

MARATHON OIL CORP
Form 10-K
February 21, 2019

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934

For the Fiscal Year Ended December 31, 2018

Commission file number 1-5153

Marathon Oil Corporation

(Exact name of registrant as specified in its charter)

Delaware

25-0996816

(State or other jurisdiction of incorporation or organization) (I.R.S. Employer Identification No.)

5555 San Felipe Street, Houston, TX 77056-2723

(Address of principal executive offices)

(713) 629-6600

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
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Common Stock, par value \$1.00	New York Stock Exchange
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Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15 (d) of the Securities Exchange Act of 1934 during the preceding 12 months and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer", "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer Non-accelerated filer

Smaller reporting company Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes No
The aggregate market value of Common Stock held by non-affiliates as of June 30, 2018: \$17,781 million. This amount is based on the closing price of the registrant's Common Stock on the New York Stock Exchange on that date. Shares of Common Stock held by executive officers and directors of the registrant are not included in the computation. The registrant, solely for the purpose of this required presentation, has deemed its directors and executive officers to be affiliates.

There were 818,504,459 shares of Marathon Oil Corporation Common Stock outstanding as of February 14, 2019.

Documents Incorporated By Reference:

Portions of the registrant's proxy statement relating to its 2019 Annual Meeting of Stockholders, to be filed with the Securities and Exchange Commission pursuant to Regulation 14A under the Securities Exchange Act of 1934, are incorporated by reference to the extent set forth in Part III, Items 10-14 of this report.

MARATHON OIL CORPORATION

Unless the context otherwise indicates, references to "Marathon Oil," "we," "our" or "us" in this Annual Report on Form 10-K are references to Marathon Oil Corporation, including its wholly owned and majority-owned subsidiaries, and its ownership interests in equity method investees (corporate entities, partnerships, limited liability companies and other ventures over which Marathon Oil exerts significant influence by virtue of its ownership interest).

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Definitions

Throughout this report, the following company or industry specific terms and abbreviations are used.

AMPCO – Atlantic Methanol Production Company LLC, a company located in Equatorial Guinea in which we own a 45% equity interest.

AOSP – Athabasca Oil Sands Project, an oil sands mining, transportation and upgrading joint venture located in Alberta, Canada, in which we held a 20% non-operated working interest.

bbl – One stock tank barrel, which is 42 United States gallons liquid volume.

bcf – Billion cubic feet.

boe – Barrels of oil equivalent.

btu – British thermal unit, an energy equivalence measure.

Capital Budget – Includes capital expenditures, cash investments in equity method investees and other investments, exploration costs that are expensed as incurred rather than capitalized, such as geological and geophysical costs and certain staff costs, and other miscellaneous investment expenditures.

Development Capital Budget – Includes expenditures, investments and costs associated with the Capital Budget excluding resource play leasing and exploration ("REx").

DD&A – Depreciation, depletion and amortization.

Development well – A well drilled within the proved area of an oil or natural gas reservoir to the depth of a stratigraphic horizon known to be productive.

Dry well – A well found to be incapable of producing either oil or natural gas in sufficient quantities to justify completion as an oil or gas well.

E.G. – Equatorial Guinea.

EGHoldings – Equatorial Guinea LNG Holdings Limited, a liquefied natural gas production company located in E.G. in which we own a 60% equity interest.

EPA – United States Environmental Protection Agency.

E&P – Exploration and production.

Exploratory well – A well drilled to find oil or natural gas in an unproved area or find a new reservoir in a field previously found to be productive in another reservoir.

FASB – Financial Accounting Standards Board.

Henry Hub price – a natural gas benchmark price quoted at settlement date average.

IRS – United States Internal Revenue Service.

Kurdistan – Kurdistan Region of Iraq

LNG – Liquefied natural gas.

LPG – Liquefied petroleum gas.

Liquid hydrocarbons or liquids – Collectively, crude oil, condensate and natural gas liquids.

LLS – Louisiana Light Sweet crude oil, an oil index benchmark price as per Bloomberg Finance LLP: LLS St. James.

Marathon Oil – Marathon Oil Corporation, including wholly owned and majority-owned subsidiaries, and ownership interests in equity method investees (corporate entities, partnerships, limited liability companies and other ventures over which Marathon Oil exerts significant influence by virtue of its ownership interest). The company as it exists following the June 30, 2011 spin-off of the refining, marketing and transportation operations.

mbbl/d – Thousand barrels per day.

mboed – Thousand barrels of oil equivalent per day.

mcf – Thousand cubic feet.

mmbbl – Million barrels.

mmboe – Million barrels of oil equivalent. Natural gas is converted on the basis of six mcf of gas per one barrel of crude oil equivalent.

mmbtu – Million British thermal units.

mmcf/d – Million stabilized cubic feet per day.

mmta – Million metric tonnes per annum.

MPC – Marathon Petroleum Corporation – the separate independent company, which owns and operates the refining, marketing and transportation operations.

mt – metric tonnes

mtd – metric tonnes per day.

Net acres or Net wells – The sum of the fractional working interests owned by us in gross acres or gross wells.

NGL or NGLs – Natural gas liquid or natural gas liquids, which are naturally occurring substances found in natural gas, including ethane, butane, isobutane, propane and natural gasoline, which can be collectively removed from produced natural gas, separated into these substances and sold.

NYMEX – New York Mercantile Exchange.

OECD – Organization for Economic Cooperation and Development.

OPEC – Organization of Petroleum Exporting Countries.

Operational availability – A term used to measure the ability of an asset to produce to its maximum capacity over a specified period of time, after consideration of internal losses.

Productive well – A well that is not a dry well. Productive wells include producing wells and wells that are mechanically capable of production.

Proved developed reserves – Proved reserves that can be expected to be recovered through existing wells with existing equipment and operating methods or for which the cost of the required equipment is relatively minor compared to the cost of a new well.

Proved reserves – Proved crude oil and condensate, NGLs, natural gas and our historical synthetic crude oil reserves are those quantities of crude oil and condensate, NGLs, natural gas and synthetic crude oil, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations-prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. The project to extract the hydrocarbons must have commenced or the operator must be reasonably certain that it will commence the project within a reasonable time.

Proved undeveloped reserves – Proved reserves that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion. Undrilled locations can be classified as having proved undeveloped reserves if a development plan has been adopted indicating that they are scheduled to be drilled within five years, unless the specific circumstances justify a longer time. Reserves on undrilled acreage shall be limited to those directly offsetting development spacing areas that are reasonably certain of production when drilled, unless evidence using reliable technology exists that establishes reasonable certainty of economic viability at greater distances.

Reserve replacement ratio – A ratio which measures the amount of proved reserves added to our reserve base during the year relative to the amount of liquid hydrocarbons and natural gas produced.

Royalty interest – An interest in an oil or natural gas property entitling the owner to a share of oil or natural gas production free of costs of production.

SAR or SARs – Stock appreciation right or stock appreciation rights.

SCOOP – South Central Oklahoma Oil Province.

SEC – United States Securities and Exchange Commission.

Seismic – An exploration method of sending energy waves or sound waves into the earth and recording the wave reflections to indicate the type, size, shape and depth of subsurface rock formation (3-D seismic provides three-dimensional pictures and 4-D factors in changes that occurred over time).

STACK – Sooner Trend, Anadarko (basin), Canadian (and) Kingfisher (counties).

TD – Total depth or the bottom of a drilled hole.

Total proved reserves – The summation of proved developed reserves and proved undeveloped reserves.

U.K. – United Kingdom.

U.S. – United States of America.

U.S. resource plays – Consists of our unconventional properties in the Oklahoma, Eagle Ford, Bakken and Northern Delaware.

U.S. GAAP – U.S. Generally Accepted Accounting Principles.

Working interest – The interest in a mineral property, which gives the owner that share of production from the property.

A working interest owner bears that share of the costs of exploration, development and production in return for a share of production. Working interests are sometimes burdened by overriding royalty interests or other interests.

WTI – West Texas Intermediate crude oil, an oil index benchmark price as quoted by NYMEX.

Disclosures Regarding Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These are statements, other than statements of historical fact, that give current expectations or forecasts of future events, including without limitation: our operational, financial and growth strategies, including drilling plans and projects, planned wells, rig count, inventory, seismic, exploration plans, maintenance activities, drilling and completion improvements, cost reductions, non-core asset sales, and financial flexibility; our ability to successfully effect those strategies and the expected timing and results thereof; our 2019 Capital Budget and the planned allocation thereof; planned capital expenditures and the impact thereof; expectations regarding future economic and market conditions and their effects on us; our financial and operational outlook, and ability to fulfill that outlook; our financial position, balance sheet, liquidity and capital resources, and the benefits thereof; resource and asset potential; reserve estimates; growth expectations; and future production and sales expectations, and the drivers thereof. In addition, many forward-looking statements may be identified by the use of forward-looking terminology such as “anticipates,” “believes,” “estimates,” “expects,” “targets,” “plans,” “projects,” “could,” “may,” “should,” “would” or similar words indicating that future outcomes are uncertain. While we believe that our assumptions concerning future events are reasonable, these expectations may not prove to be correct. A number of factors could cause results to differ materially from those indicated by such forward-looking statements including, but not limited to:

- conditions in the oil and gas industry, including supply and demand levels for crude oil and condensate, NGLs and natural gas and the resulting impact on price;
- changes in expected reserve or production levels;
- changes in political or economic conditions in the jurisdictions in which we operate, including changes in foreign currency exchange rates, interest rates, inflation rates, and global and domestic market conditions;
- risks related to our hedging activities;
- liability resulting from litigation;
- capital available for exploration and development;
- the inability of any party to satisfy closing conditions or delays in execution with respect to our asset acquisitions and dispositions;
- drilling and operating risks;
- lack of, or disruption in, access to pipelines or other transportation methods;
- well production timing;
- availability of drilling rigs, materials and labor, including the costs associated therewith;
- difficulty in obtaining necessary approvals and permits;
- non-performance by third parties of their contractual obligations;
- unforeseen hazards such as weather conditions, acts of war or terrorist acts and the governmental or military response thereto;
- cyber-attacks;
- changes in safety, health, environmental, tax and other regulations;
- other geological, operating and economic considerations; and

other factors discussed in Item 1. Business, Item 1A. Risk Factors, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations, Item 7A. Quantitative and Qualitative Disclosures About Market Risk, and elsewhere in this report.

All forward-looking statements included in this report are based on information available to us on the date of this report. Except as required by law, we undertake no obligation to revise or update any forward-looking statements as a result of new information, future events or otherwise. All subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the cautionary statements contained throughout this report.

PART I

Item 1. Business

General

Marathon Oil Corporation (NYSE: MRO) is an independent exploration and production company based in Houston, Texas, focused on U.S. resource plays with operations in the United States, Europe and Africa. Our corporate headquarters is located at 5555 San Felipe Street, Houston, Texas 77056-2723 and our telephone number is (713) 629-6600. Each of our two reportable operating segments are organized by geographic location and managed according to the nature of the products and services offered. The two segments are:

• United States – explores for, produces and markets crude oil and condensate, NGLs and natural gas in the United States;

• International – explores for, produces and markets crude oil and condensate, NGLs and natural gas outside of the United States and produces and markets products manufactured from natural gas, such as LNG and methanol, in E.G. We were incorporated in 2001. On July 1, 2011 we became an Independent E&P after we completed the spin-off of our refining, marketing and transportation business, creating two independent energy companies: Marathon Oil and MPC.

Our strategy is to deliver competitive and improving corporate level returns by focusing our capital investment in the lower cost, higher margin U.S. resource plays while maintaining a peer-leading balance sheet, prioritizing sustainable cash flow generation at conservative oil prices, and returning capital to shareholders. See Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, for a more detailed discussion of our operating results, cash flows and liquidity.

Our portfolio is concentrated in our core operations in the U.S. resource plays and E.G. The map below shows the locations of our core operations:

* Our additional locations include the U.K, the Kurdistan Region of Iraq (executed a sales agreement in 2018) and other United States locations.

Segment Information

In the following discussion regarding our United States and International segments, references to net wells, acres, sales or investment indicate our ownership interest or share, as the context requires. During the year, we renamed our United States E&P and International E&P segments to the United States and International segments. The characteristics and composition of these segments remained unchanged and there was no effect on previously reported segment information. See Note 1 for further information.

United States Segment

We are engaged in oil and gas exploration, development and production activities in the U.S. Our primary focus in the United States segment is concentrated within our four high quality resource plays. See Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations for further detail on current year results.

United States – U.S. Resource Plays

Eagle Ford – We have been operating in the South Texas Eagle Ford play since 2011, where roughly two thirds of our acreage is located in Karnes and Atascosa Counties. Our focus is capital efficient development with a goal of maximizing returns and cash flow generation while extending our core acreage. We operate 32 central gathering and treating facilities across the play that support more than 1,600 producing wells. We also own and operate the Sugarloaf gathering system, a 42-mile natural gas pipeline through the heart of our acreage in Karnes and Atascosa Counties.

Bakken – We have been operating in the Williston Basin since 2006. The majority of our core acreage is within McKenzie, Mountrail, and Dunn Counties in North Dakota targeting the Middle Bakken and Three Forks reservoirs. We continue focusing our investment in our high-return Myrmidon and Hector areas, while also delineating our position across the rest of our acreage.

Oklahoma – With a history in Oklahoma that dates back more than 100 years, our primary focus has recently been the transition to early infill development in the STACK Meramec and SCOOP Woodford, while progressing delineation of other plays across our footprint. We primarily hold net acreage with rights to the Woodford, Springer, Meramec, Osage and other prospect intervals, with a majority of this in the SCOOP and STACK.

Northern Delaware – We have been operating in the Northern Delaware basin, which is located within the greater Permian area, since we closed on two major acquisitions in 2017. These acquisitions gave us a strong foundational footprint in the region where we have the majority of our acreage in Eddy and Lea counties primarily in the Wolfcamp and Bone Spring New Mexico plays. Our focus since entering the play has been to strategically advance our position and prepare for future development by further coring up our footprint, progressing early delineation of our acreage, improving our cost structure and securing midstream solutions. See Item 8. Financial Statements and Supplementary Data – Note 4 to the consolidated financial statements for further detail.

Other United States

Our remaining properties in the United States primarily consist of our newly acquired acreage in the emerging Louisiana Austin Chalk play and outside operated assets in the Gulf of Mexico, including our 3.5% overriding royalty interest in the Ursa fields. During 2018 we acquired approximately 260,000 net acres in the Louisiana Austin Chalk play at a cost of less than \$850 per acre. Additionally, in the fourth quarter 2018, we entered into an agreement to sell our working interest in the Droszky field, in the Gulf of Mexico, and as a result it is classified as held for sale in the consolidated balance sheet at December 31, 2018. This transaction closed in the first quarter of 2019.

During 2018 we closed on the sale of several non-core conventional properties, see Item 8. Financial Statements and Supplementary Data – Note 5 to the consolidated financial statements for further detail.

International Segment

We are engaged in oil and gas development and production across our international locations primarily in E.G. and U.K. We include the results of our LPG processing plant, gas liquefaction operations and methanol production operations in E.G. in our International segment.

International

Equatorial Guinea – We own a 63% operated working interest under a production sharing contract in the Alba field and an 80% operated working interest in Block D, both of which are offshore E.G. Operational availability from our company-operated facilities averaged approximately 97% in 2018.

Equatorial Guinea – Gas Processing – We own a 52% interest in Alba Plant LLC, accounted for as an equity method investment, which operates an onshore LPG processing plant located on Bioko Island. Alba field natural gas, under a long-term contract at a fixed price per btu, is processed by the LPG plant. The LPG plant extracts secondary condensate and LPG from the natural gas stream and uses some of the remaining dry natural gas in its operations.

We also own 60% of EGHoldings and 45% of AMPCO, both accounted for as equity method investments.

EGHoldings operates a 3.7 mmta LNG production facility and AMPCO operates a methanol plant, both located on Bioko Island. These facilities allow us to further monetize natural gas production from the Alba field. The LNG

production facility sells LNG under a 3.4 mmta sales and purchase agreement. Under the agreement, which runs through 2023, the purchaser takes delivery of the LNG on Bioko Island, with pricing linked principally to the Henry Hub index. Gross sales of LNG from this production facility

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totaled approximately 3.5 mmta in 2018. AMPCO had gross sales totaling approximately 1,000 mt in 2018. Methanol production is sold to customers in Europe and the U.S.

United Kingdom – Our operated assets in the U.K. sector of the North Sea are the Brae area complex where we have a 42% working interest in the South, Central, North and West Brae fields, a 39% working interest in the East Brae field, and a 28% working interest in the nearby Braemar field. We own non-operated working interests in the Foinaven area complex, consisting of a 28% working interest in the main Foinaven field, a 47% working interest in East Foinaven and a 20% working interest in the T35 and T25 fields.

Libya – In the first quarter of 2018, we closed on the sale of our subsidiary, Marathon Oil Libya Limited, which held our 16.33% non-operated interest in the Waha concessions in Libya. See Item 8. Financial Statements and Supplementary Data – Note 5 to the consolidated financial statements for further detail.

Other International

Kurdistan Region of Iraq – We have a non-operated 15% working interest in the Atrush block located north-northwest of Erbil. During the fourth quarter of 2018, we entered into an agreement to sell our Kurdistan subsidiary, Marathon Oil KDV B.V., and as a result it is classified as held for sale in the consolidated balance sheet at December 31, 2018. We expect this transaction to close in the first half of 2019 which will complete our full country exit from Kurdistan. Additionally during 2018, we entered into separate agreements to sell certain non-core properties in our International segment. See Item 8. Financial Statements and Supplementary Data - Note 5 to the consolidated financial statements for information about these dispositions.

Reserves

Proved reserves are required to be disclosed by continent and by country if the proved reserves related to any geographic area, on an oil equivalent barrel basis, represent 15% or more of our total proved reserves. A geographic area can be an individual country, group of countries within a continent or a continent. Other International ("Other Int'l"), includes the U.K. and the Kurdistan Region of Iraq. Approximately 86% of our proved reserves are located in OECD countries, with 84% located within the U.S.

The following tables set forth estimated quantities of our total proved crude oil and condensate, NGLs and natural gas reserves based upon SEC pricing for period ended December 31, 2018.

December 31, 2018	U.S.	E.G.	Other Int'l	Total
Proved Developed Reserves				
Crude oil and condensate (mmbbl)	287	36	22	345
Natural gas liquids (mmbbl)	119	22	—	141
Natural gas (bcf)	869	715	7	1,591
Total proved developed reserves (mmboe)	552	176	24	752
Proved Undeveloped Reserves				
Crude oil and condensate (mmbbl)	308	—	3	311
Natural gas liquids (mmbbl)	105	—	—	105
Natural gas (bcf)	684	—	—	684
Total proved undeveloped reserves (mmboe)	526	—	3	529
Total Proved Reserves				
Crude oil and condensate (mmbbl)	595	36	25	656
Natural gas liquids (mmbbl)	224	22	—	246
Natural gas (bcf)	1,553	715	7	2,275
Total proved reserves (mmboe)	1,078	176	27	1,281

Of the total estimated proved reserves, approximately 51% was crude oil and condensate. As of December 31, 2018, our estimated proved developed reserves totaled 752 mmboe or 59% and estimated proved undeveloped reserves totaling 529 mmboe or 41% of our total proved reserves. For additional detail on reserves, see Item 8. Financial Statements and Supplementary Data - Supplementary Information on Oil and Gas Producing Activities.

Productive and Drilling Wells

For our United States and International segments, the following table sets forth gross and net productive wells, service wells and drilling wells as of December 31 for the years presented.

	Productive Wells								
	Oil		Natural Gas		Service Wells		Drilling Wells		
	Gross	Net	Gross	Net	Gross	Net	Gross	Net	
2018									
U.S. (a)	4,630	2,056	1,703	655	209	21	43	18	
E.G.	—	—	19	12	—	—	—	—	
Other International	62	22	11	4	24	8	—	—	
Total	4,692	2,078	1,733	671	233	29	43	18	
2017									
U.S.	5,132	1,905	1,690	676	799	70			
E.G.	—	—	19	12	—	—			
Libya (b)	1,071	175	7	2	94	16			
Total Africa	1,071	175	26	14	94	16			
Other International	61	22	19	7	23	8			
Total	6,264	2,102	1,735	697	916	94			
2016									
U.S.	4,533	1,650	1,830	708	821	85			
E.G.	—	—	17	11	2	1			
Libya	1,071	175	7	1	94	16			
Total Africa	1,071	175	24	12	96	17			
Other International	62	23	35	14	23	8			
Total	5,666	1,848	1,889	734	940	110			

(a) The 2018 decrease in gross productive oil wells and gross service wells is a result of the sale of non-core, non-operated conventional properties in the United States segment during the third quarter of 2018. See Item 8. Financial Statements and Supplementary Data - Note 5 to the consolidated financial statements for information about these dispositions.

(b) Libya was removed from 2018 due to the sale of our subsidiary in Libya, see Item 8. Financial Statements and Supplementary Data - Note 5 to the consolidated financial statements for further information.

Drilling Activity

For our United States and International segments, the table below sets forth, by geographic area, the number of net productive and dry development and exploratory wells completed as of December 31 for the years represented.

	Development			Exploratory			Total	Total	
	Oil	Natural Gas	Dry	Oil	Natural Gas	Dry			
2018									
U.S.	171	25	—	196	66	36	2	104	300
E.G.	—	—	—	—	—	—	1	1	1
Other International	—	—	—	—	—	—	—	—	—
Total	171	25	—	196	66	36	3	105	301
2017									
U.S.	107	27	—	134	88	16	—	104	238
E.G.	—	—	—	—	—	—	—	—	—
Libya	—	—	—	—	—	—	—	—	—
Total Africa	—	—	—	—	—	—	—	—	—
Other International	—	—	—	—	—	—	2	2	2
Total	107	27	—	134	88	16	2	106	240
2016									
U.S.	64	12	—	76	70	27	3	100	176
E.G.	—	—	—	—	—	—	—	—	—
Libya	—	—	—	—	—	—	1	—	—
Total Africa	—	—	—	—	—	—	1	1	1
Other International	—	—	—	—	—	—	—	—	—
Total	64	12	—	76	70	27	4	101	177

Acreage

We believe we have satisfactory title to our United States and International properties in accordance with standards generally accepted in the industry; nevertheless, we can be involved in title disputes from time to time which may result in litigation. In the case of undeveloped properties, an investigation of record title is made at the time of acquisition. Drilling title opinions are usually prepared before commencement of drilling operations. Our title to properties may be subject to burdens such as royalty, overriding royalty, carried, net profits, working and other similar interests and contractual arrangements customary in the industry. In addition, our interests may be subject to obligations or duties under applicable laws or burdens such as net profits interests, liens related to operating agreements, development obligations or capital commitments under international production sharing contracts or exploration licenses.

The following table sets forth, by geographic area, the gross and net developed and undeveloped acreage held in our United States and International segments as of December 31, 2018.

(In thousands)	Developed		Undeveloped		Developed and Undeveloped	
	Gross	Net	Gross	Net	Gross	Net
U.S.	1,352	1,004	484	356	1,836	1,360
E.G.	82	67	54	36	136	103
Other International	82	29	71	12	153	41
Total	1,516	1,100	609	404	2,125	1,504

In the ordinary course of business, based on our evaluations of certain geologic trends and prospective economics, we have allowed certain lease acreage to expire and may allow additional acreage to expire in the future. If production is not established or we take no other action to extend the terms of the leases, licenses or concessions, undeveloped acreage listed in the table below will expire over the next three years. We plan to continue the terms of certain of these licenses and concession areas or retain leases through operational or administrative actions.

	Net Undeveloped Acres Expiring		
	Year Ended December 31,		
(In thousands)	2019	2020	2021
U.S.	31	64	134
E.G. ^(a)	36	—	—
Total	67	64	134

^(a) This relates to the conclusion of our evaluation of drilling opportunities on the Rodo well in Alba Block Sub Area B, offshore E.G. and in 2018 determined that we would not pursue further activity.

Net Sales Volumes

	Africa				Other	Cont	Disc	
	U.S.	E.G.	Libya	Int'l	Int'l	Ops	Ops	Total
Year Ended December 31,								
2018								
Crude and condensate (mmbld) ^(a)	171	17	7	15	210	—	210	210
Natural gas liquids (mmbld)	55	11	—	—	66	—	66	66
Natural gas (mmcf) ^(b)	429	416	5	14	864	—	864	864
Total sales volumes (mboed)	298	97	8	17	420	—	420	420
2017								
Crude and condensate (mmbld) ^(a)	133	21	19	12	185	—	185	185
Natural gas liquids (mmbld)	43	11	—	1	55	—	55	55
Natural gas (mmcf) ^(b)	348	459	4	22	833	—	833	833
Synthetic crude oil (mmbld) ^(c)	—	—	—	—	—	18	18	18
Total sales volumes (mboed)	234	109	20	16	379	18	397	397
2016								
Crude and condensate (mmbld) ^(a)	131	20	3	12	166	—	166	166
Natural gas liquids (mmbld)	40	11	—	—	51	—	51	51
Natural gas (mmcf) ^(b)	314	425	—	28	767	—	767	767
Synthetic crude oil (mmbld) ^(c)	—	—	—	—	—	48	48	48
Total sales volumes (mboed)	223	102	3	17	345	48	393	393

^(a) The amounts correspond with the basis for fiscal settlements with governments, representing equity tanker liftings and direct deliveries of liquid hydrocarbons.

^(b) Includes natural gas acquired for injection and subsequent resale.

^(c) Upgraded bitumen excluding blendstocks.

Average Production Cost per Unit^(a)

	Africa				Other	Cont	Disc	
(Dollars per boe)	U.S.	E.G.	Libya	Int'l	Int'l	Ops	Ops	Total

2018	\$9.83	\$1.91	\$4.35	\$30.02	\$8.68	\$	—\$8.68
2017	9.49	2.12	6.08	26.61	7.90	29.72	9.23
2016	9.84	2.17	N.M.	23.13	8.41	29.36	11.02

(a) Production, severance and property taxes are excluded; however, shipping and handling as well as other operating expenses are included in the production costs used in this calculation. See Item 8. Financial Statements and Supplementary Data – Supplementary Information on Oil and Gas Producing Activities - Results of Operations for Oil and Gas Production Activities for more information regarding production costs.

N.M. Not meaningful information due to limited sales.

Average Sales Price per Unit^(a)

(Dollars per unit)	Africa				Other Int'l	Disc Ops	Total
	U.S.	E.G.	Libya	Total			
2018							
Crude and condensate (bbl)	\$63.11	\$55.28	\$73.75	\$60.65	\$70.39	\$	-\$63.32
Natural gas liquids (bbl)	24.54	1.00	^(b) —	1.00	41.66	—	20.85
Natural gas (mcf)	2.65	0.24	^(b) 4.57	0.30	8.03	—	1.58
2017							
Crude and condensate (bbl)	\$49.35	\$46.02	\$60.72	\$53.11	\$52.66	\$	-\$50.38
Natural gas liquids (bbl)	20.55	1.00	^(b) —	1.00	39.65	—	16.65
Natural gas (mcf)	2.84	0.24	^(b) 5.03	0.28	6.28	—	1.51
Synthetic crude oil (bbl)	—	—	—	—	—	47.39	47.39
2016							
Crude and condensate (bbl)	\$38.57	\$38.85	\$57.69	\$40.95	\$43.21	\$	-\$39.23
Natural gas liquids (bbl)	13.15	1.00	^(b) —	1.00	26.41	—	10.68
Natural gas (mcf)	2.38	0.24	^(b) —	0.24	4.80	—	1.26
Synthetic crude oil (bbl)	—	—	—	—	—	37.57	37.57

^(a) Excludes gains or losses on commodity derivative instruments.

Primarily represents fixed prices under long-term contracts with Alba Plant LLC, AMPCO and/or EGHoldings,

^(b) which are equity method investees. We include our share of income from each of these equity method investees in our International Segment.

Marketing

Our reportable operating segments include activities related to the marketing and transportation of substantially all of our crude oil and condensate, NGLs and natural gas. These activities include the transportation of production to market centers, the sale of commodities to third parties and the storage of production. We balance our various sales, storage and transportation positions in order to aggregate volumes to satisfy transportation commitments and to achieve flexibility within product types and delivery points. Such activities can include the purchase of commodities from third parties for resale.

Gross Delivery Commitments

We have committed to deliver gross quantities of crude oil and condensate, NGLs and natural gas to customers under a variety of contracts. As of December 31, 2018, the contracts for fixed and determinable quantities were at variable, market-based pricing and related primarily to the following commitments:

	2019	2020	2021	Thereafter	Commitment Period Through
Eagle Ford					
Crude and condensate (mbbld)	65	51	—	—	2020
Natural gas liquids (mbbld)	1	—	—	—	2020
Natural gas (mmcf)	120	120	56	36	2022
Bakken					
Crude and condensate (mbbld)	10	10	10	5 - 10	2027
Natural gas (mmcf)	3	3	3	3 - 25	2028
Northern Delaware					
Crude and condensate (mbbld)	21	19	—	—	2020

All of these contracts provide the options of delivering third-party volumes or paying a monetary shortfall penalty if production is inadequate to satisfy our commitment. In addition to the contracts discussed above, we have entered into numerous agreements for transportation and processing of our equity production. Some of these contracts have volumetric requirements which could require monetary shortfall penalties if our production is inadequate to meet the terms.

Competition

Competition exists in all sectors of the oil and gas industry and we compete with major integrated and independent oil and gas companies, as well as national oil companies. We compete, in particular, in the exploration for and development of new reserves, acquisition of oil and natural gas leases and other properties, the marketing and delivery of our production into worldwide commodity markets and for the labor and equipment required for exploration and development of those properties. Principal methods of competing include geological, geophysical, and engineering research and technology, experience and expertise, economic analysis in connection with portfolio management, and safely operating oil and gas producing properties. See Item 1A. Risk Factors for discussion of specific areas in which we compete and related risks.

Environmental, Health and Safety Matters

The Health, Environmental, Safety and Corporate Responsibility Committee of our Board of Directors is responsible for overseeing our position on public issues, including environmental, health and safety matters. Our Corporate Health, Environment, Safety and Security organization has the responsibility to ensure that our operating organizations maintain environmental compliance systems that support and foster our compliance with applicable laws and regulations. Committees comprised of certain of our officers review our overall performance associated with various environmental compliance programs. We also have a Corporate Emergency Response Team which oversees our response to any major environmental or other emergency incident involving us or any of our properties.

Our businesses are subject to numerous laws and regulations relating to the protection of the environment, health and safety at the national, state and local levels. These laws and their implementing regulations and other similar state and local laws and rules can impose certain operational controls for minimization of pollution or recordkeeping, monitoring and reporting requirements or other operational or siting constraints on our business, result in costs to remediate releases of regulated substances, including crude oil, into the environment, or require costs to remediate sites to which we sent regulated substances for disposal. In some cases, these laws can impose strict liability for the entire cost of clean-up on any responsible party without regard to negligence or fault and impose liability on us for the conduct of others (such as prior owners or operators of our assets) or conditions others have caused, or for our acts that complied with all applicable requirements when we performed them. We have incurred and will continue to incur capital, operating and maintenance, and remediation expenditures as a result of environmental laws and regulations. New laws have been enacted and regulations are being adopted by various regulatory agencies on a continuing basis and the costs of compliance with these new laws and regulations can only be broadly appraised until their implementation becomes more defined.

For a discussion of environmental capital expenditures and costs of compliance for air, water, solid waste and remediation, see Item 3. Legal Proceedings and Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Management's Discussion and Analysis of Environmental Matters, Litigation and Contingencies.

Air and Climate Change

Environmental advocacy groups and regulatory agencies in the United States and other countries have focused considerable attention on the emissions of carbon dioxide, methane and other greenhouse gases and their potential role in climate change. Developments in greenhouse gas initiatives may affect us and other similarly situated companies operating in the oil and gas industry. As part of our commitment to environmental stewardship, we estimate and publicly report greenhouse gas emissions from our operations. We are working to continuously improve the accuracy and completeness of these estimates. In addition, we continuously strive to improve operational and energy efficiencies through resource and energy conservation where practicable and cost effective.

Government entities and other groups have filed lawsuits in several states and other jurisdictions seeking to hold a wide variety of companies that produce fossil fuels liable for the alleged impacts of the greenhouse gas emissions attributable to those fuels. The lawsuits allege damages as a result of global warming and the plaintiffs are seeking unspecified damages and abatement under various tort theories. Marathon Oil has been named as a defendant in several of these lawsuits, along with numerous other companies. Similar lawsuits may be filed in other jurisdictions. While the ultimate outcome and impact to us cannot be predicted with certainty, we believe that the claims made against us are without merit and will not have a material adverse effect on our consolidated financial position, results

of operations or cash flow.

The EPA finalized a more stringent National Ambient Air Quality Standard (“NAAQS”) for ozone in October 2015. States that contain any areas designated as non-attainment, and any tribes that choose to do so, will be required to complete development of implementation plans in the 2020-2021 time frame. The EPA may in the future designate additional areas as non-attainment, including areas in which we operate, which may result in an increase in costs for emission controls and requirements for additional monitoring and testing, as well as a more cumbersome permitting process. Although there may be

an adverse financial impact (including compliance costs, potential permitting delays and increased regulatory requirements) associated with this revised regulation, the extent and magnitude of that impact cannot be reliably or accurately estimated due to the present uncertainty regarding any additional measures and how they will be implemented. The EPA's final rule has been judicially challenged by both industry and other interested parties, and the outcome of this litigation may also impact implementation and revisions to the rule.

In November 2016, the Bureau of Land Management (“BLM”) issued a final rule to further restrict venting and/or flaring of gas from facilities subject to BLM jurisdiction, and to modify certain royalty requirements. BLM issued a two-year stay of these requirements in December 2017. In September 2018, BLM published a final rule to rescind substantial portions of the rule. The rescission was challenged by multiple parties in the U.S. District Court for the Northern District of California. If the judicial challenges to the rule are successful and the rule were to come back into effect, the requirements would result in additional costs of compliance as well as increased monitoring, recordkeeping and recording for some of our facilities.

Hydraulic Fracturing

Hydraulic fracturing is a commonly used process that involves injecting water, sand and small volumes of chemicals into the wellbore to fracture the hydrocarbon-bearing rock thousands of feet below the surface to facilitate higher flow of hydrocarbons into the wellbore. Our business uses this technique extensively throughout our operations. Hydraulic fracturing has been regulated at the state and local level through permitting and compliance requirements. Various state and local-level initiatives in regions with substantial shale resources have been or may be proposed or implemented to further regulate hydraulic fracturing practices, limit water withdrawals and water use, require disclosure of fracturing fluid constituents, restrict which additives may be used, or implement temporary or permanent bans on hydraulic fracturing.

Water

In 2014, the EPA and the U.S. Army Corps of Engineers published proposed regulations which expand the surface waters that are regulated under the federal Clean Water Act (“CWA”) and its various programs. While these regulations were finalized largely as proposed in 2015, the rule has been stayed by the courts pending a substantive decision on the merits. In December 2018, EPA and the Army Corps of Engineers issued a proposed rule that, if finalized, would amend the 2015 regulations to narrow the scope of federal CWA jurisdiction. If the new proposed rule is not finalized and the 2015 rule is ultimately implemented, the expansion of CWA jurisdiction will result in additional costs of compliance as well as increased monitoring, recordkeeping and recording for some of our facilities.

For additional information, see [Item 1A. Risk Factors](#).

Concentrations of Credit Risk

We are exposed to credit risk in the event of nonpayment by counterparties, a significant portion of which are concentrated in energy-related industries. The creditworthiness of customers and other counterparties is subject to continuing review, including the use of master netting agreements, where appropriate. In 2018, sales to Valero Marketing and Supply and Flint Hills Resources and each of their respective affiliates, each accounted for approximately 11% of our total revenues. In 2017, sales to Vitol and each of their respective affiliates accounted for approximately 10% of our total revenues. In 2016, sales to Valero Marketing and Supply, Tesoro Petroleum, and Flint Hills Resources and each of their respective affiliates accounted for approximately 13%, 11% and 10% of our total revenues.

Trademarks, Patents and Licenses

We currently hold U.S. and foreign patents. Although in the aggregate our trademarks and patents are important to us, we do not regard any single trademark, patent, or group of related trademarks or patents as critical or essential to our business as a whole.

Employees

We had approximately 2,400 active, full-time employees as of December 31, 2018.

Executive Officers of the Registrant

The executive officers of Marathon Oil and their ages as of February 1, 2019, are as follows:

Lee M. Tillman	57	Chairman, President and Chief Executive Officer
Dane E. Whitehead	57	Executive Vice President and Chief Financial Officer
T. Mitch Little	55	Executive Vice President—Operations
Reginald D. Hedgebeth	51	Senior Vice President, General Counsel and Secretary
Patrick J. Wagner	54	Executive Vice President—Corporate Development and Strategy
Gary E. Wilson	57	Vice President, Controller and Chief Accounting Officer

Mr. Tillman was appointed by the board of directors as chairman of the board effective February 1, 2019. In August 2013 he was appointed as president and chief executive officer. Prior to this appointment, Mr. Tillman served as vice president of engineering for ExxonMobil Development Company (a project design and execution company), where he was responsible for all global engineering staff engaged in major project concept selection, front-end design and engineering. Between 2007 and 2010, Mr. Tillman served as North Sea production manager and lead country manager for subsidiaries of ExxonMobil in Stavanger, Norway. Mr. Tillman began his career in the oil and gas industry at Exxon Corporation in 1989 as a research engineer and has extensive operations management and leadership experience.

Mr. Whitehead was appointed executive vice president and chief financial officer in March 2017. Prior to this appointment, Mr. Whitehead served as executive vice president and chief financial officer of both EP Energy Corp. and EP Energy LLC (oil and natural gas producer) since May 2012. Between 2009 and 2012 Mr. Whitehead served as senior vice president of strategy and enterprise business development and a member of El Paso Corporation's executive committee. He joined El Paso Exploration & Production Company as senior vice president and chief financial officer in 2006. Before joining El Paso Mr. Whitehead was vice president, controller and chief accounting officer of Burlington Resources Inc. (oil and natural gas producer), and formerly senior vice president and CFO of Burlington Resources Canada.

Mr. Little was appointed executive vice president of operations in August 2016 after having served as vice president, conventional since December 2015, vice president international and offshore exploration and production operations since September 2013, and as vice president, international production operations since September 2012. Prior to that, Mr. Little was resident manager of our Norway operations and served as general manager, worldwide drilling and completions. Mr. Little joined Marathon Oil in 1986 and has since held a number of engineering and management positions of increasing responsibility.

Mr. Hedgebeth was appointed senior vice president, general counsel and secretary in April 2017. Between 2009 and 2017 Mr. Hedgebeth served as general counsel, corporate secretary and chief compliance officer for Spectra Energy Corp (oil and natural gas pipeline company) and general counsel for Spectra Energy Partners, LP. Before joining Spectra Energy Mr. Hedgebeth served as senior vice president, general counsel and secretary with Circuit City Stores, Inc. (consumer electronics retail company), and vice president of legal for The Home Depot, Inc. (home improvement retail company).

Mr. Wagner was appointed executive vice president of corporate development and strategy in November 2017 after having served as senior vice president of corporate development and strategy since March 2017, vice president of corporate development and interim chief financial officer since August 2016 and vice president of corporate development since April 2014. Prior to this appointment, he served as senior vice president, western business unit, for QR Energy LP (an oil and natural gas producer) and the affiliated Quantum Resources Management, which he joined in early 2012 as vice president, exploration. Prior to that, Mr. Wagner was managing director in Houston for Scotia Waterous, the oil and gas arm of Scotiabank (an international banking services provider), from 2010 to 2012. Before joining Scotia, Mr. Wagner was vice president, Gulf of Mexico, for Devon Energy Corp. (an oil and natural gas producer), having joined Devon in 2003 as manager, international exploitation.

Mr. Wilson was appointed vice president, controller and chief accounting officer in October 2014. Prior to joining Marathon Oil, he served in various finance and accounting positions of increasing responsibility at Noble Energy, Inc. (a global exploration and production company) since 2001, including as director corporate accounting from February 2014 through September 2014, director global operations services finance from October 2012 through February 2014, director controls and reporting from April 2011 through September 2012, and international finance manager from

September 2009 through March 2011.

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Available Information

Our website is www.marathonoil.com. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K and other reports and filings with the SEC are available free of charge on our website as soon as reasonably practicable after the reports are filed or furnished with the SEC. Information contained on our website is not incorporated into this Annual Report on Form 10-K or our other securities filings. Our filings are also available in hard copy, free of charge, by contacting our Investor Relations office. Additionally, the SEC maintains a website (www.sec.gov) that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC.

Additionally, we make available free of charge on our website:

- our Code of Business Conduct and Code of Ethics for Senior Financial Officers;
- our Corporate Governance Principles; and
- the charters of our Audit and Finance Committee, Compensation Committee, Corporate Governance and Nominating Committee and Health, Environmental, Safety and Corporate Responsibility Committee.

Item 1A. Risk Factors

We are subject to various risks and uncertainties in the course of our business. The following summarizes significant risks and uncertainties that may adversely affect our business, financial condition or results of operations. When considering an investment in our securities, you should carefully consider the risk factors included below as well as those matters referenced in the foregoing pages under "Disclosures Regarding Forward-Looking Statements" and other information included and incorporated by reference into this Annual Report on Form 10-K.

A substantial decline in crude oil and condensate, NGLs and natural gas prices would reduce our operating results and cash flows and could adversely impact our future rate of growth and the carrying value of our assets.

The markets for crude oil and condensate, NGLs and natural gas have been volatile and are likely to continue to be volatile in the future, causing prices to fluctuate widely. Our revenues, operating results and future rate of growth are highly dependent on the prices we receive for our crude oil and condensate, NGLs and natural gas. Many of the factors influencing prices of crude oil and condensate, NGLs and natural gas are beyond our control. These factors include:

- worldwide and domestic supplies of and demand for crude oil and condensate, NGLs and natural gas;
- the cost of exploring for, developing and producing crude oil and condensate, NGLs and natural gas;
- the ability of the members of OPEC and certain non-OPEC members, such as Russia, to agree to and maintain production controls;
- the production levels of non-OPEC countries, including production levels in the shale plays in the United States;
- the level of drilling, completion and production activities by other exploration and production companies, and variability therein, in response to market conditions;
- political instability or armed conflict in oil and natural gas producing regions;
- changes in weather patterns and climate;
- natural disasters such as hurricanes and tornadoes;
- the price and availability of alternative and competing forms of energy;
- the effect of conservation efforts;
- epidemics or pandemics;
- technological advances affecting energy consumption and energy supply;
- domestic and foreign governmental regulations and taxes; and
- general economic conditions worldwide.

The long-term effects of these and other factors on the prices of crude oil and condensate, NGLs and natural gas are uncertain. Historical declines in commodity prices have adversely affected our business by:

- reducing the amount of crude oil and condensate, NGLs and natural gas that we can produce economically;
- reducing our revenues, operating income and cash flows;
- causing us to reduce our capital expenditures, and delay or postpone some of our capital projects;

- requiring us to impair the carrying value of our assets;
- reducing the standardized measure of discounted future net cash flows relating to crude oil and condensate, NGLs and natural gas; and
- increasing the costs of obtaining capital, such as equity and short- and long-term debt.

Estimates of crude oil and condensate, NGLs and natural gas reserves depend on many factors and assumptions, including various assumptions that are based on conditions in existence as of the dates of the estimates. Any material changes in those conditions or other factors affecting those assumptions could impair the quantity and value of our reserves.

The proved reserve information included in this Annual Report on Form 10-K has been derived from engineering and geoscience estimates. Estimates of crude oil and condensate, NGLs, natural gas and our historical synthetic crude oil reserves were prepared, in accordance with SEC regulations, by our in-house teams of reservoir engineers and geoscience professionals and were reviewed and approved by our Corporate Reserves Group and third-party consultants. Reserves were valued based on SEC pricing for the periods ended December 31, 2018, 2017 and 2016, as well as other conditions in existence at those dates. The table below provides the 2018 SEC pricing for certain benchmark prices:

	2018 SEC Pricing
WTI Crude oil (per bbl)	\$ 65.56
Henry Hub natural gas (per mmbtu)	\$ 3.05
Brent crude oil (per bbl)	\$ 72.70
Mont Belvieu NGLs (per bbl)	\$ 26.63

If annual SEC crude oil benchmark prices (see table above) were to decrease to approximately \$45 per bbl, or 30% below average prices used to estimate 2018 proved reserves, we would not expect price related reserve revisions to have a material impact on proved reserve volumes. Future reserve revisions could also result from changes in capital funding, drilling plans and governmental regulation, among other things.

Reserve estimation is a subjective process that involves estimating volumes to be recovered from underground accumulations of crude oil and condensate, NGLs and natural gas that cannot be directly measured. Estimates of economically producible reserves and of future net cash flows depend on a number of variable factors and assumptions, including:

- location, size and shape of the accumulation as well as fluid, rock and producing characteristics of the accumulation;
- historical production from the area, compared with production from other analogous producing areas;
- the assumed impacts of regulation by governmental agencies;
- assumptions concerning future operating costs, taxes, development costs and workover and repair costs; and
- industry economic conditions, levels of cash flows from operations and other operating considerations.

As a result, different petroleum engineers and geoscientists, each using industry-accepted geologic and engineering practices and scientific methods, may produce different estimates of proved reserves and future net cash flows based on the same available data. Because of the subjective nature of such reserve estimates, each of the following items may differ materially from the estimated amounts:

- the amount and timing of production;
- the revenues and costs associated with that production; and
- the amount and timing of future development expenditures.

If we are unsuccessful in acquiring or finding additional reserves, our future crude oil and condensate, NGLs and natural gas production would decline, thereby reducing our cash flows and results of operations and impairing our financial condition.

The rate of production from crude oil and condensate, NGLs and natural gas properties generally declines as reserves are depleted. Except to the extent we acquire interests in additional properties containing proved reserves, conduct successful exploration and development activities or, through engineering studies, optimize production performance or identify additional reservoirs not currently producing or secondary recovery reserves, our proved reserves will decline materially as crude oil and condensate, NGLs and natural gas are produced. Accordingly, to the extent we are not successful in replacing the crude oil and condensate, NGLs and natural gas we produce, our future revenues will decline. Creating and maintaining an inventory of prospects for future production depends on many factors, including:

- obtaining rights to explore for, develop and produce crude oil and condensate, NGLs and natural gas in promising areas;
- drilling success;
- the ability to complete projects timely and cost effectively;
- the ability to find or acquire additional proved reserves at acceptable costs; and
- the ability to fund such activity.

Future exploration and drilling results are uncertain and involve substantial costs.

Drilling for crude oil and condensate, NGLs and natural gas involves numerous risks, including the risk that we may not encounter commercially productive reservoirs. The costs of drilling, completing and operating wells are often uncertain, and drilling operations may be curtailed, delayed or canceled as a result of a variety of factors, including:

- unexpected drilling conditions;
- title problems;
- pressure or irregularities in formations;
- equipment failures or accidents;
- inflation in exploration and drilling costs;
- fires, explosions, blowouts or surface cratering;
- lack of, or disruption in, access to pipelines or other transportation methods; and
- shortages or delays in the availability of services or delivery of equipment.

If crude oil and condensate, NGLs and natural gas prices decrease, it could adversely affect the abilities of our counterparties to perform their obligations to us, including abandonment obligations, which could negatively impact our financial results.

We often enter into arrangements to conduct certain business operations, such as oil and gas exploration and production, or transportation of crude oil and condensate, NGLs and natural gas, with partners, co-working interest owners, and other counterparties in order to share risks associated with those operations. In addition, we market our products to a variety of purchasers. If commodity prices decrease, some of our counterparties may experience liquidity problems and may not be able to meet their financial and other obligations, including abandonment obligations, to us. The inability of our joint venture partners or co-working interest owners to fund their portion of the costs under our joint venture agreements and joint operating agreements, or the nonperformance by purchasers, contractors or other counterparties of their obligations to us, could negatively impact our operating results and cash flows.

If we are unable to complete capital projects at their expected costs and in a timely manner, or if the market conditions assumed in our project economics deteriorate, our business, financial condition, results of operations and cash flows could be materially and adversely affected.

Delays or cost increases related to capital spending programs involving drilling and completion activities, engineering, procurement and construction of facilities (including improvements and repairs to our existing facilities) could adversely affect our ability to achieve forecasted internal rates of return and operating results. Delays in making required changes or upgrades to our facilities could subject us to fines or penalties as well as affect our ability to supply certain products we produce. Such delays or cost increases may arise as a result of unpredictable factors, many of which are beyond our control, including:

- denial of or delay in receiving requisite regulatory approvals and/or permits;

- unplanned increases in the cost of construction materials or labor;
- disruptions in transportation of components or construction materials;
- increased costs or operational delays resulting from shortages of water;
- adverse weather conditions, natural disasters or other events (such as equipment malfunctions, explosions, fires or spills) affecting our facilities, or those of vendors or suppliers;
- shortages of sufficiently skilled labor, or labor disagreements resulting in unplanned work stoppages;
- market-related increases in a project's debt or equity financing costs; and
- nonperformance by, or disputes with, vendors, suppliers, contractors or subcontractors.

Any one or more of these factors could have a significant impact on our capital projects.

Our offshore operations involve special risks that could negatively impact us.

Offshore operations present technological challenges and operating risks because of the marine environment.

Activities in offshore operations may pose risks because of the physical distance to oilfield service infrastructure and service providers. Environmental remediation and other costs resulting from spills or releases may result in substantial liabilities.

We may incur substantial capital expenditures and operating costs as a result of compliance with and changes in environmental, health, safety and security laws and regulations, and, as a result, our business, financial condition, results of operations and cash flows could be materially and adversely affected.

Our businesses are subject to numerous laws, regulations and other requirements relating to the protection of the environment, including those relating to the discharge of materials into the environment such as the flaring of natural gas, waste management, pollution prevention, greenhouse gas emissions and the protection of endangered species as well as laws, regulations, and other requirements relating to public and employee safety and health and to facility security. We have incurred and may continue to incur capital, operating and maintenance, and remediation expenditures as a result of these laws, regulations, and other requirements. To the extent these expenditures, as with all costs, are not ultimately reflected in the prices of our products, our operating results will be adversely affected. The specific impact of these laws, regulations, and other requirements may vary depending on a number of factors, including the age and location of operating facilities and production processes. We may also be required to make material expenditures to modify operations, install pollution control equipment, perform site clean-ups or curtail operations that could materially and adversely affect our business, financial condition, results of operations and cash flows. We may become subject to liabilities that we currently do not anticipate in connection with new, amended or more stringent requirements, stricter interpretations of existing requirements or the future discovery of contamination. In addition, any failure by us to comply with existing or future laws, regulations, and other requirements could result in civil penalties or criminal fines and other enforcement actions against us.

We believe it is likely that the scientific and political attention to issues concerning the extent, causes of and responsibility for climate change will continue, with the potential for further regulations that could affect our operations. Our operations result in greenhouse gas emissions. Currently, various legislative or regulatory measures to address greenhouse gas emissions (including carbon dioxide, methane and nitrous oxides) are in various phases of review, discussion or implementation in countries where we operate, including the U.S. and the European Union.

Internationally, the United Nations Framework Convention on Climate Change finalized an agreement among 195 nations at the 21st Conference of the Parties in Paris with an overarching goal of preventing global temperatures from rising more than 2 degrees Celsius. The agreement includes provisions that every country take some action to lower emissions, but there is no legal requirement for how or by what amount emissions should be lowered. The EPA has also finalized regulations targeting new sources of methane emissions from the oil and gas industry. Finalization of new legislation, regulations or international agreements in the future could result in increased costs to operate and maintain our facilities, capital expenditures to install new emission controls at our facilities, and costs to administer and manage any potential greenhouse gas emissions or carbon trading or tax programs. These costs and capital expenditures could be material. Although uncertain, these developments could increase our costs, reduce the demand for crude oil and condensate, NGLs and natural gas, and create delays in our obtaining air pollution permits for new or modified facilities.

The potential adoption of federal, state and local legislative and regulatory initiatives related to hydraulic fracturing could result in increased compliance costs, operating restrictions or delays in the completion of oil and gas wells.

Hydraulic fracturing is a commonly used process that involves injecting water, sand, and small volumes of chemicals into the wellbore to fracture the hydrocarbon-bearing rock thousands of feet below the surface to facilitate higher flow of hydrocarbons into the wellbore. Our business uses this technique extensively throughout our U.S. operations. Hydraulic fracturing has been regulated at the state and local level through permitting and compliance requirements. Various state and local-level initiatives in regions with substantial shale resources have been or may be proposed or implemented to further

regulate hydraulic fracturing practices, limit water withdrawals and water use, require disclosure of fracturing fluid constituents, restrict which additives may be used, or implement temporary or permanent bans on hydraulic fracturing. In 2015 the BLM issued a rule governing certain hydraulic fracturing practices on lands within their jurisdiction; however, this rule was rescinded in December 2017. This rescission is being judicially challenged before the U.S. District Court for the Northern District of California.

Increased regulation and attention given to the hydraulic fracturing process could lead to greater opposition, including litigation, to oil and gas activities using hydraulic fracturing techniques. Additional legislation or regulation could also lead to operational delays or increased operating costs in the production of crude oil and condensate, NGLs and natural gas, including from the shale plays, or could make it more difficult to perform hydraulic fracturing. The adoption of any federal, state or local laws or the implementation of regulations regarding hydraulic fracturing could potentially cause a decrease in the completion of new oil and gas wells and increased compliance costs which could increase costs of our operations and cause considerable delays in acquiring regulatory approvals to drill and complete wells.

The potential adoption of federal, state and local legislative and regulatory initiatives intended to address potential induced seismic activity in the areas in which we operate could result in increased compliance costs, operating restrictions or delays in the completion of oil and gas wells.

State and federal regulatory agencies have focused on a possible connection between the operation of injection wells used for oil and gas waste disposal and seismic activity. When caused by human activity, such events are called induced seismicity. Separate and apart from the referenced potential connection between injection wells and seismicity, concerns have been raised that hydraulic fracturing activities may be correlated to anomalous seismic events. Marathon uses hydraulic fracturing techniques throughout its U.S. operations.

While the scientific community and regulatory agencies at all levels are continuing to study the possible linkage between oil and gas activity and induced seismicity, some state regulatory agencies have modified their regulations or guidance to mitigate potential causes of induced seismicity. For example, Oklahoma has taken numerous regulatory actions in response to concerns related to the operation of produced water disposal wells and induced seismicity, and has issued guidelines to operators in certain areas of the State curtailing injection of produced water due to seismic concerns. Marathon does not currently own or operate injection wells or contract for such services in these areas. Further, Oklahoma issued guidelines to operators for management of anomalous seismicity that may be related to hydraulic fracturing activities in the SCOOP/STACK area. In addition, a number of lawsuits have been filed in Oklahoma alleging damage from seismicity relating to disposal well operations. Marathon has not been named in any of those lawsuits.

Increased seismicity in Oklahoma or other areas could result in additional regulation and restrictions on our operations and could lead to operational delays or increased operating costs. Additional regulation and attention given to induced seismicity could also lead to greater opposition, including litigation, to oil and gas activities.

Our business could be negatively impacted by cyberattacks targeting our computer and telecommunications systems and infrastructure, or targeting those of our third-party service providers.

Our business, like other companies in the oil and gas industry, has become increasingly dependent on digital technologies, including technologies that are managed by third-party service providers on whom we rely to help us collect, host or process information. Such technologies are integrated into our business operations and used as a part of our production and distribution systems in the U.S. and abroad, including those systems used to transport production to market, to enable communications, and to provide a host of other support services for our business. Use of the internet and other public networks for communications, services, and storage, including "cloud" computing, exposes all users (including our business) to cybersecurity risks.

While we and our third-party service providers commit resources to the design, implementation, and monitoring of our information systems, there is no guarantee that our security measures will provide absolute security. Despite these security measures, we may not be able to anticipate, detect, or prevent cyberattacks, particularly because the methodologies used by attackers change frequently or may not be recognized until launched, and because attackers are increasingly using techniques designed to circumvent controls and avoid detection. We and our third-party service

providers may therefore be vulnerable to security events that are beyond our control, and we may be the target of cyber-attacks, as well as physical attacks, which could result in information security breaches and significant disruption to our business. Our information systems and related infrastructure have experienced attempted and actual minor breaches of our cybersecurity in the past, but we have not suffered any losses or breaches which had a material effect on our business, operations or reputation relating to such attacks; however, there is no assurance that we will not suffer such losses or breaches in the future.

As cyberattacks continue to evolve, we may be required to expend significant additional resources to respond to cyberattacks, to continue to modify or enhance our protective measures, or to investigate and remediate any information

systems and related infrastructure security vulnerabilities. We may also be subject to regulatory investigations or litigation relating from cybersecurity issues.

Our level of indebtedness may limit our liquidity and financial flexibility.

As of December 31, 2018, our total debt was \$5.5 billion, with our next debt maturity in the amount of \$600 million due in 2020. Our indebtedness could have important consequences to our business, including, but not limited to, the following:

- we may be more vulnerable to general adverse economic and industry conditions;
- a portion of our cash flows from operating activities must be used to service our indebtedness and is not available for other purposes;
- our flexibility in planning for, or reacting to, changes in our industry may be limited;
- a financial covenant in our Credit Agreement stipulates that our total debt to capitalization ratio will not exceed 65% as of the last day of any fiscal quarter, and if exceeded, may make additional borrowings more expensive and affect our ability to plan for and react to changes in the economy and our industry;
- we may be at a competitive disadvantage as compared to similar companies that have less debt; and
- additional financing in the future for working capital, capital expenditures, acquisitions or development activities, general corporate or other purposes may have higher costs and more restrictive covenants.

We may incur additional debt in order to fund our capital expenditures, acquisitions or development activities, or for general corporate or other purposes. A higher level of indebtedness increases the risk that our financial flexibility may deteriorate. Our ability to meet our debt obligations and service our debt depends on future performance. General economic conditions, crude oil and condensate, NGLs and natural gas prices, and financial, business and other factors will affect our operations and our future performance. Many of these factors are beyond our control and we may not be able to generate sufficient cash flow to pay the interest on our debt, and future working capital, borrowings and equity financing may not be available to pay or refinance such debt. See Item 8. Financial Statements and Supplementary Data – Note 16 to the consolidated financial statements for a discussion of debt obligations. A downgrade in our credit rating could negatively impact our cost of and ability to access capital, which could adversely affect our business.

We receive debt ratings from the major credit rating agencies in the United States. Due to the volatility in crude oil and U.S. natural gas prices in recent years, credit rating agencies review companies in the energy industry periodically, including us. At December 31, 2018, our corporate credit ratings were: Standard & Poor's Global Ratings Services BBB- (positive); Fitch Ratings BBB (stable); and Moody's Investor Services, Inc. Ba1 (positive). The credit rating process is contingent upon a number of factors, many of which are beyond our control. A downgrade of our credit ratings could negatively impact our cost of capital and our ability to access the capital markets, increase the interest rate and fees we pay on our revolving credit facility, and may limit or reduce credit lines with our bank counterparties. We could also be required to post letters of credit or other forms of collateral for certain contractual obligations, which could increase our costs and decrease our liquidity or letter of credit capacity under our unsecured revolving credit facility. Limitations on our ability to access capital could adversely impact the level of our capital spending budget, our ability to manage our debt maturities, or our flexibility to react to changing economic and business conditions.

Our commodity price risk management activities may prevent us from fully benefiting from commodity price increases and may expose us to other risks, including counterparty risk.

Global commodity prices are volatile. In order to mitigate commodity price volatility and increase the predictability of cash flows related to the marketing of our crude oil and natural gas, we, from time to time, enter into crude oil and natural gas hedging arrangements with respect to a portion of our expected production. While hedging arrangements are intended to mitigate commodity price volatility, we may be prevented from fully realizing the benefits of price increases above the price levels of the derivative instruments used to manage price risk. In addition, our hedging arrangements may expose us to the risk of financial loss in certain circumstances, including instances in which the counterparties to our hedging contracts fail to perform under the contracts. See Item 7A. Quantitative and Qualitative Disclosures about Market Risk.

Worldwide political and economic developments and changes in law or policy could adversely affect our operations and materially reduce our profitability and cash flows.

Local political and economic factors in global markets could have a material adverse effect on us. A total of 29% of our crude oil and condensate, NGLs and natural gas related to continuing operations in 2018 was derived from production outside the U.S. and 16% of our proved reserves of crude oil and condensate, NGLs and natural gas as of December 31, 2018 were located outside the U.S. We are, therefore, subject to the political, geographic and economic risks and possible terrorist

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activities or other armed conflict attendant to doing business within or outside of the U.S. There are many risks associated with operations in countries such as E.G., and the Kurdistan Region of Iraq including:

- changes in governmental policies relating to crude oil and condensate, NGLs or natural gas and taxation;
- other political, economic or diplomatic developments and international monetary fluctuations;
- political and economic instability, war, acts of terrorism, armed conflict and civil disturbances;
- the possibility that a government may seize our property with or without compensation, may attempt to renegotiate or revoke existing contractual arrangements or may impose additional taxes or royalty burdens; and
- fluctuating currency values, hard currency shortages and currency controls.

Changes in the U.S. or global political and economic environment or any U.S. or global hostility or the occurrence or threat of future terrorist attacks, or other armed conflict, could adversely affect the economies of the U.S. and other developed countries. A lower level of economic activity could result in a decline in energy consumption, which could cause our revenues and margins to decline and limit our future growth prospects. These risks could lead to increased volatility in prices for crude oil and condensate, NGLs and natural gas. In addition, these risks could increase instability in the financial and insurance markets and make it more difficult for us to access capital and to obtain the insurance coverage that we consider adequate. These risks could also cause damage to, or the inability to access production facilities or other operating assets and could limit our service and equipment providers from delivering items necessary for us to conduct our operations.

Actions of governments through tax legislation or interpretations of tax law, and other changes in law, executive order and commercial restrictions could reduce our operating profitability, both in the U.S. and abroad. The U.S. government can prevent or restrict us from doing business in foreign countries. These restrictions and those of foreign governments have in the past limited our ability to operate in, or gain access to, opportunities in various countries and will continue to do so in the future. Changes in law could also adversely affect our results, including new regulations resulting in higher costs to transport our production by pipeline, rail car, truck or vessel or the adoption of government payment transparency regulations that could require us to disclose competitively sensitive commercial information or that could cause us to violate the non-disclosure laws of other countries.

Our operations may be adversely affected by pipeline, rail and other transportation capacity constraints. The marketability of our production depends in part on the availability, proximity, and capacity of pipeline facilities, rail cars, trucks and vessels. If any pipelines, rail cars, trucks or vessels become unavailable, we would, to the extent possible, be required to find a suitable alternative to transport our crude oil and condensate, NGLs and natural gas, which could increase the costs and/or reduce the revenues we might obtain from the sale of our production. Both the cost and availability of pipelines, rail cars, trucks, or vessels to transport our crude oil could be adversely impacted by new and expected state or federal regulations relating to transportation of crude oil.

If we acquire crude oil and natural gas properties, our failure to fully identify existing and potential problems, to accurately estimate reserves, production rates or costs, or to effectively integrate the acquired properties into our operations could materially and adversely affect our business, financial condition and results of operations. We typically seek the acquisition of crude oil and natural gas properties and leases. Although we perform reviews of properties to be acquired in a manner that we believe is diligent and consistent with industry practices, reviews of records and properties may not necessarily reveal existing or potential problems, nor may they permit us to become sufficiently familiar with the properties in order to fully assess possible deficiencies and potential problems. Even when problems with a property are identified, we often assume environmental and other risks and liabilities in connection with acquired properties pursuant to the acquisition agreements. Moreover, there are numerous uncertainties inherent in estimating quantities of crude oil and natural gas (as previously discussed), actual future production rates and associated costs with respect to acquired properties. Actual reserves, production rates and costs may vary substantially from those assumed in our estimates. In addition, an acquisition may have a material and adverse effect on our business and results of operations, particularly during the periods in which the operations of the acquired properties are being integrated into our ongoing operations or if we are unable to effectively integrate the acquired properties into our ongoing operations.

We operate in a highly competitive industry, and many of our competitors are larger and have available resources in excess of our own.

The oil and gas industry is highly competitive, and many competitors, including major integrated and independent oil and gas companies, as well as national oil companies, are larger and have substantially greater resources at their disposal than we do. We compete with these companies for the acquisition of oil and natural gas leases and other properties. We also compete with these companies for equipment and personnel, including petroleum engineers, geologists, geophysicists and other specialists, required to develop and operate those properties and in the marketing of crude oil and condensate, NGLs and natural

gas to end-users. Such competition can significantly increase costs and affect the availability of resources, which could provide our larger competitors a competitive advantage when acquiring equipment, leases and other properties. They may also be able to use their greater resources to attract and retain experienced personnel. Many of our major projects and operations are conducted jointly with other parties, which may decrease our ability to manage risk.

We often enter into arrangements to conduct certain business operations, such as oil and gas exploration and production with other parties in order to share risks associated with those operations. However, these arrangements also may decrease our ability to manage risks and costs, particularly where we are not the operator. We could have limited influence over and control of the behaviors and performance of these operations. In addition, misconduct, fraud, noncompliance with applicable laws and regulations or improper activities by or on behalf of one or more of our partners or co-working interest owners could have a significant negative impact on our business and reputation. Our operations are subject to business interruptions and casualty losses. We do not insure against all potential losses and therefore we could be seriously harmed by unexpected liabilities and increased costs.

Our United States and International operations are subject to unplanned occurrences, including blowouts, explosions, fires, loss of well control, spills, tornadoes, hurricanes and other adverse weather, tsunamis, earthquakes, volcanic eruptions or nuclear or other disasters, labor disputes and accidents. These same risks can be applied to the third-parties which transport our products from our facilities. A prolonged disruption in the ability of any pipelines, rail cars, trucks, or vessels to transport our production could contribute to a business interruption or increase costs. Our operations are also subject to the additional hazards of pollution, releases of toxic gas and other environmental hazards and risks. These hazards could result in serious personal injury or loss of human life, significant damage to property and equipment, environmental pollution, impairment of operations and substantial losses to us. Various hazards have adversely affected us in the past, and damages resulting from a catastrophic occurrence in the future involving us or any of our assets or operations may result in our being named as a defendant in one or more lawsuits asserting potentially large claims or in our being assessed potentially substantial fines by governmental authorities. We maintain insurance against many, but not all, potential losses or liabilities arising from operating hazards in amounts that we believe to be prudent. Uninsured losses and liabilities arising from operating hazards could reduce the funds available to us for capital, exploration and investment spending and could have a material adverse effect on our business, financial condition, results of operations and cash flows. Historically, we have maintained insurance coverage for physical damage including at times resulting business interruption to our major onshore and offshore facilities, with significant self-insured retentions. In the future, we may not be able to maintain or obtain insurance of the type and amount we desire at reasonable rates. As a result of market conditions, premiums and deductibles for our insurance policies will change over time and could escalate. In some instances, certain insurance could become unavailable or available only for reduced amounts of coverage. For example, due to historical hurricane activity, the availability of insurance coverage for windstorms has changed and, in some instances, it is uneconomical. As a result, our exposure to losses from future windstorm activity has increased.

Litigation by private plaintiffs or government officials or entities could adversely affect our performance.

We currently are defending litigation and anticipate that we will be required to defend new litigation in the future. The subject matter of such litigation may include releases of hazardous substances from our facilities, privacy laws, contract disputes, royalty disputes or any other laws or regulations that apply to our operations. In some cases the plaintiff or plaintiffs seek alleged damages involving large classes of potential litigants, and may allege damages relating to extended periods of time or other alleged facts and circumstances. If we are not able to successfully defend such claims, they may result in substantial liability. We do not have insurance covering all of these potential liabilities. In addition to substantial liability, litigation may also seek injunctive relief which could have an adverse effect on our future operations.

For instance, government entities and other groups have filed lawsuits in several states seeking to hold a wide variety of companies that produce fossil fuels liable for the alleged impacts of the greenhouse gas emissions attributable to those fuels. The lawsuits allege damages as a result of global warming and the plaintiffs are seeking unspecified damages and abatement under various tort theories. Marathon Oil has been named as a defendant in several of these lawsuits, along with numerous other companies. Similar lawsuits may be filed in other jurisdictions. The ultimate outcome and impact to us cannot be predicted with certainty, and we could incur substantial legal costs associated

with defending these and similar lawsuits in the future.

In connection with our separation from MPC, MPC agreed to indemnify us for certain liabilities. However, there can be no assurance that the indemnity will be sufficient to protect us against the full amount of such liabilities, or that MPC's ability to satisfy its indemnification obligations will not be impaired in the future.

Pursuant to the Separation and Distribution Agreement and the Tax Sharing Agreement we entered into with MPC in connection with the spin-off, MPC agreed to indemnify us for certain liabilities. However, third parties could seek to hold us responsible for any of the liabilities that MPC agreed to retain or assume, and there can be no assurance that the indemnification from MPC will be sufficient to protect us against the full amount of such liabilities, or that MPC will be able to fully satisfy its indemnification obligations. In addition, even if we ultimately succeed in recovering from MPC any amounts for which we are held liable, we may be temporarily required to bear these losses ourselves. The spin-off could result in substantial tax liability.

We obtained a private letter ruling from the IRS substantially to the effect that the distribution of shares of MPC common stock in the spin-off qualified as tax free to MPC, us and our stockholders for U.S. federal income tax purposes under Sections 355 and 368 and related provisions of the U.S. Internal Revenue Code of 1986, as amended (the "Code"). If the factual assumptions or representations made in the request for the private letter ruling prove to have been inaccurate or incomplete in any material respect, then we will not be able to rely on the ruling. Furthermore, the IRS does not rule on whether a distribution such as the spin-off satisfies certain requirements necessary to obtain tax-free treatment under Section 355 of the Code. Rather, the private letter ruling was based on representations by us that those requirements were satisfied, and any inaccuracy in those representations could invalidate the ruling. In connection with the spin-off, we also obtained an opinion of outside counsel, substantially to the effect that, the distribution of shares of MPC common stock in the spin-off qualified as tax free to MPC, us and our stockholders for U.S. federal income tax purposes under Sections 355 and 368 and related provisions of the Code. The opinion relied on, among other things, the continuing validity of the private letter ruling and various assumptions and representations as to factual matters made by MPC and us which, if inaccurate or incomplete in any material respect, would jeopardize the conclusions reached by such counsel in its opinion. The opinion is not binding on the IRS or the courts, and there can be no assurance that the IRS or the courts would not challenge the conclusions stated in the opinion or that any such challenge would not prevail.

If, notwithstanding receipt of the private letter ruling and opinion of counsel, the spin-off were determined not to qualify under Section 355 of the Code, each U.S. holder of our common stock who received shares of MPC common stock in the spin-off would generally be treated as receiving a taxable distribution of property in an amount equal to the fair market value of the shares of MPC common stock received. That distribution would be taxable to each such stockholder as a dividend to the extent of our accumulated earnings and profits as of the effective date of the spin-off. For each such stockholder, any amount that exceeded those earnings and profits would be treated first as a non-taxable return of capital to the extent of such stockholder's tax basis in its shares of our common stock with any remaining amount being taxed as a capital gain. We would be subject to tax as if we had sold all the outstanding shares of MPC common stock in a taxable sale for their fair market value and would recognize taxable gain in an amount equal to the excess of the fair market value of such shares over our tax basis in such shares.

Under the terms of the Tax Sharing Agreement we entered into with MPC in connection with the spin-off, MPC is generally responsible for any taxes imposed on MPC or us and our subsidiaries in the event that the spin-off and/or certain related transactions were to fail to qualify for tax-free treatment as a result of actions taken, or breaches of representations and warranties made in the Tax Sharing Agreement, by MPC or any of its affiliates. However, if the spin-off and/or certain related transactions were to fail to qualify for tax-free treatment because of actions or failures to act by us or any of our affiliates, we would be responsible for all such taxes.

We may issue preferred stock whose terms could dilute the voting power or reduce the value of Marathon Oil common stock.

Our restated certificate of incorporation authorizes us to issue, without the approval of our stockholders, one or more classes or series of preferred stock having such preferences, powers and relative, participating, optional and other rights, including preferences over Marathon Oil common stock respecting dividends and distributions, as our Board of Directors generally may determine. The terms of one or more classes or series of preferred stock could dilute the voting power or reduce the value of Marathon Oil common stock. For example, we could grant holders of preferred stock the right to elect some number of our directors in all events or on the happening of specified events or the right to veto specified transactions. Similarly, the repurchase or redemption rights or liquidation preferences we could assign to holders of preferred stock could affect the residual value of the common stock.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

The location and general character of our principal crude oil and condensate, NGLs and natural gas properties and facilities, and other important physical properties have been described by segment under Item 1. Business.

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Estimated net proved crude oil and condensate, NGLs and natural gas reserves and the basis for estimating these reserves are set forth in Item 8. Financial Statements and Supplementary Data – Supplementary Information on Oil and Gas Producing Activities.

Item 3. Legal Proceedings

We are a defendant in a number of legal and administrative proceedings arising in the ordinary course of business, including, but not limited to, royalty claims, contract claims, tax disputes and environmental claims. While the ultimate outcome and impact to us cannot be predicted with certainty, we believe the resolution of these proceedings will not have a material adverse effect on our consolidated financial position, results of operations or cash flows. See Item 8. Financial Statements and Supplementary Data – Note 25 to the consolidated financial statements for a description of such legal and administrative proceedings.

Environmental Proceedings

The following is a summary of certain proceedings involving us that were pending or contemplated as of December 31, 2018, under federal and state environmental laws.

Government entities have filed lawsuits in several states seeking to hold a wide variety of companies that produce fossil fuels liable for the alleged impacts of the greenhouse gas emissions attributable to those fuels. The lawsuits allege damages as a result of global warming and the plaintiffs are seeking unspecified damages and abatement under various tort theories. Marathon Oil has been named as a defendant in several of these lawsuits, along with numerous other companies. Similar lawsuits may be filed in other jurisdictions. While the ultimate outcome and impact to us cannot be predicted with certainty, we believe that the claims made against us are without merit and will not have a material adverse effect on our consolidated financial position, results of operations or cash flow.

As of December 31, 2018, we have sites across the country where remediation is being sought under environmental statutes, both federal and state, or where private parties are seeking remediation through discussions or litigation.

Based on currently available information the accrued amount to address the clean-up and remediation costs connected with these sites is not material.

If our assumptions relating to these costs prove to be inaccurate, future expenditures may exceed our accrued amounts.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

The principal market on which Marathon Oil common stock is traded is the New York Stock Exchange ("NYSE"), and is traded under the trading symbol 'MRO'. As of January 31, 2019, there were 29,960 registered holders of Marathon Oil common stock.

Dividends – Our Board of Directors intends to declare and pay dividends on Marathon Oil common stock based on our financial condition and results of operations, although it has no obligation under Delaware law or the Restated Certificate of Incorporation to do so. In determining our dividend policy, the Board will rely on our consolidated financial statements. Dividends on Marathon Oil common stock are limited to our legally available funds.

The following table provides information about purchases by Marathon Oil and its affiliated purchaser, during the quarter ended December 31, 2018, of equity securities that are registered by Marathon Oil pursuant to Section 12 of the Securities Exchange Act of 1934:

Period	Total Number of Shares Purchased ^(a)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs ^(b)	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs ^(b)
10/01/18 – 10/31/18	187,151,077	\$ 21.52	7,110,719	\$ 1,009,043,095
11/01/18 – 11/30/18	186,260,834	\$ 16.74	6,256,479	\$ 904,286,215
12/01/18 – 12/31/18	186,593,370	\$ 15.78	6,592,195	\$ 800,286,037
Total	20,005,281	\$ 18.13	19,959,393	

^(a) 45,888 shares of restricted stock were delivered by employees to Marathon Oil, upon vesting, to satisfy tax withholding requirements.

^(b) In January 2006, we announced a \$2.0 billion share repurchase program. Our Board of Directors subsequently increased the authorization for repurchases under the program by \$500 million in January 2007, by \$500 million in May 2007, by \$2.0 billion in July 2007, and by \$1.2 billion in December 2013, for a total authorized amount of \$6.2 billion.

As of December 31, 2018, we have repurchased 157 million common shares at a cost of approximately \$5.4 billion, excluding transaction fees and commissions. Of this total, approximately 20 million shares were acquired at a cost of approximately \$362 million during the fourth quarter of 2018. The remaining share repurchase authorization as of December 31, 2018 is approximately \$800 million. Purchases under the program are made at our discretion and may be in either open market transactions, including block purchases, or in privately negotiated transactions using cash on hand, cash generated from operations, proceeds from potential asset sales or cash from available borrowings to acquire shares. This program may be changed based upon our financial condition or changes in market conditions and is subject to termination prior to completion. Shares repurchased as of December 31, 2018 were held as treasury stock.

Item 6. Selected Financial Data

(In millions, except per share data)	Year Ended December 31,				
	2018	2017	2016	2015	2014
Statement of Income Data ^{(a)(b)(c)}					
Total revenues and other income	\$6,582	\$4,765	\$3,787	\$4,953	\$9,646
Income (loss) from continuing operations	1,096	(830)	(2,087)	(1,701)	710
Discontinued operations	—	(4,893)	(53)	(503)	2,336
Net income (loss)	1,096	(5,723)	(2,140)	(2,204)	3,046
Per Share Data ^{(a)(b)(c)}					
Basic:					
Income (loss) from continuing operations	\$1.30	\$(0.97)	\$(2.55)	\$(2.51)	\$1.04
Discontinued operations	\$—	\$(5.76)	\$(0.06)	\$(0.75)	\$3.44
Net income (loss)	\$1.30	\$(6.73)	\$(2.61)	\$(3.26)	\$4.48
Diluted:					
Income (loss) from continuing operations	\$1.29	\$(0.97)	\$(2.55)	\$(2.51)	\$1.04
Discontinued operations	\$—	\$(5.76)	\$(0.06)	\$(0.75)	\$3.42
Net income (loss)	\$1.29	\$(6.73)	\$(2.61)	\$(3.26)	\$4.46
Statement of Cash Flows Data ^(b)					
Additions to property, plant and equipment related to continuing operations	\$(2,753)	\$(1,974)	\$(1,204)	\$(3,485)	\$(4,937)
Dividends paid	169	170	162	460	543
Dividends per share	\$0.20	\$0.20	\$0.20	\$0.68	\$0.80
Balance Sheet Data at December 31					
Total assets	\$21,321	\$22,012	\$31,094	\$32,311	\$35,983
Total long-term debt, including capitalized leases	5,499	5,494	6,581	7,268	5,285

Includes impairments to producing properties of \$75 million, \$229 million, \$67 million, \$381 million and \$132 million in 2018, 2017, 2016, 2015 and 2014 and impairments to unproved properties of \$208 million, \$246 million, \$195 million, \$655 million and \$306 million in 2018, 2017, 2016, 2015 and 2014 (see Item 8. Financial Statements and Supplementary Data – Note 11 to the consolidated financial statements). Includes a goodwill impairment of \$340 million in 2015 related to the U.S. reporting unit.

We closed on the sale of our Canada business in 2017 which resulted in an after-tax non-cash impairment charge of \$4.96 billion and our Angola assets and Norway business in 2014 (see Item 8. Financial Statements and Supplementary Data – Note 5 to the consolidated financial statements). The applicable periods have been recast to reflect as discontinued operations.

December 31, 2016 includes the increase of a valuation allowance on certain of our deferred tax assets for \$1,346 million.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the information under Item 8. Financial Statements and Supplementary Data and the other financial information found elsewhere in this Form 10-K. The following discussion includes forward-looking statements that involve certain risks and uncertainties. See "Disclosures Regarding Forward-Looking Statements" (immediately prior to Part I) and Item 1A. Risk Factors.

Each of our two reportable operating segments are organized by geographic location and managed according to the nature of the products and services offered.

• **United States** – explores for, produces and markets crude oil and condensate, NGLs and natural gas in the United States;

• **International** – explores for, produces and markets crude oil and condensate, NGLs and natural gas outside of the United States and produces and markets products manufactured from natural gas, such as LNG and methanol, in E.G.

Executive Overview

During 2018, we continued our outstanding operational execution and capital efficiency across our multi-basin U.S. portfolio, maintained a strong balance sheet and delivered solid financial results. Total proved reserves were 1.3 billion boe and total assets were \$21.3 billion at December 31, 2018. Additionally in 2018, we closed on the sale of our subsidiary, Marathon Oil Libya Limited and entered into agreements to complete a full country exit in Kurdistan. Our 2018 financial and operating results highlighted below reflect our ongoing commitment to our core strategy of continuous corporate returns improvement, sustainable cash flow generation at conservative oil prices and the return of capital to shareholders.

Key highlights include the following:

Simplifying and concentrating our portfolio

• Early in 2018 we closed on the sale of our Libya subsidiary for proceeds of approximately \$450 million resulting in a gain of \$255 million and received \$750 million in remaining proceeds from the sale of our Canadian business.

• During 2018 we entered into agreements for the sale of our interest in the non-operated Sarsang and Atrush blocks which will complete our full country exit from Kurdistan. We expect the remaining transaction for our subsidiary Marathon Oil KDV B.V., which holds our non-operated interest in the Atrush block, to close in the first half of 2019.

• In July 2018 we closed on the sale of non-core, non-operated conventional assets in the U.S. segment for a pre-tax gain of \$32 million, including three in the Gulf of Mexico, further concentrating and simplifying our portfolio.

• In Northern Delaware we acquired 1,800 net acres in New Mexico for \$105 million from the Bureau of Land Management lease sale, which is synergistic with our existing footprint in the resource play.

• Captured approximately 260,000 net acres in the emerging Louisiana Austin Chalk play at a cost of less than \$850 per acre.

Strengthened balance sheet and liquidity

• Returned additional capital to shareholders in 2018 by acquiring 36 million of common shares at a cost of \$700 million, with \$800 million of repurchase authorization remaining.

• Reduced estimated costs of our asset retirement obligations by \$338 million primarily through accelerating our U.K. abandonment timing to capture favorable market conditions and through the disposition of Gulf of Mexico assets.

• Cash and cash equivalents increased approximately \$900 million as a result of the sale of our Libya subsidiary and the receipt of the remaining proceeds from the sale of our Canadian business.

• Cash provided by operating activities from continuing operations increased by 63%, compared to the same period last year, to \$3,234 million primarily as a result of increased price realizations and net sales volumes in our U.S. resource plays.

Financial and operational results

• Total net sales volumes for the year were 420 mboed, including 298 mboed in the U.S. Our U.S. net sales volumes increased 64 mboed and our wells to sales increased 18% compared to 2017.

• Added proved reserves of 186 mmbob for a reserve replacement ratio from continuing operations of 125%.

• Our net income per share from continuing operations was \$1.30 in 2018 as compared to a net loss per share of \$0.97 last year. Included in the 2018 net income are:

An increase in revenues of approximately 39% compared to 2017, as a result of increased price realizations of 28% and a 27% increase in net sales volumes in the United States.

Our net gain on disposal of assets increased in 2018 to \$319 million due to the sale of our Libya subsidiary for \$255 million.

Production expense, taxes other than income and shipping, handling and other increased 18%, 63% and 33%, during 2018 as a result of an increase in net sales volumes across our U.S. resource plays.

Exploration and impairment expenses decreased by \$274 million to \$364 million, year over year, primarily due to non-cash impairment charges on proved and unproved properties in 2017. See Item 8. Financial Statements and Supplementary Data - Note 11 to the consolidated financial statements for further detail.

Outlook

Capital Budget

On February 13, 2019 we announced our total 2019 Capital Budget of \$2.6 billion, which includes approximately \$2.4 billion of development capital and approximately \$200 million to fund resource play leasing and exploration ("REx"). Our \$2.4 billion development capital budget is 95% dedicated to the four U.S. resource plays with approximately 60% allocated to the Eagle Ford and Bakken and approximately 40% allocated to Oklahoma and the Northern Delaware. Our 2019 Capital Budget is broken down by reportable segment in the table below:

(In millions)	Capital Budget
United States ^(a)	\$ 2,525
International and corporate other ^(b)	75
Total Capital Budget	\$ 2,600

^(a) Includes approximately \$200 million of spend to fund REX.

^(b) International and corporate other includes our International segment and other corporate items.

Operations

Our net sales volumes increased 11% in 2018 primarily as a result of new wells to sales across all U.S. resource plays. The following table presents a summary of our sales volumes for each of our segments. Refer to the Results of Operations section for a price-volume analysis for each of the segments.

Net Sales Volumes	2018	Increase (Decrease)	2017	Increase (Decrease)	2016
United States (mboed)	298	27 %	234	5 %	223
International (mboed) ^(a)	122	(16)%	145	19 %	122
Total continuing operations (mboed)	420	11 %	379	10 %	345

^(a) We closed on the sale of our Libya subsidiary in the first quarter of 2018. Years ended December 31, 2018, 2017 and 2016 includes net sales volumes relating to Libya of 8 mboed, 20 mboed and 3 mboed.

United States

Net sales volumes in the segment were higher during the year ended December 31, 2018 primarily as a result of new wells to sales across all U.S. resource plays. The following tables provide additional details regarding net sales volumes, sales mix and operational drilling activity for our significant operations within this segment:

Net Sales Volumes	2018	Increase (Decrease)	2017	Increase (Decrease)	2016
Equivalent Barrels (mboed)					
Eagle Ford	108	7%	101	(4)%	105
Bakken	84	50%	56	4%	54
Oklahoma	74	37%	54	54%	35
Northern Delaware	20	233%	6	100%	—
Other United States ^(a)	12	(29)%	17	(41)%	29

Total United States (mboed) 298 27% 234 5% 223

(a) Year ended December 31, 2018 includes decreases of 5 mboed, relating primarily to the disposition of certain assets in the Gulf of Mexico and conventional assets in Oklahoma in July 2018 and September 2017 and Colorado in October 2017. Additionally, year ended December 31, 2017 includes decreases of 14 mboed, consisting of the disposition of Wyoming and certain non-operated CO2 and waterflood assets in West Texas and New Mexico in 2016. See Item 8. Financial Statements and Supplementary Data - Note 5 to the consolidated financial statements for information about these dispositions.

Sales Mix - U.S. Resource Plays - 2018	Eagle Ford	Bakken	Oklahoma	Northern Delaware	Total
Crude oil and condensate	59%	85%	25%	58%	57%
Natural gas liquids	21%	8%	28%	20%	20%
Natural gas	20%	7%	47%	22%	23%

Drilling Activity - U.S. Resource Plays 2018 2017 2016

Gross Operated

Eagle Ford:

Wells drilled to total depth 123 182 168

Wells brought to sales 149 157 168

Bakken:

Wells drilled to total depth 78 90 3

Wells brought to sales 80 39 13

Oklahoma:

Wells drilled to total depth 55 86 33

Wells brought to sales 57 73 28

Northern Delaware:

Wells drilled to total depth 69 27 —

Wells brought to sales 52 18 —

Eagle Ford – Our net sales volumes were 108 mboed in 2018, which was 7% higher compared to 2017. We brought 149 gross company-operated wells to sales in 2018. In Atascosa County, we brought online 40 wells during 2018 with strong well results, demonstrating the strength of the extended core. During 2018, we generated significant cash flow, improved well productivity with annual oil growth of 7%, despite 5% fewer gross company-operated wells to sales.

Bakken – Our net sales volumes of 84 mboed in 2018 represented a 50% increase over the prior year of 56 mboed. We brought 80 gross company-operated wells to sales in 2018 with continued impressive well results. During 2018, we delivered best-in-basin well performance, significant cash flow, capital efficient annual oil growth of 53%, and successful core extension tests in the Ajax, Southern Hector and Elk Creek areas. During the fourth quarter we conducted a successful core extension test in the Ajax area of Dunn County, as the four-well Gloria pad achieved strong results at an average completed well cost of approximately \$5 million.

Oklahoma – Our net sales volumes in 2018 increased by 37% from 2017, with net sales volumes of 74 mboed. We brought 57 gross company-operated wells to sales in 2018. In 2018, we successfully transitioned to infill development in the over-pressured STACK Meramec and SCOOP Woodford, delivering competitive returns and predictable results at various spacing designs.

Northern Delaware – Our net sales volumes were 20 mboed in 2018 while bringing 52 gross company-operated wells to sales. We continue to make significant progress in improving efficiencies and midstream access for all products to protect and enhance margins. During the fourth quarter, we executed a comprehensive water management agreement covering the entire Red Hills prospect area, complementing a previously announced agreement in Eddy County.

International

Net sales volumes in the segment were lower during the year ended December 31, 2018 primarily due to the sale of our subsidiary in Libya, planned maintenance activities and natural declines in E.G. The following table provides details regarding net sales volumes for our significant operations within this segment:

Net Sales Volumes	2018	Increase (Decrease)	2017	Increase (Decrease)	2016
Equivalent Barrels (mboed)					
Equatorial Guinea	97	(11)%	109	7%	102
United Kingdom ^(a)	13	(7)%	14	(18)%	17
Libya	8	(60)%	20	567%	3
Other International	4	100%	2	100%	—
Total International	122	(16)%	145	19%	122
Equity Method Investees					
LNG (mtd)	5,805	(10)%	6,423	9%	5,874
Methanol (mtd)	1,241	(10)%	1,374	1%	1,358
Condensate and LPG (boed)	13,034	(10)%	14,501	8%	13,430

^(a) Includes natural gas acquired for injection and subsequent resale.

- Equatorial Guinea – Net sales volumes in 2018 were lower than 2017 as a result of timing of liftings, natural field decline and planned maintenance activities during the year.

United Kingdom – Net sales volumes in 2018 were slightly lower than 2017 primarily due to unscheduled downtime at the non-operated Foinaven complex in the fourth quarter 2018.

Libya – During the first quarter of 2018 we closed on the sale of our subsidiary in Libya. See Note 5 to the consolidated financial statements for further information.

Market Conditions

Crude oil and condensate and NGLs benchmarks increased in 2018 as compared to the same period in 2017. As a result, we experienced increased price realizations associated with those benchmarks. We continue to expect crude oil and condensate, NGLs and natural gas benchmark prices to remain volatile based on global supply and demand, which will result in increases or decreases in our price realizations during 2019. See Item 1A. Risk Factors and Item 7. Management's Discussion and Analysis of Financial Condition – Critical Accounting Estimates for further discussion of how declines in commodity prices could impact us. Additional detail on market conditions, including our average price realizations and benchmarks for crude oil and condensate, NGLs and natural gas relative to our operating segments, follows.

United States

The following table presents our average price realizations and the related benchmarks for crude oil and condensate, NGLs and natural gas for 2018, 2017 and 2016.

	2018	Increase (Decrease)		2017	Increase (Decrease)		2016
Average Price Realizations ^(a)							
Crude oil and condensate (per bbl) ^(b)	\$63.11	28 %		\$49.35	28 %		\$38.57
Natural gas liquids (per bbl)	24.54	19 %		20.55	56 %		13.15
Natural gas (per mcf) ^(c)	2.65	(7)%		2.84	19 %		2.38
Benchmarks							
WTI crude oil average of daily prices (per bbl)	\$64.90	28 %		\$50.85	17 %		\$43.47
LLS crude oil average of daily prices (per bbl)	70.04	30 %		54.04	20 %		45.02
Mont Belvieu NGLs (per bbl) ^(d)	28.63	20 %		23.76	37 %		17.40
Henry Hub natural gas settlement date average (per mmbtu)	3.09	(1)%		3.11	26 %		2.46

^(a) Excludes gains or losses on commodity derivative instruments.

^(b) Inclusion of realized gains (losses) would have impacted average price realizations by \$(4.60) per bbl, \$0.75 per bbl, and \$0.92 per bbl for 2018, 2017, and 2016.

^(c) Inclusion of realized gains (losses) on natural gas derivative instruments would have a minimal impact on average price realizations for the periods presented.

^(d) Bloomberg Finance LLP: Y-grade Mix NGL of 50% ethane, 25% propane, 10% butane, 5% isobutane and 10% natural gasoline.

Crude oil and condensate – Price realizations may differ from benchmarks due to the quality and location of the product.

Natural gas liquids – The majority of our sales volumes are at reference to Mont Belvieu prices.

Natural gas – A significant portion of volumes are sold at bid-week prices, or first-of-month indices relative to our producing areas.

International

The following table presents our average price realizations and the related benchmark for crude oil for 2018, 2017 and 2016.

	2018	Increase (Decrease)		2017	Increase (Decrease)		2016
Average Price Realizations							
Crude oil and condensate (per bbl)	\$64.25	21 %		\$53.05	27 %		\$41.70
Natural gas liquids (per bbl)	2.27	(28)%		3.15	49 %		2.11
Natural gas (per mcf)	0.54	(2)%		0.55	6 %		0.52
Benchmark							
Brent (Europe) crude oil (per bbl) ^(a)	\$71.06	31 %		\$54.25	25 %		\$43.55

^(a) Average of monthly prices obtained from the United States Energy Information Agency website.

United Kingdom

Crude oil and condensate – Generally sold in relation to the Brent crude benchmark.

Equatorial Guinea

Crude oil and condensate – Alba Field liquids production is primarily condensate and generally sold in relation to the Brent crude benchmark. Alba Plant LLC processes the rich hydrocarbon gas which is supplied by the Alba Field under a fixed price long term contract. Alba Plant LLC extracts NGL's and secondary condensate which is then sold by Alba Plant LLC at market prices, with our share of the revenue reflected in income from equity method investments on the consolidated statements of income.

Natural gas liquids – Wet gas is sold to Alba Plant LLC at a fixed-price term contract resulting in realized prices not fully tracking market price. Alba Plant LLC extracts NGLs, which are sold at market price, with our share of income from Alba Plant LLC being reflected in the income from equity method investments on the consolidated statements of

income.

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Natural gas - Dry natural gas is sold to EGHoldings and AMPCO at fixed-price long term contracts resulting in realized prices not fully tracking market price. We derive additional value from the equity investment in our downstream gas processing units EG LNG and AMPCO that market LNG and methanol at market prices.

Consolidated Results of Operations: 2018 compared to 2017

Revenues from contracts with customers are presented by segment in the table below:

(In millions)	Year Ended	
	December 31, 2018	December 31, 2017
Revenues from contracts with customers		
United States	\$4,886	\$3,093
International	1,016	1,154
Segment revenues from contracts with customers	\$5,902	\$4,247

Below is a price/volume analysis for each segment. Refer to the preceding [Operations](#) and [Market Conditions](#) sections for additional detail related to our net sales volumes and average price realizations.

(In millions)	Year Ended December 31, 2017	Increase (Decrease) Related to		Year Ended December 31, 2018
		Price Realizations	Net Sales Volumes	
United States Price/Volume Analysis				
Crude oil and condensate	\$ 2,402	\$861	\$ 684	\$ 3,947
Natural gas liquids	324	80	91	495
Natural gas	361	(30)	82	413
Other sales	6			31
Total	\$ 3,093			\$ 4,886
International Price/Volume Analysis				
Crude oil and condensate	\$ 1,000	\$155	\$ (267)	\$ 888
Natural gas liquids	15	(4)	(2)	9
Natural gas	97	(2)	(9)	86
Other sales	42			33
Total	\$ 1,154			\$ 1,016

Net loss on commodity derivatives decreased \$22 million in 2018 from 2017. We have multiple crude oil and natural gas derivative contracts indexed to NYMEX WTI and Henry Hub. We record commodity derivative gains/losses as the index pricing and forward curves change each period. See [Note 14](#) to the consolidated financial statements for further information.

Marketing revenues decreased \$162 million in 2018 from 2017. This decrease is the result of adopting the new revenue standard, ASC Topic 606, Revenue from Contracts with Customers during the first quarter of 2018. As a result of this standard, we have changed our presentation of marketing revenues and marketing expenses from the historical gross presentation to a net presentation. See [Note 2](#) to the consolidated financial statements for further information.

Income from equity method investments decreased \$31 million primarily due to higher production costs and lower volumes and pricing at our E.G. LNG production facility. Our higher production costs and lower volumes were primarily driven by planned maintenance activities during the first quarter 2018.

Net gain on disposal of assets increased \$261 million in 2018 from 2017. This increase was primarily related to the 2018 sale of our Libya subsidiary for a pre-tax gain of \$255 million; and also includes the sale of non-core assets in the Gulf of Mexico and our International segment during the current year. See Item 8. Financial Statements and

Supplementary Data - Note 5 to the consolidated financial statements for information about these dispositions. Other income increased \$72 million in 2018 from 2017 primarily a result of the reduction of our U.K. asset retirement obligation during 2018. See Item 8. Financial Statements and Supplementary Data - Note 12 to the consolidated financial statements for detail about our asset retirement obligation. Production expenses increased \$126 million during 2018 from 2017 primarily due to higher sales volumes across our United States segment. Our United States segment increased \$149 million primarily due to higher costs as a result of increased

sales volumes and new wells to sales in our developing Northern Delaware asset. International segment decreased \$24 million primarily due to the sale of our subsidiary in Libya in the first quarter 2018.

The following table provides production expense and production expense rates for each segment:

(in millions/\$ per boe)	2018		2017	
Production Expense and Production Expense Rate	Expense	Rate	Expense	Rate
United States	\$625	\$5.75	\$476	\$5.57
International	\$215	\$4.86	\$239	\$4.51

Marketing costs decreased \$168 million in 2018 from 2017. This decrease is the result of adopting the new revenue standard, ASC Topic 606, Revenue from Contracts with Customers during the first quarter of 2018. As a result of this standard, we have changed our presentation of marketing revenues and marketing expenses from the historical gross presentation to a net presentation. See Note 2 to the consolidated financial statements for further information.

Shipping, handling and other operating expenses increased \$144 million in 2018 from 2017 primarily as a result of increased sales volumes in our United States segment.

Exploration expenses decreased \$120 million during 2018 versus the comparable 2017. The decrease was primarily due to lower unproved property impairments and dry well costs in certain non-core international properties in 2018 versus 2017. See Item 8. Financial Statements and Supplementary Data - Note 11 to the consolidated financial statements for details of these items.