁴Quantities produced and shipped in California included in petroleum and natural gas. California total shown for information purposes only.

TABLE 7
COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS¹

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

	2004			2003
	April	March	Year to date	total
Production	9.47	9.13 ^r	8.99 ^r	8.92
Shipments	9.53	9.32 ^r	9.12 ^r	8.91
Exports of sulfur	NA	0.99	0.43	0.74
Imports of sulfur:				
Canada	NA	1.89 ^e	1.93 ^e	2.08
Mexico	NA	0.30	0.44	0.54
Total ²	NA	2.42 ^e	2.72 ^e	2.81
Export of H ₂ SO ₄	NA	0.17	0.15	0.21
Import of H ₂ SO ₄ :				
Canada	NA	1.97	1.78	0.39
Europe	NA	0.07	0.11	0.27
Total ²	NA	2.08	1.99	0.91
Consumption: ³				
Domestic sources	NA	8.24	8.55	8.18
Imports	NA	2.42 ^e	2.72 ^e	2.81
Total	NA	10.66	11.28	11.00
Sulfur export values ⁴	NA	\$71	\$85	\$62
Sulfur import values: ⁴				
Canada	NA	\$23	\$18	\$15
Mexico	NA	\$103	\$73	\$50
Average	NA	\$35	\$31	\$25
H ₂ SO ₄ export values ⁴	NA	\$228	\$158	\$91
H ₂ SO ₄ import values: ⁴				
Canada	NA	\$40	\$41	\$42
Europe	NA	\$27	\$24	\$22
Average	NA	\$41	\$41	\$32

^eEstimated. ^rRevised. NA Not available.

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

²Includes other countries not listed.

³Because April trade data were not available, April consumption was not determined.

⁴Average value per ton for most recent data available.