



# 2016 supplement to the annual report

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human energy®







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**Cover photo:** During 2016, Chevron started producing liquefied natural gas (LNG) from Trains 1 and 2 at the Gorgon Project on Barrow Island off the northwest coast of Western Australia. The company is positioned to be one of the world's largest LNG suppliers by 2020.

**Inside front cover photo:** The *Asia Excellence* departed Barrow Island in March 2016 with the first Gorgon LNG cargo for delivery into Japan.

# 2016 at a glance

## financial highlights

**sales and other operating revenues** \$110.2 billion

**net loss attributable to chevron corporation** \$497 million, \$0.27 per share – diluted

**return on capital employed** (0.1)%

**cash flow from operating activities** \$12.8 billion

**cash dividends** \$4.29 per share

## corporate strategies

**Financial-return objective** – Deliver industry-leading results and superior shareholder value in any business environment.

**Enterprise strategies** – Invest in people to develop and empower a highly competent workforce that delivers superior results the right way. Deliver results through disciplined operational excellence, capital stewardship and cost efficiency. Grow profits and returns by using our competitive advantages. Differentiate performance through technology and functional expertise.

**Major business strategies** – Upstream – deliver industry-leading returns while developing high-value resource opportunities. Downstream – grow earnings across the value chain and make targeted investments to lead the industry in returns. Midstream and Development – deliver operational, commercial and technical expertise to enhance results in Upstream and Downstream.

## accomplishments

### Corporate

**Safety and environment** – Achieved strong operational excellence performance, including record lows in the company's days-away-from-work and total-recordable-incident rates, as well as in petroleum spill volumes and the total number of loss-of-containment incidents. Preventing fatalities and high-consequence incidents and impacts continues to be a top priority for the company.

**Dividends** – Paid \$8.0 billion in dividends, with 2016 marking the 29th consecutive year of higher annual dividend payouts.

**Capital and exploratory expenditures** – Invested \$22.4 billion in the company's businesses, including \$3.8 billion (Chevron share) of spending by affiliates. Announced 2017 projected outlays of \$19.8 billion, including \$4.7 billion of affiliate expenditures. Spending in 2017 targets short-cycle, high-return investments in the base business and shale and tight portfolio; completion of major projects under construction; and progression of the Future Growth and Wellhead Pressure Management Project (FGP/WPMP) at Tengizchevroil in Kazakhstan.

**Portfolio management** – Realized \$2.8 billion in proceeds from asset divestments.

### Upstream

**Exploration** – Achieved an exploration drilling success rate of 79 percent, with 15 discoveries worldwide, and added 1.4 billion barrels of oil-equivalent resources. Continued shale and tight resource drilling programs in Argentina, Canada and the United States.

**Portfolio additions** – Acquired offshore acreage in Norway and the U.S. Gulf of Mexico. Led a consortium that was the successful bidder on a license offshore Mexico in the deepwater Perdido area of the Gulf of Mexico. (License awarded February 2017.)

**Production** – Produced 2.594 million net oil-equivalent barrels per day, with about 73 percent of the volume outside the United States, in more than 20 countries.

**Major projects** – Continued progress on the company's development projects to deliver future production growth. Achieved start-up of liquefied natural gas (LNG) Trains 1 and 2 at the Gorgon Project in Australia. Commenced production at the Chuandongbei Project in China, the Bangka Field in Indonesia and the Alder Field in the United Kingdom. Commenced early production from the Mafumeira Sul Field through a temporary production system. (The main production facility of the Mafumeira Sul Project was brought on line in February 2017.) Resumed LNG production at the Angola LNG Project. Continued to ramp up production at the Jack/St. Malo Project in the U.S. Gulf of Mexico. Increased shale/tight production in the Permian Basin in Texas and New Mexico. Progressed the construction and commissioning of the Wheatstone Project in Australia. Made final investment decision for the FGP/WPMP at Tengizchevroil.

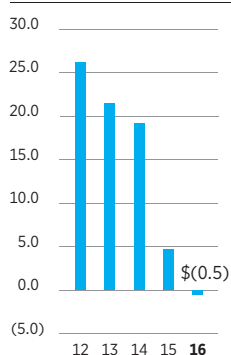
### Downstream

**Petrochemicals** – Advanced construction of a petrochemicals project in Texas that includes an ethane cracker with an annual design capacity of 1.5 million metric tons and two polyethylene units, each with an annual design capacity of 500,000 metric tons (all 50 percent-owned).

## financial information

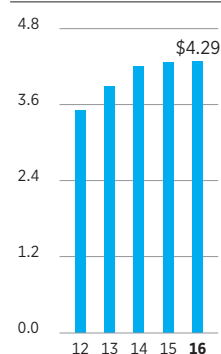
### Net income (loss) attributable to Chevron Corporation

Billions of dollars



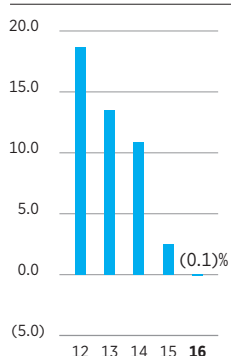
### Annual cash dividends

Dollars per share



### Return on capital employed

Percent



### Financial summary

Millions of dollars	Year ended December 31				
	2016	2015	2014	2013	2012
Net income (loss) attributable to Chevron Corporation	\$ (497)	\$ 4,587	\$ 19,241	\$ 21,423	\$ 26,179
Sales and other operating revenues	110,215	129,925	200,494	220,156	230,590
Cash dividends – common stock	8,032	7,992	7,928	7,474	6,844
Capital and exploratory expenditures	22,428	33,979	40,316	41,877	34,229
Cash flow from operating activities	12,846	19,456	31,475	35,002	38,812
Total cash and cash equivalents at December 31	6,988	11,022	12,785	16,245	20,939
Total assets at December 31*	260,078	264,540	264,884	252,793	232,026
Total debt and capital lease obligations at December 31*	46,126	38,549	27,784	20,401	12,172
Total liabilities at December 31*	113,356	110,654	108,693	102,366	94,194
Chevron Corporation stockholders' equity at December 31	145,556	152,716	155,028	149,113	136,524
Share repurchases	–	–	5,000	5,000	5,000
Market valuation at December 31	220,963	168,103	209,270	237,258	208,984

\* 2012 to 2015 adjusted to conform to 2016 presentation.

### Financial ratios\*

	Year ended December 31				
	2016	2015	2014	2013	2012
Current ratio	0.9	1.3	1.3	1.5	1.6
Interest coverage ratio	(2.6)	9.9	87.2	126.2	191.3
Debt ratio	24.1 %	20.2 %	15.2 %	12.1 %	8.2 %
Net debt to capital ratio	20.4 %	14.2 %	8.0 %	2.3 %	(6.5)%
Return on stockholders' equity	(0.3)%	3.0 %	12.7 %	15.0 %	20.3 %
Return on capital employed	(0.1)%	2.5 %	10.9 %	13.5 %	18.7 %
Return on total assets	(0.2)%	1.7 %	7.4 %	8.8 %	11.8 %
Cash dividends/net income (payout ratio)	(1,616.1)%	174.2 %	41.2 %	34.9 %	26.1 %
Cash dividends/cash from operations	62.5 %	41.1 %	25.2 %	21.4 %	17.6 %
Total stockholder return	36.4 %	(16.0)%	(6.9)%	19.2 %	5.0 %

\* Refer to page 51 for financial ratio definitions.

### Capital employed<sup>1</sup>

Millions of dollars	Year ended December 31				
	2016	2015	2014	2013	2012
Upstream – United States	\$ 25,855	\$ 28,172	\$ 29,808	\$ 29,089	\$ 26,097
– International	130,900	125,043	113,009	97,849	77,120
– Goodwill	4,581	4,588	4,593	4,639	4,640
– Total	161,336	157,803	147,410	131,577	107,857
Downstream – United States	12,353	12,946	12,509	12,291	9,952
– International	10,758	10,802	11,210	10,323	9,899
– Total	23,111	23,748	23,719	22,614	19,851
All Other <sup>2</sup>	8,401	10,884	12,846	16,637	22,296
<b>Total capital employed</b>	<b>\$ 192,848</b>	<b>\$ 192,435</b>	<b>\$ 183,975</b>	<b>\$ 170,828</b>	<b>\$ 150,004</b>

<sup>1</sup> Includes a realignment of liabilities for the U.S. pension and other post-employment benefits from All Other to Upstream and Downstream:

Upstream – United States	\$ 969	\$ 1,141	\$ 1,176	\$ 556	\$ 1,485
– International	293	375	386	214	601
– Total	1,262	1,516	1,562	770	2,086
Downstream – United States	1,300	1,293	1,326	637	1,817
– International	3	3	5	2	6
– Total	1,303	1,296	1,331	639	1,823

<sup>2</sup> 2012 to 2015 adjusted to conform to 2016 representation.

### Employees

	Year ended December 31				
	2016	2015	2014	2013	2012
Number of employees					
Employees excluding service station employees	51,953	58,178	61,456	61,345	58,286
Service station employees	3,248	3,316	3,259	3,205	3,656
<b>Total employed</b>	<b>55,201</b>	<b>61,494</b>	<b>64,715</b>	<b>64,550</b>	<b>61,942</b>



## Consolidated statement of income

Millions of dollars	Year ended December 31				
	2016	2015	2014	2013	2012
<b>Revenues and other income</b>					
Total sales and other operating revenues	\$ 110,215	\$ 129,925	\$ 200,494	\$ 220,156	\$ 230,590
Income from equity affiliates	2,661	4,684	7,098	7,527	6,889
Other income	1,596	3,868	4,378	1,165	4,430
<b>Total revenues and other income</b>	<b>114,472</b>	<b>138,477</b>	<b>211,970</b>	<b>228,848</b>	<b>241,909</b>
<b>Costs and other deductions</b>					
Purchased crude oil and products	59,321	69,751	119,671	134,696	140,766
Operating expenses	20,268	23,034	25,285	24,627	22,570
Selling, general and administrative expenses	4,684	4,443	4,494	4,510	4,724
Exploration expenses	1,033	3,340	1,985	1,861	1,728
Depreciation, depletion and amortization	19,457	21,037	16,793	14,186	13,413
Taxes other than on income	11,668	12,030	12,540	13,063	12,376
Interest and debt expense	201	-	-	-	-
<b>Total costs and other deductions</b>	<b>116,632</b>	<b>133,635</b>	<b>180,768</b>	<b>192,943</b>	<b>195,577</b>
<b>Income (loss) before income tax expense</b>	<b>(2,160)</b>	<b>4,842</b>	<b>31,202</b>	<b>35,905</b>	<b>46,332</b>
Income tax expense (benefit)	(1,729)	132	11,892	14,308	19,996
<b>Net income (loss)</b>	<b>(431)</b>	<b>4,710</b>	<b>19,310</b>	<b>21,597</b>	<b>26,336</b>
Less: Net income attributable to noncontrolling interests	66	123	69	174	157
<b>Net income (loss) attributable to Chevron Corporation</b>	<b>\$ (497)</b>	<b>\$ 4,587</b>	<b>\$ 19,241</b>	<b>\$ 21,423</b>	<b>\$ 26,179</b>

## Earnings by major operating area

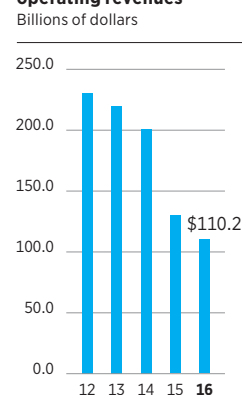
Millions of dollars	Year ended December 31				
	2016	2015	2014	2013	2012
Upstream					
– United States	\$ (2,054)	\$ (4,055)	\$ 3,327	\$ 4,044	\$ 5,332
– International	(483)	2,094	13,566	16,765	18,456
– Total	(2,537)	(1,961)	16,893	20,809	23,788
Downstream					
– United States	1,307	3,182	2,637	787	2,048
– International	2,128	4,419	1,699	1,450	2,251
– Total	3,435	7,601	4,336	2,237	4,299
All Other*	(1,395)	(1,053)	(1,988)	(1,623)	(1,908)
<b>Net income (loss) attributable to Chevron Corporation</b>	<b>\$ (497)</b>	<b>\$ 4,587</b>	<b>\$ 19,241</b>	<b>\$ 21,423</b>	<b>\$ 26,179</b>

\* All Other includes income from worldwide cash management and debt financing activities, corporate administrative functions, insurance operations, real estate activities, and technology companies.

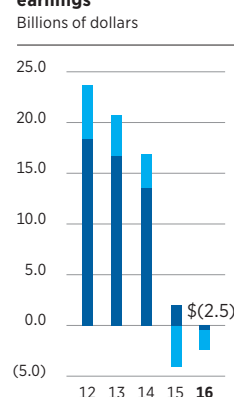
## Common stock

	Year ended December 31				
	2016	2015	2014	2013	2012
Number of shares outstanding at December 31 (Millions)	1,877.3	1,868.6	1,865.5	1,899.4	1,932.5
Weighted-average shares outstanding for the year (Millions)	1,872.3	1,867.2	1,882.9	1,916.3	1,949.7
Per-share data					
Net income (loss) attributable to Chevron Corporation					
– Basic	\$ (0.27)	\$ 2.46	\$ 10.21	\$ 11.18	\$ 13.42
– Diluted	(0.27)	2.45	10.14	11.09	13.32
Cash dividends	4.29	4.28	4.21	3.90	3.51
Chevron Corporation stockholders' equity at December 31	77.53	81.73	83.10	78.50	70.65
Market price					
– Close at December 31	117.70	89.96	112.18	124.91	108.14
– Intraday high	119.00	113.00	135.10	127.83	118.53
– Intraday low	75.33	69.58	100.15	108.74	95.73

## Total sales &amp; other operating revenues

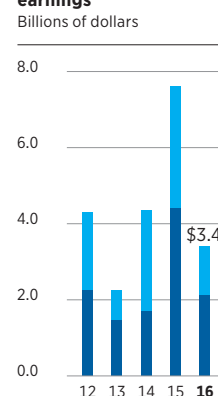


## Worldwide Upstream earnings



■ United States  
■ International

## Worldwide Downstream earnings

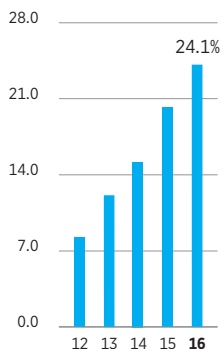


■ United States  
■ International

## financial information

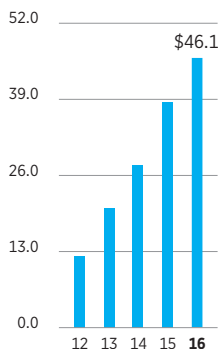
### Ratio of total debt to total debt-plus-Chevron Corporation stockholders' equity

Percent



### Total debt at year-end

Billions of dollars



### Consolidated balance sheet

Millions of dollars

At December 31

	2016	2015	2014	2013	2012
<b>Assets</b>					
Cash and cash equivalents	\$ 6,988	\$ 11,022	\$ 12,785	\$ 16,245	\$ 20,939
Time deposits	-	-	8	8	708
Marketable securities	13	310	422	263	266
Accounts and notes receivable, net	14,092	12,860	16,736	21,622	20,997
Inventories:					
Crude oil and petroleum products	2,720	3,535	3,854	3,879	3,923
Chemicals	455	490	467	491	475
Materials, supplies and other	2,244	2,309	2,184	2,010	1,746
Total inventories	5,419	6,334	6,505	6,380	6,144
Prepaid expenses and other current assets *	3,107	3,904	4,705	4,391	5,300
<b>Total current assets</b>	<b>29,619</b>	<b>34,430</b>	<b>41,161</b>	<b>48,909</b>	<b>54,354</b>
Long-term receivables, net	2,485	2,412	2,817	2,833	3,053
Investments and advances	30,250	27,110	26,912	25,502	23,718
Properties, plant and equipment, at cost	336,077	340,277	327,289	296,433	263,481
Less: Accumulated depreciation, depletion and amortization	153,891	151,881	144,116	131,604	122,133
Properties, plant and equipment, net	182,186	188,396	183,173	164,829	141,348
Deferred charges and other assets *	6,838	6,155	6,228	5,501	4,913
Goodwill	4,581	4,588	4,593	4,639	4,640
Assets held for sale	4,119	1,449	-	580	-
<b>Total assets</b>	<b>\$ 260,078</b>	<b>\$ 264,540</b>	<b>\$ 264,884</b>	<b>\$ 252,793</b>	<b>\$ 232,026</b>
<b>Liabilities and equity</b>					
Short-term debt *	\$ 10,840	\$ 4,927	\$ 3,790	\$ 374	\$ 127
Accounts payable	13,986	13,516	19,000	22,815	22,776
Accrued liabilities	4,882	4,833	5,328	5,402	5,738
Federal and other taxes on income *	1,050	1,073	1,761	2,509	3,744
Other taxes payable	1,027	1,118	1,233	1,335	1,230
<b>Total current liabilities</b>	<b>31,785</b>	<b>25,467</b>	<b>31,112</b>	<b>32,435</b>	<b>33,615</b>
Long-term debt *	35,193	33,542	23,926	19,930	11,946
Capital lease obligations	93	80	68	97	99
Deferred credits and other noncurrent obligations	21,553	23,465	23,549	22,982	21,502
Noncurrent deferred income taxes *	17,516	20,165	21,626	20,954	17,333
Noncurrent employee benefit plans	7,216	7,935	8,412	5,968	9,699
<b>Total liabilities</b>	<b>113,356</b>	<b>110,654</b>	<b>108,693</b>	<b>102,366</b>	<b>94,194</b>
Common stock	1,832	1,832	1,832	1,832	1,832
Capital in excess of par value	16,595	16,330	16,041	15,713	15,497
Retained earnings	173,046	181,578	184,987	173,677	159,730
Accumulated other comprehensive loss	(3,843)	(4,291)	(4,859)	(3,579)	(6,369)
Deferred compensation and benefit plan trust	(240)	(240)	(240)	(240)	(282)
Treasury stock, at cost	(41,834)	(42,493)	(42,733)	(38,290)	(33,884)
<b>Total Chevron Corporation stockholders' equity</b>	<b>145,556</b>	<b>152,716</b>	<b>155,028</b>	<b>149,113</b>	<b>136,524</b>
Noncontrolling interests	1,166	1,170	1,163	1,314	1,308
<b>Total equity</b>	<b>146,722</b>	<b>153,886</b>	<b>156,191</b>	<b>150,427</b>	<b>137,832</b>
<b>Total liabilities and equity</b>	<b>\$ 260,078</b>	<b>\$ 264,540</b>	<b>\$ 264,884</b>	<b>\$ 252,793</b>	<b>\$ 232,026</b>

\* 2012 to 2015 adjusted to conform to 2016 presentation.

### Segment assets

Millions of dollars

At December 31

	2016	2015	2014	2013	2012
Upstream <sup>1,2</sup>	\$ 211,245	\$ 213,001	\$ 205,922	\$ 186,746	\$ 161,926
Downstream <sup>1</sup>	38,080	36,386	40,789	44,094	43,043
<b>Total segment assets</b>	<b>\$ 249,325</b>	<b>\$ 249,387</b>	<b>\$ 246,711</b>	<b>\$ 230,840</b>	<b>\$ 204,969</b>
All Other <sup>1</sup>	10,753	15,153	18,173	21,953	27,057
<b>Total assets</b>	<b>\$ 260,078</b>	<b>\$ 264,540</b>	<b>\$ 264,884</b>	<b>\$ 252,793</b>	<b>\$ 232,026</b>

<sup>1</sup> 2012 to 2015 adjusted to conform to 2016 presentation.

<sup>2</sup> Includes goodwill associated with the acquisition of Unocal Corporation in 2005 and Atlas Energy, Inc., in 2011:

	\$ 4,581	\$ 4,588	\$ 4,593	\$ 4,639	\$ 4,640
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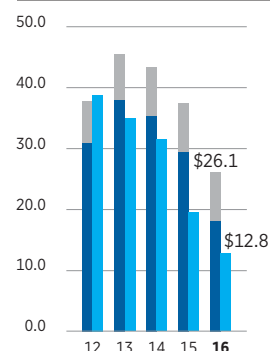
## Consolidated statement of cash flows

Year ended December 31

Millions of dollars	2016	2015	2014	2013	2012
<b>Operating activities</b>					
Net income (loss)	\$ (431)	\$ 4,710	\$ 19,310	\$ 21,597	\$ 26,336
Adjustments:					
Depreciation, depletion and amortization	19,457	21,037	16,793	14,186	13,413
Dry hole expense	489	2,309	875	683	555
Distributions less than income from equity affiliates	(1,227)	(760)	(2,202)	(1,178)	(1,351)
Net before-tax gains on asset retirements and sales	(1,149)	(3,215)	(3,540)	(639)	(4,089)
Net foreign currency effects	186	(82)	(277)	(103)	207
Deferred income tax provision	(3,835)	(1,861)	1,572	1,876	2,015
Net (increase) decrease in operating working capital	(550)	(1,979)	(540)	(1,331)	363
(Increase) decrease in long-term receivables	(131)	(59)	(9)	183	(169)
Decrease (increase) in other deferred charges	235	25	263	(321)	1,047
Cash contributions to employee pension plans	(870)	(868)	(392)	(1,194)	(1,228)
Other	672	199	(378)	1,243	1,713
<b>Net cash provided by operating activities</b>	<b>12,846</b>	<b>19,456</b>	<b>31,475</b>	<b>35,002</b>	<b>38,812</b>
<b>Investing activities</b>					
Capital expenditures	(18,109)	(29,504)	(35,407)	(37,985)	(30,938)
Proceeds and deposits from asset sales	2,777	5,739	5,729	1,143	2,777
Net maturities of (investments in) time deposits	-	8	-	700	3,250
Net sales (purchases) of marketable securities	297	122	(148)	3	(3)
Net (borrowing) repayment of loans by equity affiliates	(2,034)	(217)	140	314	328
Net sales (purchases) of other short-term investments	217	44	(207)	216	(210)
<b>Net cash used for investing activities</b>	<b>(16,852)</b>	<b>(23,808)</b>	<b>(29,893)</b>	<b>(35,609)</b>	<b>(24,796)</b>
<b>Financing activities</b>					
Net borrowings (repayments) of short-term obligations	2,130	(335)	3,431	2,378	264
Proceeds from issuances of long-term debt	6,924	11,091	4,000	6,000	4,007
Repayments of long-term debt and other financing obligations	(1,584)	(32)	(43)	(132)	(2,224)
Cash dividends - common stock	(8,032)	(7,992)	(7,928)	(7,474)	(6,844)
Distributions to noncontrolling interests	(63)	(128)	(47)	(99)	(41)
Net sales (purchases) of treasury shares	650	211	(4,412)	(4,494)	(4,142)
<b>Net cash provided by (used for) financing activities</b>	<b>25</b>	<b>2,815</b>	<b>(4,999)</b>	<b>(3,821)</b>	<b>(8,980)</b>
Effect of exchange rate changes on cash and cash equivalents	(53)	(226)	(43)	(266)	39
<b>Net change in cash and cash equivalents</b>	<b>(4,034)</b>	<b>(1,763)</b>	<b>(3,460)</b>	<b>(4,694)</b>	<b>5,075</b>
Cash and cash equivalents at January 1	11,022	12,785	16,245	20,939	15,864
<b>Cash and cash equivalents at December 31</b>	<b>\$ 6,988</b>	<b>\$ 11,022</b>	<b>\$ 12,785</b>	<b>\$ 16,245</b>	<b>\$ 20,939</b>

## Cash from operating activities compared with capital expenditures &amp; dividends

Billions of dollars

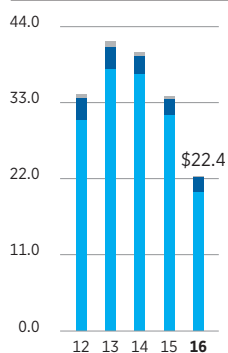


■ Dividends  
■ Capital expenditures  
■ Cash from operating activities

## financial information

### Capital & exploratory expenditures\*

Billions of dollars



■ All Other  
■ Downstream  
■ Upstream

\* Includes equity share in affiliates.

### Capital and exploratory expenditures

(Includes equity share in affiliates)

Millions of dollars

		Year ended December 31				
		2016	2015	2014	2013	2012
<b>United States</b>						
Exploration	\$	925	\$ 1,680	\$ 1,391	\$ 1,184	\$ 1,827
Production		3,787	5,874	7,354	7,221	6,634
Other Upstream		1	28	54	75	70
Refining		381	405	373	889	1,215
Marketing		55	76	66	67	110
Chemicals		1,011	1,354	1,025	723	323
Other Downstream		98	88	185	307	265
All Other		235	418	584	821	602
<b>Total United States</b>		<b>6,493</b>	<b>9,923</b>	<b>11,032</b>	<b>11,287</b>	<b>11,046</b>
<b>International</b>						
Exploration		527	1,339	2,131	3,994	2,366
Production		14,637	21,735	25,228	23,964	18,075
Other Upstream		239	461	957	1,420	1,472
Refining		115	131	309	434	627
Marketing		128	130	254	304	283
Chemicals		132	110	150	223	148
Other Downstream		152	142	228	228	201
All Other		5	8	27	23	11
<b>Total International</b>		<b>15,935</b>	<b>24,056</b>	<b>29,284</b>	<b>30,590</b>	<b>23,183</b>
<b>Worldwide</b>						
Exploration		1,452	3,019	3,522	5,178	4,193
Production		18,424	27,609	32,582	31,185	24,709
Other Upstream		240	489	1,011	1,495	1,542
Refining		496	536	682	1,323	1,842
Marketing		183	206	320	371	393
Chemicals		1,143	1,464	1,175	946	471
Other Downstream		250	230	413	535	466
All Other		240	426	611	844	613
<b>Total Worldwide</b>	<b>\$</b>	<b>22,428</b>	<b>\$ 33,979</b>	<b>\$ 40,316</b>	<b>\$ 41,877</b>	<b>\$ 34,229</b>
Memo: Equity share of affiliates' expenditures included above	<b>\$</b>	<b>3,770</b>	<b>\$ 3,397</b>	<b>\$ 3,467</b>	<b>\$ 2,698</b>	<b>\$ 2,117</b>

### Exploration expenses<sup>1</sup>

Millions of dollars

		Year ended December 31				
		2016	2015	2014	2013	2012
Geological and geophysical	\$	145	\$ 372	\$ 404	\$ 493	\$ 499
Unproductive wells drilled		488	2,309	875	683	555
Other <sup>2</sup>		400	659	706	685	674
<b>Total Exploration Expenses</b>	<b>\$</b>	<b>1,033</b>	<b>\$ 3,340</b>	<b>\$ 1,985</b>	<b>\$ 1,861</b>	<b>\$ 1,728</b>
Memo: United States	<b>\$</b>	<b>416</b>	<b>\$ 1,624</b>	<b>\$ 586</b>	<b>\$ 555</b>	<b>\$ 244</b>
International		617	1,716	1,399	1,306	1,484

<sup>1</sup> Consolidated companies only. Excludes amortization of undeveloped leaseholds.

<sup>2</sup> Includes amortization of unproved mineral interest, write-off of unproved mineral interest related to lease relinquishments, oil and gas lease rentals, and research and development costs.



## financial information

### Properties, plant and equipment

(Includes capital leases)

	At December 31				
Millions of dollars	2016	2015	2014	2013	2012
<b>Additions at cost</b>					
Upstream <sup>1</sup>	\$ 16,516	\$ 26,579	\$ 34,608	\$ 35,571	\$ 29,554
Downstream	903	1,061	1,118	1,807	4,042
All Other <sup>2</sup>	204	362	606	744	419
<b>Total additions at cost</b>	<b>17,623</b>	<b>28,002</b>	<b>36,332</b>	<b>38,122</b>	<b>34,015</b>
<b>Depreciation, depletion and amortization expense<sup>3</sup></b>					
Upstream	(17,823)	(19,348)	(14,815)	(12,748)	(11,917)
Downstream	(1,288)	(1,233)	(1,282)	(1,140)	(1,107)
All Other <sup>2</sup>	(346)	(456)	(696)	(298)	(389)
<b>Total depreciation, depletion and amortization expense</b>	<b>(19,457)</b>	<b>(21,037)</b>	<b>(16,793)</b>	<b>(14,186)</b>	<b>(13,413)</b>
<b>Net properties, plant and equipment at December 31</b>					
Upstream <sup>4</sup>	165,212	170,584	164,790	145,931	123,227
Downstream	14,290	14,897	15,238	15,620	15,263
All Other <sup>2</sup>	2,684	2,915	3,145	3,278	2,858
<b>Total net properties, plant and equipment at December 31</b>	<b>\$ 182,186</b>	<b>\$ 188,396</b>	<b>\$ 183,173</b>	<b>\$ 164,829</b>	<b>\$ 141,348</b>
Memo: Gross properties, plant and equipment	\$ 336,077	\$ 340,277	\$ 327,289	\$ 296,433	\$ 263,481
Accumulated depreciation, depletion and amortization	(153,891)	(151,881)	(144,116)	(131,604)	(122,133)
Net properties, plant and equipment	\$ 182,186	\$ 188,396	\$ 183,173	\$ 164,829	\$ 141,348

<sup>1</sup> Net of exploratory well write-offs.

<sup>2</sup> All Other is primarily corporate administrative functions, insurance operations, real estate activities and technology companies.

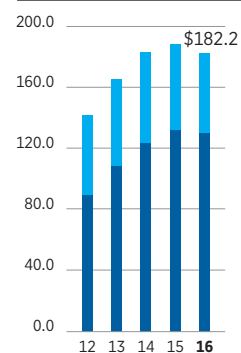
<sup>3</sup> Depreciation expense includes accretion expense of \$749, \$715, \$882, \$627 and \$629 in 2016, 2015, 2014, 2013 and 2012, respectively, and impairments of \$3,186, \$4,066, \$1,274, \$382 and \$245 in 2016, 2015, 2014, 2013 and 2012, respectively.

<sup>4</sup> Includes net investment in unproved oil and gas properties.

\$ 12,249 \$ 13,550 \$ 14,490 \$ 15,703 \$ 13,882

### Net properties, plant & equipment by geographic area

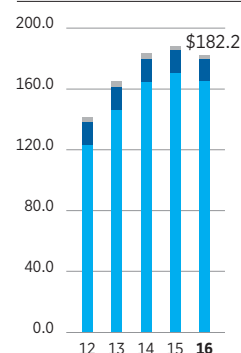
Billions of dollars



■ United States  
■ International

### Net properties, plant & equipment by function

Billions of dollars



■ All Other  
■ Downstream  
■ Upstream

# upstream

**deliver industry-leading returns  
while developing high-value resource opportunities**



**Photo:** Drilling, completion and testing of all nine subsea production wells for the Wheatstone Project in Western Australia is complete, and commissioning of subsea and platform facilities is underway.

## highlights

Chevron's upstream business has operations in most of the world's key hydrocarbon basins and a portfolio that provides a foundation for future growth. Utilizing its project management expertise, innovative technology, experience in varied operating environments and strong partnership skills, Upstream finds and develops resources that help meet global energy demand.

## business strategies

Deliver industry-leading returns while developing high-value resource opportunities by:

- Sustaining world-class operational excellence.
- High-grading portfolio and effectively allocating capital.
- Delivering enterprise cash and earnings commitments while maintaining competitive margins.
- Leading the industry in the selection and execution of major capital projects.
- Replenishing resources through selective investments in technology, exploration and acquisitions.

## industry conditions

Crude oil prices remained low throughout much of 2016, but increased modestly late in the year after OPEC announced production cuts. The spot price for West Texas Intermediate (WTI) crude oil averaged \$43 per barrel for full-year 2016, compared with \$49 in 2015. The Brent price averaged \$44 per barrel for full-year 2016, compared with \$52 in 2015. At the end of February 2017, the WTI and Brent prices were both \$54 per barrel. The majority of the company's equity crude production is priced based on the Brent benchmark. WTI traded at a discount to Brent for much of 2016 due to high inventories and excess supply in the U.S. market. In response to the volatile crude price environment, the company has lowered its cost structure and reduced the capital spend rate while still executing its business strategies.

In contrast to price movements in the global market for crude oil, price changes for natural gas in many regional markets are more closely aligned with supply-and-demand conditions in those markets. Fluctuations in the price for natural gas in the United States are closely associated with customer demand relative to the volumes produced in North America. In the United States, prices at Henry Hub averaged \$2.46 per thousand cubic feet (MCF) in 2016, compared with \$2.62 per MCF in 2015. Outside the United States, price changes for natural gas depend on a wide range of supply, demand and regulatory circumstances. Chevron sells natural gas into the domestic pipeline market in most locations. In some locations, Chevron continues to invest in long-term projects to install infrastructure to produce and liquefy natural gas for transport by tanker to other markets. The company's long-term contract prices for liquefied natural gas (LNG) are typically linked to crude oil prices. Most of the equity LNG offtake from the operated Australian LNG projects is committed under binding long-term contracts, with the remainder to be sold in the Asian spot LNG market. The Asian spot market reflects the supply and demand for LNG in the Pacific Basin and is not directly linked to crude oil prices. In 2016, Chevron's international natural gas realizations averaged \$4.02 per MCF, compared with \$4.53 per MCF during 2015.

## financial and operational highlights

In 2016, Chevron's upstream business achieved record lows in days-away-from-work and total-recordable-incident rates and in the total number of loss-of-containment incidents. The upstream business also outperformed targets for motor vehicle crash rates and petroleum spill volumes. Financial results were down substantially, with a net loss of \$2,537 million. Production of 2.594 million oil-equivalent barrels per day was 1 percent lower than net oil-equivalent production in 2015. Production increases from major capital projects, shale and tight properties, and base business were more than offset by normal field declines, the impact of asset sales, the Partitioned Zone shut-in, the effects of civil unrest in Nigeria and planned turnaround activity. Upstream capital and exploratory expenditures were \$20.1 billion in 2016. Portfolio management activities resulted in proceeds of \$1.5 billion, primarily related to the sale of mature U.S. producing assets and various pipeline and storage assets in the United States and Canada. In 2017, the upstream capital and exploratory budget is \$17.3 billion. Approximately \$8.5 billion of planned capital spending relates to base producing assets, including about \$2.5 billion for shale and tight resource investments, the majority of which is slated for Permian Basin developments in Texas and New Mexico. Another \$7 billion is related to major capital projects already underway, including approximately \$2 billion toward the completion of the Gorgon and Wheatstone LNG projects in Australia and approximately \$3 billion of affiliate expenditures associated with the Future Growth and Wellhead Pressure Management Project (FGP/WPMP) at the Tengiz Field in Kazakhstan. Global exploration funding accounts for approximately \$1 billion of the upstream budget, and the remainder is primarily related to early stage projects supporting potential future development opportunities.

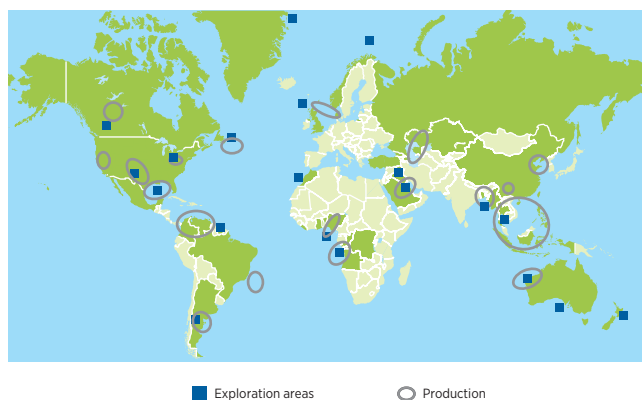
### Upstream financial and operating highlights

(Includes equity share in affiliates)

Dollars in millions	2016	2015
Earnings	\$ (2,537)	\$ (1,961)
Net liquids production (Thousands of barrels per day)	1,719	1,744
Net natural gas production (Millions of cubic feet per day)	5,252	5,269
Net oil-equivalent production (Thousands of barrels per day)	2,594	2,622
Net proved reserves* (Millions of barrels of oil-equivalent)	11,121	11,168
Net unrisked resource base* (Billions of barrels of oil-equivalent)	68	68
Capital and exploratory expenditures	\$ 20,116	\$ 31,117

\* For definitions of reserves and resources, refer to pages 50 and 51, respectively.

upstream portfolio overview





upstream

exploration and portfolio additions

The company made several important portfolio additions in 2016 and early 2017. Offshore acreage was acquired in Norway and the deepwater Gulf of Mexico. The company’s focus areas for exploration are the deepwater U.S. Gulf of Mexico, offshore Western Australia, West Africa and shale and tight resource plays in the United States and Canada. Exploration activity, including drilling and seismic acquisition, was ongoing in several other areas, including Argentina, offshore southern Australia, offshore Brazil, Atlantic Canada, Greenland, the Kurdistan Region of Iraq, Morocco, Myanmar, New Zealand, the Partitioned Zone, offshore Suriname and Thailand. The company’s exploration activities have added approximately 11 billion barrels of potentially recoverable oil-equivalent resources since 2007.

2016 accomplishments:

- Achieved an exploration drilling success rate of 79 percent with 15 discoveries worldwide and added 1.4 billion barrels of potentially recoverable oil-equivalent resources.
- Mexico – Led a consortium that was the successful bidder on a license in the deepwater Perdido area of the Gulf of Mexico. (License awarded February 2017.)
- Nigeria – Made a crude oil discovery at the deepwater Owowo prospect.
- Norway – Acquired an interest in a license in the Barents Sea.
- United States – Added 10 deepwater leases in the central Gulf of Mexico.

2017 outlook:

During 2017, the company plans to invest approximately \$1 billion in exploration activities and to drill more than 14 exploration and appraisal wells worldwide, including four impact wells (a well with a predrill unrisks resource potential of greater than 100 million barrels of oil-equivalent). The program supports continued exploration and appraisal activity in the U.S. Gulf of Mexico, Western Australia, West Africa and in shale and tight resource plays in the United States and Canada. This planned spending also includes evaluation of recently acquired acreage, including in Argentina, Atlantic Canada, Morocco, New Zealand, Norway and South Australia.

resources and proved reserves

The company’s net unrisks resource base at year-end 2016 was unchanged at 68 billion barrels of oil-equivalent from year-end 2015. Extensions and discoveries in the United States, Canada and Africa were essentially offset by production, divestments and technical revisions. Included in the resource base are 11.1 billion barrels of net proved oil-equivalent reserves at year-end 2016.

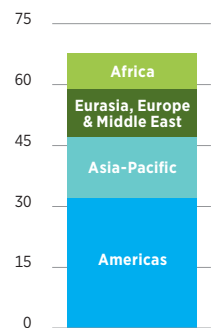
The resources are well diversified across geographic regions, with 28 percent located in the United States, 13 percent in Australia, 11 percent in Canada, 9 percent in Kazakhstan and 9 percent in Nigeria. The company’s resource base is also diversified by type, with liquids representing about 59 percent and natural gas about 41 percent of the total. The company has about 170 trillion cubic feet of unrisks natural gas resources globally, with about half located in Australia and Asia, and is well positioned to supply anticipated growth in Asia-Pacific natural gas demand.

base business

Successful management of the base business is critical to maintaining the company’s crude oil and natural gas production. Chevron drives a disciplined approach to managing the business through targeted investments and proven work processes to minimize decline, downtime and lost production opportunities. In the last few years, the company’s assets have been operating reliably, with an uptime rate approaching 95 percent and decline rates between 2 to 3 percent. Application of new technology is a key enabler in this area—an example in 2016 is the deployment of Integrated Operations Centers (IOC’s) designed to monitor real-time production operations data, which allows for faster and more thorough analysis leading to improved decision making. An IOC pilot program was deployed at Tengizchevroil (TCO) in early 2016 and successfully increased daily production. Several new IOC deployments in different areas of operations are planned for 2017.

2016 net unrisks resources by region\*

Billions of oil-equivalent barrels



\*Refer to page 51 for definition of resources.

## shale and tight resources

An area of focus for the company is the development of unconventional oil and gas resources located in shale and tight formations. The company has a significant shale and tight resource position, including legacy acreage in the Permian Basin in the United States, as well as newer positions in several other plays elsewhere in the United States and in Argentina and Canada. Spending is focused on the liquids-rich shale and tight formations in the Permian Basin, the Vaca Muerta Shale in Argentina and the Duvernay Shale in Canada. In the Permian, the company has implemented a factory development strategy, which utilizes multiwell pads to drill multiple horizontal wells that are completed concurrently using multistage hydraulic fracture stimulation. In the other basins, the company is focused on identifying the areas most prospective for development and bringing those resources to production safely and cost effectively.

### Shale and tight resources – key areas

Location	Basin or play	Net acreage (Thousands of acres)
Argentina	Vaca Muerta	167
Canada	Duvernay	228
Canada	Liard/Horn River	300
United States	Marcellus	472
United States	Permian (Delaware Basin)	1,000
United States	Permian (Midland Basin)	500
United States	Utica	309

## major capital projects

Major capital projects play a significant role in developing resources into reserves and sustaining the company's production growth. The company continues to invest in major capital projects, some of which are building legacy positions in natural gas through LNG infrastructure.

### 2016 accomplishments:

- Angola – Resumed LNG production at the Angola LNG Project.
- Angola – Commenced early production from the Mafumeira Sul Field.
- Angola – Achieved start-up of the Congo River Canyon Crossing Pipeline supporting Angola LNG.
- Australia – Achieved start-up of LNG Trains 1 and 2 at the Gorgon Project.
- Australia – Completed all wells and delivered and installed all modules at the Wheatstone Project.
- China – Commenced production from the three trains at the Xuanhan Gas Plant at the Chuandongbei Project.
- Indonesia – Commenced production at the Bangka Field, the first stage of the Indonesia Deepwater Development (IDD).
- Kazakhstan – Made final investment decision for the Future Growth and Wellhead Pressure Management Project at Tengizchevroil (TCO).
- United Kingdom – Commenced production at the Alder Field.
- United States – Achieved first oil from Stage 2 at the Jack/St. Malo development.
- United States – Made final investment decision for the Tahiti Vertical Expansion Project.

### 2017 outlook:

- Angola – Achieve start-up of the Mafumeira Sul Project. (The main production facility was brought on line in February 2017.)
- Australia – Achieve start-up of LNG Train 3 at the Gorgon Project.
- Australia – Achieve start-up of LNG Train 1 at the Wheatstone Project.
- Canada – Commence production at the Hebron Field.
- Kazakhstan/Russia – Complete expansion of the Caspian Pipeline Consortium pipeline.
- Nigeria – Commence production at the Sonam Field Development.
- United States – Make a final investment decision for the Mad Dog 2 Project. (Final investment decision reached in February 2017.)

## upstream

The projects in the table below are considered the more significant in the development portfolio and have commenced production or are in the design or construction phase. Each project has an estimated project cost of more than \$500 million, Chevron share.

### Major capital projects

Major capital projects				Facility design capacity <sup>1</sup>	
				Liquids (MBPD)	Natural gas (MMCFPD)
Year of start-up <sup>2</sup> /location	Project	Ownership percentage	Operator		
2016					
Angola	Angola LNG Plant <sup>3</sup>	36.4	Affiliate	63 <sup>4</sup>	670 <sup>4</sup>
Australia	Gorgon LNG Trains 1–3 <sup>5</sup>	47.3	Chevron	20	2,580
China	Chuandongbei Stage 1	49.0	Chevron	–	258 <sup>4</sup>
Indonesia	IDD/Bangka	62.0	Chevron	4	110
United Kingdom	Alder	73.7	Chevron	14	110
United States	Jack/St. Malo Stage 2	50.0-51.0	Chevron	Maintain capacity	
2017–2019					
Angola	Mafumeira Sul <sup>6</sup>	39.2	Chevron	150	350
Australia	Wheatstone LNG Trains 1–2	80.2/64.1 <sup>7</sup>	Chevron	30	1,608
Canada	Hebron	29.6	Other	150	–
Nigeria	Sonam Field Development	40.0	Chevron	30 <sup>8</sup>	215 <sup>8</sup>
United Kingdom	Clair Ridge	19.4	Other	120	100
United States	Big Foot	60.0	Chevron	75	25
	Stampede	25.0	Other	80	40
	Tahiti Vertical Expansion	58.0	Chevron	Maintain capacity	
2020+					
Canada	Kitimat LNG	50.0	Chevron	–	1,600
Indonesia	IDD/Gendalo-Gehem	–63.0	Chevron	47	1,100
Kazakhstan	TCO Future Growth Project (FGP)	50.0	Affiliate	260 <sup>8</sup>	–
	TCO Wellhead Pressure Management Project (WPMP)	50.0	Affiliate	Maintain capacity	
United Kingdom	Captain Enhanced Oil Recovery	85.0	Chevron	Maintain capacity	
	Rosebank	40.0	Chevron	100	80
United States	Mad Dog 2	15.6	Other	140	–

<sup>1</sup> MBPD – thousands of barrels per day; MMCFPD – millions of cubic feet per day.

<sup>2</sup> Start-up timing for nonoperated projects per operator's estimate.

<sup>3</sup> Plant restarted in 2016.

<sup>4</sup> Represents facility design outlet capacity.

<sup>5</sup> Start-up of Trains 1-2 in 2016; Train 3 start-up operations are underway, and first LNG is expected in March 2017.

<sup>6</sup> Early production from the field was achieved in 2016 through a temporary production system.

<sup>7</sup> Represents the company's ownership in the offshore licenses and LNG facilities, respectively.

<sup>8</sup> Represents expected total daily production.

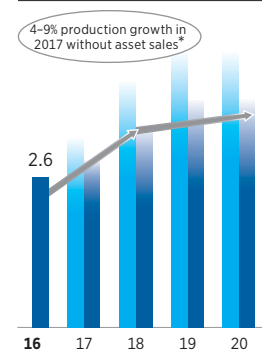
## production outlook

The company's production is expected to grow through the end of the decade as a result of investment in major capital projects and shale and tight properties and a sharp focus on mitigating base business declines. This growth is driven by the start-up and ramp-up of projects that have been under construction. These include the Gorgon and Wheatstone projects in Australia; the Jack/St. Malo, Stampede and Big Foot projects in the deepwater Gulf of Mexico; the Angola LNG Plant and the Mafumeira Sul Project in Angola; and increased production of shale and tight resources in the Permian Basin. Collectively, these investments are expected to increase the portion of production coming from legacy assets having flat or low production declines for a decade or longer. The company estimates that its average worldwide net oil-equivalent production in 2017 will grow 4 to 9 percent compared with 2016, assuming a Brent crude oil price of \$50 per barrel and before the effect of anticipated asset sales. The impact of 2017 asset sales on full-year production is expected to be in the range of 50,000 to 100,000 barrels of oil-equivalent per day, depending on the timing of the close of individual transactions.

This outlook for future production levels is subject to many factors and uncertainties, including, among other things, the duration of the low price environment that began in second-half 2014; production quotas or other actions that might be imposed by OPEC; price effects on entitlement volumes; changes in fiscal terms or restrictions on the scope of company operations; delays in the construction, start-up or ramp-up of projects; fluctuations in demand for natural gas; weather conditions; delays in completion of maintenance turnarounds; greater-than-expected declines from mature fields; potential asset divestments; or other disruptions to operations.

### Projected net production

Thousands of oil-equivalent barrels per day



■ Including impact of divestments  
■ Excluding impact of divestments

\* Estimated growth range reported on 4Q16 earnings call, based on estimated impacts of uncertainties at \$50 per barrel Brent.



## United States

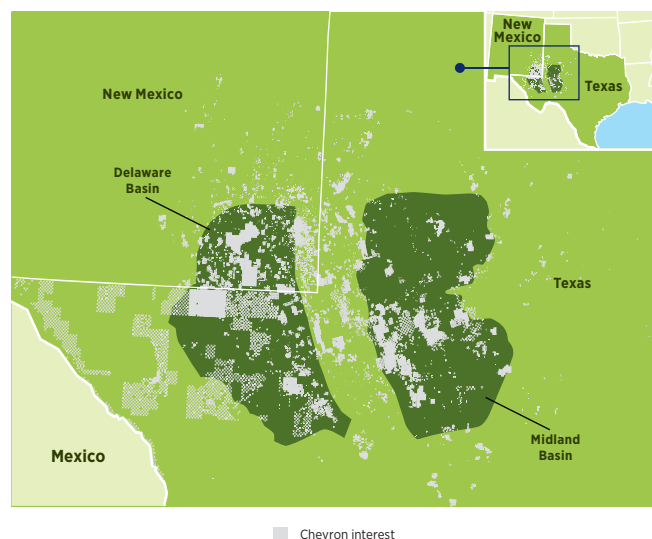
Chevron's U.S. portfolio encompasses a diverse group of assets primarily located in the midcontinent region, the Gulf of Mexico, California and the Appalachian Basin. The company was one of the largest liquids producers in the United States in 2016. Net daily oil-equivalent production averaged 691,000 barrels, representing 27 percent of the companywide total.

### Midcontinent

The company produces crude oil and natural gas in the midcontinent region of the United States, primarily in Colorado, New Mexico, Oklahoma, and Texas. In 2016, the company's net daily production in these areas averaged 123,000 barrels of crude oil, 576 million cubic feet of natural gas and 40,000 barrels of natural gas liquids (NGLs). In 2016, the company divested properties in areas including Oklahoma, Texas and Wyoming. The company is pursuing selected opportunities for divestment of additional properties in 2017.

The company's most significant holdings in the midcontinent region are in the Permian Basin located in West Texas and southeast New Mexico. Chevron has been active in the Permian since 1920 and has one of the largest net acreage positions in the basin, totaling approximately 2 million acres (8,093 sq km). Because of the company's strong legacy position in the Permian Basin, 85 percent of its leases have either low or no royalty payments, providing a substantial competitive advantage. The Permian is composed of several sub-basins, including the Midland and Delaware basins, which hold significant shale and tight resources for development as well as resources that can be developed with conventional methods. Chevron is one of the largest producers in the Permian Basin.

In 2016, the company's net daily production in the basin averaged 90,000 barrels of crude oil, 327 million cubic feet of natural gas and 29,000 barrels of NGLs. The net unrisks oil-equivalent resources from the company's acreage in the Permian Basin are estimated to exceed 9 billion barrels.



### Shale and tight resources

The company holds approximately 1.5 million net acres (6,070 sq km) of shale and tight resources in the Midland and Delaware basins of the Permian. This acreage is positioned to deliver significant long-term growth for Chevron due to the presence of multiple stacked formations that enable production from several layers of rock in different geologic zones. The stacked plays multiply the basin's resource and economic potential by allowing for multiple horizontal wells to be developed from a single pad location using shared facilities and infrastructure, which reduces development costs and improves capital efficiency. Chevron has implemented a factory development strategy in the basin, which utilizes multiwell pads to drill multiple horizontal wells that are completed concurrently using multistage hydraulic fracture stimulation.



**Photo:** Chevron has implemented a factory development strategy in the Permian Basin, utilizing multiwell pads to drill multiple horizontal wells.

**Midland Basin** Chevron holds approximately 500,000 net acres (2,023 sq km) in the Midland Basin. A total of four company-operated rigs were active at year-end 2016, and there were 52 company-operated wells drilled during the year. The company also participated in 50 nonoperated wells during 2016 with three nonoperated rigs active at year-end.

**Delaware Basin** Chevron holds approximately 1.0 million net acres (4,047 sq km) in the Delaware Basin. A total of 41 company-operated wells were drilled during the year, and a total of six company-operated rigs were active at year-end. In addition, the company participated in 58 nonoperated wells during 2016, with two nonoperated rigs active at year-end.

The company also holds shale and tight resource opportunities elsewhere in the midcontinent region, primarily in the Haynesville Shale in East Texas and the Piceance Basin in northwestern Colorado.

## upstream

### Conventional resources

Chevron actively manages declines in its conventional oil and gas assets in the midcontinent region, including on its approximately 400,000 net acres (1,619 sq km) in the Central Basin Platform of the Permian Basin. Substantial hydrocarbons are recoverable through secondary and tertiary methods that increase ultimate recovery and offset field decline. The company is efficiently maintaining production of these conventional resources through well workovers, artificial-lift techniques, facility and equipment optimization, and enhanced recovery methods to maximize the value of these base business operations.

### Gulf of Mexico

During 2016, net daily production in the Gulf of Mexico averaged 158,000 barrels of crude oil, 183 million cubic feet of natural gas and 13,000 barrels of NGLs. As of early 2017, Chevron has an interest in 316 leases in the Gulf of Mexico, 257 of which are located in water depths greater than 1,000 feet (305 m). At the end of 2016, the company was the largest leaseholder in the Gulf of Mexico.



#### Shelf

In 2016, Chevron was one of the largest producers of crude oil and natural gas on the Gulf of Mexico shelf. Average net daily production in 2016 was 30,000 barrels of crude oil, 95 million cubic feet of natural gas and 3,000 barrels of NGLs. During 2016, the company divested 35 onshore and offshore assets in the shelf area. The company is pursuing divestment of additional shelf assets in 2017.

#### Deep Water

Chevron is one of the top leaseholders in the deepwater Gulf of Mexico. Average net daily production in 2016 was 128,000 barrels of crude oil, 87 million cubic feet of natural gas and 10,000 barrels of NGLs, primarily from the Jack, St. Malo, Tahiti, Mad Dog, Tubular Bells and Caesar/Tonga fields and the Perdido Regional Development.

**Jack/St. Malo** Chevron has a 50 percent interest in the Jack Field and a 51 percent interest in the St. Malo Field. Both fields are company operated. The company has a 40.6 percent interest in the production host facility, which is designed to accommodate production from the Jack/St. Malo development and third-party tiebacks. Total daily production from the Jack and St. Malo fields in 2016 averaged 94,000 barrels of liquids (47,000 net) and 14 million cubic feet of natural gas (7 million net). Production ramp-up and development drilling for the first development phase continued in 2016.



**Photo:** Production ramp-up continued during 2016 at the company's Jack/St. Malo production host facility in the deepwater Gulf of Mexico.

Work also continued during 2016 on additional development opportunities for the Jack and St. Malo fields. Stage 2, the second phase of the development plan, includes four additional development wells, two each at the Jack and St. Malo fields. Start-up of the first Stage 2 development well was achieved in third quarter 2016. Development drilling is planned to continue in 2017. Proved reserves have been recognized for this project. Production from the Jack/St. Malo development is expected to ramp up to a total daily rate of 128,000 barrels of crude oil and 33 million cubic feet of natural gas. The Jack and St. Malo fields have an estimated remaining production life of 30 years, and total potentially recoverable oil-equivalent resources are estimated to exceed 500 million barrels. The company continues to study advanced drilling, completion and other production technologies that could be employed in future development phases with the potential to substantially increase recovery from these fields.

**Tahiti** In 2016, net daily production averaged 31,000 barrels of crude oil, 13 million cubic feet of natural gas and 2,000 barrels of NGLs at the 58 percent-owned and operated Tahiti Field. Four infill production wells were completed in 2016. A final investment decision was achieved mid-2016 for the Tahiti Vertical Expansion Project, the next development phase of the Tahiti Field. This project develops the shallower reservoirs at the Tahiti asset and encompasses four new wells and associated subsea infrastructure. The four wells have been drilled and cased, and completion operations are underway. First oil is expected in 2018. Proved reserves have been recognized for this project. The Tahiti Field has an estimated remaining production life of at least 20 years.

**Mad Dog** Chevron has a 15.6 percent nonoperated working interest in the Mad Dog Field. In 2016, net daily production averaged 8,000 barrels of liquids and 1 million cubic feet of natural gas.

The next development phase, the Mad Dog 2 Project, is planned to develop the southern portion of the Mad Dog Field. The development plan includes a new floating production platform with a design capacity of 140,000 barrels of crude oil per day. A final investment decision was reached in February 2017. First oil is expected in 2021. The total potentially recoverable oil-equivalent resources for Mad Dog 2 are estimated to exceed 500 million barrels. At the end of 2016, proved reserves had not been recognized for the Mad Dog 2 Project.

**Big Foot** The development plan for the 60 percent-owned and operated Big Foot Project, located in the Walker Ridge area, includes a 15-slot drilling and production tension leg platform (TLP) with water injection facilities. The facility has a design capacity of 75,000 barrels of crude oil and 25 million cubic feet of natural gas per day. The field has an estimated production life of 35 years from the time of start-up, and total potentially recoverable oil-equivalent resources are estimated to exceed 200 million barrels. Proved reserves have been recognized for this project. Fabrication of replacement mooring tendons began in mid-2016. TLP installation is expected to resume late 2017. First oil is expected in second-half 2018.

**Stampede** Chevron holds a 25 percent nonoperated working interest in the Stampede Project, the unitized development of the Knotty Head and Pony discoveries. The development plan includes a TLP with design capacity to produce 80,000 barrels of crude oil and 40 million cubic feet of natural gas per day. Fabrication and development drilling activities progressed in 2016, with first oil expected in 2018. The field has an estimated production life of 30 years from the time of start-up and total potentially recoverable oil-equivalent resources estimated to exceed 300 million barrels. Proved reserves have been recognized for this project.



**Photo:** The hull of the tension leg platform for the Stampede Project arrives at Ingleside, Texas.

**Exploration** During 2016 and early 2017, the company participated in nine deepwater wells, five appraisal and four exploration. Drilling was completed on an appraisal well at the Sicily discovery in first quarter 2016. No further operations are planned, and the leases expired in 2016. Drilling was completed on two successful appraisal wells at the Anchor discovery, one in second quarter 2016 and one in early 2017.

Chevron is the operator of an exploration and appraisal program and potential development named Tigris, covering a number of jointly held offshore leases in the northwest portion of Keathley Canyon. The resource potential in this area may enable a cost-effective, deepwater hub development of multiple fields to a new central host. In 2016, two successful appraisal wells were drilled at the 41 percent-owned Tiber and 50 percent-owned Guadalupe discoveries. The planned appraisal programs for the Tiber and Guadalupe discoveries have been completed. Discussions with key stakeholders on the planned development concept are underway, and Chevron filed for Suspension of Production (SOP) on both the Tiber and Guadalupe Units. The SOPs are intended to hold the associated leases as the planned development concept matures.

Chevron added 10 leases to the deepwater portfolio as a result of awards from the central Gulf of Mexico Lease Sale 241, held in first quarter 2016.

## California

With operations located primarily in the San Joaquin Valley with more than 16,000 wells in operation, Chevron ranked No. 1 in net daily oil-equivalent production in California in 2016 at 171,000 barrels, composed of 159,000 barrels of crude oil, 54 million cubic feet of natural gas and 3,000 barrels of NGLs.





## upstream

Chevron has a 99 percent-owned and operated interest in leases covering most of the Kern River Field. In addition, the company operates leases in the Cymric Field (100 percent-owned), the McKittrick Field (98 percent-owned) and the Midway Sunset Field (94 percent-owned). Chevron also operates and holds interests in the San Ardo, Coalinga and Lost Hills fields. The company's industry-leading expertise in steamflood operations has resulted in more than a 60 percent crude oil recovery rate at the Kern River Field. Chevron continues to leverage leading-edge heat management capabilities in the recovery of these hydrocarbons, with emphasis on improved energy efficiency through new technology and processes.

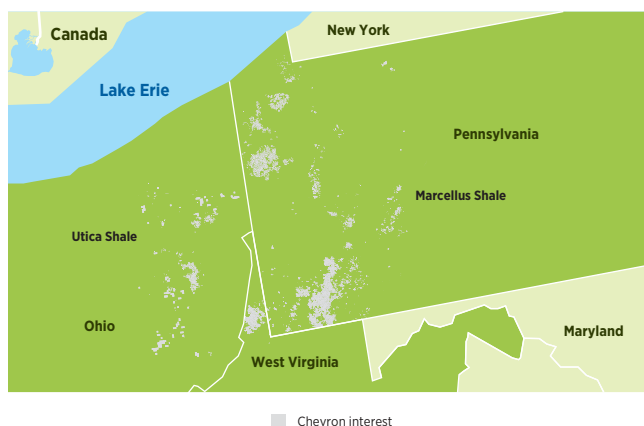
Chevron also holds an average nonoperated working interest of approximately 23 percent in four producing zones at the Elk Hills Field.



**Photo:** The company's industry-leading expertise in steamflood operations has resulted in more than a 60 percent crude oil recovery rate at the Kern River Field in California.

## Appalachian Basin

The company is a significant leaseholder in the Marcellus Shale and the Utica Shale, primarily located in southwestern Pennsylvania, eastern Ohio and the West Virginia panhandle. In 2016, the company's net daily production in these areas averaged 290 million cubic feet of natural gas, 5,000 barrels of NGLs and 3,000 barrels of condensate.



**Marcellus Shale** The company holds approximately 472,000 net acres (1,910 sq km) in the Marcellus Shale. A total of seven company-operated wells were drilled during the year. The company also participated in 12 nonoperated wells during 2016. Development is proceeding at a measured pace and is focused on improving execution capability, well performance and cost effectiveness.



**Photo:** Development is proceeding at a measured pace at the company's holdings in the Marcellus Shale.

**Utica Shale** The company also holds a position in the Utica Shale, with approximately 309,000 net acres (1,251 sq km). Activity during 2016 included the drilling of an exploration well and was focused on acquiring data necessary for potential future development.

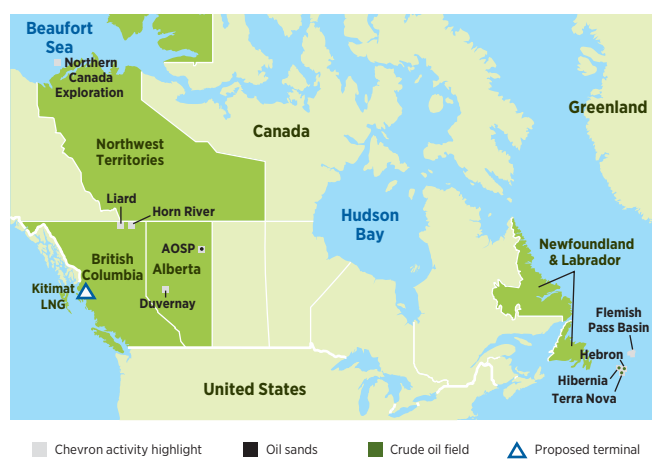
**Antrim Shale** In April 2016, the company divested its interest in the Antrim Shale in Michigan.

## Other Americas

In Other Americas, the company is engaged in upstream activities in Argentina, Brazil, Canada, Colombia, Greenland, Mexico, Suriname, Trinidad and Tobago, and Venezuela. Net daily oil-equivalent production of 226,000 barrels during 2016 in these countries represented 9 percent of the companywide total.

### Canada

Chevron has interests in oil sands projects and shale acreage in the province of Alberta; exploration, development and production projects offshore the province of Newfoundland and Labrador in the Atlantic region; a liquefied natural gas (LNG) project and shale acreage in British Columbia; and exploration and discovered resource interests in the Beaufort Sea region of the Northwest Territories. Net daily production in 2016 from Canadian operations was 33,000 barrels of crude oil, 55 million cubic feet of natural gas and 50,000 barrels of synthetic oil from oil sands.



### Atlantic Canada

**Hibernia** Chevron holds a 26.9 percent nonoperated working interest in the Hibernia Field. Chevron also has a 23.8 percent nonoperated working interest in the unitized Hibernia Southern Extension areas of the Hibernia Field have been developed with a subsea tieback to the Hibernia Platform. Infill drilling continued in 2016. Average net daily crude oil production in 2016 was 29,000 barrels.

**Hebron** Chevron holds a 29.6 percent nonoperated working interest in the Hebron Field development, which includes a concrete, gravity-based platform with a design capacity of 150,000 barrels of crude oil per day. The mating of the integrated topside with the gravity-based structure was successfully executed in 2016. The platform is scheduled to be towed to the field in first-half 2017, and first oil is expected in second-half 2017. This heavy oil field is estimated to contain total potentially recoverable oil-equivalent resources of more than 600 million barrels. The project has an expected economic life of 30 years from the time of start-up. Proved reserves have been recognized for this project.



**Photo:** Topsides for the Hebron platform at Bull Arm, Newfoundland.

**Exploration** In the Flemish Pass Basin, Chevron holds a 40 percent nonoperated working interest in two exploration blocks, EL 1125 and EL 1126, totaling 321,000 net acres (1,300 sq km). A 3-D seismic survey has been completed on these blocks. In addition, the company holds a 35 percent-owned and operated interest in Flemish Pass Basin Block EL 1138, with 237,000 net acres (959 sq km).

### Western Canada

**Athabasca Oil Sands Project (AOSP)** The company holds a 20 percent nonoperated working interest in the AOSP near Fort McMurray, Alberta. Oil sands are mined from both the Muskeg River and the Jackpine mines. Bitumen is extracted from the oil sands and transported by pipeline to the Scotford Upgrader near Edmonton, Alberta, where it is upgraded into synthetic oil using hydroprocessing technology. Carbon dioxide emissions from the upgrader are reduced by the colocated Quest carbon capture and storage facilities. In 2016, average net daily synthetic oil production was 50,000 barrels.

**Duvernay Shale** The company holds 228,000 net acres (923 sq km) in the Duvernay Shale in Alberta and approximately 200,000 overlying acres (809 sq km) in the Montney tight rock formation. Chevron has a 70 percent-owned and operated interest in most of the Duvernay acreage. Drilling continued during 2016 on an appraisal and land retention program. A total of 53 wells had been tied into production facilities by early 2017.



**Photo:** Drilling continued during 2016 on an appraisal and land retention program in the Duvernay Shale in Alberta.

## upstream

**Kitimat LNG** Chevron holds a 50 percent-owned and operated interest in the proposed Kitimat LNG and Pacific Trail Pipeline projects and a 50 percent operated interest in 300,000 net acres (1,214 sq km) in the Horn River and Liard shale gas basins in British Columbia. The horizontal appraisal drilling program progressed during 2016. The Kitimat LNG Project is planned to include a two-train LNG facility and has a 10.0 million-metric-ton-per-year LNG export license. The total production capacity for the project is expected to be 1.6 billion cubic feet of natural gas per day. Major environmental and LNG export permits and First Nations benefits agreements are in place. Spending is being paced until LNG market conditions and reductions in project costs are sufficient to support the development of this project. At the end of 2016, proved reserves had not been recognized for this project.

**Gas storage facilities** In April 2016, the company sold its 93.8 percent operated interest in the Aitken Creek and a 42.9 percent nonoperated interest in the Alberta Hub natural gas storage facilities.

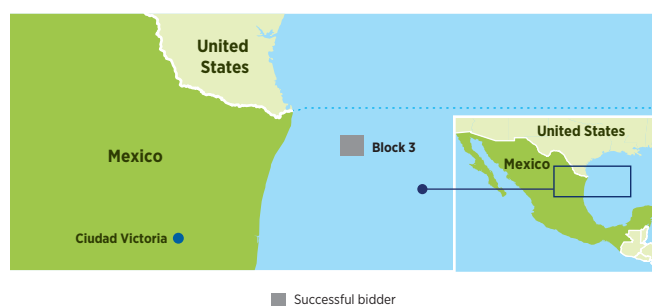
## Greenland

Chevron holds a 29.2 percent-owned and operated interest in two exploration blocks offshore the northeast coast of Greenland. Blocks 9 and 14 are in water depths up to 1,500 feet (457 m) and cover 350,000 net acres (1,417 sq km). Additional 2-D seismic data was acquired in 2016. Evaluation of the acreage is ongoing.



## Mexico

In December 2016, Chevron led a consortium that was the successful bidder on an exploration license for Block 3 in the deepwater Perdido area of the Gulf of Mexico. Following license execution in February 2017, the company operates and holds a 33.3 percent working interest in Block 3, which covers 139,000 net acres (562 sq km).



## Argentina

Chevron holds a 50 percent nonoperated interest in two concessions in the Vaca Muerta Shale covering 73,000 net acres (295 sq km). Chevron also holds an 85 percent-owned and operated interest in a concession covering 94,000 net acres (380 sq km) with both conventional production and Vaca Muerta Shale potential. In addition, the company holds operated interests in three concessions covering 73,000 net acres (295 sq km) elsewhere in the Neuquen Basin, with interests ranging from 18.8 percent to 100 percent. During 2016, Argentina net daily production averaged 20,000 barrels of crude oil and 32 million cubic feet of natural gas.

**Loma Campana** Nonoperated development activities continued in 2016 at the Loma Campana concession in the Vaca Muerta Shale, with an average of five rigs per month on-site. During 2016, 58 horizontal wells were drilled, and the drilling program is expected to continue in 2017.

**Exploration** In 2016, an exploration program, which included one horizontal and three vertical wells, was completed in the nonoperated Nambuenza Block. Results are under evaluation.





## Brazil

Chevron holds working interests in the Frade (51.7 percent-owned and operated) and Papa-Terra (37.5 percent, nonoperated) deepwater fields located in the Campos Basin. The concession that includes Frade expires in 2025, and the concession that includes Papa-Terra expires in 2032. During 2016, net daily production averaged 16,000 barrels of crude oil and 5 million cubic feet of natural gas.

**Exploration** Chevron holds a 50 percent-owned and operated interest in Block CE-M715, located in the Ceara Basin offshore Brazil. The deepwater block covers 40,000 total acres (163 sq km). During 2016, the company completed acquisition of 3-D seismic data. Processing of the seismic data is expected to be completed in early 2017.

## Colombia

Chevron's activities in Colombia are focused on the production of natural gas from properties in the Caribbean Sea and adjacent coastal areas of the Guajira Peninsula. The company operates the offshore Chuchupa and the onshore Ballena natural gas fields and receives 43 percent of the production for the remaining life of each field. The company also received a variable production volume based on prior Chuchupa capital contributions through 2016. Net daily production in 2016 averaged 127 million cubic feet of natural gas.



## Suriname

After a farm-down in Block 42 in second quarter 2016, Chevron holds a 33.3 percent and a 50 percent nonoperated working interest in Blocks 42 and 45 offshore Suriname, respectively. The deepwater exploration blocks cover a combined area of approximately 1.1 million net acres (4,622 sq km).

## Trinidad and Tobago

The company has a 50 percent nonoperated working interest in three blocks (Block E, Block 5(a) and Block 6) in the offshore East Coast Marine Area of Trinidad, which includes the Dolphin, Dolphin Deep and Starfish natural gas fields. Net daily production during 2016 from these fields averaged 74 million cubic feet of natural gas. These volumes were sold under long-term sales contracts to supply the domestic market and for LNG exports.

## Venezuela

Chevron's production activities in Venezuela are performed by two affiliates in western Venezuela and an affiliate in the Orinoco Belt, which produces and upgrades heavy oil resources. During 2016, net daily production averaged 28,000 barrels of crude oil, 19 million cubic feet of natural gas and 28,000 barrels of synthetic oil upgraded from heavy oil.

**Petroboscan** The company holds a 39.2 percent interest in Petroboscan, which operates the onshore Boscan Field in western Venezuela under a contract expiring in 2026. During 2016, net daily production averaged 26,000 barrels of liquids and 2 million cubic feet of natural gas. Thirty-three development wells were drilled in 2016.

**Petroindependiente** The company holds a 25.2 percent interest in Petroindependiente, which operates the LL-652 Field in Lake Maracaibo under a contract expiring in 2026.

**Petropiar** Chevron holds a 30 percent interest in Petropiar, which operates the Hamaca heavy oil production and upgrading project under an agreement expiring in 2033. The project is located in the Orinoco Belt and includes processing and upgrading of extra heavy crude oil (8.5 degrees API gravity) into lighter, higher-value synthetic oil (up to 26 degrees API gravity). Net daily production averaged 28,000 barrels of synthetic crude oil, 2,000 barrels of extra-heavy crude oil and 15 million cubic feet of natural gas during 2016. Sixty-seven development wells were drilled in 2016.

**Petroindependencia** Chevron holds a 34 percent interest in Petroindependencia, which includes the Carabobo 3 heavy oil project located in three blocks in the Orinoco Belt.

**Loran-Manatee** Chevron operates and holds a 60 percent interest in Block 2 offshore Venezuela and a 50 percent interest in the Manatee Area of Block 6(d) offshore Trinidad and Tobago. The Loran Field in Block 2 and the Manatee Field in Block 6(d) form a single, cross-border field that lies along the maritime border of Venezuela and Trinidad and Tobago. Cross-border agreements have been signed between the governments of Trinidad and Tobago and Venezuela, and work continued in 2016 on maturing commercial development.

## upstream

### Africa

In Africa, the company is engaged in upstream activities in Angola, Democratic Republic of the Congo, Liberia, Morocco, Nigeria and Republic of Congo. Net daily oil-equivalent production was 389,000 barrels during 2016, representing 15 percent of the companywide total.

### Angola

The company operates and holds a 39.2 percent interest in Block 0, a concession adjacent to the Cabinda coastline, and a 31 percent interest in a production-sharing contract (PSC) for deepwater Block 14, located west of Block 0. During 2016, net daily production averaged 108,000 barrels of liquids and 114 million cubic feet of natural gas.



### Block 0

Block 0 contains 21 fields that produced a net daily average of 80,000 barrels of liquids in 2016. The Block 0 concession extends through 2030.

**Mafumeira Sul** The second stage of the Mafumeira Field development includes a central processing facility, two wellhead platforms, approximately 75 miles (121 km) of subsea pipelines, 34 producing wells and 16 water injection wells. The facility has a design capacity of 150,000 barrels of liquids and 350 million cubic feet of natural gas per day. Early production from the Mafumeira Sul Field commenced in October 2016 through a temporary production system. The main production facility was brought on line in February 2017, and gas export to Angola LNG and water injection support are scheduled to begin in second quarter 2017. Ramp-up to full production is expected to continue through 2018. The total potentially recoverable oil-equivalent resources are estimated at 300 million barrels.



**Photo:** One of the platform topsides modules is transported to the Mafumeira Sul Field, offshore Angola, prior to installation.

### Block 14

In 2016, net daily production was 25,000 barrels of liquids from Benguela Belize-Lobito Tomboco, Belize North, Benguela North, Tombua, Landana and Lianzi fields. Development and production rights for the various producing fields in Block 14 expire between 2023 and 2028.

### Natural gas commercialization

Natural gas commercialization efforts are expected to monetize a total potentially recoverable resource of more than 3 trillion cubic feet of natural gas and approximately 110 million barrels of liquids through export sales of LNG and NGLs. Major commercialization projects include participation in Angola LNG Limited and the Congo River Canyon Crossing Pipeline.

**Angola LNG** The company has a 36.4 percent interest in Angola LNG Limited, which operates a 5.2 million-metric-ton-per-year LNG plant located in Soyo, Angola. The plant has the capacity to process 1.1 billion cubic feet of natural gas per day, with expected average total daily sales of 670 million cubic feet of natural gas and up to 63,000 barrels of NGLs. This is the world's first LNG plant supplied with associated gas, where the natural gas is a byproduct of crude oil production. Feedstock for the plant originates from multiple fields and operators. In early 2016, work was completed on plant modifications and capacity and reliability enhancements. Production restarted and LNG cargos resumed in 2016. Total daily production in 2016 averaged 171 million cubic feet of natural gas (62 million net) and 7,000 barrels of NGLs (3,000 net).



**Photo:** During 2016, production restarted and LNG cargos resumed at the Angola LNG Plant in Soyo, Angola.

**Congo River Canyon Crossing Pipeline** Chevron holds a 38.1 percent interest in the pipeline, which is designed to transport up to 250 million cubic feet per day of natural gas from Blocks 0 and 14 to the Angola LNG Plant. The 87-mile (140-km) offshore pipeline crosses under the Congo River subsea canyon. Gas flow to the Angola LNG Plant commenced in September 2016.

### Angola–Republic of Congo Joint Development Area

Chevron is the operator of and holds a 31.3 percent interest in the Lianzi Unitization Zone, located in an area shared equally by Angola and Republic of Congo. Development drilling was completed at Lianzi in January 2016. The Lianzi Project is reflected in the production totals in Angola (Block 14) and in Republic of Congo.

### Democratic Republic of the Congo

Chevron has a 17.7 percent nonoperated working interest in a concession off the coast of Democratic Republic of the Congo. Net daily production in 2016 from 11 fields averaged 2,000 barrels of crude oil.

### Republic of Congo

Chevron has a 31.5 percent nonoperated working interest in the offshore Haute Mer permit areas (Nkossa, Nsoko and Moho-Bilondo). The licenses for Nsoko, Nkossa and Moho-Bilondo expire in 2018, 2027 and 2030, respectively. In addition, the company has a 20.4 percent nonoperated working interest in the offshore Haute Mer B permit area. Average net daily production in 2016 was 23,000 barrels of liquids.

**Moho Nord** The Moho Nord Project, located in the Moho-Bilondo development area, includes Albian reservoirs producing to a new floating production unit (FPU) facilities hub and Miocene reservoirs producing both to the new hub and through a subsea tieback to the existing Moho-Bilondo FPU. Miocene development drilling continued in 2016. Installation of a TLP was completed in 2016, enabling the start of the Albian drilling campaign, which is expected to continue until 2020. Installation of the new FPU was also completed in 2016. Total daily production of crude oil in 2016 averaged 17,000 barrels (5,000 net) from the Moho Nord Project.

**Exploration** Drilling on an exploration well in the Moho-Bilondo area was completed in January 2016, resulting in a crude oil discovery.

### Liberia

Chevron operates and holds a 45 percent interest in Block LB-14 off the coast of Liberia. The deepwater block covers 260,000 net acres (1,053 sq km). Blocks LB-11 and LB-12 were relinquished in second quarter 2016.



### Mauritania

In June 2016, the company reassigned its interest in the C8, C12 and C13 contract areas offshore Mauritania to its partner.

### Morocco

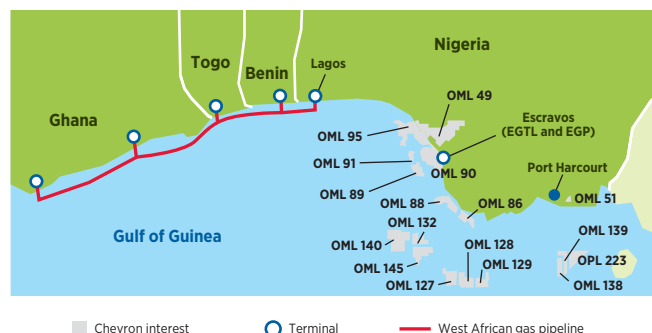
After a farm-down in April 2016, the company holds a 45 percent interest in three operated deepwater areas offshore Morocco. The Cap Rhir Deep, Cap Cantin Deep and Cap Walidia Deep areas encompass approximately 2.1 million net acres (8,546 sq km). The acquisition of 3-D seismic data in the Cap Cantin and Cap Walidia blocks was completed in 2016. The focus for 2017 is the evaluation of 3-D seismic data.



## upstream

### Nigeria

Chevron operates and holds a 40 percent interest in eight concessions in the onshore and near-offshore regions of the Niger Delta. The company also holds acreage positions in three operated and six nonoperated deepwater blocks, with working interests ranging from 20 percent to 100 percent. In 2016, net daily production averaged 204,000 barrels of crude oil, 159 million cubic feet of natural gas and 4,000 barrels of liquefied petroleum gas (LPG).



#### Niger Delta

In 2016, net daily production from 27 fields in the Niger Delta averaged 56,000 barrels of crude oil, 142 million cubic feet of natural gas and 4,000 barrels of LPG.

Chevron is continuing its efforts to monetize total potentially recoverable natural gas resources of approximately 17 trillion cubic feet in the Escravos area through a combination of domestic and export sales and use as fuel in company operations. The company is the operator of the Escravos Gas Plant (EGP) with a total processing capacity of 680 million cubic feet per day of natural gas and an LPG and condensate export capacity of 58,000 barrels per day. The company is also the operator of the 33,000-barrel-per-day Escravos Gas-to-Liquids (EGTL) facility. Optimization of these facilities continued in 2016. In addition, the company holds a 36.7 percent interest in the West African Gas Pipeline Company Limited, which supplies Nigerian natural gas to customers in Benin, Ghana and Togo.

**Sonam Field Development** The 40 percent-owned and operated Sonam natural gas field is located in Oil Mining Lease (OML) 91. The Sonam Field Development Project is designed to process natural gas through the EGP facilities and is expected to deliver a total of 215 million cubic feet of natural gas per day to the domestic gas market and produce a total of 30,000 barrels of liquids per day. Construction of offshore facilities continued in 2016. First production is expected in second-half 2017. Proved reserves have been recognized for this project.



**Photo:** Construction of facilities continued during 2016 at the Sonam Field Development, offshore Nigeria.

#### Deep Water

In 2016, net daily production from the deepwater Agbami and Usan fields averaged 148,000 barrels of crude oil and 16 million cubic feet of natural gas.

**Agbami** In 2016, net daily production from the Agbami Field averaged 120,000 barrels of crude oil and 12 million cubic feet of natural gas. The 67.3 percent-owned and operated field spans OML 127 and OML 128. The first two phases of infill drilling, Agbami 2 and Agbami 3, are nearly completed, with the last of the 15 wells expected to come on line in second-half 2017. More locations for infill drilling have been identified, and an ongoing program is underway to further offset field decline. The leases that contain the Agbami Field expire in 2023 and 2024.

**Usan** Chevron holds a 30 percent nonoperated working interest in the Usan Field in OML 138. Net daily production in 2016 averaged 28,000 barrels of crude oil and 4 million cubic feet of natural gas. The PSC expires in 2023.

**Bonga SW/Aparo** The Aparo Field in OML 132 and OML 140 and the third-party-owned Bonga SW Field in OML 118 share a common geologic structure and are planned to be developed jointly. Chevron holds a 16.6 percent nonoperated working interest in the unitized area. The development plan involves subsea wells tied back to a floating production, storage and offloading vessel (FPSO). Spending is being paced until market conditions and reductions in project costs are sufficient to support the development of this project. At the end of 2016, no proved reserves were recognized for this project.

**Exploration** Chevron operates and holds a 55 percent interest in OML 140 which includes the Nsiko discoveries located 90 miles (145 km) off the coast of the western Niger Delta region in up to 8,000 feet (2,438 m) of water. The company plans to continue to evaluate development options for the discoveries in the Nsiko area. Chevron holds a 30 percent nonoperated working interest in OML 138, which includes the Usan Field and several satellite discoveries and a 27 percent interest in adjacent licenses OML 139 and Oil Prospecting License (OPL) 223. In 2016, one exploratory well was drilled in OML 139 resulting in a crude oil discovery at the Owowo prospect. In 2017, the company plans to continue to evaluate development options for the multiple discoveries in the Usan area.



## Asia

In Asia, upstream activities are located in Azerbaijan, Bangladesh, China, Indonesia, Kazakhstan, the Kurdistan Region of Iraq, Myanmar, the Partitioned Zone between Saudi Arabia and Kuwait, the Philippines, Russia, and Thailand. Net daily oil-equivalent production of 1,078,000 barrels during 2016 in these countries represented 42 percent of the companywide total.

### Azerbaijan

Chevron holds an 11.3 percent nonoperated interest in Azerbaijan International Operating Company (AIOC) and the crude oil production from the Azeri-Chirag-Gunashli (ACG) fields. AIOC operations are conducted under a PSC that expires in 2024. Chevron also has an 8.9 percent interest in the Baku-Tbilisi-Ceyhan (BTC) pipeline affiliate, which transports the majority of ACG production from Baku, Azerbaijan, through Georgia to Mediterranean deepwater port facilities at Ceyhan, Turkey.

In 2016, average net daily production was 30,000 barrels of crude oil and 13 million cubic feet of natural gas. AIOC production is exported primarily via the BTC pipeline and the Western Route Export Pipeline (WREP), which is operated by AIOC. The 1,099-mile (1,768-km) BTC pipeline has the capacity to transport 1 million barrels per day. The WREP runs 515 miles (829 km) from Baku, Azerbaijan, to the terminal at Supsa, Georgia, on the Black Sea and transported approximately 90,000 barrels per day during 2016.



## Kazakhstan

Chevron has a 50 percent interest in the Tengizchevroil (TCO) affiliate, which operates the Tengiz and Korolev fields, and an 18 percent nonoperated working interest in the Karachaganak Field. Net daily production in 2016 from TCO and Karachaganak was 322,000 barrels of liquids and 529 million cubic feet of natural gas.

### Tengiz and Korolev

TCO is developing the Tengiz and Korolev crude oil fields in western Kazakhstan under a concession agreement that expires in 2033. Net daily production in 2016 averaged 263,000 barrels of crude oil, 375 million cubic feet of natural gas and 22,000 barrels of NGLs. The majority of TCO's crude oil production was exported through the Caspian Pipeline Consortium (CPC) pipeline. The balance of production was exported by rail to Black Sea ports.

**Future Growth and Wellhead Pressure Management Project (FGP/WPMP)** The FGP/WPMP is being managed as a single integrated project. The FGP is designed to increase total daily production by about 260,000 barrels of crude oil and to expand the utilization of sour gas injection technology proven in existing operations to increase ultimate recovery from the reservoir. The WPMP is designed to maintain production levels in existing plants as reservoir pressure declines. The final investment decision for the FGP/WPMP was made in July 2016. First oil is planned for 2022. The initial recognition of proved reserves occurred in 2016 for the FGP. Proved reserves also have been recognized for the WPMP.

Project execution progressed through 2016 with detailed engineering more than 55 percent complete at year-end. First cut steel was achieved in October 2016 at the Kazakhstan fabrication yard. During the year, site preparation at Tengiz continued to ramp up, and progress was made on site infrastructure and the cargo transport route terminal, where process modules are to be delivered. Fabrication of key equipment, including gas turbine generators, is also progressing. Two new multiwell pad rigs were mobilized to support future development drilling.

**Capacity and Reliability (CAR) Project** The CAR Project is designed to reduce facility bottlenecks and increase plant capacity and reliability. Construction activities for the CAR Project progressed during 2016. Proved reserves have been recognized for the CAR Project.

### Karachaganak

The Karachaganak Field is located in northwest Kazakhstan, and operations are conducted under a PSC that expires in 2038. The development of the field is being conducted in phases. Net daily production during 2016 averaged 37,000 barrels of liquids and 154 million cubic feet of natural gas. Most of the exported liquids were transported through the CPC pipeline. A portion was also exported via the Atyrau-Samara (Russia) pipeline. Liquids not exported by these pipelines were sold as condensate into the local and Russian markets. Work continues on identifying the optimal scope for the future expansion of the field. At the end of 2016, proved reserves had not been recognized for a future expansion.

## upstream

### Kazakhstan/Russia

**CPC** The CPC operates a 935-mile (1,505-km) crude oil export pipeline from the Tengiz Field in Kazakhstan to tanker-loading facilities at Novorossiysk on the Russian coast of the Black Sea, providing a key export route for crude oil production from both TCO and Karachaganak. Chevron holds a 15 percent interest in the CPC. During 2016, the CPC pipeline transported an average of 959,000 barrels of crude oil per day to Novorossiysk, composed of 883,000 barrels per day from Kazakhstan and 76,000 barrels per day from Russia.

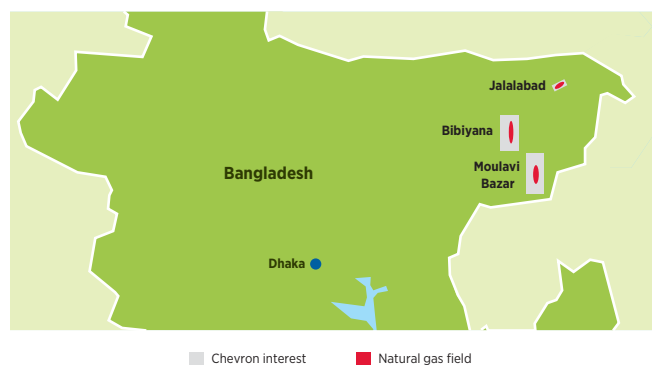
In 2016, work continued on the expansion of the pipeline, with capacity brought on line incrementally as critical components of the project were completed. By year-end 2016, capacity from Kazakhstan was increased to 1.0 million barrels per day. Additional capacity is scheduled to be added through mid-2017, reaching a design capacity of 1.4 million barrels per day. The expansion is expected to provide additional transportation capacity that accommodates a portion of the future growth in TCO production.



**Photo:** By year-end 2016, pipeline capacity from Kazakhstan was increased to 1.0 million barrels per day by the CPC expansion project.

### Bangladesh

Chevron operates and holds a 100 percent interest in two onshore PSCs in Bangladesh covering Block 12 (Bibiyana Field) and Blocks 13 and 14 (Jalalabad and Moulavi Bazar fields). The rights to produce from Jalalabad expire in 2024, from Moulavi Bazar in 2028 and from Bibiyana in 2034.



The company sells the natural gas production to the government under long-term sales agreements. In 2016, net daily production averaged 658 million cubic feet of natural gas and 4,000 barrels of condensate. The company has announced its intent to divest its assets in Bangladesh.

### Myanmar

Chevron has a 28.3 percent nonoperated working interest in a PSC for the production of natural gas from the Yadana and Sein fields, within Blocks M5 and M6, in the Andaman Sea. The PSC expires in 2028. The company also has a 28.3 percent nonoperated interest in a pipeline company that transports most of the natural gas to the Myanmar-Thailand border for delivery to power plants in Thailand. The remaining volumes are dedicated to the Myanmar market. Net daily natural gas production during 2016 averaged 128 million cubic feet.

The Badamayar-Low Compression Platform (LCP) is an expansion project in Block M5 to maintain the existing production plateau. The Badamayar-LCP is designed to maintain production from the Yadana Field by lowering wellhead pressure and includes a compression platform, a remote wellhead platform and four development wells in the Badamayar Field. Fabrication activities progressed during 2016, and first production is expected in second quarter 2017. Proved reserves have been recognized for this project.

**Exploration** Chevron also holds a 99 percent-owned and operated interest in Block A5, which covers 2.6 million net acres (10,500 sq km). Evaluation of a 3-D seismic survey that was completed in December 2015 continued in 2016.



## Thailand

In the Gulf of Thailand, Chevron has operated and nonoperated working interests in multiple offshore blocks. Operated interests are in the Pattani Basin, with ownership ranging from 35 percent to 80 percent. Concessions for the producing areas in the Pattani Basin expire between 2020 and 2035. In the Malay Basin, Chevron holds a 16 percent nonoperated working interest in the Arthit Field. Concessions for the producing areas in the Malay Basin expire between 2036 and 2040. The company sells the natural gas production to the domestic market under long-term sales agreements. Net average daily production in 2016 was 71,000 barrels of crude oil and condensate and 1.1 billion cubic feet of natural gas.

**Ubon** The development concept of the 35 percent-owned and operated Ubon Project includes facilities and wells to develop resources in Block 12/27. Discussions with key stakeholders on future development plans are ongoing. At the end of 2016, proved reserves had not been recognized for this project.

**Exploration** In 2016, the company drilled two exploration and two delineation wells in the operated areas of the Pattani Basin, and all wells were successful. Chevron also holds operated and nonoperated working interests ranging from 30 percent to 80 percent in the Thailand-Cambodia overlapping claims area. As of year-end 2016, these areas were inactive, pending resolution of border issues between Thailand and Cambodia.

## China

Chevron operates the 49 percent-owned Chuandongbei Project, which is composed of several natural gas fields located onshore in the Sichuan Basin. This PSC expires in 2038.



The company also has three nonoperated PSCs. In the South China Sea, the company has a 32.7 percent working interest in offshore Block 16/19, with six crude oil fields located in the Pearl River Mouth Basin. In Bohai Bay, the company holds a 16.2 percent working interest in Block 11/19, which contains the BZ 19-4 and BZ 25-1 crude oil fields. The company holds a 24.5 percent working interest in the Qinhuangdao (QHD) 32-6 Block, which contains the QHD 32-6 crude oil field. The PSCs for these producing assets expire between 2022 and 2028. In 2016, net average daily production from these PSCs was 18,000 barrels of crude oil.

**Chuandongbei** The Xuanhan Gas Plant has three gas processing trains with a design outlet capacity of 258 million cubic feet per day. Production commenced from the Xuanhan Gas Plant in January 2016 with gas supplied from the Luojiashai natural gas field. Total daily production in 2016 averaged 111 million cubic feet of natural gas (51 million net). This project is estimated to contain total potentially recoverable natural gas resources of 3 trillion cubic feet.



**Photo:** The company commenced production during 2016 from the Xuanhan Gas Plant at the Chuandongbei Project in China.

## Philippines

Chevron holds a 45 percent nonoperated working interest in the offshore Malampaya Field. Net daily production during 2016 averaged 138 million cubic feet of natural gas and 3,000 barrels of condensate.

**Geothermal** Chevron has a 40 percent equity interest in the Philippine Geothermal Production Company, Inc. (PGPC). The PGPC develops and produces onshore steam resources for the third-party Tiwi and Mak-Ban geothermal power plants, which have a combined operating capacity of 692 megawatts. The renewable energy service contract with the Philippine government expires in 2038.

Chevron also has an interest in the onshore Kalinga geothermal prospect area.

In December 2016, the company signed an agreement for the sale of its geothermal assets in the Philippines. This transaction is expected to close in 2017.

## upstream

### Indonesia

Chevron's operated interests in Indonesia include one onshore PSC on the island of Sumatra and four PSCs offshore eastern Kalimantan. In addition, the company operates two geothermal fields in West Java. Chevron also holds a nonoperated working interest in the offshore South Natuna Sea Block B, located northeast of the island of Sumatra. Net daily production in 2016 from all producing areas in Indonesia averaged 173,000 barrels of liquids and 182 million cubic feet of natural gas.



#### Sumatra

Chevron holds a 100 percent-owned and operated interest in the Rokan PSC, which expires in 2021. Net daily production averaged 151,000 barrels of crude oil and 21 million cubic feet of natural gas in 2016.

Duri is the largest producing field in the Rokan PSC. Duri has been under steamflood since 1985 and is one of the world's largest steamflood developments. In 2016, net daily production averaged 69,000 barrels of crude oil. Infill drilling and workover programs continued in 2016.

The remaining production from the Rokan PSC is from 76 active fields that produce Sumatra Light crude, with net daily production that averaged 82,000 barrels of crude oil and 21 million cubic feet of natural gas in 2016. Production was underpinned by ongoing infill drilling, workover activity and water flood expansion.

#### Kutei Basin

Chevron's operated interests offshore eastern Kalimantan include four PSCs in the Kutei Basin: East Kalimantan (92.5 percent), Makassar Strait (72 percent), Rapak (62 percent) and Ganal (62 percent). The PSCs for East Kalimantan, Makassar Strait, Rapak and Ganal expire in 2018, 2020, 2027 and 2028, respectively. Net daily production averaged 16,000 barrels of crude oil and 104 million cubic feet of natural gas in 2016. The majority of the production came from 14 fields in the East Kalimantan PSC shelf area, with the remainder from the deepwater West Seno Field in the Makassar Strait PSC and the Bangka Field in the Rapak PSC. In first quarter 2016, Chevron advised the government of Indonesia that it would not propose to extend the East Kalimantan PSC and intends to return the assets to the government upon PSC expiration in 2018.

**Indonesia Deepwater Development** There are two deepwater natural gas development projects in the Kutei Basin progressing under a single plan of development. Collectively, these projects are referred to as the Indonesia Deepwater Development.

One of these projects, Bangka, includes a two-well subsea tieback to the West Seno FPU, with a design capacity of 110 million cubic feet of natural gas and 4,000 barrels of condensate per day. The company's interest is 62 percent. Production commenced in August 2016 and has reached full design capacity.



**Photo:** Production commenced in August 2016 from the Bangka Field, the first stage of the Indonesia Deepwater Development, in East Kalimantan, Indonesia.

The other project, Gendalo-Geheem, includes two separate FPU-based hub developments with subsea drill centers, natural gas and condensate pipelines, and an onshore receiving facility. Gas from the project is expected to be sold domestically and through LNG export. Liquefaction is planned to take place at the state-owned Bontang LNG plant in East Kalimantan. The project has a planned design capacity of 1.1 billion cubic feet of natural gas and 47,000 barrels of condensate per day. The company's interest is approximately 63 percent. Chevron continues to work toward a final investment decision, subject to the timing of government approvals, including extension of the associated PSCs, and securing new LNG sales contracts. This project is estimated to contain potentially recoverable natural gas resources of approximately 3 trillion cubic feet. At the end of 2016, proved reserves had not been recognized for this project.



### South Natuna Sea Block B

Chevron holds a 25 percent nonoperated working interest in the offshore South Natuna Sea Block B. Net daily production during 2016 from eight fields averaged 6,000 barrels of liquids and 56 million cubic feet of natural gas.

In December 2016, the company signed an agreement to sell its South Natuna Sea Block B assets in Indonesia. This transaction is expected to close in 2017.

### Geothermal

The company operates the Darajat geothermal field and holds a 95 percent interest in two power plants in West Java. The field supplies steam to a three-unit power plant with a total operating capacity of 270 megawatts.

Chevron also operates and holds a 100 percent interest in the Salak geothermal field in the Gunung Salak contract area in West Java. The field supplies steam to a six-unit power plant, three of which are company owned, with a total operating capacity of 377 megawatts.

In 2014, Chevron secured the preliminary survey assignment for a South Sekincau prospect, and in June 2015, Chevron submitted preliminary survey results to the government of Indonesia. In August 2016, the government of Indonesia announced establishment of the Sekincau working area with an estimated resource potential of 378 megawatts of generating capacity, which Chevron can pursue through a tender process.

In December 2016, the company signed an agreement for the sale of its geothermal assets in Indonesia. This transaction is expected to close in 2017.

### Kurdistan Region of Iraq

The company operates and holds an 80 percent contractor interest in the Sarta PSC and the Qara Dagħ PSC. The two blocks cover a combined area of 279,000 net acres (1,129 sq km).

The company completed a second exploration well in the Sarta Block in early 2016. Further evaluation of the block is planned. For the Qara Dagħ PSC, the results from seismic acquisition and evaluation in 2015 improved the company's understanding of the prospects, and the company is evaluating next steps.



### Partitioned Zone

Chevron holds a concession agreement to operate the Kingdom of Saudi Arabia's 50 percent interest in the hydrocarbon resources in the onshore area of the Partitioned Zone between Saudi Arabia and Kuwait. Under the concession agreement, Chevron has the right to Saudi Arabia's 50 percent interest in the hydrocarbon resources. The concession expires in 2039.

Beginning in May 2015, production in the Partitioned Zone was shut in as a result of continued difficulties in securing work and equipment permits. As of early 2017, production remains shut-in, and the exact timing of a production restart is uncertain and dependent on dispute resolution between Saudi Arabia and Kuwait. The shut-in, also impacted plans for both the Wafra Steamflood Stage 1 Project, a full-field steamflood application in the Wafra Field First Eocene carbonate reservoir with a planned design capacity of 100,000 barrels of crude oil per day, and the Central Gas Utilization Project, a facility construction project intended to increase natural gas utilization while eliminating natural gas flaring at the Wafra Field. Both projects have been deferred pending dispute resolution between Saudi Arabia and Kuwait. At the end of 2016, proved reserves had not been recognized for these two projects.

**Exploration** In 2016, the company completed acquisition of a 3-D seismic survey covering the entire onshore Partitioned Zone. It is one of the largest land seismic programs ever undertaken, covering 1.1 million acres (4,600 sq km). Processing of the newly acquired data is targeted to be completed in first-half 2017.

## Australia/Oceania

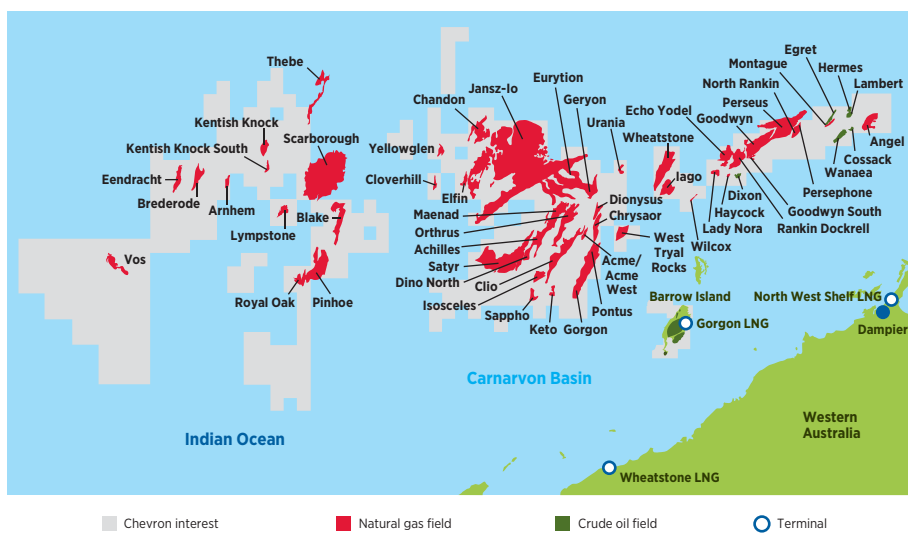
In Australia/Oceania, the company is engaged in upstream activities in Australia and New Zealand. Net daily oil-equivalent production of 124,000 barrels during 2016 in Australia represented 5 percent of the companywide total.

### Australia

Chevron is the largest holder of natural gas resources in Australia with net unrisked resources of approximately 50 trillion cubic feet. The company is the operator of two major LNG facilities, Gorgon and Wheatstone, and has a nonoperated working interest in the North West Shelf venture (NWS Venture). Chevron also has exploration acreage in the Carnarvon Basin, Browse Basin and Bight Basin. Net daily production in 2016 averaged 21,000 barrels of liquids and 615 million cubic feet of natural gas, primarily from the Gorgon Project and the NWS Venture.

**Gorgon** Chevron holds a 47.3 percent interest in the Gorgon Project, which includes the development of the Gorgon and Jansz-Io fields. The project includes a three-train, 15.6 million-metric-ton-per-year LNG facility, a carbon dioxide injection facility and a domestic gas plant with capacity to supply 280 million cubic feet per day to the Western Australian market. The facilities are located on Barrow Island. The offshore portion of the development includes subsea infrastructure and pipelines. The total production capacity for the project is approximately 2.6 billion cubic feet of natural gas and 20,000 barrels of condensate per day. The project's estimated economic life exceeds 40 years.

LNG Train 1 start-up and first cargo shipment were achieved in March 2016, and Train 2 start-up was achieved in October 2016. Total daily production in 2016 averaged 3,000 barrels of condensate (1,000 net) and 348 million cubic feet of natural gas (165 million net). Train 3 start-up operations are underway, and first LNG is expected in March 2017.



**Wheatstone** Chevron holds an 80.2 percent interest in the offshore licenses and a 64.1 percent interest in the LNG facilities associated with the Wheatstone Project. The project includes the development of the Wheatstone and Iago fields, a two-train, 8.9 million-metric-ton-per-year LNG facility, and a domestic gas plant with the capacity to supply 190 million-cubic-feet-per-day to the Western Australia market. The facilities are located at Ashburton North on the coast of Western Australia. The offshore portion of the development includes subsea infrastructure, an offshore platform and pipelines. The total production capacity for the Wheatstone and Iago fields and nearby third-party fields is expected to be approximately 1.6 billion cubic feet of natural gas and 30,000 barrels of condensate per day. Proved reserves have been recognized, and the project's estimated economic life exceeds 30 years.



**Photo:** Construction and commissioning of LNG plant facilities is progressing at the Wheatstone Project in preparation for Train 1 start-up in mid-2017.

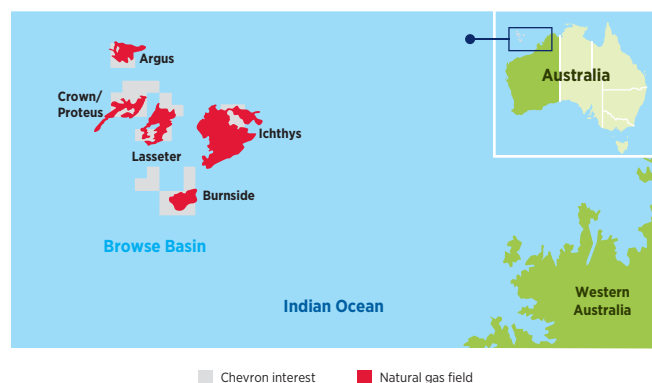
Drilling, completion and initial testing of all nine production wells is complete. All modules for LNG Trains 1 and 2 have been delivered to site and installed on their foundations. Commissioning of subsea, platform and plant facilities is underway in preparation for LNG Train 1 start-up in mid-2017. Start-up of Train 2 is expected approximately six to eight months after Train 1.

**NWS Venture** Chevron has a 16.7 percent nonoperated working interest in the NWS Venture in Western Australia. The joint venture operates offshore producing fields and extensive onshore facilities that include five LNG trains and a domestic gas plant. The NWS Venture concession expires in 2034.

Net daily production in 2016 averaged 14,000 barrels of crude oil and condensate, 450 million cubic feet of natural gas, and 3,000 barrels of LPG.

**Gas commercialization** Chevron monetizes its Australia natural gas resources on a portfolio basis. Most of the company's LNG production from Australia is committed under binding long-term agreements with major utilities in Asia, with the remainder sold on the Asian spot LNG market. Chevron continues to leverage its global portfolio supply position to target additional short-to-medium-term agreements to reduce its exposure to the Asian spot LNG market. Chevron also has binding long-term agreements for delivery of natural gas to customers in Western Australia and continues to market additional pipeline natural gas quantities from the projects.

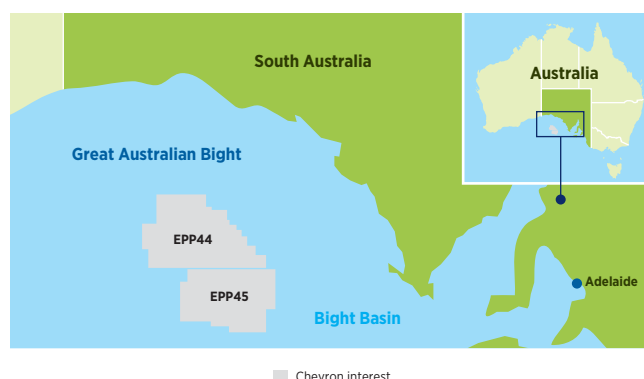
**Browse Basin exploration** The company holds nonoperated working interests ranging from 24.8 percent to 50 percent in three blocks in the Browse Basin.



**Barrow Island** Chevron holds a 57.1 percent operating working interest in crude oil production operations at Barrow Island. In 2016, net daily production averaged 3,000 barrels of crude oil.

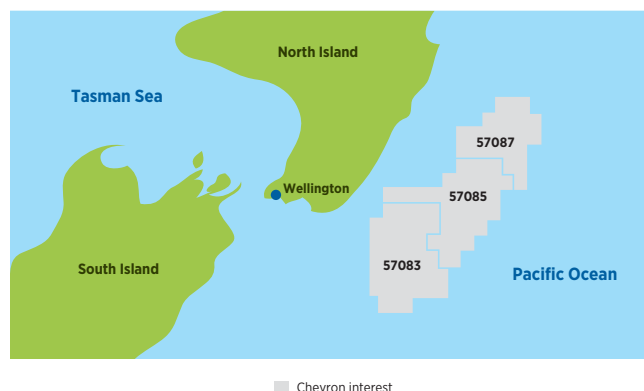
**Carnarvon Basin exploration** During 2016, Chevron continued to evaluate future exploration potential in the Carnarvon Basin. In first quarter 2017, Chevron was awarded a 100 percent interest in the exploration permit WA-526-P, which spans 39,537 net acres (160 sq km) in the Northern Carnarvon Basin near the Gorgon Project.

**Bight Basin exploration** The company operates and holds a 100 percent interest in offshore Blocks EPP44 and EPP45, which span 8.0 million net acres (32,375 sq km) in the Bight Basin off the South Australian coast. Processing and interpretation of the 3-D seismic data acquired in 2015 continued through 2016.



## New Zealand

Chevron holds a 50 percent interest and operates three exploration permits, 57083, 57085 and 57087, in the offshore Pegasus and East Coast basins. These deepwater permits cover 3.1 million net acres (12,545 sq km) and are located approximately 100 miles (161 km) east of Wellington. Acquisition of 2-D and 3-D seismic data commenced in late 2016 and is expected to be completed in second quarter 2017.



## upstream

### Europe

In Europe, the company is engaged in upstream activities in Denmark, Norway and the United Kingdom. Net daily oil-equivalent production of 86,000 barrels during 2016 in this region represented approximately 3 percent of the companywide total.

#### Denmark

Chevron holds a 12 percent nonoperated working interest in the Danish Underground Consortium (DUC). The DUC has production from 13 North Sea fields, with the majority of crude oil production from the Halfdan, Dan and Valdemar fields and the majority of natural gas production from the Tyra Field. Average net daily production in 2016 from the DUC was 14,000 barrels of crude oil and 48 million cubic feet of natural gas. The concession expires in 2042.



#### United Kingdom

Chevron has working interests in 11 offshore producing fields, including four operated fields (Alba, 23.4 percent; Alder, 73.7 percent; Captain, 85 percent; and Erskine, 50 percent) and seven nonoperated fields (Britannia, 32.4 percent; Brodgar, 25 percent; Callanish, 16.5 percent; Clair, 19.4 percent; Elgin/Franklin, 3.9 percent; Enochdhu, 50 percent; and Jade, 19.9 percent). Net daily production in 2016 averaged 43,000 barrels of liquids and 122 million cubic feet of natural gas.

**Alder** The high-pressure, high-temperature gas condensate Alder Field is located 17 miles (28 km) west of the Britannia Field in the central North Sea. The field was developed via a single subsea well tied back to existing Britannia facilities and required new and innovative subsea technology solutions. The project has a design capacity of 14,000 barrels of condensate and 110 million cubic feet of natural gas per day. First gas was achieved in November 2016, and production reached design capacity by year-end.

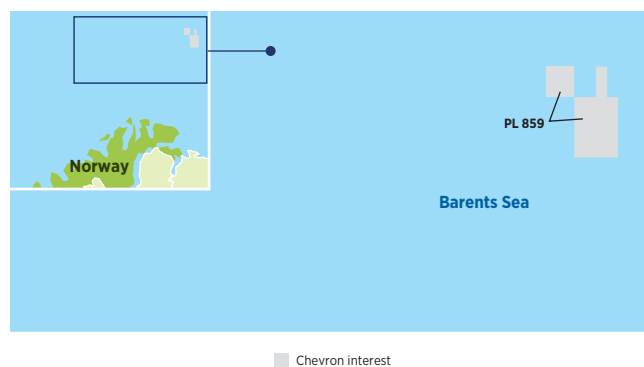
**Captain EOR** The Captain EOR Project is the next development phase of the Captain Field and is designed to increase field recovery by injecting a polymer/water mixture into the Captain reservoir. Front-end engineering and design (FEED) activities continued to progress in 2016 and included a polymer injection pilot. The company also began an expansion of the existing polymer injection system on the wellhead production platform. The scope includes six new polymer injection wells and modifications to platform facilities. At the end of 2016, proved reserves had not been recognized for this project.

**Clair Ridge** The Clair Ridge Project, located 47 miles (75 km) west of the Shetland Islands, is the second development phase of the Clair Field. Chevron holds a 19.4 percent nonoperated working interest in the project. Installation and hook-up activities progressed during 2016. The design capacity of the project is 120,000 barrels of crude oil and 100 million cubic feet of natural gas per day. First production is expected in 2018. The project is estimated to provide incremental potentially recoverable oil-equivalent resources in excess of 600 million barrels. Proved reserves have been recognized for the Clair Ridge Project. The Clair Field has an estimated production life until 2050.

**Rosebank** The Rosebank Field is 80 miles (129 km) northwest of the Shetland Islands in 3,700 feet (1,115 m) of water. Chevron operates and holds a 40 percent interest in the project. FEED activities continued to progress in 2016, with focus on engineering to improve predictability in execution cost and schedule. The selected design is a 17-well subsea development tied back to an FPSO, with natural gas exported via pipeline. The design capacity of the project is 100,000 barrels of crude oil and 80 million cubic feet of natural gas per day. The potential recoverable volumes at Rosebank are expected to be more than 300 million barrels. At the end of 2016, proved reserves had not been recognized for this project.

#### Norway

In May 2016, the company acquired a 20 percent nonoperated working interest in exploration Block PL 859, located in the Barents Sea. The block covers approximately 168,000 net acres (680 sq km). Evaluation of the acreage is ongoing.



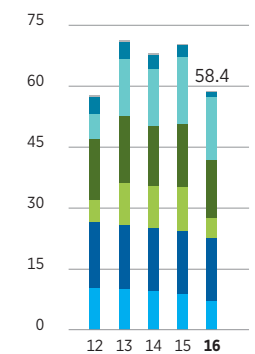


## upstream operating data

### Oil and gas acreage<sup>1,2</sup>

	At December 31					
	Gross acres	Net acres				
Thousands of acres	2016	2016	2015	2014	2013	2012
<b>Consolidated Companies</b>						
<b>Total United States</b>	<b>9,798</b>	<b>7,121</b>	8,885	9,444	9,839	10,169
<b>Other Americas</b>						
Argentina	388	240	240	240	216	167
Brazil	256	105	104	105	105	64
Canada	23,449	13,218	12,913	13,204	13,485	14,403
Colombia	203	87	87	87	87	87
Greenland	1,199	350	350	350	350	-
Suriname	2,793	1,142	1,396	1,396	1,396	1,400
Trinidad and Tobago	168	84	84	84	84	84
Venezuela	74	58	58	58	58	58
<b>Total Other Americas</b>	<b>28,530</b>	<b>15,284</b>	15,232	15,524	15,781	16,263
<b>Africa</b>						
Angola	2,350	802	802	802	803	807
Chad	-	-	-	-	28	28
Democratic Republic of the Congo	250	44	44	44	44	44
Liberia	578	260	819	819	819	903
Mauritania	-	-	1,985	-	-	-
Morocco	4,693	2,112	5,415	5,415	5,415	-
Nigeria	3,581	1,552	1,552	2,194	2,443	2,620
Republic of Congo	214	56	56	63	43	49
Sierra Leone	-	-	-	762	762	762
<b>Total Africa</b>	<b>11,666</b>	<b>4,826</b>	10,673	10,099	10,357	5,213
<b>Asia</b>						
Azerbaijan	108	12	12	12	12	12
Bangladesh	186	186	186	186	184	182
Cambodia	-	-	-	-	349	349
China	353	134	134	1,565	2,143	921
Indonesia	8,376	4,683	5,853	5,853	6,468	6,536
Kazakhstan	67	12	12	12	14	14
Kurdistan Region of Iraq	349	279	279	355	355	185
Myanmar	9,067	4,407	4,407	1,826	1,826	1,826
Partitioned Zone	1,361	681	681	681	681	681
Philippines	206	93	93	93	93	93
Thailand	9,536	3,797	3,797	3,843	3,892	3,908
Vietnam	-	-	-	339	339	339
<b>Total Asia</b>	<b>29,609</b>	<b>14,284</b>	15,454	14,765	16,356	15,046
<b>Australia/Oceania</b>						
Australia	17,087	12,343	13,061	13,875	13,891	5,967
New Zealand	6,240	3,120	3,216	-	-	-
<b>Total Australia/Oceania</b>	<b>23,327</b>	<b>15,463</b>	16,277	13,875	13,891	5,967
<b>Europe</b>						
Denmark	406	49	49	49	49	50
Netherlands	-	-	-	-	26	30
Norway	842	168	-	520	523	526
Poland	-	-	-	499	1,085	1,085
Romania	670	670	2,239	2,239	2,239	2,239
United Kingdom	610	188	210	210	196	349
<b>Total Europe</b>	<b>2,528</b>	<b>1,075</b>	2,498	3,517	4,118	4,279
<b>Total Consolidated Companies</b>	<b>105,458</b>	<b>58,053</b>	69,019	67,224	70,342	56,937
<b>Equity Share in Affiliates</b>						
Kazakhstan	380	190	190	190	190	190
Lithuania	-	-	-	-	197	197
Venezuela	416	143	145	145	145	145
<b>Total Equity Share in Affiliates</b>	<b>796</b>	<b>333</b>	335	335	532	532
<b>Total Worldwide</b>	<b>106,254</b>	<b>58,386</b>	69,354	67,559	70,874	57,469

### Oil and gas acreage Millions of net acres



■ Affiliates  
 ■ Europe  
 ■ Australia/Oceania  
 ■ Asia  
 ■ Africa  
 ■ Other Americas  
 ■ United States

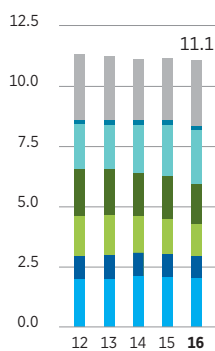
<sup>1</sup> Table does not include mining acreage associated with synthetic oil production in Canada.

<sup>2</sup> Net acreage includes wholly owned interests and the sum of the company's fractional interests in gross acreage.

## upstream operating data

### Net proved reserves

Billions of BOE\*

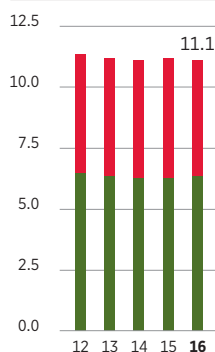


■ Affiliates  
■ Europe  
■ Australia/Oceania  
■ Asia  
■ Africa  
■ Other Americas  
■ United States

\* BOE (barrels of oil-equivalent)

### Net proved reserves liquids & natural gas

Billions of BOE



■ Natural gas  
■ Liquids

### Net proved reserves – liquids<sup>1,2</sup>

At December 31

Millions of barrels	2016	2015	2014	2013	2012
<b>Consolidated Companies</b>					
United States	1,412	1,386	1,432	1,330	1,359
Other Americas	827	833	772	780	736
Africa	876	957	1,021	1,104	1,130
Asia	720	790	752	792	837
Australia/Oceania	158	153	142	131	134
Europe	138	143	166	166	157
<b>Total Consolidated Companies</b>	<b>4,131</b>	<b>4,262</b>	<b>4,285</b>	<b>4,303</b>	<b>4,353</b>
<b>Equity Share in Affiliates</b>					
TCO	1,909	1,676	1,615	1,668	1,732
Other	288	324	349	374	396
<b>Total Equity Share in Affiliates</b>	<b>2,197</b>	<b>2,000</b>	<b>1,964</b>	<b>2,042</b>	<b>2,128</b>
<b>Total Worldwide</b>	<b>6,328</b>	<b>6,262</b>	<b>6,249</b>	<b>6,345</b>	<b>6,481</b>

<sup>1</sup> Refer to page 50 for a definition of net proved reserves. For additional discussion of the company's proved reserves, refer to the company's 2016 Annual Report on Form 10-K.

<sup>2</sup> Includes crude oil, condensate, NGLs and synthetic oil.

### Net proved reserves – natural gas\*

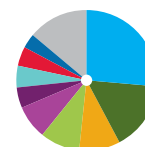
At December 31

Billions of cubic feet	2016	2015	2014	2013	2012
<b>Consolidated Companies</b>					
United States	3,676	4,242	4,174	3,990	3,722
Other Americas	647	714	1,123	1,300	1,475
Africa	2,827	2,937	2,968	3,045	3,081
Asia	5,533	5,956	6,266	6,745	6,867
Australia/Oceania	12,515	11,873	10,941	10,327	10,252
Europe	234	224	235	263	257
<b>Total Consolidated Companies</b>	<b>25,432</b>	<b>25,946</b>	<b>25,707</b>	<b>25,670</b>	<b>25,654</b>
<b>Equity Share in Affiliates</b>					
TCO	2,242	2,268	2,177	2,290	2,299
Other	1,086	1,223	1,232	1,186	1,242
<b>Total Equity Share in Affiliates</b>	<b>3,328</b>	<b>3,491</b>	<b>3,409</b>	<b>3,476</b>	<b>3,541</b>
<b>Total Worldwide</b>	<b>28,760</b>	<b>29,437</b>	<b>29,116</b>	<b>29,146</b>	<b>29,195</b>

\* Refer to page 50 for a definition of net proved reserves. For additional discussion of the company's proved reserves, refer to the company's 2016 Annual Report on Form 10-K.

## Net oil-equivalent production

Thousands of barrels per day	Year ended December 31				
	2016	2015	2014	2013	2012
<b>Consolidated Companies</b>					
<b>Total United States</b>	<b>691</b>	720	664	657	655
<b>Other Americas</b>					
Argentina	26	27	25	19	22
Brazil	16	18	21	6	6
Canada	92	69	69	71	69
Colombia	21	27	31	36	36
Trinidad and Tobago	12	19	19	29	29
<b>Total Other Americas</b>	<b>167</b>	160	165	161	162
<b>Africa</b>					
Angola	114	119	121	127	137
Chad	-	-	8	19	23
Democratic Republic of the Congo	2	3	3	3	3
Nigeria	235	270	286	268	269
Republic of Congo	25	20	16	14	19
<b>Total Africa</b>	<b>376</b>	412	434	431	451
<b>Asia</b>					
Azerbaijan	32	34	28	28	28
Bangladesh	114	123	109	113	94
China	27	24	16	20	21
Indonesia	203	207	185	193	198
Kazakhstan	62	56	53	57	61
Myanmar	21	20	16	16	16
Partitioned Zone	-	28	81	87	90
Philippines	26	23	23	23	24
Thailand	245	238	238	229	243
<b>Total Asia</b>	<b>730</b>	753	749	766	775
<b>Australia/Oceania</b>					
Australia	124	94	97	96	99
<b>Total Australia/Oceania</b>	<b>124</b>	94	97	96	99
<b>Europe</b>					
Denmark	22	24	25	28	36
Netherlands	-	-	7	9	9
Norway	-	-	1	2	3
United Kingdom	64	59	47	55	66
<b>Total Europe</b>	<b>86</b>	83	80	94	114
<b>Total Consolidated Companies</b>	<b>2,174</b>	2,222	2,189	2,205	2,256
<b>Equity Share in Affiliates</b>					
TCO	348	336	314	321	286
Venezuela	59	64	63	65	68
Angola LNG	13	-	5	6	-
<b>Total Equity Share in Affiliates</b>	<b>420</b>	400	382	392	354
<b>Total Worldwide</b>	<b>2,594</b>	2,622	2,571	2,597	2,610

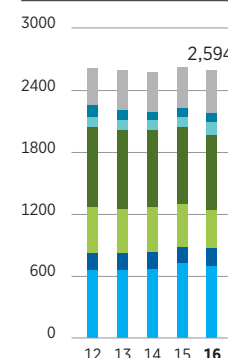
2016 net oil-equivalent production by country\*  
Percentage

United States	26.6%
Kazakhstan	15.8%
Thailand	9.4%
Nigeria	9.1%
Indonesia	7.8%
Angola	4.9%
Australia	4.8%
Bangladesh	4.4%
Canada	3.5%
Other	13.7%

\* Includes equity share in affiliates.

## Net oil-equivalent production

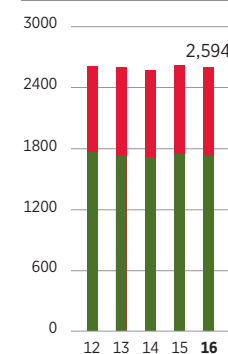
Thousands of barrels per day



Affiliates
Europe
Australia/Oceania
Asia
Africa
Other Americas
United States

## Net production liquids &amp; natural gas

Thousands of barrels per day

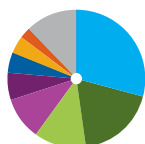


Natural gas
Liquids

## upstream operating data

### 2016 net liquids production by country\*

Percentage

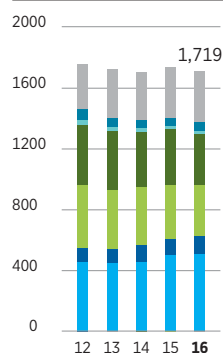


United States	29.3%
Kazakhstan	18.7%
Nigeria	12.1%
Indonesia	10.1%
Angola	6.3%
Canada	4.8%
Thailand	4.1%
United Kingdom	2.5%
Other	12.1%

\* Includes equity share in affiliates.

### Net liquids production

Thousands of barrels per day



Affiliates
Europe
Australia/Oceania
Asia
Africa
Other Americas
United States

### Net liquids production

Thousands of barrels per day

Year ended December 31

	2016	2015	2014	2013	2012
<b>Consolidated Companies</b>					
<b>Total United States</b>	<b>504</b>	501	456	449	455
<b>Other Americas</b>					
Argentina	20	21	21	18	21
Brazil	16	17	20	5	6
Canada	83	67	67	70	68
<b>Total Other Americas</b>	<b>119</b>	105	108	93	95
<b>Africa</b>					
Angola	106	110	113	118	128
Chad	-	-	8	18	22
Democratic Republic of the Congo	2	2	2	2	2
Nigeria	208	230	246	238	242
Republic of Congo	23	18	14	13	17
<b>Total Africa</b>	<b>339</b>	360	383	389	411
<b>Asia</b>					
Azerbaijan	30	32	26	26	26
Bangladesh	4	3	2	2	2
China	18	24	16	19	20
Indonesia	173	176	149	156	158
Kazakhstan	37	34	31	34	37
Partitioned Zone	-	27	78	84	86
Philippines	3	3	3	3	4
Thailand	71	66	63	62	67
<b>Total Asia</b>	<b>336</b>	365	368	386	400
<b>Australia/Oceania</b>					
Australia	21	21	23	26	28
<b>Total Australia/Oceania</b>	<b>21</b>	21	23	26	28
<b>Europe</b>					
Denmark	14	16	17	19	24
Netherlands	-	-	2	2	2
Norway	-	-	1	2	3
United Kingdom	43	40	32	40	46
<b>Total Europe</b>	<b>57</b>	56	52	63	75
<b>Total Consolidated Companies</b>	<b>1,376</b>	1,408	1,390	1,406	1,464
<b>Equity Share in Affiliates</b>					
TCO	285	277	259	263	236
Venezuela	56	59	59	61	64
Angola LNG	2	-	1	1	-
<b>Total Equity Share in Affiliates</b>	<b>343</b>	336	319	325	300
<b>Total Worldwide</b>	<b>1,719</b>	1,744	1,709	1,731	1,764



## upstream operating data

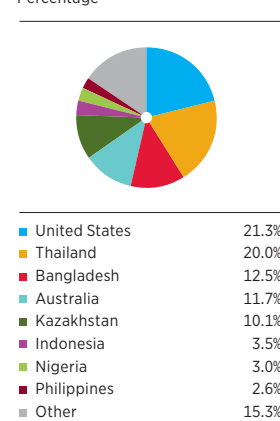
### Net natural gas production\*

Millions of cubic feet per day	Year ended December 31				
	2016	2015	2014	2013	2012
<b>Consolidated Companies</b>					
<b>Total United States</b>	<b>1,120</b>	1,310	1,250	1,246	1,203
<b>Other Americas</b>					
Argentina	32	36	23	6	4
Brazil	5	5	6	2	2
Canada	55	14	10	9	4
Colombia	127	161	186	216	216
Trinidad and Tobago	74	116	112	173	173
<b>Total Other Americas</b>	<b>293</b>	332	337	406	399
<b>Africa</b>					
Angola	52	52	51	52	53
Chad	-	-	2	4	6
Democratic Republic of the Congo	1	1	1	1	1
Nigeria	159	246	236	182	165
Republic of Congo	11	11	11	10	13
<b>Total Africa</b>	<b>223</b>	310	301	249	238
<b>Asia</b>					
Azerbaijan	13	12	12	10	10
Bangladesh	658	720	643	663	550
China	51	-	-	6	9
Indonesia	182	185	214	225	236
Kazakhstan	154	138	126	135	139
Myanmar	128	117	99	96	94
Partitioned Zone	-	5	18	19	21
Philippines	138	122	118	119	120
Thailand	1,051	1,033	1,046	1,003	1,060
<b>Total Asia</b>	<b>2,375</b>	2,332	2,276	2,276	2,239
<b>Australia/Oceania</b>					
Australia	615	439	442	421	428
<b>Total Australia/Oceania</b>	<b>615</b>	439	442	421	428
<b>Europe</b>					
Denmark	48	50	51	55	74
Netherlands	-	-	34	41	42
Norway	-	-	-	1	1
United Kingdom	122	115	88	94	122
<b>Total Europe</b>	<b>170</b>	165	173	191	239
<b>Total Consolidated Companies</b>	<b>4,796</b>	4,888	4,779	4,789	4,746
<b>Equity Share in Affiliates</b>					
TCO	375	348	334	347	301
Venezuela	19	30	27	26	27
Angola LNG	62	3	27	30	-
<b>Total Equity Share in Affiliates</b>	<b>456</b>	381	388	403	328
<b>Total Worldwide</b>	<b>5,252</b>	5,269	5,167	5,192	5,074

\* Includes natural gas consumed in operations:

United States	54	66	71	72	65
International	432	430	452	458	457
<b>Total</b>	<b>486</b>	<b>496</b>	<b>523</b>	<b>530</b>	<b>522</b>

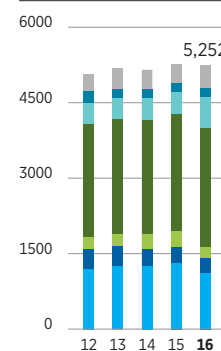
### 2016 net natural gas production by country\*



\* Includes equity share in affiliates.

### Net natural gas production

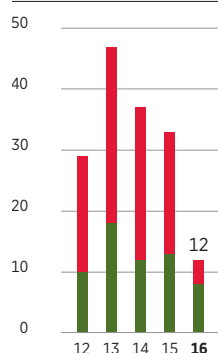
Millions of cubic feet per day



## upstream operating data

### Net productive exploratory wells completed

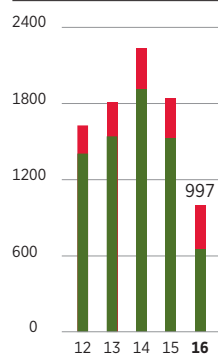
Number of wells



■ Natural gas  
■ Crude oil

### Net productive development wells completed

Number of wells



■ Natural gas  
■ Crude oil

### Net wells completed\*

Year ended December 31

	2016		2015		2014		2013		2012	
	Productive	Dry	Productive	Dry	Productive	Dry	Productive	Dry	Productive	Dry
<b>Consolidated Companies</b>										
<b>United States</b>										
Exploratory	4	1	16	4	20	12	17	2	4	-
Development	420	4	873	3	1,085	8	1,101	4	941	6
<b>Total United States</b>	<b>424</b>	<b>5</b>	<b>889</b>	<b>7</b>	<b>1,105</b>	<b>20</b>	<b>1,118</b>	<b>6</b>	<b>945</b>	<b>6</b>
<b>Other Americas</b>										
Exploratory	4	-	5	1	3	-	12	2	8	-
Development	45	-	99	-	81	-	127	-	50	-
<b>Total Other Americas</b>	<b>49</b>	<b>-</b>	<b>104</b>	<b>1</b>	<b>84</b>	<b>-</b>	<b>139</b>	<b>2</b>	<b>58</b>	<b>-</b>
<b>Africa</b>										
Exploratory	1	1	3	-	1	2	-	-	1	2
Development	17	-	9	-	9	-	20	1	23	-
<b>Total Africa</b>	<b>18</b>	<b>1</b>	<b>12</b>	<b>-</b>	<b>10</b>	<b>2</b>	<b>20</b>	<b>1</b>	<b>24</b>	<b>2</b>
<b>Asia</b>										
Exploratory	3	-	5	1	7	2	13	4	12	3
Development	470	6	828	5	1,025	4	535	5	566	6
<b>Total Asia</b>	<b>473</b>	<b>6</b>	<b>833</b>	<b>6</b>	<b>1,032</b>	<b>6</b>	<b>548</b>	<b>9</b>	<b>578</b>	<b>9</b>
<b>Australia/Oceania</b>										
Exploratory	-	-	1	4	3	-	3	-	3	-
Development	4	-	4	-	9	-	-	-	-	-
<b>Total Australia/Oceania</b>	<b>4</b>	<b>-</b>	<b>5</b>	<b>4</b>	<b>12</b>	<b>-</b>	<b>3</b>	<b>-</b>	<b>3</b>	<b>-</b>
<b>Europe</b>										
Exploratory	-	-	3	-	3	-	2	2	1	2
Development	3	-	2	-	2	-	3	-	9	-
<b>Total Europe</b>	<b>3</b>	<b>-</b>	<b>5</b>	<b>-</b>	<b>5</b>	<b>-</b>	<b>5</b>	<b>2</b>	<b>10</b>	<b>2</b>
<b>Total Consolidated Companies</b>	<b>971</b>	<b>12</b>	<b>1,848</b>	<b>18</b>	<b>2,248</b>	<b>28</b>	<b>1,833</b>	<b>20</b>	<b>1,618</b>	<b>19</b>
<b>Equity Share in Affiliates</b>										
Exploratory	-	-	-	-	-	-	-	-	-	-
Development	38	-	26	-	25	1	25	-	26	-
<b>Total Equity Share in Affiliates</b>	<b>38</b>	<b>-</b>	<b>26</b>	<b>-</b>	<b>25</b>	<b>1</b>	<b>25</b>	<b>-</b>	<b>26</b>	<b>-</b>
<b>Total Worldwide</b>	<b>1,009</b>	<b>12</b>	<b>1,874</b>	<b>18</b>	<b>2,273</b>	<b>29</b>	<b>1,858</b>	<b>20</b>	<b>1,644</b>	<b>19</b>

\* Net Wells Completed includes wholly owned wells and the sum of the company's fractional interests in jointly owned wells completed during the year, regardless of when drilling was initiated. Completion refers to the installation of permanent equipment for the production of crude oil or natural gas or, in the case of a dry well, the reporting of abandonment to the appropriate agency. Some exploratory wells are not drilled with the intention of producing from the well bore. In such cases, "completion" refers to the completion of drilling. Further categorization of productive or dry is based on the determination as to whether hydrocarbons in a sufficient quantity were found to justify completion as a producing well, whether or not the well is actually going to be completed as a producer.

### Net productive wells<sup>1,2</sup>

At December 31

	2016	2015	2014	2013	2012
<b>Consolidated Companies</b>					
<b>United States</b>					
Oil	31,679	33,457	32,957	33,068	32,758
Gas	3,633	7,186	7,098	7,740	7,737
<b>Total United States</b>	<b>35,312</b>	<b>40,643</b>	<b>40,055</b>	<b>40,808</b>	<b>40,495</b>
<b>International</b>					
Oil	14,781	14,538	14,017	13,776	13,299
Gas	2,466	2,273	2,132	2,051	2,018
<b>Total International</b>	<b>17,247</b>	<b>16,811</b>	<b>16,149</b>	<b>15,827</b>	<b>15,317</b>
<b>Total Consolidated Companies</b>	<b>52,559</b>	<b>57,454</b>	<b>56,204</b>	<b>56,635</b>	<b>55,812</b>
<b>Equity Share in Affiliates</b>					
Oil	508	490	486	476	456
Gas	2	2	2	2	2
<b>Total Equity Share in Affiliates</b>	<b>510</b>	<b>492</b>	<b>488</b>	<b>478</b>	<b>458</b>
<b>Total Worldwide</b>	<b>53,069</b>	<b>57,946</b>	<b>56,692</b>	<b>57,113</b>	<b>56,270</b>

<sup>1</sup> Net productive wells includes wholly owned wells and the sum of the company's fractional interests in wells completed in jointly owned operations.

<sup>2</sup> Includes wells producing or capable of producing and injection wells temporarily functioning as producing wells. Wells that produce both crude oil and natural gas are classified as oil wells.

## upstream operating data

### Natural gas realizations\*

	Year ended December 31				
Dollars per thousand cubic feet	2016	2015	2014	2013	2012
United States	\$ 1.59	\$ 1.92	\$ 3.90	\$ 3.37	\$ 2.64
International	4.02	4.53	5.78	5.91	5.99

\* U.S. natural gas realizations are based on revenues from net production. International natural gas realizations are based on revenues from liftings and include equity share in affiliates.

### Liquids realizations\*

	Year ended December 31				
Dollars per barrel	2016	2015	2014	2013	2012
United States	\$ 35.00	\$ 42.70	\$ 84.13	\$ 93.46	\$ 95.21
International	38.61	46.52	90.42	100.26	101.88

\* U.S. liquids realizations are based on revenues from net production and include intercompany sales at transfer prices that are at estimated market prices. International liquids realizations are based on revenues from liftings and include equity share in affiliates.

### Natural gas sales\*

	Year ended December 31				
Millions of cubic feet per day	2016	2015	2014	2013	2012
United States	3,317	3,913	3,995	5,483	5,470
International	4,491	4,299	4,304	4,251	4,315
<b>Total</b>	<b>7,808</b>	<b>8,212</b>	<b>8,299</b>	<b>9,734</b>	<b>9,785</b>

\* International sales include equity share in affiliates.

### Natural gas liquids sales\*

	Year ended December 31				
Thousands of barrels per day	2016	2015	2014	2013	2012
United States	30	26	20	17	16
International	24	24	28	26	24
<b>Total</b>	<b>54</b>	<b>50</b>	<b>48</b>	<b>43</b>	<b>40</b>

\* International sales include equity share in affiliates.

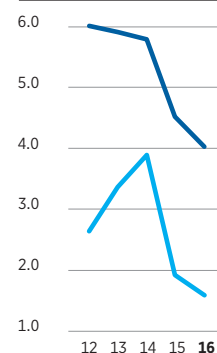
### Exploration and development costs\*

	Year ended December 31				
Millions of dollars	2016	2015	2014	2013	2012
<b>United States</b>					
Exploration	\$ 913	\$ 1,144	\$ 1,222	\$ 894	\$ 511
Development	3,814	6,275	8,207	7,457	6,597
<b>Other Americas</b>					
Exploration	94	128	196	627	362
Development	1,631	2,048	3,226	2,306	1,211
<b>Africa</b>					
Exploration	187	370	666	340	321
Development	2,014	3,701	3,771	3,549	3,118
<b>Asia</b>					
Exploration	119	413	543	601	558
Development	1,866	3,924	4,363	4,907	3,797
<b>Australia/Oceania</b>					
Exploration	71	259	396	415	434
Development	3,733	6,715	7,182	6,611	5,379
<b>Europe</b>					
Exploration	37	108	245	309	253
Development	550	995	887	1,046	753
<b>Total Consolidated Companies</b>					
Exploration	\$ 1,421	\$ 2,422	\$ 3,268	\$ 3,186	\$ 2,439
Development	13,608	23,658	27,636	25,876	20,855

\* Consolidated companies only. Excludes costs of property acquisitions.

### Natural gas realizations

Dollars per thousand cubic feet

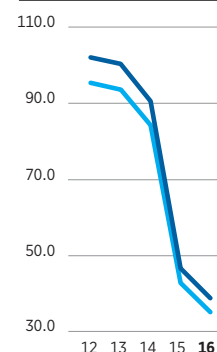


■ International\*  
■ United States

\* Includes equity share in affiliates.

### Liquids realizations

Dollars per barrel



■ International\*  
■ United States

\* Includes equity share in affiliates.



# downstream

grow earnings across the value chain and  
make targeted investments to lead the industry in returns



**Photo:** Construction activities progressed during 2016 at Chevron Phillips Chemical Company's U.S. Gulf Cost Petrochemicals Project in Texas. The project includes an ethane cracker and two polyethylene units and is expected to capitalize on advantaged feedstock sourced from shale resource development in North America.



## highlights

Downstream has a strong presence in the refining, marketing, trading and transporting of fuels and in the manufacture and distribution of lubricants, additives and petrochemicals.

## business strategies

Grow earnings across the value chain and make targeted investments to lead the industry in returns by:

- Sustaining world-class operational excellence.
- Driving earnings across the feedstock-to-customer value chain.
- Pursuing targeted growth opportunities.
- Creating enterprise value.

Fundamental to the company's competitive position and success is the focus on operational excellence in order to drive strong reliability and safety performance. The company continues to seek leading returns and to execute capital projects and strategic milestones with excellence. Efforts to grow earnings include aligning the highest-return markets and sales channels with manufacturing assets, achieving sustainable cost efficiencies, and applying innovative technologies. The company targets investments to strengthen leading fuels value chains and to selectively grow petrochemicals, additives and lubricants. Downstream plays a strategic role in Chevron's integrated portfolio, particularly in commercial support, processing of equity crudes, transfer of technology and organizational capabilities.

downstream portfolio overview



## 2016 accomplishments

- Achieved record lows for the total-recordable-incident rate and petroleum spill volume, and outperformed targets for the days-away-from-work rate and total number of loss-of-containment incidents.
- Reported earnings of \$3.4 billion, reflecting solid cost management and high refinery reliability.
- Realized proceeds of \$1.2 billion from portfolio management activities, primarily from the sale of its New Zealand marketing and lubricants assets and Hawaii refining and marketing assets.
- Advanced construction of a petrochemicals project in Texas that includes an ethane cracker with an annual design capacity of 1.5 million metric tons and two polyethylene units, each with an annual design capacity of 500,000 metric tons (all 50 percent-owned).
- Progressed construction of a gasoline desulfurization facility and a cogeneration plant at the Singapore Refinery (50 percent-owned).
- Restarted field construction activity for the modernization project at the Richmond, California, refinery.

## 2017 outlook

The downstream business will continue to focus on growing earnings and delivering leading returns. Key objectives include:

- Maintaining focus on safety and refinery reliability.
- Delivering cost management initiatives and efforts.
- Advancing projects that further enhance energy efficiency, high-value product yield and refinery feedstock flexibility.
- Progressing projects in the chemicals manufacturing business that add capacity and leverage market positions to capture global opportunities.
- Pursuing opportunities to strengthen fuels value chains through targeted investment.

## Downstream financial and operating highlights

(Includes equity share in affiliates)

Dollars in millions	2016	2015
Earnings	\$ 3,435	\$ 7,601
Refinery crude oil inputs (Thousands of barrels per day)	1,688	1,702
Refinery capacity at year-end (Thousands of barrels per day)	1,793	1,835
U.S. gasoline and jet fuel yields (Percent of U.S. refinery production)	65%	63%
Refined product sales (Thousands of barrels per day)	2,675	2,735
Motor gasoline sales (Thousands of barrels per day)	1,013	1,010
Olefin and polyolefin sales (Thousands of metric tons per year)	3,631	3,837
Specialty, aromatic and styrenic sales (Thousands of metric tons per year)	2,449	2,555
Number of marketing retail outlets at December 31	13,809	13,980
Capital expenditures	\$ 2,072	\$ 2,436

## downstream

### refining and marketing

The company's refining and marketing activities are coordinated by two geographic businesses, Americas Products and International Products, each focused on optimizing the fuels value chain from crude to customer. The activities of each business include securing raw materials, manufacturing and blending products at its refineries, and selling finished products through its retail and commercial networks. The company has complex refining assets concentrated in North America, Asia-Pacific and South Africa.

Chevron continues to leverage proprietary technology, incorporating its patented cleaning additive, Techron, in these markets in order to maintain a leading position in branded fuels.

#### Americas Products

The business serves retail and commercial customers in the United States, Latin America and Canada, through the world-class Chevron and Texaco brands. The company supplies customers at approximately 8,800 Chevron- and Texaco-branded retail outlets and approximately 50 airports across these markets.

The Americas Products portfolio includes five wholly owned refineries in North America with a crude capacity of approximately 1.0 million barrels per day. Many of these refineries have large hydroprocessing units that provide the flexibility to process a wide range of feedstocks into clean, high-value products. In April 2016, Chevron signed an agreement for the sale of the Hawaii Refinery and marketing assets, and the sale was completed in November 2016. In addition, the company is evaluating a sale of its refining and marketing assets in British Columbia and Alberta, Canada.

The network of service stations in Americas Products is supported and served by 36 proprietary fuel terminals. During 2016, the business sold a daily average of approximately 1.5 million barrels of gasoline and other refined products.



Photo: Chevron retail station.

#### Improving refining flexibility, reliability and yield

During 2016, the company continued work on projects to improve refinery flexibility and reliability. At the Richmond, California, refinery, the modernization project progressed with field construction activity restarted in 2016. The project scope includes replacement of some of the refinery's processing equipment with more modern technology that meets or exceeds the nation's toughest applicable environmental and safety standards. The new hydrogen plants are scheduled to start up in 2018, and full operation of the project is expected in 2019. At the Salt Lake City, Utah, refinery, the company achieved a final investment decision on the alkylation retrofit project in September 2016. The project scope includes retrofitting the refinery's alkylation unit with the company's Isoalky technology, which eliminates the use of hydrofluoric acid. Construction is expected to start in third quarter 2017 and project start-up is expected in 2020.



Photo: Field construction activity restarted during 2016 for the modernization project at the company's refinery in Richmond, California.

#### Sustaining a focused marketing portfolio

Across the markets that Chevron serves in the United States, Latin America and Canada, the company enjoys strong market positions and continues to capture opportunities to grow market share of motor gasoline and diesel fuel under the premium Chevron and Texaco brands. A loyalty program with a leading grocery chain has been expanded from the western United States to select Gulf Coast markets. This expansion, coupled with the company's growth strategy, is expected to enable the Chevron and Texaco brands to maintain leading market positions.

#### International Products

The business provides premium-quality Caltex-branded fuel products to retail and commercial customers in Asia-Pacific, Africa and the Middle East.

The International Products business is anchored by three large refineries in South Korea, Singapore and Thailand. Other refinery assets are located in South Africa and Pakistan. The refinery network, including the company's share of affiliates, has a crude capacity of 807,000 barrels per day.

The company and its affiliates serve customers at approximately 5,000 Caltex-branded retail outlets and approximately 50 airports in Asia-Pacific, Africa and the Middle East. The business sold a daily average of 1.2 million barrels of refined products in 2016.

Chevron completed the sale of its marketing and lubricants assets in New Zealand in June 2016.

In addition, the company is evaluating the sale of its interests in the Cape Town Refinery, along with the marketing and lubricants businesses in South Africa.

### Refineries strategically positioned

The refining assets are concentrated in Asia-Pacific and are well positioned to supply expected demand growth in this region. The 50 percent-owned Yeosu Refinery in South Korea remains one of the world's largest. The company's 60.6 percent-owned refinery in Map Ta Phut, Thailand, continues to supply high-quality petroleum products through the Caltex brand in the Thailand market.

During 2016, Singapore Refining Company, Chevron's 50 percent-owned joint venture, progressed construction of a gasoline desulfurization facility and cogeneration plant. The utility systems and control center were fully commissioned in first quarter 2017, and Train 1 of the cogeneration plant is expected to be commissioned in second quarter 2017. This investment is expected to increase the refinery's capability to produce higher-value gasoline and improve energy efficiency.

### Sustaining a focused marketing portfolio

The company continues to expand in selected growth markets by executing its strategic network plan, which includes converting from company-owned, retailer-operated service stations into retailer-owned, retailer-operated sites — the model of the majority of the Caltex retail network. Rollout of partnerships with several Asian and South African convenience stores continued in 2016 with enhanced consumer loyalty and reward programs.

## lubricants

Chevron is among the leading global developers and marketers of lubricants and is the worldwide leader in premium base oil, with a total capacity of 58,000 barrels per day. The company provides high-quality lubricants products to meet the needs of commercial, industrial, consumer and marine customers. Lubricants and coolants are produced and marketed through the Havoline, Delo, Ursa, Meropa, Rando, Clarity and Taro product lines under three brands: Chevron, Texaco and Caltex.

Chevron enables its base oil customers to optimize formulations worldwide by providing a consistent global product slate of premium base oils. Chevron's global supply network includes base oil manufacturing facilities at the refineries in Richmond, California; Pascagoula, Mississippi; and Yeosu, South Korea. It also includes 18 equity-blending facilities, multiple contract-blending facilities and distribution hubs.

Chevron continues to develop products to meet existing and future demand through strategic partnerships with original equipment manufacturers and advanced research at technology centers in the United States, Belgium and Singapore. In December 2016, Chevron launched its most advanced Delo 400 Heavy Motor Oil product line corresponding with the new fuel-efficiency regulations, which are focused on reducing carbon emissions from the North American truck and off-road diesel equipment vehicles. The Delo brand continues to be an industry-recognized leader for diesel engine and equipment lubrication. This new product offering is expected to provide future growth opportunities.

The company is well positioned to supply markets around the world and consistently meet customer needs safely and reliably. The focus continues to be on building distribution channels and the marketer network worldwide, with an emphasis on key growth markets in the Asia-Pacific and Americas regions.

## additives

Chevron's Oronite subsidiary is a world-leading developer, manufacturer and marketer of quality additives that improve the performance of lubricants and fuels. Oronite conducts research and development for additive component and blended packages to meet the increasingly demanding needs of engine and equipment performance, as well as more stringent regulatory requirements. At year-end 2016, Oronite manufactured, blended or conducted research and development at 11 locations around the world.

Oronite lubricant additives are blended with refined base oils to produce finished lubricants used primarily in engine applications, including passenger cars, heavy-duty diesel trucks, buses, ships, locomotives and motorcycles. Typically, several additive components, such as dispersants, detergents, oxidation, corrosion and rust inhibitors, and viscosity-index improvers, are combined to meet desired performance specifications. Specialty additives are also marketed for other applications, including power transmission fluids and hydraulic oils.

Oronite fuel additives are used to improve engine performance and extend engine life. The main additive applications are for blended gasoline and gasoline aftermarket products. Many fuel additive packages are unique and blended specifically to individual customer specifications, the most recognized being the additive package branded as Techron and used exclusively in Chevron, Texaco and Caltex fuels and in Techron Concentrate Plus fuel system cleaner. Fuel performance standards vary for customers throughout the world, and specific packages are tailored for each region's markets.

### Expanding in key growth markets

With its global manufacturing coverage and versatile cross-continent supply network, Oronite has a strong foundation to support long-term international growth. In particular, with the majority of global volume growth expected in Asia, Oronite is well positioned, with its Singapore plant being the largest additives manufacturing plant in the region.

Construction on a new carboxylate plant in Singapore progressed during 2016. Carboxylate is an effective, sulfur-free detergent often used in high-performance additive packages. With a similar unit already in place in Gonfreville, France, Oronite's global carboxylate capacity will approximately double when the project is scheduled to be completed in fourth quarter 2017.



**Photo:** Construction progressed on a new carboxylate plant at the company's additives plant in Singapore.

In 2016, design work continued for a planned manufacturing plant in Ningbo, China, with a final investment decision expected in 2018.



## downstream

### petrochemicals

The company has a broad, world-wide, petrochemicals portfolio producing both olefins and aromatics. The company's petrochemical activities are conducted through two joint ventures, Chevron Phillips Chemical Company (CPCChem) and GS Caltex.

#### CPCChem

CPCChem is a 50 percent-owned affiliate. It is one of the world's leading producers of olefins, polyolefins and alpha olefins and is a leading supplier of aromatics and polyethylene pipe, in addition to participating in the specialty chemical and specialty plastics markets. At year-end 2016, CPCChem owned or had joint-venture interests in 32 manufacturing facilities and two research and development centers around the world.

#### Leveraging advantaged feedstock position

During 2016, construction activities continued on the U.S. Gulf Coast Petrochemicals Project, hitting a peak of 7,500 construction workers at the sites. The project is expected to capitalize on advantaged feedstock sourced from shale resource development in North America. The project includes an ethane cracker with an annual design capacity of 1.5 million metric tons of ethylene at the Cedar Bayou facility and two polyethylene units located adjacent to the Sweeny complex, in Old Ocean, Texas, with a combined annual design capacity of 1.0 million metric tons. The polyethylene units are expected to start up mid-2017, and the ethane cracker in late 2017.



**Photo:** Construction activities continued during 2016 at CPCChem's U.S. Gulf Coast Petrochemicals Project in Texas.

#### GS Caltex

Chevron also maintains an important role in the petrochemicals business through the operations of GS Caltex, a 50 percent-owned affiliate located in South Korea. GS Caltex is a leading manufacturer of petrochemicals, especially aromatics. With one of the largest single-facility aromatics plants in the world, the Yeosu complex has a production capacity of 2.8 million metric tons per year of aromatics, including benzene, toluene and xylene. These are base chemicals used to produce a range of products, including adhesives, plastics and textile fibers. GS Caltex also produces polypropylene, which is used to make automotive and home appliance parts, food packaging, laboratory equipment, and textiles.

### supply and trading

The supply and trading operation provides commercial support to Chevron's global refining and marketing businesses by maximizing efficiencies in the sourcing of raw material and product movement, optimizing product sales, and managing market risk associated with holding physical positions in crude and finished products. The supply and trading operation also provides commercial support to Chevron's global upstream operations by maximizing the company's equity crude oil and natural gas revenues. Activities include the integration of equity crude from Chevron's upstream operations into the company's refining network and the commercialization of Chevron's equity liquefied natural gas (LNG) volumes.

### transportation

The company's transportation businesses, including pipeline and shipping operations, are responsible for transporting a variety of products to customers worldwide. Transportation activities are aligned with the needs of the upstream, refining and marketing businesses.

#### Pipeline

Chevron owns and operates a network of crude oil, natural gas and product pipelines and other infrastructure assets in the United States. In addition, Chevron operates pipelines for its 50 percent-owned CPCChem affiliate. The company also has direct and indirect interests in other U.S. and international pipelines.

Refer to pages 22 through 24 in the upstream section for information on the West African Gas Pipeline, the Baku-Tbilisi-Ceyhan Pipeline, the Western Route Export Pipeline and the Caspian Pipeline Consortium.

#### Shipping

The company's marine fleet includes both U.S.- and foreign-flagged vessels. The U.S.-flagged vessels are primarily engaged in transporting refined products in the coastal waters of the United States. The foreign-flagged vessels transport crude oil, LNG, refined products and feedstocks in support of Chevron's global Upstream and Downstream businesses.

Four of the scheduled six new LNG carriers in support of the developing LNG portfolio are in service, with the final two scheduled for delivery in 2017.

In addition to providing marine transportation services, the company is staffed with a team of marine technical and operational professionals who are responsible for managing marine risk across the company, assisting with marine project conceptual and feasibility studies, conducting marine project engineering and design work, and providing marine project construction and operations support.



## Refinery capacities and crude oil inputs

Thousands of barrels per day	Refinery capacity		Refinery crude oil inputs			
	At December 31, 2016	2016	2015	2014	2013	2012
<b>United States – Consolidated</b>						
El Segundo, California	291	267	258	221	235	265
Kapolei, Hawaii <sup>1</sup>	–	37	47	47	39	46
Pascagoula, Mississippi	330	355	322	329	304	335
Richmond, California	257	188	245	229	153	142
Salt Lake City, Utah	53	53	52	45	43	45
<b>Total United States – Consolidated</b>	<b>931</b>	<b>900</b>	<b>924</b>	<b>871</b>	<b>774</b>	<b>833</b>
<b>International – Consolidated</b>						
Canada – Burnaby, British Columbia	55	51	46	49	42	49
South Africa – Cape Town <sup>2</sup>	100	78	69	72	78	79
Thailand – Map Ta Phut <sup>3</sup>	165	162	164	141	161	95
<b>Total International – Consolidated</b>	<b>320</b>	<b>291</b>	<b>279</b>	<b>262</b>	<b>281</b>	<b>223</b>
<b>International – Equity Shares in Affiliates</b>						
Australia – Lytton (50%) <sup>4</sup>	–	–	12	50	44	46
Australia – Kurnell (50%) <sup>4</sup>	–	–	–	39	56	54
New Zealand – Whangarei (11.4%) <sup>5</sup>	–	–	5	13	14	13
Pakistan – Karachi (7.5%)	4	3	3	4	4	4
Singapore – Pulau Merlimau (50%)	145	121	118	109	114	128
South Korea – Yeosu (50%)	393	373	361	342	351	359
Thailand – Map Ta Phut (64% interest) <sup>3</sup>	–	–	–	–	–	42
<b>Total International – Equity Share in Affiliates</b>	<b>542</b>	<b>497</b>	<b>499</b>	<b>557</b>	<b>583</b>	<b>646</b>
<b>Total International</b>	<b>862</b>	<b>788</b>	<b>778</b>	<b>819</b>	<b>864</b>	<b>869</b>
<b>Total Worldwide</b>	<b>1,793</b>	<b>1,688</b>	<b>1,702</b>	<b>1,690</b>	<b>1,638</b>	<b>1,702</b>

<sup>1</sup> Chevron sold its interest in this refinery in November 2016.

<sup>2</sup> Chevron holds a 75 percent controlling interest in the shares issued by Chevron South Africa (Pty) Limited, which owns the Cape Town Refinery. A consortium of South African partners, along with the employees of Chevron South Africa (Pty) Limited, own the remaining 25 percent.

<sup>3</sup> As of June 2012, the Map Ta Phut, Thailand, refinery is reported on a 100 percent consolidated basis. Prior to June 2012, crude-input volumes reflect a 64 percent equity interest. Chevron's ownership in this refinery was reduced to 60.6 percent following the December 2015 new share issuance and listing in Thailand by Star Petroleum Refining Public Company Limited.

<sup>4</sup> Chevron sold its interest Caltex Australia Limited in April 2015.

<sup>5</sup> Chevron sold its interest in this refinery in June 2015.

## Refinery capacities at year-end 2016

Thousands of barrels per day	Chevron share of capacities <sup>1</sup>				
	Atmospheric distillation <sup>2</sup>	Catalytic cracking <sup>3</sup>	Hydro-cracking <sup>4</sup>	Residuum conversion <sup>5</sup>	Lubricants <sup>6</sup>
<b>United States – Consolidated</b>					
El Segundo, California	291	74	53	75	–
Pascagoula, Mississippi	330	86	97	98	25
Richmond, California	257	80	159	–	20
Salt Lake City, Utah	53	14	–	8	–
<b>Total United States – Consolidated</b>	<b>931</b>	<b>254</b>	<b>309</b>	<b>181</b>	<b>45</b>
<b>International – Consolidated</b>					
Canada – Burnaby, British Columbia	55	18	–	–	–
South Africa – Cape Town	100	24	–	11	–
Thailand – Map Ta Phut	165	41	–	–	–
<b>Total International – Consolidated</b>	<b>320</b>	<b>83</b>	<b>–</b>	<b>11</b>	<b>–</b>
<b>International – Equity Shares in Affiliates</b>					
Pakistan – Karachi (7.5%)	4	–	–	–	–
Singapore – Pulau Merlimau (50%)	145	24	18	17	–
South Korea – Yeosu (50%)	393	74	77	–	12
<b>Total International – Equity Share in Affiliates</b>	<b>542</b>	<b>98</b>	<b>95</b>	<b>17</b>	<b>12</b>
<b>Total International</b>	<b>862</b>	<b>181</b>	<b>95</b>	<b>28</b>	<b>12</b>
<b>Total Worldwide</b>	<b>1,793</b>	<b>435</b>	<b>404</b>	<b>209</b>	<b>57</b>

<sup>1</sup> Capacities represent typical calendar-day processing rates for feedstocks to process units, determined over extended periods of time. Actual rates may vary depending on feedstock qualities, maintenance schedules and external factors.

<sup>2</sup> Atmospheric distillation is the first distillation cut. Crude oil is heated at atmospheric pressure and separates into a full boiling range of products, such as liquid petroleum gases, gasoline, naphtha, kerosene, gas oil and residuum.

<sup>3</sup> Catalytic cracking uses solid catalysts at high temperatures to produce gasoline and other lighter products from gas-oil feedstocks.

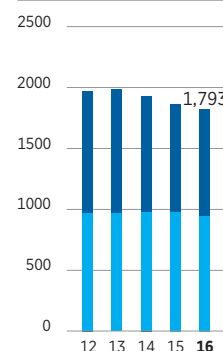
<sup>4</sup> Hydrocracking combines gas-oil feedstocks and hydrogen at high pressure and temperature in the presence of a solid catalyst to reduce impurities and produce lighter products, such as gasoline, diesel and jet fuel.

<sup>5</sup> Residuum conversion includes thermal cracking, visbreaking, coking and hydrocracking processes, which rely primarily on heat to convert heavy residuum feedstock to the maximum production of lighter boiling products.

<sup>6</sup> Lubricants capacity is based on dewaxed base oil production.

## Refinery capacity at December 31

Thousands of barrels per day

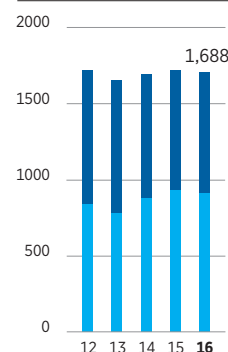


■ International\*  
■ United States

\*Includes equity share in affiliates.

## Refinery crude oil inputs

Thousands of barrels per day



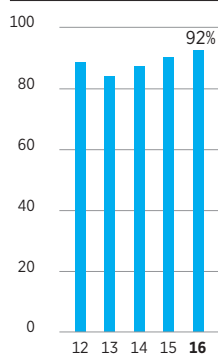
■ International\*  
■ United States

\*Includes equity share in affiliates.

## downstream operating data

### Worldwide refinery crude distillation utilization\*

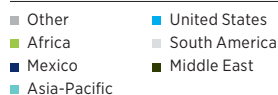
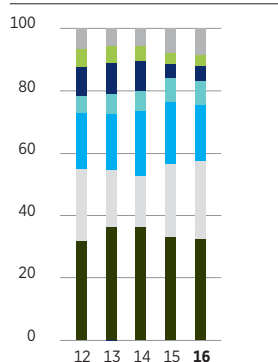
Percent of average capacity



\* Includes equity share in affiliates.

### Sources of crude oil input for worldwide refineries\*

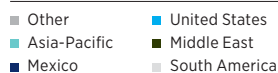
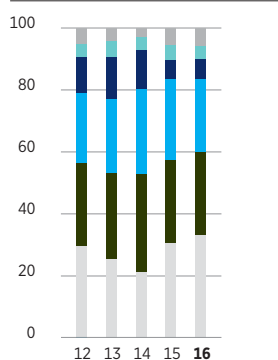
Percentage of total input



\* Consolidated companies only.

### Sources of crude oil input for U.S. refineries

Percentage of total input



### Refinery crude distillation utilization

(Includes equity share in affiliates)

	Year ended December 31				
Percentage of average capacity	2016	2015	2014	2013	2012
United States	93.4	96.1	90.9	81.1	87.2
Asia-Pacific	93.4	86.2	84.9	88.6	91.8
Africa-Pakistan	71.3	63.4	65.6	71.0	71.5
Other	91.9	83.7	89.9	76.3	89.3
Worldwide	92.0	89.8	86.8	83.5	88.2

### Sources of crude oil input for worldwide refineries\*

	Year ended December 31				
Percentage of total input	2016	2015	2014	2013	2012
Middle East	32.4	33.1	36.2	36.2	31.7
South America	24.9	23.3	16.3	18.5	23.1
United States	17.8	20.1	21.0	17.7	18.0
Asia-Pacific	8.1	7.4	6.3	6.6	5.6
Mexico	4.8	4.7	9.7	10.0	9.1
Africa	3.4	3.4	4.7	5.4	5.9
Other	8.6	8.0	5.8	5.6	6.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

\* Consolidated companies only.

### Sources of crude oil input for U.S. refineries\*

	Year ended December 31				
Percentage of total input	2016	2015	2014	2013	2012
South America	32.9	30.3	21.2	25.2	29.3
Middle East	27.1	27.1	31.4	27.8	26.9
United States – excluding Alaska North Slope	20.0	20.6	22.5	18.1	17.4
United States – Alaska North Slope	3.6	5.5	5.0	6.0	5.4
Mexico	6.3	6.1	12.6	13.6	11.6
Asia-Pacific	4.3	4.7	4.3	5.0	4.2
Other	5.8	5.7	3.0	4.3	5.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

\* Consolidated companies only.

### Refinery production of refined products\*

	Year ended December 31				
Thousands of barrels per day	2016	2015	2014	2013	2012
<b>United States</b>					
Gasoline	450	439	413	387	403
Gas oil	188	205	184	166	178
Jet fuel	197	197	196	172	192
Fuel oil	34	38	43	46	30
Other	120	127	115	97	103
<b>Total United States</b>	<b>989</b>	<b>1,006</b>	<b>951</b>	<b>868</b>	<b>906</b>
<b>International</b>					
Gasoline	102	94	87	90	76
Gas oil	110	105	97	107	82
Jet fuel	28	27	25	29	24
Fuel oil	31	26	26	29	21
Other	32	38	30	32	24
<b>Total International</b>	<b>303</b>	<b>290</b>	<b>265</b>	<b>287</b>	<b>227</b>
<b>Worldwide</b>					
Gasoline	552	533	500	477	479
Gas oil	298	310	281	273	260
Jet fuel	225	224	221	201	216
Fuel oil	65	64	69	75	51
Other	152	165	145	129	127
<b>Total Worldwide</b>	<b>1,292</b>	<b>1,296</b>	<b>1,216</b>	<b>1,155</b>	<b>1,133</b>

\* Consolidated companies only.

## downstream operating data

### Refined product sales

Thousands of barrels per day	Year ended December 31				
	2016	2015	2014	2013	2012
<b>United States</b>					
Gasoline	631	621	615	613	624
Gas oil	182	215	217	195	213
Jet fuel	242	232	222	215	212
Fuel oil	59	59	63	69	68
Other <sup>1</sup>	99	101	93	90	94
<b>Total United States</b>	<b>1,213</b>	1,228	1,210	1,182	1,211
<b>International<sup>2</sup></b>					
Gasoline	382	389	403	398	412
Gas oil	468	478	498	510	496
Jet fuel	261	271	249	245	243
Fuel oil	144	159	162	179	210
Other <sup>1</sup>	207	210	189	197	193
<b>Total International</b>	<b>1,462</b>	1,507	1,501	1,529	1,554
<b>Worldwide<sup>2</sup></b>					
Gasoline	1,013	1,010	1,018	1,011	1,036
Gas oil	650	693	715	705	709
Jet fuel	503	503	471	460	455
Fuel oil	203	218	225	248	278
Other <sup>1</sup>	306	311	282	287	287
<b>Total Worldwide</b>	<b>2,675</b>	2,735	2,711	2,711	2,765

<sup>1</sup> Other primarily includes naphtha, lubricants, asphalt and coke.

<sup>2</sup> Includes share of equity affiliates' sales:

	377	420	475	471	522
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### Natural gas liquid sales

(Includes equity share in affiliates)

Thousands of barrels per day	Year ended December 31				
	2016	2015	2014	2013	2012
United States	115	127	121	125	141
International	61	65	58	62	64
<b>Total</b>	<b>176</b>	192	179	187	205

### Marketing retail outlets<sup>1,2</sup>

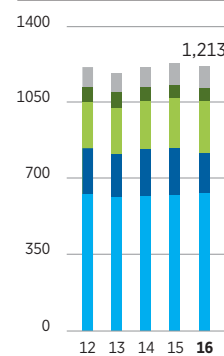
	At December 31									
	2016		2015		2014		2013		2012	
	Company	Other	Company	Other	Company	Other	Company	Other	Company	Other
United States	325	7,489	366	7,493	380	7,550	405	7,648	473	7,589
Canada	137	43	138	41	150	20	161	5	161	–
Latin America	38	773	48	716	62	679	76	627	97	587
Asia-Pacific	146	1,430	174	1,529	204	1,530	343	1,439	495	1,315
Africa-Pakistan	187	642	191	633	343	1,023	418	1,003	460	971
<b>Total</b>	<b>833</b>	<b>10,377</b>	917	10,412	1,139	10,802	1,403	10,722	1,686	10,462

<sup>1</sup> Excludes outlets of equity affiliates totaling 2,599, 2,651, 4,436, 4,509 and 4,621 for 2016, 2015, 2014, 2013 and 2012, respectively.

<sup>2</sup> Company outlets are motor vehicle outlets that are company owned or leased. These outlets may be either company operated or leased to a dealer. Other outlets consist of all remaining branded outlets that are owned by others and supplied with branded products.

### U.S. refined product sales

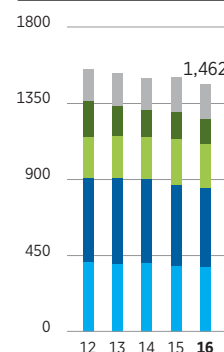
Thousands of barrels per day



■ Other  
■ Fuel oil  
■ Jet fuel  
■ Gas oil  
■ Gasoline

### International refined product sales\*

Thousands of barrels per day

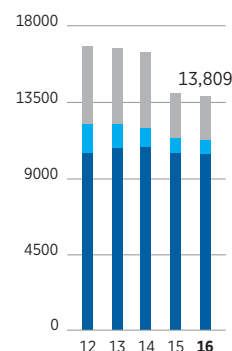


■ Other  
■ Fuel oil  
■ Jet fuel  
■ Gas oil  
■ Gasoline

\* Includes equity share in affiliates.

### Marketing retail outlets

Number of outlets



■ Affiliates  
■ Company  
■ Retailer

## downstream operating data

### CPChem plant capacities and products at year-end 2016<sup>1</sup>

(Includes equity share in affiliates)

CPChem share of capacity by product<sup>2</sup>

Thousands of metric tons per year	Benzene	Cyclohexane	Ethylene	Normal alpha olefins	Polyethylene	Propylene	Styrene	Other <sup>3</sup>
<b>United States – Wholly Owned</b>								
Baytown, Texas (Cedar Bayou)	-	-	835	1,060	980	465	-	√
Borger, Texas	-	-	-	-	-	-	-	√
Conroe, Texas	-	-	-	-	-	-	-	√
Old Ocean, Texas (Sweeny)	-	-	1,955	-	-	395	-	-
Orange, Texas	-	-	-	-	440	-	-	-
Pasadena, Texas	-	-	-	-	985	-	-	-
Pascagoula, Mississippi	725	-	-	-	-	-	-	√
Port Arthur, Texas	-	480	855	-	-	350	-	-
Eight other locations	-	-	-	-	-	-	-	√
<b>Total United States – Wholly Owned</b>	<b>725</b>	<b>480</b>	<b>3,645</b>	<b>1,060</b>	<b>2,405</b>	<b>1,210</b>	<b>-</b>	<b>√</b>
<b>United States – Affiliates</b>								
Allyn's Point, Connecticut (50%)	-	-	-	-	-	-	-	√
Hanging Rock, Ohio (50%)	-	-	-	-	-	-	-	√
Joliet, Illinois (50%)	-	-	-	-	-	-	-	√
Marietta, Ohio (50%)	-	-	-	-	-	-	-	√
St. James, Louisiana (50%)	-	-	-	-	-	-	475	-
Torrance, California (50%)	-	-	-	-	-	-	-	√
<b>Total United States – Affiliates</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>475</b>	<b>√</b>
<b>Total United States</b>	<b>725</b>	<b>480</b>	<b>3,645</b>	<b>1,060</b>	<b>2,405</b>	<b>1,210</b>	<b>475</b>	<b>√</b>
<b>International – Wholly Owned</b>								
Belgium, Beringen	-	-	-	-	-	-	-	√
Belgium, Tessenderlo	-	-	-	-	-	-	-	√
<b>Total International – Wholly Owned</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>√</b>
<b>International – Affiliates</b>								
China, Jinshanwei (40%)	-	-	-	-	60	-	-	-
Colombia, Cartagena (50%)	-	-	-	-	-	-	-	√
Qatar, Mesaieed (49%)	-	-	255	200	395	-	-	-
Qatar, Ras Laffan (49%)	-	-	340	-	-	-	-	-
Saudi Arabia, Al Jubail (50%)	425	180	105	-	-	75	375	√
Saudi Arabia, Al Jubail (35%)	-	-	425	35	385	155	-	√
Singapore (50%)	-	-	-	-	200	-	-	-
South Korea, Yeosu (60%)	-	-	-	-	-	-	-	√
<b>Total International – Affiliates</b>	<b>425</b>	<b>180</b>	<b>1,125</b>	<b>235</b>	<b>1,040</b>	<b>230</b>	<b>375</b>	<b>√</b>
<b>Total International</b>	<b>425</b>	<b>180</b>	<b>1,125</b>	<b>235</b>	<b>1,040</b>	<b>230</b>	<b>375</b>	<b>√</b>
<b>Total Worldwide</b>	<b>1,150</b>	<b>660</b>	<b>4,770</b>	<b>1,295</b>	<b>3,445</b>	<b>1,440</b>	<b>850</b>	<b>√</b>

<sup>1</sup> Includes CPChem's share of equity affiliates.

<sup>2</sup> Capacities represent typical calendar-day processing rates for feedstocks to process units, determined over extended periods of time. Actual rates may vary depending on feedstock qualities, maintenance schedules and external factors.

<sup>3</sup> Other includes K-Resin SBC, nylon 6,6, paraxylene, polyalphaolefins, polypropylene, polystyrene, performance pipe and specialty chemicals.

### Olefin, polyolefin, specialty, aromatic and styrenic sales

(Represents equity share in CPChem and GS Caltex)

	Year ended December 31				
Thousands of metric tons per year	2016	2015	2014	2013	2012
Olefin and polyolefin sales	3,631	3,837	3,814	3,645	3,394
Specialty, aromatic and styrenic sales	2,449	2,555	2,792	2,767	2,877



# technology



**Photo:** The Captain Field in the U.K. North Sea was reimaged in 2016 using high-density, nodes-on-a-rope technology to support base business and enhanced oil recovery operations. This survey was Chevron's highest density node survey to date.

### technology

Chevron's technology activities support the company's worldwide operations and major capital projects by developing and deploying technology solutions that drive business growth and efficiency. The company differentiates performance through the application of technology, applying a portfolio approach that includes proprietary solutions, in-house expertise, strategic partnerships and venture capital investments.

This integrated, open-innovation sourcing and deployment approach builds on the company's strengths in upstream and downstream technologies, transportation technologies and information technology.

**Upstream** Chevron continues advancing capabilities in subsurface imaging and modeling to support exploration, field development and reservoir management. The company integrates rapid advances in commercial seismic data acquisition techniques with proprietary imaging capability, well information, reservoir models and regional knowledge to provide a competitive advantage in geologically complex basins worldwide.

In 2016, Chevron progressed toward full adoption of INTERSECT, a new reservoir simulation software, jointly developed by Chevron, Schlumberger and Total. To date, more than 85 percent of the company's simulation engineers are using INTERSECT to model reservoir performance and perform fully integrated analysis of static and dynamic uncertainties, providing more reliable production forecasts and optimized field developments. Utilizing INTERSECT has resulted in value capture for Chevron by minimizing simulator licensing expense, improving decision quality and increasing engineering productivity.

This year also marked Chevron's first use of high-density nodes-on-a-rope (NOAR) seismic technology, which was Chevron's highest density node survey to date. Chevron employed the NOAR technology to reimage the Captain asset on the U.K. continental shelf both in support of base business and ahead of an enhanced oil recovery (EOR) operation, achieving all objectives while reducing survey cost by 50 percent relative to remotely operated vehicle-deployed node systems.

Chevron's industry-leading nuclear magnetic resonance (NMR) laboratory in Houston, Texas, completed in 2015, was made fully operational in 2016. By applying NMR technology to oil field applications, Chevron can calibrate and interpret subsurface data and conduct chemical analysis and structural determination on the molecular level. In addition, imaging at reservoir conditions provides visualization of reservoir fluids during the core flooding process.

In order to support development of its advantaged positions in unconventional resources, Chevron continues to focus on innovation and improvement of technology to support operations in shale and tight resources. Chevron developed and deployed an Integrated Workflow to guide asset development elements, including lateral landing zone placement, completion design and well-spacing for unconventional reservoirs. This integrated workflow is the foundational support for an accelerated pilot program focused on significantly increasing estimated ultimate recovery in unconventional reservoirs.

Further successes have been achieved in the development of shale and tight resources through the application of a commercially available diverter technology to open additional fractures in the reservoir. This pilot program has yielded significant production increases, and is planned for application to standard completion designs in the future.

After successfully collecting data using a permanent downhole fiber-optic surveillance system to monitor in real-time the multistage hydraulic fracturing of and production from a wet gas shale well, Chevron used the data to increase decision quality in 2016. The high-quality, high-resolution downhole acoustic and temperature data supported reduced completion costs and improved operational efficiency. These early results have inspired similar deployment initiatives around the enterprise.

In the deep water, Chevron continues to make advances that enable the company to operate safely and efficiently. To support this effort, Chevron has established a Floating Systems Integrity Management Support Center to gather, manage and trend critical component performance to help assure safe operating margins on the company's floating systems. The Frade floating production, storage and offloading vessel in Brazil and the Blind Faith floating production unit in the U.S. Gulf of Mexico are the first facilities integrated into the program.

Advances in digital oil field technologies continue to deliver high-quality data that influence decision making. Year-end 2016 marked the completion of Chevron's five year i-field expansion program to deploy advanced integrated solutions that enable engineering and operational workflows, standardized analysis, and management by exception. The successful program, resulting in 85 deployments to 13 of Chevron's business units, is expected to reduce exposure to safety and environmental risks and to yield significant value through cost savings, increased production and decreased downtime.

Assuring the reliability and integrity of equipment and systems is critical to the continued safety and productivity of Chevron's operations. In line with this continuing effort, Chevron has developed a new technology with the novel ability to produce high-quality pipeline and flowline corrosion images using the principles of acoustic resonance to achieve a level of accuracy never seen before. In January 2016, Chevron deployed this new technology in a subsea field trial in Thailand. This technique, applied for the first time in the industry, provides high-resolution thickness maps without requiring the removal of protective heat shrink sleeves and enables Chevron to determine asset integrity on pipelines and flowlines where conventional inspection solutions are difficult to apply.

The company continues to develop technology innovations in heavy oil recovery that reduce the number and cost of injectors, reduce environmental impact, and help capture previously undevelopable reserves. In 2016, Chevron collaborated with a leading vendor to design, manufacture and complete initial tests of a new low cost steam injection flow control device. The first application is planned for a horizontal well development project in 2018. The new design leverages extensive knowledge gained through the Chanslor steam injection pilot in the Kern River Field in California's San Joaquin Valley and Chevron's worldwide thermal operations experience.

Chevron continues efforts to recover more crude oil from existing fields by piloting and deploying advanced chemical EOR processes. EOR deployments span the globe, and by leveraging the company's expertise in chemical formulation, reservoir characterization and production technologies, Chevron is able to target the best fields for EOR and optimal chemical formulations. To further these efforts in 2016, Chevron developed new chemical formulations that enhance imbibition-driven oil recovery in low permeability environments, an important step toward a single well injection test targeted for 2018.



Chevron's upstream technology efforts improve asset performance throughout service life, including in retirement. In partnership with Foro Energy, Chevron has developed a laser-based system that severs onshore well heads up to eight feet below the surface, with greater depths possible with only simple modification, and extracts them for recycling. The laser severing system is the first of its kind in the industry, with operations having commenced in the Midway-Sunset Field in California's San Joaquin Valley in March 2016. To date, more than 150 wellheads have been safely removed, providing cost savings, mitigating risk and reducing Chevron's environmental footprint.

**Downstream** Chevron continues to build on more than four decades of research and development in improved refining catalysts. In 2016, Chevron commercialized ICR 450, the latest Isodewaxing catalyst and the first in a series used for base oil production. This catalyst uses new generation zeolite, and can tolerate higher amounts of nitrogen compounds. In addition, Chevron continued the commercialization of its LC-SLURRY high-conversion residuum processing technology. The company signed a Letter-of-Intent with Preem/Beowulf to evaluate licensing the first LC-SLURRY residue hydrocracking unit at Preem's refinery in Lysekil, Sweden. The result of a dozen years of focused development at the Richmond, California, Technology Center, that followed more than 25 years of residuum and hydrocracking research, LC-SLURRY provides upgrading capability beyond the other three main competing processes. In addition, Chevron and UOP formed a strategic alliance for licensing Isoalky technology for the refining industry. The joint team is developing a general Process Design Package and pursuing process improvements for cost-efficient design in preparation for licensing. The technology is expected to reduce risks associated with hydrofluoric acid while maintaining the flexibility to produce high-octane alkylate for gasoline.

**Transportation** New technology continues to be applied to improve the monitoring, reliability and fuel efficiency of the company's existing vessels. In 2016, Chevron commissioned four more vessels with an online vibration monitoring system, bringing the total to six vessels, with two more planned for 2017. This technology enables the identification of degrading rotating-machinery health to prevent failures and increase vessel reliability. In addition, a predictive maintenance system has been installed on 12 vessels, reducing the likelihood of power loss or a vessel blackout event.

A sloshing risk avoidance system is in operation as a pilot study on the *Asia Endeavour*, one of the company's new LNG carriers. This system accounts for vessel characteristics, speed and weather conditions to reduce the risk of cargo tank damage.

A next-generation information technology solution has been installed on Chevron's 29 operated vessels, providing reliable and scalable servers, wireless capability, and network infrastructure based on the latest Chevron technology standards.

Chevron is leveraging advanced real-time data analytics and remote camera technology to enhance damage prevention processes and leak detection capability in select segments across its pipeline network. In 2016, centralized monitoring of marine vessel activity near shallow water pipeline assets was commissioned to identify real-time threats within pipeline rights of way. This capability enables operational resources to proactively engage encroaching vessels and mitigate potential third-party line strikes.

To further protect Chevron's pipeline assets, leak detection thermal imaging cameras have been installed in select North American locations. The thermal imaging cameras provide leak detection for above-ground installations, improving response time to process safety events, thereby minimizing impact. This technology is also being leveraged across the enterprise within refining and upstream facilities.

**Energy efficiency** Chevron continues to believe that efficiency is an important part of the overall energy mix and is committed to improving its own energy efficiency. Chevron's power and energy management organization collaborates with the company's upstream and downstream businesses to help trim energy costs, test new technologies, achieve efficiency gains, manage emissions and improve power reliability. In 2016, Chevron established an Integrated Optimization Decision Support Center (IODSC) at its Sumatra operation in Indonesia to monitor day-to-day energy performance of surface facilities and optimize their energy usage. Through the efforts of the IODSC and other initiatives, Chevron has reduced the energy intensity of its Indonesia assets by more than 25 percent since 2014.

**Information technology** Information technologies play an increasingly important role in enabling Chevron's business strategies. In addition to task automation to drive productivity and efficiency, the company is actively applying advanced data science, modeling and analytics to its large data sets to improve business outcomes. In 2016, analytical insights applied to unconventional reservoir management and operations reduced development costs and increased production rates. Chevron has also employed information technology to deliver solutions that enable field operations to select water disposal vendors on their mobile phone to optimize routes and costs using real-time pricing and availability. To support its drilling operations, Chevron is developing next generation Decision Support Centers to improve real-time analytics on complex wells, lower costs and improve reliability. Also, Chevron continues to make substantial investments in cybersecurity in response to increased threat levels across the industry.

**Health environment and safety** Chevron continues to pursue new technologies to improve the safety of company assets in order to protect people and the environment. In 2016, Chevron patented an innovative use of seaweed extract to prevent calcium scale in oil and gas pipelines. Scale can reduce production rates if not managed effectively. The alginate scale inhibitor is naturally occurring, renewable and sustainable, and can be used in places where conventional scale inhibitors cannot.

In 2016, Chevron achieved a U.S. patent pending status for an innovative oleophilic bio-barrier (OBB) used to control petroleum sheens on water surfaces. In its initial demonstration, the OBB promoted natural aerobic deterioration of hydrocarbons while also saving hundreds of thousands of dollars compared with traditional cleanup methods.

**Technology ventures** Chevron's technology ventures organization supports Chevron's upstream and downstream businesses by bridging the gap between business unit needs and emerging technology solutions developed externally in the areas of emerging materials, water management, information technology, power systems and production enhancement. In 2016, the company managed more than \$350 million in venture capital investments and introduced or deployed more than 20 new technologies across the enterprise, including intelligent hazardous-leak-detection cameras, corrosion prevention systems that extend asset life and reliability, an integrated subsea navigation solution for remotely operated vehicles, and an anti-fouling coating for heat exchangers.

# glossary of energy and financial terms

## energy terms

**Acreage** Land leased for crude oil and natural gas exploration and production.

**Additives** Specialty chemicals incorporated into fuels and lubricants that enhance the performance of the finished product.

**Barrels of oil-equivalent** A unit of measure to quantify crude oil, natural gas liquids and natural gas amounts using the same basis. Natural gas volumes are converted to barrels on the basis of energy content. See *oil-equivalent gas* and *production*.

**Condensate** Hydrocarbons that are in a gaseous state at reservoir conditions, but condense into liquid as they travel up the well bore and reach surface conditions.

**Development** Drilling, construction and related activities following discovery that are necessary to begin production and transportation of crude oil and/or natural gas.

**Enhanced recovery** Techniques used to increase or prolong production from crude oil and natural gas reservoirs.

**Exploration** Searching for crude oil and/or natural gas by utilizing geological and topographical studies, geophysical and seismic surveys, and drilling of wells.

**Gas-to-liquids (GTL)** A process that converts natural gas into high-quality liquid transportation fuels and other products.

**Liquefied natural gas (LNG)** Natural gas that is liquefied under extremely cold temperatures to facilitate storage or transportation in specially designed vessels.

**Liquefied petroleum gas (LPG)** Light gases, such as butane and propane, that can be maintained as liquids while under pressure.

**Natural gas liquids (NGLs)** Separated from natural gas, these include ethane, propane, butane and natural gasoline.

**Oil-equivalent gas** The volume of natural gas needed to generate the equivalent amount of heat as a barrel of crude oil. Approximately 6,000 cubic feet of natural gas is equivalent to one barrel of crude oil.

**Oil sands** Naturally occurring mixture of *bitumen* (a heavy, viscous form of crude oil), water, sand and clay. Using hydroprocessing technology, bitumen can be refined to yield synthetic oil.

**Petrochemicals** Compounds derived from petroleum. These include: aromatics, which are used to make plastics, adhesives, synthetic fibers and household detergents; and olefins, which are used to make packaging, plastic pipes, tires, batteries, household detergents and synthetic motor oils.

**Production** *Total production* refers to all the crude oil (including synthetic oil), NGLs and natural gas produced from a property. *Net production* is the company's share of total production after deducting both royalties paid to landowners and a government's agreed-upon share of production under a PSC. *Liquids production* refers to crude oil, condensate, NGLs and synthetic oil volumes. *Oil-equivalent production* is the sum of the barrels of liquids and the oil-equivalent barrels of natural gas produced. See *barrels of oil-equivalent*, *oil-equivalent gas* and *production-sharing contract*.

**Production-sharing contract (PSC)** An agreement between a government and a contractor (generally an oil and gas company) whereby production is shared between the parties in a prearranged manner. The contractor typically incurs all exploration, development and production costs, which are subsequently recoverable out of an agreed-upon share of any future PSC production, referred to as cost recovery oil and/or gas. Any remaining production, referred to as profit oil and/or gas, is shared between the parties on an agreed-upon basis as stipulated in the PSC. The government also may retain a share of PSC production as a royalty payment, and the contractor typically owes income tax on its portion of the profit oil and/or gas. The contractor's share of PSC oil and/or gas production and reserves varies over time, as it is dependent on prices, costs and specific PSC terms.

**Refinery utilization** Represents average crude oil consumed in fuel and asphalt refineries for the year, expressed as a percentage of the refineries' average annual crude unit capacity.

**Reserves** Crude oil and natural gas contained in underground rock formations called reservoirs and saleable hydrocarbons extracted from oil sands, shale, coalbeds and other nonrenewable natural resources that are intended to be upgraded into synthetic oil or gas. *Net proved reserves* are the estimated quantities that geoscience and engineering data demonstrate with reasonable certainty to be economically producible in the future from known reservoirs under existing economic conditions, operating methods and government regulations, and exclude royalties and interests owned by others. Estimates change as additional information becomes available. *Oil-equivalent reserves* are the sum of the liquids reserves and the oil-equivalent gas reserves. See *barrels of oil-equivalent* and *oil-equivalent gas*. The company discloses only net proved reserves in its filings with the U.S. Securities and Exchange Commission. Investors should refer to proved reserves disclosures in Chevron's *Annual Report on Form 10-K* for the year ended December 31, 2016.



**Resources** Estimated quantities of oil and gas resources are recorded under Chevron's 6P system, which is modeled after the Society of Petroleum Engineers' Petroleum Resource Management System, and include quantities classified as proved, probable and possible reserves, plus those that remain contingent on commerciality. *Unrisked resources*, *unrisked resource base* and similar terms represent the arithmetic sum of the amounts recorded under each of these classifications. *Recoverable resources*, *potentially recoverable volumes* and other similar terms represent estimated remaining quantities that are expected to be ultimately recoverable and produced in the future, adjusted to reflect the relative uncertainty represented by the various classifications. These estimates may change significantly as development work provides additional information. At times, *original oil in place* and similar terms are used to describe total hydrocarbons contained in a reservoir without regard to the likelihood of their being produced. All of these measures are considered by management in making capital investment and operating decisions and may provide some indication to stockholders of the resource potential of oil and gas properties in which the company has an interest.

**Shale gas** Natural gas produced from shale rock formations where the gas was sourced from within the shale itself. Shale is very fine-grained rock, characterized by low porosity and extremely low permeability. Production of shale gas normally requires formation stimulation such as the use of *hydraulic fracturing* (pumping a fluid-sand mixture into the formation under high pressure) to help produce the gas.

**Synthetic oil** A marketable and transportable hydrocarbon liquid, resembling crude oil, that is produced by upgrading highly viscous or solid hydrocarbons, such as extra-heavy crude oil or oil sands.

**Tight oil** Liquid hydrocarbons produced from shale (also referred to as shale oil) and other rock formations with extremely low permeability. As with shale gas, production from tight oil reservoirs normally requires formation stimulation such as hydraulic fracturing.

**Unconventional oil and gas resources** Hydrocarbons contained in formations over very large areas with extremely low permeability that are not influenced by buoyancy. In contrast, conventional resources are contained within geologic structures/stratigraphy and float buoyantly over water. Unconventional resources include shale gas, coalbed methane, crude oil and natural gas from tight rock formations, tar sands, kerogen from oil shale, and gas hydrates that cannot commercially flow without well stimulation.

**Wells** Oil and gas wells are classified as either exploration or development wells. *Exploration wells* are wells drilled to find a new field or to find a new reservoir in a field previously found to be productive of oil and gas in another reservoir. *Appraisal wells* are exploration wells drilled to confirm the results of a discovery well. *Delineation wells* are exploration wells drilled to determine the boundaries of a productive formation or to delineate the extent of a find. *Development wells* are wells drilled in an existing reservoir in a proved oil- or gas-producing area. *Completed wells* are wells in which drilling work has been completed and that are capable of producing. *Dry wells* are wells completed as dry holes, that is, wells not capable of producing in commercial quantities.

## financial terms

**Capital employed** The sum of Chevron Corporation stockholders' equity, total debt and noncontrolling interests. Average capital employed is computed by averaging the sum of capital employed at the beginning and end of the year.

**Cash flow from operating activities** Cash generated from the company's businesses; an indicator of a company's ability to fund capital programs and stockholder distributions. Excludes cash flows related to the company's financing and investing activities.

**Current ratio** Current assets divided by current liabilities.

**Debt ratio** Total debt, including capital lease obligations, divided by total debt plus Chevron Corporation stockholders' equity.

**Earnings** Net income attributable to Chevron Corporation as presented on the Consolidated Statement of Income.

**Goodwill** An asset representing the future economic benefits arising from the other assets acquired in a business combination that are not individually identified and separately recognized.

**Interest coverage ratio** Income before income tax expense, plus interest and debt expense and amortization of capitalized interest, less net income attributable to noncontrolling interests, divided by before-tax interest costs.

**Margin** The difference between the cost of purchasing, producing and/or marketing a product and its sales price.

**Net debt to capital ratio** Total debt less the sum of cash and cash equivalents, time deposits, and marketable securities, as a percentage of total debt plus Chevron Corporation's stockholders' equity.

**Return on capital employed (ROCE)** Ratio calculated by dividing earnings (adjusted for after-tax interest expense and noncontrolling interests) by average capital employed.

**Return on stockholders' equity** Ratio calculated by dividing earnings by average Chevron Corporation stockholders' equity. *Average Chevron Corporation stockholders' equity* is computed by averaging the sum of the beginning-of-year and end-of-year balances.

**Return on total assets** Ratio calculated by dividing earnings by average total assets. *Average total assets* is computed by averaging the sum of the beginning-of-year and end-of-year balances.

**Total stockholder return** The return to stockholders as measured by stock price appreciation and reinvested dividends for a period of time.

# additional information

## publications and other news sources

Additional information relating to Chevron is contained in its *2016 Annual Report* to stockholders and its *Annual Report on Form 10-K* for the fiscal year ended December 31, 2016, filed with the U.S. Securities and Exchange Commission. Copies of these reports are available on the company's website, [www.chevron.com](http://www.chevron.com), or may be requested by writing to:

Chevron Corporation  
Investor Relations  
6001 Bollinger Canyon Road, A3140  
San Ramon, CA 94583-2324  
925 842 5690  
Email: [invest@chevron.com](mailto:invest@chevron.com)

The *2016 Corporate Responsibility Report* is scheduled to be available in May 2017 on the company's website, [www.chevron.com](http://www.chevron.com), or may be requested by writing to:

Chevron Corporation  
Policy, Government and Public Affairs  
6001 Bollinger Canyon Road, Building G  
San Ramon, CA 94583-2324

For additional information about the company and the energy industry, visit Chevron's website, [www.chevron.com](http://www.chevron.com). It includes articles, news releases, speeches, quarterly earnings information and the Proxy Statement.

## legal notice

As used in this report, the terms "Chevron" and "the company" may refer to Chevron Corporation, one or more of its consolidated subsidiaries, or to all of them taken as a whole, but unless the context clearly indicates otherwise, the term should not be read to include "affiliates" of Chevron, that is, those companies accounted for by the equity method (generally owned 50 percent or less) or investments accounted for by the cost method. All of these terms are used for convenience only and are not intended as a precise description of any of the separate companies, each of which manages its own affairs.

## trademark notice

Caltex, Chevron, the Chevron Hallmark, Clarity, Delo, Havoline, Human Energy, ICR, Isoalkyl, Isodewaxing, Meropa, Oronite, Rando, Taro, Techron, and Texaco are registered trademarks of Chevron Intellectual Property LLC. K-Resin is a registered trademark of Chevron Phillips Chemical Company LP. INTERSECT is a registered trademark of Schlumberger Technology Corporation.

### CAUTIONARY STATEMENT RELEVANT TO FORWARD-LOOKING INFORMATION FOR THE PURPOSE OF "SAFE HARBOR" PROVISIONS OF THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995

This *2016 Supplement to the Annual Report* of Chevron Corporation contains forward-looking statements relating to Chevron's operations that are based on management's current expectations, estimates and projections about the petroleum, chemicals and other energy-related industries. Words or phrases such as "anticipates," "expects," "intends," "plans," "targets," "forecasts," "projects," "believes," "seeks," "schedules," "estimates," "positions," "pursues," "may," "could," "should," "budgets," "outlook," "focus," "on schedule," "on track," "goals," "objectives," "strategies" and similar expressions are intended to identify such forward-looking statements. These statements are not guarantees of future performance and are subject to certain risks, uncertainties and other factors, many of which are beyond the company's control and are difficult to predict. Therefore, actual outcomes and results may differ materially from what is expressed or forecasted in such forward-looking statements. The reader should not place undue reliance on these forward-looking statements, which speak only as of the date of this report. Unless legally required, Chevron undertakes no obligation to update publicly any forward-looking statements, whether as a result of new information, future events or otherwise.

Among the important factors that could cause actual results to differ materially from those in the forward-looking statements are: changing crude oil and natural gas prices; changing refining, marketing and chemicals margins; the company's ability to realize anticipated cost savings and expenditure reductions; actions of competitors or regulators; timing of exploration expenses; timing of crude oil liftings; the competitiveness of alternate-energy sources or product substitutes; technological developments; the results of operations and financial condition of the company's suppliers, vendors, partners and equity affiliates, particularly during extended periods of low prices for crude oil and natural gas; the inability or failure of the company's joint-venture partners to fund their share of operations and development activities; the potential failure to achieve expected net production from existing and future crude oil and natural gas development projects; potential delays in the development, construction or start-up of planned projects; the potential disruption or interruption of the company's operations due to war, accidents, political events, civil unrest, severe weather, cyber threats and terrorist acts, crude oil production quotas or other actions that might be imposed by the Organization of Petroleum Exporting Countries, or other natural or human causes beyond its control; changing economic, regulatory and political environments in the various countries in which the company operates; general domestic and international economic and political conditions; the potential liability for remedial actions or assessments under existing or future environmental regulations and litigation; significant operational, investment or product changes required by existing or future environmental statutes and regulations, including international agreements and national or regional legislation and regulatory measures to limit or reduce greenhouse gas emissions; the potential liability resulting from other pending or future litigation; the company's future acquisition or disposition of assets or the delay or failure of such transactions to close based on required closing conditions set forth in the applicable transaction agreements; the potential for gains and losses from asset dispositions or impairments; government-mandated sales, divestitures, recapitalizations, industry-specific taxes, changes in fiscal terms or restrictions on scope of company operations; foreign currency movements compared with the U.S. dollar; material reductions in corporate liquidity and access to debt markets; the effects of changed accounting rules under generally accepted accounting principles promulgated by rule-setting bodies; the company's ability to identify and mitigate the risks and hazards inherent in operating in the global energy industry; and the factors set forth under the heading "Risk Factors" on pages 20 through 22 in this report on the company's *2016 Annual Report on Form 10-K*. Other unpredictable or unknown factors not discussed in this report could also have material adverse effects on forward-looking statements.

Certain terms, such as "unrisked resources," "unrisked resource base," "recoverable resources" and "oil in place," among others, may be used in this report to describe certain aspects of the company's portfolio and oil and gas properties beyond the proved reserves. For definitions of, and further information regarding, these and other terms, see the "glossary of energy and financial terms" on pages 50 and 51 of this report.

As used in this report, the term "project" may describe new upstream development activity, individual phases in a multiphase development, maintenance activities, certain existing assets, new investments in downstream and chemicals capacity, investments in emerging and sustainable energy activities, and certain other activities. All of these terms are used for convenience only and are not intended as a precise description of the term "project" as it relates to any specific governmental law or regulation.

This publication was issued in March 2017 solely for the purpose of providing additional Chevron financial and statistical data. It is not a circular or prospectus regarding any security or stock of the company, nor is it issued in connection with any sale, offer for sale of or solicitation of any offer to buy any securities. This report supplements the *Chevron Corporation 2016 Annual Report* to stockholders and should be read in conjunction with it. The financial information contained in this *2016 Supplement to the Annual Report* is expressly qualified by reference to the *2016 Annual Report*, which contains audited financial statements, "Management's Discussion and Analysis of Financial Condition and Results of Operations," and other supplemental data.

# chevron history

## 1879

Incorporated in San Francisco, California, as the Pacific Coast Oil Company.

## 1900

Acquired by the West Coast operations of John D. Rockefeller's original Standard Oil Company.

## 1911

Emerged as an autonomous entity – Standard Oil Company (California) – following U.S. Supreme Court decision to divide the Standard Oil conglomerate into 34 independent companies.

## 1926

Acquired Pacific Oil Company to become Standard Oil Company of California (Socal).

## 1936

Formed the Caltex Group of Companies, jointly owned by Socal and The Texas Company (later became Texaco), to combine Socal's exploration and production interests in the Middle East and Indonesia and provide an outlet for crude oil through The Texas Company's marketing network in Africa and Asia.

## 1947

Acquired Signal Oil Company, obtaining the Signal brand name and adding 2,000 retail stations in the western United States.

## 1961

Acquired Standard Oil Company (Kentucky), a major petroleum products marketer in five southeastern states, to provide outlets for crude oil from southern Louisiana and the U.S. Gulf of Mexico, where the company was a major producer.

## 1984

Acquired Gulf Corporation – nearly doubling the company's crude oil and natural gas activities – and gained significant presence in industrial chemicals, natural gas liquids and coal. Changed name to Chevron Corporation to identify with the name under which most products were marketed.

## 1988

Purchased Tenneco Inc.'s U.S. Gulf of Mexico crude oil and natural gas properties, becoming one of the largest U.S. natural gas producers.

## 1993

Formed Tengizchevroil, a joint venture with the Republic of Kazakhstan, to develop and produce the giant Tengiz Field, becoming the first major Western oil company to enter newly independent Kazakhstan.

## 1999

Acquired Rutherford-Moran Oil Corporation. This acquisition provided inroads to Asian natural gas markets.

## 2001

Merged with Texaco Inc. and changed name to ChevronTexaco Corporation. Became the second-largest U.S.-based energy company.

## 2002

Relocated corporate headquarters from San Francisco, California, to San Ramon, California.

## 2005

Acquired Unocal Corporation, an independent crude oil and natural gas exploration and production company. Unocal's upstream assets bolstered Chevron's already-strong position in the Asia-Pacific, U.S. Gulf of Mexico and Caspian regions. Changed name to Chevron Corporation to convey a clearer, stronger and more unified presence in the global marketplace.

## 2011

Acquired Atlas Energy, Inc., an independent U.S. developer and producer of shale gas resources. The acquired assets provide a targeted, high-quality core acreage position primarily in the Marcellus Shale.





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