

4. Natural Gas Statistics

Dry Natural Gas

Proved Reserves

The United States had 211,085 billion cubic feet of dry natural gas proved reserves as of December 31, 2006 (Table 8), the highest level since 1976. Proved reserves of natural gas increased by 3 percent from 2005 to 2006. All natural gas proved reserves data shown in this report exclude natural gas held in underground storage.

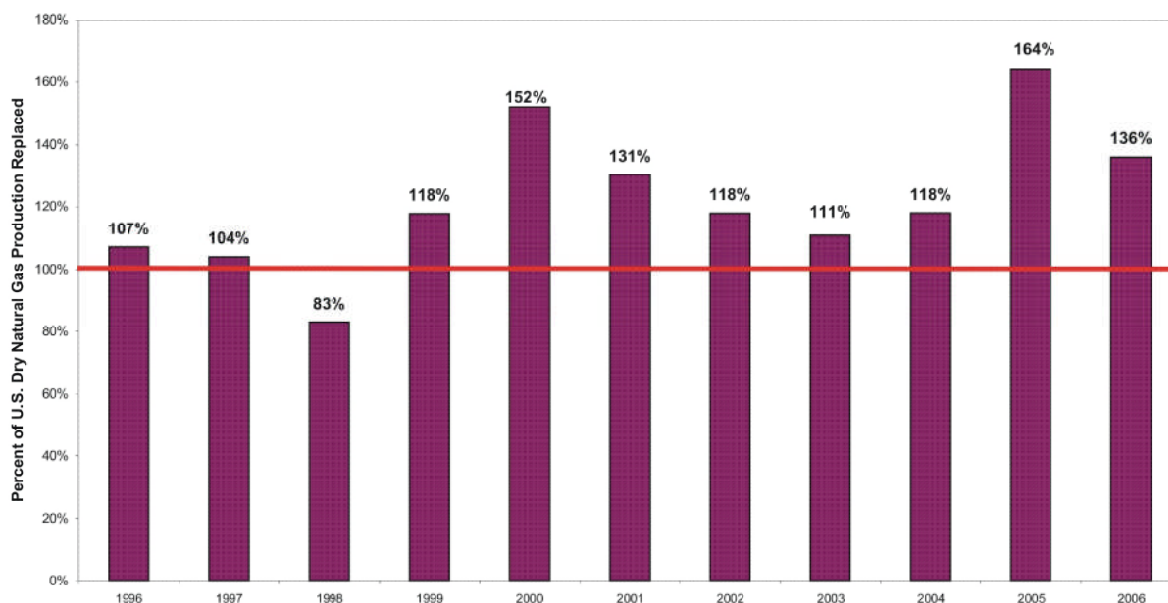
Texas led the nation in natural gas reserves additions in 2006 with a 9 percent increase in dry gas proved reserves due to rapid development of Barnett Shale reservoirs in the Newark East Field. Advances in horizontal drilling and hydraulic fracturing technology and relatively high natural gas prices supported this development. Alaska and Utah were second and third for dry natural gas proved reserves additions in 2006. Total U.S. reserves additions replaced 136 percent of 2006 dry gas production (Figure 18).

The proved reserves by State are shown on the map in Figure 19. Eight areas accounted for 81 percent of the Nation's dry natural gas proved reserves:

Area	Percent of U.S. Gas Reserves
Texas	29
Wyoming	11
New Mexico	8
Oklahoma	8
Colorado	8
Gulf of Mexico Federal Offshore	7
Louisiana	5
Alaska	5
Area Total	81

Total U.S. natural gas production increased in 2006 due to production increases in Texas (Barnett Shale), Louisiana, and the Rocky Mountain states (Colorado, Wyoming, Utah, and Montana). Texas had the largest increase in production in 2006 (3 percent; 184 billion cubic feet), while the Gulf of Mexico Federal Offshore declined the most (6 percent; -168 billion cubic feet).

Figure 18. Replacement of U.S. Dry Natural Gas Production by Reserves Additions, 1996-2006.



Source: Energy Information Administration, Office of Oil and Gas.

Table 8. Dry Natural Gas Proved Reserves, Reserves Changes, and Production, 2006
(Billion Cubic Feet at 14.73 psia and 60° Fahrenheit)

State and Subdivision	Published Proved Reserves 12/31/05	Changes in Reserves During 2006									Proved Reserves 12/31/06
		Adjustments (+,-)	Revision Increases (+)	Revision Decreases (-)	Sales (-)	Acquisitions (+)	Extensions (+)	New Field Discoveries (+)	New Reservoir Discoveries in Old Fields (+)	Estimated Production (-)	
Alaska	8,171	-46	2,853	376	0	0	49	0	2	408	10,245
Lower 48 States	196,214	789	17,980	22,293	22,850	25,846	21,729	409	1,153	18,137	200,840
Alabama	3,965	-11	234	208	188	253	146	0	7	287	3,911
Arkansas	1,964	-26	101	113	4	5	491	7	32	188	2,269
California	3,228	-74	156	419	274	252	176	0	4	255	2,794
Coastal Region Onshore	268	-62	28	12	70	58	5	0	0	9	206
Los Angeles Basin Onshore	176	0	7	29	35	38	4	0	0	8	153
San Joaquin Basin Onshore	2,694	-12	112	371	169	156	166	0	1	232	2,345
State Offshore	90	0	9	7	0	0	1	0	3	6	90
Colorado	16,596	52	1,178	1,524	1,539	1,540	1,980	14	26	1,174	17,149
Florida	77	2	0	32	0	0	0	0	0	2	45
Kansas	4,314	89	807	1,020	18	13	93	0	3	350	3,931
Kentucky	2,151	-22	56	21	432	534	23	0	4	66	2,227
Louisiana	10,447	86	1,191	1,417	500	738	1,026	27	185	1,309	10,474
North	6,695	-27	603	759	57	189	619	0	4	552	6,715
South Onshore	3,334	135	526	607	388	523	328	10	148	674	3,335
State Offshore	418	-22	62	51	55	26	79	17	33	83	424
Michigan	2,910	112	460	291	48	27	86	1	5	197	3,065
Mississippi	755	-26	96	40	44	30	119	0	6	83	813
Montana	986	13	65	78	20	17	144	19	28	117	1,057
New Mexico	18,201	91	1,273	1,203	6,248	6,278	793	35	140	1,426	17,934
East	3,791	56	607	495	297	327	370	35	0	480	3,914
West	14,410	35	666	708	5,951	5,951	423	0	140	946	14,020
New York	349	33	22	38	55	52	5	45	0	50	363
North Dakota	453	18	70	31	53	40	30	1	3	52	479
Ohio	898	129	49	112	11	83	17	0	0	78	975
Oklahoma	17,123	-149	1,515	1,868	821	1,202	2,051	0	12	1,601	17,464
Pennsylvania	2,782	-117	185	224	6	234	359	13	0	176	3,050
Texas	56,507	835	6,392	7,853	4,603	6,366	9,467	80	253	5,608	61,836
RRC District 1	1,161	77	36	182	0	4	74	2	0	109	1,063
RRC District 2 Onshore	2,073	207	209	511	138	195	321	9	18	323	2,060
RRC District 3 Onshore	3,192	-5	411	472	407	389	384	20	70	532	3,050
RRC District 4 Onshore	8,761	250	844	1,857	1,156	1,184	1,138	23	86	1,157	8,116
RRC District 5	9,557	84	2,318	683	661	804	1,953	4	0	783	12,593
RRC District 6	8,976	69	854	1,741	511	856	1,357	1	0	774	9,087
RRC District 7B	802	-61	197	67	48	57	681	0	0	90	1,471
RRC District 7C	5,123	25	170	634	111	231	691	0	0	369	5,126
RRC District 8	5,993	43	511	714	845	1,065	488	2	7	480	6,070
RRC District 8A	1,366	34	114	135	11	5	19	0	0	102	1,290
RRC District 9	4,328	4	139	183	516	1,318	1,535	0	0	407	6,218
RRC District 10	4,910	95	573	639	128	198	826	2	0	450	5,387
State Offshore	265	13	16	35	71	60	0	17	72	32	305
Utah	4,295	-11	218	502	1,147	1,189	1,408	45	0	349	5,146
Virginia	2,018	25	234	14	133	154	114	6	0	102	2,302
West Virginia	4,459	-251	298	188	745	886	229	3	5	187	4,509
Wyoming	23,774	36	1,339	2,281	3,239	3,372	2,211	2	30	1,695	23,549
Federal Offshore ^a	17,831	-39	2,030	2,798	2,718	2,575	733	111	410	2,775	15,360
Pacific (California)	824	2	43	22	0	0	0	0	1	37	811
Gulf of Mexico (Louisiana) ^a	13,665	-37	1,606	2,201	1,532	1,341	530	82	343	1,973	11,824
Gulf of Mexico (Texas)	3,342	-4	381	575	1,186	1,234	203	29	66	765	2,725
Miscellaneous ^b	131	-6	11	18	4	6	28	0	0	10	138
U.S. Total	204,385	743	20,833	22,669	22,850	25,846	21,778	409	1,155	18,545	211,085

^aIndicates the estimate is associated with a sampling error (95 percent confidence interval) that exceeds 20 percent of the estimated value.

^bIncludes Federal offshore Alabama.

^cIncludes Arizona, Illinois, Indiana, Maryland, Missouri, Nebraska, Nevada, Oregon, South Dakota, and Tennessee.

Note: The production estimates in this table are based on data reported on Form EIA-23, "Annual Survey of Domestic Oil and Gas Reserves," and Form EIA-64A, "Annual Report of the Origin of Natural Gas Liquids Production." They may differ from the official Energy Information Administration production data for natural gas for 2006 contained in the *Natural Gas Annual 2006*, DOE/EIA-0131(06).

Source: Energy Information Administration, Office of Oil and Gas.

Figure 19. Dry Natural Gas Proved Reserves by Area, 2006

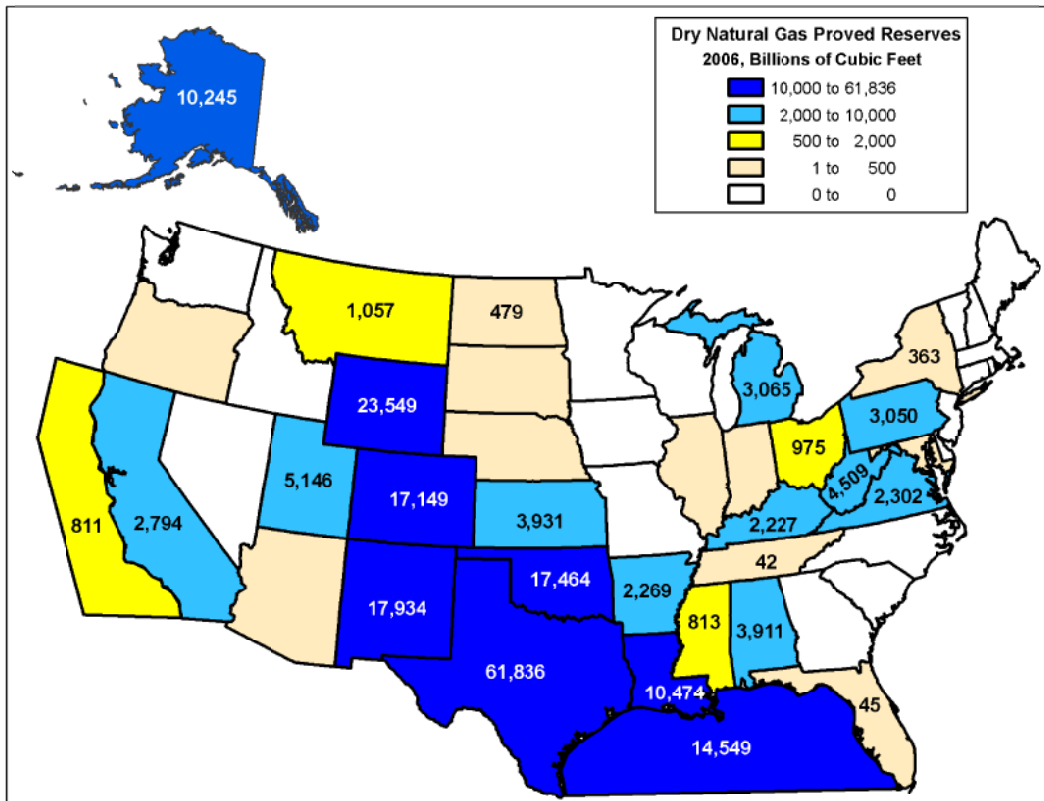
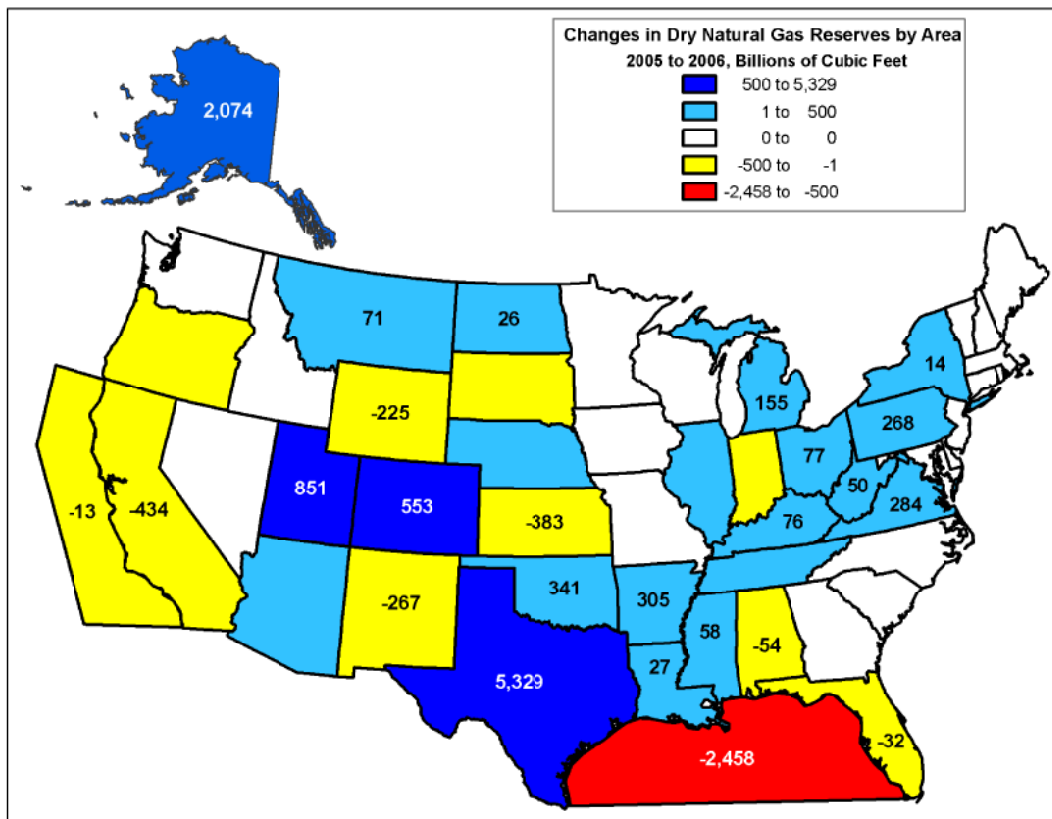


Figure 20. Changes in Dry Natural Gas Proved Reserves by Area, 2005 to 2006



Source: Energy Information Administration, Office of Oil and Gas.

Discussion of Reserves Changes

Figure 20 maps the change in dry gas proved reserves from 2005 to 2006 by area. Here's how the top eight areas fared, compared to the total United States:

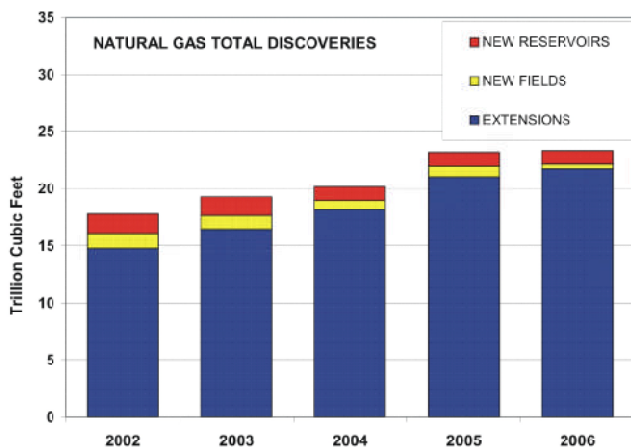
Area	Change in U.S. Gas Reserves (billion cubic feet)
Texas	+5,329
Wyoming	-225
New Mexico	-267
Oklahoma	+341
Colorado	+553
Gulf of Mexico Federal Offshore	-2,458
Louisiana	+27
Alaska	+2,074
Area Total	+5,374
U.S. Total	+6,700

Figure 4 in Chapter 2 shows the components of change in dry natural gas proved reserves for 2006 and the preceding 10 years.

Total Discoveries

Total discoveries are those reserves attributable to field extensions, new field discoveries, and new reservoir discoveries in old fields; they result from drilling exploratory wells (see graph below).

Total discoveries of dry natural gas reserves were 23,342 billion cubic feet in 2006, a 1 percent increase from the level reported in 2005.



Seven areas reported total discoveries of dry natural gas exceeding 1 trillion cubic feet in 2006:

Area	2006 Total Discoveries (Billion cubic feet)
Texas	9,800
Wyoming	2,243
Oklahoma	2,063
Colorado	2,020
Utah	1,453
Gulf of Mexico Federal Offshore	1,253
Louisiana	1,238
Area Total	20,070
U.S. Total	23,342

Extensions

The largest component of total discoveries in 2006 was extensions of existing gas fields. Extensions were 21,778 billion cubic feet, 3 percent more than 2005 and 61 percent more than the prior 10-year average (13,522 billion cubic feet). Areas with the largest extensions and their percentage of total extensions were:

Area	Percent of 2006 Extensions
Texas	43
Wyoming	10
Oklahoma	9
Colorado	9
Utah	6
Louisiana	5
New Mexico	4
Area Total	86

New Field Discoveries

New field discoveries were 409 billion cubic feet in 2006, 57 percent less than in 2005. The areas with the largest new field discoveries were the Gulf of Mexico Federal Offshore (111 billion cubic feet; 27 percent of the total), Texas (80 billion cubic feet; 20 percent), Utah (45 billion cubic feet; 11 percent) and New York (45 billion cubic feet; 11 percent). In the prior 10 years, U.S. operators had reported an annual average of 1,659 billion cubic feet of reserves from new field discoveries. Reserves from new field discoveries in 2006 were 75 percent less than the prior 10 year average.

New Reservoir Discoveries in Old Fields

New reservoir discoveries in old fields were 1,155 billion cubic feet, 4 percent less than 2005 (1,208 billion cubic feet). The areas with the largest new reservoir

Table 9. Natural Gas Proved Reserves, Reserves Changes, and Production, Wet After Lease Separation, 2005 (Billion Cubic Feet at 14.73 psia and 60° Fahrenheit)

State and Subdivision	Published Proved Reserves 12/31/05	Changes in Reserves During 2006							New Reservoir Discoveries in Old Fields (+)	Estimated Production (-)	Proved Reserves 12/31/06
		Adjustments (+,-)	Revision Increases (+)	Revision Decreases (-)	Sales (-)	Acquisitions (+)	Extensions (+)	New Field Discoveries (+)			
Alaska	8,237	-50	2,882	378	0	0	50	0	2	410	10,333
Lower 48 States	205,071	996	18,758	23,361	23,904	27,082	22,784	425	1,195	18,963	210,083
Alabama	4,006	-2	238	213	192	259	150	0	7	290	3,963
Arkansas	1,967	-28	101	114	4	5	492	7	33	188	2,271
California	3,384	-73	163	440	287	266	186	0	4	268	2,935
Coastal Region Onshore	277	-64	29	12	72	60	5	0	0	9	214
Los Angeles Basin Onshore	186	-1	7	31	37	41	4	0	0	8	161
San Joaquin Basin Onshore	2,831	-9	118	390	178	165	176	0	1	244	2,470
State Offshore	90	1	9	7	0	0	1	0	3	7	90
Colorado	17,122	42	1,215	1,571	1,587	1,588	2,042	15	27	1,211	17,682
Florida	87	1	0	35	0	0	0	0	0	3	50
Kansas	4,598	103	862	1,090	19	14	100	0	3	374	4,197
Kentucky	2,240	23	60	22	459	568	24	0	5	70	2,369
Louisiana	10,679	95	1,222	1,453	519	762	1,049	29	192	1,346	10,710
North	6,768	-20	610	768	57	191	626	0	4	559	6,795
South Onshore	3,478	134	548	632	404	544	341	11	154	701	3,473
State Offshore	433	-19	64	53	58	27	82	18	34	86	442
Michigan	2,961	112	467	295	48	27	88	1	5	201	3,117
Mississippi	758	-23	95	40	44	29	119	0	6	84	816
Montana	998	13	66	79	20	17	145	20	28	119	1,069
New Mexico	19,344	138	1,369	1,292	6,612	6,645	851	39	147	1,525	19,104
East	4,132	89	666	543	326	359	405	39	0	526	4,295
West	15,212	49	703	749	6,286	6,286	446	0	147	999	14,809
New York	349	32	22	38	55	52	5	45	0	49	363
North Dakota	508	20	79	34	60	45	34	1	4	58	539
Ohio	898	128	49	112	11	83	18	0	0	78	975
Oklahoma	18,146	-131	1,608	1,983	871	1,275	2,177	0	13	1,699	18,535
Pennsylvania	2,793	-117	186	225	6	235	361	14	0	177	3,064
Texas	60,178	891	6,708	8,348	4,906	6,807	10,090	84	265	5,964	65,805
RRC District 1	1,205	87	38	190	0	4	77	2	0	114	1,109
RRC District 2 Onshore	2,175	222	220	537	146	206	337	10	19	340	2,166
RRC District 3 Onshore	3,406	18	442	506	437	417	413	22	75	572	3,278
RRC District 4 Onshore	9,104	304	881	1,939	1,207	1,236	1,188	24	91	1,208	8,474
RRC District 5	9,611	72	2,328	686	664	807	1,962	4	0	786	12,648
RRC District 6	9,343	94	890	1,816	533	894	1,416	1	0	808	9,481
RRC District 7B	932	-95	222	76	54	65	770	0	0	101	1,663
RRC District 7C	5,702	49	190	708	124	258	772	0	0	412	5,727
RRC District 8	6,800	17	577	807	955	1,203	552	2	8	542	6,855
RRC District 8A	1,471	32	122	144	12	5	20	0	0	110	1,384
RRC District 9	4,734	-20	151	199	562	1,434	1,670	0	0	443	6,765
RRC District 10	5,430	98	632	705	141	218	913	2	0	497	5,950
State Offshore	265	13	15	35	71	60	0	17	72	31	305
Utah	4,359	-21	220	509	1,161	1,204	1,426	46	0	353	5,211
Virginia	2,018	25	234	14	133	154	114	6	0	102	2,302
West Virginia	4,572	-227	308	195	769	914	236	3	5	193	4,654
Wyoming	24,722	14	1,391	2,370	3,365	3,503	2,297	1	31	1,761	24,463
Federal Offshore ^a	18,252	-11	2,084	2,871	2,772	2,624	751	114	420	2,841	15,750
Pacific (California)	825	1	43	22	0	0	0	0	1	37	811
Gulf of Mexico (Louisiana) ^a	14,073	-10	1,658	2,272	1,581	1,384	547	85	353	2,036	12,201
Gulf of Mexico (Texas)	3,354	-2	383	577	1,191	1,240	204	29	66	768	2,738
Miscellaneous ^b	132	-8	11	18	4	6	29	0	0	9	139
U.S. Total	213,308	946	21,640	23,739	23,904	27,082	22,834	425	1,197	19,373	220,416

^aIncludes Federal offshore Alabama.

^bIncludes Arizona, Illinois, Indiana, Maryland, Missouri, Nebraska, Nevada, Oregon, South Dakota, and Tennessee.

Note: The production estimates in this table are based on data reported on Form EIA-23, "Annual Survey of Domestic Oil and Gas Reserves." They may differ from the official Energy Information Administration production data for natural gas for 2006 contained in the *Natural Gas Annual 2006*, DOE/EIA-0131(06).

Source: Energy Information Administration, Office of Oil and Gas.

Table 10. Nonassociated Natural Gas Proved Reserves, Reserves Changes, and Production, Wet After Lease Separation, 2006 (Billion Cubic Feet at 14.73 psia and 60° Fahrenheit)

State and Subdivision	Published Proved Reserves 12/31/05	Changes in Reserves During 2006							New Reservoir Discoveries in Old Fields (+)	Estimated Production (-)	Proved Reserves 12/31/06
		Adjustments (+,-)	Revision Increases (+)	Revision Decreases (-)	Sales (-)	Acquisitions (+)	Extensions (+)	New Field Discoveries (+)			
Alaska	1,875	-49	32	267	0	0	46	0	2	192	1,447
Lower 48 States	183,197	1,049	16,236	20,690	22,178	25,122	21,978	385	1,130	16,900	189,329
Alabama	3,977	-3	234	205	188	259	150	0	7	286	3,945
Arkansas	1,921	-31	99	112	4	5	492	7	33	183	2,227
California	799	-11	67	49	154	47	165	0	4	88	780
Coastal Region Onshore	8	0	0	0	2	0	0	0	0	0	6
Los Angeles Basin Onshore	0	0	0	0	0	0	0	0	0	0	0
San Joaquin Basin Onshore	790	-11	65	49	152	47	165	0	1	87	769
State Offshore	1	0	2	0	0	0	0	0	3	1	5
Colorado	15,796	44	981	1,536	1,009	1,009	1,929	15	27	1,115	16,141
Florida	0	0	0	0	0	0	0	0	0	0	0
Kansas	4,515	100	839	1,071	19	14	99	0	3	365	4,115
Kentucky	2,210	24	53	22	459	568	24	0	5	70	2,333
Louisiana	10,091	98	1,129	1,391	449	713	1,022	29	189	1,282	10,149
North	6,670	-18	597	757	57	190	626	0	4	550	6,705
South Onshore	3,051	127	476	586	338	498	321	11	151	653	3,058
State Offshore	370	-11	56	48	54	25	75	18	34	79	386
Michigan	2,808	112	406	290	45	24	88	0	5	183	2,925
Mississippi	738	-23	94	39	39	29	112	0	4	81	795
Montana	837	12	15	60	1	0	123	20	28	100	874
New Mexico	17,683	159	1,023	1,136	6,399	6,390	758	39	147	1,332	17,332
East	2,569	110	332	408	121	112	312	39	0	340	2,605
West	15,114	49	691	728	6,278	6,278	446	0	147	992	14,727
New York	346	33	22	38	55	52	5	45	0	49	361
North Dakota	165	18	12	10	1	0	16	0	0	18	182
Ohio	714	110	32	81	11	83	17	0	0	63	801
Oklahoma	17,337	-97	1,435	1,881	858	1,254	2,136	0	13	1,604	17,735
Pennsylvania	2,659	-129	183	214	6	235	337	14	0	166	2,913
Texas	53,175	875	5,953	7,636	4,751	6,401	9,768	80	241	5,370	58,736
RRC District 1	1,148	83	32	186	0	4	72	2	0	107	1,048
RRC District 2 Onshore	2,066	224	212	530	132	192	313	10	19	326	2,048
RRC District 3 Onshore	2,961	28	401	454	412	307	391	20	52	505	2,789
RRC District 4 Onshore	8,956	302	860	1,900	1,198	1,235	1,188	24	90	1,193	8,364
RRC District 5	9,560	72	2,316	685	664	807	1,961	4	0	780	12,591
RRC District 6	8,999	88	825	1,703	532	889	1,395	1	0	757	9,205
RRC District 7B	859	-94	212	72	53	62	765	0	0	90	1,589
RRC District 7C	4,665	42	110	653	108	138	673	0	0	336	4,531
RRC District 8	3,829	16	277	537	887	1,055	465	2	8	337	3,891
RRC District 8A	85	34	5	38	0	3	5	0	0	12	82
RRC District 9	4,608	-14	140	188	560	1,433	1,669	0	0	428	6,660
RRC District 10	5,177	81	548	655	136	216	871	0	0	468	5,634
State Offshore	262	13	15	35	69	60	0	17	72	31	304
Utah	4,051	-22	184	472	1,145	1,199	1,382	40	0	323	4,894
Virginia	2,018	25	234	14	133	154	114	6	0	102	2,302
West Virginia	4,553	-227	308	193	769	914	236	3	5	192	4,638
Wyoming	24,338	5	1,365	2,335	3,362	3,502	2,286	0	31	1,714	24,116
Federal Offshore ^a	12,348	-11	1,559	1,887	2,317	2,264	690	87	388	2,206	10,915
Pacific (California)	49	0	8	0	0	0	0	0	0	2	55
Gulf of Mexico (Louisiana) ^a	9,492	-10	1,274	1,445	1,261	1,150	487	58	329	1,574	8,500
Gulf of Mexico (Texas)	2,807	-1	277	442	1,056	1,114	203	29	59	630	2,360
Miscellaneous ^b	118	-12	9	18	4	6	29	0	0	8	120
U.S. Total	185,072	1,000	16,268	20,957	22,178	25,122	22,024	385	1,132	17,092	190,776

^aIncludes Federal offshore Alabama.

^bIncludes Arizona, Illinois, Indiana, Maryland, Missouri, Nebraska, Nevada, Oregon, South Dakota, and Tennessee.

Note: The production estimates in this table are based on data reported on Form EIA-23, "Annual Survey of Domestic Oil and Gas Reserves." They may differ from the official Energy Information Administration production data for natural gas for 2006 contained in the *Natural Gas Annual 2006*, DOE/EIA-0131(06).

Source: Energy Information Administration, Office of Oil and Gas.

Table 11. Associated-Dissolved Natural Gas Proved Reserves, Reserves Changes, and Production, Wet After Lease Separation, 2006 (Billion Cubic Feet at 14.73 psia and 60° Fahrenheit)

State and Subdivision	Published Proved Reserves 12/31/05	Changes in Reserves During 2006									Proved Reserves 12/31/06
		Adjustments (+,-)	Revision Increases (+)	Revision Decreases (-)	Sales (-)	Acquisitions (+)	Extensions (+)	New Field Discoveries (+)	New Reservoir Discoveries in Old Fields (+)	Estimated Production (-)	
Alaska	6,362	-1	2,850	111	0	0	4	0	0	218	8,886
Lower 48 States	21,874	-53	2,522	2,671	1,726	1,960	806	40	65	2,063	20,754
Alabama	29	1	4	8	4	0	0	0	0	4	18
Arkansas	46	3	2	2	0	0	0	0	0	5	44
California	2,585	-62	96	391	133	219	21	0	0	180	2,155
Coastal Region Onshore	269	-64	29	12	70	60	5	0	0	9	208
Los Angeles Basin Onshore	186	-1	7	31	37	41	4	0	0	8	161
San Joaquin Basin Onshore	2,041	2	53	341	26	118	11	0	0	157	1,701
State Offshore	89	1	7	7	0	0	1	0	0	6	85
Colorado	1,326	-2	234	35	578	579	113	0	0	96	1,541
Florida	87	1	0	35	0	0	0	0	0	3	50
Kansas	83	3	23	19	0	0	1	0	0	9	82
Kentucky	30	-1	7	0	0	0	0	0	0	0	36
Louisiana	588	-3	93	62	70	49	27	0	3	64	561
North	98	-2	13	11	0	1	0	0	0	9	90
South Onshore	427	7	72	46	66	46	20	0	3	48	415
State Offshore	63	-8	8	5	4	2	7	0	0	7	56
Michigan	153	0	61	5	3	3	0	1	0	18	192
Mississippi	20	0	1	1	5	0	7	0	2	3	21
Montana	161	1	51	19	19	17	22	0	0	19	195
New Mexico	1,661	-21	346	156	213	255	93	0	0	193	1,772
East	1,563	-21	334	135	205	247	93	0	0	186	1,690
West	98	0	12	21	8	8	0	0	0	7	82
New York	3	-1	0	0	0	0	0	0	0	0	2
North Dakota	343	2	67	24	59	45	18	1	4	40	357
Ohio	184	18	17	31	0	0	1	0	0	15	174
Oklahoma	809	-34	173	102	13	21	41	0	0	95	800
Pennsylvania	134	12	3	11	0	0	24	0	0	11	151
Texas	7,003	16	755	712	155	406	322	4	24	594	7,069
RRC District 1	57	4	6	4	0	0	5	0	0	7	61
RRC District 2 Onshore	109	-2	8	7	14	14	24	0	0	14	118
RRC District 3 Onshore	445	-10	41	52	25	110	22	2	23	67	489
RRC District 4 Onshore	148	2	21	39	9	1	0	0	1	15	110
RRC District 5	51	0	12	1	0	0	1	0	0	6	57
RRC District 6	344	6	65	113	1	5	21	0	0	51	276
RRC District 7B	73	-1	10	4	1	3	5	0	0	11	74
RRC District 7C	1,037	7	80	55	16	120	99	0	0	76	1,196
RRC District 8	2,971	1	300	270	68	148	87	0	0	205	2,964
RRC District 8A	1,386	-2	117	106	12	2	15	0	0	98	1,302
RRC District 9	126	-6	11	11	2	1	1	0	0	15	105
RRC District 10	253	17	84	50	5	2	42	2	0	29	316
State Offshore	3	0	0	0	2	0	0	0	0	0	1
Utah	308	1	36	37	16	5	44	6	0	30	317
Virginia	0	0	0	0	0	0	0	0	0	0	0
West Virginia	19	0	0	2	0	0	0	0	0	1	16
Wyoming	384	9	26	35	3	1	11	1	0	47	347
Federal Offshore ^a	5,904	0	525	984	455	360	61	27	32	635	4,835
Pacific (California)	776	1	35	22	0	0	0	0	1	35	756
Gulf of Mexico (Louisiana) ^a	4,581	0	384	827	320	234	60	27	24	462	3,701
Gulf of Mexico (Texas)	547	-1	106	135	135	126	1	0	7	138	378
Miscellaneous ^b	14	4	2	0	0	0	0	0	0	1	19
U.S. Total	28,236	-54	5,372	2,782	1,726	1,960	810	40	65	2,281	29,640

^aIncludes Federal offshore Alabama.

^bIncludes Arizona, Illinois, Indiana, Maryland, Missouri, Nebraska, Nevada, Oregon, South Dakota, and Tennessee.

Note: The production estimates in this table are based on data reported on Form EIA-23, "Annual Survey of Domestic Oil and Gas Reserves." They may differ from the official Energy Information Administration production data for natural gas for 2006 contained in the *Natural Gas Annual 2006*, DOE/EIA-0131(06).

Source: Energy Information Administration, Office of Oil and Gas.

discoveries in old fields and their percentage of the total were the Gulf of Mexico Federal Offshore (409 billion cubic feet; 35 percent of the total), Texas (253 billion cubic feet; 22 percent of the total), Louisiana (185 billion cubic feet; 16 percent of the total), and New Mexico (140 billion cubic feet; 12 percent of the total).

In the prior 10 years, U.S. operators had reported an annual average of 2,074 billion cubic feet of reserves from new reservoirs discovered in old fields. Reserves from new reservoirs discovered in old fields in 2006 were 44 percent less than that average.

Revisions and Adjustments

There were 20,833 billion cubic feet of revision increases, 22,669 billion cubic feet of revision decreases, and 743 billion cubic feet of adjustments in 2006. Net revisions and adjustments were therefore a net loss of 1,093 billion cubic feet in 2006. The previous occurrence of negative net revisions was in 1988. In the prior 10 years, operators reported net revisions and adjustments of 4,535 billion cubic feet.

Sales and Acquisitions

Sales represents that volume of dry natural gas proved reserves deducted from an operator's total reserves through sale or transfer of operations of an existing gas field or property to another operator (not a volume of production "sold" at the wellhead). Similarly, acquisitions are that volume of proved reserves added to an operator's total reserves by purchase or transfer of operations of an existing gas field or property.

There are several reasons why sales and acquisitions volumes are not equal. Since operators have different engineering staffs and resources, or different development plans or schedules, the estimate of proved reserves for a field can change with a change in operatorship. Timing of the transfer of operations can also impact these values.

There were 22,850 billion cubic feet of sales transactions between operators in 2006, and 25,846 billion cubic feet of acquisitions. The net difference of 2,996 billion cubic feet was added to the national total of dry natural gas proved reserves in 2006.

Production

The estimated 2006 U.S. dry natural gas production was 18,545 billion cubic feet (**Table 8**), a slight increase from 2005 (18,458 billion cubic feet). Areas with the largest production and their percentage of total production were:

Area	Percent of 2006 U.S. Dry Gas Production
Texas	30
Gulf of Mexico Federal Offshore	15
Wyoming	9
Oklahoma	9
New Mexico	8
Louisiana	7
Colorado	6
Area Total	84

Wet Natural Gas

U. S. proved reserves of wet natural gas as of December 31, 2006 were 220,416 billion cubic feet, a 3 percent increase over the volume reported in 2005 (**Table 9**). At year-end 2006, proved wet natural gas reserves for the lower 48 States had increased by 2 percent compared to 2005, while those of Alaska had increased by 25 percent.

The volumetric differences between the estimates reported in **Table 8** (dry) and **Table 9** (wet) result from the removal of natural gas liquids at natural gas processing plants. See Appendix F for a discussion of the methodology used to generate the wet and dry natural gas reserves estimates tabulated in this report.

Nonassociated Natural Gas

Proved Reserves

Proved reserves of nonassociated (NA) natural gas, wet after lease separation, in the United States increased by 3 percent (5,704 billion cubic feet) in 2006 to 190,776 billion cubic feet (**Table 10**). The lower 48 States' NA wet natural gas proved reserves increased 3 percent to a level of 189,329 billion cubic feet, while Alaska had a 23 percent decline to a level of 1,447 billion cubic feet.

Seven areas accounted for 81 percent of U.S. NA natural gas proved reserves in 2006:

Area	Percent of 2006 U.S. NA Gas Reserves
Texas	31
Wyoming	13
Oklahoma	9
New Mexico	9
Colorado	8
Gulf of Mexico Federal Offshore	6
Louisiana	5
Area Total	81

Total Discoveries

NA wet natural gas *total discoveries* of 23,541 billion cubic feet in 2006 were 2 percent more than the 2005 total of 23,055 billion cubic feet. Areas with the most *total discoveries* of nonassociated natural gas in 2006 were Texas (10,089 billion cubic feet), Wyoming (2,317 billion cubic feet), Oklahoma (2,149 billion cubic feet), Colorado (1,971 billion cubic feet), Utah (1,422 billion cubic feet), Louisiana (1,240 billion cubic feet), and the Gulf of Mexico Federal Offshore (1,165 billion cubic feet).

Production

U.S. production of NA wet natural gas increased 2 percent from an estimated 16,827 billion cubic feet in 2005 to 17,092 billion cubic feet in 2006. The leading producing areas were Texas (31 percent of the national total), the Gulf of Mexico Federal Offshore (13 percent), Wyoming (10 percent), Oklahoma (9 percent), New Mexico (8 percent), Louisiana (8 percent), and Colorado (7 percent).

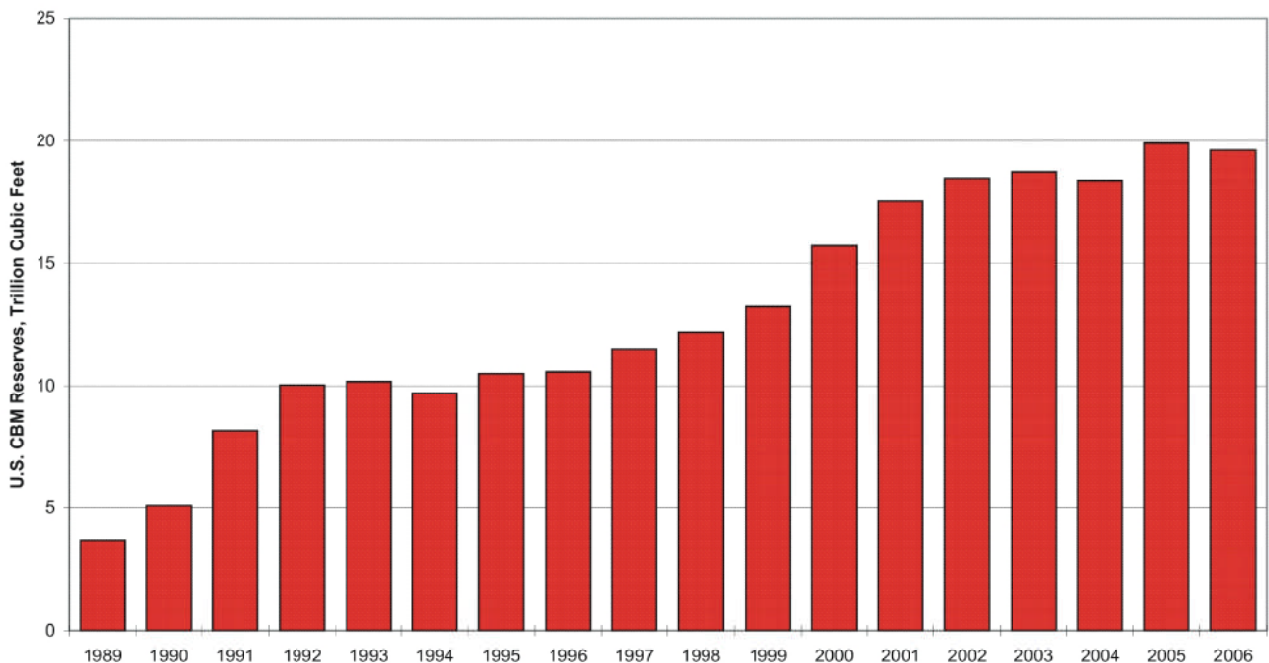
Associated-Dissolved Natural Gas

Proved Reserves

Proved reserves of associated-dissolved (AD) natural gas, wet after lease separation, in the United States increased 5 percent to 29,640 billion cubic feet in 2006 (Table 11). Proved reserves of AD wet natural gas in Alaska increased 40 percent to 8,886 billion cubic feet, and decreased in the lower 48 States by 5 percent to 20,754 billion cubic feet.

The areas of the country with the largest AD wet natural gas reserves and their percentage of the total were:

Figure 21. Coalbed Natural Gas Proved Reserves, 1989-2006



Source: Energy Information Administration, Office of Oil and Gas.

Area	Percent of 2006 U.S. AD Gas Reserves
Alaska	30
Texas	24
Gulf of Mexico Federal Offshore	14
California	7
New Mexico	6
Area Total	81

These areas logically correspond to the areas of the country with the largest volumes of crude oil reserves. For the first time Alaska's AD gas proved reserves surpass those of Texas.

Production

U.S. production of AD wet natural gas decreased 6 percent from an estimated 2,432 billion cubic feet in 2005 to 2,281 billion cubic feet in 2006 (Table 11). Production of AD wet natural gas in the lower 48 States decreased from 2,174 billion cubic feet in 2005 to 2,063 billion cubic feet in 2006, a decline of 5 percent. Although Alaska's AD gas reserves were revised significantly upward, its production declined 16 percent from 258 billion cubic feet in 2005 to 218 billion cubic feet in 2006. The areas of the country with the largest AD wet natural gas production and their percentage of the total were:

Area	Percent of 2006 U.S. AD Gas Production
Gulf of Mexico Federal Offshore	26
Texas	26
Alaska	10
New Mexico	8
California	8
Area Total	78

Again, these areas logically correspond to the areas of the country with the largest volumes of crude oil production.

Coalbed Natural Gas

Proved Reserves

Proved reserves of coalbed natural gas decreased from 19,892 billion cubic feet in 2005 to 19,620 billion cubic feet in 2006, a 1 percent decline (Figure 21). Coalbed natural gas accounted for 9 percent of all 2006 dry natural gas reserves (Table 12). Six States (Alabama,

Colorado, New Mexico, Utah, Virginia, and Wyoming) currently have the vast majority (93 percent) of U.S. coalbed natural gas proved reserves. Three of them (Colorado, New Mexico, and Utah) reported declines in their proved coalbed natural gas reserves in 2006.

Production

U.S. coalbed natural gas production increased 2 percent in 2006 to 1,758 billion cubic feet. It accounted for 9 percent of U.S. dry natural gas production.

Areas of Note: Large Discoveries and Reserves Additions

The following State or area discussions summarize notable activities during the year concerning expected new field reserves, development plans, and possible production rates as reported in various trade publications. The citations do not necessarily reflect EIA's concurrence, but are considered important enough to be brought to the reader's attention.

Texas

Texas had a 9 percent increase in dry natural gas proved reserves in 2006 (5,329 billion cubic feet), the largest of any State. Production also increased 3 percent. This resulted primarily from extensions in the Newark East Field in north central Texas and natural gas fields in the Permian Basin of west Texas.

- **Newark East Field:** On May 2, 2006 Devon Energy Corporation announced Devon's outlook for the Barnett Shale has been greatly enhanced by the results of its successful 20-acre infill well pilot program. The company increased its estimated recoveries for 20-acre infill horizontal wells from 1.8 Bcfe per well to 2.0 Bcfe per well. The increase is based upon the results to date of 29 horizontal infill wells drilled on its core acreage. Ultimately, Devon expects to drill infill wells on both its core and non-core acreage. {43}

Alaska

Alaska's dry natural gas reserves increased by 25 percent (2,074 billion cubic feet) in 2006. This resulted primarily from revision increases of associated dissolved natural gas.

Table 12. Coalbed Natural Gas Proved Reserves and Production for 1989–2006
(Billion Cubic Feet at 14.73 psia and 60° Fahrenheit)

Year	Alabama	Colorado	New Mexico	Utah	Wyoming	Virginia	Eastern States ^a	Western States ^b	Others ^c	United States
Reserves										
1989	537	1,117	2,022	NA	NA	NA	NA	NA	0	3,676
1990	1,224	1,320	2,510	NA	NA	NA	NA	NA	33	5,087
1991	1,714	2,076	4,206	NA	NA	NA	NA	NA	167	8,163
1992	1,968	2,716	4,724	NA	NA	NA	NA	NA	626	10,034
1993	1,237	3,107	4,775	NA	NA	NA	NA	NA	1,065	10,184
1994	976	2,913	4,137	NA	NA	NA	NA	NA	1,686	9,712
1995	972	3,461	4,299	NA	NA	NA	NA	NA	1,767	10,499
1996	823	3,711	4,180	NA	NA	NA	NA	NA	1,852	10,566
1997	1,077	3,890	4,351	NA	NA	NA	NA	NA	2,144	11,462
1998	1,029	4,211	4,232	NA	NA	NA	NA	NA	2,707	12,179
1999	1,060	4,826	4,080	NA	NA	NA	NA	NA	3,263	13,229
2000	1,241	5,617	4,278	1,592	1,540	NA	1,399	41	--	15,708
2001	1,162	6,252	4,324	1,685	2,297	NA	1,453	358	--	17,531
2002	1,283	6,691	4,380	1,725	2,371	NA	1,488	553	--	18,491
2003	1,665	6,473	4,396	1,224	2,759	NA	1,528	698	--	18,743
2004	1,900	5,787	5,166	934	2,085	NA	1,620	898	--	18,390
2005	1,773	6,772	5,249	902	2,446	NA	1,822	928	--	19,892
2006	2,068	6,344	4,894	750	2,448	1,813	273	1,030	--	19,620
Production										
1989	23	12	56	NA	NA	NA	NA	NA	0	91
1990	36	26	133	NA	NA	NA	NA	NA	1	196
1991	68	48	229	NA	NA	NA	NA	NA	3	348
1992	89	82	358	NA	NA	NA	NA	NA	10	539
1993	103	125	486	NA	NA	NA	NA	NA	18	752
1994	108	179	530	NA	NA	NA	NA	NA	34	851
1995	109	226	574	NA	NA	NA	NA	NA	47	956
1996	98	274	575	NA	NA	NA	NA	NA	56	1,003
1997	111	312	597	NA	NA	NA	NA	NA	70	1,090
1998	123	401	571	NA	NA	NA	NA	NA	99	1,194
1999	108	432	582	NA	NA	NA	NA	NA	130	1,252
2000	109	451	550	74	133	NA	58	NA	--	1,379
2001	111	490	517	83	278	NA	69	NA	--	1,562
2002	117	520	471	103	302	NA	68	NA	--	1,614
2003	98	488	451	97	344	NA	71	NA	--	1,600
2004	121	520	528	82	320	NA	72	NA	--	1,720
2005	113	515	514	75	336	NA	90	NA	--	1,732
2006	114	477	510	66	378	81	24	108	--	1,758

^aIncludes Illinois, Indiana, Ohio, Pennsylvania, Virginia, and West Virginia. In 2006, Virginia is individually listed.

^bIncludes Arkansas, Kansas, Louisiana, Montana, and Oklahoma.

^cIncludes Oklahoma, Pennsylvania, Utah, Virginia, West Virginia, and Wyoming. These states are individually listed or grouped in Eastern States and Western States for 2000-2006.

NA -- Not applicable.

Source: Energy Information Administration, Office of Oil and Gas.

Utah

Utah's dry natural gas reserves increased by 20 percent (851 billion cubic feet) in 2006. This was the result of development of the Greater Natural Buttes Field, a tight natural gas play.

- **Greater Natural Buttes Field:** Kerr-McGee Oil & Gas Onshore LP (KMG) a wholly-owned subsidiary of Anadarko Petroleum Corporation proposed to conduct infill drilling to develop the hydrocarbon resources from oil and gas leases within the Greater Natural Buttes Project Area in Uintah County, Utah. KMG's plan is to drill 3,496 additional wells over a period of 10 years on 40-acre and 20-acre surface spacing throughout the project area. {44}

Areas of Note: Large Reserves Declines

The following areas had large declines in dry natural gas proved reserves due to downward revisions or unreplaced production.

Gulf of Mexico Federal Offshore

The Gulf of Mexico Federal Offshore continues to physically recover from the storm damage of Hurricanes Katrina and Rita. However, proved dry natural gas reserves in the Gulf of Mexico Federal Offshore decreased by 14 percent (-2,458 billion cubic feet) in 2006. Downward revisions of the reserves of existing gas fields exceeded upward revisions by 778 billion cubic feet. Production also decreased by 6 percent from 2,906 billion cubic feet in 2005 to 2,738 billion cubic feet in 2006.

For a more complete assessment of the 2005 hurricane damage effects, readers should consult the joint report prepared by the Energy Information Administration, Office of Oil and Gas and the U.S. Department of Energy, Office of Fossil Energy entitled "*Impact of the 2005 Hurricanes on the Natural Gas Industry in the Gulf of Mexico Region.*" which was published in July 2006.

California

California's proved dry natural gas reserves decreased by 7 percent (-434 billion cubic feet) in 2006. Production in California decreased 5 percent (-13 billion cubic feet) in 2006.

Kansas

Kansas' proved dry natural gas reserves decreased by 9 percent (-383 billion cubic feet) in 2006. Production in Kansas decreased 8 percent (-30 billion cubic feet) in 2006.

Reserves in Nonproducing Status

Nonproducing proved natural gas reserves (wet after lease separation) of 66,714 billion cubic feet were reported in 2006, 12 percent more than the 59,658 billion cubic feet reported in 2005 (**Appendix D, Table D10**). About 35 percent of the reserves in nonproducing status are located in Texas. Another 12 percent are in the Gulf of Mexico Federal Offshore, as most new deepwater reserves are in the nonproducing category. Wells or reservoirs are nonproducing due to any of several operational reasons. These include awaiting well workovers, the drilling of extensions or additional development wells, installation of production or pipeline facilities, and depletion of other zones or reservoirs before recompletion in reservoirs not currently open to production (called "behind pipe" reserves).