

**DAVID PORTER**  
 Chairman  
**CHRISTI CRADDICK**  
 Commissioner  
**RYAN SITTON**  
 Commissioner

**TEXAS**



**PETROFACTS**

**A Monthly Data Review from the Railroad Commission of Texas ■ November 2015**

**HIGHLIGHTS**

**Natural Gas Production**

In August 2015 Texas natural gas production was 624.11 billion cubic feet (bcf), down from 742.51 bcf produced during the same month in 2014. *(Note: Recent oil and gas production data are considered preliminary, incomplete, and subject to revision. As of July 2015 the Railroad Commission of Texas discontinued the Production Adjustment Factor.)*

**Crude Oil Production**

In August 2015 Texas crude oil production averaged 2.743 million barrels per day (mmb/d), down from 3.179 mmb/d reported during the same month in 2014. *(See Note above.)*

**Rotary Rigs Operating in Texas**

In October 2015 the average Texas rotary rig count was 349, down from 899 rigs running during the same month last year. The October rig count was down from the September rig count of 367.

*Source: Baker Hughes Inc.*

**Permits to Drill**

In October 2015 the Railroad Commission issued 822 original permits to drill, down from 3,046 permits issued during the same month last year and down from 906 permits issued in September.

**Oil and Gas Well Completions**

In October 2015 operators reported 1,138 oil completions, down from 2,035 oil completions during the same month last year. There were 196 gas completions in October, down from 354 gas completions reported during the same month last year. There were 1,338 wells drilled in Texas in October, down from 2,389 wells drilled during the same month last year.

**TRENDS**

**EIA Short-Term Outlook for Crude Oil and Natural Gas:**

The average price of imported crude for U.S. refiners (an indicator of world oil prices) is expected to decrease from the average 2014 level of \$89.63 per barrel to \$43.23 per barrel during the 4<sup>th</sup> quarter of 2015 and average \$47.75 for the year, according to the U.S. Energy Information Administration's (EIA) "Short-Term Energy Outlook" for November 2015.

The West Texas Intermediate spot average is expected to decrease from the 2014 average level of \$93.17 per barrel to \$46.73 per barrel during the 4<sup>th</sup> quarter of 2015 and average \$49.88 for the year.

U.S. petroleum demand is expected to increase 1.73 percent from 2014 to 2015 to 19.44 million barrels per day and increase 0.62 percent from 2015 to 2016 to 19.56 million barrels per day.

U.S. natural gas demand is expected to increase 4.29 percent from 2014 to 2015 to 27.85 trillion cubic feet, and is expected to increase by 0.66 percent from 2015 to 2016 to 28.03 trillion cubic feet.

EIA projects that natural gas Henry Hub spot prices will average \$2.34 per mmbtu for the 4<sup>th</sup> quarter of 2015 and average \$2.69 per mmbtu for the year. This is a 38.72 percent decrease from EIA's 2014 Henry Hub spot price of \$4.39 per mmbtu. *(Note: Beginning January 2013 EIA discontinued publishing wellhead prices and began publishing a natural gas spot price at the Henry Hub.)*

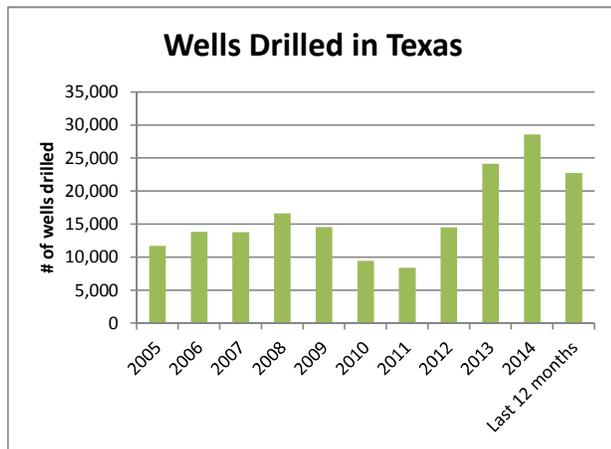
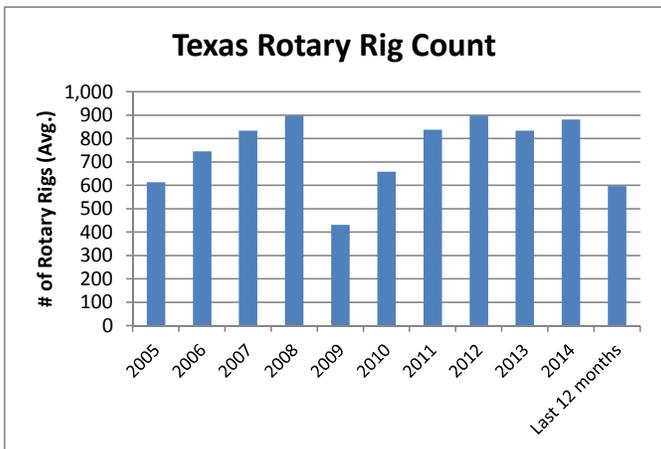
EIA projects a natural gas Henry Hub spot price of \$3.00 per mmbtu for 2016, a 11.52 percent increase from the \$2.69 projected average price for 2015. *(See note above.)*

**INSIDE**

Rotary Rig Count	2
Drilling Permits	2
Well Completions	2
Texas Natural Gas	3
Texas Gas Storage	4-5
Texas Crude Oil	6
US Petroleum	7

**TABLE 1. TEXAS DRILLING AND COMPLETION SUMMARY**

Period	Active Rotary Rigs *		Permits #	Wells Completed		Wells Drilled **
	Texas	U.S.		Oil	Gas	
1996	283	779	12,669	4,061	4,060	9,747
1997	358	943	13,933	4,482	4,594	10,778
1998	303	827	9,385	4,509	4,907	11,057
1999	227	625	8,430	2,049	3,566	10,778
2000	343	918	12,021	3,111	4,580	8,854
2001	462	1,156	12,227	3,082	5,787	10,005
2002	338	830	9,716	3,268	5,474	9,877
2003	449	1,032	12,664	3,111	6,336	10,420
2004	506	1,192	14,700	3,446	7,118	11,587
2005	614	1,381	16,914	3,454	7,197	11,726
2006	746	1,649	18,952	4,761	8,534	13,854
2007	834	1,769	19,994	5,084	8,643	13,778
2008	898	1,880	24,073	6,208	10,361	16,615
2009	432	1,086	12,212	5,860	8,706	14,585
2010	659	1,541	18,029	5,392	4,071	9,477
2011	838	1,875	22,480	5,380	3,008	8,391
2012	899	1,919	22,479	10,936	3,580	14,535
2013	835	1,761	21,471	19,249	4,917	24,166
2014	882	1,862	25,792	24,999	3,585	28,585
Last 12 months	597	1,332	15,195	19,178	3,573	22,767
Oct-14	899	1,925	3,046	2,035	354	2,389
Nov-14	904	1,925	1,508	1,570	380	1,950
Dec-14	872	1,882	1,506	1,559	353	1,912
Jan-15	773	1,683	1,102	1,450	344	1,794
Feb-15	599	1,348	924	1,521	210	1,731
Mar-15	492	1,108	923	1,547	305	1,852
Apr-15	422	976	848	1,867	314	2,181
May-15	375	889	916	1,299	201	1,500
Jun-15	363	861	851	1,416	225	1,641
Jul-15	369	866	979	1,510	235	1,749
Aug-15	385	883	864	1,113	172	1,289
Sep-15	367	848	906	1,153	284	1,441
Oct-15	349	791	822	1,138	196	1,338



\* Source: Baker Hughes Inc.

# Totals shown are number of drilling permits issued

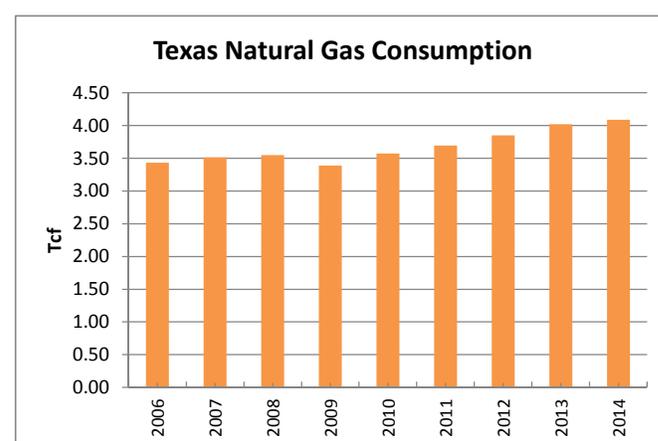
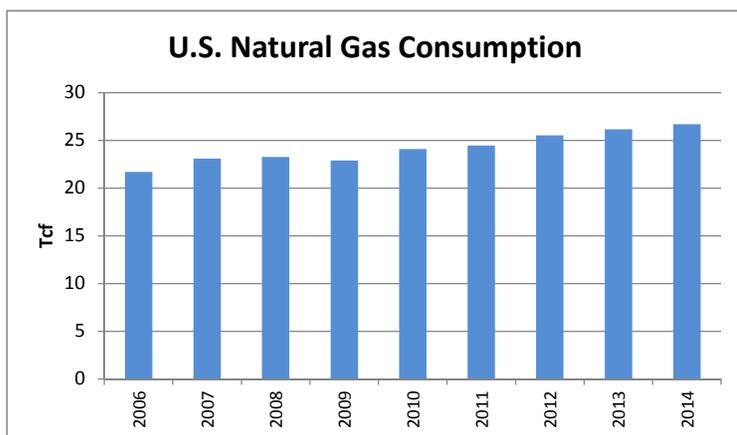
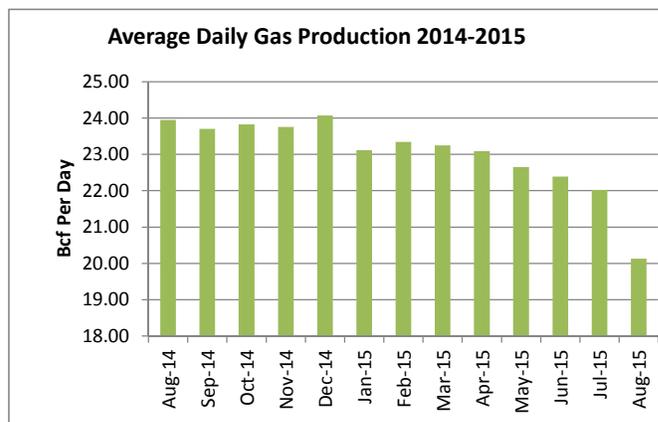
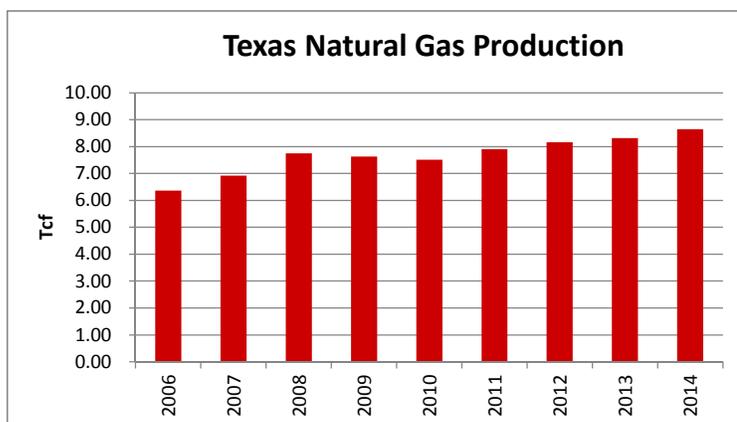
\*\* Wells drilled are oil and gas well completions and dry holes drilled/plugged.

**TABLE 2. TEXAS NATURAL GAS (Trillion CF)**

Period	Total Production *	Proved Reserves #	Consumption #	Producing Wells *	Wellhead Price **
1997	5.86	41.11	4.12	56,736	\$2.32
1998	5.83	40.79	4.21	58,436	\$1.96
1999	5.61	43.35	4.01	59,088	\$2.19
2000	5.76	45.42	4.42	60,486	\$3.68
2001	5.84	46.46	4.25	63,598	\$4.00
2002	5.74	47.49	4.30	65,686	\$2.95
2003	5.83	48.72	4.05	68,488	\$4.88
2004	6.03	53.28	3.91	72,237	\$5.46
2005	6.04	60.18	3.50	76,510	\$7.33
2006	6.36	65.81	3.43	83,218	\$6.39
2007	6.92	76.36	3.52	88,311	\$6.25
2008	7.75	81.84	3.55	96,502	\$7.97
2009	7.62	85.03	3.39	101,097	\$3.67
2010	7.52	94.29	3.57	101,653	\$4.48
2011	7.90	104.45	3.69	101,831	\$3.95
2012	8.16	93.48	3.85	102,218	\$2.66
2013	8.31	97.92	4.02	103,445	n/a
2014	8.65	105.96	4.09	104,074	n/a

Total Gas Production (Bcf) *				
Period	Daily	Monthly	Gas Well	Casinghead
Aug-14	23.95	742.51	552.01	190.50
Sep-14	23.70	710.99	528.93	182.06
Oct-14	23.82	738.51	549.13	189.38
Nov-14	23.76	712.78	531.51	181.28
Dec-14	24.07	746.29	554.43	191.86
Jan-15	23.12	716.69	536.63	180.06
Feb-15	23.35	653.74	481.46	172.27
Mar-15	23.25	720.69	526.60	194.09
Apr-15	23.09	692.79	503.28	189.52
May-15	22.65	702.14	507.12	195.02
Jun-15	22.39	671.69	482.13	189.56
Jul-15	22.02	682.72	488.82	193.90
Aug-15	20.13	624.11	441.67	182.44

\* Note: Recent oil and gas production data are considered preliminary, incomplete, and subject to revision. As of July 2015 the Railroad Commission of Texas discontinued the Production Adjustment Factor.



\* Source: Railroad Commission of Texas. The most recent 12 months of production data is subject to revision. Annual data is subject to revision as the Commission receives many corrected or delinquent production reports.

# Source: US Energy Information Administration (EIA); EIA's reserves for estimates for 1994 and after exclude federal offshore and are wet after lease separation.

\*\* Source: Texas Comptroller of Public Accounts. Wellhead price is average net taxable price (\$/Mcf) and excludes federal offshore production. Source for 2001 and after is EIA and wellhead price is national average. The Wellhead Price has been discontinued as of January 2013.

**TABLE 3. TEXAS GAS STORAGE OPERATIONS**  
**October 31, 2015**

<b>Productive or Depleted Reservoirs</b>			Reported Max Withdrawal Rate (MMCF/DAY)	Working Gas* 10/31/2015 (MMCF)	Working Gas* 10/31/2014 (MMCF)	Change From One Year Ago (MMCF)	Preliminary Working Gas* 11/15/2015 (MMCF)
Operator	Field	County Location					
American Gas Storage, LP	Felmac (Yates)	Gaines	45	2,671	2,511	160	2,659
Oneok TX Gas Storage LP	Loop (Yates)	Gaines	75	800	800	-	800
City of Brady*	Janelen (Caddo)	Brown	-	29	-	-	29
Enbridge Pipeline LP	Pickton (Bacon Lime)	Hopkins	15	2,285	2,229	56	2,285
Houston Pipe Line Co.	Bammell	Harris	1,300	51,840	47,203	4,637	51,640
Cago, Inc.	Ambassador	Clay	40	80	80	-	80
Falcon Gas Storage Co., Inc.	Hill-Lake Sand	Eastland	350	9,025	8,305	720	8,911
ATMOS Pipeline - Texas	Lake Dallas	Denton	120	3,819	3,927	(108)	3,891
ATMOS Pipeline - Texas	La-Pan-Miss	Clay	120	3,559	3,530	29	3,559
Cummings Company, Inc.	Leeray Strawn	Stephens	20	-	-	-	-
ATMOS Pipeline - Texas	New York City	Clay	120	5,439	5,460	(21)	5,479
Fort Concho Gas Storage, Inc.	Pecan Station	Tom Green	60	844	866	(22)	844
ATMOS Pipeline - Texas	Tri-Cities Bacon	Henderson	275	20,005	18,160	1,845	20,361
ATMOS Pipeline - Texas	Tri-Cities Rodessa	Henderson	50	2,738	2,442	296	2,738
Lower Colorado River Authority	Hilbig	Bastrop	85	2,264	2,241	23	2,346
Natural Gas Pipeline Co.	North Lansing	Harrison	1,240	95,153	67,267	27,886	94,409
Enlink Midstream Services, LLC	Lone Camp	Palo Pinto	28	705	272	433	705
Kinder Morgan Tejas Pipeline LLC	Clear Lake	Harris	603	85,019	41,055	43,964	86,428
Energy Transfer Fuel LP	Bryson	Jack	100	5,929	5,853	76	5,796
Worsham-Steed Gas Storage, LLC	Worsham Steed	Jack	450	24,502	23,067	1,435	25,690
Katy Storage and Transportation LP	Pottsville	Hamilton	200	-	-	-	-
Enstor Katy Storage and Transportation LP	Katy Hub & Storage	Fort Bend	700	23,153	21,922	1,231	23,215
	<b>Subtotals</b>		<b>5,996</b>	<b>339,859</b>	<b>257,219</b>	<b>82,640</b>	<b>341,865</b>
<b>Salt Caverns</b>							
Oneok TX Gas Storage LP	Salado (Loop Yates)	Gaines	500	2,175	2,037	138	2,112
Kinder Morgan Tejas Pipeline LP	Stratton Ridge	Brazoria	101	1,262	954	308	1,344
Centana Intrastate Pipeline LLC	Spindletop	Jefferson	400	12,019	10,817	1,202	12,187
Dow Chemical Co.	Stratton Ridge #34	Brazoria	200	-	-	-	-
Dow Chemical Co.	Stratton Ridge #6	Brazoria	180	822	1,011	(189)	754
Kinder Morgan Texas Pipeline LLC	North Dayton	Liberty	896	9,821	10,380	(559)	9,965
ATMOS Pipeline - Texas	Bethel	Anderson	600	5,636	5,667	(31)	5,695
Moss Bluff Hub Partners LP	Moss Bluff	Liberty	1,000	19,004	18,489	515	19,821
Chevron Phillips Chemical Co	Clemens	Brazoria	75	1,797	1,873	(76)	1,797
PB Energy Storage Services, Inc.	Spindletop	Jefferson	480	6,124	7,074	(950)	5,441
Underground Services Markham, LP	Markham	Matagorda	1,100	19,741	20,465	(724)	20,247
Energy Transfer Fuel LP	Bethel Salt Dome	Anderson	600	4,664	3,817	847	4,663
Envoy Resources Inc	Wilson	Wharton	1,408	11,945	9,914	2,031	11,437
Chevron Keystone Gas Storage	Keystone Gas Storage	Winkler	400	7,829	6,986	843	7,683
Underground Storage LLC	Pierce Junction	Harris	-	1,683	2,045	(362)	1,680
Tres Palacios Storage LLC	Markham	Matagorda	2,500	25,502	11,890	13,612	28,143
Golden Triangle Storage, Inc	Spindletop	Jefferson	600	10,054	6,071	3,983	10,379
Freeport LNG Development, LP	Stratton Ridge	Brazoria	500	696	4,309	(3,613)	1,122
	<b>Subtotals</b>		<b>11,540</b>	<b>140,774</b>	<b>123,799</b>	<b>16,975</b>	<b>144,470</b>
<b>Source: RRC Form G-3</b>		<b>TOTALS</b>	<b>17,536</b>	<b>480,633</b>	<b>381,018</b>	<b>99,615</b>	<b>486,335</b>

\*Notes: 1) Native Gas volumes are included in Working Gas volumes with the exception of Houston Pipe Line's Bammel facility and Natural Gas Pipeline Co. of America's North Lansing facility, in which the native gas is part of the non-working resident gas. 2) Due to an expansion of the North Lansing facility, 9700 MMCF of Resident Gas Inventory was converted to Working Gas volume as of June, 2007. 3) Tres Palacios Storage LLC Salt Cavern facility was added to the report as of October, 2008. 4) City of Brady facility was added back to the report as of August 2015's issue.

**TABLE 4. TEXAS GAS STORAGE OPERATIONS, 2014-2015**

	Depleted Reservoirs			Salt Caverns			Total		
	Beginning Balance (Mmcf)	Injections/ (Withdrawals) (Mmcf)	Ending Balance (Mmcf)	Beginning Balance (Mmcf)	Injections/ (Withdrawals) (Mmcf)	Ending Balance (Mmcf)	Beginning Balance (Mmcf)	Injections/ (Withdrawals) (Mmcf)	Ending Balance (Mmcf)
October-14	220,438	<b>36,768</b>	257,206	101,638	<b>21,978</b>	123,616	322,076	<b>58,746</b>	380,822
November-14	257,206	<b>15,296</b>	272,502	123,616	<b>2,552</b>	126,168	380,822	<b>17,848</b>	398,670
December-14	272,502	<b>(4,745)</b>	267,757	126,168	<b>(5,185)</b>	120,983	398,670	<b>(9,930)</b>	388,740
January-15	267,757	<b>(43,828)</b>	223,929	120,983	<b>(16,782)</b>	104,201	388,740	<b>(60,610)</b>	328,130
February-15	223,929	<b>(44,503)</b>	179,426	104,201	<b>(36,529)</b>	67,672	328,130	<b>(81,032)</b>	247,098
March-15	179,426	<b>(6,704)</b>	172,722	67,672	<b>(4,525)</b>	63,147	247,098	<b>(11,229)</b>	235,869
April-15	172,722	<b>43,323</b>	216,045	63,147	<b>27,516</b>	90,663	235,869	<b>70,839</b>	306,708
May-15	216,045	<b>42,045</b>	258,090	90,663	<b>22,599</b>	113,262	306,708	<b>64,644</b>	371,352
June-15	258,090	<b>18,975</b>	277,065	113,262	<b>4,031</b>	117,293	371,352	<b>23,006</b>	394,358
July-15	277,065	<b>4,532</b>	281,597	117,293	<b>(3,973)</b>	113,320	394,358	<b>559</b>	394,917
August-15	281,597	<b>10,441</b>	292,038	113,320	<b>(4,762)</b>	108,558	394,917	<b>5,679</b>	400,596
September-15	292,038	<b>27,824</b>	319,862	108,558	<b>9,899</b>	118,457	400,596	<b>37,723</b>	438,319
October-15	319,862	<b>19,997</b>	339,859	118,457	<b>22,317</b>	140,774	438,319	<b>42,314</b>	480,633

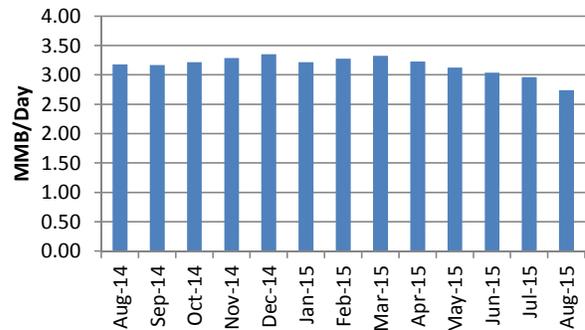
**TABLE 5. TEXAS CRUDE OIL (million barrels)**

Period	Texas Total Production *	Texas Daily Average*	% of U.S. Production	Proved Reserves #	% of U.S. Reserves	# of Producing Wells *	WTI Spot Price **
1997	491	1.35	21%	5,687	26.05%	175,475	\$20.59
1998	459	1.26	19%	4,927	25.22%	170,288	\$14.42
1999	409	1.12	18%	5,339	23.42%	162,620	\$19.40
2000	401	1.10	19%	5,273	24.53%	161,097	\$30.36
2001	381	1.04	18%	4,944	23.92%	159,357	\$25.93
2002	365	1.00	17%	5,015	22.03%	155,865	\$26.19
2003	359	0.98	17%	4,583	22.11%	153,461	\$31.08
2004	351	0.96	17%	4,613	20.94%	151,205	\$41.50
2005	349	0.96	18%	4,919	21.59%	151,286	\$56.65
2006	347	0.95	18%	4,871	22.61%	151,832	\$66.06
2007	343	0.94	18%	5,122	23.23%	153,223	\$72.34
2008	353	0.97	19%	4,555	24.03%	156,588	\$99.67
2009	349	0.96	19%	5,006	23.82%	157,807	\$61.96
2010	367	1.01	19%	5,674	24.20%	158,451	\$79.50
2011	443	1.21	22%	7,014	24.39%	161,402	\$94.90
2012	607	1.66	30%	9,614	26.42%	167,864	\$94.08
2013	778	2.13	33%	10,468	31.49%	179,797	\$97.98
2014	977	2.68	36%	12,272	31.37%	190,331	\$93.17

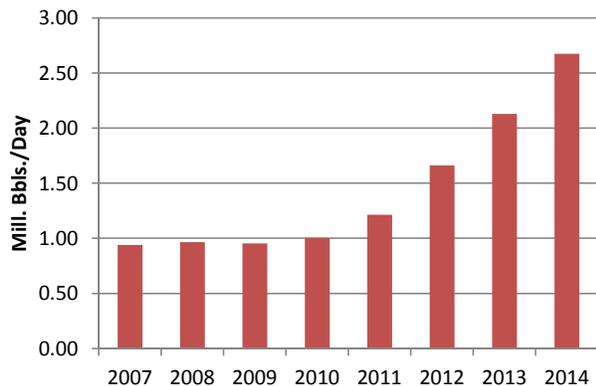
Aug-14	98.55	3.179
Sep-14	95.11	3.170
Oct-14	99.84	3.221
Nov-14	98.68	3.289
Dec-14	104.04	3.356
Jan-15	99.82	3.220
Feb-15	91.80	3.279
Mar-15	103.22	3.330
Apr-15	96.88	3.229
May-15	96.84	3.124
Jun-15	91.18	3.039
Jul-15	91.80	2.961
Aug-15	85.03	2.743

*Note: Recent oil and gas production data are considered preliminary, incomplete, and subject to revision. As of July 2015 the Railroad Commission of Texas discontinued the Production Adjustment Factor.*

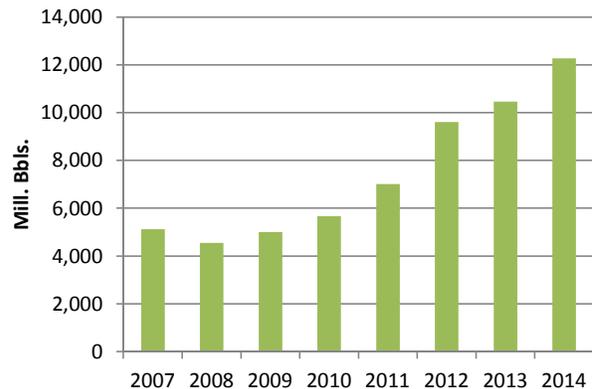
**Texas Oil Production 2014-2015**



**Texas Oil Production**



**Texas Crude Oil Reserves**



\* Source: Railroad Commission of Texas. Production data is subject to revision.

# Source: U.S. Energy Information Administration (EIA). Reserve estimates for 1985 and after exclude federal offshore.

\*\* Source: Texas Comptroller of Public Accounts. Wellhead price is average net taxable price (\$/bbl.) & excludes federal offshore production.

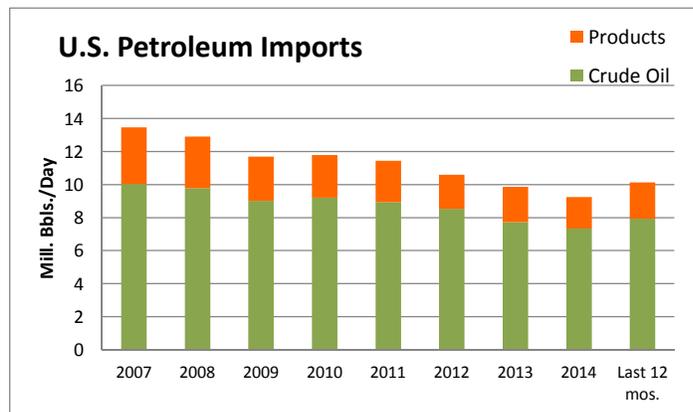
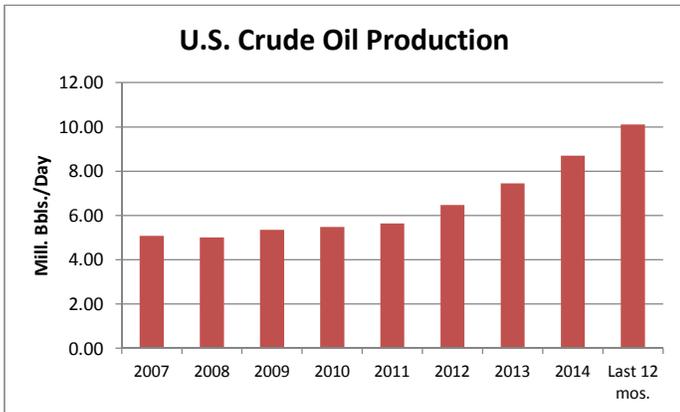
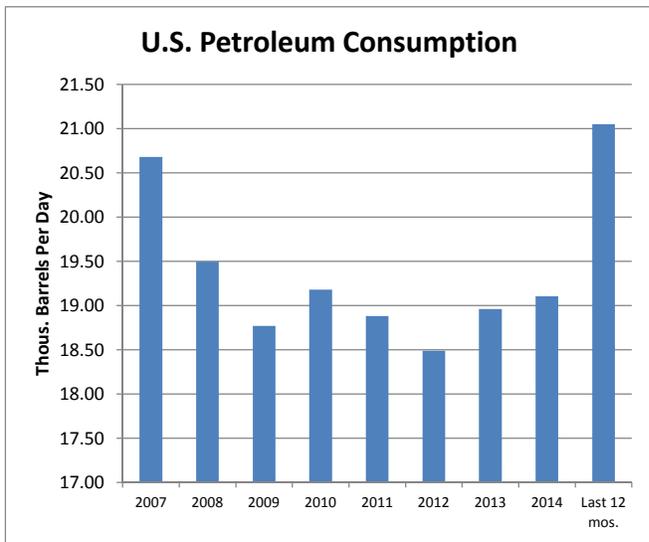
Source for 2001 and after is EIA. Wellhead price is West Texas Intermediate spot average.

**TABLE 6. US PETROLEUM OVERVIEW (MILLION BARRELS PER DAY)**

Period	Production*	Imports **			Products Supplied #	Proved Reserves **	Wells Drilled **	Wellhead Price **
		Total	Crude Oil	Products				
1996	6.47	9.48	7.51	1.97	18.31	22,017	23,886	18.46
1997	6.45	10.16	8.23	1.94	18.62	22,546	27,586	17.23
1998	6.25	10.71	8.71	2.00	18.92	21,034	22,911	10.87
1999	5.88	10.85	8.73	2.12	19.52	21,765	18,939	15.56
2000	5.82	11.46	9.07	2.39	19.70	22,045	29,287	26.72
2001	5.80	11.87	9.33	2.54	19.65	22,446	35,558	21.84
2002	5.74	11.53	9.14	2.39	19.76	22,677	27,871	22.51
2003	5.65	12.26	9.67	2.60	20.03	21,891	32,833	27.56
2004	5.44	13.15	10.09	3.06	20.73	21,371	37,057	36.77
2005	5.18	13.71	10.13	3.59	20.80	21,757	44,022	50.28
2006	5.09	13.71	10.12	3.59	20.69	20,972	51,429	59.69
2007	5.08	13.47	10.03	3.44	20.68	21,317	51,071	66.52
2008	5.00	12.92	9.78	3.13	19.50	19,121	54,302	94.04
2009	5.35	11.69	9.01	2.68	18.77	20,682	32,803	56.35
2010	5.48	11.79	9.21	2.58	19.18	23,267	36,611	74.71
2011	5.64	11.44	8.94	2.50	18.88	26,544	n/a	95.73
2012	6.48	10.60	8.53	2.07	18.49	30,529	n/a	94.52
2013	7.45	9.86	7.73	2.13	18.96	33,371	n/a	95.99
2014	8.70	9.24	7.34	1.90	19.11	33,371	n/a	95.99
Last 12 mos.	10.11	10.14	7.93	2.20	21.05	36,385	n/a	87.39

Aug-2014	8.84	9.32	7.47	1.85	19.40
Sep-2014	8.96	9.18	7.50	1.69	19.25
Oct-2014	9.13	8.92	7.15	1.78	19.69
Nov-2014	9.20	9.01	7.30	1.71	19.37
Dec-2014	9.43	9.40	7.23	2.18	19.46
Jan-2015	9.35	9.39	7.15	2.24	19.25
Feb-2015	9.46	9.24	7.11	2.13	19.40
Mar-2015	9.65	9.55	7.57	1.98	19.24
Apr-2015	9.69	9.31	7.21	2.10	19.04
May-2015	9.48	9.47	7.25	2.23	19.12
Jun-2015	9.32	9.55	7.30	2.25	19.59
Jul-2015	9.43	9.51	7.33	2.18	19.98
Aug-2015	9.41	9.77	7.64	2.13	19.81

*(Monthly data is subject to revision.)*



\* Sources: U.S. Energy Information Administration (EIA). Recent production data is subject to revision.

\*\* Source: EIA. Wells drilled includes crude oil, natural gas, and dry wells drilled. U.S. average wellhead (first purchase) price is dollars per barrel. (Per most recent data from EIA)

# Source: EIA. Petroleum products supplied is a measure of domestic consumption.

## **Railroad Commission of Texas**

P. O. Box 12967

Austin, Texas 78711-2967

---

*Texas PetroFacts* is available in PDF format for download from the Railroad Commission web site at <http://www.rrc.texas.gov>.

Created in 1891 by the Texas Legislature, the Railroad Commission today is known principally as a leader in the regulation and conservation of oil and natural gas in Texas. For more than 100 years, the Commission has been charged with preventing waste and pollution while safeguarding property rights.

We believe the people of Texas continue to have a vital stake in the orderly production and conservation of the state's natural resources. Across the state, crude oil and natural gas are produced in 216\* of 254 counties. About 275,100\* persons are employed in oil and gas exploration, production, refining, and related industries. In all, businesses involved with the Texas oil and gas industry contribute about \$206 billion annually to the state's more than one trillion-dollar economy.

As an oil and gas producer, the state of Texas ranks among the nations of the world. Texas leads the United States in the production of crude oil and natural gas, and its marketed production of natural gas represents one-third of total U. S. supply. Texas produces an average of nearly two million barrels of oil a day; natural gas production in the state exceeds 8 trillion cubic feet a year.

David Porter  
Chairman

Christi Craddick  
Commissioner

Ryan Sitton  
Commissioner

\* The number of producing counties and employment data are subject to revision.