

## US Lower 48

The US Lower 48 business comprises BP's onshore oil and gas operations in the 'Lower 48' states of the US. The business has significant activities producing natural gas, NGLs and condensate across seven states, including production from unconventional gas, coalbed methane (CBM) and shale gas assets.

	Third quarter 2018	Second quarter 2018	Third quarter 2017	Nine months 2018	Nine months 2017
<b>Production (net of royalties)</b>					
Liquids* (mb/d) <sup>(a)</sup>	42	42	44	43	43
Natural gas (mmcf/d)	1,614	1,563	1,512	1,588	1,431
Total hydrocarbons <sup>(b)</sup> (mboe/d)	321	312	304	316	290
<b>Average realizations</b>					
Total liquids (\$/bbl)	38.80	35.33	27.37	35.53	27.47
Natural gas (\$/mcf)	2.22	1.97	2.35	2.14	2.41
Total hydrocarbons (\$/boe)	16.28	14.68	15.60	15.54	15.98
<b>Production costs per boe (excluding rationalization costs)<sup>(c)</sup></b>					
	6.55	6.52	7.04	6.72	7.19
<b>Capital expenditure (\$ million)</b>					
	215	309	241	788	625
<b>Estimated net proved reserves at 31 December 2017</b>					
	Developed	Undeveloped	Total		
Crude oil <sup>(d)</sup> (million barrels)	22	20	41		
Natural gas liquids (million barrels)	93	49	142		
Natural gas (billion cubic feet)	3,953	2,880	6,832		
Total net proved reserves on an oil equivalent basis (million barrels of oil equivalent)	796	565	1,361		

(a) Liquids comprise crude oil, condensate and natural gas liquids.

(b) Hydrocarbons comprise liquids and natural gas. Natural gas is converted to oil equivalent at 5.8 billion cubic feet = 1 million barrels.

(c) Production costs do not include depreciation, depletion and amortisation, ad valorem and severance taxes and certain other costs.

(d) Crude oil includes condensate.