

# THE UNITED STATES AGAIN HOLDS MORE RECOVERABLE OIL THAN SAUDI ARABIA

June 15, 2018

The United States has again surpassed Saudi Arabia as the world's largest holder of recoverable oil, according to research and data expert Rystad Energy. The US has added close to 50 billion barrels over the last year and now holds an estimated 310 billion barrels of recoverable oil with current technologies, equal to 79 years of US oil production at present output levels.

This vast increase of estimated recoverable oil in the US over the past year relates largely to a doubling of hydraulic fracturing operations in the Permian basin, where Rystad Energy also sees more reserves per well drilled, and to new areas and formations that have been geologically proved. Texas alone now holds more than 100 billion barrels of recoverable oil, 90% of which is from shale or other tight formations, ie. from wells that require hydraulic fracking to produce commercial quantities of oil.

The above numbers for "recoverable oil" include expected production from future discoveries as deemed likely by Rystad Energy. Out of 1 trillion barrels of yet undiscovered oil globally, shale oil makes up close to 300 billion barrels, according to Rystad Energy's database. Some 78% of these yet-to-find oil resources lie within non-OPEC countries.

In terms of already discovered oil, Saudi Arabia is still far ahead of all other countries, with 246 billion barrels of discovered oil, 90 billion barrels more than the US.

In terms of commercially proved reserves, which is the industry's most strict definition of oil yet to be produced, the world holds 388 billion barrels, corresponding to only 13 years of oil production. OPEC countries hold about 54% of the commercially proved reserves. Data from Rystad Energy reveals that the addition of new commercially proved reserves in 2017 outpaced global levels of production and consumption for the year, thus indicating a sustainable inventory of oil for the short-term.

The Petroleum Resource Management System (PRMS) from the Society of Petroleum Engineers provides a widely accepted scheme for classifying petroleum reserves and resources. However, the term proved reserves is used very differently around the world. When countries officially report proved oil reserves, some governments refer to the industry's strict definition of commercially proved reserves, while other governments use definitions that are more in line with how geologists would apply the term, ie. proved by exploration activities rather than by development activities. BP's Statistical Review of World Energy 2018, a widely recognized source of oil and gas facts, was published today with the official reports of proved oil reserves from governments around the world.

In the table below, Rystad Energy shows how consistent, bottom-up data compares with these officially reported numbers. For some OPEC countries, like Venezuela and Libya, the official numbers are several times higher than the estimates from Rystad Energy. "Compilations of government reported oil reserves are a mix of apples and oranges, and the standards differ largely between OECD and OPEC countries," says Per Magnus Nysveen, Head of Analysis at Rystad Energy.

World oil reserves and resources by Rystad Energy											
	1P	2P	2PC	2PCX	Added	mmbbld*	2PCX life	BPSR**	BPSR vs. 1P	BPSR vs. 2PC	
1. United States	37	55	155	310	47	10.7	79	50	137%	32%	
3. Russia	50	80	114	190	8	10.9	48	106	213%	93%	
4. Canada	24	40	105	164	6	4.4	103	169	691%	161%	
7. Brazil	10	17	38	97	-13	2.8	96	13	127%	34%	
8. China	14	28	38	81	-1	3.8	59	26	178%	68%	
10. Mexico	5	6	15	66	-2	1.9	95	7	160%	47%	
13. Kazakhstan	7	13	27	41	-3	1.8	62	30	450%	112%	
16. Argentina	2	2	3	32	9	0.4	199	2	137%	68%	
17. Australia	1	1	4	28	-0	0.3	272	4	464%	106%	
18. Norway	4	8	13	25	-2	1.5	45	8	196%	62%	
19. Indonesia	2	4	6	25	1	0.8	89	3	131%	55%	
23. United Kingdom	2	3	9	15	1	1.0		2	110%	26%	
Other non-Opec	21	35	64	283	-31	8.2	94	57	278%	90%	
<b>Non-Opec</b>	<b>178</b>	<b>292</b>	<b>591</b>	<b>1,356</b>	<b>115</b>	<b>47.7</b>	<b>78</b>	<b>478</b>	<b>268%</b>	<b>81%</b>	
2. Saudi Arabia	88	166	246	281	4	10.8	71	266	303%	108%	
5. Iran	28	49	90	132	-3	4.4	83	157	562%	175%	
6. Iraq	18	44	92	112	2	4.5	68	149	840%	162%	
9. Venezuela	7	15	31	70	-1	1.3	143	303	4211%	977%	
11. UAE	23	38	49	59	9	3.2	50	98	426%	200%	
12. Kuwait	18	32	38	45	-0	2.7	45	102	556%	270%	
14. Qatar	7	11	31	40	-4	1.4	80	25	369%	82%	
15. Nigeria	5	9	20	33	-2	2.0	45	38	695%	187%	
20. Libya	6	10	15	25	-	1.1	62	48	871%	314%	
21. Algeria	3	5	7	22	-	1.3	47	12	403%	167%	
22. Angola	3	5	10	19	3	1.6	32	10	329%	96%	
Other Opec	4	6	10	15	9	5	9	11	306%	116%	
<b>OPEC</b>	<b>209</b>	<b>389</b>	<b>638</b>	<b>853</b>	<b>11</b>	<b>35.3</b>	<b>66</b>	<b>1219</b>	<b>582%</b>	<b>191%</b>	
<b>World Total Oil</b>	<b>388</b>	<b>681</b>	<b>1,229</b>	<b>2,210</b>	<b>126</b>	<b>83.0</b>	<b>73</b>	<b>1697</b>	<b>438%</b>	<b>138%</b>	
Natural Gas Liquids	35	56	142	277		9.8					
Other liquids						5.2					
<b>World Total Liquids production 2018</b>						<b>98.0</b>					

Source: UCube by Rystad Energy

\* Global oil production excludes natural gas liquids, biofuel and refinery gains

\*\* Reserve estimate from national authorities, as reported in BP Statistical Review 2018

**1P** Proved oil reserves, **conservative** estimate in existing fields

**2P** Proved+Probable oil reserves, **most likely** estimate in existing fields

**2PC** Proved+Probable oil reserves plus mean **contingent** recoverable oil resources in yet undecided projects/discoveries, including noncommercial volumes

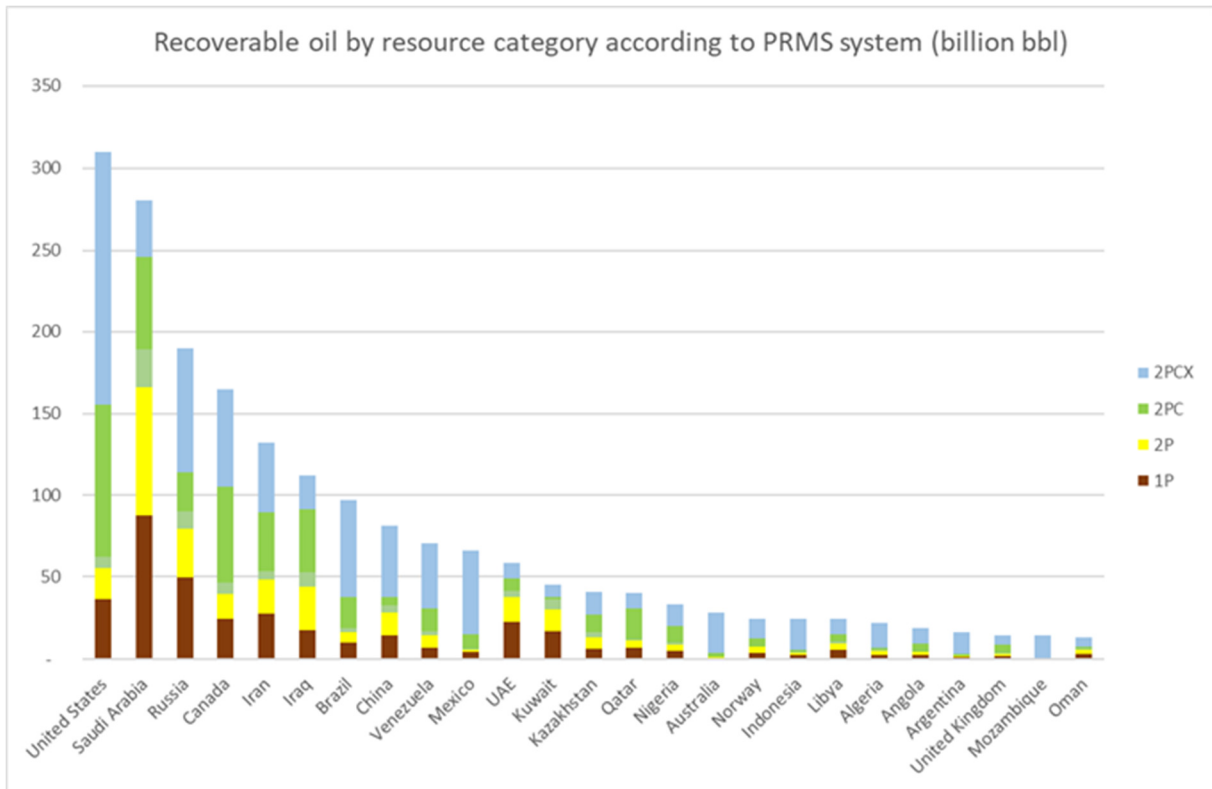
**2PCX** Most likely estimate for existing fields, plus contingent resources in discoveries, plus risked **prospective** resources in yet undiscovered fields

Grey boxes indicate which PRMS category appears closest to official estimates

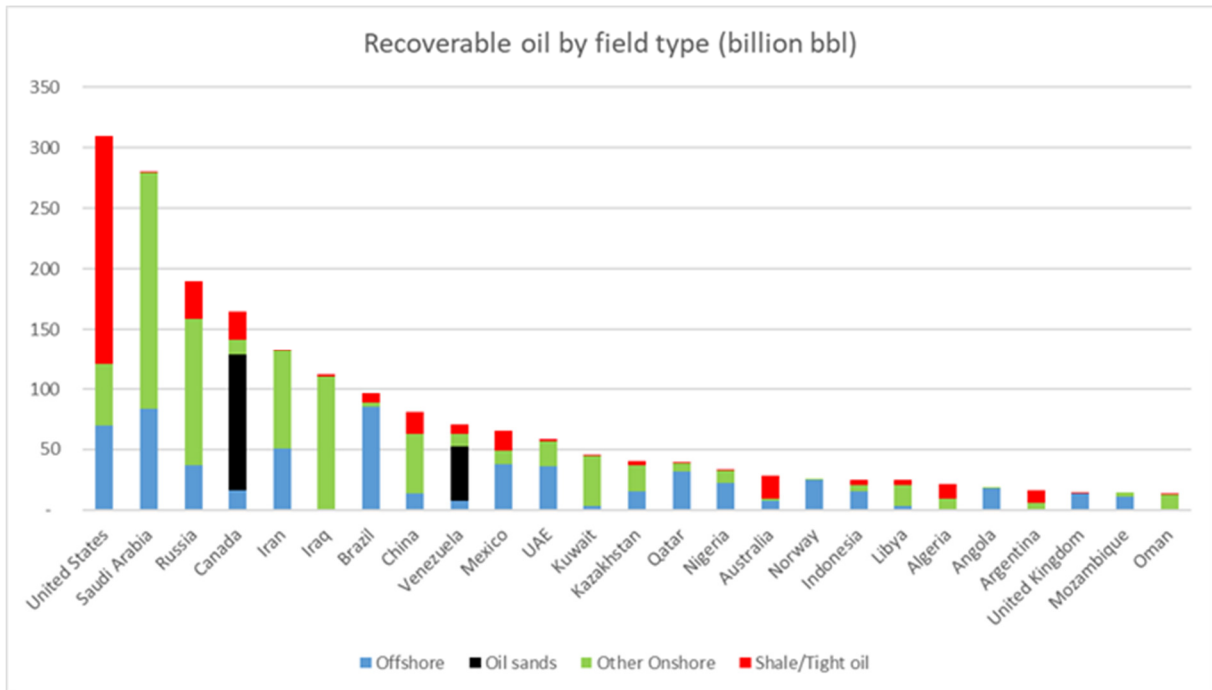
Red boxes indicate that official estimates are higher than any PRMS category

The above classification scheme is aligned with the PRMS standard from the Society of Petroleum Engineers

"Oil" is crude oil + lease condensate. Note BP Statistical Review includes Natural Gas Plant Liquids



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Our products and services cover energy fundamentals and the global and regional upstream, oilfield services and renewable energy industries, tailored to analysts, managers and executives alike.