# Section 1: 10-K (10-K)

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UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

# FORM 10-K

**(Mark One)**

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

**For the fiscal year ended December 31, 2018**

**OR**

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

**For the transition period from _________ to _________**

**Commission file number 001-35054**

# Marathon Petroleum Corporation

(Exact name of registrant as specified in its charter)

| | |
|---|---|
| **Delaware** | **27-1284632** |
| (State or other jurisdiction of incorporation or organization) | (I.R.S. Employer Identification No.) |

**539 South Main Street, Findlay, OH 45840-3229**
(Address of principal executive offices)

**(419) 422-2121**
(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 |
|---|---|
| Common Stock, par value $.01 | New York Stock Exchange |

**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, accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See definition of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

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 was approximately $31.9 billion. This amount is based on the closing price of the registrant's Common Stock on the New York Stock Exchange on June 29, 2018. 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 673,619,190 shares of Marathon Petroleum Corporation Common Stock outstanding as of February 15, 2019.

**Documents Incorporated By Reference**

Portions of the registrant's proxy statement relating to its 2019 Annual Meeting of Shareholders, 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 PETROLEUM CORPORATION

Unless otherwise stated or the context otherwise indicates, all references in this Annual Report on Form 10-K to "MPC," "us," "our," "we" or "the Company" mean Marathon Petroleum Corporation and its consolidated subsidiaries.

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**GLOSSARY OF TERMS**

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

| | |
|---|---|
| ASC | Accounting Standards Codification |
| ANS | Alaskan North Slope crude oil, an oil index benchmark price |
| ASU | Accounting Standards Update |
| ASR | Accelerated share repurchase |
| ATB | Articulated tug barges |
| barrel | One stock tank barrel, or 42 United States gallons liquid volume, used in reference to crude oil or other liquid hydrocarbons. |
| bcf/d | One billion cubic feet per day |
| CARB | California Air Resources Board |
| CARBOB | California Reformulated Gasoline Blendstock for Oxygenate Blending |
| CBOB | Conventional Blending for Oxygenate Blending |
| DEI | Designated Environmental Incidents |
| EBITDA (a non-GAAP financial measure) | Earnings Before Interest, Tax, Depreciation and Amortization |
| EPA | United States Environmental Protection Agency |
| FASB | Financial Accounting Standards Board |
| GAAP | Accounting principles generally accepted in the United States |
| IDR | Incentive Distribution Right |
| LCM | Lower of cost or market |
| LIBO Rate | London Interbank Offered Rate |
| LIFO | Last in, first out |
| LLS | Louisiana Light Sweet crude oil, an oil index benchmark price |
| mbpd | Thousand barrels per day |
| mbpcd | Thousand barrels per calender day |
| Mcf | One thousand cubic feet of natural gas |
| mmbpcd | Million barrels per calender day |
| MMcf/d | One million cubic feet of natural gas per day |
| MMBtu | One million British thermal units per day |
| NYMEX | New York Mercantile Exchange |
| NYSE | New York Stock Exchange |
| NGL | Natural gas liquids, such as ethane, propane, butanes and natural gasoline |
| PADD | Petroleum Administration for Defense District |
| OPEC | Organization of Petroleum Exporting Countries |
| OSHA | United States Occupational Safety and Health Administration |
| OTC | Over-the-Counter |
| ppb | Parts per billion |
| ppm | Parts per million |
| RFS2 | Revised Renewable Fuel Standard program, as required by the Energy Independence and Security Act of 2007 |
| RIN | Renewable Identification Number |
| SEC | United States Securities and Exchange Commission |
| STAR | South Texas Asset Repositioning |
| TCJA | Tax Cuts and Jobs Act of 2017 |
| ULSD | Ultra-low sulfur diesel |
| USGC | U.S. Gulf Coast |
| UST | Underground storage tank |
| VIE | Variable interest entity |
| VPP | Voluntary Protection Program |
| WTI | West Texas Intermediate crude oil, an oil index benchmark price |

## DISCLOSURES REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K, particularly Item 1. Business, Item 1A. Risk Factors, Item 3. Legal Proceedings, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations and Item 7A. Quantitative and Qualitative Disclosures about Market Risk, includes forward-looking statements. You can identify our forward-looking statements by words such as "anticipate," "believe," "could," "design," "estimate," "expect," "forecast," "goal," "guidance," "imply," "intend," "may," "objective," "opportunity," "outlook," "plan," "position," "potential," "predict," "project," "prospective," "pursue," "seek," "should," "strategy," "target," "will," "would" or other similar expressions that convey the uncertainty of future events or outcomes. In accordance with "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, these statements are accompanied by cautionary language identifying important factors, though not necessarily all such factors, that could cause future outcomes to differ materially from those set forth in the forward-looking statements.

Forward-looking statements include, but are not limited to, statements that relate to, or statements that are subject to risks, contingencies or uncertainties that relate to:

- the risk that the cost savings and any other synergies from the Andeavor acquisition may not be fully realized or may take longer to realize than expected;
- disruption from the Andeavor acquisition making it more difficult to maintain relationships with customers, employees or suppliers;
- risks relating to any unforeseen liabilities of Andeavor;
- the potential merger, consolidation or combination of MPLX LP with Andeavor Logistics LP;
- future levels of revenues, refining and marketing margins, operating costs, retail gasoline and distillate margins, merchandise margins, income from operations, net income or earnings per share;
- the regional, national and worldwide availability and pricing of refined products, crude oil, natural gas, NGLs and other feedstocks;
- consumer demand for refined products;
- our ability to manage disruptions in credit markets or changes to our credit rating;
- future levels of capital, environmental or maintenance expenditures, general and administrative and other expenses;
- the success or timing of completion of ongoing or anticipated capital or maintenance projects;
- the reliability of processing units and other equipment;
- business strategies, growth opportunities and expected investments;
- share repurchase authorizations, including the timing and amounts of any common stock repurchases;
- the adequacy of our capital resources and liquidity, including but not limited to, availability of sufficient cash flow to execute our business plan and to effect any share repurchases or dividend increases, including within the expected timeframe;
- the effect of restructuring or reorganization of business components;
- the potential effects of judicial or other proceedings on our business, financial condition, results of operations and cash flows;
- continued or further volatility in and/or degradation of general economic, market, industry or business conditions;
- compliance with federal and state environmental, economic, health and safety, energy and other policies and regulations, including the cost of compliance with the Renewable Fuel Standard, and/or enforcement actions initiated thereunder; and
- the anticipated effects of actions of third parties such as competitors, activist investors or federal, foreign, state or local regulatory authorities or plaintiffs in litigation.

Our forward-looking statements are not guarantees of future performance, and you should not rely unduly on them, as they involve risks, uncertainties and assumptions that we cannot predict. Material differences between actual results and any future performance suggested in our forward-looking statements could result from a variety of factors, including the following:

- volatility or degradation in general economic, market, industry or business conditions;
- availability and pricing of domestic and foreign supplies of natural gas, NGLs and crude oil and other feedstocks;
- the ability of the members of the OPEC to agree on and to influence crude oil price and production controls;
- availability and pricing of domestic and foreign supplies of refined products such as gasoline, diesel fuel, jet fuel, home heating oil and petrochemicals;

- foreign imports and exports of crude oil, refined products, natural gas and NGLs;
- refining industry overcapacity or under capacity;
- changes in producer customers' drilling plans or in volumes of throughput of crude oil, natural gas, NGLs, refined products or other hydrocarbon-based products;
- changes in the cost or availability of third-party vessels, pipelines, railcars and other means of transportation for crude oil, natural gas, NGLs, feedstocks and refined products;
- changes to our capital budget, expected construction costs and timing of projects;
- the price, availability and acceptance of alternative fuels and alternative-fuel vehicles and laws mandating such fuels or vehicles;
- fluctuations in consumer demand for refined products, natural gas and NGLs, including seasonal fluctuations;
- political and economic conditions in nations that consume refined products, natural gas and NGLs, including the United States, and in crude oil producing regions, including the Middle East, Africa, Canada and South America;
- actions taken by our competitors, including pricing adjustments, expansion of retail activities, the expansion and retirement of refining capacity and the expansion and retirement of pipeline capacity, processing, fractionation and treating facilities in response to market conditions;
- completion of pipeline projects within the United States;
- changes in fuel and utility costs for our facilities;
- failure to realize the benefits projected for capital projects, or cost overruns associated with such projects;
- modifications to MPLX and ANDX earnings and distribution growth objectives;
- the ability to successfully implement growth opportunities, including strategic initiatives and actions;
- risks and uncertainties associated with intangible assets, including any future goodwill or intangible assets impairment charges;
- the ability to realize the strategic benefits of joint venture opportunities;
- accidents or other unscheduled shutdowns affecting our refineries, machinery, pipelines, processing, fractionation and treating facilities or equipment, or those of our suppliers or customers;
- unusual weather conditions and natural disasters, which can unforeseeably affect the price or availability of crude oil and other feedstocks and refined products;
- acts of war, terrorism or civil unrest that could impair our ability to produce refined products, receive feedstocks or to gather, process, fractionate or transport crude oil, natural gas, NGLs or refined products;
- state and federal environmental, economic, health and safety, energy and other policies and regulations, including the cost of compliance with the renewable fuel standard program;
- adverse changes in laws including with respect to tax and regulatory matters;
- rulings, judgments or settlements and related expenses in litigation or other legal, tax or regulatory matters, including unexpected environmental remediation costs, in excess of any reserves or insurance coverage;
- political pressure and influence of environmental groups upon policies and decisions related to the production, gathering, refining, processing, fractionation, transportation and marketing of crude oil or other feedstocks, refined products, natural gas, NGLs or other hydrocarbon-based products;
- labor and material shortages;
- the maintenance of satisfactory relationships with labor unions and joint venture partners;
- the ability and willingness of parties with whom we have material relationships to perform their obligations to us;
- the market price of our common stock and its impact on our share repurchase authorizations;
- changes in the credit ratings assigned to our debt securities and trade credit, changes in the availability of unsecured credit, changes affecting the credit markets generally and our ability to manage such changes;
- capital market conditions and our ability to raise adequate capital to execute our business plan;
- the costs, disruption and diversion of management's attention associated with campaigns commenced by activist investors; and
- the other factors described in Item 1A. Risk Factors.

We undertake no obligation to update any forward-looking statements except to the extent required by applicable law.

# PART I

## ITEM 1. BUSINESS

### OVERVIEW

Marathon Petroleum Corporation ("MPC") has 131 years of experience in the energy business with roots tracing back to the formation of the Ohio Oil Company in 1887. We are a leading, integrated, downstream energy company headquartered in Findlay, Ohio. With the acquisition of Andeavor October 1, 2018 (as described further below), we are the largest independent petroleum product refining, marketing, retail and midstream business in the United States. We operate the nation's largest refining system with more than 3 million barrels per day of crude oil capacity across 16 refineries. MPC's marketing system includes branded locations across the United States. We also own and operate retail convenience stores across the United States. MPC's midstream operations are primarily conducted through MPLX LP ("MPLX") and Andeavor Logistics LP ("ANDX"), which own and operate crude oil and light product transportation and logistics infrastructure as well as gathering, processing and fractionation assets. We own the general partner and majority limited partner interests in these two midstream companies.

Our operations consist of three reportable operating segments: Refining & Marketing; Retail; and Midstream. Each of these segments is organized and managed based upon the nature of the products and services it offers.

- Refining & Marketing – refines crude oil and other feedstocks at our 16 refineries in the West Coast, Gulf Coast and Mid-Continent regions of the United States, purchases refined products and ethanol for resale and distributes refined products largely through transportation, storage, distribution and marketing services provided largely by our Midstream segment. We sell refined products to wholesale marketing customers domestically and internationally, to buyers on the spot market, to our Retail business segment and to independent entrepreneurs who operate primarily Marathon® branded outlets.
- Retail – sells transportation fuels and convenience products in the retail market across the United States through company-owned and operated convenience stores, primarily under the Speedway brand, and long-term fuel supply contracts with direct dealers who operate locations mainly under the ARCO brand.
- Midstream – transports, stores, distributes and markets crude oil and refined products principally for the Refining & Marketing segment via refining logistics assets, pipelines, terminals, towboats and barges; gathers, processes and transports natural gas; and gathers, transports, fractionates, stores and markets NGLs. The Midstream segment primarily reflects the results of MPLX and ANDX, our sponsored master limited partnerships.

### Andeavor Acquisition

On October 1, 2018, we completed the Andeavor acquisition. Under the terms of the merger agreement, Andeavor stockholders had the option to choose 1.87 shares of MPC common stock or $152.27 in cash per share of Andeavor common stock. The merger agreement included election proration provisions that resulted in approximately 22.9 million shares of Andeavor common stock being converted into cash consideration and the remaining 128.2 million shares of Andeavor common stock being converted into stock consideration. Andeavor stockholders received in the aggregate approximately 239.8 million shares of MPC common stock valued at $19.8 billion and approximately $3.5 billion in cash in connection with the Andeavor acquisition. Through the Andeavor acquisition, we acquired the general partner and 156 million common units of ANDX, which is a publicly traded master limited partnership ("MLP") that was formed to own, operate, develop and acquire logistics assets.

Andeavor was a highly integrated marketing, logistics and refining company operating primarily in the Western and Mid-Continent United States. Andeavor's operations included procuring crude oil from its source or from other third parties, transporting the crude oil to one of its 10 refineries, and producing, marketing and distributing refined products. Its marketing system included more than 3,300 stations marketed under multiple well-known fuel brands including ARCO®. Also, as noted above, we acquired the general partner and 156 million common units of ANDX, a leading growth-oriented, full service, and diversified midstream company which owns and operates networks of crude oil, refined products and natural gas pipelines, terminals with crude oil and refined products storage capacity, rail loading and offloading facilities, marine terminals including storage, bulk petroleum distribution facilities, a trucking fleet and natural gas processing and fractionation complexes.

This transaction combined two strong, complementary companies to create a leading nationwide U.S. downstream energy company. The acquisition substantially increases our geographic diversification and scale and strengthens each of our operating segments by diversifying our refining portfolio into attractive markets and increasing access to advantaged feedstocks, enhancing our midstream footprint in the Permian Basin, and creating a nationwide retail and marketing portfolio all of which is expected to substantially improve efficiencies and our ability to serve customers. We expect the combination to generate up to approximately $1.4 billion in gross run-rate synergies within the first three years, significantly enhancing our long-term cash flow generation profile.

See Item 8. Financial Statements and Supplementary Data – Note 5 for additional information on other acquisitions and investments in affiliates.

**Transactions with MPLX**

On February 1, 2018, we completed the dropdown of the remaining identified assets related to our strategic actions to enhance shareholder value announced in January 2017. We contributed our refining logistics assets and fuels distribution services to MPLX in exchange for $4.1 billion in cash and approximately 114 million newly issued MPLX common units. Immediately following the dropdown, our IDRs were cancelled and our economic general partner interest was converted into a non-economic general partner interest, all in exchange for 275 million newly issued MPLX common units. MPLX financed the cash portion of the February 1, 2018 dropdown with its $4.1 billion 364-day term loan facility, which was entered into on January 2, 2018. On February 8, 2018, MPLX issued $5.5 billion in aggregate principal amount of senior notes in a public offering. MPLX used $4.1 billion of the net proceeds of the offering to repay the 364-day term-loan facility. The remaining proceeds were used to repay outstanding borrowings under MPLX's revolving credit facility and intercompany loan agreement with us and for general partnership purposes.

**Corporate History and Structure**

MPC was incorporated in Delaware on November 9, 2009 in connection with an internal restructuring of Marathon Oil Corporation ("Marathon Oil"). On May 25, 2011, the Marathon Oil board of directors approved the spinoff of its Refining, Marketing & Transportation Business into an independent, publicly traded company, MPC, through the distribution of MPC common stock to the stockholders of Marathon Oil common stock on June 30, 2011. Our common stock trades on the NYSE under the ticker symbol "MPC."

MPLX is a diversified, large-cap publicly traded MLP formed by us in 2012 that owns and operates midstream energy infrastructure and logistics assets, and provides fuels distribution services. As of December 31, 2018, we owned the general partner and 63.6 percent of the outstanding MPLX common units.

ANDX is a publicly traded MLP that was formed in 2010 to own, operate, develop and acquire logistics assets. As of December 31, 2018, we owned the general partner and 63.6 percent of the outstanding ANDX common units.

**OUR BUSINESS STRATEGIES**

By following our core values, we aim to achieve our strategic vision outlined below.

**Core Values and Operational Excellence**

Our core values are the foundation for all we do and include the following:

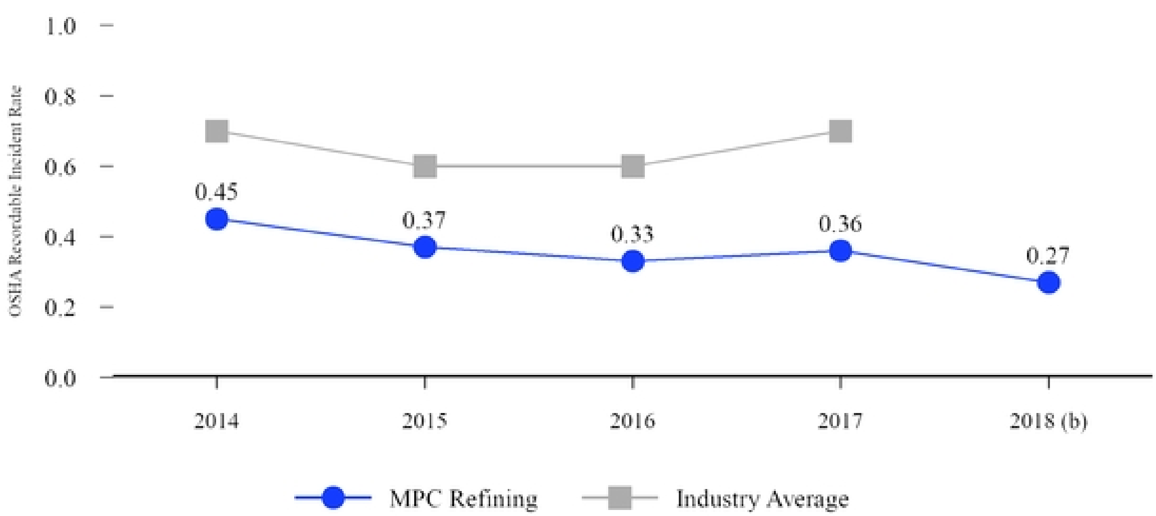
- *Health and Safety*: We have the highest regard for the health and safety of our employees, contractors and neighboring communities.
- *Environmental Stewardship*: We are committed to minimizing our environmental impact and continually look for ways to reduce our footprint.
- *Integrity*: We uphold the highest standards of business ethics and integrity, enforcing strict principles of corporate governance. We strive for transparency in all of our operations.
- *Corporate Citizenship*: We work to make a positive difference in the communities where we have the privilege to operate.
- *Inclusive Culture*: We value diversity and strive to provide our employees with a collaborative, supportive, and inclusive work environment where they can maximize their full potential for personal and business success.

**Maintain Top-Tier Safety and Environmental Performance**

We remain committed to operating our assets in a safe and reliable manner and targeting continual improvement in our safety and environmental record across our operations through the use of a rigorous, independently audited management system, RC14001®:2015. This management system integrates health, environmental stewardship, safety and security to ensure compliance and continual improvement. Six of our 16 refineries, the Marathon Pipeline organization and the Terminal, Transport and Rail organization are already certified to the RC14001 standard. We expect our natural gas gathering and processing operations will begin to seek RC14001 certification in 2020 and we have begun the process of integrating our newly acquired operations into the RC14004 management system.

As noted in the graph below, our Refining operations continue to demonstrate solid personal safety performance as compared to similar industry averages.

**Safety Performance[a]**




(a) Safety performance is based on the OSHA Recordable Incident Rate for the Refining industry. The industry average source is the Bureau of Labor Statistics and data is not yet available for 2018.

(b) Legacy Andeavor refineries included beginning full year 2018.

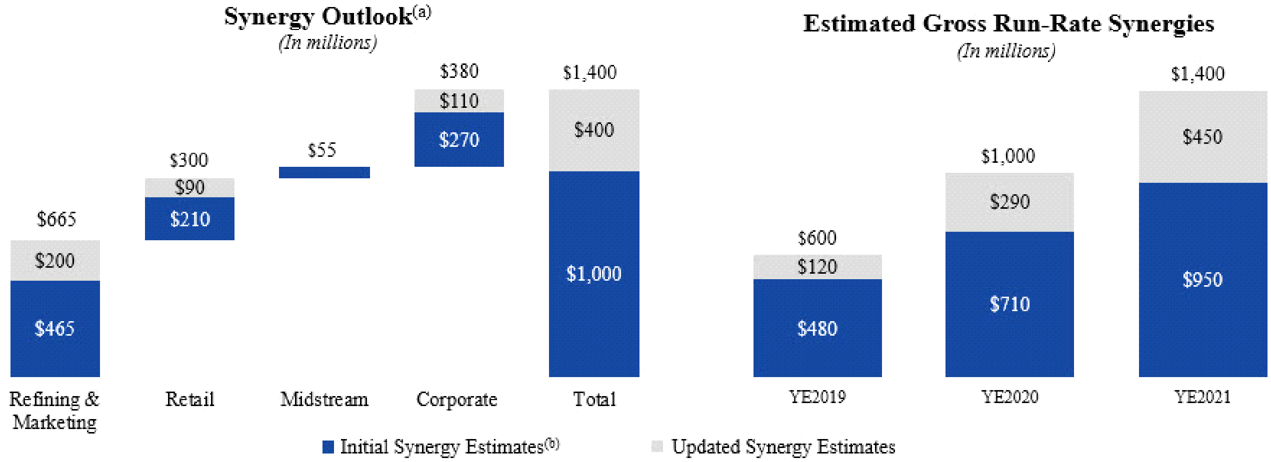
In addition, our corporate headquarters, four of our 16 refineries and 14 additional facilities have earned designations as an OSHA VPP Star site. This designation recognizes the outstanding efforts of employers and employees who have implemented effective safety and health management systems and achieved exemplary occupational safety and health performance. Three additional sites have completed their OSHA VPP inspections in 2018 and will be eligible for VPP status in 2019.

We proactively address our regulatory requirements and encourage our operations to continually improve their environmental performance through our DEI program, which establishes goals and measures performance. DEI is a metric adopted by MPC to capture several categories simultaneously. It includes three categories of environmental incidents: releases to the environment (air, land or water), environmental permit exceedances and agency enforcement actions. We rank DEIs in terms of their severity, with Tier 4 being the most severe, and Tier 1 being the least. We report and track these as a leading indicator that helps us to identify potential problems before they occur. We continually strive for improvements in our environmental performance. In 2018, we experienced 23 DEIs, a 62 percent reduction from 2013, and we have already begun to integrate our recently acquired operations into these programs.

In 2018, the EPA recognized Marathon Petroleum Corporation as an ENERGY STAR Partner of the Year, the only oil and gas company to receive such honor. This award recognized the significant energy efficiency gains achieved since we established our “Focus on Energy” program at our refineries nearly a decade ago. Through the implementation of this program, we have earned 75 percent of the total ENERGY STAR certifications awarded to the U.S. refining sector since 2006. Overall, we have realized considerable savings in energy costs and our energy efficiency efforts have enabled us to significantly lower our greenhouse gas intensity.

**Capture Value and Leverage Integrated Business Model**

With the acquisition of Andeavor on October 1, 2018, we believe the enhanced scale and integration of our midstream, retail and refining assets distinguishes us from our competitors. Our nationwide footprint enables connectivity to key supply sources and demand hubs. We have additional access to advantaged feedstocks and our expanded logistics system lowers crude acquisition costs, increases optionality, and increases our speed to market. Our broader market presence creates new product placement options and our nationwide marketing channels create even further optimization opportunities. With operations coast to coast, we intend to leverage and optimize the significant scale of our midstream, retail and refining assets to recognize up to approximately $1.4 billion of gross run-rate synergies by the end of 2021. Further information about our synergy outlook and estimated gross run-rate synergies are included below:




(a) Procurement synergies allocated 50/50 to Refining & Marketing and Corporate.
(b) Initial synergy estimates provided April 30, 2018.

**Strategically Invest in Attractive Long-Term Growth Opportunities**

We intend to allocate significant portions of our capital to investments focused on enhancing margins system wide with disciplined allocation to projects with superior returns.

Our Refining & Marketing segment projects are focused on refinery optimization, production of higher value products, increased capacity to upgrade residual fuel oil and expanded export capacity. Investing to enhance margins, we will continue our disciplined high-return investments in resid upgrading capacity and the ability to produce more diesel. We also plan to continue investing in domestic light products supply placement flexibility, as well as increasing our export capacity.

In our Retail segment, projects are focused on high value growth opportunities, real estate and store portfolio optimization and technology enhancements. Our plans include conversion of recently acquired locations to the Speedway brand and systems, growth in existing and new markets, dealer sites, commercial fueling/diesel expansion, food service through store remodels and high quality acquisitions.

In our Midstream segment, projects are focused on meeting market needs in the Permian, Marcellus and Utica basins as well as investments in export opportunities and long-haul pipelines. We plan to invest in gathering systems to create significant growth opportunities in the Permian Basin and in long-haul pipelines to generate stable, fee-based midstream income while helping to lower feedstock costs for our refineries. We also plan to expand our value chain by connecting growing natural gas production to demand from our refineries and global export markets and by connecting growing NGL production and developing new fractionation infrastructure in the Gulf Coast. Export facilities create the ability to generate third party revenue and meet global demand for crude, refined products and NGLs.

**Focus on Disciplined Capital Allocation and Shareholder Returns**

We intend to maintain our focus on a disciplined and balanced approach to capital allocation, including return of capital to shareholders, in a manner consistent with maintaining an investment-grade credit profile. Since becoming a stand-alone company in June 2011, our dividend has increased by a 24.9 percent compound annual growth rate and our board of directors has authorized share repurchases totaling $18.0 billion. Through open market purchases and two ASR programs, we have repurchased 293 million shares of our common stock for approximately $13.10 billion, representing approximately 41 percent of our outstanding common shares when we became a stand-alone company in June 2011. We achieved these shareholder returns while meaningfully investing in the business and maintaining an investment-grade credit profile. As of December 31, 2018, $4.90 billion of authorization remains available for future share repurchases.

**Utilize and Enhance our High Quality Employee Workforce**

We utilize our high quality employee workforce by continuously leveraging their commercial skills and business acumen. In addition, we continue to enhance our workforce through active recruitment of the best candidates, including those from diverse backgrounds, and effective training programs on safety, environmental stewardship, diversity and inclusion and other professional and technical skills.

## OUR OPERATIONS

Our operations consist of three reportable operating segments: Refining & Marketing; Retail; and Midstream.

## REFINING & MARKETING

### Refineries

We currently own and operate 16 refineries in the Gulf Coast, Mid-Continent and West Coast regions of the United States with an aggregate crude oil refining capacity of 3,021 mbpcd. On October 1, 2018, we acquired 10 refineries as part of the Andeavor acquisition which added approximately 1,117 mbpcd to our total capacity. During 2018, our refineries processed 2,081 mbpd of crude oil and 193 mbpd of other charge and blendstocks. During 2017, our refineries processed 1,765 mbpd of crude oil and 179 mbpd of other charge and blendstocks.

Our refineries include crude oil atmospheric and vacuum distillation, fluid catalytic cracking, hydrocracking, catalytic reforming, coking, desulfurization and sulfur recovery units. The refineries process a wide variety of condensate, light and heavy crude oils purchased from various domestic and foreign suppliers. We produce numerous refined products, ranging from transportation fuels, such as reformulated gasolines, blend-grade gasolines intended for blending with ethanol and ULSD fuel, to heavy fuel oil and asphalt. Additionally, we manufacture aromatics, propane, propylene and sulfur. See the Refined Product Marketing section for further information about the products we produce.

Our refineries are integrated with each other via pipelines, terminals and barges to maximize operating efficiency. The transportation links that connect our refineries allow the movement of intermediate products between refineries to optimize operations, produce higher margin products and efficiently utilize our processing capacity. For example, naphtha may be moved from Galveston Bay to Robinson where excess reforming capacity is available. Also, shipping intermediate products between facilities during partial refinery shutdowns allows us to utilize processing capacity that is not directly affected by the shutdown work.

Following is a description of each of our refineries and their capacity by region.

***Gulf Coast Region (1,149 mbpcd)***

*Galveston Bay, Texas City, Texas Refinery (585 mbpcd)*. Our Galveston Bay refinery is a world-class refining complex resulting from the combination of our former Texas City refinery and Galveston Bay refinery, which we acquired on February 1, 2013. The refinery is located on the Texas Gulf Coast approximately 30 miles southeast of Houston, Texas and can process a wide variety of crude oils into gasoline, distillates, aromatics, heavy fuel oil, dry gas, fuel-grade coke, refinery-grade propylene, chemical-grade propylene and sulfur. The refinery has access to the export market and multiple options to sell refined products. Our cogeneration facility, which supplies the Galveston Bay refinery, currently has 1,055 megawatts of electrical production capacity and can produce 4.3 million pounds of steam per hour. Approximately 45 percent of the power generated in 2018 was used at the refinery, with the remaining electricity being sold into the electricity grid.

*Garyville, Louisiana Refinery (564 mbpcd)*. Our Garyville, Louisiana refinery is located along the Mississippi River in southeastern Louisiana between New Orleans, Louisiana and Baton Rouge, Louisiana. The Garyville refinery is configured to process a wide variety of crude oils into gasoline, distillates, fuel-grade coke, asphalt, polymer-grade propylene, propane, refinery-grade propylene, dry gas, slurry and sulfur. The refinery has access to the export market and multiple options to sell refined products. A major expansion project was completed in 2009 that increased Garyville's crude oil refining capacity, making it one of the largest refineries in the U.S. Our Garyville refinery has earned designation as an OSHA VPP Star site.

***Mid-Continent Region (1,161 mbpcd)***

*Catlettsburg, Kentucky Refinery (277 mbpcd)*. Our Catlettsburg, Kentucky refinery is located in northeastern Kentucky on the western bank of the Big Sandy River, near the confluence with the Ohio River. The Catlettsburg refinery processes sweet and sour crude oils into gasoline, distillates, asphalt, aromatics, heavy fuel oil and propane. In the second quarter of 2015, we completed construction of a condensate splitter at our Catlettsburg refinery, which increased our capacity to process condensate from the Utica shale region.

*Robinson, Illinois Refinery (245 mbpcd)*. Our Robinson, Illinois refinery is located in southeastern Illinois. The Robinson refinery processes sweet and sour crude oils into gasoline, distillates, propane, anode-grade coke, fuel-grade coke and aromatics. The Robinson refinery has earned designation as an OSHA VPP Star site.

*Detroit, Michigan Refinery (140 mbpcd)*. Our Detroit, Michigan refinery is located in southwest Detroit. It is the only petroleum refinery currently operating in Michigan. The Detroit refinery processes sweet and heavy sour crude oils into gasoline, distillates, asphalt, fuel-grade coke, chemical-grade propylene, propane and slurry. Our Detroit refinery earned designation as an OSHA VPP Star site. In the fourth quarter of 2012, we completed a heavy oil upgrading and expansion project that enabled the refinery to process up to an additional 80 mbpd of heavy sour crude oils, including Canadian crude oils.

*El Paso, Texas Refinery (131 mbpcd)*. Our El Paso Refinery is located approximately three miles east of downtown El Paso, Texas. The El Paso refinery processes sweet and sour crudes into gasoline, distillates, heavy fuel oil, asphalt and propane. The refinery has access to the Permian Basin shale region.

*St. Paul Park, Minnesota Refinery (98 mbpcd)*. Our St. Paul Park Refinery is located along the Mississippi River southeast of St. Paul Park, Minnesota and was originally built in 1939. The St. Paul Park refinery primarily processes sweet crude from the Bakken region in North Dakota as well as various grades of Canadian sweet and heavy sour crude and manufactures gasoline, distillates, asphalt, heavy fuel oil, propane and refinery-grade propylene.

*Canton, Ohio Refinery (93 mbpcd)*. Our Canton, Ohio refinery is located approximately 60 miles south of Cleveland, Ohio. The Canton refinery processes sweet and sour crude oils, including production from the nearby Utica Shale, into gasoline, distillates, asphalt, roofing flux, propane, refinery-grade propylene and slurry. In December 2014, we completed construction of a condensate splitter at our Canton refinery, which increased our capacity to process condensate from the Utica shale region. The Canton refinery has earned designation as an OSHA VPP Star site.

*Mandan, North Dakota Refinery (71 mbpcd)*. Our Mandan Refinery began operations in 1954. The Mandan refinery processes primarily sweet domestic crude oil from North Dakota and manufactures gasoline, distillates, propane and heavy fuel oil.

*Salt Lake City, Utah Refinery (61 mbpcd)*. Our Salt Lake City Refinery began operations in 1908 and is now the largest in Utah. The Salt Lake City refinery processes crude oil from Utah, Colorado, Wyoming and Canada to manufacture gasoline, distillates, propane and heavy fuel oil.

*Gallup, New Mexico Refinery (26 mbpcd)*. Our Gallup Refinery is located near Gallup, New Mexico and is the only active refinery in the Four Corners area. The Gallup refinery primarily processes high-quality crude known as Four Corners Sweet into gasoline, distillate, heavy fuel oil and propane.

*Dickinson, North Dakota Refinery (19 mbpcd)*. Our Dickinson Refinery is located four miles west of Dickinson, North Dakota and is the first refinery in the U.S. to be built in over 30 years. The Dickinson refinery primarily processes domestic crude oil from North Dakota and manufactures ultra-low sulfur diesel and gasoline blendstocks. We plan to convert this refinery into a 12 mbpcd, 100 percent renewable diesel facility that will process refined soy oil and other organically derived feedstocks by December 2020.

***West Coast Region (711 mbpcd)***

*Los Angeles, California Refinery (363 mbpcd)*. Our Los Angeles Refinery is located in Los Angeles County, near the Los Angeles Harbor. The Los Angeles Refinery is the largest refinery on the West Coast and is a major producer of clean fuels. The Los Angeles refinery processes heavy crude from California’s San Joaquin Valley and Los Angeles Basin as well as crudes from the Alaska North Slope, South America, West Africa and other international sources and manufactures cleaner-burning CARB gasoline and CARB diesel fuel, as well as conventional gasoline, distillates, petroleum coke, anode-grade coke, chemical-grade propylene, fuel-grade coke, heavy fuel oil and propane.

*Martinez, California Refinery (161 mbpcd)*. Our Martinez Refinery is located in Martinez, California. The Martinez refinery processes crude oils from California and other domestic and foreign sources and manufactures cleaner-burning CARB gasoline and CARB diesel fuel, as well as conventional gasoline and distillates, petroleum coke, propane, heavy fuel oil and refinery-grade propylene.

*Anacortes, Washington Refinery (119 mbpcd)*. Our Anacortes Refinery is located about 70 miles north of Seattle on Puget Sound. The Anacortes refinery processes Canadian crude, domestic crude from North Dakota and Alaska North Slope and international crudes to manufacture gasoline, distillates, heavy fuel oil and propane.

*Kenai, Alaska Refinery (68 mbpcd)*. Our Kenai Refinery is located on the Cook Inlet, 60 miles southwest of Anchorage. The Kenai refinery processes mainly Alaska domestic crude along with limited international crude and manufactures gasoline, distillates, heavy fuel oil, asphalt and propane.

Planned maintenance activities, or turnarounds, requiring temporary shutdown of certain refinery operating units, are periodically performed at each refinery. See Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations for additional detail.

***Refined Product Yields***

The following table sets forth our refinery production by product group for each of the last three years including production from the refineries acquired in the Andeavor acquisition from October 1, 2018 forward.

| (*mbpd*) | 2018 | 2017 | 2016 |
|---|---|---|---|
| Gasoline | 1,107 | 932 | 900 |
| Distillates | 773 | 641 | 617 |
| Propane | 41 | 36 | 35 |
| Feedstocks and petrochemicals | 288 | 277 | 241 |
| Heavy fuel oil | 38 | 37 | 32 |
| Asphalt | 69 | 63 | 58 |
| Total | 2,316 | 1,986 | 1,883 |

***Crude Oil Supply***

We obtain the crude oil we refine through negotiated term contracts and purchases or exchanges on the spot market. Our term contracts generally have market-related pricing provisions. The following table provides information on our sources of crude oil for each of the last three years and includes production from the refineries acquired in the Andeavor acquisition from October 1, 2018 forward. The crude oil sourced outside of North America was acquired from various foreign national oil companies, production companies and trading companies.

| (*mbpd*) | 2018 | 2017 | 2016 |
|---|---|---|---|
| United States | 1,319 | 999 | 986 |
| Canada | 297 | 381 | 326 |
| Middle East and other international | 465 | 385 | 387 |
| Total | 2,081 | 1,765 | 1,699 |

Our refineries receive crude oil and other feedstocks and distribute our refined products through a variety of channels, including pipelines, trucks, railcars, ships and barges.

***Renewable Fuels***

We currently own a biofuel production facility in Cincinnati, Ohio that produces biodiesel, glycerin and other by-products. The capacity of the plant is approximately 80 million gallons per year.

We hold ownership interests in ethanol production facilities in Albion, Michigan; Clymers, Indiana and Greenville, Ohio. These plants have a combined ethanol production capacity of approximately 410 million gallons per year (27 mbpd) and are managed by a co-owner.

**Refined Product Marketing**

Our refined products are primarily sold to independent retailers, wholesale customers, our brand jobbers, our Retail segment, airlines, transportation companies and utilities. Our Brand footprint expanded by approximately 1,100 branded outlets in the Western and Mid-Continental regions of the U.S. and Mexico through the Andeavor acquisition. As of December 31, 2018, there were 6,813 branded outlets in 35 states, the District of Columbia and Mexico where independent entrepreneurs primarily maintain Marathon-branded outlets. We believe we are one of the largest wholesale suppliers of gasoline and distillates to resellers and consumers within our 41-state market area.

The following table sets forth our refined product sales volumes by product group for each of the last three years including sales from the refineries acquired in the Andeavor acquisition from October 1, 2018 forward.

| *(mbpd)* | 2018 | 2017 | 2016 |
|---|---|---|---|
| Gasoline | 1,416 | 1,201 | 1,219 |
| Distillates | 847 | 691 | 676 |
| Propane | 44 | 37 | 35 |
| Feedstocks and petrochemicals | 289 | 265 | 231 |
| Heavy fuel oil | 37 | 39 | 35 |
| Asphalt | 70 | 68 | 63 |
| Total | 2,703 | 2,301 | 2,259 |

***Refined Product Sales Destined for Export***

We sell gasoline, distillates and asphalt for export, primarily out of our Garyville, Galveston Bay, Anacortes, Martinez, Los Angeles and Kenai refineries. The following table sets forth our refined product sales destined for export by product group for the past three years including sales from the refineries acquired in the Andeavor acquisition from October 1, 2018 forward.

| *(mbpd)* | 2018 | 2017 | 2016 |
|---|---|---|---|
| Gasoline | 117 | 96 | 91 |
| Distillates | 193 | 192 | 199 |
| Asphalt and other | 24 | 9 | 6 |
| Total | 334 | 297 | 296 |

***Gasoline and Distillates.*** We sell gasoline, gasoline blendstocks and distillates (including No. 1 and No. 2 fuel oils, jet fuel, kerosene and diesel fuel) to wholesale customers, Marathon-branded independent entrepreneurs, our Retail segment, and on the spot market. In addition, we sell diesel fuel and gasoline for export to international customers. The demand for gasoline and distillates is seasonal in many of our markets, with demand typically at its highest levels during the summer months.

***Propane.*** We produce propane at all of our refineries except Dickinson. Propane is primarily used for home heating and cooking, as a feedstock within the petrochemical industry, for grain drying and as a fuel for trucks and other vehicles. Our propane sales are split approximately 60 percent and 40 percent between the home heating market and petrochemical consumers, respectively.

***Feedstocks and Petrochemicals.*** We are a producer and marketer of feedstocks and petrochemicals. Product availability varies by refinery and includes naptha, raffinate, benzene, butane, alkylate, dry gas, xylene, propylene, cumene, platformate and toluene. We market these products domestically to customers in the chemical, agricultural and fuel-blending industries. In addition, we produce fuel-grade coke at our Garyville, Detroit, Galveston Bay and Los Angeles refineries, which is used for power generation and in miscellaneous industrial applications, and anode-grade coke at our Los Angeles and Robinson refineries, which is used to make carbon anodes for the aluminum smelting industry.

***Heavy Fuel Oil.*** We produce and market heavy residual fuel oil or related components, including slurry, at all of our refineries except Dickinson. Heavy residual fuel oil is primarily used in the utility and ship bunkering (fuel) industries, though there are other more specialized uses of the product.

***Asphalt.*** We have refinery-based asphalt production capacity of up to 136 mbpcd, which includes asphalt cements, polymer-modified asphalt, emulsified asphalt, industrial asphalts and roofing flux. We have a broad customer base, including asphalt-paving contractors, government entities (states, counties, cities and townships) and asphalt roofing shingle manufacturers. We sell asphalt in the domestic and export wholesale markets via rail, barge and vessel.

**Terminals and Transportation**

We transport, store and distribute crude oil, feedstocks and refined products through pipelines, terminals and marine fleets owned by MPLX, ANDX and third parties in our market areas.

We own a fleet of transport trucks and trailers for the movement of refined products and crude oil. In addition, we maintain a fleet of leased and owned railcars for the movement and storage of refined products.

The locations and detailed information about our Refining & Marketing assets are included under Item 2. Properties and are incorporated herein by reference.

**Competition, Market Conditions and Seasonality**

The downstream petroleum business is highly competitive, particularly with regard to accessing crude oil and other feedstock supply and the marketing of refined products. We compete with a number of other companies to acquire crude oil for refinery processing and in the distribution and marketing of a full array of refined products. Based upon the "The Oil & Gas Journal 2018 Worldwide Refinery Survey," we ranked first among U.S. petroleum companies on the basis of U.S. crude oil refining capacity.

We compete in four distinct markets for the sale of refined products—wholesale, spot, branded and retail distribution. Our marketing operations compete with numerous other independent marketers, integrated oil companies and high-volume retailers. We compete with companies in the sale of refined products to wholesale marketing customers, including private-brand marketers and large commercial and industrial consumers; companies in the sale of refined products in the spot market; and refiners or marketers in the supply of refined products to refiner-branded independent entrepreneurs. In addition, we compete with producers and marketers in other industries that supply alternative forms of energy and fuels to satisfy the requirements of our industrial, commercial and retail consumers.

Market conditions in the oil and gas industry are cyclical and subject to global economic and political events and new and changing governmental regulations. Our operating results are affected by price changes in crude oil, natural gas and refined products, as well as changes in competitive conditions in the markets we serve. Price differentials between sweet and sour crude oils, ANS, WTI and LLS crude oils and other market structure differentials also affect our operating results.

Demand for gasoline, diesel fuel and asphalt is higher during the spring and summer months than during the winter months in most of our markets, primarily due to seasonal increases in highway traffic and construction. As a result, the operating results for our Refining & Marketing segment for the first and fourth quarters may be lower than for those in the second and third quarters of each calendar year.

**RETAIL**

Our Retail segment sells gasoline, diesel and merchandise through convenience stores that it owns and operates, primarily under the Speedway brand, as well as through direct dealer locations. Our company-owned and operated convenience stores offer a wide variety of merchandise, including prepared foods, beverages and non-food items. Speedway's Speedy Rewards® loyalty program has been a highly successful loyalty program since its inception in 2004, with a consistently growing base which averaged approximately 6.2 million active members in 2018. Speedway's ability to capture and analyze member-specific transactional data enables us to offer Speedy Rewards® members discounts and promotions specific to their buying behavior. We believe Speedy Rewards® is a key reason customers choose Speedway over competitors and it continues to drive significant value for both Speedway and our Speedy Rewards® members.

As of December 31, 2018, our Retail segment had 3,923 company-owned and operated convenience stores across the United States. We acquired approximately 1,100 company-owned and operated retail convenience stores and fuel only locations as part of the Andeavor acquisition in the Western and Mid-Continental regions of the United States. In addition, we acquired long-term supply contracts for 1,065 direct dealer locations primarily in Southern California, largely under the ARCO® brand, which are also included in our Retail segment.

Speedway also owns a 29 percent interest in PFJ Southeast LLC ("PFJ Southeast"), which is a joint venture between Speedway and Pilot Flying J with 127 travel center locations primarily in the Southeast United States as of December 31, 2018. We also own SuperMom's®, a high-quality bakery and commissary.

The locations and detailed information about our Retail assets are included under Item 2. Properties and are incorporated herein by reference.

**Competition, Market Conditions and Seasonality**

We face strong competition for sales of retail gasoline, diesel fuel and merchandise. Our competitors include service stations and convenience stores operated by fully integrated major oil companies, independent entrepreneurs and other well-recognized national or regional convenience stores and travel centers, often selling gasoline, diesel fuel and merchandise at competitive prices. Non-traditional retailers, such as supermarkets, club stores and mass merchants, have affected the convenience store industry with their entrance into sales of retail gasoline and diesel fuel. Energy Analysts International, Inc. estimated such retailers had approximately 16 percent of the U.S. gasoline market in mid-2018.

Demand for gasoline and diesel fuel is higher during the spring and summer months than during the winter months in most of our markets, primarily due to seasonal increases in highway traffic. As a result, the operating results for our Retail segment for the first and fourth quarters may be lower than for those in the second and third quarters of each calendar year. Margins from the sale of merchandise tend to be less volatile than margins from the retail sale of gasoline and diesel fuel.

**MIDSTREAM**

The Midstream segment primarily includes the operations of MPLX and ANDX, our sponsored master limited partnerships, which transport, store, distribute and market crude oil and refined products principally for the Refining & Marketing segment via refining logistics assets, pipelines, terminals, towboats and barges; gather, process and transport natural gas; and gather, transport, fractionate, store and market NGLs. The Midstream segment also includes certain related operations retained by MPC.

**MPLX**

MPLX owns and operates a network of crude oil, natural gas and product pipelines and has joint ownership interests in other crude oil and products pipelines. MPLX also owns and operates light products terminals, storage assets and maintains a fleet of owned and leased towboats and barges. MPLX's assets also include natural gas gathering complexes, natural gas processing complexes and NGL fractionation complexes. On February 1, 2018, we contributed our refining logistics assets to MPLX, which include rail and truck loading racks and docks.

**ANDX**

ANDX owns and operates a network of crude oil, natural gas, product and water pipelines and has joint ownership interests in other crude oil and natural gas pipelines. ANDX owns and operates light products, asphalt and crude terminals, storage assets and barge docks. ANDX's assets also include natural gas gathering complexes, natural gas processing complexes and NGL fractionation complexes.

**MPC-Retained Midstream Assets and Investments**

We retained ownership interests in several crude oil and products pipeline systems and pipeline companies and have indirect ownership interests in two ocean vessel joint ventures with Crowley through our investment in Crowley Coastal Partners.

The locations and detailed information about our Midstream assets are included under Item 2. Properties and are incorporated herein by reference.

**Competition, Market Conditions and Seasonality**

Our Midstream operations face competition for natural gas gathering, crude oil transportation and in obtaining natural gas supplies for our processing and related services; in obtaining unprocessed NGLs for gathering and fractionation; and in marketing our products and services. Competition for natural gas supplies is based primarily on the location of gas gathering facilities and gas processing plants, operating efficiency and reliability and the ability to obtain a satisfactory price for products recovered. Competitive factors affecting our fractionation services include availability of capacity, proximity to supply and industry marketing centers and cost efficiency and reliability of service. Competition for customers to purchase our natural gas and NGLs is based primarily on price, delivery capabilities, flexibility and maintenance of high-quality customer relationships. In addition, certain of our Midstream operations are highly regulated, which affects the rates that our common carrier pipelines can charge for transportation services and the return we obtain from such pipelines.

Our Midstream segment can be affected by seasonal fluctuations in the demand for natural gas and NGLs and the related fluctuations in commodity prices caused by various factors such as changes in transportation and travel patterns and variations in weather patterns from year to year.

**ENVIRONMENTAL MATTERS**

Our management is responsible for ensuring that our operating organizations maintain environmental compliance systems that support and foster our compliance with applicable laws and regulations, and for reviewing our overall environmental performance. We also have a Corporate Emergency Response Team that oversees our response to any major environmental or other emergency incident involving us or any of our facilities.

We believe it is likely that the scientific and political attention to issues concerning the extent and causes of climate change will continue, with the potential for further regulations that could affect our operations. Currently, legislative and regulatory measures to address greenhouse gases are in various phases of review, discussion or implementation. The cost to comply with these laws and regulations cannot be estimated at this time, but could be significant. For additional information, see Item 1A. Risk Factors. We estimate and publicly report greenhouse gas emissions from our operations and products. Additionally, we continuously strive to improve operational and energy efficiencies through resource and energy conservation where practicable.

Our operations are subject to numerous other laws and regulations relating to the protection of the environment. Such laws and regulations include, among others, the Clean Air Act (“CAA”) with respect to air emissions, the Clean Water Act (“CWA”) with respect to water discharges, the Resource Conservation and Recovery Act (“RCRA”) with respect to solid and hazardous waste treatment, storage and disposal, the Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”) with respect to releases and remediation of hazardous substances and the Oil Pollution Act of 1990 (“OPA-90”) with respect to oil pollution and response. In addition, many states where we operate have similar laws. New laws are being enacted and regulations are being adopted on a continuing basis, and the costs of compliance with such new laws and regulations are very difficult to estimate until finalized.

For a discussion of environmental capital expenditures and costs of compliance, see Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations-Environmental Matters and Compliance Costs.

**Air**

*Greenhouse Gas Emissions*

We are subject to many requirements in connection with air emissions from our operations. Internationally and domestically, emphasis has been placed on reducing greenhouse gas emissions. In 2018, the Trump Administration continued its shift in climate-related policy away from the Obama Administration’s policies. One of the major policy shifts is related to the administration’s efforts to repeal and replace the “Clean Power Plan.” On August 21, 2018, the U.S. Environmental Protection Agency (“EPA”) proposed the Affordable Clean Energy (“ACE”) rule, which would establish emission guidelines for states to develop plans to address greenhouse gas emissions from existing coal-fired power plants. The ACE rule would replace the 2015 Clean Power Plan, which had been stayed by the U.S. Supreme Court. President Trump also announced the United States’ intention to withdraw from the 2015 Paris UN Climate Change Conference Agreement, which aims to hold the increase in the global average temperature to well below two degrees Celsius as compared to pre-industrial levels. Many of the policies and regulations rescinded through Executive Order 13783 had been adopted to meet the United States’ pledge under the Agreement. The U.S. climate change strategy and implementation of that strategy through legislation and regulation may change under future administrations; therefore, the impact to our industry and operations due to greenhouse gas regulation is unknown at this time.

In 2009, the EPA issued an “endangerment finding” that greenhouse gas emissions contribute to air pollution that endangers public health and welfare. Related to the endangerment finding, in April 2010, the EPA finalized a greenhouse gas emission standard for mobile sources (cars and other light duty vehicles). The endangerment finding, the mobile source standard and the EPA’s determination that greenhouse gases are subject to regulation under the Clean Air Act resulted in permitting of greenhouse gas emissions at stationary sources. Through a series of legal challenges filed against the EPA, the requirement to control greenhouse gas emissions through Best Available Control Technology has been limited to new and modified large stationary sources, such as refineries, that will also emit a criteria pollutant. Implementing Best Available Control Technology may result in increased costs to our operations.

In the absence of federal legislation or regulation of greenhouse gas emissions, states are becoming more active in regulating greenhouse gas emissions. These measures may include state actions to develop statewide or regional programs to impose emission reductions. These measures may also include low-carbon fuel standards, such as the California program, or a state carbon tax. These measures could result in increased costs to operate and maintain our facilities, capital expenditures to install new emission controls and costs to administer any carbon trading or tax programs implemented. For example, in California, the state legislature adopted SB 32 in 2016. SB 32 set a cap on emissions of 40% below 1990 levels by 2030 but did not establish a particular mechanism to achieve that target. The legislature also adopted a companion bill, AB 197, that most significantly directs the CARB to prioritize direct emission reductions on large stationary sources. In 2017, the state legislature adopted AB 398 which provides direction and parameters on utilizing cap and trade after 2020 to meet the 40% reduction target from 1990 levels by 2030 specified in SB 32. Compliance with the cap and trade program is demonstrated through a market-based credit system. The compliance costs associated with these California regulations are ultimately passed on to the consumer in the form of higher fuel costs. We cannot currently predict the impact of these regulations on our liquidity, financial position, or results of operations, but we do not believe such impact will be material.

We could also face increased climate-related litigation with respect to our operations or products. Private party litigation seeking damages and injunctive relief is pending against MPC and other oil and gas companies in multiple jurisdictions. Although uncertain, these actions could increase our costs of operations or reduce the demand for the refined products we produce, transport, store and sell.

Private parties have also sued federal and certain state governmental entities seeking additional greenhouse gas emission reductions beyond those currently being undertaken. In sum, requiring reductions in greenhouse gas emissions could result in increased costs to (i) operate and maintain our facilities, (ii) install new emission controls at our facilities and (iii) administer and manage any greenhouse gas emissions programs, including acquiring emission credits or allotments. These requirements may also significantly affect MPC’s refinery operations and may have an indirect effect on our business, financial condition and results of operations. The extent and magnitude of the impact from greenhouse gas regulation or legislation cannot be reasonably estimated due to the uncertainty regarding the additional measures and how they will be implemented.

Regardless of whether legislation or regulation is enacted, given the continuing global demand for oil and gas - even under different hypothetical carbon-constrained scenarios - MPC has taken actions that have resulted in lower greenhouse gas emission intensity and we are positioned to remain a successful company well into the future. We have instituted a program to improve energy efficiency of our refineries and other assets which will continue to pay dividends in reducing our environmental footprint as well as making us more cost-competitive. We believe our mature governance and risk-management processes enable the company to effectively monitor and adjust to any transitional, reputational or physical climate-related risks.

*Clean Air Act*

In 2015, the EPA finalized a revision to the National Ambient Air Quality Standards (“NAAQS”) for ozone. The EPA lowered the primary ozone NAAQS from 75 ppb to 70 ppb. This revision initiated a multi-year process in which nonattainment designations will be made based on more recent ozone measurements that includes data from 2016. On November 6, 2017, the EPA finalized ozone attainment/unclassifiable designations for certain areas under the new standard. In actions dated April 30, 2018, and July 25, 2018, the EPA finalized nonattainment designations for certain areas under the lower primary ozone standard. In some areas, these nonattainment designations could result in increased costs associated with, or result in cancellation or delay of, capital projects at our facilities. For areas designated nonattainment, states will be required to adopt State Implementation Plans (“SIPs”) for nonattainment areas. These SIPs may include NOx and/or volatile organic compound (“VOC”) reductions that could result in increased costs to our facilities. We cannot predict the effects of the various SIPs requirements at this time.

In California, the Board for the South Coast Air Quality Management District (“SCAQMD”) passed amendments to the Regional Clean Air Incentives Market (“RECLAIM”) that became effective in 2016, requiring a staged reduction of nitrogen oxide emissions through 2022. In 2017, the State of California passed AB 617, which requires each air district that is a nonattainment area for one or more air pollutants to adopt an expedited schedule for implementation of best available retrofit control technology (“BARCT”) on specific facilities. BARCT applies to all facilities subject to RECLAIM. In response to AB 617, the SCAQMD is currently working to “sunset” the existing RECLAIM program and replace it with applicable BARCT regulations.

**Water**

We maintain numerous discharge permits as required under the National Pollutant Discharge Elimination System program of the CWA and have implemented systems to oversee our compliance with these permits. In addition, we are regulated under OPA-90, which among other things, requires the owner or operator of a tank vessel or a facility to maintain an emergency plan to respond to releases of oil or hazardous substances. OPA-90 also requires the responsible company to pay resulting removal costs and damages and provides for civil penalties and criminal sanctions for violations of its provisions. We operate tank vessels and facilities from which spills of oil and hazardous substances could occur. We have implemented emergency oil response plans for all of our components and facilities covered by OPA-90 and we have established Spill Prevention, Control and Countermeasures plans for all facilities subject to such requirements.

Additionally, OPA-90 requires that new tank vessels entering or operating in U.S. waters be double-hulled and that existing tank vessels that are not double-hulled be retrofitted or removed from U.S. service. All barges used for river transport of our raw materials and refined products meet the double-hulled requirements of OPA-90. Some coastal states in which we operate have passed state laws similar to OPA-90, but with expanded liability provisions, that include provisions for cargo owner responsibility as well as ship owner and operator responsibility.

In June 2015, the EPA and the United States Army Corps of Engineers finalized significant changes to the definition of the term “waters of the United States” used in numerous programs under the CWA. This final rulemaking is referred to as the Clean Water Rule. The Clean Water Rule, as written, expands permitting, planning and reporting obligations and may extend the timing to secure permits for pipeline and fixed asset construction and maintenance activities. The Clean Water Rule has been challenged in multiple federal courts by many states, trade groups, and other interested parties, and in October 2015, a United States Court of Appeals issued a nationwide stay of the Clean Water Rule. On appeal, however, the Supreme Court determined that the court of appeals did not have original jurisdiction to review challenges to the 2015 Rule. As such, legal challenges to the rule will proceed in federal district courts. Three federal district courts have stayed the Clean Water Rule in twenty-eight states. Concurrent with the legal challenges, on February 28, 2017, President Trump signed Executive Order 13778, directing the EPA and the Army Corps of Engineers to review the 2015 Rule for consistency with the policy outlined in the Order, and to issue a proposed rule rescinding or revising the 2015 Rule as appropriate and consistent with law. On December 11, 2018, the

EPA and the Army Corps of Engineers announced its proposed new definition of "waters of the United States." The proposal, once finalized, would replace the 2015 Clean Water Rule.

In 2015, the EPA issued its intent to review the CWA categorical effluent limitation guidelines ("ELG") for the petroleum refining sector. During 2017, the EPA prepared and issued an information request ("ICR") requesting significant wastewater and treatment process details from select refineries, seven of which were ours. Responses to the ICR were submitted to the EPA in early 2018. As of late 2018, the EPA is in the process of reviewing the ICR response data submitted and determining the next steps for the ELG review. EPA may also perform sampling of effluent at one or more of our refineries. The EPA has indicated they believe there have been significant changes in the characteristics of waste waters generated within refining operations that warrant the review. Specific targets for the review are the impacts of processing heavier crude oils and the transfer of air pollutants to wastewater when air pollution abatement devices are in use. A similar project, initiated in 2007 for steam electric power generation with similar attributes, resulted in a significant change in the treatment requirements for coal-fired power plants. However, on September 18, 2017, the EPA postponed certain compliance dates while it conducts a rulemaking to revise the ELGs for power plants. The refining sector ELG review has the potential to result in a similar impact. The typical life-cycle for an ELG review from the intent to review to issuance of a final rule that would require upgrades is seven years. The impact of an ELG review cannot be accurately estimated at this time.

**Solid Waste**

We continue to seek methods to minimize the generation of hazardous wastes in our operations. RCRA establishes standards for the management of solid and hazardous wastes. Besides affecting waste disposal practices, RCRA also addresses the environmental effects of certain past waste disposal operations, the recycling of wastes and the regulation of USTs containing regulated substances.

Pursuant to an order received in 2004 from the San Francisco Bay Regional Water Quality Control Board, we are performing remediation of certain waste management units and completing investigations of the design conditions of certain active wastewater and storm water impoundments at our Martinez refinery. The investigative and remedial costs associated with the 2004 Order could have a material impact on our results of operations. The costs that are estimable and probable at this time have been accrued.

**Remediation**

We own or operate, or have owned or operated, certain convenience stores and other locations where, during the normal course of operations, releases of refined products from USTs have occurred. Federal and state laws require that contamination caused by such releases at these sites be assessed and remediated to meet applicable standards. Penalties or other sanctions may be imposed for noncompliance. The enforcement of the UST regulations under RCRA has been delegated to the states, which administer their own UST programs. Our obligation to remediate such contamination varies, depending on the extent of the releases and the stringency of the applicable state laws and regulations. A portion of these remediation costs may be recoverable from the appropriate state UST reimbursement funds once the applicable deductibles have been satisfied. We also have ongoing remediation projects at a number of our current and former refinery, terminal and pipeline locations.

Claims under CERCLA and similar state acts have been raised with respect to the clean-up of various waste disposal and other sites. CERCLA is intended to facilitate the clean-up of hazardous substances without regard to fault. Potentially responsible parties for each site include present and former owners and operators of, transporters to and generators of the hazardous substances at the site. Liability is strict and can be joint and several. Because of various factors including the difficulty of identifying the responsible parties for any particular site, the complexity of determining the relative liability among them, the uncertainty as to the most desirable remediation techniques and the amount of damages and clean-up costs and the time period during which such costs may be incurred, we are unable to reasonably estimate our ultimate cost of compliance with CERCLA; however, we do not believe such costs will be material to our business, financial condition, results of operations or cash flows.

**Mileage Standards, Renewable Fuels and Other Fuels Requirements**

The U.S. Congress passed the Energy Independence and Security Act of 2007 ("EISA"), which, among other things, set a target of 35 miles per gallon for the combined fleet of cars and light trucks in the United States by model year 2020, and contains the RFS2. In August 2012, the EPA and the National Highway Traffic Safety Administration ("NHTSA") jointly adopted regulations that establish average industry fleet fuel economy standards for passenger cars and light trucks of up to 41 miles per gallon by model year 2021 and average fleet fuel economy standards of up to 49.7 miles per gallon by model year 2025. In 2018, the EPA and the NHTSA jointly proposed the Safer Affordable Fuel-Efficient Vehicles Rules for Model Years 2021-2026, which would propose new Corporate Average Fuel Economy ("CAFE") standards for model years 2022 through 2026, amend the 2021 model year CAFE standards, amend the EPA's carbon dioxide emission standards for model years 2021 through 2025, and establish new carbon dioxide emission standards for model year 2026. The EPA's preferred alternative is to retain the model year 2020 standards for both programs through model year 2026. The standards established by the final regulation may differ. Additionally, California may establish per its Clean Air Act waiver authority different standards that could apply in multiple states. Higher CAFE standards for cars and light trucks have the potential to reduce demand for our transportation fuels. New or alternative transportation fuels such as compressed natural gas could also pose a competitive threat to our operations.

The RFS2 requires the total volume of renewable transportation fuels sold or introduced annually in the U.S. to reach 26.0 billion gallons in 2018, 28.0 billion gallons in 2019, and increase to 36.0 billion gallons by 2022. Within the total volume of renewable fuel, EISA established an advanced biofuel volume of 11.0 billion gallons in 2018, 13.0 billion gallons in 2019, and increasing to 21.0 billion gallons in 2022. Subsets within the advanced biofuel volume include biomass-based diesel, which was set as at least 1.0 billion gallons in 2014 through 2022 (to be determined by the EPA through rulemaking), and cellulosic biofuel, which was set at 7.0 billion gallons in 2018, 8.5 billion gallons in 2019, and increasing to 16.0 billion gallons in 2022.

On November 30, 2015, the EPA finalized the renewable fuel standards for the years of 2014, 2015 and 2016 as well as the biomass-based diesel standard for 2017. In a legal challenge to the 2014-2016 volumes, the court vacated the total renewable volume for 2016 and remanded to the EPA for reconsideration consistent with the court’s opinion. A remanded rule that increases the 2016 total renewable volume could increase our cost of compliance with the Renewable Fuel Standards and be detrimental to the RIN market. The 2017 and 2018 RFS volumes have also been challenged in court.

On November 30, 2018, the EPA finalized RFS volume requirements for the year 2019, and the biomass-based diesel volume requirement for year 2020. The EPA used its cellulosic waiver authority to reduce the volumes for 2019 from the statutory amounts to the following: 19.92 billion gallons total renewable fuel; 4.92 billion gallons advanced biofuel; and 418 million gallons cellulosic biofuel. The EPA set the biomass-based diesel volume requirement for 2020 at 2.43 billion gallons, which is significantly greater than the statutory floor of 1.0 billion gallons.

The RFS2 is satisfied primarily with ethanol blended into gasoline. Vehicle, regulatory and infrastructure constraints limit the blending of significantly more than 10 percent ethanol into gasoline (“E10”). Since 2016, the volume requirements have resulted in the ethanol content of gasoline exceeding the E10 blendwall, which will require obligated parties to either sell E15 or ethanol flex fuel at levels that exceed historical levels or retire carryover RINs.

We have made investments in infrastructure capable of expanding biodiesel blending capability to help comply with the annually-increasing biodiesel RFS2 requirement by buying and blending biodiesel into our refined diesel product, and by buying needed biodiesel RINs in the EPA-created biodiesel RINs market. On April 1, 2014, we purchased a facility in Cincinnati, Ohio, which currently produces biodiesel, glycerin and other by-products. As a producer of biodiesel, we generate RINs, thereby reducing our reliance on the external RIN market.

In November 2017, the EPA finalized its decision to deny petitions requesting that the point of obligation for the RFS2 be moved to the terminal rack. The EPA’s final decision was challenged in court and should the court decide that EPA’s decision was incorrect and move the point of obligation, we could be subject to increased costs and compliance uncertainties.

In addition to federal renewable fuel standards, certain states have, or are considering, promulgation of state renewable or low carbon fuel standards. For example, California began implementing its Low Carbon Fuel Standard (“LCFS”) in January 2011. In September 2015, the CARB approved the re-adoption of the LCFS, which became effective on January 1, 2016, to address procedural deficiencies in the way the original regulation was adopted. The LCFS was amended again in 2018 with the current version targeting a 20 percent reduction in fuel carbon intensity from a 2010 baseline by 2030.

In sum, the RFS2 has required, and may in the future continue to require, additional capital expenditures or expenses by us to accommodate increased renewable fuels use. We may experience a decrease in demand for refined products due to an increase in combined fleet mileage or due to refined products being replaced by renewable fuels. Demand for our refined products also may decrease as a result of low carbon fuel standard programs or electric vehicle mandates.

On March 3, 2014, the EPA signed the final Tier 3 fuel standards. The final Tier 3 fuel standards require, among other things, a lower annual average sulfur level in gasoline to no more than 10 ppm beginning in calendar year 2017. In addition, gasoline refiners and importers may not exceed a maximum per-gallon sulfur standard of 80 ppm while retailers may not exceed a maximum per-gallon sulfur standard of 95 ppm. From 2014 through 2018, we made approximately $490 million in capital expenditures to comply with these standards, and expect to make approximately $260 million in capital expenditures for these standards in 2019.

**Tribal Lands**

Various federal agencies, including the EPA and the Department of the Interior, along with certain Native American tribes, promulgate and enforce regulations pertaining to oil and gas operations on Native American tribal lands where we operate. These regulations include such matters as lease provisions, drilling and production requirements, and standards to protect environmental quality and cultural resources. For example, the EPA has established a preconstruction permitting program for new and modified minor sources throughout Indian country, and new and modified major sources in nonattainment areas in Indian country. In addition, each Native American tribe is a sovereign nation having the right to enforce certain laws and regulations and to grant approvals independent from federal, state and local statutes and regulations. These laws and regulations may increase our costs of doing business on Native American tribal lands and impact the viability of, or prevent or delay our ability to conduct, our operations on such lands.

**TRADEMARKS, PATENTS AND LICENSES**

Our Marathon trademark is material to the conduct of our refining and marketing operations, and our Speedway and ARCO trademarks are material to the conduct of our retail operations. Additionally, the retail and marketing businesses we acquired in the Andeavor acquisition primarily use the Shell® and Mobil® brands for fuel sales and ampm® and Giant® brands for convenience store merchandise. We currently hold a number of U.S. and foreign patents and have various pending patent applications. Although in the aggregate our patents and licenses are important to us, we do not regard any single patent or license or group of related patents or licenses as critical or essential to our business as a whole. In general, we depend on our technological capabilities and the application of know-how rather than patents and licenses in the conduct of our operations.

**EMPLOYEES**

We had approximately 60,350 regular full-time and part-time employees as of December 31, 2018, which includes approximately 40,230 employees of our Retail segment.

Approximately 4,780 of our employees are covered by collective bargaining agreements. Of these employees, approximately 1,465 employees at our Galveston Bay, Mandan and Martinez refineries are covered by collective bargaining agreements which were set to expire on January 31, 2019. The parties continue their negotiations toward a new agreement, and are working under rolling extensions. Approximately 425 employees at our Martinez Chemical Plant, our Los Angeles refinery and our Galveston Bay refinery are covered by collective bargaining agreements expiring over the next several months. Approximately 410 hourly employees at Speedway are represented under collective bargaining agreements. The majority of these employees work at certain retail locations in New York and New Jersey under agreements which expire on March 14, 2019 and June 30, 2019, respectively. The remaining Speedway represented employees are drivers in Minnesota under an agreement which expires in 2021. Approximately 300 employees at our St. Paul Park and Gallup refineries are covered by collective bargaining agreements scheduled to expire in 2020. Approximately 1,620 employees at our Anacortes, Canton, Catlettsburg, Los Angeles, and Salt Lake City refineries are covered by collective bargaining agreements that are due to expire in 2022. The remaining 560 hourly represented employees are covered by collective bargaining agreements with expiration dates ranging from 2021 to 2024.

**Executive and Corporate Officers of the Registrant**

The executive and corporate officers of MPC are as follows:

| Name | Age as of February 1, 2019 | Position with MPC |
|---|---|---|
| Gary R. Heminger | 65 | Chairman and Chief Executive Officer |
| Gregory J. Goff | 62 | Executive Vice Chairman |
| Molly R. Benson[(a)] | 52 | Vice President, Chief Securities, Governance & Compliance Officer and Corporate Secretary |
| Raymond L. Brooks | 58 | Executive Vice President, Refining |
| C. Tracy Case[(a)] | 58 | Senior Vice President, Western Refining Operations |
| Suzanne Gagle | 53 | General Counsel |
| Timothy T. Griffith | 49 | Senior Vice President and Chief Financial Officer |
| David R. Heppner[(a)] | 52 | Vice President, Commercial and Business Development |
| Richard A. Hernandez[(a)] | 59 | Senior Vice President, Eastern Refining Operations |
| Rick D. Hessling[(a)] | 52 | Senior Vice President, Crude Oil Supply and Logistics |
| Thomas Kaczynski | 57 | Vice President, Finance and Treasurer |
| Kristina A. Kazarian[(a)] | 36 | Vice President, Investor Relations |
| Anthony R. Kenney | 65 | President, Speedway LLC |
| Fiona C. Laird[(a)] | 57 | Chief Human Resources Officer |
| D. Rick Linhardt[(a)] | 60 | Vice President, Tax |
| Brian K. Partee[(a)] | 45 | Senior Vice President, Marketing |
| Glenn M. Plumby[(a)] | 59 | Senior Vice President and Chief Operating Officer, Speedway LLC |
| John J. Quaid | 47 | Vice President and Controller |
| David R. Sauber[(a)] | 55 | Senior Vice President, Labor Relations, Operations, Health and Administrative Services |
| Donald C. Templin | 55 | President, Refining, Marketing and Supply |
| Karma M. Thomson[(a)] | 51 | Vice President, Corporate Affairs |
| Donald W. Wehrly[(a)] | 59 | Vice President and Chief Information Officer |
| David L. Whikehart[(a)] | 59 | Senior Vice President, Light Products, Supply and Logistics |
| James R. Wilkins[(a)] | 52 | Vice President, Environment, Safety and Security |

(a) Corporate officer.

Mr. Heminger is Chairman of the Board and Chief Executive Officer. He has served as the Chairman of the Board since April 2016 and as Chief Executive Officer since June 2011. Mr. Heminger also served as President from July 2011 until June 2017.

Mr. Goff was appointed Executive Vice Chairman effective October 2018. Prior to this appointment, Mr. Goff was President and Chief Executive Officer of Andeavor beginning in May 2010 and Chairman of its Board of Directors beginning in December 2014.

Ms. Benson was appointed Vice President, Chief Compliance Officer and Corporate Secretary in March 2016 and Chief Securities and Governance Officer in May 2018. Prior to her appointment in 2016, Ms. Benson was Assistant General Counsel, Corporate and Finance beginning in April 2012.

Mr. Brooks was appointed Executive Vice President, Refining effective October 2018. Prior to this appointment, Mr. Brooks was Senior Vice President, Refining beginning in March 2016. Previously, Mr. Brooks served as General Manager of the Galveston Bay refinery beginning in February 2013, and General Manager of the Robinson refinery beginning in 2010.

Mr. Case was appointed Senior Vice President, Western Refining Operations effective October 2018. Prior to this appointment, Mr. Case was General Manager of the Garyville refinery beginning in December 2014. Previously, Mr. Case served as General Manager of the Detroit refinery beginning in June 2010.

Ms. Gagle was appointed General Counsel in March 2016. Prior to this appointment, Ms. Gagle was Assistant General Counsel, Litigation and Human Resources beginning in April 2011.

Mr. Griffith was appointed Senior Vice President and Chief Financial Officer in March 2015. Prior to this appointment, Mr. Griffith served as Vice President, Finance and Investor Relations, and Treasurer beginning in January 2014. Previously, Mr. Griffith was Vice President of Finance and Treasurer beginning in August 2011.

Mr. Heppner was appointed Vice President, Commercial and Business Development effective October 2018. Prior to this appointment, Mr. Heppner was Senior Vice President of Engineering Services and Corporate Support of Speedway LLC beginning in September 2014. Previously, Mr. Heppner served as Director, Wholesale Marketing beginning in January 2010.

Mr. Hernandez was appointed Senior Vice President, Eastern Refining Operations effective October 2018. Prior to this appointment, Mr. Hernandez was General Manager of the Galveston Bay refinery beginning in February 2016. Previously, Mr. Hernandez served as the General Manager of the Catlettsburg refinery beginning in June 2013.

Mr. Hessling was appointed Senior Vice President, Crude Oil Supply and Logistics effective October 2018. Prior to this appointment, Mr. Hessling was Manager, Crude Oil & Natural Gas Supply and Trading beginning in September 2014. Previously, Mr. Hessling served as Crude Oil Logistics & Analysis Manager beginning in July 2011.

Mr. Kaczynski was appointed Vice President, Finance and Treasurer in August 2015. Prior to this appointment, Mr. Kaczynski was Vice President and Treasurer of Goodyear Tire and Rubber Company, one of the world's largest tire manufacturers, beginning in 2014. Previously, Mr. Kaczynski served as Vice President, Investor Relations, of Goodyear Tire and Rubber Company beginning in 2013.

Ms. Kazarian was appointed Vice President, Investor Relations in April 2018. Prior to this appointment, Ms. Kazarian was Managing Director and head of the MLP, Midstream and Refining Equity Research teams at Credit Suisse, a global investment bank and financial services company, beginning in September 2017. Previously, Ms. Kazarian worked at Deutsche Bank, a global investment bank and financial services company, as Managing Director of MLP, Midstream and Natural Gas Equity Research beginning in September 2014, and as an analyst specializing on various energy industry subsectors with Fidelity Management & Research Company, a privately held investment manager, beginning in 2005.

Mr. Kenney has served as President of Speedway LLC since August 2005.

Ms. Laird was appointed Chief Human Resources Officer effective October 2018. Prior to this appointment, Ms. Laird was Chief Human Resources Officer at Andeavor beginning in February 2018. Previously, Ms. Laird was the Chief Human Resources and Communications Officer for Newell Brands, a global consumer goods company, beginning in May 2016 and Executive Vice President, Human Resources for Unilever, a global consumer goods company, beginning in July 2011.

Mr. Linhardt was appointed Vice President, Tax in February 2018. Prior to this appointment, Mr. Linhardt served as Director of Tax beginning in June 2017. Previously, Mr. Linhardt served as Manager of Tax Compliance beginning in May 2013.

Mr. Partee was appointed Senior Vice President, Marketing effective October 2018. Prior to this appointment, Mr. Partee served as Vice President, Business Development beginning in February 2018. Previously, Mr. Partee was Director of Business Development beginning in January 2017, Manager of Crude Oil Logistics beginning in September 2014 and Vice President, Business Development and Franchise at Speedway beginning in November 2012.

Mr. Plumby was named Senior Vice President and Chief Operating Officer, Speedway LLC in January 2018 and was appointed an officer of MPC in February 2019. Previously, Mr. Plumby was Senior Vice President of Operations of Speedway LLC beginning in September 2013 and Vice President of Operations of Speedway LLC beginning in December 2010.

Mr. Quaid was appointed Vice President and Controller in June 2014. Prior to this appointment, Mr. Quaid was Vice President of Iron Ore at United States Steel Corporation ("U.S. Steel"), an integrated steel producer, beginning in January 2014. Previously, Mr. Quaid served as Vice President and Treasurer at U.S. Steel beginning in August 2011.

Mr. Sauber was appointed Senior Vice President, Labor Relations, Operations, Health and Administrative Services effective October 2018. Prior to this appointment, Mr. Sauber was Senior Vice President, Human Resources, Health and Administrative Services beginning in January 2018, and Vice President, Human Resources and Labor Relations beginning February 2017. Previously, Mr. Sauber was Vice President, Human Resources Policy, Benefits and Services of Shell Oil Company, a global energy and petrochemical company, beginning in 2013.

Mr. Templin was appointed President, Refining, Marketing and Supply effective October 2018. Prior to this appointment, Mr. Templin served as President beginning in July 2017; Executive Vice President beginning in January 2016; Executive Vice President, Supply, Transportation and Marketing beginning in March 2015; and Senior Vice President and Chief Financial Officer beginning in June 2011.

Ms. Thomson was appointed Vice President, Corporate Affairs effective October 2018. Prior to this appointment, Ms. Thomson served as Vice President of Andeavor Logistics beginning in June 2017. Previously, at Andeavor, Ms. Thomson served as Vice President, Salt Lake City refinery beginning in October 2012.

Mr. Wehrly was appointed Vice President and Chief Information Officer effective June 2011.

Mr. Whikehart was appointed Senior Vice President, Light Products, Supply and Logistics effective October 2018. Prior to this appointment, Mr. Whikehart served as Vice President, Environment, Safety and Corporate Affairs effective February 2016. Previously, Mr. Whikehart served as Vice President, Corporate Planning, Government & Public Affairs beginning in January 2016, and Director, Product Supply and Optimization beginning in March 2011.

Mr. Wilkins was appointed Vice President, Environment, Safety and Security effective October 2018. Prior to this appointment, Mr. Wilkins was Director, Environment, Safety, Security and Product Quality beginning February 2016. Previously, Mr. Wilkins served as Director, Refining Environmental, Safety, Security and Process Safety Management beginning in June 2013.

**Available Information**

General information about MPC, including Corporate Governance Principles and Charters for the Audit Committee, Compensation Committee and Corporate Governance and Nominating Committee, can be found at www.marathonpetroleum.com by selecting "Investors" under "Corporate Governance" and "Board of Directors". In addition, our Code of Business Conduct and Code of Ethics for Senior Financial Officers are also available in this same location. We will post on our website any amendments to, or waivers from, either of our codes requiring disclosure under applicable rules within four business days of the amendment or waiver.

MPC uses its website, www.marathonpetroleum.com, as a channel for routine distribution of important information, including news releases, analyst presentations, financial information and market data. Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as any amendments and exhibits to those reports, are available free of charge through our website as soon as reasonably practicable after the reports are filed or furnished with the SEC. These documents are also available in hard copy, free of charge, by contacting our Investor Relations office. In addition, our website allows investors and other interested persons to sign up to automatically receive email alerts when we post news releases and financial information on our website. Information contained on our website is not incorporated into this Annual Report on Form 10-K or other securities filings.

## ITEM 1A. RISK FACTORS

*You should carefully consider each of the following risks and all of the other information contained in this Annual Report on Form 10-K in evaluating us and our common stock. Some of these risks relate principally to our business and the industry in which we operate, while others relate to the ownership of our common stock.*

*Our business, financial condition, results of operations or cash flows could be materially and adversely affected by any of these risks, and, as a result, the trading price of our common stock could decline.*

**RISKS RELATING TO OUR BUSINESS**

**A substantial or extended decline in refining and marketing margins would reduce our operating results and cash flows and could materially and adversely impact our future rate of growth, the carrying value of our assets and our ability to execute share repurchases and continue the payment of our base dividend.**

Our operating results, cash flows, future rate of growth, the carrying value of our assets and our ability to execute share repurchases and continue the payment of our base dividend are highly dependent on the margins we realize on our refined products. Historically, refining and marketing margins have been volatile, and we believe they will continue to be volatile. Our margins from the sale of gasoline and other refined products are influenced by a number of conditions, including the price of crude oil. The price of crude oil and the price at which we can sell our refined products may fluctuate independently due to a variety of regional and global market factors that are beyond our control, including:

- worldwide and domestic supplies of and demand for crude oil and refined products;
- the cost of crude oil and other feedstocks to be manufactured into refined products;
- the prices realized for refined products;

- transportation infrastructure availability, local market conditions and operation levels of other refineries in our markets;
- utilization rates of refineries;
- natural gas and electricity supply costs incurred by refineries;
- the ability of the members of OPEC to agree to and maintain production controls;
- political instability, threatened or actual terrorist incidents, armed conflict, or other global political conditions;
- local weather conditions;
- seasonality of demand in our marketing area due to increased highway traffic in the spring and summer months;
- natural disasters such as hurricanes and tornadoes;
- the price and availability of alternative and competing forms of energy;
- domestic and foreign governmental regulations and taxes; and
- local, regional, national and worldwide economic conditions.

Some of these factors can vary by region and may change quickly, adding to market volatility, while others may have longer-term effects. The longer-term effects of these and other factors on refining and marketing margins are uncertain. We purchase our crude oil and other refinery feedstocks weeks before we refine them and sell the refined products. Price level changes during the period between purchasing feedstocks and selling the refined products from these feedstocks could have a significant effect on our financial results. We also purchase refined products manufactured by others for resale to our customers. Price changes during the periods between purchasing and reselling those refined products also could have a material and adverse effect on our business, financial condition, results of operations and cash flows.

Lower refining and marketing margins may reduce the amount of refined products we produce, which may reduce our revenues, income from operations and cash flows. Significant reductions in refining and marketing margins could require us to reduce our capital expenditures, impair the carrying value of our assets (such as property, plant and equipment, inventory or goodwill), and decrease or eliminate our share repurchase activity and our base dividend.

**Our operations are subject to business interruptions and casualty losses. Failure to manage risks associated with business interruptions could adversely impact our operations, financial condition, results of operations and cash flows.**

Our operations are subject to business interruptions such as scheduled refinery turnarounds, unplanned maintenance or unplanned events such as explosions, fires, refinery or pipeline releases or other incidents, power outages, severe weather, labor disputes, or other natural or man-made disasters, such as acts of terrorism. For example, pipelines or railroads provide a nearly-exclusive form of transportation of crude oil to, or refined products from, some of our refineries. In such instances, a prolonged interruption, material reduction or cessation of service of such a pipeline or railway, whether due to private party or governmental action or other reason, could materially and adversely affect the operations, profitability and cash flows of the impacted refinery.

Explosions, fires, refinery or pipeline releases or other incidents involving our assets or operations may 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. Damages resulting from an incident involving any of our assets or operations may result in our being named as a defendant in one or more lawsuits asserting potentially substantial claims or in our being assessed potentially substantial fines by governmental authorities.

In addition, we operate in and adjacent to environmentally sensitive waters where tanker, pipeline, rail car and refined product transportation and storage operations are closely regulated by federal, state and local agencies and monitored by environmental interest groups. Our coastal refineries receive crude oil and other feedstocks by tanker. In addition, our refineries receive crude oil and other feedstocks by rail car, truck and barge. Transportation and storage of crude oil, other feedstocks and refined products over and adjacent to water involves inherent risk and subjects us to the provisions of the OPA-90 and state laws in U.S. coastal and Great Lakes states and states bordering inland waterways on which we operate, as well as international laws in the jurisdictions in which we operate. If we are unable to promptly and adequately contain any accident or discharge involving tankers, pipelines, rail cars or above ground storage tanks transporting or storing crude oil, other feedstocks or refined products, we may be subject to substantial liability. In addition, the service providers we have contracted to aid us in a discharge response may be unavailable due to weather conditions, governmental regulations or other local or global events. International, federal or state rulings could divert our response resources to other global events.

**We do not insure against all potential losses, and, therefore, our business, financial condition, results of operations and cash flows could be adversely affected by unexpected liabilities and increased costs.**

We maintain insurance coverage in amounts we believe to be prudent against many, but not all, potential liabilities arising from operating hazards. Uninsured liabilities arising from operating hazards, including but not limited to, explosions, fires, refinery or pipeline releases, cybersecurity breaches or other incidents involving our assets or operations, could reduce the funds available to us for capital and investment spending and could have a material adverse effect on our business, financial condition, results of operations and cash flows. Marine vessel charter agreements may not provide complete indemnity for oil spills, and any marine charterer's liability insurance we carry may not cover all losses. Historically, we also have maintained insurance coverage for physical damage and resulting business interruption to our major facilities, with significant self-insured retentions. In the future, we may not be able to maintain insurance of the types and amounts we desire at reasonable rates.

**We rely on the performance of our information technology systems, and the interruption or failure of any information technology system, including an interruption or failure due to a cybersecurity breach, could have an adverse effect on our business, financial condition, results of operations and cash flows.**

We are heavily dependent on our information technology systems, including our network infrastructure and cloud applications, for the effective operation of our business. We rely on such systems to process, transmit and store electronic information, including financial records and personally identifiable information such as employee, customer, investor and payroll data, and to manage or support a variety of business processes, including our supply chain, pipeline operations, gathering and processing operations, retail sales, credit card payments and authorizations at our retail outlets, financial transactions, banking and numerous other processes and transactions. These information systems involve data network and telecommunications, Internet access and website functionality, and various computer hardware equipment and software applications, including those that are critical to the safe operation of our business. Our systems and infrastructure are subject to damage or interruption from a number of potential sources including natural disasters, software viruses or other malware, power failures, cyber-attacks and other events. We also face various other cybersecurity threats from criminal hackers, state-sponsored intrusion, industrial espionage and employee malfeasance, including threats to gain unauthorized access to sensitive information or to render data or systems unusable.

To protect against such attempts of unauthorized access or attack, we have implemented multiple layers of cybersecurity protections, infrastructure protection technologies, disaster recovery plans and employee training. While we have invested significant amounts in the protection of our technology systems and maintain what we believe are adequate security controls over personally identifiable customer, investor and employee data, there can be no guarantee such plans, to the extent they are in place, will be effective.

Certain vendors have access to sensitive information, including personally identifiable customer, investor and employee data and a breakdown of their technology systems or infrastructure as a result of a cyber-attack or otherwise could result in unauthorized disclosure of such information. Unauthorized disclosure of sensitive or personally identifiable information, including by cyber-attacks or other security breach, could cause loss of data, give rise to remediation or other expenses, expose us to liability under federal and state laws, reduce our customers' willingness to do business with us, disrupt the services we provide to customers and subject us to litigation and investigations, which could have an adverse effect on our reputation, business, financial condition, results of operations and cash flows. State and federal cybersecurity legislation could also impose new requirements, which could increase our cost of doing business.

**Competition in our industry is intense, and very aggressive competition could adversely impact our business.**

We compete with a broad range of refining and marketing companies, including certain multinational oil companies. Competitors with integrated operations with exploration and production resources and broader access to resources may be better able to withstand volatile market conditions and to bear the risks inherent in the refining industry. For example, competitors that engage in exploration and production of crude oil may be better positioned to withstand periods of depressed refining margins or feedstock shortages.

We also face strong competition in the market for the sale of retail gasoline, diesel fuel and merchandise. Our competitors include outlets owned or operated by fully integrated major oil companies or their dealers or jobbers, and other well-recognized national or regional retail outlets, often selling gasoline or merchandise at very competitive prices. Several non-traditional retailers such as supermarkets, club stores and mass merchants are in the retail business. These non-traditional gasoline retailers have obtained a significant share of the transportation fuels market and we expect their market share to grow. Because of their diversity, integration of operations, experienced management and greater financial resources, these companies may be better able to withstand volatile market conditions or levels of low or no profitability in the retail segment of the market. In addition, these retailers may use promotional pricing or discounts, both at the pump and in the store, to encourage in-store merchandise sales. These activities by our competitors could pressure us to offer similar discounts, adversely affecting our profit margins.

Additionally, the loss of market share by our convenience stores to these and other retailers relating to either gasoline or merchandise could have a material adverse effect on our business, financial condition, results of operations and cash flows.

The development, availability and marketing of alternative and competing fuels in the retail market could adversely impact our business. We compete with other industries that provide alternative means to satisfy the energy and fuel needs of our consumers. Increased competition from these alternatives as a result of governmental regulations, technological advances and consumer demand could have an impact on pricing and demand for our products and our profitability.

**We are subject to interruptions of supply and increased costs as a result of our reliance on third-party transportation of crude oil and refined products.**

We utilize the services of third parties to transport crude oil and refined products to and from our refineries. In addition to our own operational risks discussed above, we could experience interruptions of supply or increases in costs to deliver refined products to market if the ability of the pipelines, railways or vessels to transport crude oil or refined products is disrupted because of weather events, accidents, governmental regulations or third-party actions. A prolonged disruption of the ability of the trucks, pipelines, railways or vessels to transport crude oil or refined products to or from one or more of our refineries could have a material adverse effect on our business, financial condition, results of operations and cash flows.

**Our investments in joint ventures decrease our ability to manage risk.**

We conduct some of our operations through joint ventures in which we share control over certain economic and business interests with our joint venture partners. Our joint venture partners may have economic, business or legal interests or goals that are inconsistent with our goals and interests or may be unable to meet their obligations. Failure by us, or an entity in which we have a joint-venture interest, to adequately manage the risks associated with any acquisitions or joint ventures could have a material adverse effect on the financial condition or results of operations of our joint ventures and adversely affect our business, financial condition, results of operations and cash flows.

**We may incur losses to our business as a result of our forward-contract activities and derivative transactions.**

We currently use commodity derivative instruments, and we expect to enter into these types of transactions in the future. A failure of a futures commission merchant or counterparty to perform would affect these transactions. To the extent the instruments we utilize to manage these exposures are not effective, we may incur losses related to the ineffective portion of the derivative transaction or costs related to moving the derivative positions to another futures commission merchant or counterparty once a failure has occurred.

**We have significant debt obligations; therefore, our business, financial condition, results of operations and cash flows could be harmed by a deterioration of our credit profile, a decrease in debt capacity or unsecured commercial credit available to us, or by factors adversely affecting credit markets generally.**

At December 31, 2018, our total debt obligations for borrowed money and capital lease obligations were $27.98 billion, including $13.86 billion of obligations of MPLX and $5.01 billion of obligations of ANDX. We may incur substantial additional debt obligations in the future.

Our indebtedness may impose various restrictions and covenants on us that could have material adverse consequences, including:

- increasing our vulnerability to changing economic, regulatory and industry conditions;
- limiting our ability to compete and our flexibility in planning for, or reacting to, changes in our business and the industry;
- limiting our ability to pay dividends to our stockholders;
- limiting our ability to borrow additional funds; and
- requiring us to dedicate a substantial portion of our cash flow from operations to payments on our debt, thereby reducing funds available for working capital, capital expenditures, acquisitions, share repurchases, dividends and other purposes.

A decrease in our debt or commercial credit capacity, including unsecured credit extended by third-party suppliers, or a deterioration in our credit profile could increase our costs of borrowing money and/or limit our access to the capital markets and commercial credit. Our credit rating is determined by independent credit rating agencies. We cannot provide assurance that any of our credit ratings will remain in effect for any given period of time or that a rating will not be lowered or withdrawn entirely by a rating agency if, in its judgment, circumstances so warrant. Any changes in our credit capacity or credit profile could materially and adversely affect our business, financial condition, results of operations and cash flows.

We have a trade receivables securitization facility that provides liquidity of up to $750 million depending on the amount of eligible domestic trade accounts receivables. In periods of lower prices, we may not have sufficient eligible accounts receivables to support full availability of this facility.

**Historic or current operations could subject us to significant legal liability or restrict our ability to operate.**

We currently are defending litigation and anticipate we will be required to defend new litigation in the future. Our operations, including those of MPLX and ANDX, and those of our predecessors and Andeavor's predecessors could expose us to litigation and civil claims by private plaintiffs for alleged damages related to contamination of the environment or personal injuries caused by releases of hazardous substances from our facilities, products liability, consumer credit or privacy laws, product pricing or antitrust laws or any other laws or regulations that apply to our operations. While an adverse outcome in most litigation matters would not be expected to be material to us, in class-action litigation, large classes of plaintiffs may allege damages relating to extended periods of time or other alleged facts and circumstances that could increase the amount of potential damages. Attorneys general and other government officials may pursue litigation in which they seek to recover civil damages from companies on behalf of a state or its citizens for a variety of claims, including violation of consumer protection and product pricing laws or natural resources damages. We are defending litigation of that type and anticipate that we will be required to defend new litigation of that type in the future. If we are not able to successfully defend such litigation, it may result in liability to our company that could materially and adversely affect our business, financial condition, results of operations and cash flows. We do not have insurance covering all of these potential liabilities. In addition to substantial liability, plaintiffs in litigation may also seek injunctive relief which, if imposed, could have a material adverse effect on our future business, financial condition, results of operations and cash flows.

**A portion of our workforce is unionized, and we may face labor disruptions that could materially and adversely affect our business, financial condition, results of operations and cash flows.**

Approximately 4,780 of our employees are covered by collective bargaining agreements. Of these employees, approximately 1,465 employees at our Galveston Bay, Mandan and Martinez refineries are covered by collective bargaining agreements which were set to expire on January 31, 2019. The parties continue their negotiations toward a new agreement, and are working under rolling extensions. Approximately 425 employees at our Martinez Chemical Plant, our Los Angeles refinery and our Galveston Bay refinery are covered by collective bargaining agreements expiring over the next several months. Approximately 410 hourly employees at Speedway are represented under collective bargaining agreements. The majority of these employees work at certain retail locations in New York and New Jersey under agreements which expire on March 14, 2019 and June 30, 2019, respectively. The remaining Speedway represented employees are drivers in Minnesota under an agreement which expires in 2021. Approximately 300 employees at our St. Paul Park and Gallup refineries are covered by collective bargaining agreements scheduled to expire in 2020. Approximately 1,620 employees at our Anacortes, Canton, Catlettsburg, Los Angeles, and Salt Lake City refineries are covered by collective bargaining agreements that are due to expire in 2022. The remaining 560 hourly represented employees are covered by collective bargaining agreements with expiration dates ranging from 2021 to 2024. These contracts may be renewed at an increased cost to us. In addition, we have experienced in the past, and may experience in the future, work stoppages as a result of labor disagreements. Any prolonged work stoppages disrupting operations could have a material adverse effect on our business, financial condition, results of operations and cash flows.

In addition, California requires refinery owners to pay prevailing wages to contract craft workers and restricts refiners' ability to hire qualified employees to a limited pool of applicants. Legislation or changes in regulations could result in labor shortages higher labor costs, and an increased risk that contract employees become joint employees, which could trigger bargaining issues, employment discrimination liability issues as well as wage and benefit consequences, especially during critical maintenance and construction periods.

**Two of our subsidiaries act as general partners of publicly traded master limited partnerships, which may involve a greater exposure to certain legal liabilities than existed under our historic business operations.**

One of our subsidiaries acts as the general partner of MPLX, a publicly traded MLP. Another of our subsidiaries acts as the general partner of ANDX, a publicly traded MLP. We acquired control of ANDX's general partner through the Andeavor acquisition. Our control of the general partners of MPLX and ANDX may increase the possibility of claims of breach of fiduciary duties, including claims of conflicts of interest related to MPLX and ANDX. Any liability resulting from such claims could have a material adverse effect on our future business, financial condition, results of operations and cash flows.

**If foreign investment in us or MPLX exceeds certain levels, MPLX could be prohibited from operating inland river vessels, which could materially and adversely affect our business, financial condition, results of operations and cash flows.**

The Shipping Act of 1916 and Merchant Marine Act of 1920, which we refer to collectively as the Maritime Laws, generally require that vessels engaged in U.S. coastwise trade be owned by U.S. citizens. Among other requirements to establish citizenship, entities that own such vessels must be owned at least 75 percent by U.S. citizens. If we fail to maintain compliance with the Maritime Laws, MPLX would be prohibited from operating vessels in the U.S. inland waters. Such a prohibition could materially and adversely affect our business, financial condition, results of operations and cash flows.

**We are subject to certain continuing contingent liabilities of Marathon Oil relating to taxes and other matters and to potential liabilities pursuant to the tax sharing agreement and separation and distribution agreement we entered into with Marathon Oil that could materially and adversely affect our business, financial condition, results of operations and cash flows.**

Although the Spinoff occurred in mid-2011, certain liabilities of Marathon Oil could become our obligations. For example, under the Internal Revenue Code of 1986 (the “Code”) and related rules and regulations, each corporation that was a member of the Marathon Oil consolidated tax reporting group during any taxable period or portion of any taxable period ending on or before the effective time of the Spinoff is jointly and severally liable for the federal income tax liability of the entire Marathon Oil consolidated tax reporting group for that taxable period. In connection with the Spinoff, we entered into a tax sharing agreement with Marathon Oil that allocates the responsibility for prior period taxes of the Marathon Oil consolidated tax reporting group between us and Marathon Oil. However, if Marathon Oil is unable to pay any prior period taxes for which it is responsible, we could be required to pay the entire amount of such taxes. Other provisions of federal law establish similar liability for other matters, including laws governing tax-qualified pension plans as well as other contingent liabilities.

Also pursuant to the tax sharing agreement, following the Spinoff we are responsible generally for all taxes attributable to us or any of our subsidiaries, whether accruing before, on or after the Spinoff. We also agreed to be responsible for, and indemnify Marathon Oil with respect to, all taxes arising as a result of the Spinoff (or certain internal restructuring transactions) failing to qualify as transactions under Sections 368(a) and 355 of the Code for U.S. federal income tax purposes to the extent such tax liability arises as a result of any breach of any representation, warranty, covenant or other obligation by us or certain affiliates made in connection with the issuance of the private letter ruling relating to the Spinoff or in the tax sharing agreement. In addition, we agreed to indemnify Marathon Oil for specified tax-related liabilities associated with our 2005 acquisition of the minority interest in our refining joint venture from Ashland Inc. Our indemnification obligations to Marathon Oil and its subsidiaries, officers and directors are not limited or subject to any cap. If we are required to indemnify Marathon Oil and its subsidiaries and their respective officers and directors under the tax sharing agreement, we may be subject to substantial liabilities. At this time, we cannot precisely quantify the amount of these liabilities that have been assumed pursuant to the tax sharing agreement, and there can be no assurances as to their final amounts.

Also, in connection with the Spinoff, we entered into a separation and distribution agreement with Marathon Oil that provides for, among other things, the principal corporate transactions that were required to effect the Spinoff, certain conditions to the Spinoff and provisions governing the relationship between our company and Marathon Oil with respect to and resulting from the Spinoff. Among other things, the separation and distribution agreement provides for indemnification obligations designed to make us financially responsible for substantially all liabilities that may exist relating to our downstream business activities, whether incurred prior to or after the Spinoff, as well as certain obligations of Marathon Oil assumed by us. Our obligations to indemnify Marathon Oil under the circumstances set forth in the separation and distribution agreement could subject us to substantial liabilities. Marathon Oil also agreed to indemnify us for certain liabilities. However, third parties could seek to hold us responsible for any of the liabilities retained by Marathon Oil, and there can be no assurance that the indemnity from Marathon Oil will be sufficient to protect us against the full amount of such liabilities, that Marathon Oil will be able to fully satisfy its indemnification obligations or that Marathon Oil’s insurers will cover us for liabilities associated with occurrences prior to the Spinoff. Moreover, even if we ultimately succeed in recovering from Marathon Oil or its insurers any amounts for which we are held liable, we may be temporarily required to bear these losses ourselves. The tax liabilities and underlying liabilities in the event Marathon Oil is unable to satisfy its indemnification obligations described in this paragraph could have a material adverse effect on our business, financial condition, results of operation and cash flows.

**Significant acquisitions in the future will involve the integration of new assets or businesses and present substantial risks that could adversely affect our business, financial conditions, results of operations and cash flows.**

Significant future transactions involving the addition of new assets or businesses will present potential risks, which may include, among others:

- Inaccurate assumptions about future synergies, revenues, capital expenditures and operating costs;

- An inability to successfully integrate assets or businesses we acquire;
- A decrease in our liquidity resulting from using a portion of our available cash or borrowing capacity under our revolving credit agreement to finance transactions;
- A significant increase in our interest expense or financial leverage if we incur additional debt to finance transactions;
- The assumption of unknown environmental and other liabilities, losses or costs for which we are not indemnified or for which our indemnity is inadequate;
- The diversion of management's attention from other business concerns; and
- The incurrence of other significant charges, such as impairment of goodwill or other intangible assets, asset devaluation or restructuring charges.

**A significant decrease or delay in oil and natural gas production in MPLX's or ANDX's areas of operation, whether due to sustained declines in oil, natural gas and NGL prices, natural declines in well production, or otherwise, may adversely affect MPLX's or ANDX's business, results of operations and financial condition, and could reduce their ability to make distributions to us.**

A significant portion of MPLX's operations are dependent upon production from oil and natural gas reserves and wells owned by its producer customers, which will naturally decline over time, which means that MPLX's cash flows associated with these wells will also decline over time. To maintain or increase throughput levels and the utilization rate of MPLX's facilities, MPLX must continually obtain new oil, natural gas and NGL supplies, which depends in part on the level of successful drilling activity near its facilities. Similarly, ANDX's operations are dependent in part on the production of crude oil in the Bakken region and the production of natural gas and NGLs in the Green River, Uinta and Williston basins.

We have no control over the level of drilling activity in the areas of MPLX's or ANDX's operations, the amount of reserves associated with the wells or the rate at which production from a well will decline. In addition, we have no control over producers or their production decisions, which are affected by, among other things, prevailing and projected energy prices, drilling costs per Mcf or barrel, demand for hydrocarbons, operational challenges, access to downstream markets, the level of reserves, geological considerations, governmental regulations and the availability and cost of capital. Because of these factors, even if new oil or natural gas reserves are discovered in areas served by MPLX or ANDX assets, producers may choose not to develop those reserves. If MPLX and ANDX are not able to obtain new supplies of oil, natural gas or NGLs to replace the natural decline in volumes from existing wells, throughput on their pipelines and the utilization rates of their facilities would decline, which could have a material adverse effect on their business, results of operations and financial condition and could reduce their ability to make distributions to us.

Decreases in energy prices can decrease drilling activity, production rates and investments by third parties in the development of new oil and natural gas reserves. The prices for oil, natural gas and NGLs depend upon factors beyond our control, including global and local demand, production levels, changes in interstate pipeline gas quality specifications, imports and exports, seasonality and weather conditions, economic and political conditions domestically and internationally and governmental regulations. Sustained periods of low prices could result in producers also significantly curtailing or limiting their oil and gas drilling operations which could substantially delay the production and delivery of volumes of oil, natural gas and NGLs to MPLX's and ANDX's facilities and adversely affect their revenues and cash available for distribution to us. This impact may also be exacerbated due to the extent of MPLX's commodity-based contracts, which are more directly impacted by changes in natural gas and NGL prices than its fee-based contracts due to frac spread exposure and may result in operating losses when natural gas becomes more expensive on a Btu equivalent basis than NGL products. In addition, the purchase and resale of natural gas and NGLs in the ordinary course exposes our Midstream operations to volatility in natural gas or NGL prices due to the potential difference in the time of the purchases and sales and the potential difference in the price associated with each transaction, and direct exposure may also occur naturally as a result of production processes. Also, the significant volatility in natural gas, NGL and oil prices could adversely impact MPLX's or ANDX's unit price, thereby increasing its distribution yield and cost of capital. Such impacts could adversely impact MPLX's and ANDX's ability to execute its long-term organic growth projects, satisfy obligations to its customers and make distributions to unitholders at intended levels, and may also result in non-cash impairments of long-lived assets or goodwill or other-than-temporary non-cash impairments of our equity method investments.

**Significant stockholders may attempt to effect changes at our company or acquire control over our company, which could impact the pursuit of business strategies and adversely affect our results of operations and financial condition.**

Our stockholders may from time to time engage in proxy solicitations, advance stockholder proposals or otherwise attempt to effect changes or acquire control over our company. Campaigns by stockholders to effect changes at publicly traded companies are sometimes led by investors seeking to increase short-term stockholder value through actions such as financial restructuring, increased debt, special dividends, stock repurchases or sales of assets or the entire company. Responding to proxy contests and other actions by activist stockholders can be costly and time-consuming and could divert the attention of our board of directors and senior management from the management of our operations and the pursuit of our business strategies. As a result, stockholder campaigns could adversely affect our results of operations and financial condition.

**We do not own all of the land on which our assets are located, which could disrupt our operations.**

We do not own all of the land on which certain of our assets are located, particularly our midstream assets, but rather obtain the rights to construct and operate such assets on land owned by third parties and governmental agencies for a specific period of time. Therefore, we are subject to the possibility of more burdensome terms and increased costs to retain necessary land use if our leases, rights-of-way or other property rights lapse or terminate or it is determined that we do not have valid leases, rights-of-way or other property rights. Our loss of these rights, including loss through our inability to renew leases, right-of-way agreements or permits on satisfactory terms or at all, could have a material adverse effect on our business, financial condition, results of operations and cash flows.

## RISKS RELATING TO THE ANDEAVOR ACQUISITION

**The Andeavor acquisition may not be accretive, and may be dilutive, to MPC’s earnings per share and cash flow from operations per share, which may negatively affect the market price of shares of MPC common stock.**

The Andeavor acquisition may not be accretive, and may be dilutive, to MPC’s earnings per share and cash flow from operations per share. Earnings per share and cash flow from operations per share in the future are based on preliminary estimates that may materially change. In addition, future events and conditions could decrease or delay any accretion, result in dilution or cause greater dilution than is currently expected, including:

- adverse changes in energy market conditions;
- commodity prices for oil, natural gas and natural gas liquids;
- production levels;
- operating results;
- competitive conditions;
- laws and regulations affecting the energy business;
- capital expenditure obligations;
- higher than expected integration costs;
- lower than expected synergies; and
- general economic conditions.

Any dilution of, or decrease or delay of any accretion to, MPC’s earnings per share or cash flow from operations per share could cause the price of MPC’s common stock to decline.

**MPC has incurred and will continue to incur significant costs in connection with the Andeavor acquisition, which may be in excess of those anticipated by MPC.**

MPC has incurred substantial expenses in connection with the Andeavor acquisition. MPC expects to continue to incur a number of non-recurring costs associated with combining the operations of the two companies and achieving desired synergies. These fees and costs have been, and will continue to be, substantial.

MPC will also incur transaction fees and costs related to formulating and implementing integration plans, including facilities and systems consolidation costs and employment-related costs. Additional unanticipated costs may be incurred in the integration of the two companies’ businesses. Although MPC expects that the elimination of duplicative costs, as well as the realization of other efficiencies related to the integration of the businesses, should allow MPC to offset integration-related costs over time, this net benefit may not be achieved in the near term, or at all. See the risk factor below entitled “The integration of Andeavor into MPC may not be as successful as anticipated.”

The costs described above, as well as other unanticipated costs and expenses, could materially and adversely affect MPC’s results of operations, financial position and cash flows.

**The integration of Andeavor into MPC may not be as successful as anticipated.**

The Andeavor acquisition involves numerous operational, strategic, financial, accounting, legal, tax and other risks; potential liabilities associated with the acquired businesses; and uncertainties related to design, operation and integration of Andeavor’s internal control over financial reporting. Difficulties in integrating Andeavor into MPC may result in legacy Andeavor assets performing differently than expected, in operational challenges or in the failure to realize anticipated expense-related efficiencies. Potential difficulties that may be encountered in the integration process include, among other factors:

- the inability to successfully integrate the businesses of Andeavor into MPC in a manner that permits MPC to achieve the full revenue and cost savings anticipated from the merger;
- complexities associated with managing the larger, more complex, integrated business;
- not realizing anticipated operating synergies or incurring unexpected costs to realize such synergies;
- integrating personnel from the two companies while maintaining focus on providing consistent, high-quality products and services;
- potential unknown liabilities and unforeseen expenses, delays or regulatory conditions associated with the merger;
- loss of key employees;
- integrating relationships with customers, vendors and business partners;
- performance shortfalls as a result of the diversion of management’s attention caused by completing the merger and integrating Andeavor’s operations into MPC; and
- the disruption of, or the loss of momentum in, each company’s ongoing business or inconsistencies in standards, controls, procedures and policies.

**MPC’s results may suffer if it does not effectively manage its expanded operations following the Andeavor acquisition.**

MPC’s success depends, in part, on its ability to manage its expansion following the Andeavor acquisition, which poses numerous risks and uncertainties, including the need to integrate the operations and business of Andeavor into its existing business in an efficient and timely manner, to combine systems and management controls and to integrate relationships with customers, vendors and business partners.

**MPC may fail to realize all of the anticipated benefits of the Andeavor acquisition.**

The success of the Andeavor acquisition depends, in part, on MPC’s ability to realize the anticipated benefits and cost savings from combining MPC’s and Andeavor’s businesses, including the annual gross, run-rate, commercial and corporate synergies that MPC expects to realize within the first three years after the combination. The anticipated benefits and cost savings of the Andeavor acquisition may not be realized fully or at all, may take longer to realize than expected, may require more non-recurring costs and expenditures to realize than expected or could have other adverse effects. Some of the assumptions that MPC has made, such as with respect to anticipated: operating synergies or the costs associated with realizing such synergies; significant long-term cash flow generation; the benefit from a substantial increase in scale and geographic diversity; complementary growth platforms for both midstream and retail businesses; positioning for potentially significant benefits from the International Maritime Organization change in specifications for marine bunker fuel; the expansion in opportunities for logistics growth in crude oil production basins and regions; further optimization of crude supply; and the continuation of MPC’s investment grade credit profile, may not be realized. The integration process may result in the loss of key employees, the disruption of ongoing businesses or inconsistencies in standards, controls, procedures and policies. There could be potential unknown liabilities and unforeseen expenses associated with the Andeavor acquisition that were not discovered in the course of performing due diligence.

**We have recorded goodwill and other intangible assets that could become impaired and result in material non-cash charges to our results of operations.**

We accounted for the Andeavor and other acquisitions using the acquisition method of accounting, which requires that the assets and liabilities of the acquired business be recorded to our balance sheet at their respective fair values as of the acquisition date. Any excess of the purchase consideration over the fair value of the acquired net assets is recognized as goodwill.

As of December 31, 2018, our balance sheet reflected $20.2 billion and $3.4 billion of goodwill and other intangible assets, respectively. These amounts include the preliminary estimates of goodwill and other intangible assets of $16.3 billion and $2.8 billion, respectively, recognized in connection with the Andeavor acquisition. To the extent the value of goodwill or intangible assets becomes impaired, we may be required to incur material non-cash charges relating to such impairment. Our operating results may be significantly impacted from both the impairment and the underlying trends in the business that triggered the impairment.

**RISKS RELATED TO OUR INDUSTRY**

**Meeting the requirements of evolving environmental or other laws or regulations may reduce our refining and marketing margin and may result in substantial capital expenditures and operating costs that could materially and adversely affect our business, financial condition, results of operations and cash flows.**

Various laws and regulations are expected to impose increasingly stringent and costly requirements on our operations, which may reduce our refining and marketing margin. Laws and regulations expected to become more stringent relate to the following:

- the emission or discharge of materials into the environment,
- solid and hazardous waste management,
- pollution prevention,
- greenhouse gas emissions,
- climate change,
- characteristics and composition of gasoline and diesel fuels,
- public and employee safety and health,
- inherently safer technology, and
- facility security.

The specific impact of laws and regulations on us and our competitors may vary depending on a number of factors, including the age and location of operating facilities, marketing areas, crude oil and feedstock sources and production processes. We may be required to make expenditures to modify operations, install pollution control equipment, perform site cleanups or curtail operations that could materially and adversely affect our business, financial condition, results of operations and cash flows.

The EPA's National Ambient Air Quality Standards ("NAAQS") are among the regulations that impact our operations. In October 2015, the EPA reduced the primary (health) ozone NAAQS to 70 ppb from the prior ozone level of 75 ppb. On November 6, 2017, the EPA finalized ozone attainment/unclassifiable designations under the new standard. In actions dated April 30, 2018, and July 25, 2018, the EPA finalized nonattainment designations for certain areas under the lower primary ozone standard. In some areas, these nonattainment designations could result in increased costs associated with, or result in cancellation or delay of, capital projects at our facilities. States will also be required to adopt SIPs for nonattainment areas. These SIPs may include NOx and/or VOC reductions that could result in increased costs to our facilities. We cannot predict the various SIP requirements at this time. The EPA announced that it plans to review the NAAQS level for particulate matter ("PM"). A reduction in the PM NAAQS and subsequent designation of nonattainment could also result in increased costs associated with, or result in cancellation or delay of, capital projects at our facilities.

The EISA established increases in fuel mileage standards. The Department of Transportation's National Highway Safety Administration and the EPA work in conjunction to establish CAFE standards and greenhouse gas emission standards for light-duty vehicles that become more stringent over time. In addition, pursuant to a waiver granted by the EPA, California and other states have enacted laws that require vehicle emission reductions. Increases in fuel mileage standards and requirements for zero emission vehicles may reduce demand for refined product.

The EISA also expanded the Renewable Fuel Standard ("RFS") program administered by the EPA. Governmental regulations encouraging the use of new or alternative fuels could pose a competitive threat to our operations. The EISA required the total volume of renewable transportation fuels sold or introduced annually in the U.S. to reach 36.0 billion gallons by 2022. The RFS presents production and logistics challenges for both the renewable fuels and petroleum refining industries, and may continue to require additional capital expenditures or expenses by us to accommodate increased renewable fuels use. Gasoline consumption has been lower than forecasted by the EPA, which has led to concerns that the renewable fuel volumes may not be met. On November 30, 2018, EPA finalized RFS volume requirements for the year 2019, and the biomass-based diesel volume requirement for year 2020. The EPA used its cellulosic waiver authority to reduce the volumes for 2019 from the statutory amounts to the following: 19.92 billion gallons total renewable fuel; 4.92 billion gallons advanced biofuel; and 418 million gallons cellulosic biofuel. The EPA set the biomass-based diesel volume requirement for 2020 at 2.43 billion gallons, which is significantly greater than the statutory floor of 1.0 billion gallons.

Tax incentives and other subsidies have also made renewable fuels more competitive with refined products than they otherwise would have been, which may further reduce refined product margins. The tax incentives and subsidies are causing uncertainties because they have expired and been reinstituted retroactively. The biodiesel credit, for example, expired at the end of 2016 and was retroactively reinstated in early 2018. It is not certain whether the credit will be reinstituted beyond 2018.

On March 3, 2014, the EPA signed the final Tier 3 fuel standards. The final Tier 3 fuel standards require, among other things, a lower annual average sulfur level in gasoline to no more than 10 ppm beginning in calendar year 2017. In addition, gasoline refiners and importers may not exceed a maximum per-gallon sulfur standard of 80 ppm, while retailers may not exceed a maximum per-gallon sulfur standard of 95 ppm. Since 2014, we have made approximately $490 million in capital expenditures necessary to comply with these standards. For 2019, we expect an additional $260 million of capital expenditures to comply with these standards.

Federal, state and local legislation and regulatory initiatives relating to hydraulic fracturing could delay or impede producer’s gas production or result in reduced volumes available for our midstream assets to gather, process and fractionate. While we do not conduct hydraulic fracturing operations, we do provide gathering, processing and fractionation services with respect to natural gas and natural gas liquids produced by our customers as a result of such operations. If federal, state or local laws or regulations that significantly restrict hydraulic fracturing are adopted, such legal requirements could make it more difficult to complete natural gas wells in shale formations and increase producers’ costs of compliance.

**Climate change and greenhouse gas emission regulation could affect our operations, energy consumption patterns and regulatory obligations, any of which could affect our results of operations and financial condition.**

Currently, multiple legislative and regulatory measures to address greenhouse gas (including carbon dioxide, methane and nitrous oxides) and other emissions are in various phases of consideration, promulgation or implementation. These include actions to develop international, federal, regional or statewide programs, which could require reductions in our greenhouse gas or other emissions, establish a carbon tax and decrease the demand for our refined products. Requiring reductions in these emissions could result in increased costs to (i) operate and maintain our facilities, (ii) install new emission controls at our facilities and (iii) administer and manage any emissions programs, including acquiring emission credits or allotments.

For example, in California, the state legislature adopted SB 32 in 2016. SB 32 set a cap on emissions of 40% below 1990 levels by 2030 but did not establish a particular mechanism to achieve that target. The legislature also adopted a companion bill, AB 197, that most significantly directs the CARB to prioritize direct emission reductions on large stationary sources. In 2017, the state legislature adopted AB 398 which provides direction and parameters on utilizing cap and trade after 2020 to meet the 40% reduction target from 1990 levels by 2030 specified in SB 32. In 2009, CARB adopted the Low Carbon Fuel Standard (“LCFS”). The LCFS was amended again in 2018 with the current version targeting a 20% reduction in fuel carbon intensity from a 2010 baseline by 2030. Compliance is demonstrated by blending lower carbon intensity biofuels into gasoline and diesel or by purchasing credits. Compliance with each of the cap and trade and LCFS programs is demonstrated through a market-based credit system. Other states are proposing, or have already promulgated, low carbon fuel standards or similar initiatives to reduce emissions from the transportation sector. If we are unable to pass the costs of compliance on to our customers, sufficient credits are unavailable for purchase, we have to pay a significantly higher price for credits, or if we are otherwise unable to meet our compliance obligation, our financial condition and results of operations could be adversely affected.

Regional and state climate change and air emissions goals and regulatory programs are complex, subject to change and considerable uncertainty due to a number of factors including technological feasibility, legal challenges and potential changes in federal policy. Increasing concerns about climate change have also resulted in a number of international and national measures to limit greenhouse gas emissions. Additional stricter measures can be expected in the future and any of these changes may have a material adverse impact on our business or financial condition.

International climate change-related efforts, such as the 2015 United Nations Conference on Climate Change, which led to the creation of the Paris Agreement, may impact the regulatory framework of states whose policies directly influence our present and future operations. Though the United States has announced its intention to withdraw from the Paris Agreement, withdrawal it is not possible until November 2019 at the earliest. If the United States declines to withdraw, the extent of such regulation and the cost associated with compliance cannot be predicted.

We could also face increased climate- related litigation with respect to our operations or products. Governmental and other entities in California, New York, Maryland and Rhode Island have filed lawsuits against coal, gas, oil and petroleum companies, including the Company. The lawsuits allege damages as a result of climate change and the plaintiffs are seeking unspecified damages and abatement under various tort theories. Similar lawsuits may be filed in other jurisdictions. There remains a high degree of uncertainty regarding the ultimate outcome of these lawsuits, as well as their potential effect on the Company's business, financial condition, results of operation and cash flows.

**Regulatory and other requirements concerning the transportation of crude oil and other commodities by rail may cause increases in transportation costs or limit the amount of crude oil that we can transport by rail.**

We rely on a variety of systems to transport crude oil, including rail. Rail transportation is regulated by federal, state and local authorities. New regulations or changes in existing regulations could result in increased compliance expenditures. For example, in 2015 the U.S. Department of Transportation issued new standards and regulations applicable to crude-by-rail transportation (Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains). These or other regulations that require the reduction of volatile or flammable constituents in crude oil that is transported by rail, change the design or standards for rail cars used to transport the crude oil we purchase, change the routing or scheduling of trains carrying crude oil, or require any other changes that detrimentally affect the economics of delivering North American crude oil by rail could increase the time required to move crude oil from production areas to our refineries, increase the cost of rail transportation and decrease the efficiency of shipments of crude oil by rail within our operations. Any of these outcomes could have a material adverse effect on our business and results of operations.

**Severe weather events and other climate conditions may adversely affect our facilities and ongoing operations.**

We have mature systems in place to manage potential acute physical risks, such as floods, hurricane-force winds, wildfires and snowstorms, and potential chronic physical risks, such as higher ocean levels. If any such events were to occur, they could have an adverse effect on our assets and operations. Specifically, where appropriate, we are hardening and modernizing assets against weather damage and ensuring we have resiliency measures in place, such as storm-specific readiness plans. We have incurred and will continue to incur additional costs to protect our assets and operations from such physical risks and employ the evolving technologies and processes available to mitigate such risks. To the extent such severe weather events or other climate conditions increase in frequency and severity, we may be required to modify operations and incur costs that could materially and adversely affect our business, financial condition, results of operations and cash flows.

**Plans we may have to expand existing assets or construct new assets are subject to risks associated with societal and political pressures and other forms of opposition to the future development, transportation and use of carbon-based fuels. Such risks could adversely impact our business and ability to realize certain growth strategies.**

Our anticipated growth and planned expenditures are based upon the assumption that societal sentiment will continue to enable and existing regulations will remain intact to allow for the future development, transportation and use of carbon-based fuels. A portion of our growth strategy is dependent on our ability to expand existing assets and to construct additional assets. However, policy decisions relating to the production, refining, transportation and marketing of carbon-based fuels are subject to political pressures and the influence and protests of environmental and other special interest groups. One of the ways we may grow our business is through the construction of new pipelines or the expansion of existing ones. The construction of a new pipeline or the expansion of an existing pipeline, by adding horsepower or pump stations or by adding additional pipelines along existing pipelines, involves numerous regulatory, environmental, political, and legal uncertainties, most of which are beyond our control. The approval process for storage and transportation projects has become increasingly challenging, due in part to state and local concerns related to pipelines, negative public perception regarding the oil and gas industry, and concerns regarding greenhouse gas emissions downstream of pipeline operations. In addition, government disruptions, such as a U.S. federal government shutdown, may delay or halt the granting and renewal of permits, licenses and other items required by us and our customers to conduct our business. We have experienced construction delays related to these factors as a result of the U.S. federal government's recent shutdown. Our expansion or construction projects may not be completed on schedule (or at all) or at the budgeted cost. In addition, our revenues may not increase immediately upon the expenditure of funds on a particular project. For instance, if we build a new pipeline, the construction will occur over an extended period of time and we will not receive any material increases in revenues until after completion of the project. Delays or cost increases related to capital spending programs involving 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, thereby limiting our ability to grow and generate cash flows.

**Large capital projects can take many years to complete, and market conditions could deteriorate significantly between the project approval date and the project startup date, negatively impacting project returns. 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 engineering, procurement and construction of facilities could materially 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;
- 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 ongoing capital projects. If we were unable to make up the delays associated with such factors or to recover the related costs, or if market conditions change, it could materially and adversely affect our business, financial condition, results of operations and cash flows.

**The availability of crude oil and increases in crude oil prices may reduce profitability and refining and marketing margins.**

The profitability of our operations depends largely on the difference between the cost of crude oil and other feedstocks we refine and the selling prices we obtain for refined products. A portion of our crude oil is purchased from various foreign national oil companies, production companies and trading companies, including suppliers from Canada, the Middle East and various other international locations. The market for crude oil and other feedstocks is largely a world market. We are, therefore, subject to the attendant political, geographic and economic risks of such a market. If one or more major supply sources were temporarily or permanently eliminated, we believe adequate alternative supplies of crude oil would be available, but it is possible we would be unable to find alternative sources of supply. If we are unable to obtain adequate crude oil volumes or are able to obtain such volumes only at unfavorable prices, our operations, sales of refined products and refining and marketing margins could be adversely affected, materially and adversely impacting our business, financial condition, results of operations and cash flows.

**We are subject to risks arising from our non-U.S. operations and generally to worldwide political and economic developments.**

We have expanded the scope of our non-U.S. operations through the Andeavor acquisition, particularly in Mexico, South America and Asia. Our business, financial condition, results of operations and cash flows could be negatively impacted by disruptions in any of these markets, including economic instability, restrictions on the transfer of funds, duties and tariffs, transportation delays, import and export controls, changes in governmental policies, labor unrest, security issues involving key personnel and changing regulatory and political environments. In addition, if trade relationships deteriorate with these countries, if existing trade agreements are modified or terminated, new economic sanctions relevant to such jurisdictions are passed or if taxes, border adjustments or tariffs make trading with these countries more costly, it could have a material adverse effect on our business, financial condition, results of operations and cash flows.

We are required to comply with U.S. and international laws and regulations, including those involving anti-bribery, anti-corruption and anti-money laundering. For example, the Foreign Corrupt Practices Act and similar laws and regulations prohibit improper payments to foreign officials for the purpose of obtaining or retaining business or gaining any business advantage. Our compliance policies and programs mandate compliance with all applicable anti-corruption laws but may not be completely effective in ensuring our compliance. Our training and compliance program and our internal control policies and procedures may not always protect us from violations committed by our employees or agents. Actual or alleged violations of these laws could disrupt our business and cause us to incur significant legal expenses, and could result in a material adverse effect on our reputation, business, financial condition, results of operations and cash flows.

More broadly, political and economic factors in global markets could impact crude oil and other feedstock supplies and could have a material adverse effect on us in other ways. Hostilities in the Middle East or the occurrence or threat of future terrorist attacks 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 refined products, NGLs and natural gas. Additionally, these risks could increase instability in the financial and insurance markets and make it more difficult and/or costly for us to access capital and to obtain the insurance coverage that we consider adequate. Additionally, tax policy, legislative or regulatory action and commercial restrictions could reduce our operating profitability. For example, the U.S. government could prevent or restrict exports of refined products, NGLs, natural gas or the conduct of business in or with certain foreign countries. In addition, foreign countries could restrict imports, investments or commercial transactions.

**Compliance with and changes in tax laws could materially and adversely impact our financial condition, results of operations and cash flows.**

We are subject to extensive tax liabilities, including federal and state income taxes and transactional taxes such as excise, sales and use, payroll, franchise, withholding and property taxes. New tax laws and regulations and changes in existing tax laws and regulations could result in increased expenditures by us for tax liabilities in the future and could materially and adversely impact our financial condition, results of operations and cash flows.

Additionally, many tax liabilities are subject to periodic audits by taxing authorities, and such audits could subject us to interest and penalties.

**Terrorist attacks aimed at our facilities or that impact our customers or the markets we serve could adversely affect our business.**

The U.S. government has issued warnings that energy assets in general, including the nation’s refining, pipeline and terminal infrastructure, may be future targets of terrorist organizations. The threat of terrorist attacks has subjected our operations to increased risks. Any future terrorist attacks on our facilities, those of our customers and, in some cases, those of other pipelines, could have a material adverse effect on our business. Similarly, any future terrorist attacks that severely disrupt the markets we serve could materially and adversely affect our results of operations, financial position and cash flows.

## RISKS RELATING TO OWNERSHIP OF OUR COMMON STOCK

**Provisions in our corporate governance documents could operate to delay or prevent a change in control of our company, dilute the voting power or reduce the value of our capital stock or affect its liquidity.**

The existence of some provisions within our restated certificate of incorporation and amended and restated bylaws could discourage, delay or prevent a change in control of us that a stockholder may consider favorable. These include provisions:

- providing that our board of directors fixes the number of members of the board;
- providing for the division of our board of directors into three classes with staggered terms;
- providing that only our board of directors may fill board vacancies;
- limiting who may call special meetings of stockholders;
- prohibiting stockholder action by written consent, thereby requiring stockholder action to be taken at a meeting of the stockholders;
- establishing advance notice requirements for nominations of candidates for election to our board of directors or for proposing matters that can be acted on by stockholders at stockholder meetings;
- establishing supermajority vote requirements for certain amendments to our restated certificate of incorporation;
- providing that our directors may only be removed for cause;
- authorizing a large number of shares of common stock that are not yet issued, which would allow our board of directors to issue shares to persons friendly to current management, thereby protecting the continuity of our management, or which could be used to dilute the stock ownership of persons seeking to obtain control of us; and
- authorizing the issuance of “blank check” preferred stock, which could be issued by our board of directors to increase the number of outstanding shares and thwart a takeover attempt.

We believe these provisions protect our stockholders from coercive or otherwise unfair takeover tactics by requiring potential acquirers to negotiate with our board of directors and by providing our board of directors time to assess any acquisition proposal, and are not intended to make us immune from takeovers. However, these provisions apply even if the offer may be considered beneficial by some stockholders and could delay or prevent an acquisition.

Our restated certificate of incorporation also authorizes us to issue, without the approval of our stockholders, one or more classes or series of preferred stock having such designation, powers, preferences and relative, participating, optional and other special rights, including preferences over our 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 our common stock. For example, we could grant holders of preferred stock the right to elect some number of our board of 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 our common stock.

Finally, to facilitate compliance with the Maritime Laws, our restated certificate of incorporation limits the aggregate percentage ownership by non-U.S. citizens of our common stock or any other class of our capital stock to 23 percent of the outstanding shares. We may prohibit transfers that would cause ownership of our common stock or any other class of our capital stock by non-U.S. citizens to exceed 23 percent. Our restated certificate of incorporation also authorizes us to effect any and all measures necessary or desirable to monitor and limit foreign ownership of our common stock or any other class of our capital stock. These limitations could have an adverse impact on the liquidity of the market for our common stock if holders are unable to transfer shares to non-U.S. citizens due to the limitations on ownership by non-U.S. citizens. Any such limitation on the liquidity of the market for our common stock could adversely impact the market price of our common stock.

## ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

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## ITEM 2. PROPERTIES

We believe that our properties and facilities are adequate for our operations and that our facilities are adequately maintained. See the following sections for details of our assets by segment.

### REFINING & MARKETING

The table below sets forth the location and crude oil refining capacity for each of our refineries as of December 31, 2018. Refining throughput can exceed crude oil capacity due to the processing of other charge and blendstocks in addition to crude oil and the timing of planned turnaround and major maintenance activity.

| Refinery | Crude Oil Refining Capacity (*mbpcd*) |
|---|---|
| ***Gulf Coast Region*** | |
| Galveston Bay, Texas City, Texas | 585 |
| Garyville, Louisiana | 564 |
| Subtotal Gulf Coast region | 1,149 |
| ***Mid-Continent Region*** | |
| Catlettsburg, Kentucky | 277 |
| Robinson, Illinois | 245 |
| Detroit, Michigan | 140 |
| El Paso, Texas | 131 |
| St. Paul Park, Minnesota | 98 |
| Canton, Ohio | 93 |
| Mandan, North Dakota | 71 |
| Salt Lake City, Utah | 61 |
| Gallup, New Mexico | 26 |
| Dickinson, North Dakota | 19 |
| Subtotal Mid-Continent region | 1,161 |
| ***West Coast Region*** | |
| Los Angeles, California | 363 |
| Martinez, California | 161 |
| Anacortes, Washington | 119 |
| Kenai, Alaska | 68 |
| Subtotal West Coast region | 711 |
| | 3,021 |

The following table sets forth the approximate number of locations by state where independent entrepreneurs maintain branded outlets, primarily marketed under Marathon, Shell, Mobil and other brands, as of December 31, 2018.

| Location | Number of Branded Outlets |
|---|---|
| Alabama | 366 |
| Alaska | 43 |
| Arizona | 80 |
| California | 75 |
| Colorado | 13 |
| District of Columbia | 2 |
| Florida | 610 |
| Georgia | 298 |
| Idaho | 98 |
| Illinois | 262 |
| Indiana | 642 |
| Iowa | 4 |
| Kentucky | 554 |
| Louisiana | 26 |
| Maryland | 31 |
| Mexico | 114 |
| Michigan | 798 |
| Minnesota | 295 |
| Mississippi | 98 |
| Nevada | 67 |
| New Mexico | 31 |
| New York | 36 |
| North Carolina | 218 |
| North Dakota | 104 |
| Ohio | 842 |
| Oregon | 44 |
| Pennsylvania | 68 |
| South Carolina | 114 |
| South Dakota | 29 |
| Tennessee | 402 |
| Texas | 8 |
| Utah | 91 |
| Virginia | 117 |
| Washington | 61 |
| West Virginia | 110 |
| Wisconsin | 58 |
| Wyoming | 4 |
| Total | 6,813 |

The following table sets forth details about our Refining & Marketing owned and operated terminals as of December 31, 2018. See the Midstream - MPLX section for information with respect to MPLX owned and operated terminals. See the Midstream - ANDX section for information with respect to ANDX owned and operated terminals.

| Owned and Operated Terminals | Number of Terminals | Tank Storage Capacity (*thousand barrels*) |
|---|---|---|
| Light Products Terminal: | | |
| Ohio | 1 | 495 |
| Asphalt Terminals: | | |
| Florida | 1 | 263 |
| Illinois | 2 | 82 |
| Indiana | 2 | 424 |
| Kentucky | 4 | 549 |
| Louisiana | 1 | 54 |
| Michigan | 1 | 12 |
| Ohio | 4 | 1,800 |
| Pennsylvania | 1 | 452 |
| Tennessee | 2 | 483 |
| Subtotal asphalt terminals | 18 | 4,119 |
| Total owned and operated terminals | 19 | 4,614 |

## RETAIL

Our Retail segment sells transportation fuels and merchandise through convenience stores it owns and operates, primarily under the Speedway brand, and sells transportation fuels through direct dealer locations, primarily under the ARCO brand. The following table sets forth the number of company-owned convenience stores by state as of December 31, 2018.

| Location | Number of Convenience Stores |
|---|---|
| Alaska | 31 |
| Arizona | 95 |
| California | 492 |
| Colorado | 12 |
| Connecticut | 1 |
| Delaware | 4 |
| Florida | 239 |
| Georgia | 6 |
| Idaho | 7 |
| Illinois | 125 |
| Indiana | 309 |
| Kentucky | 146 |
| Massachusetts | 108 |
| Michigan | 306 |
| Minnesota | 205 |
| Nevada | 9 |
| New Hampshire | 12 |
| New Jersey | 67 |
| New Mexico | 120 |
| New York | 309 |
| North Carolina | 276 |
| Ohio | 491 |
| Oregon | 14 |
| Pennsylvania | 122 |
| Rhode Island | 19 |
| South Carolina | 52 |
| South Dakota | 1 |
| Tennessee | 49 |
| Texas | 31 |
| Utah | 39 |
| Virginia | 62 |
| Washington | 32 |
| West Virginia | 59 |
| Wisconsin | 70 |
| Wyoming | 3 |
| Total | 3,923 |

The following table sets forth the number of direct dealer locations by state as of December 31, 2018.

| Location | Number of Locations |
|---|---|
| Alaska | 1 |
| Arizona | 71 |
| California | 930 |
| Nevada | 62 |
| Washington | 1 |
| Total | 1,065 |

**MIDSTREAM - MPLX**

The following tables set forth certain information relating to MPLX's crude and products pipeline systems and storage assets as of December 31, 2018.

| Pipeline System or Storage Asset | Origin | Destination | Diameter (*inches*) | Length (*miles*) | Capacity[a] | Associated MPC refinery |
|---|---|---|---|---|---|---|
| Crude oil pipeline systems (mbpd): | | | | | | |
| Patoka, IL to Lima, OH crude system | Patoka, IL | Lima, OH | 20"-22" | 302 | 267 | Detroit, Canton |
| Lima, OH to Canton, OH crude system | Lima, OH | Canton, OH | 12"-16" | 153 | 84 | Canton |
| Catlettsburg, KY and Robinson, IL crude system | Patoka, IL | Catlettsburg, KY & Robinson, IL | 20"-24" | 484 | 515 | Catlettsburg, Robinson |
| Detroit, MI crude system[b] | Samaria & Romulus, MI | Detroit, MI | 16" | 61 | 197 | Detroit |
| Ozark crude system | Cushing, OK | Wood River, IL | 22" | 433 | 360 | All Midwest refineries |
| Wood River, IL to Patoka, IL crude system[b] | Wood River & Roxana, IL | Patoka, IL | 12"-22" | 115 | 454 | All Midwest refineries |
| St. James, LA to Garyville, LA crude system | St James, LA | Garyville, LA | 30" | 20 | 620 | Garyville, LA |
| Inactive pipelines | | | | 49 | N/A | |
| Total | | | | 1,617 | 2,497 | |
| Products pipeline systems (mbpd): | | | | | | |
| Cornerstone products system | Cornerstone | Canton, OH | 8"-16" | 59 | 238 | Canton |
| Garyville, LA products system | Garyville, LA | Zachary, LA | 20"-36" | 72 | 389 | Garyville |
| Texas City, TX products system | Texas City, TX | Pasadena, TX | 16"-36" | 43 | 215 | Galveston Bay |
| ORPL products system | Various | Various | 4"-14" | 876 | 383 | Catlettsburg, Canton |
| Robinson, IL products system[b] | Various | Various | 10"-16" | 1,131 | 513 | Robinson |
| Woodhaven, MI to Detroit, MI | Woodhaven, MI | Detroit, MI | 4" | 26 | 12 | N/A |
| Louisville, KY Airport products system | Louisville, KY | Louisville, KY | 6"-8" | 14 | 29 | Robinson |
| Tennessee products system[b] | Nashville Bordeaux | Nashville 51st | 8"-12" | 2 | 60 | N/A |
| Inactive pipelines[b] | | | | 140 | N/A | |
| Total | | | | 2,363 | 1,839 | |
| Wood River Barge Dock (mbpd) | | | | | 78 | Garyville |
| Storage assets (thousand barrels): | | | | | | |
| Refinery tank storage[c] | | | | | 55,650 | Various |
| Mt. Airy Terminal | | | | | 3,979 | Garyville |
| Canton Crude Truck Unload | | | | | 3 | Canton |
| Tank Farms | | | | | 20,090 | N/A |
| Caverns | | | | | 4,175 | N/A |
| Total | | | | | 83,897 | |

(a) All capacities reflect 100 percent of the pipeline systems' and barge dock's average capacity in thousands of barrels per day and 100 percent of the available storage capacity of our caverns and tank farms in thousands of barrels.

(b) Includes pipelines leased from third parties.

(c) Refining logistics assets also include rail racks, truck racks and docks.

As of December 31, 2018, MPLX had partial ownership interests in the following pipeline companies.

| Pipeline Company | Origin | Destination | Diameter (*inches*) | Length (*miles*) | Ownership Interest | Operated by MPL |
|---|---|---|---|---|---|---|
| Crude oil pipeline companies: | | | | | | |
| Bakken Pipeline system | Bakken/Three Forks area, North Dakota | Nederland, TX | 30" | 1,921 | 9.2% | No |
| Illinois Extension Pipeline Company LLC | Flanagan, IL | Patoka, IL | 24" | 168 | 35% | No |
| LOCAP LLC | Clovelly, LA | St. James, LA | 48” | 57 | 59% | No |
| LOOP LLC (“LOOP”)[(a)] | Offshore Gulf of Mexico | Clovelly, LA | 48” | 48 | 41% | No |
| Total | | | | 2,194 | | |
| Products pipeline companies: | | | | | | |
| Explorer Pipeline Company | Port Arthur, TX | Hammond, IN | 12”-28” | 1,830 | 25% | No |
| Louisville, KY to Lexington, KY | Louisville, KY | Lexington, KY | 8" | 87 | 65% | Yes |
| | | | | 1,917 | | |

(a) Excludes MPC’s 10% ownership interest in LOOP.

The following table sets forth details about MPLX owned and operated terminals as of December 31, 2018. Additionally, MPLX operates one leased terminal and has partial ownership interest in two terminals.

| Owned and Operated Terminals | Number of Terminals | Tank Storage Capacity (*thousand barrels*) |
|---|---|---|
| Light Products Terminals: | | |
| Alabama | 2 | 443 |
| Florida | 4 | 3,422 |
| Georgia | 4 | 998 |
| Illinois | 4 | 1,221 |
| Indiana | 6 | 3,229 |
| Kentucky | 6 | 2,587 |
| Louisiana | 1 | 97 |
| Michigan | 8 | 2,440 |
| North Carolina | 4 | 1,509 |
| Ohio | 12 | 3,218 |
| Pennsylvania | 1 | 390 |
| South Carolina | 1 | 371 |
| Tennessee | 4 | 1,149 |
| West Virginia | 2 | 1,587 |
| Total light products terminals | 59 | 22,661 |

The following table sets forth details about MPLX barges and towboats as of December 31, 2018.

| Class of Equipment | Number in Class | Capacity (*thousand barrels*) |
|---|---|---|
| Inland tank barges:[a] | | |
| Less than 25,000 barrels | 61 | 931 |
| 25,000 barrels and over | 195 | 5,738 |
| Total | 256 | 6,669 |
| Inland towboats: | | |
| Less than 2,000 horsepower | 2 | |
| 2,000 horsepower and over | 21 | |
| Total | 23 | |

[a] All of our barges are double-hulled.

The following tables set forth certain information relating to MPLX's gas processing facilities, fractionation facilities, de-ethanization facilities and natural gas gathering systems as of December 31, 2018, and include capacities and throughputs related to operated equity method investments on a 100 percent basis.

| Gas Processing Complexes | Location | Design Throughput Capacity (*MMcf/d*) | Natural Gas Throughput (*MMcf/d*)[a] | Utilization of Design Capacity[a] |
|---|---|---|---|---|
| Bluestone Complex | Butler County, PA | 410 | 392 | 96% |
| Harmon Creek Complex | Washington County, PA | 200 | 12 | 75% |
| Houston Complex | Washington County, PA | 720 | 528 | 78% |
| Majorsville Complex | Marshall County, WV | 1,270 | 1,072 | 92% |
| Mobley Complex | Wetzel County, WV | 920 | 708 | 77% |
| Sherwood Complex[b] | Doddridge County, WV | 2,200 | 1,736 | 94% |
| Cadiz Complex[b] | Harrison County, OH | 525 | 472 | 90% |
| Seneca Complex[b] | Noble County, OH | 800 | 414 | 52% |
| Kenova Complex | Wayne County, WV | 160 | 96 | 60% |
| Boldman Complex | Pike County, KY | 70 | 30 | 43% |
| Cobb Complex | Kanawha County, WV | 65 | 19 | 29% |
| Kermit Complex[c] | Mingo County, WV | 32 | N/A | N/A |
| Langley Complex | Langley, KY | 325 | 102 | 31% |
| Carthage Complex | Panola County, TX | 600 | 423 | 71% |
| Western Oklahoma Complex | Custer and Beckham Counties, OK | 500 | 420 | 91% |
| Hidalgo System | Culberson County, TX | 200 | 199 | 100% |
| Argo Complex | Culberson County, TX | 200 | 39 | 21% |
| Javelina Complex | Corpus Christi, TX | 142 | 107 | 75% |
| Total | | 9,307 | 6,769 | 79% |

[a] Natural gas throughput is a weighted average for days in operation. The utilization of design capacity has been calculated using the weighted average design throughput capacity.

[b] MPLX accounts for as an equity method investment.

[c] The Kermit processing plant is operated by a third party solely to prevent liquids from condensing in the gathering and transmission pipelines upstream of our Kenova plant. MPLX does not receive Kermit gas volume information but does receive all of the liquids produced at the Kermit Complex. As such, the design throughput capacity and the natural gas throughput has been excluded from the subtotal.

| Fractionation & Condensate Stabilization Complexes | Location | Design Throughput Capacity (*mbpd*) | NGL Throughput (*mbpd*)[(a)] | Utilization of Design Capacity[(a)] |
|---|---|---|---|---|
| Bluestone Complex | Butler County, PA | 47 | 22 | 47% |
| Houston Complex | Washington County, PA | 60 | 61 | 102% |
| Hopedale Complex | Harrison County, OH | 240 | 158 | 86% |
| Ohio Condensate Complex[(b)] | Harrison County, OH | 23 | 12 | 52% |
| Siloam Complex | South Shore, KY | 24 | 15 | 63% |
| Javelina Complex | Corpus Christi, TX | 11 | 11 | 100% |
| Total | | 405 | 279 | 80% |

(a) NGL throughput is a weighted average for days in operation. The utilization of design capacity has been calculated using the weighted average design throughput capacity.
(b) MPLX accounts for as an equity method investment.

| De-ethanization Complexes | Location | Design Throughput Capacity (*mbpd*) | NGL Throughput (*mbpd*)[(a)] | Utilization of Design Capacity[(a)] |
|---|---|---|---|---|
| Bluestone Complex | Butler County, PA | 34 | 20 | 59% |
| Harmon Creek Complex | Washington County, PA | 20 | 1 | 28% |
| Houston Complex | Washington County, PA | 40 | 37 | 93% |
| Majorsville Complex | Marshall County, WV | 80 | 67 | 84% |
| Mobley Complex | Wetzel County, WV | 10 | 10 | 100% |
| Sherwood Complex | Doddridge County, WV | 60 | 36 | 86% |
| Cadiz Complex[(b)] | Harrison County, OH | 40 | 14 | 35% |
| Javelina Complex | Corpus Christi, TX | 18 | 7 | 39% |
| Total | | 302 | 192 | 72% |

(a) NGL throughput is a weighted average for days in operation. The utilization of design capacity has been calculated using the weighted average design throughput capacity.
(b) MPLX accounts for as an equity method investment.

| Natural Gas Gathering Systems | Location | Design Throughput Capacity (*MMcf/d*) | Natural Gas Throughput (*MMcf/d*)[(a)] | Utilization of Design Capacity[(a)] |
|---|---|---|---|---|
| Bluestone System | Butler County, PA | 227 | 183 | 81% |
| Houston System | Washington County, PA | 1,304 | 972 | 79% |
| Ohio Gathering System[(b)] | Harrison, Monroe, Belmont, Guernsey and Noble Counties, OH | 1,123 | 764 | 68% |
| Jefferson Gas System[(b)] | Jefferson County, OH | 2,000 | 1,045 | 75% |
| East Texas System | Harrison and Panola Counties, TX | 680 | 476 | 70% |
| Western Oklahoma System | Wheeler County, TX and Roger Mills, Ellis, Dewey, Custer, Beckham, Washita, Kingfisher, Canadian, and Blaine Counties, OK | 585 | 455 | 78% |
| Southeast Oklahoma System | Hughes, Pittsburg and Coal Counties, OK | 755 | 585 | 77% |
| Eagle Ford System | Dimmit County, TX | 45 | 42 | 93% |
| Other Systems | Various | 60 | 9 | 15% |
| Total | | 6,779 | 4,531 | 74% |

(a) Natural gas throughput is a weighted average for days in operation. The utilization of design capacity has been calculated using the weighted average design throughput capacity.
(b) MPLX accounts for as an equity method investment.

The following tables set forth certain information relating to MPLX's NGL pipelines as of December 31, 2018.

| NGL Pipelines | Location | Design Throughput Capacity (*mbpd*) | NGL Throughput (*mbpd*) | Utilization of Design Capacity |
|---|---|---|---|---|
| Sherwood to Mobley propane and heavier liquids pipeline | Doddridge County, WV to Wetzel County, WV | 75 | 71 | 95% |
| Mobley to Majorsville propane and heavier liquids pipeline | Wetzel County, WV to Marshall County, WV | 105 | 97 | 92% |
| Majorsville to Houston propane and heavier liquids pipeline | Marshall County, WV to Washington County, PA | 45 | 30 | 67% |
| Majorsville to Hopedale propane and heavier liquids pipeline | Marshall County, WV to Harrison County, OH | 140 | 124 | 89% |
| Majorsville to Hopedale propane and heavier liquids pipeline | Marshall County, WV to Harrison County, OH | 422 | 143 | 34% |
| Third party processing plant to Bluestone ethane and heavier liquids pipeline | Butler County, PA | 32 | 8 | 25% |
| Bluestone to Mariner West ethane pipeline | Butler County, PA to Beaver County, PA | 35 | 20 | 57% |
| Sarsen to Bluestone ethane and heavier liquids pipeline | Butler County, PA | 7 | 2 | 29% |
| Houston to Ohio River ethane pipeline[(a)] | Washington County, PA to Beaver County, PA | 57 | 13 | 23% |
| Majorsville to Houston ethane pipeline | Marshall County, WV to Washington County, PA | 137 | 113 | 82% |
| Sherwood to Mobley ethane pipeline | Doddridge County, WV to Wetzel County, WV | 47 | 35 | 74% |
| Mobley to Majorsville ethane pipeline | Wetzel County, WV to Marshall County, WV | 57 | 45 | 79% |
| Harmon Creek to Houston propane and heavier liquids pipeline | Washington County, PA | 140 | 9 | 6% |
| Harmon Creek to Mariner West ethane pipeline | Washington County, PA | 110 | 6 | 5% |
| Seneca to Cadiz propane and heavier liquids pipeline[(b)] | Noble County, OH to Harrison County, OH | 75 | 10 | 13% |
| Cadiz to Hopedale propane and heavier liquids pipeline[(b)] | Harrison County, OH | 90 | 32 | 36% |
| Seneca to Cadiz propane/ethane and heavier liquids pipeline[(b)(c)] | Noble County, OH to Harrison County, OH | 69/82 | 15 | 18% |
| Cadiz to Atex ethane pipeline[(b)] | Harrison County, OH | 125 | 4 | 3% |
| Cadiz to Utopia ethane pipeline[(b)] | Harrison County, OH | 125 | 11 | 9% |
| Langley to Siloam propane and heavier liquids pipeline | Langley, KY to South Shore, KY | 17 | 11 | 65% |
| East Texas liquids pipeline | Panola County, TX | 39 | 22 | 56% |

(a) This is the section of the Mariner West pipeline that is leased to and operated by Sunoco Logistics Partners LP.
(b) MPLX accounts for as an equity method investment.
(c) This is the same pipeline from Seneca to Cadiz and can only be used for either ethane and heavier liquids or propane and heavier liquids at one time. Both throughput capacities are listed above, respectively, with ethane included in the total.

**MIDSTREAM - ANDX**

The following tables set forth certain information relating to ANDX's crude and products pipeline systems and storage assets as of December 31, 2018.

| Pipeline System or Storage Asset | Origin | Destination | Diameter (*inches*) | Length (*miles*) | Capacity[(a)] | Associated MPC refinery |
|---|---|---|---|---|---|---|
| Crude oil pipeline systems (mbpd): | | | | | | |
| Belfield crude system | Various | Fryburg Rail/ Dickinson, ND | 4" - 8" | 128 | 20 | Dickinson, ND |
| Delaware Basin crude system | TexNewMex crude system | Various | 7" - 16" | 163 | 475 | El Paso, TX |
| Four Corners crude system | Various | Various | 4" - 10" | 192 | 59 | Galllup, NM |
| Green River crude system | Various | SLC Core Pipeline System | 2" - 8" | 139 | 23 | N/A |
| Northern California crude system | Martinez, CA | Martinez, CA | 5" - 24" | 10 | 280 | Martinez, CA |
| Salt Lake City Short Haul crude system | Salt Lake City, UT | Salt Lake City, UT | 8" - 16" | 5 | 118 | Salt Lake City, UT |
| Southern California crude system[(b)] | LA Basin, CA | LA Basin, CA | 8" - 42" | 37 | 711 | Los Angeles, CA |
| St. Paul Park Cottage Grove crude system | Minneapolis-Saint Paul, MN | Minneapolis-Saint Paul, MN | 12" - 16" | 5 | 107 | St. Paul Park, MN |
| Tesoro High Plains crude system | Various | Various | 2" - 16" | 908 | 350 | Mandan, ND |
| TexNewMex crude system | Four Corners Crude System | Delaware Basin Crude System | 12" - 16" | 438 | 365 | El Paso, TX |
| Salt Lake City Core crude system | Various | Various | 3" - 10" | 575 | 50 | Salt Lake City, UT |
| Inactive Pipelines | | | | 563 | N/A | |
| Total | | | | 3,163 | 2,558 | |
| Products pipeline systems (mbpd): | | | | | | |
| Tesoro Alaska products system | Kenai, AK | Anchorage, AK | 8" - 10" | 69 | 43 | Kenai, AK |
| Northern California products system | Martinez, CA | Martinez, CA | 8"- 16" | 4 | 160 | Martinez, CA |
| Northwest Products Pipeline system | Salt Lake City, UT | Various | 4" - 8" | 1,102 | 107 | Salt Lake City, UT |
| Salt Lake City Short Haul products system | Salt Lake City, UT | Northwest Products Pipeline system | 6" - 10" | 10 | 124 | Salt Lake City, UT |
| Southern California products system | LA Basin, CA | LA Basin, CA | 4" - 16" | 100 | 489 | Los Angeles, CA |
| Wingate system | McKinley, NM | McKinley, NM | 4" | 14 | 7 | Gallup, NM |
| Inactive Pipelines | | | | 106 | N/A | |
| Total | | | | 1,405 | 930 | |
| Water pipeline systems (mbpd): | | | | | | |
| Belfield water system | Various | Various | 4" - 8" | 103 | 20 | |
| Green River water system | Sublette, WY | Sublette, WY | 3" - 4" | 11 | 15 | |
| Total | | | | 114 | 35 | |
| Barge Docks (mbpd)[(c)] | | | | | 2,832 | Various |
| Storage assets (thousand barrels): | | | | | | |
| Tank Farms | | | | | 48,449 | |
| Caverns | | | | | 450 | |
| Total | | | | | 48,899 | |

(a) All capacities reflect 100 percent of the pipeline systems' and barge dock's average capacity in thousands of barrels per day and 100 percent of the available storage capacity of our caverns and tank farms in thousands of barrels.

(b) Includes portions leased from third parties.

(c) Includes a dock leased from a third party.

As of December 31, 2018, ANDX had partial ownership interests in the following pipeline companies.

| Pipeline Company | Origin | Destination | Diameter (*inches*) | Length (*miles*) | Ownership Interest | Operated by ANDX |
|---|---|---|---|---|---|---|
| Crude oil pipeline companies: | | | | | | |
| Rangeland Rio Pipeline LLC | Mentone, TX | Midland County, TX | 12" | 112 | 67% | Yes |
| Minnesota Pipe Line Company LLC | Clearbrook, MN | Minneapolis-Saint Paul, MN | 16" | 1,073 | 17% | No |
| Total | | | | 1,185 | | |
| NGL pipeline companies: | | | | | | |
| Rendezvous Gas Services System | Sweetwater County, WY | Sweetwater County, WY and Uintah County, WY | 2" - 30" | 327 | 78% | Yes |
| Three Rivers System | Duchesne County, UT and Uintah County, UT | Uintah County, UT | 6" - 16" | 52 | 50% | Yes |
| Uintah Basin Field Services | Uintah County, UT | Uintah County, UT | 8" - 12" | 90 | 38% | Yes |
| Total | | | | 469 | | |

The following table sets forth details about ANDX owned and operated terminals as of December 31, 2018. Additionally, ANDX operates one leased terminal and has partial ownership interest in one terminal.

| Owned and Operated Terminals | Number of Terminals | Tank Storage Capacity (*thousand barrels*) |
|---|---|---|
| Light Products Terminals: | | |
| Alaska | 4 | 1,523 |
| California | 9 | 5,608 |
| Idaho | 3 | 989 |
| Minnesota | 1 | 526 |
| New Mexico | 3 | 778 |
| North Dakota | 3 | — |
| Utah | 2 | 29 |
| Washington | 5 | 1,063 |
| Subtotal light products terminals | 30 | 10,516 |
| Asphalt Terminals | | |
| Arizona | 3 | 264 |
| California | 3 | 720 |
| Minnesota | 1 | 794 |
| Nevada[a] | 1 | 250 |
| New Mexico | 1 | 38 |
| Texas | 1 | 204 |
| Subtotal asphalt terminals | 10 | 2,270 |
| Crude Terminals | | |
| California | 1 | 117 |
| New Mexico | 1 | 352 |
| North Dakota | 1 | 520 |
| Washington | 1 | — |
| Subtotal crude terminals | 4 | 989 |
| Total owned and operated terminals | 44 | 13,775 |

[a] ANDX accounts for as an equity method investment.

The following tables set forth certain information relating to ANDX's gas processing facilities, fractionation facilities and natural gas gathering systems as of December 31, 2018, and include capacities and throughputs related to operated equity method investments on a 100 percent basis.

| Gas Processing Complexes | Location | Design Throughput Capacity (*MMcf/d*) | Natural Gas Throughput (*MMcf/d*)[a] | Utilization of Design Capacity |
|---|---|---|---|---|
| Belfield Complex | Stark County, ND | 40 | 18 | 46% |
| Robinson Lake Complex | Mountrail County, ND | 130 | 122 | 94% |
| 24B Plant Complex | Uintah County, UT | 140 | — | —% |
| Emigrant Trail Complex | Uintah County, WY | 55 | 29 | 53% |
| Stagecoach/Iron Horse Complex | Uintah County, UT | 510 | 144 | 28% |
| Blacks Fork Complex | Uintah County, WY | 795 | 348 | 44% |
| Vermillion Complex | Sweetwater County, WY | 57 | 49 | 85% |
| Total | | 1,727 | 710 | 41% |

[a] Natural gas throughput is a weighted average for days in operation.

| Fractionation & Condensate Stabilization Complexes | Location | Design Throughput Capacity (*mbpd*) | NGL Throughput (*mbpd*)[a] | Utilization of Design Capacity |
|---|---|---|---|---|
| Blacks Fork Fractionator | Uintah County, WY | 15 | 3 | 20% |
| Robinson Lake Fractionator | Mountrail County, ND | 12 | 10 | 89% |
| Belfield Fractionator | Stark County, ND | 7 | 5 | 62% |
| LaBarge Liquids Complex | Lincoln County, WY | 40 | 13 | 32% |
| Pinedale Liquids Complex | Sublette County, WY | 6 | 3 | 48% |
| | | 80 | 34 | 43% |

(a) NGL throughput is a weighted average for days in operation.

| Natural Gas Gathering Systems | Location | Design Throughput Capacity (*MMcf/d*) | Natural Gas Throughput (*MMcf/d*)[a] | Utilization of Design Capacity |
|---|---|---|---|---|
| Belfield System | Stark County, ND | 40 | 18 | 46% |
| Robinson Lake System | Mountrail County, ND | 130 | 122 | 94% |
| Williston Basin System | McLean County, ND | 3 | 1 | 19% |
| Green River System | Sublette County, WY and Uintah County, WY | 737 | 399 | 54% |
| Rendevous Gas Services System[b] | Sweetwater County, WY | 1,032 | 502 | 49% |
| Rendevous Pipeline | Sublette County, WY | 450 | 253 | 56% |
| Three Rivers System[b] | Duchesne County, UT and Uintah County, UT | 212 | 63 | 30% |
| Uinta Basin Field Services[b] | Uintah County, UT | 26 | 10 | 37% |
| Uintah Basin System | Uintah County, UT | 299 | 156 | 52% |
| Vermillion System | Daggett County, UT, Sweetwater County, WY and Moffat County, CO | 212 | 94 | 44% |
| | | 3,141 | 1,618 | 52% |

(a) Natural gas throughput is a weighted average for days in operation.
(b) ANDX accounts for as an equity method investment.

The following tables set forth certain information relating to ANDX's NGL pipelines as of December 31, 2018.

| NGL Pipelines | Location | Design Throughput Capacity (*mbpd*) | NGL Throughput (*mbpd*) | Utilization of Design Capacity |
|---|---|---|---|---|
| Ironhorse to Dinosaur 8" NGL | Uintah County, UT | 15 | 4 | 25% |
| Logistics Hub NGL Pipeline | McKenzie County, ND | 20 | 0.7 | 4% |

### MIDSTREAM - MPC-RETAINED ASSETS AND INVESTMENTS

The following tables set forth certain information related to our crude and products pipeline systems not owned by MPLX or ANDX.

As of December 31, 2018, we owned undivided joint interests in the following common carrier crude oil pipeline systems.

| Pipeline System | Origin | Destination | Diameter (*inches*) | Length (*miles*) | Ownership Interest | Operated by MPL |
|---|---|---|---|---|---|---|
| Capline | St. James, LA | Patoka, IL | 40" | 644 | 33% | Yes |
| Maumee | Lima, OH | Samaria, MI | 22" | 95 | 26% | No |
| Total | | | | 739 | | |

As of December 31, 2018, we had partial ownership interests in the following pipeline companies.

| Pipeline Company | Origin | Destination | Diameter (*inches*) | Length (*miles*) | Ownership Interest | Operated by MPL |
|---|---|---|---|---|---|---|
| Crude oil pipeline companies: | | | | | | |
| LOOP[a] | Offshore Gulf of Mexico | Clovelly, LA | 48” | 48 | 10% | No |
| Products pipeline companies: | | | | | | |
| Ascension Pipeline Company LLC | Riverside, LA | Garyville, LA | 16" | 32 | 50% | No |
| Centennial Pipeline LLC[b] | Beaumont, TX | Bourbon, IL | 24”-26” | 796 | 50% | Yes |
| Muskegon Pipeline LLC | Griffith, IN | Muskegon, MI | 10” | 170 | 60% | Yes |
| Wolverine Pipe Line Company | Chicago, IL | Bay City & Ferrysburg, MI | 6”-16” | 796 | 6% | No |
| Total | | | | 1,794 | | |

(a) Represents interest retained by MPC and excludes MPLX’s 41% ownership interest in LOOP. Pipeline mileage is excluded from total as it is included with MPLX assets.
(b) All system pipeline miles are inactive.

The following table provides information on private crude oil pipelines and private products pipelines that we own as of December 31, 2018.

| Private Pipeline Systems | Diameter (*inches*) | Length (*miles*) | Capacity (*mbpd*) |
|---|---|---|---|
| Crude oil pipeline systems: | | | |
| Middle Ground Shoals Pipeline | 12" | 4 | 11 |
| Inactive pipelines | | 9 | N/A |
| Total | | 13 | 11 |
| Products pipeline systems: | | | |
| Illinois and Indiana pipeline systems | 4” | 59 | 11 |
| Texas pipeline systems | 8” | 103 | 45 |
| Inactive pipelines | | 62 | N/A |
| Total | | 224 | 56 |

The following table sets forth details about the assets held by two ocean vessel joint ventures in which we hold a 50% interest as of December 31, 2018.

| Class of Equipment | Number in Class | Capacity (*thousand barrels*) |
|---|---|---|
| Jones Act product tankers[a] | 4 | 1,320 |
| 750 Series ATB vessels[b] | 3 | 990 |

(a) Represents ownership through our indirect noncontrolling interest in Crowley Ocean Partners.
(b) Represents ownership through our indirect noncontrolling interest in Crowley Blue Water Partners.

## ITEM 3. LEGAL PROCEEDINGS

We are the subject of, or a party to, a number of pending or threatened legal actions, contingencies and commitments involving a variety of matters, including laws and regulations relating to the environment. Some of these matters are discussed below.

### Litigation

We are a party to a number of lawsuits and other proceedings and cannot predict the outcome of every such matter with certainty. While it is possible that an adverse result in one or more of the lawsuits or proceedings in which we are a defendant could be material to us, based upon current information and our experience as a defendant in other matters, we believe that these lawsuits and proceedings, individually or in the aggregate, will not have a material adverse effect on our consolidated results of operations, financial position or cash flows.

Between June 20 and July 11, 2018, six putative class actions (the “Actions”) were filed against some or all of Andeavor, the directors of Andeavor, and MPC, Mahi Inc. (“Merger Sub 1”) and Mahi LLC (n/k/a Andeavor LLC) (“Merger Sub 2” and, together with MPC and Merger Sub 1, the “MPC Defendants”), relating to the Andeavor merger. Two complaints, Malka Raul v. Andeavor, et al., and Stephen Bushansky v. Andeavor, et al., were filed in the U.S. District Court for the Western District of Texas. Four complaints, captioned The Vladimir Gusinsky Rev. Trust v. Andeavor, et al., Lawrence Zucker v. Andeavor, et al., Mel Gross v. Andeavor, et al., and Hudson v. Andeavor, et al. were filed in the U.S. District Court for the District of Delaware. The Actions generally alleged that Andeavor, the directors of Andeavor and the MPC Defendants disseminated a false or misleading registration statement regarding the merger in violation of Section 14(a) of the Exchange Act and Rule 14a-9 promulgated thereunder. Specifically, the Actions alleged that the registration statement filed by MPC misstated or omitted material information regarding the parties’ financial projections and the analyses performed by Andeavor’s and MPC’s respective financial advisors, and that disclosure of material information was necessary in light of preclusive deal protection provisions in the merger agreement, the financial interests of Andeavor’s officers and directors in completing the deal, and the financial interests of Andeavor’s and MPC’s respective financial advisors. The Actions further alleged that the directors of Andeavor and/or the MPC Defendants were liable for these violations as “controlling persons” of Andeavor under Section 20 (a) of the Exchange Act. The Actions sought injunctive relief, including to enjoin and/or rescind the merger, damages in the event the merger was consummated, and an award of attorneys’ fees, in addition to other relief.

On July 5 and July 20, 2018, MPC filed amendments to its Registration Statement on Form S-4, which included certain supplemental disclosures responding to allegations made by the plaintiffs. On August 3, 2018, Andeavor filed its proxy statement, and after that date, the parties had numerous discussions regarding the adequacy of disclosures. The parties ultimately reached an agreement in principle to resolve the Actions in exchange for additional supplemental disclosures. Consistent with that agreement, Andeavor and MPC each filed a Current Report on Form 8-K on September 14, 2018 that included certain additional disclosures in response to plaintiffs’ allegations. Between September 21 and September 28, 2018, all the Actions were dismissed as moot, and the parties reserved their rights in the event of any dispute over attorneys’ fees and expenses. In the fourth quarter of 2018, the Company resolved the remaining disputes over attorneys’ fees for an amount that was not material to the Company.

In May 2015, the Kentucky attorney general filed a lawsuit against our wholly-owned subsidiary, Marathon Petroleum Company LP (“MPC LP”), in the United States District Court for the Western District of Kentucky asserting claims under federal and state antitrust statutes, the Kentucky Consumer Protection Act, and state common law. The complaint, as amended in July 2015, alleges that MPC LP used deed restrictions, supply agreements with customers and exchange agreements with competitors to unreasonably restrain trade in areas within Kentucky and seeks declaratory relief, unspecified damages, civil penalties, restitution and disgorgement of profits. At this stage, the ultimate outcome of this litigation remains uncertain, and neither the likelihood of an unfavorable outcome nor the ultimate liability, if any, can be determined, and we are unable to estimate a reasonably possible loss (or range of loss) for this matter. We intend to vigorously defend ourselves in this matter.

In May 2007, the Kentucky attorney general filed a lawsuit against us and Marathon Oil in state court in Franklin County, Kentucky for alleged violations of Kentucky’s emergency pricing and consumer protection laws following Hurricanes Katrina and Rita in 2005. The lawsuit alleges that we overcharged customers by $89 million during September and October 2005. The complaint seeks disgorgement of these sums, as well as penalties, under Kentucky’s emergency pricing and consumer protection laws. We are vigorously defending this litigation. We believe that this is the first lawsuit for damages and injunctive relief under the Kentucky emergency pricing laws to progress this far and it contains many novel issues. In May 2011, the Kentucky attorney general amended his complaint to include a request for immediate injunctive relief as well as unspecified damages and penalties related to our wholesale gasoline pricing in April and May 2011 under statewide price controls that were activated by the Kentucky governor on April 26, 2011 and which have since expired. The court denied the attorney general’s request for immediate injunctive relief, and the remainder of the 2011 claims likely will be resolved along with those dating from 2005. If the lawsuit is resolved unfavorably in its entirety, it could materially impact our consolidated results of operations, financial position or cash flows. However, management does not believe the ultimate resolution of this litigation will have a material adverse effect on our consolidated financial position, results of operations, or cash flows.

**Environmental Proceedings**

As previously reported, MarkWest Liberty Midstream, Ohio Fractionation and MarkWest Utica EMG, together with other MarkWest affiliates, agreed to pay a penalty of approximately $0.9 million, undertake certain monitoring and emission reduction projects at certain facilities with an estimated cost of approximately $3.3 million, and implement certain process enhancements for its and its affiliates’ leak detection and repair programs at its gas processing and fractionation sites. On November 1, 2018, the Partnership and 11 of its subsidiaries entered into a Consent Decree with the EPA, the State of Oklahoma, the Pennsylvania Department of Environmental Protection and the State of West Virginia resolving these issues. The Consent Decree was approved by the court on January 8, 2019 and the penalty has been paid.

Governmental and other entities in California, New York, Maryland and Rhode Island have filed lawsuits against coal, gas, oil and petroleum companies, including the Company. The lawsuits allege damages as a result of climate change and the plaintiffs are seeking unspecified damages and abatement under various tort theories. Similar lawsuits may be filed in other jurisdictions. At this early stage, the ultimate outcome of these matters remain uncertain, and neither the likelihood of an unfavorable outcome nor the ultimate liability, if any, can be determined.

On February 7, 2019, we received an offer to settle seven NOVs from CARB. The NOVs were issued to the Los Angeles refinery in 2017, alleging violations of the state's summer RVP limits. While we are negotiating a settlement of the allegations with CARB, we cannot currently estimate the timing of the resolution of this matter.

On February 5, 2019, we received an offer to settle seven NOVs from CARB. The NOVs were issued to the Los Angeles refinery in 2018, alleging the refinery produced fuel which exceeded its reported olefin values. While we are negotiating a settlement of the allegations with CARB, we cannot currently estimate the timing of the resolution of this matter.

On October 19, 2018, Western Refining Southwest, Inc. received an offer from the U.S. EPA to settle alleged violations of the Resource Conservation and Recovery Act regulations. While we are negotiating a settlement of the allegations with the EPA, we cannot currently estimate the timing of the resolution of this matter.

In March 2016, the EPA conducted a Risk Management Program inspection at our Gallup refinery and issued an Inspection Report on April 7, 2016 identifying Areas of Concern. While we are working with the EPA to address the Areas of Concern, we cannot currently estimate the timing of the resolution of this matter.

On March 8, 2018, Tesoro Refining and Marketing LLC ("TRMC") received an offer to settle allegations by the CARB relating to the state's Greenhouse Gas Reporting Standards. The CARB allegations relate to the self-disclosure and correction of reported greenhouse gas emissions emitted by the Los Angeles refinery Calciner Unit from May 9, 2014 to June 12, 2017. We have reached an agreement in principle to pay a penalty of $425,000 and undertake a supplemental environmental project at a cost of $425,000. We expect to finalize the agreement in the first quarter of 2019.

On April 6, 2018, TRMC received an offer to settle five Notices of Violation ("NOV") from the South Coast Air Quality Management District. The NOVs were issued to the Los Angeles refinery between June and October 2017, alleging violations of various federal and district air emission regulations. We have reached an agreement to pay a penalty of $75,000 and undertake certain supplemental environmental projects with an estimated cost of $75,000.

On February 12, 2016, TRMC received an offer to settle 35 NOVs received from the Bay Area Air Quality Management District ("BAAQMD"). The NOVs were issued from May 2011 to November 2015 and allege violations of air quality regulations for ground level monitors located at our Martinez refinery. While we are negotiating a settlement of the allegations with the BAAQMD, we cannot currently estimate the timing of the resolution of this matter.

On July 18, 2016, the U.S. Department of Justice ("DOJ") lodged a complaint on behalf of the EPA and a Consent Decree with the Western District Court of Texas. Among other things, the Consent Decree required that the Martinez refinery meet certain annual emission limits for NOx by July 1, 2018. In February 2018, TRMC informed the EPA that it would need additional time to satisfy requirements of the Consent Decree. We are currently negotiating a resolution of this matter with the DOJ and the EPA, including the required timing to complete the project.

On June 14, 2018, TRMC received an offer to settle an NOV issued by the CARB in May 2018. The NOV was issued in response to TRMC having reported in December 2017 that certain batches of gasoline produced in December 2017 did not meet California fuel standards. On October 1, 2018, TRMC reached an agreement with CARB to settle this NOV for $157,500.

The naphtha hydrotreater unit at the Washington refinery was involved in a fire in April 2010, which fatally injured seven employees and rendered the unit inoperable. The Washington State Department of Labor & Industries ("L&I") investigated the incident and issued a citation in October 2010 with an assessed fine of approximately $2 million. Andeavor appealed the citation in January 2011 as it disagreed with L&I's characterizations of operations at the refinery and believed that many of the agency's conclusions were mistaken. In separate September 2013, November 2013 and February 2015 orders, the Board of Industrial Insurance Appeals ("BIIA") granted partial summary judgment in Andeavor's favor rejecting 33 of the original 44 allegations in the citation as lacking legal or evidentiary support. The hearing on the remaining 11 allegations concluded in July 2016. On June 8, 2017, the BIIA Judge issued a proposed decision and order vacating the entire citation, which L&I and the United Steel Workers ("USW") appealed. On September 18, 2017, the BIIA granted L&I and USW's petitions for review of the BIIA judge's June 8, 2017 proposed decision and order. On January 25, 2018, the BIIA issued an order remanding 12 of the allegations for further proceedings. Proceedings regarding the 12 remanded citations are ongoing.

We are involved in a number of other environmental proceedings arising in the ordinary course of business. While the ultimate outcome and impact on us cannot be predicted with certainty, we believe the resolution of these environmental proceedings will not have a material adverse effect on our consolidated results of operations, financial position or cash flows.

## 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

Our common stock is listed on the NYSE and traded under the symbol "MPC." As of February 15, 2019, there were 32,353 registered holders of our common stock.

**Issuer Purchases of Equity Securities**

The following table sets forth a summary of our purchases during the quarter ended December 31, 2018, of equity securities that are registered by MPC pursuant to Section 12 of the Securities Exchange Act of 1934, as amended:

| Period | Total Number of Shares Purchased[(a)] | Average Price Paid per Share[(b)] | Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs | Maximum Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs[(c)] |
|---|---|---|---|---|
| 10/01/18-10/31/18 | 36,701 | $ 82.02 | — | $ 5,579,603,383 |
| 11/01/18-11/30/18 | 3,145,000 | 63.75 | 3,138,171 | 5,379,603,637 |
| 12/01/18-12/31/18 | 7,812,656 | 60.86 | 7,804,590 | 4,904,604,184 |
| Total | 10,994,357 | 61.76 | 10,942,761 | |

(a) The amounts in this column include 36,701, 6,829 and 8,066 shares of our common stock delivered by employees to MPC, upon vesting of restricted stock, to satisfy tax withholding requirements in October, November and December, respectively.

(b) Amounts in this column reflect the weighted average price paid for shares purchased under our share repurchase authorizations and for shares tendered to us in satisfaction of employee tax withholding obligations upon the vesting of restricted stock granted under our stock plans. The weighted average price includes commissions paid to brokers on shares purchased under our share repurchase authorizations.

(c) On April 30, 2018, we announced that our board of directors had approved a $5 billion share repurchase authorization in addition to the remaining authorization pursuant to the May 31, 2017 announcement. These share purchase authorizations have no expiration date. The share repurchase authorization announced on April 30, 2018, together with prior authorizations, result in a total of $18 billion of share repurchase authorizations since January 1, 2012.

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## ITEM 6. SELECTED FINANCIAL DATA

The following table should be read in conjunction with Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations and Item 8. Financial Statements and Supplementary Data.

| | Year Ended December 31, | | | | |
|---|---|---|---|---|---|
| *(In millions, except per share data)* | 2018[a] | 2017[b] | 2016 | 2015[a] | 2014[a] |
| **Statements of Income Data** | | | | | |
| Sales and other operating revenue[c] | $ 96,504 | $ 74,733 | $ 63,339 | $ 72,051 | $ 97,817 |
| Income from operations | 5,571 | 4,018 | 2,386 | 4,708 | 4,149 |
| Net income | 3,606 | 3,804 | 1,213 | 2,868 | 2,555 |
| Net income attributable to MPC | 2,780 | 3,432 | 1,174 | 2,852 | 2,524 |
| Net income attributable to MPC per share: | | | | | |
| Basic | $ 5.36 | $ 6.76 | $ 2.22 | $ 5.29 | $ 4.42 |
| Diluted | $ 5.28 | $ 6.70 | $ 2.21 | $ 5.26 | $ 4.39 |
| Dividends per share | $ 1.84 | $ 1.52 | $ 1.36 | $ 1.14 | $ 0.92 |
| **Statements of Cash Flows Data** | | | | | |
| Net cash provided by operating activities | $ 6,158 | $ 6,612 | $ 4,017 | $ 4,076 | $ 3,130 |
| Acquisitions, net of cash acquired[a] | 3,822 | 249 | — | 1,218 | 2,821 |
| Common stock repurchased | 3,287 | 2,372 | 197 | 965 | 2,131 |
| Dividends paid | 954 | 773 | 719 | 613 | 524 |

| | December 31, | | | | |
|---|---|---|---|---|---|
| *(In millions)* | 2018[a] | 2017 | 2016 | 2015[a] | 2014[a] |
| **Balance Sheets Data** | | | | | |
| Total assets | $ 92,940 | $ 49,047 | $ 44,413 | $ 43,115 | $ 30,425 |
| Long-term debt, including capitalized leases[d] | 27,524 | 12,946 | 10,572 | 11,925 | 6,602 |

[a] On October 1, 2018, we acquired Andeavor. On December 4, 2015, MPLX, our consolidated subsidiary, merged with MarkWest. On September 30, 2014, we acquired Hess' Retail Operations and Related Assets. The financial results for these operations are included in our consolidated results from the date of acquisition.

[b] Earnings for 2017 include a tax benefit of approximately $1.5 billion or $2.93 per diluted share as a result of re-measuring certain net deferred tax liabilities using the lower corporate tax rate enacted in the fourth quarter 2017.

[c] Includes sales to related parties. The 2018 period reflects an election to present certain taxes on a net basis concurrent with our adoption of ASU 2014-09, Revenue - Revenue from Contracts with Customers ("ASC 606").

[d] Includes amounts due within one year. During 2018, MPC assumed Andeavor senior notes with an aggregate principal amount of $3.374 billion and MPLX issued $7.75 billion aggregate principal amount of senior notes. MPLX used $4.1 billion of the net proceeds of the offering to repay the 364-day term loan facility drawn on in January to fund the cash portion of the consideration for the February 1, 2018 dropdown and used $750 million of the net proceeds to redeem the 5.500 percent senior notes due February 2023 issued by MPLX and MarkWest. Also included in 2018 are Andeavor Logistics senior notes with an aggregate principal amount of $3.75 billion. During 2017, MPLX issued $2.25 billion aggregate principal amount of senior notes and used the net proceeds to fund the $1.5 billion cash portion of the consideration paid to MPC for the dropdown of assets on March 1, 2017. During 2015, in connection with the MarkWest Merger, MPLX assumed MarkWest Senior Notes with an aggregate principal amount of $4.1 billion and used its credit facility to repay $850 million of the $943 million of borrowings under MarkWest's credit facility. During 2014, we issued $1.95 billion aggregate principal amount of senior notes and entered into a $700 million term loan agreement to fund a portion of the Hess' Retail Operations and Related Assets acquisition.

## ITEM 7. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

All statements in this section, other than statements of historical fact, are forward-looking statements that are inherently uncertain. See “Disclosures Regarding Forward-Looking Statements” and “Risk Factors” for a discussion of the factors that could cause actual results to differ materially from those projected in these statements. The following information concerning our business, results of operations and financial condition should also be read in conjunction with the information included under Item 1. Business, Item 1A. Risk Factors, Item 6. Selected Financial Data and Item 8. Financial Statements and Supplementary Data.

### CORPORATE OVERVIEW

We are an independent petroleum refining and marketing, retail and midstream company. We own and operate the nation’s largest refining system through 16 refineries, located in the Gulf Coast, Mid-Continent and West Coast regions of the United States, with an aggregate crude oil refining capacity of approximately 3.0 mmbpcd. Our refineries supply refined products to resellers and consumers across the United States. We distribute refined products to our customers through transportation, storage, distribution and marketing services provided largely by our Midstream segment. We believe we are one of the largest wholesale suppliers of gasoline and distillates to resellers in the United States.

We have three strong brands: Marathon®, Speedway® and ARCO®. The branded outlets, which primarily include the Marathon brand, are established motor fuel brands across the United States available through approximately 6,800 branded outlets operated by independent entrepreneurs in 35 states, the District of Columbia and Mexico. We believe our Retail segment operates the second largest chain of company-owned and operated retail gasoline and convenience stores in the United States, with approximately 3,920 convenience stores, primarily under the Speedway brand, and 1,065 direct dealer locations, primarily under the ARCO brand, across the United States.

We primarily conduct our midstream operations through our ownership interests in MPLX and ANDX, which own and operate crude oil and light product transportation and logistics infrastructure as well as gathering, processing, and fractionation assets. As of December 31, 2018, we owned, leased or had ownership interests in approximately 16,600 miles of crude oil and refined product pipelines to deliver crude oil to our refineries and other locations and refined products to wholesale and retail market areas. We distribute our refined products through one of the largest terminal operations in the United States and one of the largest private domestic fleets of inland petroleum product barges. Our integrated midstream energy asset network links producers of natural gas and NGLs from some of the largest supply basins in the United States to domestic and international markets. Our midstream gathering and processing operations include: natural gas gathering, processing and transportation; and NGL gathering, transportation, fractionation, storage and marketing. Our assets include approximately 9.9 bcf/d of gathering capacity, 11.0 bcf/d of natural gas processing capacity and 790 mbpd of fractionation capacity as of December 31, 2018.

Our operations consist of three reportable operating segments: Refining & Marketing; Retail; and Midstream. Each of these segments is organized and managed based upon the nature of the products and services they offer. See Item 1. Business for additional information on our segments.

- Refining & Marketing – refines crude oil and other feedstocks at our 16 refineries in the West Coast, Gulf Coast and Mid-Continent regions of the United States, purchases refined products and ethanol for resale and distributes refined products largely through transportation, storage, distribution and marketing services provided largely by our Midstream segment. We sell refined products to wholesale marketing customers domestically and internationally, to buyers on the spot market, to our Retail business segment and to independent entrepreneurs who operate primarily Marathon® branded outlets.
- Retail – sells transportation fuels and convenience products in the retail market across the United States through company-owned and operated convenience stores, primarily under the Speedway brand, and long-term fuel supply contracts with direct dealers who operate locations mainly under the ARCO brand.
- Midstream – transports, stores, distributes and markets crude oil and refined products principally for the Refining & Marketing segment via refining logistics assets, pipelines, terminals, towboats and barges; gathers, processes and transports natural gas; and gathers, transports, fractionates, stores and markets NGLs. The Midstream segment primarily reflects the results of MPLX and ANDX, our sponsored master limited partnerships.

## Recent Developments

### *Andeavor Acquisition*

On October 1, 2018, we completed the Andeavor acquisition. Under the terms of the merger agreement, Andeavor stockholders had the option to choose 1.87 shares of MPC common stock or $152.27 in cash per share of Andeavor common stock. The merger agreement included election proration provisions that resulted in approximately 22.9 million shares of Andeavor common stock being converted into cash consideration and the remaining 128.2 million shares of Andeavor common stock being converted into stock consideration. Andeavor stockholders received in the aggregate approximately 239.8 million shares of MPC common stock valued at $19.8 billion and approximately $3.5 billion in cash in connection with the Andeavor acquisition. Through the Andeavor acquisition, we acquired the general partner and 156 million common units of ANDX, which is a publicly traded MLP that was formed to own, operate, develop and acquire logistics assets.

Andeavor was a highly integrated marketing, logistics and refining company operating primarily in the Western and Mid-Continent United States. Andeavor's operations included procuring crude oil from its source or from other third parties, transporting the crude oil to one of its 10 refineries, and producing, marketing and distributing refined products. Its marketing system included more than 3,300 stations marketed under multiple well-known fuel brands including ARCO®. Also, as noted above, we acquired the general partner and 156 million common units of ANDX, a leading growth-oriented, full service, and diversified midstream company which owns and operates networks of crude oil, refined products and natural gas pipelines, terminals with crude oil and refined products storage capacity, rail loading and offloading facilities, marine terminals including storage, bulk petroleum distribution facilities, a trucking fleet and natural gas processing and fractionation complexes.

This transaction combined two strong, complementary companies to create a leading nationwide U.S. downstream energy company. The acquisition substantially increases our geographic diversification and scale and strengthens each of our operating segments by diversifying our refining portfolio into attractive markets and increasing access to advantaged feedstocks, enhancing our midstream footprint in the Permian Basin, and creating a nationwide retail and marketing portfolio all of which is expected to substantially improve efficiencies and our ability to serve customers. We expect the combination to generate up to approximately $1.4 billion in gross run-rate synergies within the first three years, significantly enhancing our long-term cash flow generation profile.

See Item 8. Financial Statements and Supplementary Data – Note 5 for additional information on other acquisitions and investments in affiliates.

### *MPLX Financing Activities*

In November 2018, MPLX issued $2.25 billion in aggregate principal amount of senior notes in a public offering. In December 2018, a portion of the net proceeds from the offering was used to redeem the $750 million in aggregate principal amount of senior notes due February 2023 issued by MPLX and MarkWest. The remaining net proceeds have or will be used to repay borrowings under MPLX's revolving credit facility and intercompany loan with MPC and for general partnership purposes.

## EXECUTIVE SUMMARY

### Results

Select results for 2018 and 2017 are reflected in the following table. The 2018 amounts include the results of Andeavor from the October 1, 2018 acquisition date forward.

| *(In millions, except per share data)* | 2018 | 2017 |
|---|---|---|
| Income from operations by segment | | |
| Refining & Marketing | $ 2,481 | $ 2,321 |
| Retail | 1,028 | 729 |
| Midstream | 2,752 | 1,339 |
| Items not allocated to segments | (690) | (371) |
| Income from operations | $ 5,571 | $ 4,018 |
| (Benefit) provision for income taxes | $ 962 | $ (460) |
| Net income attributable to MPC | $ 2,780 | $ 3,432 |
| Net income attributable to MPC per diluted share | $ 5.28 | $ 6.70 |

Net income attributable to MPC decreased $652 million, or $1.42 per diluted share, in 2018 compared to 2017. Increased income from operations was more than offset by the absence of a tax benefit of $1.5 billion resulting from the TCJA in 2017 and increased net income attributable to noncontrolling interests in 2018. Refer to the Results of Operations section for a discussion of financial results by segment for the three years ended December 31, 2018.

**MPLX and ANDX**

On February 1, 2018, we contributed our refining logistics assets and fuels distribution services to MPLX in exchange for $4.1 billion in cash and approximately 114 million newly issued MPLX units. Immediately following the dropdown, our IDRs were cancelled and our economic general partner interest was converted into a non-economic general partner interest, all in exchange for 275 million newly issued MPLX common units. MPLX financed the cash portion of the February 1, 2018 dropdown with its $4.1 billion 364-day term loan facility, which was entered into on January 2, 2018. On February 8, 2018, MPLX issued $5.5 billion in aggregate principal amount of senior notes in a public offering. MPLX used $4.1 billion of the net proceeds of the offering to repay the 364-day term-loan facility. The remaining proceeds were used to repay outstanding borrowings under MPLX's revolving credit facility and intercompany loan agreement with us and for general partnership purposes.

The following table summarizes the cash distributions we received from MPLX during 2018 and 2017 and ANDX distributions received after the October 1, 2018 acquisition of Andeavor.

| *(In millions)* | 2018 | 2017 |
|---|---|---|
| Cash distributions received: | | |
| Limited partner distributions - MPLX | $ 1,097 | $ 197 |
| Limited partner distributions - ANDX | 146 | — |
| General partner distributions, including IDRs - MPLX | — | 301 |
| Total | $ 1,243 | $ 498 |

We owned approximately 505 million MPLX common units at December 31, 2018 with a market value of $15.29 billion based on the December 31, 2018 closing unit price of $30.30. On January 25, 2019, MPLX declared a quarterly cash distribution of $0.6475 per common unit, which was paid February 14, 2019. As a result, MPLX made distributions totaling $514 million to its common unitholders. MPC's portion of this distribution was approximately $327 million.

We owned approximately 156 million ANDX common units at December 31, 2018 with a market value of $5.07 billion based on the December 31, 2018 closing unit price of $32.49. On January 25, 2019, ANDX declared a quarterly cash distribution of $1.03 per common unit, which was paid February 14, 2019. As a result, ANDX made distributions totaling $238 million to its common unitholders. MPC's portion of this distribution was approximately $146 million.

See Item 8. Financial Statements and Supplementary Data – Note 4 for additional information on MPLX and ANDX.

**Share Repurchases**

During the year ended December 31, 2018, we returned $3.29 billion to our shareholders through repurchases of 47 million shares of common stock at an average price per share of $69.46. These repurchases were funded primarily by after tax proceeds from the February 1, 2018 dropdown to MPLX.

Since January 1, 2012, our board of directors has approved $18.0 billion in total share repurchase authorizations and we have repurchased a total of $13.10 billion of our common stock, leaving $4.9 billion available for repurchases as of December 31, 2018. Under these authorizations, we have acquired 293 million shares at an average cost per share of $44.60.

**Liquidity**

As of December 31, 2018, we had cash and cash equivalents of $1.61 billion, excluding MPLX's and ANDX's cash and cash equivalents of $68 million and $10 million, respectively, and no borrowings or letters of credit outstanding under our $6.0 billion bank revolving credit facilities or under our $750 million trade receivables securitization facility ("trade receivables facility"). As of December 31, 2018, eligible trade receivables supported borrowings of $750 million under the trade receivable facility. As of December 31, 2018, MPLX had approximately $2.25 billion available under its $2.25 billion revolving credit agreement and $1 billion available through its intercompany loan agreement with MPC. As of December 31, 2018, ANDX had $855 million available under its $2.10 billion revolving credit agreements and $500 million available through its intercompany loan agreement with MPC.

See Item 8. Financial Statements and Supplementary Data – Note 19 for information on our new bank revolving credit facilities.

**OVERVIEW OF SEGMENTS**

**Refining & Marketing**

Refining & Marketing segment income from operations depends largely on our Refining & Marketing margin and refinery throughputs. Our total refining capacity was 3,021 mbpcd, 1,881 mbpcd and 1,817 mbpcd as of December 31, 2018, 2017 and

2016, respectively. The increase in 2018 was primarily due to the acquisition of Andeavor on October 1, 2018, which added 10 refineries with approximately 1,117 mbpcd of total refining capacity.

Our Refining & Marketing margin is the difference between the prices of refined products sold and the costs of crude oil and other charge and blendstocks refined, including the costs to transport these inputs to our refineries and the costs of products purchased for resale. The crack spread is a measure of the difference between market prices for refined products and crude oil, commonly used by the industry as a proxy for the refining margin. Crack spreads can fluctuate significantly, particularly when prices of refined products do not move in the same relationship as the cost of crude oil. As a performance benchmark and a comparison with other industry participants, we calculate West Coast, Mid-Continent and Gulf Coast crack spreads that we believe most closely track our operations and slate of products. The following will be used for these crack-spread calculations:

- The West Coast crack spread uses three barrels of ANS crude producing two barrels of LA CARBOB and one barrel of LA CARB Diesel;
- The Mid-Continent Crack spread uses three barrels of WTI crude producing two barrels of Chicago CBOB gasoline and one barrel of Chicago ULSD; and
- The Gulf Coast Crack Spread uses three barrels of LLS crude producing two barrels of USGC CBOB gasoline and one barrel of USGC ULSD.

Our refineries can process significant amounts of sour crude oil, which typically can be purchased at a discount to sweet crude oil. The amount of this discount, the sweet/sour differential, can vary significantly, causing our Refining & Marketing margin to differ from crack spreads based on sweet crude oil. In general, a larger sweet/sour differential will enhance our Refining & Marketing margin.

Future crude oil differentials will be dependent on a variety of market and economic factors, as well as U.S. energy policy.
The following table provides sensitivities showing an estimated change in annual net income due to potential changes in market conditions.

| *(In millions, after-tax)* | | |
|---|---|---|
| Blended crack spread sensitivity[a] *(per $1.00/barrel change)* | $ | 900 |
| Sour differential sensitivity[b] *(per $1.00/barrel change)* | | 450 |
| Sweet differential sensitivity[c] *(per $1.00/barrel change)* | | 370 |
| Natural gas price sensitivity[d] *(per $1.00/MMBtu)* | | 300 |

(a) Crack spread based on 38 percent WTI, 38 percent LLS and 24 percent ANS with Mid-Continent, Gulf Coast and West Coast product pricing, respectively and assumes all other differentials and pricing relationships remain unchanged.
(b) Sour crude oil basket consists of the following crudes: ANS, ASCI, Maya and Western Canadian Select
(c) Sweet crude oil basket consists of the following crudes: Bakken, Brent, LLS, WTI-Cushing and WTI-Midland
(d) This is consumption based exposure for our Refining & Marketing segment and does not include the sales exposure for our Midstream segment.

In addition to the market changes indicated by the crack spreads, the sour differential and the sweet differential, our Refining & Marketing margin is impacted by factors such as:

- the selling prices realized for refined products;
- the types of crude oil and other charge and blendstocks processed;
- our refinery yields;
- the cost of products purchased for resale;
- the impact of commodity derivative instruments used to hedge price risk; and
- the potential impact of LCM adjustments to inventories in periods of declining prices.

Inventories are stated at the lower of cost or market. Costs of crude oil, refinery feedstocks and refined products are stated under the LIFO inventory costing method and aggregated on a consolidated basis for purposes of assessing if the cost basis of these inventories may have to be written down to market values. At December 31, 2018, market values for refined products exceed their cost basis and, therefore, there is no LCM inventory market valuation reserve at the end of the year. Based on movements of refined product prices, future inventory valuation adjustments could have a negative effect to earnings. Such losses are subject to reversal in subsequent periods if prices recover.

Refining & Marketing segment income from operations is also affected by changes in refinery direct operating costs, which include turnaround and major maintenance, depreciation and amortization and other manufacturing expenses. Changes in manufacturing costs are primarily driven by the cost of energy used by our refineries, including purchased natural gas, and the level of maintenance costs. Planned major maintenance activities, or turnarounds, requiring temporary shutdown of certain refinery operating units, are periodically performed at each refinery. The following table lists the refineries that had significant planned turnaround and major maintenance activities for each of the last three years and only reflects the activity for the acquired refineries after October 1, 2018.

| Year | Refinery |
|---|---|
| 2018 | Canton, Detroit, Galveston Bay and Martinez |
| 2017 | Catlettsburg, Galveston Bay and Garyville |
| 2016 | Galveston Bay, Garyville and Robinson |

We have various long-term, fee-based commercial agreements with MPLX and ANDX. Under these agreements, MPLX and ANDX, which are reported in our Midstream segment, provide transportation, storage, distribution and marketing services to our Refining & Marketing segment. Certain of these agreements include commitments for minimum quarterly throughput and distribution volumes of crude oil and refined products and minimum storage volumes of crude oil, refined products and other products. Certain other agreements include commitments to pay for 100 percent of available capacity for certain marine transportation and refining logistics assets.

**Retail**

Our Retail fuel margin for gasoline and distillate, which is the price paid by consumers or direct dealers less the cost of refined products, including transportation, consumer excise taxes and bankcard processing fees (where applicable), impacts the Retail segment profitability. Gasoline and distillate prices are volatile and are impacted by changes in supply and demand in the regions where we operate. Numerous factors impact gasoline and distillate demand throughout the year, including local competition, seasonal demand fluctuations, the available wholesale supply, the level of economic activity in our marketing areas and weather conditions. According to current estimates, 2018 gasoline demand remained at 9.3 million barrels per day for the third consecutive year. Headwinds from a four-year high in average gasoline prices during 2018 offset the gasoline demand support from continuing economic growth and slowing fleet fuel efficiency gains. Meanwhile, distillate demand was up for the second consecutive year on continuing economic growth in 2018, rising 5.2 percent from 2017 to the highest level since 2007 and the third highest U.S. demand level ever. Truck tonnage posted its largest annual increase since 1998, rising 6.6 percent year over year in 2018, while port container traffic (at the 10 largest U.S. ports), grew 4.5 percent year over year in 2018 (through November). The margin on merchandise sold at our convenience stores historically has been less volatile and has contributed substantially to our Retail segment margin. Almost half of our Retail margin was derived from merchandise sales in 2018. This percentage decreased from 2017 due to the addition of long-term fuel supply contracts with direct dealers and fuel only locations as part of the Andeavor acquisition. Our Retail convenience stores offer a wide variety of merchandise, including prepared foods, beverages and non-food items.

Inventories are carried at the lower of cost or market value. Costs of refined products and merchandise are stated under the LIFO inventory costing method and aggregated on a consolidated basis for purposes of assessing if the cost basis of these inventories may have to be written down to market values. As of December 31, 2018, market values for refined products exceed their cost basis and, therefore, there is no LCM inventory market valuation reserve at the end of the year. Based on movements of refined product prices, future inventory valuation adjustments could have a negative effect to earnings. Such losses are subject to reversal in subsequent periods if prices recover.

**Midstream**

Our Midstream segment transports, stores, distributes and markets crude oil and refined products, principally for our Refining & Marketing segment. The profitability of our pipeline transportation operations primarily depends on tariff rates and the volumes shipped through the pipelines. The profitability of our marine operations primarily depends on the quantity and availability of our vessels and barges. The profitability of our light product terminal operations primarily depends on the throughput volumes at these terminals. The profitability of our fuels distribution services primarily depends on the sales volumes of certain refined products. The profitability of our refining logistics operations depends on the quantity and availability of our refining logistics assets. A majority of the crude oil and refined product shipments on our pipelines and marine vessels and the refined product throughput at our terminals serve our Refining & Marketing segment and our refining logistics assets and fuels distribution services are used solely by our Refining & Marketing segment. As discussed above in the Refining & Marketing section, MPLX and ANDX, which are reported in our Midstream segment, have various long-term, fee-based commercial agreements related to services provided to our Refining & Marketing segment. Under these agreements, MPLX and ANDX have received various commitments of minimum throughput, storage and distribution volumes as well as commitments to pay for all available capacity of certain assets. The volume of crude oil that we transport is directly affected by the supply of, and refiner demand for, crude oil in the markets served directly by our crude oil pipelines, terminals and marine operations. Key factors in this supply and demand balance are the production levels of crude oil by producers in various regions or fields, the availability and cost of alternative modes of transportation, the volumes of crude oil processed at refineries and refinery and transportation system maintenance levels. The volume of refined products that we transport, store, distribute and market is directly affected by the production levels of, and user demand for, refined products in the markets served by our refined product pipelines and marine operations. In most of our markets, demand for gasoline and distillate peaks during the summer driving season, which extends from May through September of each year, and declines during the fall and winter months. As with crude oil, other transportation alternatives and system maintenance levels influence refined product movements.

NGL and natural gas prices are volatile and are impacted by changes in fundamental supply and demand, as well as market uncertainty, availability of NGL transportation and fractionation capacity and a variety of additional factors that are beyond our control. Our Midstream segment profitability is affected by prevailing commodity prices primarily as a result of processing or conditioning at our own or third-party processing plants, purchasing and selling or gathering and transporting volumes of natural gas at index-related prices and the cost of third-party transportation and fractionation services. To the extent that commodity prices influence the level of natural gas drilling by our producer customers, such prices also affect profitability.

## RESULTS OF OPERATIONS

The following discussion includes comments and analysis relating to our results of operations for the years ended December 31, 2018, 2017 and 2016. The 2018 amounts include the results of Andeavor from the October 1, 2018 acquisition date forward. This discussion should be read in conjunction with Item 8. Financial Statements and Supplementary Data and is intended to provide investors with a reasonable basis for assessing our historical operations, but should not serve as the only criteria for predicting our future performance.

### Consolidated Results of Operations

| *(In millions)* | 2018 | 2017 | 2018 vs. 2017 Variance | 2016 | 2017 vs. 2016 Variance |
|---|---|---|---|---|---|
| **Revenues and other income:** | | | | | |
| Sales and other operating revenues[(a)] | $ 95,750 | $ 74,104 | $ 21,646 | $ 63,277 | $ 10,827 |
| Sales to related parties | 754 | 629 | 125 | 62 | 567 |
| Income (loss) from equity method investments | 373 | 306 | 67 | (185) | 491 |
| Net gain on disposal of assets | 23 | 10 | 13 | 32 | (22) |
| Other income | 202 | 320 | (118) | 178 | 142 |
| Total revenues and other income | 97,102 | 75,369 | 21,733 | 63,364 | 12,005 |
| **Costs and expenses:** | | | | | |
| Cost of revenues (excludes items below)[(a)] | 85,456 | 66,519 | 18,937 | 56,676 | 9,843 |
| Purchases from related parties | 610 | 570 | 40 | 509 | 61 |
| Inventory market valuation adjustment | — | — | — | (370) | 370 |
| Impairment expense | — | — | — | 130 | (130) |
| Depreciation and amortization | 2,490 | 2,114 | 376 | 2,001 | 113 |
| Selling, general and administrative expenses | 2,418 | 1,694 | 724 | 1,597 | 97 |
| Other taxes | 557 | 454 | 103 | 435 | 19 |
| Total costs and expenses | 91,531 | 71,351 | 20,180 | 60,978 | 10,373 |
| **Income from operations** | 5,571 | 4,018 | 1,553 | 2,386 | 1,632 |
| Net interest and other financial costs | 1,003 | 674 | 329 | 564 | 110 |
| **Income before income taxes** | 4,568 | 3,344 | 1,224 | 1,822 | 1,522 |
| (Benefit) provision for income taxes | 962 | (460) | 1,422 | 609 | (1,069) |
| **Net income** | 3,606 | 3,804 | (198) | 1,213 | 2,591 |
| Less net income (loss) attributable to: | | | | | |
| Redeemable noncontrolling interest | 75 | 65 | 10 | 41 | 24 |
| Noncontrolling interests | 751 | 307 | 444 | (2) | 309 |
| **Net income attributable to MPC** | $ 2,780 | $ 3,432 | $ (652) | $ 1,174 | $ 2,258 |

(a) We adopted ASU 2014-09, Revenue - Revenue from Contracts with Customers ("ASC 606") as of January 1, 2018, and elected to report certain taxes on a net basis. We adopted the standard using the modified retrospective method, and, therefore, comparative information continues to reflect certain taxes on a gross basis. See Item 8. Financial Statements and Supplementary Data - Notes 2 and 3 for further information.

***2018 Compared to 2017***

Net income attributable to MPC decreased $652 million. Increased income from operations was more than offset by a tax benefit of $1.5 billion resulting from the TCJA in 2017 and increased income attributable to noncontrolling interests in 2018. See Segment Results for additional information.

Total revenues and other income increased $21.73 billion in 2018 compared to 2017 primarily due to:

- increased sales and other operating revenues of $21.65 billion mainly due to an increase in our Refining & Marketing segment refined product sales volumes, which increased 402 mbpd, and higher averaged refined product sales prices, which increased $0.34 per gallon. The increase in volume is largely due to the Andeavor acquisition on October 1, 2018. These increases were partially offset by our election to present revenues net of certain taxes under ASC 606 prospectively from January 1, 2018, which resulted in a decrease in revenues of $6.66 billion for the year. See Item 8.

Financial Statements and Supplementary Data – Notes 2 and 3 for additional information on recently adopted accounting standards;
- increased sales to related parties of $125 million primarily due to higher average refined product prices;
- increased income from equity method investments of $67 million primarily due to an increase in income from midstream equity affiliates; and
- decreased other income of $118 million primarily due to a decrease in RIN sales.

Total costs and expenses increased $20.18 billion in 2018 compared to 2017 primarily due to:
- increased cost of revenues of $18.94 billion primarily due to:
  - an increase in refined product cost of sales of $24.97 billion, primarily due to increased operations following the acquisition of Andeavor along with higher raw material costs attributable to an increase in our average crude oil costs of $13.87 per barrel; and
  - a decrease in certain taxes of $6.66 billion as a result of our election to present revenues net of certain taxes under ASC 606 prospectively from January 1, 2018. For the year, certain taxes continue to be presented on a gross basis and are included in cost of revenues. See Item 8. Financial Statements and Supplementary Data – Notes 2 and 3 for additional information on recently adopted accounting standards;
- increased depreciation and amortization of $376 million, primarily due to the depreciation of the fair value of the assets acquired in connection with the Andeavor acquisition;
- increased selling, general and administrative expenses of $724 million primarily due to approximately $197 million of transaction related costs for financial advisors, employee severance and other costs associated with the Andeavor acquisition in addition to increased costs and expenses for the combined company; and
- increased other taxes of $103 million primarily due to the inclusion of other taxes related to the acquired Andeavor operations.

Net interest and other financial costs increased $329 million mainly due to increased MPLX borrowings and debt assumed in the acquisition of Andeavor. In addition, MPLX recognized $60 million of debt extinguishment costs in 2018 in connection with the redemption of its $750 million of senior notes due in 2023. We capitalized interest of $80 million in 2018 and $55 million in 2017. See Item 8. Financial Statements and Supplementary Data – Note 19 for further details.

Provision for income taxes increased $1.42 billion primarily due to the absence of a tax benefit of $1.5 billion in 2017 resulting from the TCJA and an increase in our income before income taxes, which increased $1.22 billion. The effective tax rate of 21 percent in 2018 is consistent with the U.S. statutory rate of 21 percent, as permanent benefit differences related to income attributable to noncontrolling interest were offset by state and local tax expense. In 2017, our effective tax rate was impacted by 45 percentage points as a result of the TCJA which decreased our effective tax rate from 31 percent to (14) percent. The effective tax rate, excluding the TCJA, of 31 percent in 2017 was slightly less than the U.S. statutory rate of 35 percent primarily due to certain permanent benefit differences, including differences related to net income attributable to noncontrolling interests and the domestic manufacturing deduction, partially offset by state and local tax expense. See Item 8. Financial Statements and Supplementary Data – Note 12 for further details.

Noncontrolling interests increased $454 million due to higher MPLX net income resulting primarily from the February 1, 2018 dropdown transaction, partially offset by the reduced ownership in MPLX held by noncontrolling interests following the GP/IDR Exchange. Noncontrolling ownership in MPLX decreased to 36.4 percent at December 31, 2018 from 69.6 percent at December 31, 2017. In addition, 2018 reflects $68 million of net income attributable to the noncontrolling interest in ANDX of 36.4 percent for the period from October 1, 2018 through the end of the year.

***2017 Compared to 2016***

Net income attributable to MPC increased $2.26 billion in 2017 compared to 2016 primarily due to a tax benefit of $1.5 billion resulting from the TCJA enacted in the fourth quarter of 2017 and an increase in our Refining & Marketing segment income from operations of $964 million. See Segment Results for additional information.

Total revenues and other income increased $12.01 billion in 2017 compared to 2016 primarily due to:
- increased sales and other operating revenues (including consumer excise taxes) of $10.83 billion primarily due to higher averaged refined product sales prices, which increased $0.25 per gallon, and an increase in refined product sales volumes, which increased 42 mbpd;
- increased sales to related parties of $567 million mainly due to sales from our Refining & Marketing segment to PFJ Southeast, a joint venture with Pilot Flying J, which commenced in the fourth quarter of 2016;

- increased income (loss) from equity method investments of $491 million primarily due to the absence of impairment charges related to equity method investments of $356 million recorded in 2016 along with increases in income from new and existing pipeline, natural gas, retail and marine affiliates;
- increased other income of $142 million primarily due to increased RIN sales; and
- decreased net gain on disposal of assets of $22 million primarily due to gains on the sale of certain Speedway locations in 2016.

Total costs and expenses increased $10.37 billion in 2017 compared to 2016 primarily due to:

- increased cost of revenues of $9.84 billion primarily due to an increase in refined product cost of sales of $9.18 billion, primarily attributable to an increase in our average crude oil costs of $9.50 per barrel;
- increased purchases from related parties of $61 million primarily due to:
  - an increase in transportation services provided by Crowley Ocean Partners of $27 million;
  - an increase in transportation services provided by Crowley Blue Water Partners of $23 million; and
  - an increase in volumes purchased from LOOP of $12 million;
- an inventory market valuation adjustment which decreased costs and expenses by $370 million in 2016 related to the reversal of the LCM inventory valuation reserve due to increased refined product prices;
- decreased impairment expense of $130 million as the impairment expense in 2016 reflects a $130 million charge recorded by MPLX to impair a portion of the $2.21 billion of goodwill recorded in connection with the MarkWest Merger; and
- increased selling, general and administrative expenses of $97 million primarily due to increases in employee-related compensation and benefit expenses, higher corporate costs and net litigation settlement expenses of $29 million.

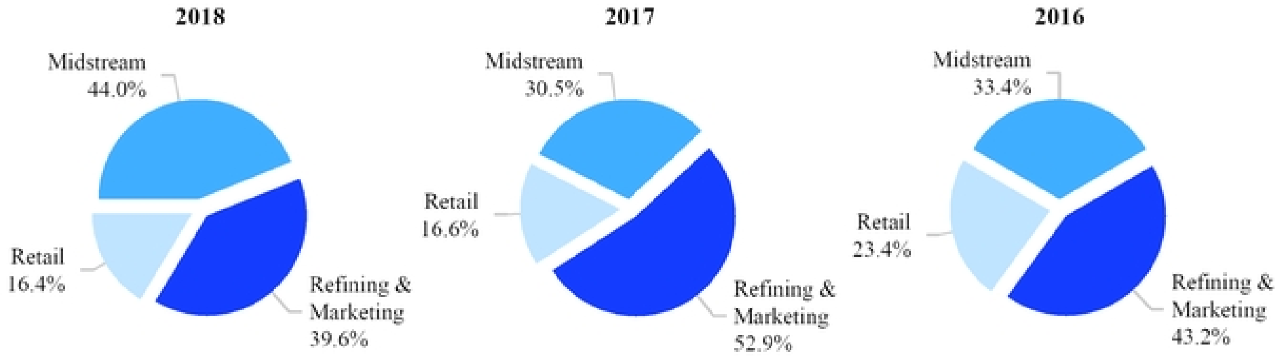
Net interest and other financial costs increased $110 million in 2017 compared to 2016 mainly due to the MPLX senior notes issued in February 2017 and a $45 million increase in pension settlement expenses, partially offset by decreased borrowings on the MPC term loan agreement. We capitalized interest of $55 million in 2017 and $63 million in 2016. See Item 8. Financial Statements and Supplementary Data – Note 19 for further details.

Provision for income taxes decreased $1.07 billion in 2017 compared to 2016. The TCJA was signed into law on December 22, 2017 and provided several key changes to U.S. tax law, including a federal corporate tax rate of 21 percent replacing the 2017 rate applicable to MPC of 35 percent. MPC was required to calculate the effect of the TCJA on its deferred tax balances as of the enactment date. The effect of the federal corporate income tax rate change reduced net deferred tax liabilities by $1.5 billion in 2017. This benefit was partially offset by an increase in our income before income taxes, which increased $1.52 billion in 2017 compared to 2016. The TCJA impacted our effective tax rate by 45 percentage points in 2017, decreasing our effective tax rate from 31 percent to (14) percent. The effective tax rates, excluding the TCJA in 2017, of 31 percent in 2017 and 33 percent in 2016, are slightly less than the U.S. statutory rate of 35 percent primarily due to certain permanent benefit differences, including differences related to net income attributable to noncontrolling interests and the domestic manufacturing deduction, partially offset by state and local tax expense. See Item 8. Financial Statements and Supplementary Data – Note 12 for further details.

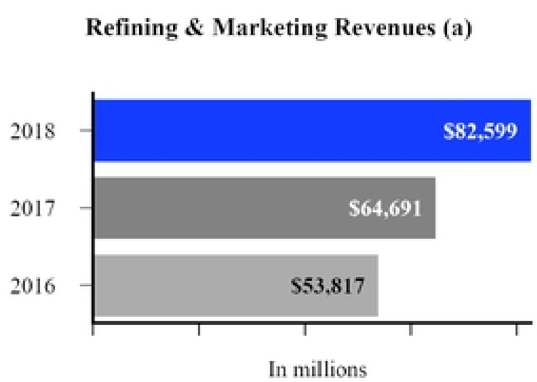
Noncontrolling interests increased $333 million primarily due to increased MPLX net income.

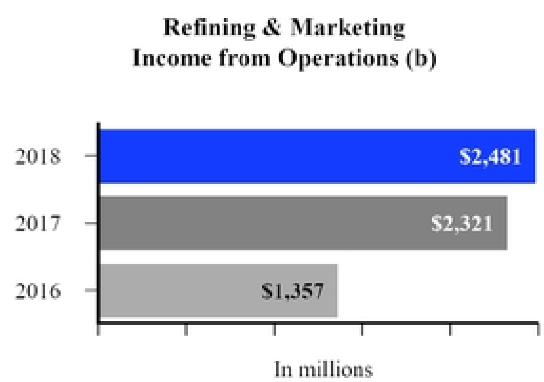
**Segment Results**

Our segment income from operations was approximately $6.26 billion, $4.39 billion and $3.14 billion for the years ended December 31, 2018, 2017 and 2016, respectively. The following shows the percentage of segment income from operations by segment for the last three years.




***Refining & Marketing***

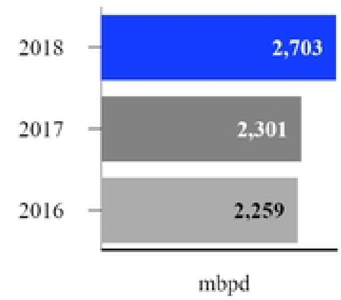


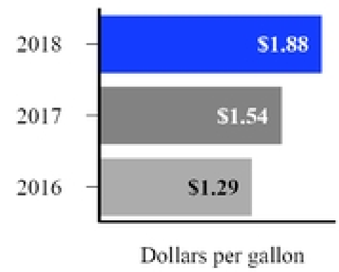

(a) We adopted ASC 606 (Revenue from Contracts with Customers), as of January 1, 2018, and elected to report certain taxes on a net basis. We applied the standard using the modified retrospective method, and, therefore, comparative information continues to reflect certain taxes on a gross basis.

(b) Results related to refining logistics and fuels distribution are presented in the Midstream segment prospectively from February 1, 2018. Prior periods are not adjusted as these entities were not considered a business prior to February 1, 2018.

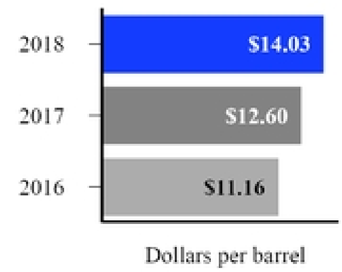
**Refined Product Sales Volumes (a)**



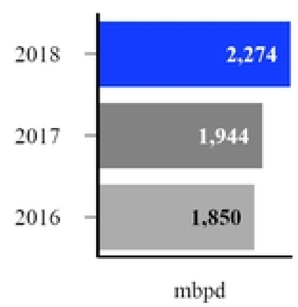

**Average Refined Product Sales Prices (b)**



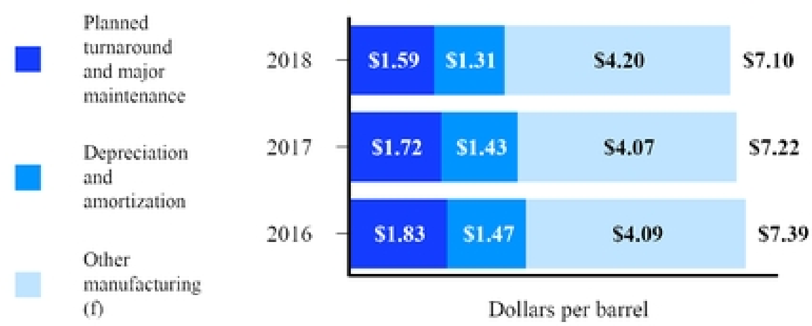

**Refining & Marketing Margin (c) (d)**




**Total Refinery Throughputs**




**Refinery Direct Operating Costs (e)**




(a) Includes intersegment sales and sales destined for export.

(b) For comparability purposes, these amounts exclude sales taxes for all periods presented. As noted above, Refining & Marketing revenues in 2018 reflect these taxes on a net basis, while 2017 and 2016 Refining & Marketing revenues continue to reflect these taxes on a gross basis. The average refined product sales prices for 2017 and 2016 included excise taxes of $0.18 per gallon before this adjustment.

(c) Sales revenue less cost of refinery inputs and purchased products, divided by total refinery throughputs. Excludes LCM inventory valuation adjustments.

(d) See “Non-GAAP Measures” section for reconciliation and further information regarding this non-GAAP measure.

(e) Per barrel of total refinery throughputs.

(f) Includes utilities, labor, routine maintenance and other operating costs.

*2018 Compared to 2017*

The following table presents certain benchmark prices in our marketing areas and market indicators that we believe are helpful in understanding the results of our Refining & Marketing segment's business. With the acquisition of Andeavor, we revised our market data to include a West Coast 3-2-1 crack spread. Additionally, the Chicago 6-3-2-1 crack spread was revised to reflect a Mid-Continent 3-2-1 crack spread and the Gulf coast 6-3-2-1 crack spread was also revised to reflect a 3-2-1 crack spread. See the "Overview of Segments" section for further discussion of our revised crack spreads.

| Benchmark spot prices *(dollars per gallon)* | 2018 | 2017 |
|---|---|---|
| Chicago CBOB unleaded regular gasoline | $ 1.86 | $ 1.58 |
| Chicago ultra-low sulfur diesel | 2.07 | 1.64 |
| USGC CBOB unleaded regular gasoline | 1.88 | 1.60 |
| USGC ultra-low sulfur diesel | 2.05 | 1.62 |
| LA CARBOB | 2.06 | — |
| LA CARB diesel | 2.14 | — |
| | | |
| **Market Indicators** *(dollars per barrel)* | | |
| LLS | $ 69.93 | $ 54.00 |
| WTI | 64.10 | 50.85 |
| ANS | 68.46 | 54.44 |
| Crack Spreads | | |
| Mid-Continent WTI 3-2-1 | $ 14.02 | $ 12.71 |
| USGC LLS 3-2-1 | 7.91 | 8.55 |
| West Coast ANS 3-2-1 | 11.66 | 14.02 |
| Blended 3-2-1[(a)(b)] | 10.62 | 10.22 |
| Crude Oil Differentials | | |
| Sweet | $ (3.83) | $ (1.04) |
| Sour | (7.60) | (5.02) |

(a) Blended 3-2-1 WTI/LLS/ANS crack spread 38/38/24 percent in 2018, Blended 6-3-2-1 Chicago/USGC crack spread is 40/60 percent for the first nine months of 2018 and in 2017 and 38/62 percent in 2016. These blends are based on MPC's refining capacity by region in each period.

(b) Beginning 4Q 2018, Blended Mid-Con/USGC/West Coast crack spread is weighted 38/38/24 percent based on MPC's refining capacity by PADD. From Q1 2017 through Q3 2018, the blended spread was weighted 40/60 percent Mid-Con/USGC.

Refining & Marketing segment revenues increased $17.91 billion primarily due to higher refined product sales volumes, which increased 402 mbpd, and higher refined product sales prices, which increased $0.34 per gallon. The increase in sales volumes is largely due to the acquisition of Andeavor on October 1, 2018. These increases were partially offset by our election to present revenues net of certain taxes under ASC 606 prospectively from January 1, 2018, which resulted in a decrease in Refining & Marketing segment revenues of $4.58 billion in 2018. See Item 8. Financial Statements and Supplementary Data – Notes 2 and 3 for additional information on recently adopted accounting standards.

Refining & Marketing segment income from operations increased $160 million primarily due to higher throughputs as a result of the Andeavor acquisition as well as wider sour and sweet crude differentials. For comparison purposes, as noted in the Market Indicators table, 2017 indicators have been included which reflect the new indicators we began using subsequent to the acquisition of Andeavor. Based on this, the USGC, Mid-Continent and West Coast blended 3-2-1 crack spread was $10.62 per barrel in 2018 as compared to 10.22 per barrel in 2017. These crack spreads are net of RIN crack adjustments of $1.61 and $3.57 for 2018 and 2017, respectively.

Based on changes in the market indicators shown above and our refinery throughputs, we estimate a positive impact of $3.40 billion on Refining & Marketing segment income from operations, of which $1.81 billion and $1.59 billion are due to the effects of changes in price and volume, respectively. The market indicators use spot market values and an estimated mix of crude purchases and product sales. Differences in our results compared to these market indicators, including product price realizations, the mix of crudes purchased and their costs, the effects of LCM inventory valuation adjustments, the effects of market structure on our crude oil acquisition prices, and other items like refinery yields and other feedstock variances, had an estimated negative impact on Refining & Marketing segment income from operations of $698 million in 2018 compared to 2017. The significant elements of the negative impact were unfavorable crude acquisition costs and unfavorable product price realizations relative to the market indicators.

The cost of inventories of crude oil and refinery feedstocks, refined products and merchandise is determined primarily under the LIFO method. There were no material liquidations of LIFO inventories in 2018 and we recognized a LIFO charge of $7 million in 2017.

Refinery direct operating costs decreased $0.12 per barrel in 2018 compared to 2017. The decrease includes a $0.13 per barrel decrease in planned turnaround and major maintenance costs and a $0.12 per barrel decrease in depreciation and amortization primarily due to higher refinery throughput resulting from the addition of 10 refineries as part of the acquisition of Andeavor. Total turnaround costs increased due to costs related to these additional refineries as well as higher turnaround costs at our Detroit and Canton refineries, partially offset by lower turnaround costs at our Galveston Bay and Garyville refineries. The increase in other manufacturing costs of $0.13 per barrel is mainly due to costs associated with the acquired refineries, partially offset by an increase in throughput due to the acquisition of Andeavor. In addition, manufacturing costs and depreciation and amortization costs per barrel decreased due to the dropdown of refining and logistics assets to MPLX on February 1, 2018.

We purchase RINs to satisfy a portion of our RFS2 compliance. Our expenses associated with purchased RINs were $316 million in 2018 compared to $457 million in 2017. The decrease in 2018 was primarily due to lower weighted average RIN costs which more than offset the increase in our RINs obligation subsequent to the acquisition of Andeavor.

*2017 Compared to 2016*

The following table presents certain benchmark prices in our marketing areas and market indicators that we believe are helpful in understanding the results of our Refining & Marketing segment's business.

| Benchmark spot prices *(dollars per gallon)* | 2017 | 2016 |
|---|---|---|
| Chicago CBOB unleaded regular gasoline | $ 1.58 | $ 1.33 |
| Chicago ultra-low sulfur diesel | 1.64 | 1.34 |
| USGC CBOB unleaded regular gasoline | 1.60 | 1.33 |
| USGC ultra-low sulfur diesel | 1.62 | 1.32 |
| | | |
| Market Indicators *(dollars per barrel)* | | |
| LLS | $ 54.00 | $ 45.01 |
| WTI | 50.85 | 43.47 |
| Crack Spreads | | |
| Chicago LLS 6-3-2-1[(a)(b)] | $ 9.77 | $ 7.19 |
| USGC LLS 6-3-2-1[(a)] | 9.89 | 6.80 |
| Blended 6-3-2-1[(a)(c)] | 9.84 | 6.96 |
| Crude Oil Differentials | | |
| LLS - WTI[(a)] | $ 3.15 | $ 1.55 |
| Sweet/Sour[(a)(c)] | 5.94 | 6.52 |

(a) All spreads and differentials are measured against prompt LLS.
(b) Calculation utilizes USGC three percent residual fuel oil price as a proxy for Chicago three percent residual fuel oil price.
(c) LLS (prompt) – [delivered cost of sour crude oil: Arab Light, Kuwait, Maya, Western Canadian Select and Mars].

Refining & Marketing segment revenues increased $10.87 billion in 2017 compared to 2016 primarily due to higher refined product sales prices and volumes.

Refining & Marketing segment income from operations increased $964 million in 2017 compared to 2016. Segment income in 2016 includes a $345 million non-cash benefit related to the Company's LCM inventory reserve. Excluding the LCM inventory benefit, the increase in segment results for 2017 primarily resulted from higher LLS crack spreads in both the U.S. Gulf Coast and Chicago markets. The LLS blended crack spread for 2017 increased to $9.84 per barrel from $6.96 per barrel in 2016. These favorable effects were partially offset by less favorable product price realizations as compared to the spot market prices used in the LLS blended crack spread.

Based on changes in the market indicators shown above and our refinery throughputs, we estimate a positive impact of $2.33 billion for 2017 compared to 2016 on Refining & Marketing segment income from operations. The market indicators use spot market values and an estimated mix of crude purchases and product sales. Differences in our results compared to these market indicators, including product price realizations, the mix of crudes purchased and their costs, the effects of LCM inventory valuation adjustments, the effects of market structure on our crude oil acquisition prices, and other items like refinery yields and other feedstock variances, had an estimated negative impact on Refining & Marketing segment income from operations of $1.35 billion in 2017 compared to 2016. The significant elements of the negative impact were unfavorable product price realizations and unfavorable crude acquisition costs relative to the market indicators.

The cost of inventories of crude oil and refinery feedstocks, refined products and merchandise is determined primarily under the LIFO method. In the second quarter of 2016, we had recognized the effects of an interim liquidation of our refined products inventories which we did not expect to reinstate by year end resulting in a pre-tax charge of approximately $54 million to income. Based on year end refined product inventories, which were higher than inventories at the beginning of the year, we had a build in refined product inventories for 2016. Therefore, we recognized the effects of this annual build in our refined products in the fourth quarter of 2016 which had the effect of reversing the second quarter charge. For the full year, we recognized a LIFO charge of $7 million in 2017 and $2 million in 2016.

Refinery direct operating costs decreased $0.17 per barrel in 2017 compared to 2016. The decrease in 2017 includes an $0.11 per barrel decrease in planned turnaround and major maintenance costs resulting from lower turnaround activity at our Garyville and Robinson refineries partially offset by higher activity at our Catlettsburg refinery.

We purchase RINs to satisfy a portion of our RFS2 compliance. Our expenses associated with purchased RINs were $457 million in 2017 and $288 million in 2016. The increase in 2017 was primarily due to higher weighted average RIN costs driven by higher market prices for purchased RINs and increases in the number of RINs purchased.

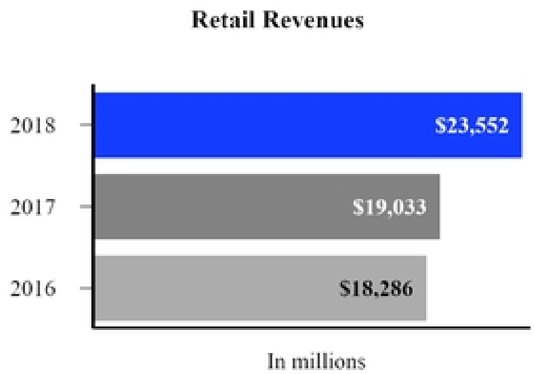
***Supplemental Refining & Marketing Statistics***

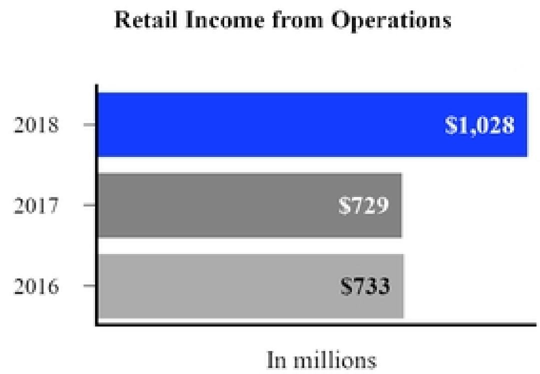
| | 2018 | 2017 | 2016 |
|---|---|---|---|
| **Refining & Marketing Operating Statistics** | | | |
| Crude oil capacity utilization percent[a] | 96 | 97 | 95 |
| Refinery throughputs (*thousands of barrels per day*): | | | |
| Crude oil refined | 2,081 | 1,765 | 1,699 |
| Other charge and blendstocks | 193 | 179 | 151 |
| Total | 2,274 | 1,944 | 1,850 |
| Sour crude oil throughput percent | 52 | 59 | 60 |
| Sweet crude oil throughput percent | 48 | 41 | 40 |
| Refined product yields (mbpd):[b] | | | |
| Gasoline | 1,107 | 932 | 900 |
| Distillates | 773 | 641 | 617 |
| Propane | 41 | 36 | 35 |
| Feedstocks and petrochemicals | 288 | 277 | 241 |
| Heavy fuel oil | 38 | 37 | 32 |
| Asphalt | 69 | 63 | 58 |
| Total | 2,316 | 1,986 | 1,883 |
| **Refining & Marketing Operating Statistics By Region – Gulf Coast** | | | |
| Refinery throughputs (mbpd):[b] | | | |
| Crude oil refined | 1,135 | 1,070 | 1,039 |
| Other charge and blendstocks | 190 | 224 | 195 |
| Total | 1,325 | 1,294 | 1,234 |
| Sour crude oil throughput percent | 62 | 71 | 73 |
| Sweet crude oil throughput percent | 38 | 29 | 27 |
| Refined product yields (mbpd):[b] | | | |
| Gasoline | 574 | 546 | 514 |
| Distillates | 432 | 405 | 399 |
| Propane | 25 | 26 | 26 |
| Feedstocks and petrochemicals | 291 | 311 | 286 |
| Heavy fuel oil | 18 | 25 | 21 |
| Asphalt | 19 | 17 | 15 |
| Total | 1,359 | 1,330 | 1,261 |
| Refinery direct operating costs (dollars per barrel):[c] | | | |
| Planned turnaround and major maintenance | $ 1.12 | $ 1.75 | $ 2.09 |
| Depreciation and amortization | 1.03 | 1.12 | 1.14 |
| Other manufacturing[d] | 3.41 | 3.74 | 3.70 |
| Total | $ 5.56 | $ 6.61 | $ 6.93 |

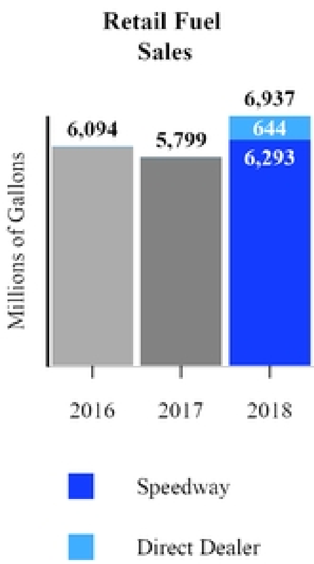
| | 2018 | 2017 | 2016 |
|---|---|---|---|
| **Refining & Marketing Operating Statistics By Region – Mid-Continent** | | | |
| Refinery throughputs (mbpd):[(b)] | | | |
| Crude oil refined | 792 | 695 | 660 |
| Other charge and blendstocks | 47 | 33 | 39 |
| Total | 839 | 728 | 699 |
| Sour crude oil throughput percent | 33 | 40 | 40 |
| Sweet crude oil throughput percent | 67 | 60 | 60 |
| Refined product yields (mbpd):[(b)] | | | |
| Gasoline | 444 | 386 | 386 |
| Distillates | 279 | 236 | 218 |
| Propane | 14 | 11 | 11 |
| Feedstocks and petrochemicals | 43 | 42 | 35 |
| Heavy fuel oil | 14 | 13 | 12 |
| Asphalt | 50 | 46 | 43 |
| Total | 844 | 734 | 705 |
| Refinery direct operating costs (dollars per barrel):[(c)] | | | |
| Planned turnaround and major maintenance | $ 1.97 | $ 1.48 | $ 1.15 |
| Depreciation and amortization | 1.67 | 1.81 | 1.88 |
| Other manufacturing[(d)] | 4.34 | 4.26 | 4.29 |
| Total | $ 7.98 | $ 7.55 | $ 7.32 |
| **Refining & Marketing Operating Statistics By Region – West Coast** | | | |
| Refinery throughputs (mbpd):[(b)] | | | |
| Crude oil refined | 154 | — | — |
| Other charge and blendstocks | 17 | — | — |
| Total | 171 | — | — |
| Sour crude oil throughput percent | 72 | — | — |
| Sweet crude oil throughput percent | 28 | — | — |
| Refined product yields (mbpd):[(b)] | | | |
| Gasoline | 89 | — | — |
| Distillates | 62 | — | — |
| Propane | 2 | — | — |
| Feedstocks and petrochemicals | 14 | — | — |
| Heavy fuel oil | 7 | — | — |
| Asphalt | — | — | — |
| Total | 174 | — | — |
| Refinery direct operating costs (dollars per barrel):[(c)] | | | |
| Planned turnaround and major maintenance | $ 2.79 | $ — | $ — |
| Depreciation and amortization | 1.26 | — | — |
| Other manufacturing[(d)] | 8.07 | — | — |
| Total | $ 12.12 | $ — | $ — |

(a) Based on calendar-day capacity, which is an annual average that includes down time for planned maintenance and other normal operating activities.
(b) Excludes inter-refinery volumes which totaled 61 mbpd, 78 mbpd and 83 mbpd for 2018, 2017 and 2016, respectively, for all regions.
(c) Per barrel of total refinery throughputs.
(d) Includes utilities, labor, routine maintenance and other operating costs.

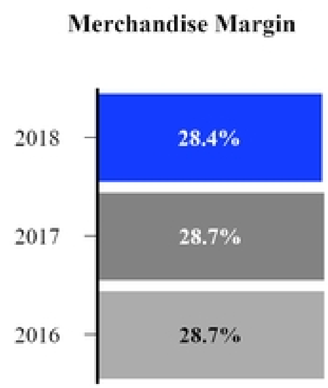
***Retail***








(a) The price paid by consumers or direct dealers less the cost of refined products, including transportation, consumer excise taxes and bankcard processing fees (where applicable), divided by gasoline and distillate sales volume. Excludes LCM inventory valuation adjustments.

(b) See “Non-GAAP Measures” section for reconciliation and further information regarding this non-GAAP measure.

| Key Financial and Operating Data | | 2018 | | 2017 | | 2016 |
|---|---|---|---|---|---|---|
| Average fuel sales prices (*dollars per gallon*) | $ | 2.71 | $ | 2.34 | $ | 2.09 |
| Merchandise sales (*in millions*) | $ | 5,232 | $ | 4,893 | $ | 5,007 |
| Merchandise margin (*in millions*)[(a)(b)] | $ | 1,486 | $ | 1,402 | $ | 1,435 |
| Same store gasoline sales volume (period over period)[(c)] | | (1.5)% | | (1.3)% | | (0.4)% |
| Same store merchandise sales (period over period)[(c)(d)] | | 4.2 % | | 1.2 % | | 3.2 % |
| Convenience stores at period-end | | 3,923 | | 2,744 | | 2,733 |
| Direct dealer locations at period-end | | 1,065 | | N/A | | N/A |

(a) The price paid by the consumers less the cost of merchandise.

(b) See “Non-GAAP Measures” section for reconciliation and further information regarding this non-GAAP measure.

(c) Same store comparison includes only locations owned at least 13 months.

(d) Excludes cigarettes.

*2018 Compared to 2017*

Retail segment revenues increased $4.52 billion. The majority of this increase is due to the acquisition of Andeavor on October 1, 2018, which added company-owned and operated retail locations, which are included in Speedway fuel sales, and direct dealer locations. The existing Retail business also saw a $1.18 billion increase in fuel and merchandise sales. Total fuel sales increased $5.21 billion primarily due to an increase in Speedway fuel sales volumes of 494 million gallons, the addition of direct dealer fuel sales of 644 million gallons and an increase in average gasoline and distillate selling prices of $0.37 per gallon. Merchandise sales increased $339 million. The increases in Speedway fuel sales and merchandise sales as well as the addition of sales to direct dealers were primarily due to the acquisition of Andeavor. These increases were partially offset by our election to present revenues net of certain taxes under ASC 606 prospectively from January 1, 2018, which resulted in a decrease in Retail segment revenues of $844 million in 2018. See Item 8. Financial Statements and Supplementary Data – Notes 2 and 3 for additional information on recently adopted accounting standards.

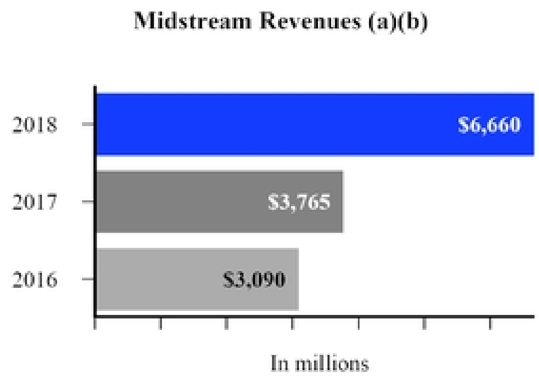
Retail segment income from operations increased $299 million primarily due to contributions from the Retail operations acquired in the Andeavor acquisition. For locations owned prior to the Andeavor acquisition, increased gasoline and distillate and merchandise margins were more than offset by increased operating expenses.

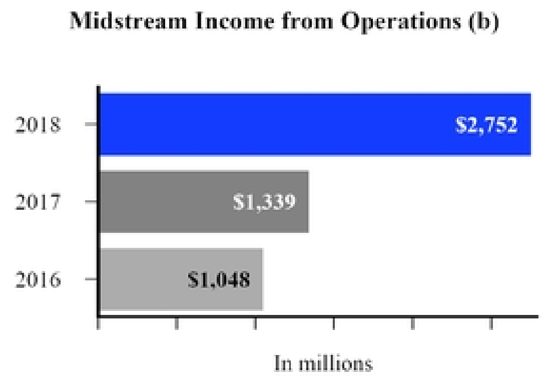
*2017 Compared to 2016*

Retail segment revenues increased $747 million due to an increase in fuel sales of $860 million partially offset by a decrease in merchandise sales of $114 million. Average fuel selling prices increased $0.25 per gallon which were partially offset by a decrease in sales volumes in 2017 compared to 2016. The decreases in fuel sales volumes and merchandise sales are primarily attributable to the contribution of 41 travel centers to PJF Southeast in fourth quarter of 2016.

Retail segment income from operations decreased $4 million. Segment income in 2016 includes a $25 million non-cash benefit related to the reversal of the Company’s LCM inventory reserve, which was recorded in 2015. Excluding the LCM inventory benefit recognized in 2016, the increase in segment results for 2017 was primarily due to a full year of contributions from Speedway’s travel center joint venture formed in the fourth quarter 2016 and lower operating expense, partially offset by lower merchandise margin and lower gains from asset sales.

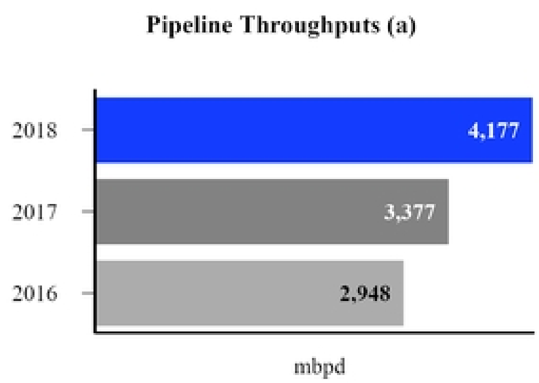
***Midstream***

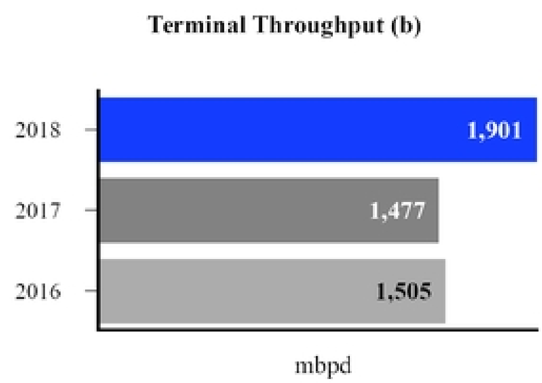


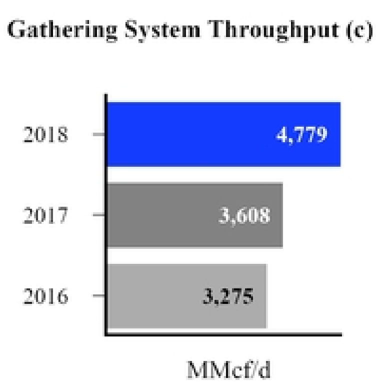



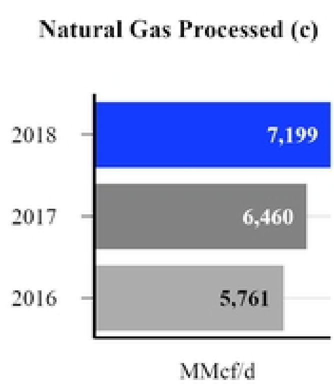

(a) We adopted ASC 606 (Revenue from Contracts with Customers), as of January 1, 2018, and elected to report certain taxes on a net basis. We applied the standard using the modified retrospective method, and, therefore, comparative information continues to reflect certain taxes on a gross basis.

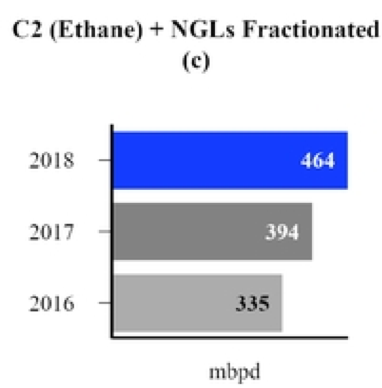
(b) Results related to refining logistics and fuels distribution dropdown into MPLX are presented in the Midstream segment prospectively from February 1, 2018. Prior periods are not adjusted as these entities were not considered a business prior to February 1, 2018.




(a) On owned common-carrier pipelines, excluding equity method investments.

(b) Includes the results of the terminal assets beginning on April 1, 2016, the date the assets became a business.

(c) Includes amounts related to unconsolidated equity method investments on a 100 percent basis.

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