

# 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](mailto:jober@usgs.gov)

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

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

## SULFUR IN JANUARY 2010

During the month, production of recovered elemental sulfur was 646,000 metric tons (t), according to the U.S. Geological Survey. Production was 7% lower than that of December 2009 and 16% lower than that of January 2009. Shipments were 618,000 t, 15% lower than those of December 2009. Producers' ending stocks for January 2010 were 249,000 t. Since January 2009, sulfur production and shipments have trended downward as a result of lower refinery operating rates and lower sulfur petroleum being processed.

Imports of recovered sulfur for January 2010 were estimated to be 164,000 t; exports were 123,000 t. Imports of sulfuric acid for January 2010 were 51,000 t; exports were 27,000 t.

U.S. sulfur consumption, calculated as shipments minus exports plus imports, was 659,000 t in January 2010. This was 9% lower than that of December 2009 and 9% lower than that of January 2009. Monthly sulfur consumption in 2009 averaged about 20% lower than that of 2008, mostly as a result of decreased demand from the phosphate fertilizer industry. January 2010 data does not indicate any recovery in the phosphate market.

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.

TABLE 1  
SALIENT SULFUR STATISTICS<sup>1</sup>

(Thousand metric tons)

Period	Production			Shipments, all sources	Ending stocks <sup>3</sup>
	Petroleum <sup>2</sup>	Natural gas	Total		
2008, January-December	7,380	1,320	8,690	8,670	XX
2009:					
January	678	89	767	760	205
February	575	106	681	647	245
March	676	112	787	763	258
April	687	93	781	801	239
May	649	88	736	692	286
June	659	86	745	739	283
July	667	90	757	721	303
August	630	83	715	750	217
September	606	90	696	671	231
October	562	101	663	655	230
November	591	100	691	671	231 <sup>r</sup>
December	595	101	696	726	194 <sup>r</sup>
Total	7,580	1,140	8,720	8,600	XX
2010, January <sup>p</sup>	541	105	646	618	249

<sup>p</sup>Preliminary. <sup>r</sup>Revised. XX Not applicable.

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

<sup>2</sup>Includes a small quantity from coking operations.

<sup>3</sup>Subject to inventory adjustments.

TABLE 2  
U.S. IMPORTS OF SULFUR<sup>1</sup>

(Thousand metric tons and thousand dollars)

Period	Canada		Mexico		Venezuela		Total, all countries <sup>2</sup>	
	Quantity <sup>c</sup>	Value <sup>3</sup>	Quantity	Value <sup>3</sup>	Quantity <sup>c</sup>	Value <sup>3</sup>	Quantity <sup>c</sup>	Value <sup>3</sup>
2008, January-December	2,180	415,000	365	140,000	360	134,000	3,000	753,000
2009:								
January	65	3,360	--	--	10	200	75	3,900
February	59	1,650	14	805	--	--	73	2,750
March	65	2,020	7	157	10	164	82	2,670
April	120	3,260	--	--	8	142	128	3,690
May	125	3,810	20	98	14	294	161	4,400
June	120	5,080	--	--	5	100	125	5,490
July	150	4,400	36	194	20	412	207	5,290
August	150	4,340	1	142	21	506	172	5,260
September	145	4,180	6	119	35	414	187	4,980
October	145	5,350	20	513	--	--	165	6,190
November	140	4,640	--	--	5	102	144	4,780
December	145	3,720	20	515	13	65	165	4,750
Total	1,430	45,800	124	2,540	141	2,400	1,680	54,100
2010, January	145	6,370	18	469	--	--	164	7,100

<sup>c</sup>Estimated. -- Zero.

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

<sup>2</sup>May include other countries not listed.

<sup>3</sup>Declared 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 ACID<sup>1</sup>

(Thousand metric tons and thousand dollars)

Period	Canada			Mexico			Total, all countries <sup>2</sup>		
	Quantity	Sulfur content	Value <sup>3</sup>	Quantity	Sulfur content	Value <sup>3</sup>	Quantity	Sulfur content	Value <sup>3</sup>
2008, January-December	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	35,800
February	172	56	31,700	14	5	458	206	67	32,600
March	192	63	34,700	18	6	334	281	92	40,700
April	70	23	9,290	2	1	97	106	34	10,400
May	32	10	3,440	1	( <sup>4</sup> )	12	44	14	3,830
June	18	6	1,860	8	3	41	64	21	3,780
July	34	11	2,770	10	3	49	46	15	3,300
August	35	11	2,770	11	4	57	70	23	3,710
September	22	7	1,780	10	3	51	51	17	2,900 <sup>r</sup>
October	32	10	2,200	10	3	50	48 <sup>r</sup>	16 <sup>r</sup>	2,300 <sup>r</sup>
November	40	13	1,730	--	--	--	67 <sup>r</sup>	22	2,500 <sup>r</sup>
December	32	10	1,440	( <sup>4</sup> )	( <sup>4</sup> )	7	86 <sup>r</sup>	28 <sup>r</sup>	3,440 <sup>r</sup>
Total	821	266	118,000	107	36	4,750	1,270 <sup>r</sup>	413 <sup>r</sup>	146,000 <sup>r</sup>
2010, January	26	9	1,400	2	1	85	51	17	2,170

<sup>r</sup>Revised. -- Zero.

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

<sup>2</sup>May include other countries not listed.

<sup>3</sup>Declared customs valuation.

<sup>4</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 4  
U.S. EXPORTS OF SULFUR AND SULFURIC ACID<sup>1</sup>

(Thousand metric tons and thousand dollars)

Period	Sulfur		Sulfuric acid		
	Quantity	Value <sup>2</sup>	Quantity	Sulfur content	Value <sup>2</sup>
2008, January-December	954	272,000	261	85	42,700
2009:					
January	116	10,500	16	5	1,550
February	114	4,790	17	6	1,720
March	247	9,960	11	4	1,500
April	119	5,820	17	6	1,740
May	99	5,490	19	6	1,980
June	199	10,400	25	8	2,420
July	123	8,170	27	9	2,720
August	67	5,960	24	8	2,530
September	49	3,720	28	9	2,480
October	68	4,330	25 <sup>r</sup>	8	2,100
November	53	3,990	22	7	1,580
December	170	9,080	22	7	1,560
Total	1,420	82,200	253 <sup>r</sup>	83	23,900
2010, January	123	7,900	27	9	2,150

<sup>r</sup>Revised.

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

<sup>2</sup>Declared f.a.s. (free alongside ship) valuation.

Source: U.S. Census Bureau.

TABLE 5  
U.S. CONSUMPTION OF SULFUR<sup>1</sup>

(Thousand metric tons)

Period	Domestic sources <sup>2</sup>	Imports <sup>e</sup>	Consumption
2008, January-December	7,720	3,000	10,700
2009:			
January	644	75	719
February	533	73	606
March	516	82	598
April	682	128	810
May	593	161	754
June	540	125	665
July	598	207	805
August	683	172	855
September	622	187	809
October	587	165	752
November	618	144	762
December	556	165	721
Total	7,170	1,680	8,860
2010, January	495	164	659

<sup>e</sup>Estimated.

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

<sup>2</sup>Calculated as shipments minus exports.

TABLE 6  
RECOVERED SULFUR PRODUCED AND SHIPPED IN THE UNITED STATES,  
BY PAD (PETROLEUM ADMINISTRATION FOR DEFENSE) DISTRICT<sup>1</sup>

(Thousand metric tons)

District and source	January 2009 <sup>2</sup>		December 2009		January 2010 <sup>p</sup>	
	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:						
Petroleum and coke	17	16	10	15	15	11
Natural gas	1	1	1	1	1	1
Total	18	17	11	16	16	12
PAD 2:						
Petroleum and coke	80	72	75	76	76	74
Natural gas	3	3	2	2	2	2
Total	83	75	77	78	78	76
PAD 3: <sup>3</sup>						
Petroleum and coke	481	489	415	436	356	335
Natural gas	44	35	35	35	36	35
Total	524	524	449	472	392	370
PAD 4 and 5: <sup>4</sup>						
Petroleum and coke	101	98	96 <sup>r</sup>	97	93	92
Natural gas	41	46	63	65	66	69
California	83	82	81	84	80	79
Total	142	145	158	162	159	161
Grand total	767	760	696	726	646	618

<sup>p</sup>Preliminary. <sup>r</sup>Revised.

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

<sup>2</sup>May include revisions.

<sup>3</sup>Includes the U.S. Virgin Islands.

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

TABLE 7  
COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS<sup>1</sup>

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

	2009		2010
	December	Total	January
Production	8.20	8.72	7.61 <sup>P</sup>
Shipments	8.55	8.60	7.28 <sup>P</sup>
Exports of sulfur	2.00	1.42	1.45
Imports of sulfur:			
Canada <sup>e</sup>	1.71	1.43	1.71
Mexico	0.23	0.12	0.21
Venezuela <sup>c</sup>	0.15	0.14	--
Total <sup>e,2</sup>	1.94	1.68	1.93
Exports of H <sub>2</sub> SO <sub>4</sub>	0.26	0.25 <sup>r</sup>	0.31
Imports of H <sub>2</sub> SO <sub>4</sub> :			
Canada	0.38	0.82	0.31
Mexico	(3) <sup>r</sup>	0.11	0.02
Total <sup>2</sup>	1.01 <sup>r</sup>	1.26	0.60
Consumption:			
Domestic sources	6.55	7.17	5.83
Imports <sup>e</sup>	1.94	1.68	1.93
Total	8.49 <sup>r</sup>	8.86	7.76
Sulfur export values <sup>4</sup>	53	58	64
Sulfur import values: <sup>4</sup>			
Canada	26	32	44
Mexico	26	21	26
Venezuela	5	17	XX
Average <sup>2</sup>	29	32	43
H <sub>2</sub> SO <sub>4</sub> export values <sup>4</sup>	71	94 <sup>r</sup>	80
H <sub>2</sub> SO <sub>4</sub> import values: <sup>4</sup>			
Canada	45	144	54
Mexico	XX	44	42
Average <sup>2</sup>	40 <sup>r</sup>	116	42

<sup>e</sup>Estimated. <sup>P</sup>Preliminary. <sup>r</sup>Revised. XX Not applicable. -- Zero.

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

<sup>2</sup>Includes other countries not listed.

<sup>3</sup>Less than ½ unit.

<sup>4</sup>Average value per ton.