

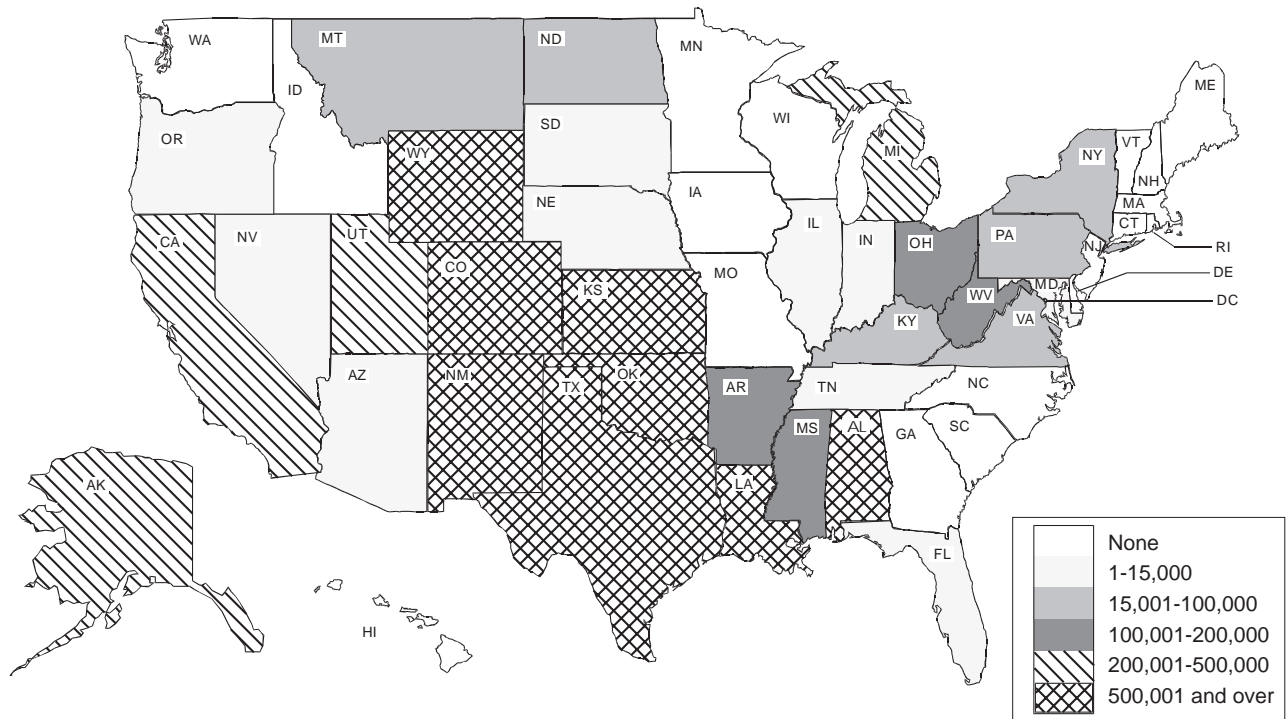
Supply

Production

During 1998, natural gas marketed production declined slightly (1 percent), to 19.6 trillion cubic feet from the 19.9 trillion cubic feet produced during 1997. Marketed production is derived from gross withdrawals by subtracting quantities used for repressuring, nonhydrocarbon gases removed during processing, and gas vented and flared. Marketed production volumes in 1998 were 13 percent below the 1973 historical peak of 22.6 trillion cubic feet. Texas, Louisiana, Oklahoma, and New Mexico continually lead the nation in the production of natural gas. Together these four States supplied 14.8 trillion cubic feet, 75 percent of marketed natural gas production in 1998.

- From 1997 to 1998, Louisiana had a modest increase in marketed production, with a gain of 58 billion cubic feet (1 percent) to 5.3 trillion cubic feet. Four other States showed increases in marketed production: Colorado, 59 billion cubic feet (9 percent); California, 30 billion cubic feet (10 percent); Wyoming, 23 billion cubic feet (3 percent), and Utah, 20 billion cubic feet (8 percent). Marketed production in Texas fell 135 billion cubic feet (2 percent) from the previous year's level. Marketed production also declined 84 billion cubic feet (12 percent) in Kansas, 59 billion cubic feet (3 percent) in Oklahoma, and 19 billion cubic feet (3 percent) in Alabama. Although Texas saw a slight decline in its marketed production, this State and Louisiana continue to be the two largest producing States, accounting for

Figure 4. Marketed Production of Natural Gas in the United States, 1998
(Million Cubic Feet)



Sources: West Virginia, 1998: Energy Information Administration (EIA), *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, Annual Reports*, DOE/EIA-0216; and EIA computations. All other data: Form EIA-895, "Monthly Quantity and Value of Natural Gas Report" and the United States Minerals Management Service.

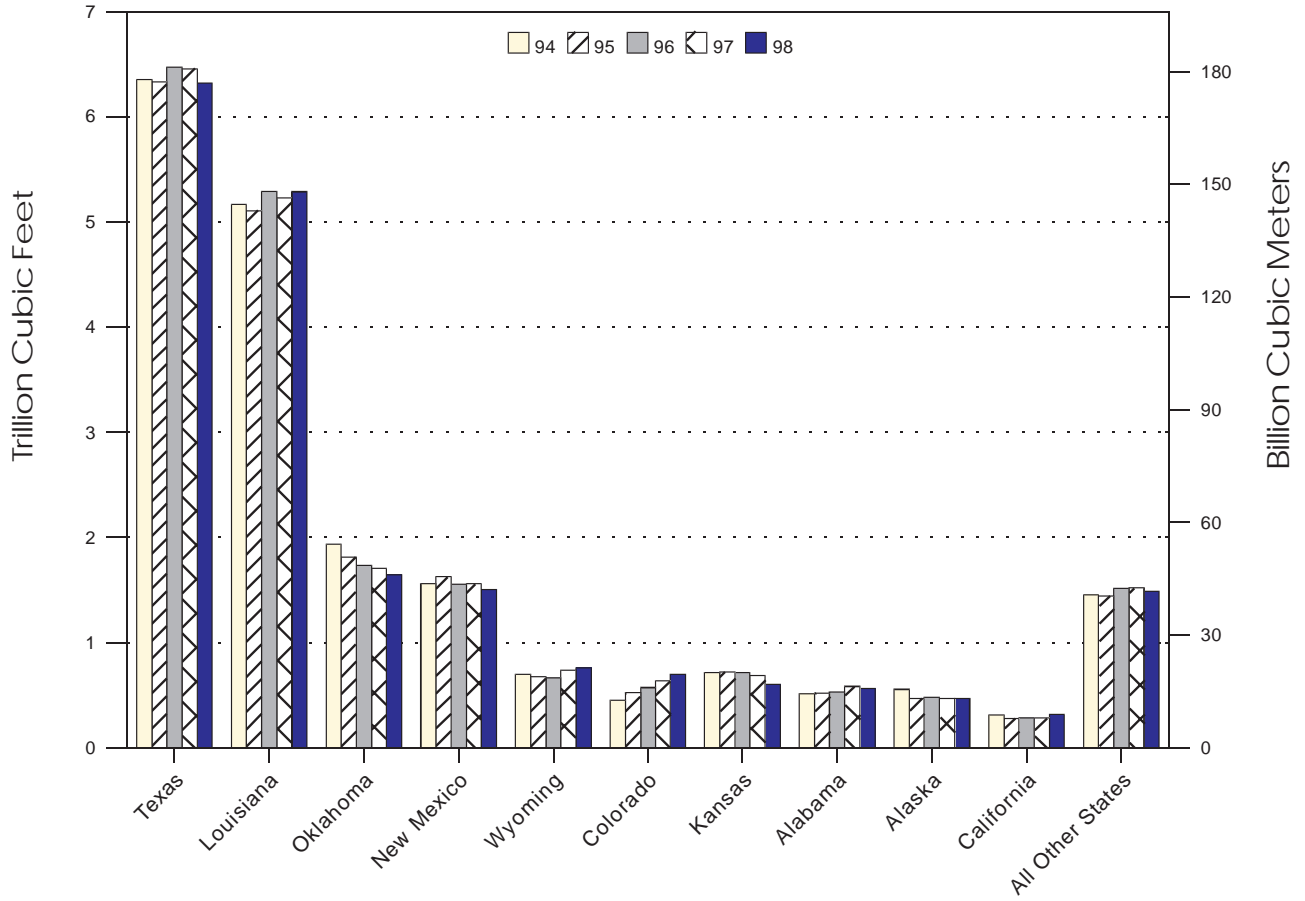
nearly 59 percent of U.S. marketed production. In all, 32 States reported measureable production in 1998.

- U.S. offshore production decreased slightly during 1998, declining 88 billion cubic feet (1 percent) from the 1997 level, to 5.8 trillion cubic feet. Offshore gross withdrawals accounted for 24 percent of the total U.S. gross withdrawals in 1998. Of the five States with offshore gross withdrawals of natural gas, two showed declines: Texas had a decrease of 104 billion cubic feet (8 percent), and Alabama had a decrease of 16 billion cubic feet (4 percent). These two States also had declines in onshore production during the same period. Alaska, California, and Louisiana, the remaining three States with offshore gross withdrawals of natural gas, showed increases in offshore production ranging from 1 percent to 7 percent during 1998.
- The number of producing gas wells and gas-condensate wells has continued to climb over the past 6 years, reaching 316,373 in 1998, 2 percent above the 1997 level. The South Atlantic Census Division saw the largest number of new wells drilled (8,414) in

1998 followed by the West South Central Census Division with 5,997 new wells.

- The average wellhead price declined in 1998 to \$1.94 per thousand cubic feet, 16 percent below the 1997 price of \$2.32. Average wellhead prices during 1996 and 1997 were at their highest level since the 1982-through-1985 time period when they peaked in the range of \$2.46 to \$2.66 per thousand cubic feet.
- The number of rotary rigs drilling for natural gas dropped from 564 in 1997 to 560 in 1998, while total well completions for natural gas rose from 10,937 to 11,907, a 9-percent increase. During 1998, exploratory natural gas well completions fell by 11 percent from 940 to 841. The percentage of overall oil and gas drilling was as follows: 68 percent of the rigs were drilling for natural gas, exploratory natural gas well completions were 68 percent of all exploratory completions, and developmental natural gas well completions and total natural gas well completions reached 65 percent, all record highs.

Figure 5. Marketed Production of Natural Gas in Selected Sectors, 1994-1998



Sources: West Virginia, 1998: Energy Information Administration (EIA), *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, Annual Reports*, DOE/EIA-0216; and EIA computations. All other data: Form EIA-895, "Monthly Quantity and Value of Natural Gas Report" and the United States Minerals Management Service.

Table 3. Gross Withdrawals and Marketed Production of Natural Gas by State, 1994-1998
(Million Cubic Feet)

Year and State	Gross Withdrawals			Repressuring	Nonhydrocarbon Gases Removed	Vented and Flared	Marketed Production
	From Gas Wells	From Oil Wells	Total				
1994 Total	17,351,060	6,229,645	23,580,706	3,230,667	412,178	228,336	19,709,525
1995 Total	17,282,032	6,461,596	23,743,628	3,565,023	388,392	283,739	19,506,474
1996 Total	^R 17,737,334	^R 6,376,201	^R 24,113,536	^R 3,510,753	^a 518,425	272,117	^R 19,812,241
1997 Total	17,844,046	6,368,631	24,212,677	3,491,542	^R 598,691	^R 256,351	^R 19,866,093
1998 Total	17,558,621	6,365,612	23,924,233	3,433,323	611,226	234,130	19,645,554
Alabama Total	597,424	8,414	605,839	13,994	26,604	1,462	563,779
Onshore	204,055	8,414	212,470	13,994	14,652	1,166	182,658
State Offshore	222,000	0	222,000	0	11,952	296	209,752
Federal Offshore	171,369	0	171,369	0	0	0	171,369
Alaska Total	182,993	3,195,855	3,378,848	2,904,028	0	8,171	466,648
Onshore	57,762	3,187,975	3,245,736	2,904,028	0	6,282	335,426
State Offshore	125,231	7,880	133,111	0	0	1,889	131,222
Federal Offshore	0	0	0	0	0	0	0
Arizona	429	28	457	0	0	0	457
Arkansas	159,769	29,941	189,709	1,293	0	45	188,372
California Total	81,097	316,472	397,569	79,614	726	1,952	315,277
Onshore	77,131	238,570	315,701	48,413	726	1,952	264,610
State Offshore	0	6,883	6,883	120	NA	NA	6,763
Federal Offshore	3,966	71,019	74,985	31,081	NA	NA	43,904
Colorado	606,349	98,460	704,809	7,244	0	1,244	696,321
Florida	0	6,547	6,547	0	751	0	5,796
Illinois ^E	203	6	209	0	0	0	209
Indiana	615	0	615	NA	NA	NA	615
Kansas	532,594	72,626	605,220	1,029	NA	605	603,586
Kentucky	81,868	0	81,868	0	0	0	81,868
Louisiana Total	4,525,152	824,209	5,349,361	41,948	NA	19,543	5,287,870
Onshore	1,230,813	155,665	1,386,478	6,779	NA	19,543	1,360,156
State Offshore	170,213	22,744	192,956	1,124	NA	NA	191,833
Federal Offshore	3,124,126	645,801	3,769,926	34,045	NA	NA	3,735,882
Maryland	63	0	63	0	0	0	63
Michigan	226,992	56,748	283,740	2,340	NA	3,324	278,076
Mississippi	120,588	8,628	129,216	9,830	8,520	2,798	108,068
Montana	51,774	7,733	59,506	68	518	1,274	57,645
Nebraska	1,214	480	1,695	0	0	0	1,695
Nevada	0	9	9	0	0	0	9
New Mexico	1,404,467	243,458	1,647,925	10,032	134,122	2,673	1,501,098
New York	16,413	291	16,704	0	0	5	16,699
North Dakota	18,220	39,394	57,614	0	57	4,371	53,185
Ohio	108,542	0	108,542	NA	NA	NA	108,542
Oklahoma	1,426,864	217,666	1,644,531	NA	NA	NA	1,644,531
Oregon	1,263	0	1,263	44	152	0	1,067
Pennsylvania	68,343	0	68,343	NA	NA	NA	68,343
South Dakota	772	8,480	9,252	0	6,106	1,526	1,620
Tennessee	0	1,420	1,420	NA	NA	NA	1,420
Texas Total	5,826,161	1,053,198	6,879,359	244,205	290,931	25,469	6,318,754
Onshore	4,669,930	962,557	5,632,487	244,205	290,931	25,469	5,071,881
State Offshore	59,159	609	59,767	NA	NA	NA	59,767
Federal Offshore	1,097,073	90,033	1,187,105	NA	NA	NA	1,187,105
Utah	253,761	43,504	297,265	559	NA	19,365	277,340
Virginia	57,263	0	57,263	0	0	0	57,263
West Virginia ^E	178,023	0	178,023	NA	NA	NA	178,023
Wyoming ^E	1,029,403	132,044	1,161,447	117,094	142,739	140,301	761,313

^a Nonhydrocarbon gases removed increased significantly in 1996 due to production increases in the Bravo Dome.

^E = Estimated data.

^R = Revised data.

NA = Not available.

Note: Totals may not equal sum of components due to independent rounding.

Sources: West Virginia, 1998: Energy Information Administration (EIA), *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, Annual Reports*, DOE/EIA-0216; and EIA computations. All other data: Form EIA-627, "Annual Quantity and Value of Natural Gas Report" (1994 and 1995); Form EIA-895, "Monthly Quantity and Value of Natural Gas Report" (1996 through 1998); and the United States Minerals Management Service.

Table 4. Offshore Gross Withdrawals of Natural Gas by State, 1994-1998
(Million Cubic Feet)

Year and State	State			Federal			Total Offshore
	From Gas Wells	From Oil Wells	Total	From Gas Wells	From Oil Wells	Total	
1994 Total	550,079	154,390	704,469	4,373,962	622,235	4,996,197	5,700,666
Alabama	228,878	0	228,878	117,308	3,194	120,502	349,380
Alaska	99,801	124,501	224,301	0	0	0	224,301
California	0	7,204	7,204	11,064	42,497	53,561	60,765
Louisiana	137,823	21,690	159,513	2,995,676	518,305	3,513,981	3,673,494
Texas	83,577	996	84,573	1,249,914	58,240	1,308,154	1,392,727
1995 Total	460,659	28,917	489,576	4,288,219	653,870	4,942,089	5,431,665
Alabama	212,895	0	212,895	143,353	350	143,703	356,598
Alaska	105,867	7,684	113,552	0	0	0	113,552
California	0	5,904	5,904	7,874	46,916	54,790	60,694
Louisiana	79,515	14,528	94,044	2,937,666	522,437	3,460,103	3,554,147
Texas	62,381	801	63,181	1,199,326	84,167	1,283,493	1,346,674
1996 Total	563,746	33,493	597,239	^R 4,558,997	^R 687,424	^R 5,246,422	^R 5,843,661
Alabama	209,013	0	209,013	152,055	0	152,055	361,068
Alaska	118,996	7,055	126,051	0	0	0	126,051
California	0	6,309	6,309	5,508	61,276	66,784	73,092
Louisiana	173,114	19,414	192,527	^R 3,166,015	^R 523,155	^R 3,689,170	^R 3,881,697
Texas	62,624	716	63,340	^R 1,235,419	^R 102,993	^R 1,338,413	^R 1,401,753
1997 Total	559,098	31,717	590,815	4,586,352	729,162	5,315,514	5,906,329
Alabama	214,414	0	214,414	194,677	0	194,677	409,091
Alaska	115,934	7,919	123,854	0	0	0	123,854
California	0	7,171	7,171	4,260	69,084	73,345	80,516
Louisiana	164,847	16,002	180,848	3,194,743	566,210	3,760,953	3,941,802
Texas	63,903	625	64,528	1,192,672	93,867	1,286,539	1,351,067
1998 Total	576,603	38,116	614,719	4,396,533	806,852	5,203,385	5,818,104
Alabama	222,000	0	222,000	171,369	0	171,369	393,369
Alaska	125,231	7,880	133,111	0	0	0	133,111
California	0	6,883	6,883	3,966	71,019	74,985	81,868
Louisiana	170,213	22,744	192,956	3,124,126	645,801	3,769,926	3,962,883
Texas	59,159	609	59,767	1,097,073	90,033	1,187,105	1,246,873

^R = Revised data.

Notes: For individual State and U.S. production, see Table 3. Totals may not equal sum of components due to independent rounding.

Source: Appropriate State agencies responses to informal data requests and the United States Minerals Management Service.

Table 5. Number of Producing Gas and Gas Condensate Wells by State as of December 31, 1994-1998

State	1994	1995	1996	1997	1998
Alabama	3,565	3,526	4,105	4,156	4,171
Alaska	104	100	102	141	148
Arizona	6	7	7	8	8
Arkansas	3,500	3,988	4,020	3,700	3,900
California	1,261	997	978	930	847
Colorado.....	7,056	7,017	8,251	12,433	13,838
Illinois	390	372	370	372	185
Indiana	1,348	1,347	1,367	1,458	1,479
Kansas	19,365	22,020	21,388	21,500	21,000
Kentucky	13,036	13,311	13,501	13,825	13,825
Louisiana.....	12,958	14,169	15,295	14,958	18,399
Maryland	7	7	8	8	8
Michigan.....	6,000	5,258	5,826	6,825	7,000
Mississippi.....	583	535	568	560	527
Missouri ^a	12	15	24	0	0
Montana	2,940	2,918	2,990	3,071	3,423
Nebraska.....	87	87	88	91	95
Nevada.....	0	0	5	5	4
New Mexico.....	23,292	23,510	24,134	27,421	28,200
New York.....	5,884	6,134	6,208	5,731	5,903
North Dakota.....	104	99	108	104	99
Ohio.....	34,731	34,520	34,380	34,238	34,098
Oklahoma.....	29,121	29,733	29,733	^R 29,734	30,101
Oregon	19	17	18	17	15
Pennsylvania.....	31,150	31,025	31,792	32,692	21,576
South Dakota	55	56	61	60	59
Tennessee	0	0	0	505	460
Texas.....	48,654	54,635	53,816	56,747	58,736
Utah.....	1,303	1,127	1,339	1,475	1,643
Virginia	1,470	1,671	1,671	2,046	2,388
West Virginia.....	39,830	36,144	35,148	31,000	39,072
Wyoming	3,942	4,196	4,510	5,160	5,166
Total.....	291,773	298,541	301,811	^R310,971	316,373

^a No wells currently in production.

^R = Revised data.

Sources: Energy Information Administration (EIA), Form EIA-627, "Annual Quantity and Value of Natural Gas Report" (1994 and 1995); Form EIA-895, "Monthly Quantity and Value of Natural Gas Report" (1996 through 1998); the United States Minerals Management Services (MMS), and *World Oil* Magazine.

Table 6. Wellhead Value and Marketed Production of Natural Gas by State, 1994-1998

Year and State	Reported Wellhead Value		Average Wellhead Price (dollars per thousand cubic feet)	Marketed Production (million cubic feet)	Imputed Wellhead Value of Marketed Production ^b (thousand dollars)
	Volume ^a (million cubic feet)	Value (thousand dollars)			
1994 Total	15,513,667	—	1.85	19,709,525	36,535,940
1995 Total	15,557,464	—	1.55	19,506,474	30,159,545
1996 Total	14,822,258	—	2.17	^R 19,812,241	^R 42,951,353
1997 Total	^R 17,105,855	—	2.32	^R 19,866,093	^R 46,131,323
1998 Total	17,653,795	—	1.94	19,645,554	38,205,887
Alabama	563,779	1,237,275	2.19	563,779	1,237,274
Alaska	192,982	254,039	1.32	466,648	614,291
Arizona	411	775	1.88	457	861
Arkansas ^c	61,012	239,053	3.92	188,372	738,061
California	264,810	521,970	1.97	315,277	621,446
Colorado ^c	696,321	1,323,347	1.90	696,321	1,323,344
Florida	NA	NA	—	5,796	0
Illinois	NA	NA	—	209	0
Indiana	615	1,286	2.09	615	1,286
Kansas	603,586	1,026,875	1.70	603,586	1,026,875
Kentucky	81,868	195,721	2.39	81,868	195,720
Louisiana	5,487,799	10,953,973	2.00	5,287,870	10,554,906
Maryland	63	164	2.60	63	164
Michigan	278,076	491,223	1.77	278,076	491,224
Mississippi.....	88,723	125,771	1.42	108,068	153,193
Montana	51,967	79,315	1.53	57,645	87,981
Nebraska.....	1,285	1,668	1.30	1,695	2,201
Nevada ^d	0	0	—	9	0
New Mexico.....	1,483,370	2,617,625	1.76	1,501,098	2,648,913
New York.....	15,415	39,500	2.56	16,699	42,791
North Dakota	53,185	113,591	2.14	53,185	113,591
Ohio.....	108,542	243,134	2.24	108,542	243,134
Oklahoma.....	1,644,531	2,914,864	1.77	1,644,531	2,914,865
Oregon	1,067	2,538	2.38	1,067	2,538
Pennsylvania.....	NA	NA	—	68,343	0
South Dakota	772	1,906	2.47	1,620	4,001
Tennessee	1,420	3,060	2.15	1,420	3,060
Texas.....	4,777,945	9,832,291	2.06	6,318,754	13,003,048
Utah.....	190,230	328,645	1.73	277,340	479,139
Virginia	NA	NA	—	57,263	0
West Virginia.....	NA	NA	—	178,023	0
Wyoming	1,004,020	1,782,740	1.78	761,313	1,351,788

^a Quantity of production associated with reported wellhead value. A number of States reported values associated with quantities other than marketed production.

^b Average wellhead price times marketed production does not equal imputed value of marketed production due to independent rounding.

^c Quantity and value data obtained from Energy Information Administration Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

^d All of Nevada's marketed production was consumed as lease fuel.

^R = Revised data.

NA = Not available.

— = Not applicable.

Note: Totals may not equal sum of components due to independent rounding.

Sources: West Virginia, 1998: Energy Information Administration (EIA), *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, Annual Reports*, DOE/EIA-0216; and EIA computations. All other data: Form EIA-627, "Annual Quantity and Value of Natural Gas Report" (1994 and 1995); Form EIA-895, "Monthly Quantity and Value of Natural Gas Report" (1996 through 1998); and the United States Minerals Management Service.

Table 7. Natural Gas Processed, Liquids Extracted, and Estimated Extraction Loss by State, 1998

Plant Location	Natural Gas Processed (million cubic feet)	Total Liquids Extracted (thousand barrels)	Extraction Loss	
			Volume (million cubic feet)	Estimated Heat Content (billion Btu)
Alabama	107,334	3,199	4,263	13,496
Alaska	2,966,461	33,889	40,120	150,419
Arkansas	198,148	365	451	1,536
California	235,558	8,351	10,242	34,826
Colorado.....	425,083	17,467	24,365	65,730
Florida	8,174	1,559	1,523	5,856
Illinois	468	59	70	255
Kansas	732,828	32,853	45,801	127,491
Kentucky	37,929	1,661	2,263	6,476
Louisiana.....	4,610,969	101,358	144,609	384,288
Michigan.....	83,052	4,399	5,938	16,977
Mississippi.....	3,668	370	495	1,592
Montana	8,715	318	410	1,306
New Mexico.....	868,209	74,058	106,665	268,232
North Dakota.....	52,777	4,234	5,481	17,673
Ohio.....	2,895	61	78	258
Oklahoma.....	947,177	65,306	92,785	239,776
Pennsylvania.....	11,366	554	732	2,280
Texas	4,073,739	272,512	388,011	1,011,707
Utah.....	242,070	8,280	11,801	32,395
West Virginia.....	70,641	5,158	7,337	19,293
Wyoming	870,518	32,000	44,358	124,462
Total.....	16,557,779	668,011	937,798	2,526,324

Note: Totals may not equal sum of components due to independent rounding.

Sources: Natural Gas Processed, Total Liquids Extracted, and Extraction Loss Volume: Energy Information Administration (EIA), Form EIA-64A, "Annual Report of the Origin of Natural Gas Liquids Production." Estimated Heat Content of Extraction Loss: Estimated, assuming the makeup to total liquids production as reported on Form EIA-64A for each State was proportional to the components and products ultimately separated in

the States as reported on the 12 monthly reports on Energy Information Administration, Form EIA-816, "Monthly Natural Gas Liquids Report," and applying the following conversion factors to the individual component and product production estimates (million Btu extraction loss per barrel of liquid produced): ethane, 3.082; propane, 3.836; normal butane, 4.326; isobutane, 3.974; pentanes plus, 4.620.