

Mineral Industry Surveys

For information, contact:

Joyce A. Ober, Sulfur Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-7717, Fax: (703) 648-7757
E-mail: jober@usgs.gov

Robin C. Kaiser (Data)
Telephone: (703) 648-7948
Fax: (703) 648-7792
E-mail: rkaiser@usgs.gov

Internet: <http://minerals.usgs.gov/minerals>

SULFUR IN JANUARY 2009

During the month, production of recovered elemental sulfur was 776,000 metric tons (t), according to the U.S. Geological Survey. Production was 6% lower than that of December 2008 and 9% higher than January 2008. Shipments were 776,000 t, 7% lower than those of December 2008. Producers' ending stocks for January 2009 were 205,000 t.

Imports of recovered sulfur for January 2009 were estimated to be 95,000 t; exports were 116,000 t. Imports of sulfuric acid for January 2009 were 196,000 t; exports were 16,000 t.

U.S. sulfur consumption, calculated as shipments minus exports plus imports, was 755,000 t in January 2009. This was 9% lower than that of December 2008 and 24% lower than that of January 2008. Consumption remained relatively low compared with levels reached during most of 2008 because phosphate fertilizer producers curtailed production at most operations as a result of decreased demand for fertilizer

products. Sulfur consumption may not increase significantly until the beginning of the spring planting season. The decline in consumption was mostly reflected in reduced imports of elemental sulfur, which fell sharply in the fourth quarter of 2008 and declined more in January 2009. Exports were also higher than normal during that period.

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 and data from personal communications with industry experts.

Global sulfur prices continued to decline. The average unit value of imported sulfur was \$41 per ton in January, down to less than 10% of what was reported in October 2008. Prices during 2008 were at record levels that may not be seen again.

TABLE 1
SALIENT SULFUR STATISTICS¹

(Thousand metric tons)

Period	Production			Shipments, all sources	Ending stocks ³
	Petroleum ²	Natural gas	Total		
2007:					
January-December	7,000	1,280	8,280	8,320	XX
2008:					
January	624	86	711	712	202
February ^f	522	91	613	617	177
March	607 ^r	89	695 ^r	708 ^r	174
April	593 ^r	94	688 ^r	678 ^r	179
May	637 ^r	95	733 ^r	735 ^r	176
June	601 ^r	96	697 ^r	678 ^r	182
July	652 ^r	101	753	771 ^r	174
August	634 ^r	105	739 ^r	724 ^r	182
September	500 ^r	94	596 ^r	574 ^r	209 ^r
October	656 ^r	106	760 ^r	767 ^r	198
November	636 ^r	100	736 ^r	720 ^r	209 ^r
December ^f	713	110	823	828	205
Total ^f	7,370	1,170	8,540	8,510	XX
2009, January ^p	687	89	776	776	205

^pPreliminary. ^rRevised. XX Not applicable.

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		Mexico		Venezuela		Total, all countries ²	
	Quantity ^e	Value ³	Quantity	Value ³	Quantity ^e	Value ³	Quantity ^e	Value ³
2007:								
January-December	2,090	43,200	424	16,100	406	17,200	2,930	79,400
2008:								
January	205	11,600	43	3,070	63	4,480	311	19,300
February	210	16,100	29	6,820	35	8,260	274	31,400
March	205	36,000	22	8,000	19	4,110	272	60,300
April	190	25,200	22	12,900	11	6,720	223	45,000
May	195	40,800	43	16,800	16	6,330	254	64,200
June	190	36,800	29	9,840	23	8,230	253	64,700
July	200	62,900	14	5,940	20	8,230	261	102,000
August	200	55,900	29	11,600	60	39,100	309	119,000
September	195	52,000	29	13,800	49	22,800	273	88,700
October	130	55,200	49	25,400	40	15,100	232	99,500
November	125	17,600	29	16,300	9	5,250	164	39,500
December	130	4,900	27	9,210	15	5,260	172	19,500
Total	2,180	415,000	365	140,000	360	134,000	3,000	753,000
2009, January	85	3,360	--	--	10	200	95	3,902

^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 PentaSul North America Sulphur Service.

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
2007:									
January-December	2,310	688	101,000	239	79	6,760	2,600	833	112,000
2008:									
January	193	63	11,500	12	4	711	205	67	12,300
February	198	65	13,400	16	5	1,330	242	79	17,300
March	239	74	17,700	45	15	6,380	326	107	30,300
April	213	70	19,000	18	6	2,050	323	106	36,400
May	237	77	23,800	15	5	1,530	305	100	36,700
June	192	63	18,100	12	4	1,370	357	117	33,300
July	196	64	21,000	21	7	2,970	241	79	29,000
August	237	77	28,400	41	13	13,500	324	106	57,100
September	186	61	21,400	24	8	5,360	319	104	61,600
October	164	54	21,900	34	11	7,480	278	91	55,200
November	151	49	18,600	25	8	5,320	257	84	45,200
December	146	48	18,000	33	11	7,690	265	87	44,400
Total	2,350	765	233,000	296	97	55,700	3,440	1,130	459,000
2009, January	142	46	24,500	23	8	3,590	196	64	35,789

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
2007:					
January-December	922	84,800	334	106	34,300
2008:					
January	31	4,910	22	7	3,230
February	92	32,900	18	6	1,780
March	53	17,000	33	11	5,410
April	56	21,200	15	5	2,590
May	39	9,210	23	8	5,450
June	74	24,800	18	6	2,130
July	69	16,700	15	5	1,900
August	104	53,900	20	7	2,670
September	37	18,700	24	8	3,430
October	125	36,800	37	10	8,490
November	101	14,800	14	5	1,350
December	173	20,400	22	7	4,240
Total	954	272,000	261	85	42,700
2009, January	116	10,500	16	5	1,550

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 ^e	Consumption
2007:			
January-December	7,390	2,930	10,200
2008:			
January	681	311	992
February	525 ^r	274	799 ^r
March	655 ^r	272	927 ^r
April	622 ^r	223	845 ^r
May	696 ^r	254	950 ^r
June	604 ^r	253	857 ^r
July	702 ^r	261	963 ^r
August	620 ^r	309	929 ^r
September	537 ^r	273	810 ^r
October	642 ^r	232	874 ^r
November	619 ^r	164	783 ^r
December	655 ^r	172	827 ^r
Total	7,550 ^r	3,000	10,500 ^r
2009, January	660	95	755

^eEstimated. ^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 2008 ²		December 2008		January 2009 ^p	
	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:						
Petroleum and coke	38	33	16	17	17	16
Natural gas	1	1	1	1	1	1
Total	39	34	17	18	18	17
PAD 2:						
Petroleum and coke	85	85	81 ^r	82 ^r	77	71
Natural gas	3	3	3	3	3	3
Total	88	89	84 ^r	85 ^r	80	73
PAD 3: ³						
Petroleum and coke	393	400	506 ^r	510 ^r	492	498
Natural gas	42	43	44 ^r	45 ^r	45	42
Total	435	442	550 ^r	555 ^r	537	541
PAD 4 and 5: ⁴						
Petroleum and coke	108	106	109 ^r	108 ^r	101	98
Natural gas	40	40	62	61 ^r	41	46
California	90	86	92	93 ^r	83	82
Total	148	146	172 ^r	170 ^r	142	145
Grand total	711	712	823 ^r	828 ^r	776	776

^rRevised. ^pPreliminary.

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

²May include revisions.

³Includes the U.S. Virgin Islands.

⁴Quantities produced and shipped in California included in petroleum and coke. California total shown for information purpose only.

TABLE 7
COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS¹

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

	2008		2009
	December	Total	January
Production	9.72 ^r	8.54 ^r	9.14 ^p
Shipments	9.78 ^r	8.51 ^r	9.14 ^p
Exports of sulfur	2.04	0.95	1.37
Imports of sulfur:			
Canada ^c	1.53	2.18	1.00
Mexico	0.32	0.37	0.12
Venezuela ^c	0.18	0.36	1.12
Total ^{c,2}	2.03	3.00	3.53
Exports of H ₂ SO ₄	0.26	0.26	0.19
Imports of H ₂ SO ₄ :			
Canada	1.72	2.35	1.67
Mexico	0.39	0.30	0.27
Total ²	3.13	3.44	2.31
Consumption:			
Domestic sources	7.73 ^r	7.56 ^r	7.77
Imports ^c	2.03	3.00	1.12
Total	9.76 ^r	10.60 ^r	8.89
Sulfur export values ³	118	285	91
Sulfur import values: ³			
Canada	38	191	40
Mexico	341	383	--
Venezuela	350	372	20
Average ²	113	251	41
H ₂ SO ₄ export values ³	193	164	97
H ₂ SO ₄ import values: ³			
Canada	123	99	173
Mexico	233	188	156
Average ²	167	133	183

^cEstimated. ^pPreliminary. ^rRevised. -- Zero.

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.