



Independent Statistics & Analysis
U.S. Energy Information
Administration

U.S. Crude Oil and Natural Gas Proved Reserves, 2014

November 2015



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U.S. Crude Oil and Natural Gas Proved Reserves, 2014

In 2014, U.S. crude oil and lease condensate proved reserves increased to 39.9 billion barrels—an increase of 3.4 billion barrels (9.3%) from 2013. U.S. proved reserves of crude oil and lease condensate have risen for six consecutive years, and exceeded 39 billion barrels for the first time since 1972.¹ Proved reserves of U.S. total natural gas² increased 34.8 trillion cubic feet (Tcf) to 388.8 Tcf in 2014. This increase (9.8%) boosts the national total of proved natural gas reserves to a record-high level for the second consecutive year.

Sustained low prices for oil and natural gas are anticipated to reduce the reserves in EIA's next report (for year-end 2015). Lower prices have curtailed drilling and made recovery economics more challenging. Although resource estimates are not necessarily reduced by lower prices, the calculation of proved reserves is sensitive to price.

Oil highlights

- U.S. proved reserves of crude oil and lease condensate increased for the sixth year in a row in 2014, and exceeded 39 billion barrels for the first time since 1972 (2014 is now the fourth-highest year on record).
- Texas added 2.1 billion barrels of crude oil and lease condensate proved reserves (the largest increase of any state in 2014), mostly located within the Texas portion of the Permian Basin and the Eagle Ford Shale play.
- North Dakota added 0.4 billion barrels of crude oil and lease condensate proved reserves (the second-largest increase in 2014) mostly from the Bakken Shale play.

Natural gas highlights

- U.S. proved natural gas reserves set a record³ (exceeding 388 trillion cubic feet) in 2014.
- Proved reserves additions of natural gas were highest in Pennsylvania, where operators added a net 10.4 trillion cubic feet of natural gas proved reserves in Pennsylvania's portion of the Marcellus Shale play.
- In 2014, West Virginia surpassed Wyoming and Colorado to become the fourth-largest state for natural gas proved reserves (behind Texas, Pennsylvania, and Oklahoma).
- Proved natural gas reserves in Ohio more than doubled as a result of development of the Utica Shale play, and Idaho⁴ in 2014 reported proved natural gas reserves for the first time.

Proved reserves are estimated volumes of hydrocarbon resources that analysis of geologic and engineering data demonstrates with reasonable certainty⁵ are recoverable under existing economic and operating conditions. Reserves estimates change from year to year as new discoveries are made, as existing fields are more thoroughly appraised, as existing reserves are produced, and as prices and technologies change.

¹ The U.S. all-time high for crude oil and lease condensate proved reserves was 43.0 billion barrels in 1970.

² Total natural gas (also known as natural gas, wet after lease separation) includes natural gas liquids that have yet to be extracted downstream at a processing plant, but it does not include lease condensate.

³ The previous U.S. record high for total natural gas proved reserves was 354 trillion cubic feet (Tcf) in 2013. (Source: EIA)

⁴ Because there was only one operator reporting proved natural gas reserves in Idaho in 2014, the state's total was included in the miscellaneous states subtotal.

⁵ *Reasonable certainty* assumes a probability of recovery of 90% or greater.

National summary

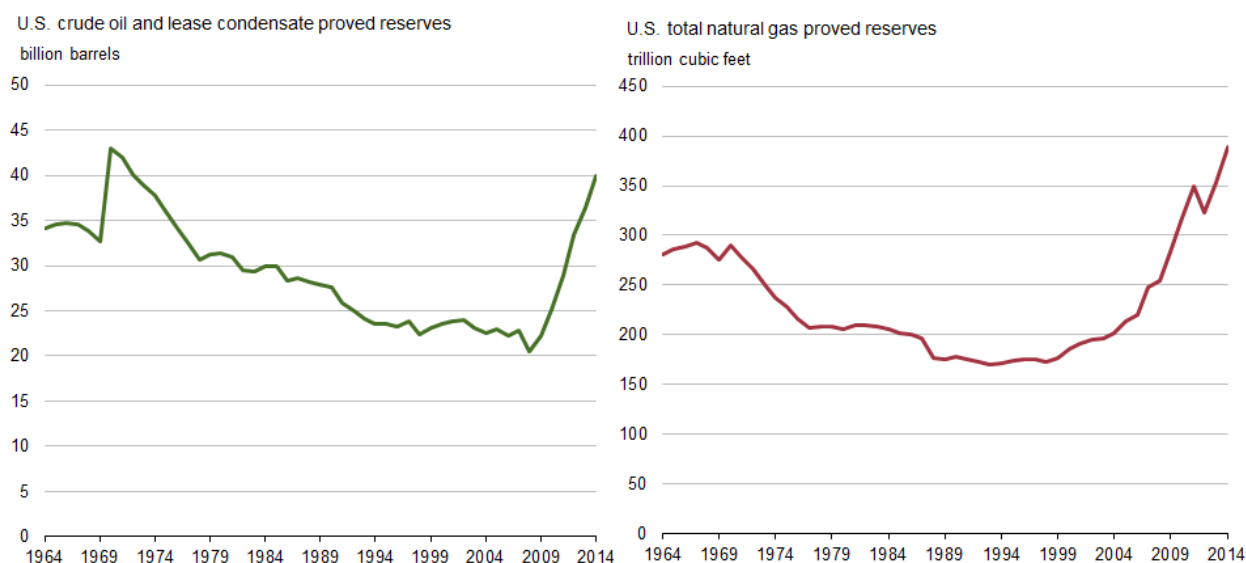
In 2014, U.S. crude oil and lease condensate proved reserves increased to 39.9 billion barrels—an increase of 3.4 billion barrels (9.3%) from 2013 (Table 1). U.S. proved reserves of crude oil and lease condensate have risen for six consecutive years (Figure 1), and exceeded 39 billion barrels for the first time since 1972.⁶ Proved reserves of U.S. total natural gas⁷ increased 34.8 trillion cubic feet (Tcf) to 388.8 Tcf in 2014 (Table 1). This increase (9.8%) boosts the national total of proved natural gas reserves to a record-high level for the second consecutive year.

Table 1. U.S. proved reserves, and reserves changes, 2013-14

	Crude oil and lease condensate billion barrels	Total natural gas trillion cubic feet
U.S. proved reserves at December 31, 2013	36.5	354.0
Total discoveries	5.4	50.5
Net revisions	0.4	1.0
Net adjustments, sales, acquisitions	0.8	11.4
Production	-3.2	-28.1
Net additions to U.S. proved reserves	3.4	34.8
U.S. proved reserves at December 31, 2014	39.9	388.8
Percent change in U.S. proved reserves	9.3%	9.8%

Notes: Total natural gas includes natural gas plant liquids. Columns may not add to total because of independent rounding.
Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves

Figure 1. U.S. oil and natural gas proved reserves, 1964-2014



Sources: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves, 1977-2014, American Petroleum Institute, 1964-76

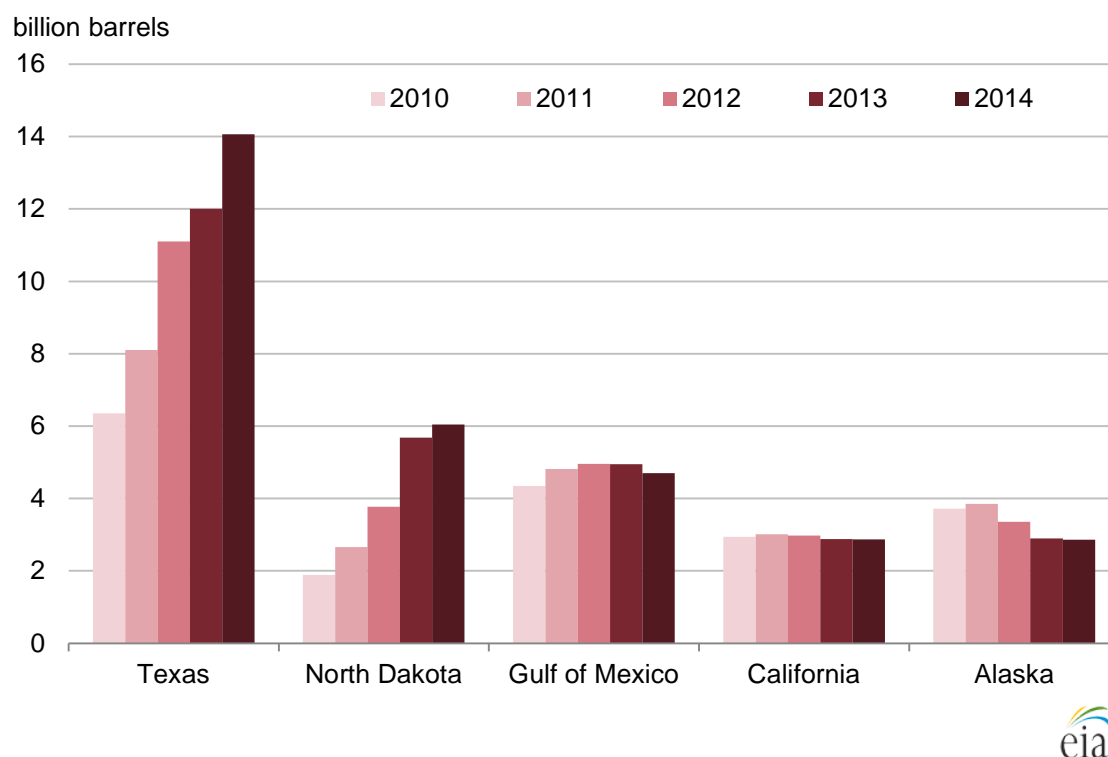


⁶ The U.S. all-time high for crude oil and lease condensate proved reserves was 43.0 billion barrels in 1970.

⁷ Total natural gas (also known as natural gas, wet after lease separation) includes natural gas liquids that have yet to be extracted downstream at a processing plant, but it does not include lease condensate.

Proved reserves of crude oil and lease condensate increased in two of the top five states for crude oil and lease condensate reserves in 2014 (Figure 2). In 2014, Texas had the largest increase in proved reserves, 2,054 million barrels (60% of the nation's total net increase in 2014). This increase was driven by development of tight oil plays (e.g., Wolfcamp, Bone Spring) in the Permian Basin and the Eagle Ford Shale play. North Dakota had the second-largest increase, 362 million barrels, which came mostly from the Bakken tight oil play in the Williston Basin. New Mexico had the third-largest increase in crude oil and lease condensate proved reserves in 2014, as it benefitted from the same Permian Basin developments as Texas, if not to the same degree. Colorado had the fourth-largest increase in crude oil and lease condensate reserves in 2014, where both vertical and horizontal drilling were used to develop the Niobrara/Codell tight oil play in the Denver Basin.

Figure 2. Proved reserves of the top five U.S. oil reserves states, 2010-14



Notes: Oil reserves include crude oil and lease condensate. "Gulf of Mexico" represents the Federally-owned offshore portion of the Gulf of Mexico (not a state, but still an important U.S. oil and natural gas production area.)

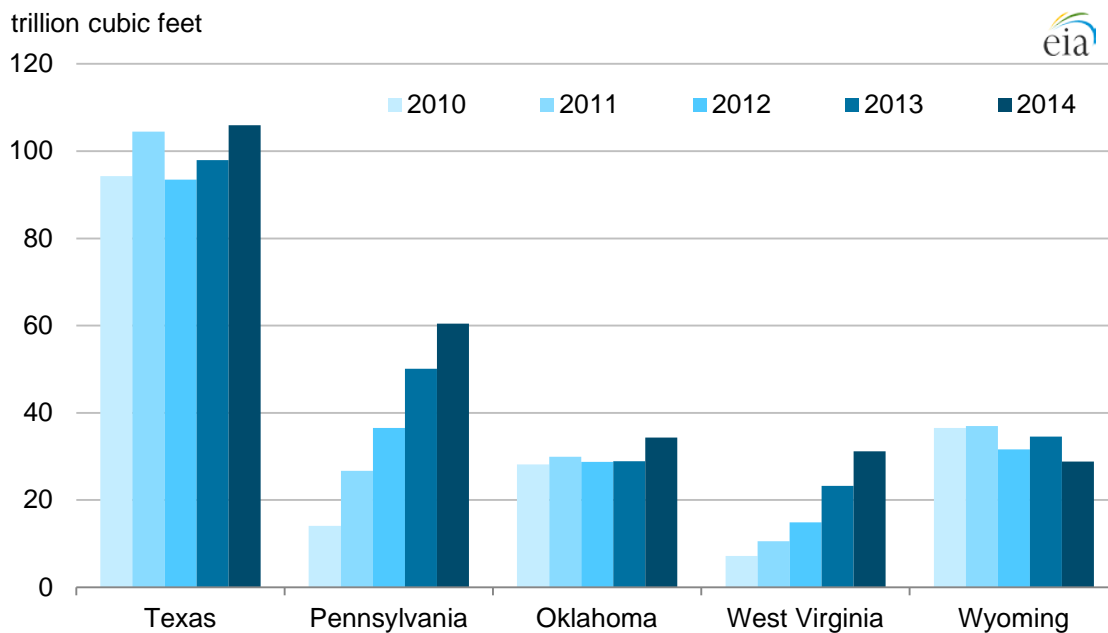
Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves, 2010-14

Proved natural gas reserves increased in four of the top five U.S. gas reserves states (Texas, Pennsylvania, Oklahoma, and West Virginia) in 2014 (Figure 3). Texas remains the largest natural gas reserves state, but the second-largest, Pennsylvania, had the largest net increase (10.4 Tcf) in 2014—largely the result of extensions to fields in the Marcellus Shale play. The reserves additions in Texas and Oklahoma were mostly from extensions in shale natural gas plays. West Virginia added enough Marcellus natural gas proved reserves to surpass Wyoming and Colorado to become the fourth-largest natural gas reserves state.

OFFICIAL EIA OIL AND GAS PRODUCTION DATA

The production numbers in the tables and figures of this report are offered only as an indicator of production trends and may differ from EIA's official production numbers based on state-reported data, which are provided on the EIA website for [oil](#) and [natural gas](#). Specifically, the production estimates in this report are based on data reported on Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves. They may differ from estimates published by EIA in the *Petroleum Supply Annual 2014*, DOE/EIA-0340(14) or the *Natural Gas Annual 2014*, DOE/EIA-0131(14).

Figure 3. Proved reserves of the top five U.S. natural gas reserves states, 2010-14

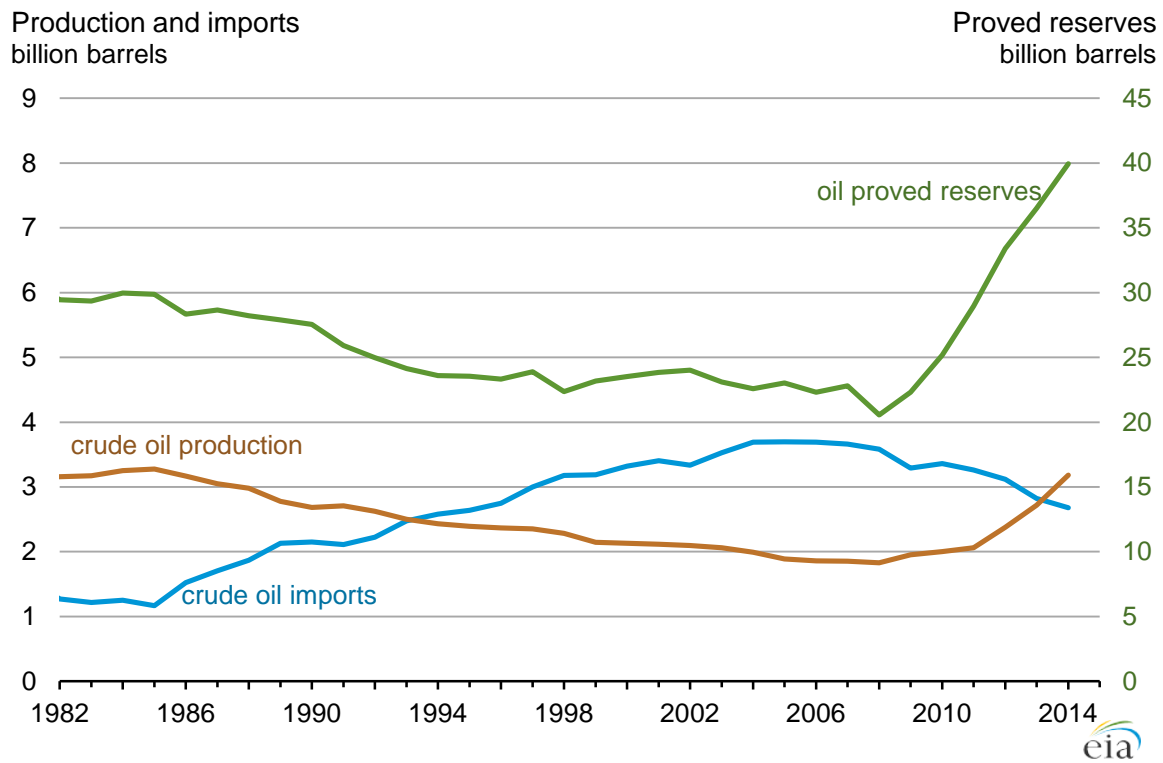


Note: Total natural gas includes natural gas plant liquids that have yet to be extracted downstream, and does not include lease condensate.

Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves, 2010-14

As U.S. oil reserves and production increased in 2014, imports of crude oil declined 5% from the 2013 level. Crude oil imports declined for the fourth consecutive year (Figure 4).

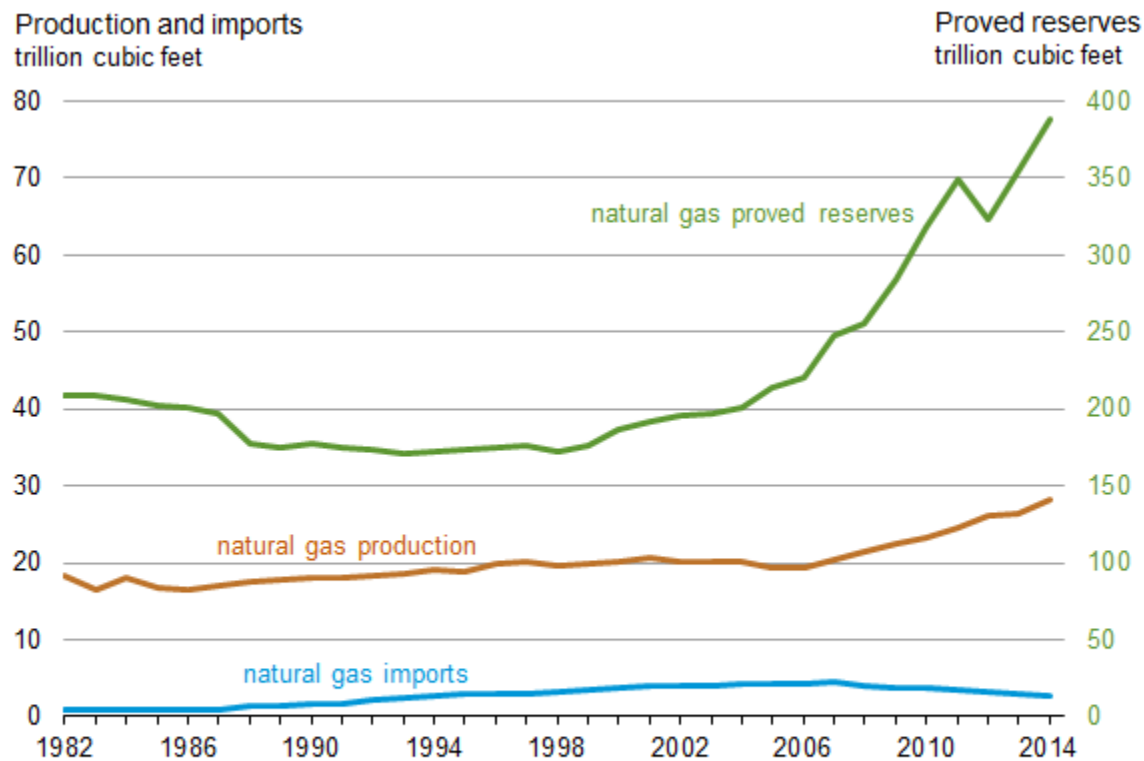
Figure 4. U.S. crude oil and lease condensate proved reserves, production, and imports, 1982-2014



Sources: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves; Form EIA-814, Monthly Imports Report.

U.S. natural gas proved reserves and production increased in 2014, and natural gas imports declined by 6% (Figure 5), the seventh consecutive year of import declines.

Figure 5. U.S. total natural gas proved reserves, production, and imports, 1982-2014



Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves; U.S. Department of Energy, Office of Fossil Energy, Natural Gas Imports and Exports



Background

This report provides estimates of U.S. proved reserves of crude oil and lease condensate and proved reserves of natural gas at year-end 2014. The U.S. Energy Information Administration (EIA) starts with the data filed on Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves, which was submitted by 459 of 467 sampled operators of U.S. oil and natural gas fields. EIA then estimated the U.S. total proved reserves and the subtotal for individual states and state subdivisions. Results are summarized and tabulated in this report.

Proved reserves are estimated volumes of hydrocarbon resources that analysis of geologic and engineering data demonstrates with reasonable certainty are recoverable under existing economic and operating conditions. Reserves estimates change from year to year as new discoveries are made, as existing fields are more thoroughly appraised, as existing reserves are produced, and as prices and technologies change.

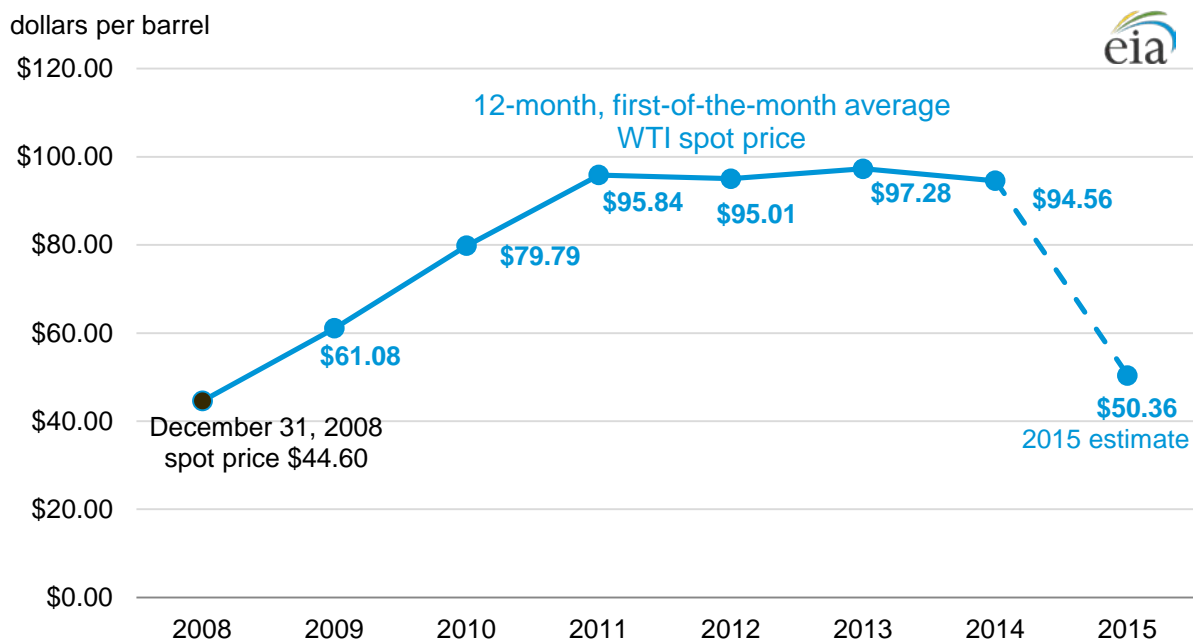
Discoveries include new fields, identification of new reservoirs in previously discovered fields, and extensions, which are additions to reserves that result from additional drilling and exploration in previously discovered reservoirs. In a given year, extensions are typically the largest percentage of total discoveries. Although discoveries of new fields and reservoirs are important indicators of new resources, they generally account for a small percentage of overall annual reserve additions.

Revisions primarily occur when operators change their estimates of what they will be able to produce from the properties they operate in response to changing prices or improvements in technology. Higher fuel prices

typically increase estimates (positive revisions) as operators consider a broader portion of the resource base economically producible, or proved. Lower prices, on the other hand, generally reduce estimates (negative revisions) as the economically producible base diminishes.

Because actual prices received by operators depend on their contractual arrangements, location, hydrocarbon quality, and other factors, spot market prices are not necessarily the prices used by operators in their reserve estimates for EIA. They do, however, provide a benchmark or trend indicator. The 12-month, first-day-of-the-month, average West Texas Intermediate (WTI) crude oil spot price for 2014 was \$94.56 per barrel, a 3% decrease from 2013 (Figure 6).

Figure 6. WTI crude oil spot prices, 2008-15

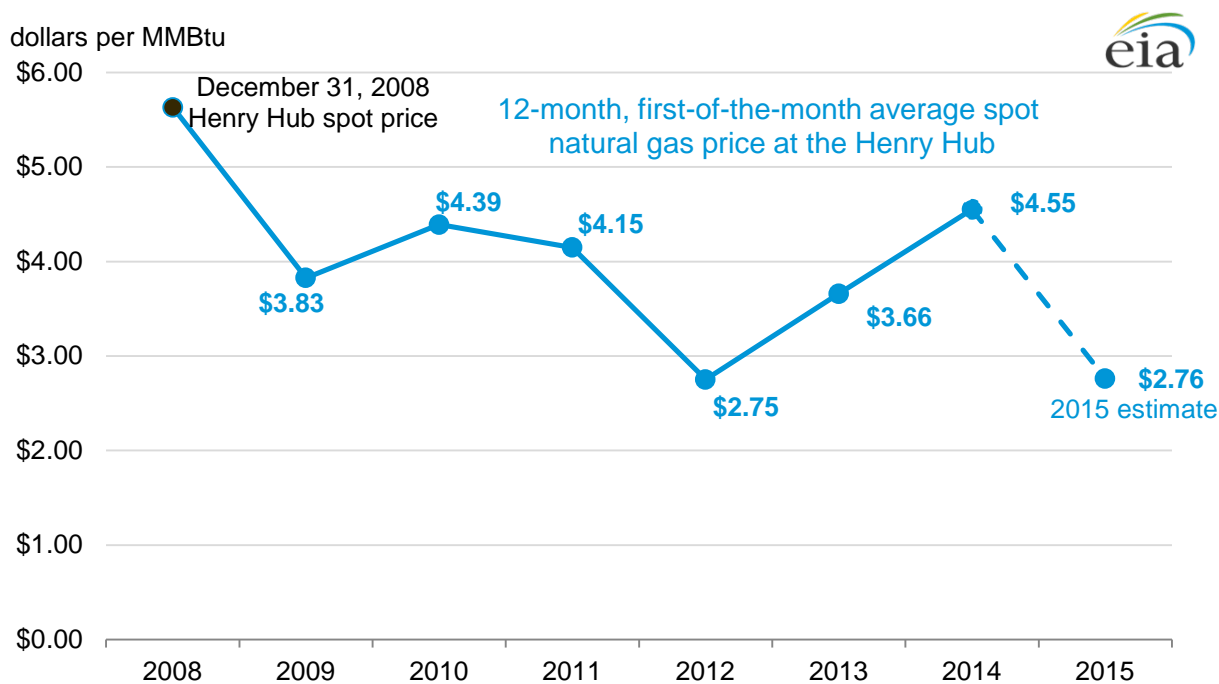


Note: Prior to the 2009 reporting year, companies' estimates of proved reserves were based on the market price on the last trading day of the year (usually December 31).

Source: Thomson Reuters, U.S. Energy Information Administration, *Short-Term Energy Outlook*, October 2015

The 12-month, first-day-of-the-month average natural gas spot price at the Louisiana Henry Hub for 2014 was \$4.55 per million British thermal units (MMBtu), representing a 24% increase over the previous year's average spot price of \$3.66 per MMBtu (Figure 7).

Figure 7. Henry Hub natural gas spot prices, 2008-15



Note: Natural gas spot prices are based on delivery at the Henry Hub in Louisiana. Prior to the 2009 reporting year, companies' estimates of proved reserves were based on the market price on the last trading day of the year (usually December 31).

Source: Thomson Reuters, U.S. Energy Information Administration, *Short-Term Energy Outlook*, October 2015

Price outlook for 2015. In July 2014, the price of WTI crude oil reached the highest recorded first-of-the-month price of the year (\$106.06 per barrel). After that, the price declined, reaching \$68.98 per barrel on December 1, 2014. The price continued to decline throughout 2015 and was \$44.75 per barrel on October 1, 2015.⁸

EIA forecasts in its *Short-Term Energy Outlook* that WTI oil prices should be approximately \$46 per barrel by the end of 2015. Compared with the 12-month, first-of-the-month 2014 average of \$94.56 per barrel, EIA expects that the 12-month, first-of-the-month 2015 average WTI spot oil price will decrease 47% to \$50.36 per barrel. As a result, EIA anticipates net downward revisions in U.S. crude oil proved reserves in 2015.

The 12-month, first-of-the-month average natural gas spot price at the Henry Hub in Louisiana in 2014 was \$4.55 per MMBtu. After January 2015, when the first-of-the-month average spot gas price at the Henry Hub was \$3.01 per MMBtu, natural gas prices remained below \$3.00 on average throughout 2015. Compared to \$4.55 per MMBtu in 2014, the average 12-month, first-of-the-month spot natural gas price at the Henry Hub is expected to decrease 39% in 2015, to \$2.76 per MMBtu. As a result, EIA anticipates net downward revisions in U.S. natural gas proved reserves in 2015.

Sustained and much lower prices for both crude oil and natural gas throughout 2015 have curtailed exploration activity, as evidenced by statistics published by the U.S. Bureau of Economic Analysis and EIA (e.g., *Today in Energy*, September 24, 2015). Fewer new discoveries and extensions of existing fields, combined with the anticipated net downward revisions, are also expected to negatively affect both crude oil and natural gas proved reserves in 2015.

⁸ The lowest recorded daily spot price of WTI crude oil in 2015 was \$38.22 per barrel on August 24, 2015. (Thompson Reuters)

Crude oil and lease condensate proved reserves

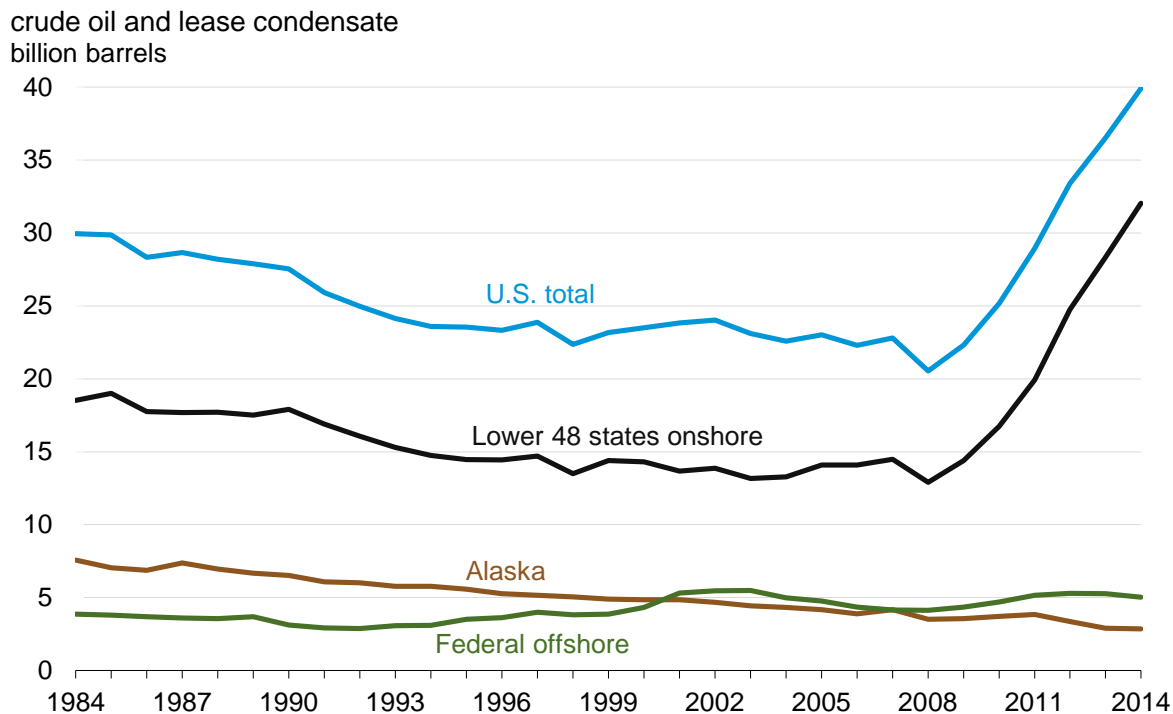
Overview

U.S. crude oil and lease condensate proved reserves increased for the sixth consecutive year in 2014 (Figure 8). These reserves exceeded 39 billion barrels for the first time since 1972, and this level makes 2014 the fourth-highest year on record.

U.S. crude oil and lease condensate proved reserves rose by 3.4 billion barrels in 2014, attributable primarily to 5 billion barrels of extensions to existing fields (Figure 9a).

Proved reserves additions of crude oil and lease condensate were highest in Texas, which added 2.1 billion barrels of crude oil and lease condensate proved reserves in 2014. Texas Railroad Commission (RRC) District 8 (abutting southern New Mexico) added the most oil reserves of all 12 Texas RRC districts (0.8 billion barrels) in 2014. Horizontal drilling was used in this district within the Permian Basin—targeting stacked tight oil-bearing formations such as the Spraberry, the Clearfork, the Wolfcamp Shale, the Strawn sand, and the Bone Spring formation. Reserves additions in the Permian Basin accounted for about half of the Texas crude oil and lease condensate proved reserves additions—and roughly one-third of the net proved reserves additions in the entire United States for the year.

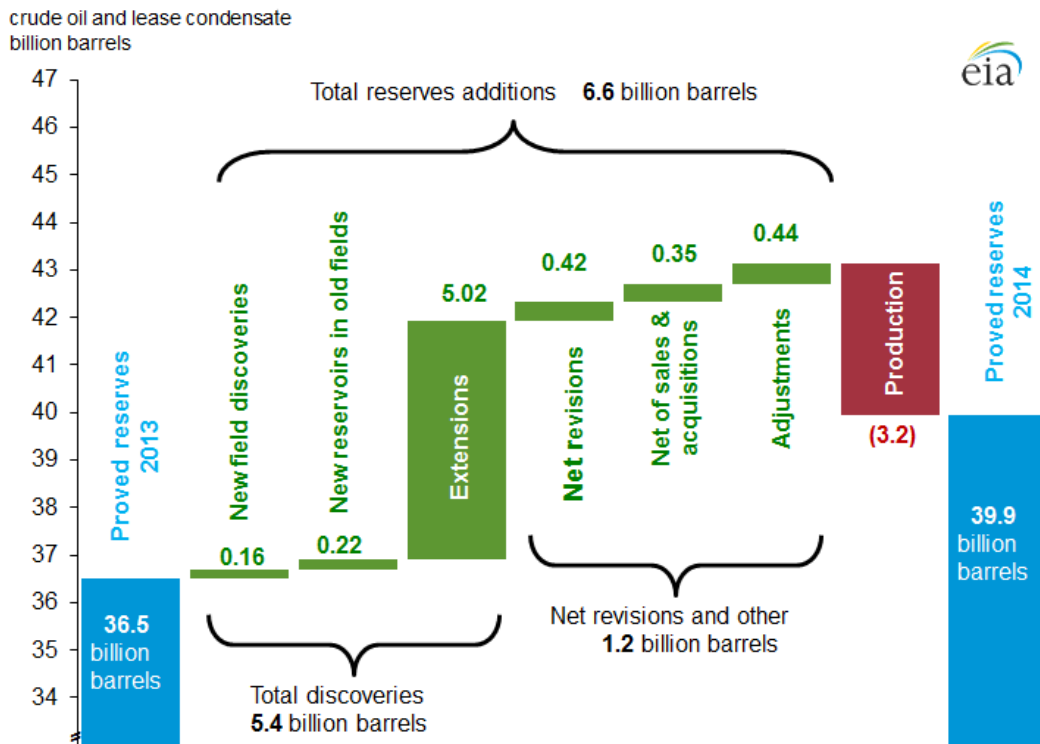
Figure 8. U.S. crude oil and lease condensate proved reserves, 1984-2014



Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves, 1984-2014



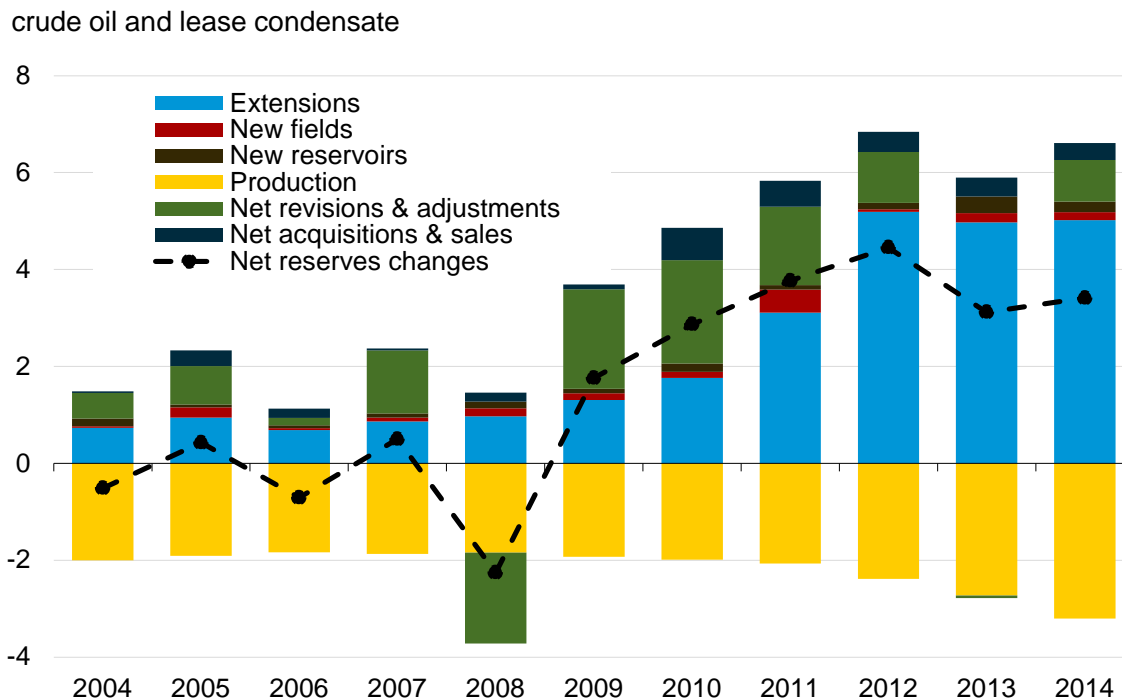
Figure 9a. U.S. crude oil and lease condensate proved reserves changes, 2013-14



Note: Component columns may not add to total because of independent rounding. Y-axis has a nonstandard scale.
 Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves

For the past three years, most oil reserves have been added by extensions to existing fields (Figure 9b).

Figure 9b. Components of U.S. crude oil and lease condensate reserves changes, 2004-14



Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves, 2004-14



North Dakota had the second-largest increase in crude oil and lease condensate proved reserves in 2014, adding 0.4 billion barrels. Extensions to fields producing tight oil from the Bakken formation provided the largest percentage of North Dakota's new proved oil reserves.

As of December 31, 2014, tight oil⁹ plays accounted for 33% of all U.S. crude oil and lease condensate proved reserves. Most (95%) U.S. tight oil proved reserves in 2014 came from six tight oil plays (Table 2). The Bakken/Three Forks play in the Williston Basin retained its rank as the largest tight oil play in the United States in 2014. EIA has a [series of maps and animations](#) showing the nation's shale and other tight oil (and natural gas) resources.

Table 2. U.S. tight oil plays: production and proved reserves, 2013-14

million barrels

Basin	Play	State(s)	2013	2013	2014	2014	Change
			Production	Reserves	Production	Reserves	2013-14 Reserves
Williston	Bakken/Three Forks	ND, MT, SD	270	4,844	387	5,972	1,128
Western Gulf	Eagle Ford	TX	351	4,177	497	5,172	995
Permian	Bone Spring, Wolfcamp	NM, TX	21	335	53	722	387
Denver-Julesberg	Niobrara	CO, KS, NE, WY	2	17	42	512	495
Appalachian	Marcellus*	PA, WV	7	89	13	232	143
Fort Worth	Barnett	TX	9	58	9	47	-11
Sub-total			660	9,520	1,001	12,657	3,137
Other tight oil			41	523	56	708	185
U.S. tight oil			701	10,043	1,057	13,365	3,322

Notes: Includes lease condensate. Bakken/Three Forks tight oil includes proved reserves from shale or low permeability formations reported on Form EIA-23L; **Other tight oil** includes proved reserves from shale formations reported on Form EIA-23L not assigned by EIA to the Bakken/Three Forks, Barnett, Bone Spring, Eagle Ford, Marcellus, Niobrara, or Wolfcamp tight oil plays. * The Marcellus Shale play in this table refers only to portions within Pennsylvania and West Virginia.

Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves, 2013 and 2014

Total discoveries. Total discoveries added 5.4 billion barrels to U.S. crude oil and lease condensate reserves in 2014. Total discoveries consist of discoveries of new fields, identification of new reservoirs in fields discovered in prior years, and extensions (reserve additions that result from the additional drilling and exploration in previously discovered reservoirs).

Geographically, the largest total discoveries of crude oil and lease condensate proved reserves in 2014 were in Texas, North Dakota, and Oklahoma. Texas had total discoveries of 2.3 billion barrels, North Dakota had 1.3 billion barrels, and Oklahoma had 0.4 billion barrels in 2014. Total discoveries in the federal Gulf of Mexico were 234 million barrels, 140 million barrels of which came from new field discoveries. In 2014, 85% of the nation's reserves additions from new field discoveries were from the federal Gulf of Mexico.

Net revisions and other changes. Revisions to reserves occur primarily when operators change their estimates of what they are able to economically produce from the properties they operate using existing technology and current economic conditions. Thus, current prices are critical in estimating economically producible reserves.

⁹ *Tight oil* is oil produced from petroleum-bearing formations with low permeability such as the Eagle Ford, the Bakken, and other formations that must be hydraulically fractured to produce oil at commercial rates. A kerogen-bearing, thermally mature shale is the source rock, and typically lends its name to the play.

Other changes occur when operators buy and sell properties (revaluing the proved reserves in the process), and as various adjustments are made to reconcile estimated volumes.

Net revisions added 416 million barrels to U.S. crude oil and lease condensate proved reserves in 2014. Texas had the largest positive net revision in 2014—405 million barrels of crude oil and lease condensate proved reserves—as operators developed existing fields in the Permian Basin and the Eagle Ford Shale play. The largest negative net revision was in North Dakota, with a decline of 186 million barrels.

The net change to U.S. crude oil and lease condensate proved reserves associated with buying and selling properties was 353 million barrels in 2014. Adjustments (positive and negative reserves changes that EIA cannot attribute to any other category) increased U.S. proved oil reserves by 440 million barrels.

Production. The United States produced an estimated 3.2 billion barrels¹⁰ of crude oil and lease condensate in 2014, an increase of about 17% from 2013. This level represents the country's sixth consecutive annual production increase. Production from the Lower 48 states was 19% above the 2013 level. Alaska experienced a 2% production decline.

Natural gas proved reserves

Overview

U.S. proved reserves of total natural gas (including natural gas plant liquids) increased by 10% (34.8 Tcf) in 2014 and reached a record high for the United States of 388.8 Tcf (Figure 10). The reserves were added onshore in the Lower 48 states from ongoing exploration and development in several of the [nation's shale formations](#), particularly the Marcellus Shale play in Pennsylvania and West Virginia, the Eagle Ford Shale play in Texas, the Woodford Shale play in Oklahoma, and the Utica Shale play in Ohio. In contrast to these 2014 gains in shale natural gas, there were declines in the Rocky Mountain natural gas reserves in 2014. Operators curtailed development of (and in some cases, sold outright¹¹) their mature dry natural gas fields in Wyoming and Colorado in order to pursue preferential liquids-rich targets in other states.

At the state level, operators in Pennsylvania reported the largest net increase in natural gas proved reserves in 2014 (10.4 Tcf), driven by continued development of the Marcellus Shale gas play. Texas added the second-highest volume of natural gas proved reserves (8.0 Tcf), followed by West Virginia (7.9 Tcf). Oklahoma added the fourth-largest volume of new natural gas proved reserves (5.4 Tcf), and Ohio had the fifth-largest increase, adding almost 4 Tcf of natural gas proved reserves in 2014.

Total discoveries. The U.S. total of natural gas discoveries was 50.5 Tcf in 2014 (Table 3), of which 93% were extensions to existing natural gas fields (Figures 11a and 11b). New field discoveries and new reservoir discoveries in previously discovered fields were 0.7 Tcf and 2.7 Tcf, respectively. Total discoveries of natural gas reserves were highest in Pennsylvania, at 11.3 Tcf. West Virginia had the second-largest total discoveries, at 10.2 Tcf. Texas was third with approximately 9.5 Tcf of natural gas discoveries, and fourth-ranked Ohio had 4.7 Tcf of discoveries. Total discoveries in each of these states were driven principally by shale gas developments;

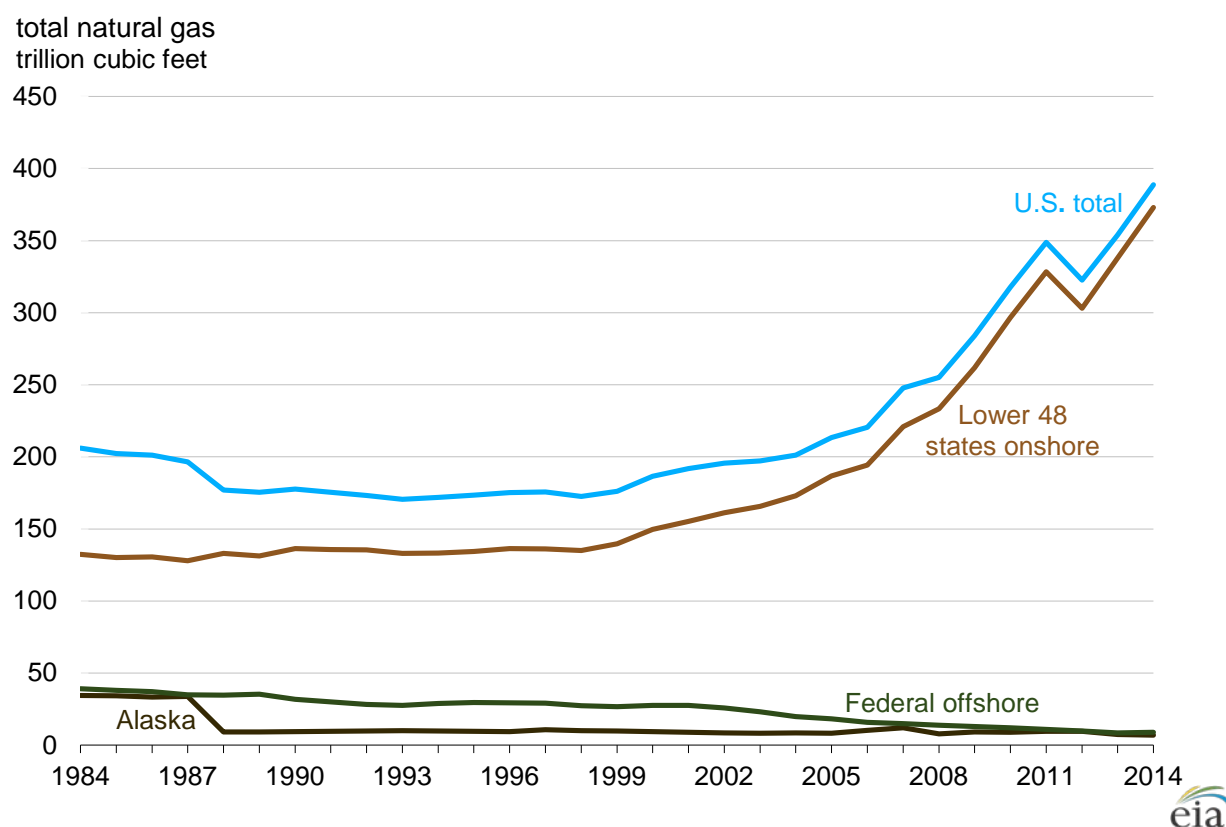
¹⁰ The oil production estimates in this report are based on data reported on Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves. They may differ slightly from the official U.S. EIA production data for crude oil and lease condensate for 2013 contained in the *Petroleum Supply Annual 2013*, DOE/EIA-0340(13).

¹¹ "Encana to sell its Jonah field properties in Wyoming for \$1.8 billion," *Denver Post*, March 31, 2014.

Marcellus Shale in Pennsylvania and West Virginia, Eagle Ford Shale and Wolfcamp Shale in Texas, and Utica Shale in Ohio.

In 2014, operators in Idaho reported natural gas proved reserves for the first time. However, to prevent the disclosure of individual company data (because only one operator reported), Idaho's proved reserves will be included in the group of miscellaneous states in this report.

Figure 10. U.S. total natural gas proved reserves, 1984-2014



Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves

Table 3. Changes to proved reserves of U.S. natural gas by source, 2013-14

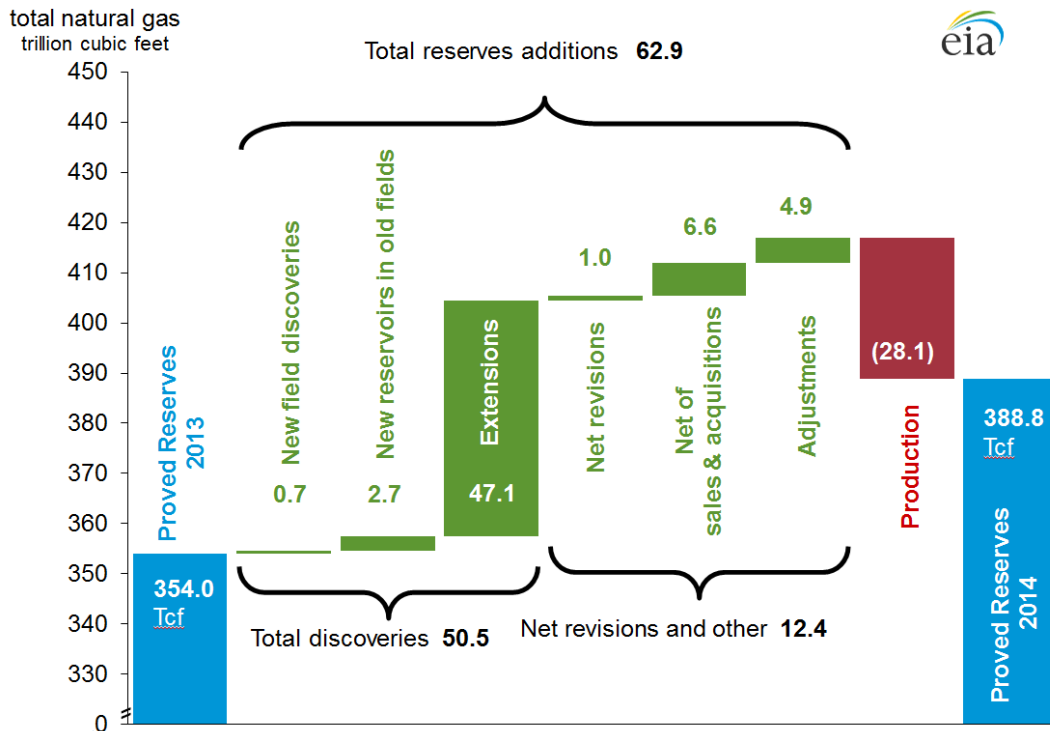
trillion cubic feet

Source of natural gas	Year-end 2013		2014		Year-end 2014
	proved reserves	2014 Discoveries	Revisions and other changes	2014 Production	proved reserves
Coalbed methane	12.4	0.4	4.3	-1.4	15.7
Shale	159.1	37.8	16.2	-13.4	199.7
Other U.S. natural gas					
Lower 48 onshore	166.0	11.4	-8.4	-11.7	157.2
Lower 48 offshore	9.1	0.8	0.8	-1.3	9.4
Alaska	7.4	0.1	-0.4	-0.3	6.8
U.S. TOTAL	354.0	50.5	12.4	-28.1	388.8

Note: Lower 48 offshore includes state offshore and Federal offshore. Components may not add to total because of independent rounding.

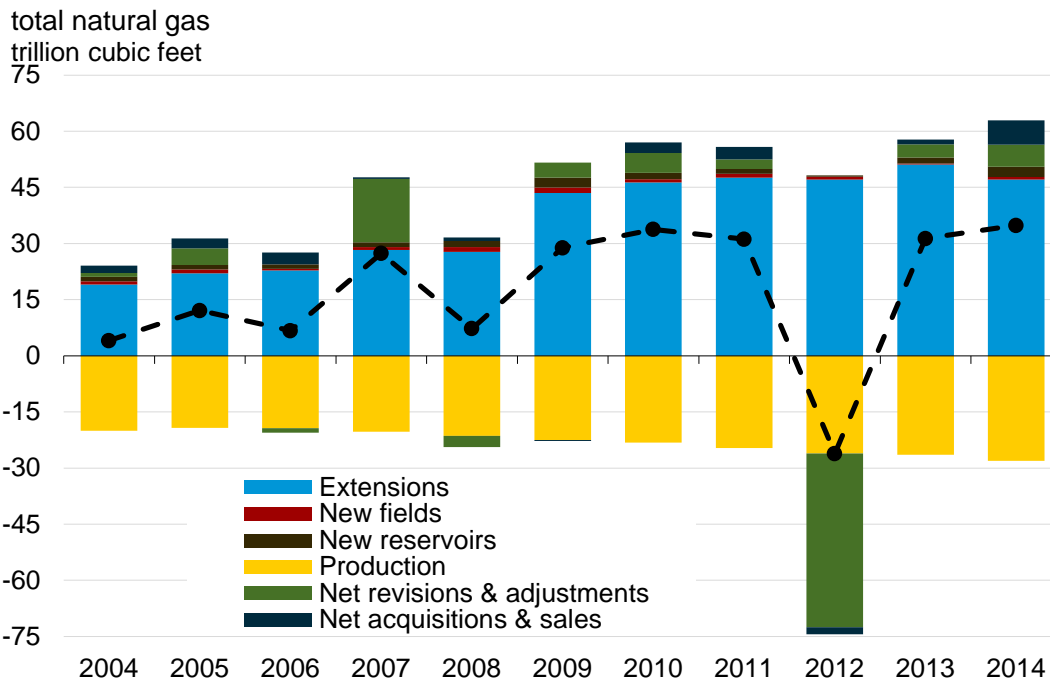
Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves, 2013 and 2014

Figure 11a. U.S. total natural gas proved reserves changes, 2013-14



Note: Component columns may not add to total due to independent rounding. Y-axis has a nonstandard scale.
 Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves

Figure 11b. Components of U.S. natural gas proved reserves changes, 2004-14



Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves, 2004-14



Net revisions and other changes. Net revisions added 1.0 Tcf to U.S. total natural gas proved reserves in 2014. The following states had the largest changes (positive and negative) in 2014 as a result of net revisions:

- Texas had the largest positive net revision of natural gas proved reserves in 2014, an increase of 4.7 Tcf, 3.3 Tcf of which was from RRC District 1 (Eagle Ford Shale play).
- Oklahoma had positive net revisions of 2.1 Tcf in 2014.
- Wyoming had the largest negative net revision in 2014, a decrease of 4.5 Tcf, a result of negative net revisions to its nonassociated natural gas proved reserves. (Operators are shifting their attention from large dry natural gas fields in the Rockies to liquids-rich developments elsewhere in the United States.)

The net change to natural gas proved reserves from the purchase and sale of properties resulted in an additional gain of 6.6 Tcf in 2014. The largest net acquisition of natural gas proved reserves in 2014 was in northern Louisiana—where an operator that acquired properties in the Haynesville Shale play expects better results than the previous owner. Adjustments (annual reserves changes that EIA cannot attribute to any other category) to U.S. total natural gas proved reserves totaled 4.9 Tcf.

Production. This report's estimate of U.S. production of total natural gas in 2014 was 28.1 Tcf, an increase of 6% from 2013.¹² EIA's official published estimate of [marketed natural gas production](#) was 27.3 Tcf in 2014, an increase of 7% from 2013. For both estimates, this sets a record high for the United States and is the ninth consecutive year that natural gas production (total or marketed) increased. In Pennsylvania, 0.9 Tcf of additional production boosted that state's production by 28%, the nation's largest increase. The state with the largest estimated decline in natural gas production in 2014 was Louisiana (-0.4 Tcf, a drop of 16%).

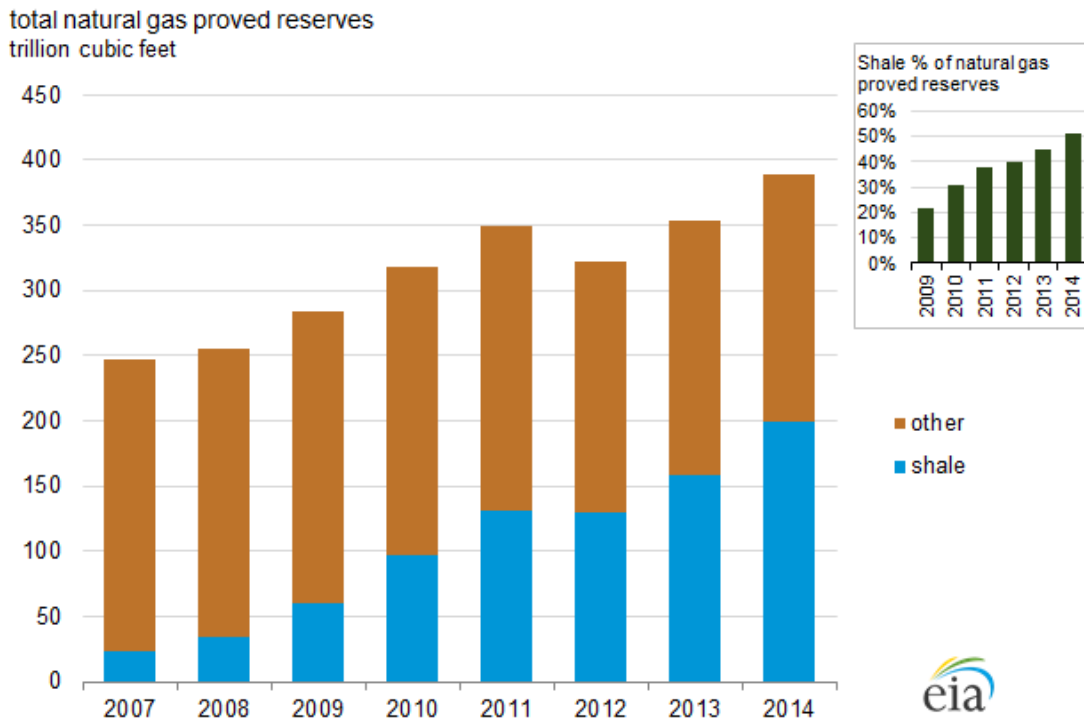
Shale natural gas

Shale natural gas is a type of natural gas where a shale formation is both the source rock and the production zone. Proved reserves of U.S. shale natural gas increased from 159.1 Tcf in 2013 to 199.7 Tcf in 2014 (an increase of 40.6 Tcf, 25% higher than in 2013).

The share of shale gas compared with total U.S. natural gas proved reserves increased from 45% in 2013 to 51% in 2014 (Figure 12). Estimated production of shale natural gas increased 18%—from 11.4 Tcf in 2013 to 13.4 Tcf in 2014.

¹² The natural gas production estimates in this report are based on data reported on Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves. Estimates differ from the official U.S. EIA production data for natural gas published in the *Natural Gas Annual 2013*, DOE/EIA-0131(13).

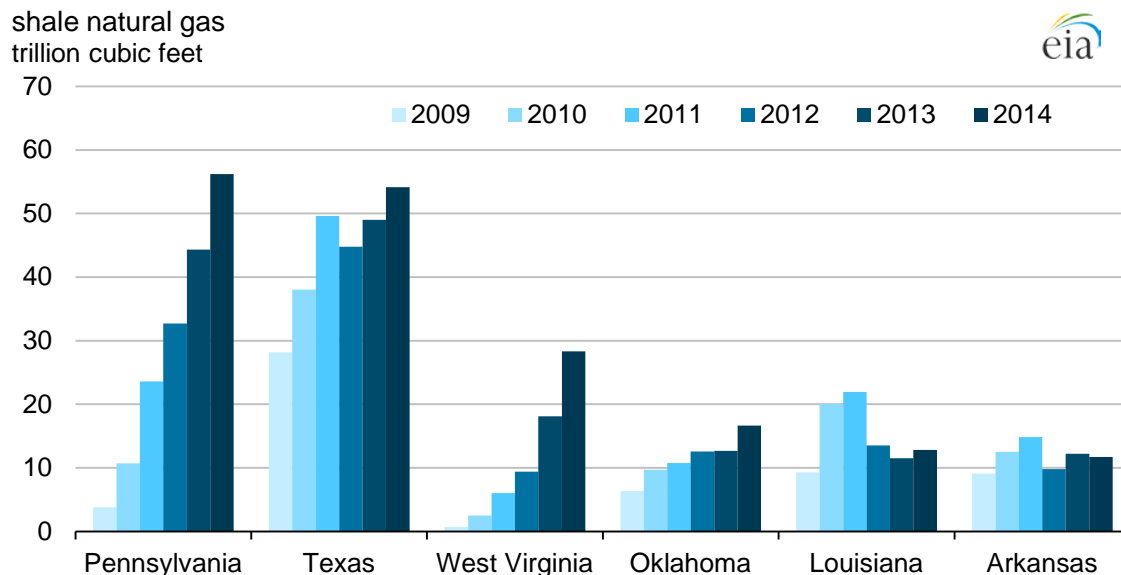
Figure 12. U.S. total natural gas proved reserves (shale and other sources), 2007-14



Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves, 2007-14

Pennsylvania had the most shale gas proved reserves in 2014, surpassing Texas for the first time (Figure 13). West Virginia remained the third-largest shale gas reserves state. Oklahoma was the fourth-largest shale gas proved reserves state, and Louisiana and Arkansas were the fifth- and sixth-largest, respectively.

Figure 13. Proved shale gas reserves of the top six U.S. shale gas reserves states, 2009-14



Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves, 2009-14

Seven shale plays contained 90% of U.S. shale gas proved reserves at the end of 2014 (Table 4). The Marcellus Shale play remained the largest, and it added the most new shale gas reserves (22.1 Tcf) in 2014. The second-largest shale gas play was the Barnett Shale (the play that started the U.S. shale gas boom), where proved reserves declined 6% in 2014.

Table 4. U.S. shale gas plays: natural gas production and proved reserves, 2013-14

trillion cubic feet			2013		2014		Change 2014-2013	
Basin	Shale play	State(s)	Production	Reserves	Production	Reserves	Production	Reserves
Appalachian	Marcellus*	PA,WV	3.6	62.4	4.9	84.5	1.3	22.1
Fort Worth	Barnett	TX	2.0	26.0	1.8	24.3	-0.2	-1.7
Western Gulf	Eagle Ford	TX	1.4	17.4	1.9	23.7	0.5	6.3
Texas-Louisiana Salt	Haynesville/Bossier	TX,LA	1.9	16.1	1.4	16.6	-0.5	0.5
Arkoma, Anadarko	Woodford	TX,OK	0.7	12.5	0.8	16.6	0.1	4.1
Arkoma	Fayetteville	AR	1.0	12.2	1.0	11.7	0.0	-0.5
Appalachian	Utica	OH	0.1	2.3	0.4	6.4	0.3	4.1
Sub-total			10.7	148.9	12.3	183.7	1.6	34.8
Other shale gas			0.7	10.2	1.1	15.9	0.4	5.7
All U.S. shale gas			11.4	159.1	13.4	199.7	2.0	40.6

Note: Table values are based on shale gas proved reserves and production volumes reported and imputed from data on Form EIA-23L. For certain reasons (e.g., incorrect or incomplete submissions, misidentification of shale versus nonshale reservoirs), the actual proved reserves and production of natural gas from shale plays may be higher or lower. * The Marcellus Shale play in this table refers only to portions within Pennsylvania and West Virginia. *Other shale gas* includes fields reported as shale on Form EIA-23L not assigned by EIA to the Marcellus, Barnett, Haynesville/Bossier, Eagle Ford, Woodford, Utica, or Fayetteville shale gas plays. Columns may not add to subtotals due to independent rounding.

Sources: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves, 2013 and 2014

Although the Eagle Ford Shale is primarily an oil and natural gas liquids play, it added 6.3 Tcf of shale natural gas reserves in 2014 and remains the third-largest shale gas play in the United States. Development of the Utica Shale play more than doubled the proved natural gas reserves of Ohio in 2014. EIA has a [series of maps](#) showing the nation's shale gas resources for both shale plays and geologic basins.

Nonassociated natural gas

Nonassociated natural gas, also called gas well gas, is defined as natural gas not in contact with significant quantities of crude oil in a reservoir. EIA considers most shale natural gas and all coalbed natural gas to be nonassociated natural gas proved reserves. Proved reserves of U.S. nonassociated natural gas increased by 24.2 Tcf in 2014, an 8% increase from 2013 (Table 11). Estimated production of U.S. nonassociated natural gas increased 2%—from 22.3 Tcf in 2013 to 22.8 Tcf in 2014. The largest increase in nonassociated natural gas production was in Pennsylvania (Marcellus Shale)—where annual nonassociated natural gas production increased from 3.3 Tcf in 2013 to 4.2 Tcf in 2014.

Associated-dissolved natural gas

Associated-dissolved natural gas, also called casinghead gas, is defined as the combined volume of natural gas that occurs in crude oil reservoirs either as free gas (associated) or as gas in solution with crude oil (dissolved). Proved reserves of associated-dissolved natural gas rose from 58.5 Tcf in 2013 to 69.1 Tcf in 2014—an increase of 18% (10.6 Tcf) (Table 12). Estimated production of associated-dissolved natural gas increased 28%—from 4.1 Tcf in 2013 to 5.3 Tcf in 2014. The largest increase in associated-dissolved natural gas production in 2014 was in

Texas, specifically in Texas Railroad Commission (RRC) Districts 1, 2, and 8, coinciding with the gains in oil production from the Eagle Ford Shale play and from the Permian Basin.

Coalbed natural gas

Coalbed natural gas, also called coalbed methane, is a type of natural gas contained in and removed from coal seams. Extraction requires drilling wells into the coal seams and removing water contained in the seam to reduce hydrostatic pressure and to release adsorbed (and free) natural gas out of the coal. Proved reserves of U.S. coalbed natural gas increased from 12.4 Tcf in 2013 to 15.7 Tcf in 2014, a 27% increase from 2013 (Tables 15 and 16). Estimated production of coalbed natural gas decreased 4%—from 1.47 Tcf in 2013 to 1.40 Tcf in 2014. Among individual states, New Mexico experienced the largest increase (1.3 Tcf) in proved reserves of coalbed methane, followed by Virginia and Colorado (adding 0.8 Tcf and 0.7 Tcf, respectively). Wyoming had the largest decrease in coalbed methane reserves, with proved reserves down 0.2 Tcf in 2014.

Dry natural gas

Dry natural gas is the volume of natural gas (primarily methane) that remains after natural gas liquids and non-hydrocarbon impurities are removed from the natural gas stream, initially at lease separation facilities near the producing well (lease condensate), and then downstream at a processing plant (natural gas plant liquids).

In 2014, the estimated U.S. total of dry natural gas content of total natural gas proved reserves increased from 338.3 Tcf in 2013 to 368.7 Tcf in 2014 (Table 17), a 9% increase from the 2013 level.

Lease condensate and natural gas plant liquids

Operators of natural gas fields report lease condensate reserves and production estimates to EIA on Form EIA-23L, *Annual Survey of Domestic Oil and Gas Reserves*. EIA calculates the expected yield of natural gas plant liquids using total natural gas reserves estimates and a recovery factor determined for each area of origin. Data from Form EIA-64A, *Annual Report of the Origin of Natural Gas Liquids Production*, are the basis of EIA's recovery factors.

Proved reserves of lease condensate have increased significantly in recent years as operators have focused their exploration and development on liquids-rich portions of natural gas plays to take advantage of relatively higher liquids prices. The annual crude oil-to-natural gas price ratio, which averaged about 8.0 from 2000 to 2008, was 26.6 in 2013 and 20.8 in 2014. The 2015 forecast for this ratio is 18.2 (based on average price estimates from figures 6 and 7). Producing liquids remains more economically favorable than producing dry natural gas alone, but the declining price of both fuels has operators curtailing their exploration activities.¹³

Lease condensate

Lease condensate is a mixture consisting primarily of hydrocarbons heavier than pentanes that is recovered as a liquid from natural gas in lease separation facilities. This category excludes natural gas plant liquids, such as butane and propane, which are recovered at downstream natural gas processing plants or facilities. Lease condensate is often blended directly into crude oil to enhance quality.

U.S. lease condensate proved reserves increased from 3,149 million barrels in 2013 to 3,548 million barrels in 2014 (a 13% increase). Texas had the largest increase in lease condensate proved reserves at 250 million barrels,

¹³ [Sustained low oil prices could reduce exploration and production investment](#), EIA Today in Energy, September 24, 2015.

followed by West Virginia, which added 97 million barrels. Lease condensate accounted for 8.9% of the U.S. total crude oil and lease condensate proved reserves in 2014. U.S. lease condensate production increased 5%, from 311 million barrels in 2013 to 326 million barrels in 2014.

Natural gas plant liquids

Natural gas plant liquids (unlike lease condensate) remain within the natural gas after passing through lease separation equipment. These liquids can only be separated from the natural gas at processing plants, fractionating and cycling plants, and in some instances, field facilities. Products obtained include ethane, liquefied petroleum gases (propane, butane, and isobutane), and natural gasoline. Components may be further fractionated or mixed. Lease condensate is not a natural gas plant liquid and is not a component of the natural gas plant liquids total.

As with dry natural gas, the potential U.S. supply of natural gas plant liquids is not categorized as proved reserves because these liquids are extracted downstream of the producing wells at a natural gas processing plant. An estimate of the volume of these liquids that might be extracted from total natural gas reserves is presented in Table 17. The estimated volume of natural gas plant liquids contained in proved reserves of total natural gas increased from 11.9 billion barrels in 2013 to 15.0 billion barrels in 2014 (a 26% increase).

Reserves in nonproducing reservoirs

Not all proved reserves are contained in actively producing reservoirs. Examples of proved reserves in nonproducing reservoirs include existing producing wells that are shut in awaiting well workovers; drilled wells that await completion by hydraulic fracturing; sites that require installation of production equipment or pipeline facilities; or behind the pipe reserves that require the depletion of other zones or reservoirs before they can be placed on production (by recompleting the well).

Table 18 shows the estimated volumes of nonproducing proved reserves of crude oil, lease condensate, nonassociated natural gas, associated-dissolved natural gas, and total natural gas for 2014.

Maps and additional data tables

Maps

Figure 14. Crude oil and lease condensate proved reserves by state/area, 2014

Figure 15. Changes in crude oil and lease condensate proved reserves by state/area, 2013 to 2014

Figure 16. Natural gas proved reserves by state/area, 2014

Figure 17. Changes in natural gas proved reserves by state/area, 2013 to 2014

Oil tables

Table 5. U.S. proved reserves of crude oil and lease condensate, crude oil, and lease condensate, 2004-14

Table 6. Crude oil and lease condensate proved reserves, reserves changes, and production, 2014

Table 7. Crude oil proved reserves, reserves changes, and production, 2014

Table 8. Lease condensate proved reserves, reserves changes, and production, 2014

Natural gas tables

Table 9. U.S. proved reserves of total natural gas, wet after lease separation, 2001-14

Table 10. Total natural gas proved reserves, reserves changes, and production, wet after lease separation, 2014

Table 11. Nonassociated natural gas proved reserves, reserves changes, and production, wet after lease separation, 2014

Table 12. Associated-dissolved natural gas proved reserves, reserves changes, and production, wet after lease separation, 2014

Table 13. Shale natural gas proved reserves and production, 2011-14

Table 14. Shale natural gas proved reserves, reserves changes, and production, wet after lease separation, 2014

Table 15. Coalbed methane proved reserves and production, 2010-14

Table 16. Coalbed methane proved reserves, reserves changes, and production, 2014

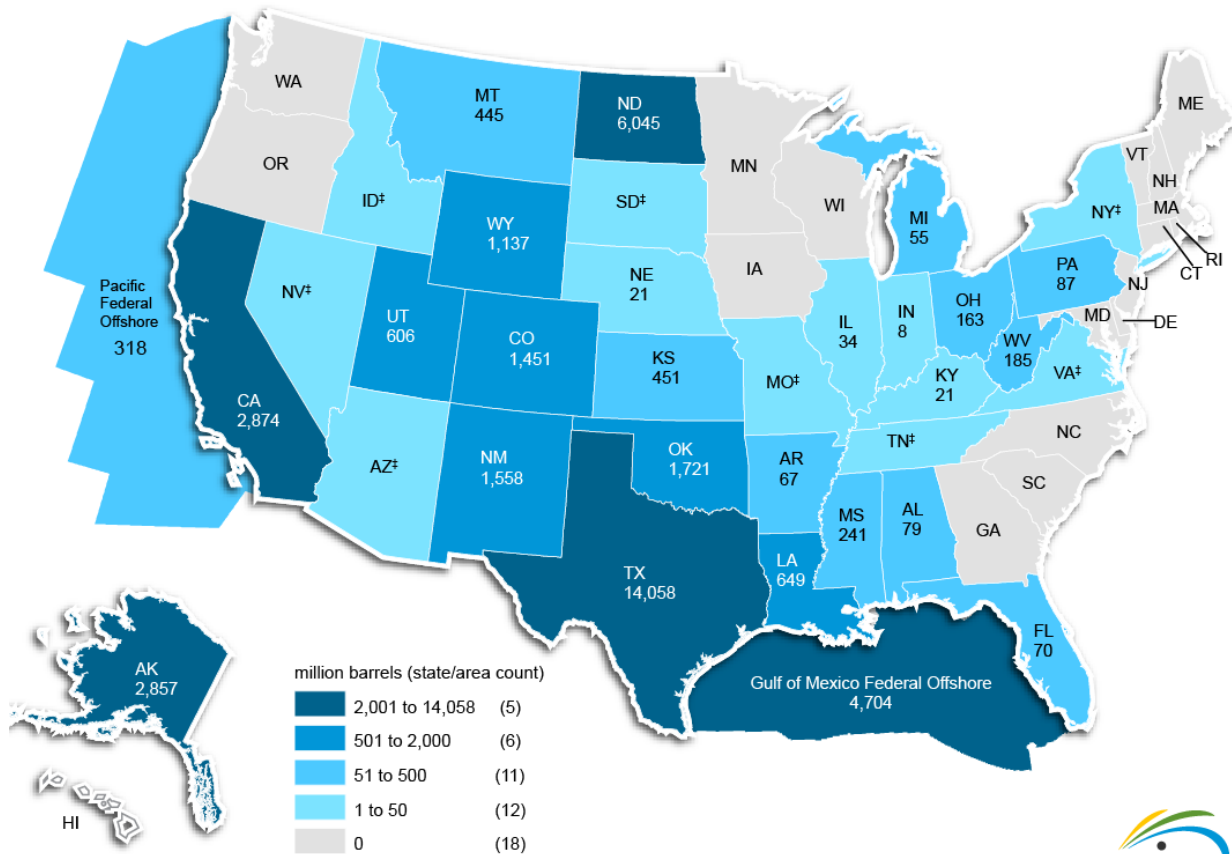
Table 17. Estimated natural gas plant liquids and dry natural gas content of total natural gas proved reserves, 2014

Miscellaneous/other tables

Table 18. Reported proved nonproducing reserves of crude oil, lease condensate, nonassociated gas, associated-dissolved gas, and total gas (wet after lease separation), 2014

Figure 14. Crude oil and lease condensate proved reserves by state/area, 2014

U.S. Total: 39.9 billion barrels

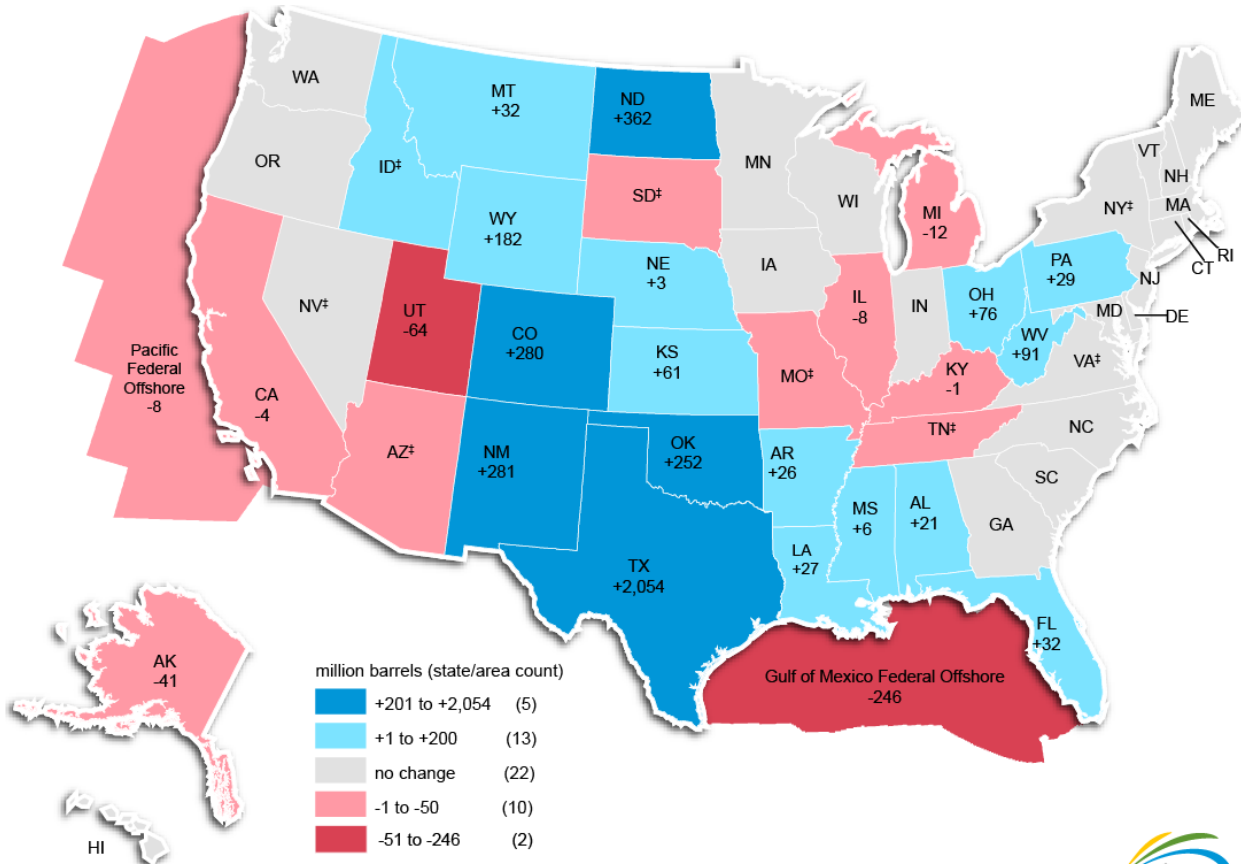


* Data withheld to avoid disclosure of individual company data
 Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves



Figure 15. Changes in crude oil and lease condensate proved reserves by state/area, 2013 to 2014

Total U.S. increase: 3.4 billion barrels

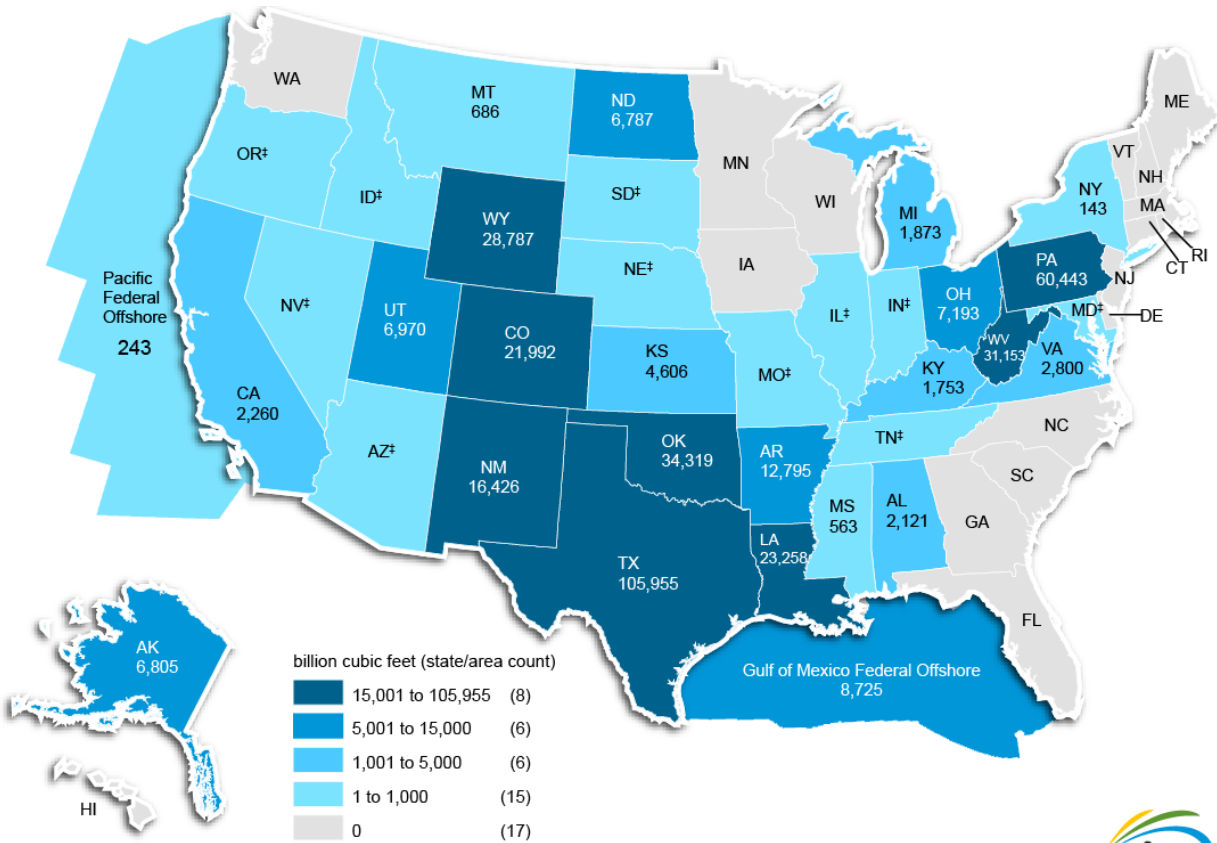


† Data withheld to avoid disclosure of individual company data
 Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves



Figure 16. Natural gas proved reserves by state/area, 2014

U.S. Total: 388.8 trillion cubic feet



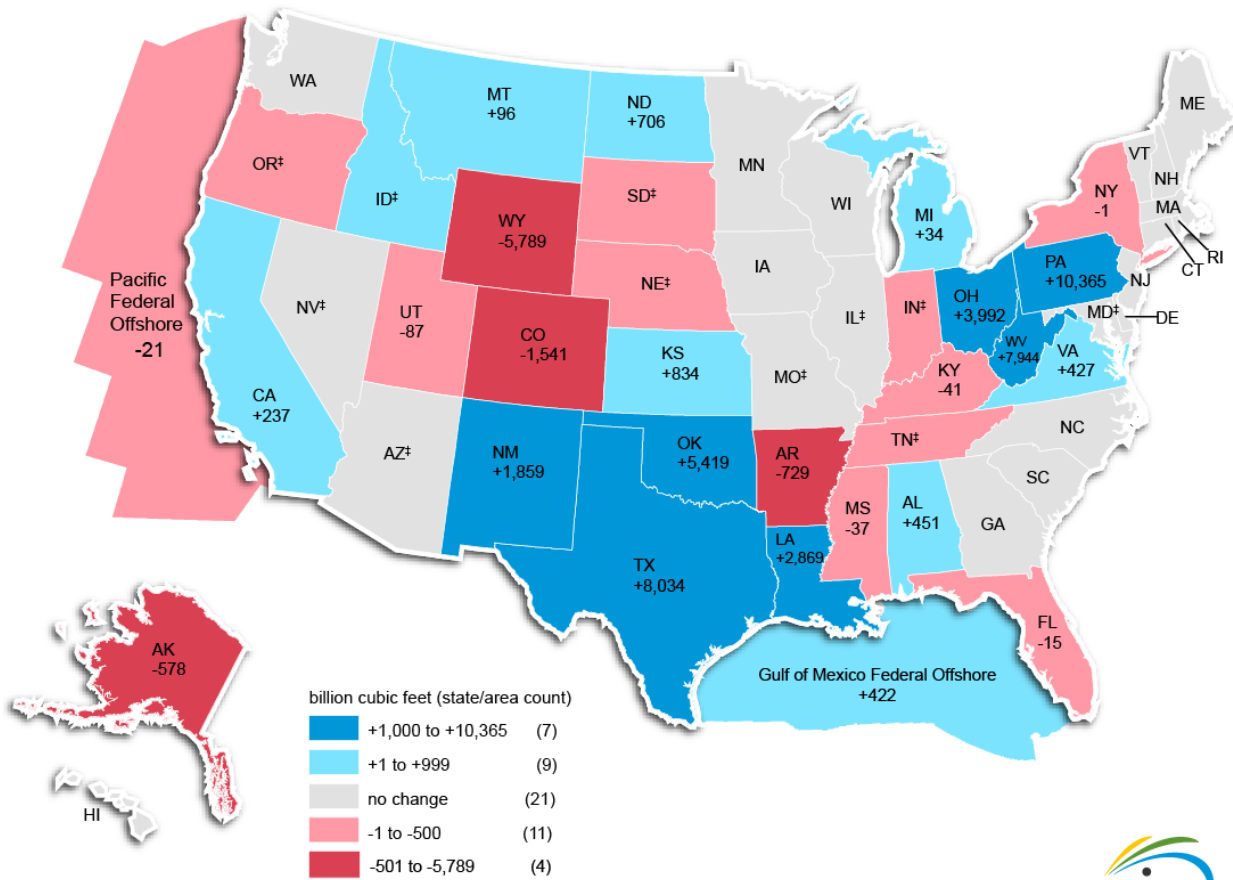
† Data withheld to avoid disclosure of individual company data

Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves



Figure 17. Changes in natural gas proved reserves by state/area, 2013 to 2014

Total U.S. increase: 34.8 trillion cubic feet



* Data withheld to avoid disclosure of individual company data
 Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves



Table 5. U.S. proved reserves of crude oil and lease condensate, crude oil, and lease condensate, 2004-14

million barrels

Year	Adjustments (1)	Net revisions (2)	Revisions ^a and adjustments (3)	Net of sales ^b and acquisitions (4)	Extensions (5)	New field discoveries (6)	New reservoir discoveries in old fields (7)	Total ^c discoveries (8)	Estimated production (9)	Proved ^d reserves 12/31 (10)	Change from prior year (11)
Crude oil and lease condensate (million barrels)											
2004	80	444	524	37	731	36	159	926	2,001	22,592	-514
2005	237	558	795	327	946	209	57	1,212	1,907	23,019	427
2006	109	43	152	189	685	38	62	785	1,834	22,311	-708
2007	21	1,275	1,296	44	865	81	87	1,033	1,872	22,812	501
2008	318	-2,189	-1,871	187	968	166	137	1,271	1,845	20,554	-2,258
2009	46	2,008	2,054	95	1,305	141	95	1,541	1,929	22,315	1,761
2010	188	1,943	2,131	667	1,766	124	169	2,059	1,991	25,181	2,866
2011	207	1,414	1,621	537	3,107	481	88	3,676	2,065	28,950	3,769
2012	137	912	1,049	415	5,191	55	129	5,375	2,386	33,403	4,453
2013	-595	545	-50	389	4,973	191	343	5,507	2,729	36,520	3,117
2014	440	416	856	353	5,021	164	219	5,404	3,200	39,933	3,413
Crude oil (million barrels)											
2004	74	420	494	23	617	33	132	782	1,819	21,371	-520
2005	221	569	790	278	805	205	41	1,051	1,733	21,757	386
2006	94	2	96	194	504	30	43	577	1,652	20,972	-785
2007	65	1,200	1,265	-19	651	66	73	790	1,691	21,317	345
2008	278	-2,039	-1,761	166	805	142	124	1,071	1,672	19,121	-2,196
2009	-4	1,863	1,859	95	1,155	122	81	1,358	1,751	20,682	1,561
2010	144	1,859	2,003	605	1,495	88	161	1,744	1,767	23,267	2,585
2011	199	1,325	1,524	480	2,571	477	59	3,107	1,834	26,544	3,277
2012	109	935	1,044	416	4,462	53	122	4,637	2,112	30,529	3,985
2013	-620	518	-102	460	4,395	188	319	4,902	2,418	33,371	2,842
2014	516	321	837	263	4,430	151	207	4,788	2,874	36,385	3,014
Lease condensate (million barrels)											
2004	6	24	30	14	114	3	27	144	182	1,221	6
2005	16	-11	5	49	141	4	16	161	174	1,262	41
2006	15	41	56	-5	181	8	19	208	182	1,339	77
2007	-44	75	31	63	214	15	14	243	181	1,495	156
2008	40	-150	-110	21	163	24	13	200	173	1,433	-62
2009	50	145	195	0	150	19	14	183	178	1,633	200
2010	44	84	128	62	271	36	8	315	224	1,914	281
2011	8	89	97	57	536	4	29	569	231	2,406	492
2012	28	-23	5	-1	729	2	7	738	274	2,874	468
2013	25	27	52	-71	578	3	24	605	311	3,149	275
2014	-76	95	19	90	591	13	12	616	326	3,548	399

^a Revisions and adjustments = Col. 1 + Col. 2.^b Net of sales and acquisitions = acquisitions - sales^c Total discoveries = Col. 5 + Col. 6 + Col. 7.^d Proved reserves = Col. 10 from prior year + Col. 3 + Col. 4 + Col. 8 - Col. 9

Notes: Old means discovered in a prior year. New means discovered during the report year. One barrel = 42 U.S. gallons.

The production estimates in this table are based on data reported on Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves. They may differ slightly from the official U.S. EIA production data for crude oil and lease condensate for 2014 contained in the *Petroleum Supply Annual 2014*, DOE/EIA-0340(14).See EIA Petroleum and Other Liquids Data at <http://www.eia.gov/petroleum/data.cfm>

Sources: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves, 2004-14

Table 6. Crude oil and lease condensate proved reserves, reserves changes, and production, 2014

million barrels

Changes in reserves during 2014

State and subdivision	Published proved reserves 12/31/13	Adjustments (+,-)	Revision		Sales (-)	Acquisitions (+)	Extensions (+)	New field discoveries (+)	New reservoir discoveries in old fields (+)	Estimated production (-)	Proved reserves 12/31/14
			increases (+)	decreases (-)							
Alaska	2,898	1	239	196	125	187	35	0	0	182	2,857
Lower 48 States	33,622	439	5,789	5,416	2,350	2,641	4,986	164	219	3,018	37,076
Alabama	58	11	16	2	2	1	1	1	4	9	79
Arkansas	41	23	2	2	2	11	0	0	0	6	67
California	2,878	31	381	247	537	543	12	0	16	203	2,874
Coastal Region											
Onshore	599	6	37	25	53	46	0	0	0	23	587
Los Angeles Basin Onshore	255	4	5	27	21	27	1	0	4	15	233
San Joaquin Basin Onshore	1,813	16	328	188	419	426	11	0	2	151	1,838
State Offshore	211	5	11	7	44	44	0	0	10	14	216
Colorado	1,171	51	356	162	12	5	144	0	0	102	1,451
Florida	38	-1	1	6	20	62	0	0	0	4	70
Illinois	42	-8	3	1	0	0	0	0	0	2	34
Indiana	8	0	1	0	0	0	0	0	0	1	8
Kansas	390	-5	68	53	15	37	77	0	0	48	451
Kentucky	22	-1	1	1	0	0	1	0	0	1	21
Louisiana	622	24	71	75	68	82	54	5	3	69	649
North	159	13	13	5	30	27	2	0	0	13	166
South Onshore	396	16	44	64	31	35	52	1	2	46	405
State Offshore	67	-5	14	6	7	20	0	4	1	10	78
Michigan	67	-6	3	2	0	0	0	0	1	8	55
Mississippi	235	12	14	17	1	1	19	2	1	25	241
Montana	413	-1	19	44	4	3	89	0	0	30	445
Nebraska	18	0	7	1	0	0	0	0	0	3	21
New Mexico	1,277	32	294	203	5	25	260	1	1	124	1,558
East	1,215	34	284	189	5	21	221	1	1	117	1,466
West	62	-2	10	14	0	4	39	0	0	7	92
North Dakota	5,683	-68	683	869	567	310	1,234	3	30	394	6,045
Ohio	87	-21	38	33	0	0	101	0	5	14	163
Oklahoma	1,469	-48	255	298	41	83	372	0	61	132	1,721
Pennsylvania	58	8	12	5	3	5	19	0	0	7	87
Texas	12,004	173	2,183	1,778	891	1,198	2,233	10	86	1,160	14,058
RRC District 1	2,360	83	330	262	56	86	591	0	18	263	2,887
RRC District 2											
Onshore	1,857	-34	178	198	387	394	486	0	48	234	2,110
RRC District 3											
Onshore	500	-19	81	66	11	59	115	10	4	60	613
RRC District 4											
Onshore	256	-16	27	30	5	19	31	0	0	25	257
RRC District 5	47	4	3	7	19	19	21	0	0	6	62
RRC District 6	267	19	62	27	94	80	12	0	0	20	299
RRC District 7B	113	39	23	17	1	0	3	0	0	12	148
RRC District 7C	964	30	363	421	14	155	309	0	0	88	1,298
RRC District 8	3,356	-16	948	554	232	302	605	0	16	283	4,142
RRC District 8A	1,736	37	78	63	36	17	7	0	0	108	1,668
RRC District 9	195	20	28	22	2	4	7	0	0	21	209
RRC District 10	351	25	61	109	34	63	46	0	0	40	363
State Offshore	2	1	1	2	0	0	0	0	0	0	2

Table 6. Crude oil and lease condensate proved reserves, reserves changes, and production, 2014 (cont.)

million barrels

State and subdivision	Published proved reserves 12/31/13	Changes in reserves during 2014							New field discoveries (+)	New reservoir discoveries in old fields (+)	Estimated production (-)	Proved reserves 12/31/14
		Adjustments (+,-)	Revision increases (+)	Revision decreases (-)	Sales (-)	Acquisitions (+)	Extensions (+)					
Utah	670	-10	234	297	13	18	47	0	0	43	606	
West Virginia	94	1	24	6	26	60	46	0	1	9	185	
Wyoming	955	109	56	147	71	120	189	0	1	75	1,137	
Federal Offshore^a	5,276	147	1,066	1,159	72	77	87	140	7	547	5,022	
Pacific												
(California)	326	0	19	7	0	0	0	0	0	20	318	
Gulf of Mexico (Louisiana) ^a	4,591	139	648	812	67	73	82	140	7	449	4,352	
Gulf of Mexico (Texas)	359	8	399	340	5	4	5	0	0	78	352	
Miscellaneous ^b	46	-14	1	8	0	0	1	2	2	2	28	
U.S. Total	36,520	440	6,028	5,612	2,475	2,828	5,021	164	219	3,200	39,933	

^a Includes federal offshore Alabama.^b Includes Arizona, Idaho, Missouri, Nevada, New York, South Dakota, Tennessee, and Virginia.

Notes: The production estimates in this table are based on data reported on Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves. They may differ slightly from the official U.S. EIA production data for crude oil and lease condensate for 2014 contained in the *Petroleum Supply Annual 2014*, DOE/EIA-0340(14). One barrel = 42 U.S. gallons.

See EIA Petroleum and Other Liquids Data at <http://www.eia.gov/petroleum/data.cfm>

Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves

Table 7. Crude oil proved reserves, reserves changes, and production, 2014

million barrels

State and subdivision	Changes in reserves during 2014										Proved reserves 12/31/14
	Published proved reserves 12/31/13	Adjustments (+,-)	Revision increases (+)	Revision decreases (-)	Sales (-)	Acquisitions (+)	Extensions (+)	New field discoveries (+)	New reservoir discoveries in old fields (+)	Estimated production (-)	
Alaska	2,898	1	238	196	125	186	35	0	0	182	2,855
Lower 48 States	30,473	515	5,077	4,798	2,032	2,234	4,395	151	207	2,692	33,530
Alabama	44	10	16	1	2	1	1	1	4	8	66
Arkansas	40	22	2	2	2	11	0	0	0	6	65
California	2,876	15	377	246	537	543	12	0	16	202	2,854
Coastal Region Onshore	599	3	37	25	53	46	0	0	0	23	584
Los Angeles Basin Onshore	255	3	5	27	21	27	1	0	4	15	232
San Joaquin Basin Onshore	1,812	5	324	187	419	426	11	0	2	150	1,824
State Offshore	210	4	11	7	44	44	0	0	10	14	214
Colorado	896	118	261	93	7	1	110	0	0	86	1,200
Florida	38	-1	1	6	20	62	0	0	0	4	70
Illinois	42	-8	3	1	0	0	0	0	0	2	34
Indiana	8	0	1	0	0	0	0	0	0	1	8
Kansas	372	-4	63	48	14	31	60	0	0	46	414
Kentucky	17	0	0	1	0	0	1	0	0	1	16
Louisiana	503	23	58	52	42	53	46	2	1	58	534
North	120	12	7	4	9	2	0	0	0	10	118
South Onshore	328	15	37	44	26	31	46	0	1	39	349
State Offshore	55	-4	14	4	7	20	0	2	0	9	67
Michigan	64	-6	3	1	0	0	0	0	1	8	53
Mississippi	223	13	12	17	1	1	19	2	1	23	230
Montana	413	-2	19	44	4	3	89	0	0	30	444
Nebraska	10	1	7	1	0	0	0	0	0	2	15
New Mexico	1,171	27	272	156	5	25	256	1	1	116	1,476
East	1,139	28	269	148	5	21	217	1	1	111	1,412
West	32	-1	3	8	0	4	39	0	0	5	64
North Dakota	5,677	-69	683	864	567	310	1,234	3	30	394	6,043
Ohio	42	-16	5	8	0	0	58	0	0	3	78
Oklahoma	1,019	-43	156	175	24	62	282	0	61	97	1,241
Pennsylvania	15	8	4	4	0	0	1	0	0	2	22
Texas	10,468	213	1,855	1,555	688	958	1,910	9	83	981	12,272
RRC District 1	2,056	88	217	229	50	79	533	0	18	217	2,495
RRC District 2 Onshore	1,263	-25	108	109	248	257	278	0	48	168	1,404
RRC District 3 Onshore	437	-20	72	58	8	52	111	9	1	50	546
RRC District 4 Onshore	28	0	11	6	1	1	5	0	0	4	34
RRC District 5	41	4	2	6	19	19	21	0	0	5	57
RRC District 6	184	16	14	13	73	56	9	0	0	14	179
RRC District 7B	110	37	23	17	1	0	3	0	0	11	144
RRC District 7C	945	31	354	417	12	152	309	0	0	86	1,276
RRC District 8	3,292	7	923	549	230	302	596	0	16	274	4,083
RRC District 8A	1,727	36	78	58	36	17	7	0	0	108	1,663
RRC District 9	171	19	27	15	0	4	6	0	0	18	194
RRC District 10	213	20	25	77	10	19	32	0	0	26	196
State Offshore	1	0	1	1	0	0	0	0	0	0	1

Table 7. Crude oil proved reserves, reserves changes, and production, 2014 (cont.)

million barrels

State and subdivision	Published proved reserves 12/31/13	Changes in reserves during 2014									Proved reserves 12/31/14
		Adjustments (+,-)	Revision increases (+)	Revision decreases (-)	Sales (-)	Acquisitions (+)	Extensions (+)	New field discoveries (+)	New reservoir discoveries in old fields (+)	Estimated production (-)	
Utah	613	-7	231	292	13	18	46	0	0	41	555
West Virginia	17	-2	0	2	1	0	0	0	0	1	11
Wyoming	723	107	36	80	43	87	185	0	1	63	953
Federal Offshore^a	5,137	129	1,011	1,141	62	68	84	132	6	515	4,849
Pacific (California)	326	0	19	7	0	0	0	0	0	20	318
Gulf of Mexico (Louisiana) ^a	4,503	121	625	796	57	65	79	132	6	434	4,244
Gulf of Mexico (Texas)	308	8	367	338	5	3	5	0	0	61	287
Miscellaneous ^b	45	-13	1	8	0	0	1	1	2	2	27
U.S. Total	33,371	516	5,315	4,994	2,157	2,420	4,430	151	207	2,874	36,385

^a Includes federal offshore Alabama.^b Includes Arizona, Idaho, Missouri, Nevada, New York, South Dakota, Tennessee, and Virginia.

Notes: The production estimates in this table are based on data reported on Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves. They may differ slightly from the official U.S. EIA production data for crude oil for 2014 contained in the *Petroleum Supply Annual 2014*, DOE/EIA-0340(14). One barrel = 42 U.S. gallons.

See EIA Petroleum and Other Liquids Data at <http://www.eia.gov/petroleum/data.cfm>

Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves

Table 8. Lease condensate proved reserves, reserves changes, and production, 2014

million barrels

State and subdivision	Published proved reserves 12/31/13	Changes in reserves during 2014							New field discoveries (+)	New reservoir discoveries in old fields (+)	Estimated production (-)	Proved reserves 12/31/14
		Adjustments (+,-)	Revision increases (+)	Revision decreases (-)	Sales (-)	Acquisitions (+)	Extensions (+)					
Alaska	0	0	1	0	0	1	0	0	0	0	2	
Lower 48 States	3,149	-76	712	618	318	407	591	13	12	326	3,546	
Alabama	14	1	0	1	0	0	0	0	0	1	13	
Arkansas	1	1	0	0	0	0	0	0	0	0	2	
California	2	16	4	1	0	0	0	0	0	1	20	
Coastal Region Onshore	0	3	0	0	0	0	0	0	0	0	3	
Los Angeles Basin												
Onshore	0	1	0	0	0	0	0	0	0	0	1	
San Joaquin Basin												
Onshore	1	11	4	1	0	0	0	0	0	1	14	
State Offshore	1	1	0	0	0	0	0	0	0	0	2	
Colorado	275	-67	95	69	5	4	34	0	0	16	251	
Florida	0	0	0	0	0	0	0	0	0	0	0	
Kansas	18	-1	5	5	1	6	17	0	0	2	37	
Kentucky	5	-1	1	0	0	0	0	0	0	0	5	
Louisiana	119	1	13	23	26	29	8	3	2	11	115	
North	39	1	6	1	21	25	2	0	0	3	48	
South Onshore	68	1	7	20	5	4	6	1	1	7	56	
State Offshore	12	-1	0	2	0	0	0	2	1	1	11	
Michigan	3	0	0	1	0	0	0	0	0	0	2	
Mississippi	12	-1	2	0	0	0	0	0	0	2	11	
Montana	0	1	0	0	0	0	0	0	0	0	1	
Nebraska	8	-1	0	0	0	0	0	0	0	1	6	
New Mexico	106	5	22	47	0	0	4	0	0	8	82	
East	76	6	15	41	0	0	4	0	0	6	54	
West	30	-1	7	6	0	0	0	0	0	2	28	
North Dakota	6	1	0	5	0	0	0	0	0	0	2	
Oklahoma	450	-5	99	123	17	21	90	0	0	35	480	
Texas	1,536	-40	328	223	203	240	323	1	3	179	1,786	
RRC District 1	304	-5	113	33	6	7	58	0	0	46	392	
RRC District 2 Onshore	594	-9	70	89	139	137	208	0	0	66	706	
RRC District 3 Onshore	63	1	9	8	3	7	4	1	3	10	67	
RRC District 4 Onshore	228	-16	16	24	4	18	26	0	0	21	223	
RRC District 5	6	0	1	1	0	0	0	0	0	1	5	
RRC District 6	83	3	48	14	21	24	3	0	0	6	120	
RRC District 7B	3	2	0	0	0	0	0	0	0	1	4	
RRC District 7C	19	-1	9	4	2	3	0	0	0	2	22	
RRC District 8	64	-23	25	5	2	0	9	0	0	9	59	
RRC District 8A	9	1	0	5	0	0	0	0	0	0	5	
RRC District 9	24	1	1	7	2	0	1	0	0	3	15	
RRC District 10	138	5	36	32	24	44	14	0	0	14	167	
State Offshore	1	1	0	1	0	0	0	0	0	0	1	

Table 8. Lease condensate proved reserves, reserves changes, and production, 2014 (cont.)

million barrels

State and subdivision	Published proved reserves 12/31/13	Changes in reserves during 2014							New reservoir discoveries in old fields (+)	Estimated production (-)	Proved reserves 12/31/14
		Adjustments (+,-)	Revision increases (+)	Revision decreases (-)	Sales (-)	Acquisitions (+)	Extensions (+)	New field discoveries (+)			
Utah	57	-3	3	5	0	0	1	0	0	2	51
West Virginia	77	3	24	4	25	60	46	0	1	8	174
Wyoming	232	2	20	67	28	33	4	0	0	12	184
Federal Offshore^a	139	18	55	18	10	9	3	8	1	32	173
Pacific (California)	0	0	0	0	0	0	0	0	0	0	0
Gulf of Mexico (Louisiana) ^a	88	18	23	16	10	8	3	8	1	15	108
Gulf of Mexico (Texas)	51	0	32	2	0	1	0	0	0	17	65
Miscellaneous ^b	89	-6	41	26	3	5	61	1	5	16	151
U.S. Total	3,149	-76	713	618	318	408	591	13	12	326	3,548

^a Includes federal offshore Alabama^b Includes Arizona, Idaho, Nevada, New York, Ohio, Pennsylvania, South Dakota, Tennessee, and Virginia.

Notes: The production estimates in this table are based on data reported on Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves. They may differ slightly from the official U.S. EIA production data for lease condensate for 2014 contained in the *Petroleum Supply Annual 2014*, DOE/EIA-0340(14). One barrel = 42 U.S. gallons.

See EIA Petroleum and Other Liquids Data at <http://www.eia.gov/petroleum/data.cfm>

Sources: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves

Table 9. U.S. proved reserves of total natural gas, wet after lease separation, 2001-14

billion cubic feet

Year	Adjustments (1)	Net revisions (2)	Revisions ^a and adjustments (3)	Net of sales ^b and acquisitions (4)	Extensions (5)	New field discoveries (6)	New reservoir discoveries in old fields (7)	Total ^c discoveries (8)	Estimated production (9)	Proved ^d reserves 12/31 (10)	Change from prior year (11)
Total natural gas (billion cubic feet)											
2001	1,849	-2,438	-589	2,715	17,183	3,668	2,898	23,749	20,642	191,743	5,233
2002	4,006	1,038	5,044	428	15,468	1,374	1,752	18,594	20,248	195,561	3,818
2003	2,323	-1,715	608	1,107	17,195	1,252	1,653	20,100	20,231	197,145	1,584
2004	170	825	995	1,975	19,068	790	1,244	21,102	20,017	201,200	4,055
2005	1,693	2,715	4,408	2,674	22,069	973	1,243	24,285	19,259	213,308	12,108
2006	946	-2,099	-1,153	3,178	22,834	425	1,197	24,456	19,373	220,416	7,108
2007	990	15,936	16,926	452	28,255	814	1,244	30,313	20,318	247,789	27,373
2008	271	-3,254	-2,983	937	27,800	1,229	1,678	30,707	21,415	255,035	7,246
2009	5,923	-1,899	4,024	-222	43,500	1,423	2,656	47,579	22,537	283,879	28,844
2010	1,292	4,055	5,347	2,766	46,283	895	1,701	48,879	23,224	317,647	33,768
2011	2,715	-112	2,603	3,298	47,635	987	1,260	49,882	24,621	348,809	31,162
2012	-810	-45,614	-46,424	-1,859	47,053	780	408	48,241	26,097	322,670	-26,139
2013	693	2,794	3,487	1,287	51,074	263	1,680	53,017	26,467	353,994	31,324
2014	4,905	984	5,889	6,565	47,071	671	2,745	50,487	28,094	388,841	34,847

^a Revisions and adjustments = Col. 1 + Col. 2.^b Net of sales and acquisitions = acquisitions - sales^c Total discoveries = Col. 5 + Col. 6 + Col. 7.^d Proved reserves = Col. 10 from prior year + Col. 3 + Col. 4 + Col. 8 - Col. 9.

Notes: Old means discovered in a prior year. New means discovered during the report year. The production estimates in this table are based on data reported on Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves. They may differ slightly from the official U.S. EIA production data for wet and dry natural gas for 2014 contained in the *Natural Gas Annual 2014*, DOE/EIA-0131(14). Natural gas is measured at 60 degrees Fahrenheit and atmospheric pressure base of 14.73 pounds per square inch absolute (psia).

See EIA Natural Gas Data at <http://www.eia.gov/naturalgas/data.cfm>

Sources: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves, 2001-14

Table 10. Total natural gas proved reserves, reserves changes, and production, wet after lease separation, 2014

billion cubic feet

State and subdivision	Changes in reserves during 2014										Proved reserves 12/31/14
	Published proved reserves 12/31/13	Adjustments (+,-)	Revision increases (+)	Revision decreases (-)	Sales (-)	Acquisitions (+)	Extension (+)	New field discoveries (+)	New reservoir discoveries in old fields (+)	Estimated production (-)	
Alaska	7,383	-25	268	690	167	195	146	0	0	305	6,805
Lower 48 States	346,611	4,930	55,060	53,654	21,562	28,099	46,925	671	2,745	27,789	382,036
Alabama	1,670	518	146	43	2	0	2	0	14	184	2,121
Arkansas	13,524	-2	171	1,095	248	80	1,506	0	2	1,143	12,795
California	2,023	35	659	259	1,243	1,232	0	0	2	189	2,260
Coastal Region											
Onshore	284	12	24	25	56	52	0	0	0	14	277
Los Angeles Basin											
Onshore	90	10	6	17	6	8	0	0	0	7	84
San Joaquin Basin											
Onshore	1,574	11	625	216	1,168	1,159	0	0	0	162	1,823
State Offshore	75	2	4	1	13	13	0	0	2	6	76
Colorado	23,533	733	3,651	5,281	731	598	1,129	0	6	1,646	21,992
Florida	15	-2	39	52	0	0	0	0	0	0	0
Kansas	3,772	123	607	230	1,154	1,489	286	0	0	287	4,606
Kentucky	1,794	6	78	50	0	0	0	0	1	76	1,753
Louisiana	20,389	540	2,794	3,438	2,502	4,563	2,769	60	72	1,989	23,258
North	17,112	202	2,438	2,787	2,279	4,241	2,475	0	5	1,570	19,837
South Onshore	2,857	393	343	598	220	301	276	34	59	365	3,080
State Offshore	420	-55	13	53	3	21	18	26	8	54	341
Michigan	1,839	-52	295	92	1	8	1	0	1	126	1,873
Mississippi	600	-14	83	29	116	82	9	1	2	55	563
Montana	590	43	91	56	2	1	79	0	0	60	686
New Mexico	14,567	592	3,657	2,130	16	69	945	1	4	1,263	16,426
East	5,108	311	1,600	893	16	57	777	1	4	515	6,434
West	9,459	281	2,057	1,237	0	12	168	0	0	748	9,992
New York	144	38	16	31	4	0	0	0	0	20	143
North Dakota	6,081	-20	968	875	626	363	1,306	4	42	456	6,787
Ohio	3,201	-274	1,656	1,594	22	42	3,432	1	1,261	510	7,193
Oklahoma	28,900	1,003	7,098	4,951	1,175	1,307	3,954	146	330	2,293	34,319
Pennsylvania	50,078	1,347	8,715	7,524	509	1,307	11,252	8	6	4,237	60,443
Texas	97,921	574	16,174	11,438	7,201	8,985	9,293	33	217	8,603	105,955
RRC District 1	8,118	67	4,164	908	156	180	1,838	0	16	888	12,431
RRC District 2											
Onshore	6,640	43	726	840	1,522	1,454	1,677	0	118	772	7,524
RRC District 3											
Onshore	2,592	-204	418	298	160	193	251	30	23	362	2,483
RRC District 4											
Onshore	11,101	-125	1,689	888	571	1,296	952	2	21	995	12,482
RRC District 5	19,531	-76	752	1,439	623	1,248	196	0	0	1,434	18,155
RRC District 6	12,192	-310	2,066	1,229	879	642	587	0	0	1,046	12,023
RRC District 7B	3,267	-187	239	418	2	0	9	0	0	213	2,695
RRC District 7C	5,584	570	1,485	1,302	703	980	957	0	1	469	7,103
RRC District 8	9,715	67	2,572	1,649	872	917	1,698	1	38	912	11,575
RRC District 8A	1,338	7	145	62	5	6	8	0	0	109	1,328
RRC District 9	10,040	444	880	1,150	154	0	384	0	0	684	9,760
RRC District 10	7,744	281	1,020	1,233	1,554	2,069	736	0	0	709	8,354
State Offshore	59	-3	18	22	0	0	0	0	0	10	42

Table 10. Total natural gas proved reserves, reserves changes, and production, wet after lease separation, 2014 (cont.)

billion cubic feet

State and subdivision	Changes in reserves during 2014										Proved reserves 12/31/14
	Published proved reserves 12/31/13	Adjustments (+,-)	Revision increases (+)	Revision decreases (-)	Sales (-)	Acquisition (+)	Extension (+)	New field discoveries (+)	New reservoir discoveries in old fields (+)	Estimated production (-)	
Utah	7,057	42	784	643	24	33	171	2	0	452	6,970
Virginia	2,373	89	286	167	573	722	215	0	0	145	2,800
West Virginia	23,209	294	2,343	4,497	1,824	2,421	9,561	0	688	1,042	31,153
Wyoming	34,576	-1,413	2,335	6,822	3,237	4,343	800	0	0	1,795	28,787
Federal Offshore^a	8,567	731	2,409	2,349	348	454	215	399	97	1,207	8,968
Pacific (California)	264	1	19	20	0	0	0	0	0	21	243
Gulf of Mexico (Louisiana) ^b	6,795	634	1,373	1,304	311	385	170	399	71	932	7,280
Gulf of Mexico (Texas)	1,508	96	1,017	1,025	37	69	45	0	26	254	1,445
Miscellaneous ^b	188	-1	5	8	4	0	0	16	0	11	185
U.S. Total	353,994	4,905	55,328	54,344	21,729	28,294	47,071	671	2,745	28,094	388,841

^a Includes federal offshore Alabama.^b Includes Arizona, Idaho, Illinois, Indiana, Maryland, Missouri, Nebraska, Nevada, Oregon, South Dakota, and Tennessee.

Notes: The production estimates in this table are based on data reported on Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves. They may differ slightly from the official U.S. Energy Information Administration production data for natural gas for 2014 contained in the *Natural Gas Annual 2014*, DOE/EIA-0131(14).

See EIA Natural Gas Data at <http://www.eia.gov/naturalgas/data.cfm>

Natural gas is measured at 60 degrees Fahrenheit and atmospheric pressure base of 14.73 pounds per square inch absolute (psia).

Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves

Table 11. Nonassociated natural gas proved reserves, reserves changes, and production, wet after lease separation, 2014

billion cubic feet

State and subdivision	Changes in reserves during 2014										Proved reserves 12/31/14
	Published proved reserves 12/31/13	Adjustments (+,-)	Revision increases (+)	Revision decreases (-)	Sales (-)	Acquisitions (+)	Extensions (+)	New field discoveries (+)	New reservoir discoveries in old fields (+)	Estimated production (-)	
Alaska	955	-24	89	137	0	34	138	0	0	101	954
Lower 48 States	294,549	3,533	41,975	44,047	17,671	23,671	36,971	344	2,161	22,716	318,770
Alabama	1,624	498	70	43	2	0	0	0	0	167	1,980
Arkansas	13,389	18	157	1,095	239	1	1,506	0	2	1,133	12,606
California	247	28	112	72	164	164	0	0	0	42	273
Coastal Region Onshore	2	9	0	2	0	0	0	0	0	1	8
Los Angeles Basin Onshore	0	0	0	0	0	0	0	0	0	0	0
San Joaquin Basin Onshore	245	19	112	70	164	164	0	0	0	41	265
State Offshore	0	0	0	0	0	0	0	0	0	0	0
Colorado	19,253	615	2,334	5,019	695	568	790	0	6	1,342	16,510
Florida	14	0	0	14	0	0	0	0	0	0	0
Kansas	3,339	129	512	101	1,147	1,466	4	0	0	253	3,949
Kentucky	1,750	6	67	46	0	0	0	0	1	74	1,704
Louisiana	19,519	441	2,660	3,226	2,461	4,471	2,710	57	59	1,880	22,350
North	16,933	177	2,378	2,722	2,277	4,229	2,474	0	5	1,552	19,645
South Onshore	2,254	298	278	463	184	239	218	32	46	286	2,432
State Offshore	332	-34	4	41	0	3	18	25	8	42	273
Michigan	1,714	-52	292	85	0	8	0	0	0	112	1,765
Mississippi	557	-29	76	16	116	80	0	0	0	47	505
Montana	286	41	76	7	0	0	0	0	0	35	361
New Mexico	11,154	421	2,484	1,533	12	13	136	0	0	920	11,743
East	1,832	111	463	322	12	12	80	0	0	187	1,977
West	9,322	310	2,021	1,211	0	1	56	0	0	733	9,766
New York	138	35	16	28	4	0	0	0	0	19	138
North Dakota	91	32	8	81	0	0	0	0	0	5	45
Ohio	2,887	-239	1,632	1,512	21	35	3,428	0	1,261	486	6,985
Oklahoma	24,370	905	5,818	3,891	1,093	955	1,951	146	0	1,803	27,358
Pennsylvania	49,809	1,306	8,604	7,429	509	1,307	11,251	8	6	4,209	60,144
Texas	75,754	-55	10,983	7,696	5,361	6,843	4,845	21	48	6,355	79,027
RRC District 1	4,442	-73	3,462	511	114	115	936	0	0	524	7,733
RRC District 2 Onshore	4,348	-1	454	642	944	859	1,162	0	4	438	4,802
RRC District 3 Onshore	1,795	52	290	228	143	131	97	18	23	275	1,760
RRC District 4 Onshore	11,038	-117	1,651	872	570	1,182	938	2	21	982	12,291
RRC District 5	19,354	-46	723	1,435	609	1,207	195	0	0	1,419	17,970
RRC District 6	11,553	-338	2,009	1,206	536	582	545	0	0	969	11,640
RRC District 7B	3,040	-231	209	413	2	0	5	0	0	190	2,418
RRC District 7C	2,183	352	177	134	663	684	1	0	0	156	2,444
RRC District 8	2,315	9	411	162	115	147	113	1	0	239	2,480
RRC District 8A	23	5	5	6	0	0	0	0	0	3	24
RRC District 9	8,947	102	774	1,145	152	0	323	0	0	566	8,283
RRC District 10	6,660	233	801	923	1,513	1,936	530	0	0	584	7,140
State Offshore	56	-2	17	19	0	0	0	0	0	10	42

Table 11. Nonassociated natural gas proved reserves, reserves changes, and production, wet after lease separation, 2014 (cont.)

billion cubic feet

State and subdivision	Changes in reserves during 2014										Proved reserves 12/31/14
	Published proved reserves 12/31/13	Adjustments (+,-)	Revision increases (+)	Revision decreases (-)	Sales (-)	Acquisitions (+)	Extensions (+)	New field discoveries (+)	New reservoir discoveries in old fields (+)	Estimated production (-)	
Utah	6,162	31	457	265	0	0	87	0	0	374	6,098
Virginia	2,373	89	286	167	573	722	215	0	0	145	2,800
West Virginia	23,139	323	2,342	4,491	1,823	2,421	9,561	0	688	1,039	31,121
Wyoming	33,774	-1,600	2,277	6,669	3,212	4,246	366	0	0	1,675	27,507
Federal Offshore^a	3,037	593	708	555	235	371	121	96	90	592	3,634
Pacific (California)	0	0	0	0	0	0	0	0	0	0	0
Gulf of Mexico (Louisiana) ^a	2,502	499	561	420	202	305	90	96	64	468	3,027
Gulf of Mexico (Texas)	535	94	147	135	33	66	31	0	26	124	607
Miscellaneous ^b	169	-3	4	6	4	0	0	16	0	9	167
U.S. Total	295,504	3,509	42,064	44,184	17,671	23,705	37,109	344	2,161	22,817	319,724

^a Includes federal offshore Alabama.^b Includes Arizona, Idaho, Illinois, Indiana, Maryland, Missouri, Nebraska, Nevada, Oregon, South Dakota, and Tennessee.

Notes: The production estimates in this table are based on data reported on Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves. They may differ slightly from the official U.S. Energy Information Administration production data for nonassociated natural gas for 2014 contained in the *Natural Gas Annual 2014*, DOE/EIA-0131(14).

See EIA Natural Gas Data at <http://www.eia.gov/naturalgas/data.cfm>

Natural gas is measured at 60 degrees Fahrenheit and atmospheric pressure base of 14.73 pounds per square inch absolute (psia).

Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves

Table 12. Associated-dissolved natural gas proved reserves, reserves changes, and production, wet after lease separation, 2014

billion cubic feet

State and subdivision	Published proved reserves 12/31/13	Changes in reserves during 2014							New field discoveries (+)	New reservoir discoveries in old fields (+)	Estimated production (-)	Proved reserves 12/31/14
		Adjustments (+,-)	Revision increases (+)	Revision decreases (-)	Sales (-)	Acquisitions (+)	Extensions (+)					
Alaska	6,428	-1	179	553	167	161	8	0	0	204	5,851	
Lower 48 States	52,062	1,397	13,085	9,607	3,891	4,428	9,954	327	584	5,073	63,266	
Alabama	46	20	76	0	0	0	2	0	14	17	141	
Arkansas	135	-20	14	0	9	79	0	0	0	10	189	
California	1,776	7	547	187	1,079	1,068	0	0	2	147	1,987	
Coastal Region Onshore	282	3	24	23	56	52	0	0	0	13	269	
Los Angeles Basin Onshore	90	10	6	17	6	8	0	0	0	7	84	
San Joaquin Basin Onshore	1,329	-8	513	146	1,004	995	0	0	0	121	1,558	
State Offshore	75	2	4	1	13	13	0	0	2	6	76	
Colorado	4,280	118	1,317	262	36	30	339	0	0	304	5,482	
Florida	1	-2	39	38	0	0	0	0	0	0	0	
Kansas	433	-6	95	129	7	23	282	0	0	34	657	
Kentucky	44	0	11	4	0	0	0	0	0	2	49	
Louisiana	870	99	134	212	41	92	59	3	13	109	908	
North	179	25	60	65	2	12	1	0	0	18	192	
South Onshore	603	95	65	135	36	62	58	2	13	79	648	
State Offshore	88	-21	9	12	3	18	0	1	0	12	68	
Michigan	125	0	3	7	1	0	1	0	1	14	108	
Mississippi	43	15	7	13	0	2	9	1	2	8	58	
Montana	304	2	15	49	2	1	79	0	0	25	325	
New Mexico	3,413	171	1,173	597	4	56	809	1	4	343	4,683	
East	3,276	200	1,137	571	4	45	697	1	4	328	4,457	
West	137	-29	36	26	0	11	112	0	0	15	226	
New York	6	3	0	3	0	0	0	0	0	1	5	
North Dakota	5,990	-52	960	794	626	363	1,306	4	42	451	6,742	
Ohio	314	-35	24	82	1	7	4	1	0	24	208	
Oklahoma	4,530	98	1,280	1,060	82	352	2,003	0	330	490	6,961	
Pennsylvania	269	41	111	95	0	0	1	0	0	28	299	
Texas	22,167	629	5,191	3,742	1,840	2,142	4,448	12	169	2,248	26,928	
RRC District 1	3,676	140	702	397	42	65	902	0	16	364	4,698	
RRC District 2 Onshore	2,292	44	272	198	578	595	515	0	114	334	2,722	
RRC District 3 Onshore	797	-256	128	70	17	62	154	12	0	87	723	
RRC District 4 Onshore	63	-8	38	16	1	114	14	0	0	13	191	
RRC District 5	177	-30	29	4	14	41	1	0	0	15	185	
RRC District 6	639	28	57	23	343	60	42	0	0	77	383	
RRC District 7B	227	44	30	5	0	0	4	0	0	23	277	
RRC District 7C	3,401	218	1,308	1,168	40	296	956	0	1	313	4,659	
RRC District 8	7,400	58	2,161	1,487	757	770	1,585	0	38	673	9,095	
RRC District 8A	1,315	2	140	56	5	6	8	0	0	106	1,304	
RRC District 9	1,093	342	106	5	2	0	61	0	0	118	1,477	
RRC District 10	1,084	48	219	310	41	133	206	0	0	125	1,214	
State Offshore	3	-1	1	3	0	0	0	0	0	0	0	

Table 12. Associated-dissolved natural gas proved reserves, reserves changes, and production, wet after lease separation, 2014 (cont.)

billion cubic feet

State and subdivision	Published proved reserves 12/31/13	Changes in Reserves During 2014							New reservoir discoveries in old fields (+)	Estimated production (-)	Proved reserves 12/31/14
		Adjustments (+,-)	Revision increases (+)	Revision decreases (-)	Sales (-)	Acquisitions (+)	Extensions (+)	New field discoveries (+)			
Utah	895	11	327	378	24	33	84	2	0	78	872
West Virginia	70	-29	1	6	1	0	0	0	0	3	32
Wyoming	802	187	58	153	25	97	434	0	0	120	1,280
Federal Offshore^a	5,530	138	1,701	1,794	113	83	94	303	7	615	5,334
Pacific (California)	264	1	19	20	0	0	0	0	0	21	243
Gulf of Mexico (Louisiana) ^a	4,293	135	812	884	109	80	80	303	7	464	4,253
Gulf of Mexico (Texas)	973	2	870	890	4	3	14	0	0	130	838
Miscellaneous ^b	19	2	1	2	0	0	0	0	0	2	18
U.S. Total	58,490	1,396	13,264	10,160	4,058	4,589	9,962	327	584	5,277	69,117

^a Includes federal offshore Alabama.^b Includes Arizona, Idaho, Illinois, Indiana, Maryland, Missouri, Nebraska, Nevada, Oregon, South Dakota, Tennessee, and Virginia.

Notes: The production estimates in this table are based on data reported on Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves. They may differ slightly from the official U.S. Energy Information Administration production data for associated-dissolved natural gas for 2014 contained in the *Natural Gas Annual 2014*, DOE/EIA-0131(14).

See EIA Natural Gas Data at <http://www.eia.gov/naturalgas/data.cfm>

Natural gas is measured at 60 degrees Fahrenheit and atmospheric pressure base of 14.73 pounds per square inch absolute (psia).

Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves

Table 13. Shale natural gas proved reserves and production, 2011-14

billion cubic feet

State and subdivision	Reserves				Production			
	2011	2012	2013	2014	2011	2012	2013	2014
Alaska	0	0	0	0	0	0	0	0
Lower 48 States	131,616	129,369	159,115	199,684	7,994	10,371	11,415	13,447
Arkansas	14,808	9,779	12,231	11,695	940	1,027	1,026	1,038
California	855	777	756	44	101	90	89	3
Coastal Region Onshore	0	0	0	9	0	0	0	1
San Joaquin Basin Onshore	855	777	756	15	101	90	89	1
State Offshore	0	0	0	20	0	0	0	1
Colorado	10	53	136	3,775	3	9	18	236
Florida	0	0	0	0	0	0	0	0
Kansas	0	2	3	4	0	1	3	1
Kentucky	41	34	46	50	4	4	4	2
Louisiana	21,950	13,523	11,483	12,792	2,084	2,204	1,510	1,191
North	21,950	13,523	11,473	12,611	2,084	2,204	1,509	1,169
South	0	0	10	181	0	0	1	22
State Offshore	0	0	0	0	0	0	0	0
Michigan	1,947	1,345	1,418	1,432	106	108	101	96
Mississippi	0	19	37	19	0	2	5	2
Montana	192	216	229	482	13	16	19	42
New Mexico	144	176	258	646	9	13	16	28
East	23	93	178	604	5	10	13	25
West	121	83	80	42	4	3	3	3
New York	0	0	0	0	0	0	0	0
North Dakota	1,649	3,147	5,059	6,442	95	203	268	426
Ohio	0	483	2,319	6,384	0	14	101	441
Oklahoma	10,733	12,572	12,675	16,653	476	637	698	869
Pennsylvania	23,581	32,681	44,325	56,210	1,068	2,036	3,076	4,009
Texas	49,588	44,778	49,055	54,158	2,900	3,649	3,876	4,156
RRC District 1	5,123	8,340	7,357	11,729	156	362	630	822
RRC District 2 Onshore	1,692	4,743	5,595	6,648	141	327	474	649
RRC District 3 Onshore	1	6	24	106	0	0	2	10
RRC District 4 Onshore	2,611	3,091	4,377	4,991	154	305	316	381
RRC District 5	19,747	11,513	13,592	13,043	1,266	1,256	1,128	1,022
RRC District 6	6,584	4,172	4,633	3,979	382	486	409	270
RRC District 7B	3,466	2,952	2,802	2,204	184	258	218	165
RRC District 7C	27	81	409	1,183	0	2	13	111
RRC District 8	61	583	649	1,125	5	22	62	78
RRC District 8A	0	0	0	10	0	0	0	1
RRC District 9	10,276	9,260	9,580	9,074	612	626	619	639
RRC District 10	0	37	37	66	0	5	5	8
State Offshore	0	0	0	0	0	0	0	0
Utah	0	0	0	0	0	0	0	0
Virginia	0	135	126	84	0	3	3	3
West Virginia	6,043	9,408	18,078	28,311	192	345	498	869
Wyoming	0	216	856	380	0	7	102	29
Federal Offshore	0	0	0	0	0	0	0	0
Miscellaneous ¹	75	52	25	123	3	3	2	6
U.S. Total	131,616	129,396	159,115	199,684	7,994	10,371	11,415	13,447

¹Includes Indiana, Missouri, and Tennessee.

Notes: The above table is based on shale natural gas proved reserves and production volumes reported and imputed from data on Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves. For certain reasons (e.g. incorrect or incomplete respondent submissions, respondent mis-identification of shale vs. non-shale reservoirs) the actual proved reserves and production of natural gas from shales may be higher or lower. The production estimates are offered only as an observed indicator of production trends and may differ slightly from official U.S. EIA production volumes listed elsewhere on the U.S. EIA web page.

Natural gas is measured at 60 degrees Fahrenheit and atmospheric pressure base of 14.73 pounds per square inch absolute (psia).

Sources: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves, 2011-14

Table 14. Shale natural gas proved reserves, reserves changes, and production, wet after lease separation, 2014

billion cubic feet

Changes in reserves during 2014

State and subdivision	Published proved reserves 12/31/13	Changes in reserves during 2014							New reservoir discoveries in old fields (+)	Estimated production (-)	Proved reserves 12/31/14
		Adjustments (+,-)	Revision increases (+)	Revision decreases (-)	Sales (-)	Acquisitions (+)	Extensions (+)	New field discoveries (+)			
Alaska	0	0	0	0	0	0	0	0	0	0	0
Lower 48 States	159,115	12,113	27,643	26,199	5,029	7,657	35,401	158	2,272	13,447	199,684
Arkansas	12,231	-21	96	1,056	0	0	1,483	0	0	1,038	11,695
California	756	-710	3	4	19	21	0	0	0	3	44
Coastal Region											
Onshore	0	8	2	0	7	7	0	0	0	1	9
San Joaquin Basin Onshore	756	-740	1	3	12	14	0	0	0	1	15
State Offshore	0	22	0	1	0	0	0	0	0	1	20
Colorado	136	3,649	1,104	1,042	0	6	158	0	0	236	3,775
Kansas	3	8	3	6	3	0	0	0	0	1	4
Kentucky	46	2	4	0	0	0	0	0	0	2	50
Louisiana	11,483	148	1,653	2,564	150	1,495	1,918	0	0	1,191	12,792
North Onshore	11,473	57	1,631	2,558	150	1,495	1,832	0	0	1,169	12,611
South Onshore	10	91	22	6	0	0	86	0	0	22	181
Michigan	1,418	-41	209	57	1	0	0	0	0	96	1,432
Mississippi	37	-26	4	3	0	0	7	1	1	2	19
Montana	229	196	64	51	1	0	87	0	0	42	482
New Mexico	258	113	105	100	0	0	297	0	1	28	646
East	178	106	104	57	0	0	297	0	1	25	604
West	80	7	1	43	0	0	0	0	0	3	42
North Dakota	5,059	719	933	823	593	304	1,255	4	10	426	6,442
Ohio	2,319	53	1,468	1,446	21	42	3,224	0	1,186	441	6,384
Oklahoma	12,675	1,619	4,075	2,881	339	136	1,821	145	271	869	16,653
Pennsylvania	44,325	3,760	8,119	6,794	494	1,230	10,059	8	6	4,009	56,210
Texas	49,055	518	7,600	5,029	1,792	2,053	5,787	0	122	4,156	54,158
RRC District 1	7,357	129	4,056	791	120	140	1,765	0	15	822	11,729
RRC District 2											
Onshore	5,595	79	583	705	1,403	1,402	1,639	0	107	649	6,648
RRC District 3											
Onshore	24	35	13	7	14	3	62	0	0	10	106
RRC District 4											
Onshore	4,377	11	335	300	20	252	717	0	0	381	4,991
RRC District 5	13,592	261	475	434	0	0	171	0	0	1,022	13,043
RRC District 6	4,633	-586	774	708	76	5	207	0	0	270	3,979
RRC District 7B	2,802	-258	193	374	0	0	6	0	0	165	2,204
RRC District 7C	409	231	232	104	1	232	295	0	0	111	1,183
RRC District 8	649	214	138	309	8	19	500	0	0	78	1,125
RRC District 8A	0	123	0	156	0	0	44	0	0	1	10
RRC District 9	9,580	243	800	1,141	150	0	381	0	0	639	9,074
RRC District 10	37	36	1	0	0	0	0	0	0	8	66
Virginia	126	14	0	76	0	18	5	0	0	3	84
West Virginia	18,078	2,638	2,198	4,152	1,616	2,305	9,054	0	675	869	28,311
Wyoming	856	-645	3	98	0	47	246	0	0	29	380
Miscellaneous ^a	25	119	2	17	0	0	0	0	0	6	123
U.S. Total	159,115	12,113	27,643	26,199	5,029	7,657	35,401	158	2,272	13,447	199,684

^a Includes Indiana, Missouri, and Tennessee.

Notes: The above table is based on shale natural gas proved reserves and production volumes reported and imputed from data on Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves. For certain reasons (e.g. incorrect or incomplete respondent submissions, respondent mis-identification of shale vs. non-shale reservoirs) the actual proved reserves and production of natural gas from shales may be higher or lower. The production estimates are offered only as an observed indicator of production trends and may differ slightly from official U.S. EIA production volumes listed elsewhere on the U.S. EIA web page.

Natural gas is measured at 60 degrees Fahrenheit and atmospheric pressure base of 14.73 pounds per square inch absolute (psia).

Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves

Table 15. Coalbed methane proved reserves and production, 2010-14

billion cubic feet

State and subdivision	Reserves					Production				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Alaska	0	0	0	0	0	0	0	0	0	0
Lower 48 States	17,508	16,817	13,591	12,392	15,696	1,886	1,763	1,655	1,466	1,404
Alabama	1,298	1,210	1,006	413	978	102	98	91	62	78
Arkansas	28	21	10	13	15	3	4	2	2	2
California	0	0	0	0	0	0	0	0	0	0
Colorado	6,485	6,580	5,074	4,391	5,103	533	516	486	444	412
Florida	0	0	0	0	0	0	0	0	0	0
Kansas	258	228	183	189	211	41	37	34	30	27
Kentucky	0	0	0	0	7	0	0	0	0	0
Louisiana	0	0	0	0	0	0	0	0	0	0
North	0	0	0	0	0	0	0	0	0	0
South Onshore	0	0	0	0	0	0	0	0	0	0
State Offshore	0	0	0	0	0	0	0	0	0	0
Michigan	0	0	0	0	0	0	0	0	0	0
Mississippi	0	0	0	0	0	0	0	0	0	0
Montana	64	25	11	16	11	10	6	3	1	0
New Mexico	3,532	3,358	2,772	2,856	4,120	402	374	355	356	373
East	523	507	362	5	273	27	27	28	26	24
West	3,009	2,851	2,410	2,851	3,847	375	347	327	330	349
New York	0	0	0	0	0	0	0	0	0	0
North Dakota	0	0	0	0	0	0	0	0	0	0
Oklahoma	325	274	439	440	602	45	39	68	65	61
Pennsylvania	129	124	106	161	158	3	4	15	13	11
Texas	0	0	81	57	61	0	0	11	8	9
RRC District 1	0	0	0	0	0	0	0	0	0	0
RRC District 2										
Onshore	0	0	1	2	4	0	0	0	0	1
RRC District 3										
Onshore	0	0	71	47	49	0	0	10	7	7
RRC District 4										
Onshore	0	0	1	1	1	0	0	0	0	0
RRC District 5	0	0	0	0	0	0	0	0	0	0
RRC District 6	0	0	0	0	0	0	0	0	0	0
RRC District 7B	0	0	0	0	0	0	0	0	0	0
RRC District 7C	0	0	0	0	0	0	0	0	0	0
RRC District 8	0	0	0	0	0	0	0	0	0	0
RRC District 8A	0	0	0	0	0	0	0	0	0	0
RRC District 9	0	0	0	0	0	0	0	0	0	0
RRC District 10	0	0	8	7	7	0	0	1	1	1
State Offshore	0	0	0	0	0	0	0	0	0	0
Utah	718	679	518	523	538	66	60	55	50	47
Virginia	1,752	1,623	1,535	1,387	2,233	97	100	99	93	108
West Virginia	220	139	107	113	76	17	18	9	8	11
Wyoming	2,683	2,539	1,736	1,810	1,572	566	506	426	331	264
Federal Offshore	0	0	0	0	0	0	0	0	0	0
Miscellaneous ^a	16	17	13	23	11	1	1	1	3	1
U.S. Total	17,508	16,817	13,591	12,392	15,696	1,886	1,763	1,655	1,466	1,404

^a Includes Illinois, Indiana, and Ohio.

Notes: Natural gas is measured at 60 degrees Fahrenheit and atmospheric pressure base of 14.73 pounds per square inch absolute (psia).

Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves, 2010-14

Table 16. Coalbed methane proved reserves, reserves changes, and production, 2014

billion cubic feet

State and subdivision	Published proved reserves 12/31/13	Changes in reserves during 2014							New field discoveries (+)	New reservoir discoveries in old fields (+)	Estimated production (-)	Proved reserves 12/31/14
		Adjustments (+,-)	Revision increases (+)	Revision decreases (-)	Sales (-)	Acquisitions (+)	Extensions (+)					
Alaska	0	0	0	0	0	0	0	0	0	0	0	
Lower 48 States	12,392	1,796	3,299	1,020	442	680	395	0	0	1,404	15,696	
Alabama	413	641	42	40	0	0	0	0	0	78	978	
Arkansas	13	1	3	0	0	0	0	0	0	2	15	
California	0	0	0	0	0	0	0	0	0	0	0	
Colorado	4,391	66	1,162	198	0	60	34	0	0	412	5,103	
Florida	0	0	0	0	0	0	0	0	0	0	0	
Kansas	189	-24	73	0	0	0	0	0	0	27	211	
Kentucky	0	6	1	0	0	0	0	0	0	0	7	
Louisiana	0	0	0	0	0	0	0	0	0	0	0	
North Onshore	0	0	0	0	0	0	0	0	0	0	0	
South Onshore	0	0	0	0	0	0	0	0	0	0	0	
State Offshore	0	0	0	0	0	0	0	0	0	0	0	
Michigan	0	0	0	0	0	0	0	0	0	0	0	
Mississippi	0	0	0	0	0	0	0	0	0	0	0	
Montana	16	-3	0	2	0	0	0	0	0	0	11	
New Mexico	2,856	701	1,389	532	0	11	68	0	0	373	4,120	
East	5	246	46	0	0	0	0	0	0	24	273	
West	2,851	455	1,343	532	0	11	68	0	0	349	3,847	
New York	0	0	0	0	0	0	0	0	0	0	0	
North Dakota	0	0	0	0	0	0	0	0	0	0	0	
Oklahoma	440	160	89	43	4	0	21	0	0	61	602	
Pennsylvania	161	8	0	0	0	0	0	0	0	11	158	
Texas	57	-37	30	4	2	0	26	0	0	9	61	
RRC District 1	0	0	0	0	0	0	0	0	0	0	0	
RRC District 2												
Onshore	2	-5	9	0	1	0	0	0	0	1	4	
RRC District 3												
Onshore	47	-37	21	0	1	0	26	0	0	7	49	
RRC District 4												
Onshore	1	0	0	0	0	0	0	0	0	0	1	
RRC District 5	0	0	0	0	0	0	0	0	0	0	0	
RRC District 6	0	0	0	0	0	0	0	0	0	0	0	
RRC District 7B	0	0	0	0	0	0	0	0	0	0	0	
RRC District 7C	0	0	0	0	0	0	0	0	0	0	0	
RRC District 8	0	0	0	0	0	0	0	0	0	0	0	
RRC District 8A	0	0	0	0	0	0	0	0	0	0	0	
RRC District 9	0	0	0	0	0	0	0	0	0	0	0	
RRC District 10	7	5	0	4	0	0	0	0	0	1	7	
State Offshore	0	0	0	0	0	0	0	0	0	0	0	
Utah	523	0	68	6	0	0	0	0	0	47	538	
Virginia	1,387	341	243	9	334	534	179	0	0	108	2,233	
West Virginia	113	-2	3	0	99	72	0	0	0	11	76	
Wyoming	1,810	-50	195	186	3	3	67	0	0	264	1,572	
Federal Offshore	0	0	0	0	0	0	0	0	0	0	0	
Miscellaneous ^a	23	-12	1	0	0	0	0	0	0	1	11	
U.S. Total	12,392	1,796	3,299	1,020	442	680	395	0	0	1,404	15,696	

^a Includes Illinois, Indiana, and Ohio.

Notes: Natural gas is measured at 60 degrees Fahrenheit and atmospheric pressure base of 14.73 pounds per square inch absolute (psia).

Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves

Table 17. Estimated natural gas plant liquids and dry natural gas content of total natural gas proved reserves, 2014

million barrels and billion cubic feet

State and subdivision	Total natural gas proved reserves		Estimated content of proved reserves	
	2014 billion cubic feet		Natural gas plant liquids million barrels	Dry natural gas billion cubic feet
Alaska	6,805		241	6,745
Lower 48 States	382,036		14,788	361,959
Alabama	2,121		59	2,036
Arkansas	12,795		5	12,789
California	2,260		112	2,036
Coastal Region Onshore	277		12	261
Los Angeles Basin Onshore	84		4	80
San Joaquin Basin Onshore	1,823		96	1,690
State Offshore	76		0	76
Colorado	21,992		813	20,851
Florida	0		0	0
Kansas	4,606		186	4,359
Kentucky	1,753		108	1,611
Louisiana	23,258		243	22,975
North	19,837		83	19,722
South Onshore	3,080		145	2,926
State Offshore	341		15	327
Michigan	1,873		24	1,845
Mississippi	563		4	558
Montana	686		14	667
New Mexico	16,426		789	15,283
East	6,434		443	5,799
West	9,992		346	9,484
New York	143		0	143
North Dakota	6,787		540	6,034
Ohio	7,193		NR	6,723
Oklahoma	34,319		1752	31,778
Pennsylvania	60,443		398	59,873
Texas	105,955		6,676	97,154
RRC District 1	12,431		343	11,945
RRC District 2 Onshore	7,524		1,037	6,559
RRC District 3 Onshore	2,483		199	2,199
RRC District 4 Onshore	12,482		987	11,057
RRC District 5	18,155		193	17,880
RRC District 6	12,023		387	11,516
RRC District 7B	2,695		312	2,290
RRC District 7C	7,103		473	6,422
RRC District 8	11,575		1,240	9,742
RRC District 8A	1,328		245	1,257
RRC District 9	9,760		662	8,791
RRC District 10	8,354		598	7,454
State Offshore	42		0	42
Utah	6,970		206	6,685
Virginia	2,800		NR	2,800
West Virginia	31,153		1,229	29,432
Wyoming	28,787		881	27,553
Federal Offshore^a	8,969		399	8,527
Pacific (California)	243		2	240
Gulf of Mexico (Louisiana) ^a	7,280		367	6,890
Gulf of Mexico (Texas)	1,445		30	1,397
Miscellaneous ^b	185		350	176
U.S. Total	388,841		15,029	368,704

^a Includes federal offshore Alabama.^b Includes Arizona, Idaho, Illinois, Indiana, Maryland, Missouri, Nebraska, Nevada, Oregon, South Dakota, and Tennessee

NR – Not released separately (included in Miscellaneous)

Sources: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves, and Form EIA-64A, Annual Report of the Origin of Natural Gas Liquids Production

Table 18. Reported proved nonproducing reserves of crude oil, lease condensate, nonassociated gas, associated-dissolved gas, and total gas (wet after lease separation), 2014

State and subdivision	Crude oil (million barrels)	Lease condensate (million barrels)	Nonassociated gas (billion cubic feet)	Associated- dissolved gas (billion cubic feet)	Total gas (billion cubic feet)
Alaska	548	2	356	834	1,190
Lower 48 States	14,268	1,714	120,136	26,406	146,542
Alabama	15	0	26	10	36
Arkansas	8	0	3,951	60	4,011
California	588	0	37	266	303
Coastal Region Onshore	281	0	0	225	225
Los Angeles Basin Onshore	45	0	0	11	11
San Joaquin Basin Onshore	216	0	37	18	55
State Offshore	46	0	0	12	12
Colorado	765	133	5,064	3,459	8,523
Florida	6	0	0	0	0
Kansas	34	12	489	275	764
Kentucky	0	0	6	0	6
Louisiana	221	51	12,845	355	13,200
North	17	30	11,430	18	11,448
South Onshore	188	21	1,387	321	1,708
State Offshore	16	0	28	16	44
Michigan	3	0	34	15	49
Mississippi	85	0	200	4	204
Montana	155	0	29	96	125
New Mexico	489	20	1,377	1,653	3,030
East	460	15	478	1,607	2,085
West	29	5	899	46	945
New York	0	0	1	0	1
North Dakota	3,456	1	3	3,556	3,559
Ohio	3	35	3,498	6	3,504
Oklahoma	444	224	10,953	3,043	13,996
Pennsylvania	0	38	24,087	2	24,089
Texas	5,060	944	27,130	10,620	37,750
RRC District 1	1,427	233	4,721	2,821	7,542
RRC District 2 Onshore	825	438	2,454	1,560	4,014
RRC District 3 Onshore	189	19	527	182	709
RRC District 4 Onshore	6	115	6,501	63	6,564
RRC District 5	28	0	3,201	15	3,216
RRC District 6	40	42	4,373	85	4,458
RRC District 7B	16	0	407	57	464
RRC District 7C	642	5	318	1,987	2,305
RRC District 8	1,441	20	368	2,965	3,333
RRC District 8A	361	0	1	257	258
RRC District 9	39	4	1,763	370	2,133
RRC District 10	46	68	2,486	258	2,744
State Offshore	0	0	10	0	10
Utah	261	28	2,460	377	2,837
Virginia	0	0	806	0	806
West Virginia	1	104	17,219	2	17,221
Wyoming	362	61	8,298	412	8,710
Federal Offshore^a	2,306	63	1,581	2,195	3,776
Pacific (California)	18	0	0	14	14
Gulf of Mexico (Louisiana) ^a	2,204	42	1,308	1,967	3,275
Gulf of Mexico (Texas)	84	21	273	214	487
Miscellaneous ^b	6	0	42	0	42
U.S. Total	14,816	1,716	120,492	27,240	147,732

^a Includes federal offshore Alabama.^b Includes Arizona, Idaho, Illinois, Indiana, Maryland, Missouri, Nebraska, Nevada, Oregon, South Dakota, and Tennessee.

Notes: One barrel = 42 U.S. gallons. Natural gas is measured at 60 degrees Fahrenheit and atmospheric pressure base of 14.73 pounds per square inch absolute (psia).

Source: U.S. Energy Information Administration, Form EIA-23L, Annual Survey of Domestic Oil and Gas Reserves