MPLX LP Form SC 13D/A December 18, 2017

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

SCHEDULE 13D/A (Amendment No. 7) Under the Securities Exchange Act of 1934

MPLX LP (Name of Issuer) Common Units Representing Limited Partner Interests (Title of Class of Securities) 55336V100 (CUSIP Number) Molly R. Benson Vice President, Corporate Secretary and Chief Compliance Officer Marathon Petroleum Corporation 539 South Main Street Findlay, Ohio 45840 (419) 422-2121 (Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications) December 15, 2017 (Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition which is subject of this Schedule 13D, and is filing this statement because of Rule 13d-1(e), 13d-1(f) or 13d-1(g), check the following box.

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7(b) for other parties to whom copies are to be sent.

The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to * the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 (the "Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

Name of Reporting Person:

1. Marathon Petroleum Corporation Check the Appropriate Box if a Member of Group (See 2. Instructions): (a) .. (b) " SEC Use Only: 3. Source of Funds: 4. 00 Check if Disclosure of Legal Proceedings is Required 5. Pursuant to Items 2(d) or 2(e):

Citizenship or Place of

6. Organization:

Delaware

Sole Voting Power:

Number

of — Shares Shared Voting Power:

Ben&ficially Owned B\\$8,090,823⁽¹⁾

Each Sole Dispositive Power:

Reporting

Person —

With: Shared Dispositive Power:

10.

118,090,823⁽¹⁾ Aggregate Amount

Beneficially Owned by Each

11. Reporting Person:

118,090,823⁽¹⁾
Check if the Aggregate
12. Amount in Row (11) Excludes

- Certain Shares: Percent of Class Represented By Amount In Row (11):
- 13.

29.0%(2)

14. Type of Reporting Person:

CO

MPLX Logistics Holdings LLC ("MPLX Logistics") beneficially owns 66,546,319 common units representing limited partner interests ("MPLX Common Units") in the Issuer. MPLX Holdings Inc. ("MPLX Holdings") beneficially owns 28,627,587 MPLX Common Units in the Issuer. MPLX GP LLC ("MPLX GP") beneficially owns 22,916,917 MPLX

 Common Units in the Issuer. MPC Investment LLC ("MPC Investment") owns all of the membership interests in MPLX Logistics and MPLX GP and all of the shares of stock of MPLX Holdings. Marathon Petroleum Corporation ("MPC") owns all of the membership interests in MPC Investment. Accordingly, MPC and MPC Investment both may be deemed to indirectly beneficially own the MPLX Common Units directly held by MPLX Logistics, MPLX Holdings and MPLX GP.

2. Based upon 407,068,878 MPLX Common Units issued and outstanding as of December 15, 2017, as reported by the Issuer to the Reporting Persons.

Name of Reporting Person:

1.

MPC Investment LLC

Check the Appropriate Box if a

2. Member of Group (See

Instructions):

- (a) " (b) "
- 3. SEC Use Only:

Source of Funds:

4.

OO Check if Disclosure of Legal Proceedings is Required

5. Pursuant to Items 2(d) or 2(e):

Citizenship or Place of

6. Organization:

Delaware

Sole Voting Power:

Number

of — Shares Shared Voting Power: Ben&ficially

Owned By 8,090,823⁽¹⁾

Each Sole Dispositive Power:

Reporting

Person -

With: Shared Dispositive Power:

10.

118,090,823⁽¹⁾ Aggregate Amount Beneficially Owned by Each

11. Reporting Person:

118,090,823⁽¹⁾
Check if the Aggregate
12. Amount in Row (11) Excludes
Certain Shares:

13. Percent of Class Represented By Amount In Row (11): $29.0\%^{(2)}$

Type of Reporting Person:

14.

00

MPLX Logistics Holdings LLC ("MPLX Logistics") beneficially owns 66,546,319 common units representing limited partner interests ("MPLX Common Units") in the Issuer. MPLX Holdings Inc. ("MPLX Holdings") beneficially owns 28,627,587 MPLX Common Units in the Issuer. MPLX GP LLC ("MPLX GP") beneficially owns 22,916,917 MPLX Common Units in the Issuer. MPLX GP LLC ("MPLX GP") beneficially owns 22,916,917 MPLX Common Units in the Issuer. MPLX GP LLC ("MPLX GP") beneficially owns 22,916,917 MPLX Common Units in the Issuer. MPLX GP LLC ("MPLX GP") beneficially owns 22,916,917 MPLX Common Units in the Issuer. MPC Investment LLC ("MPC Investment") owns all of the membership interests in

1. MPLX Logistics and MPLX GP and all of the shares of stock of MPLX Holdings. Marathon Petroleum Corporation ("MPC") owns all of the membership interests in MPC Investment. Accordingly, MPC and MPC Investment both may be deemed to indirectly beneficially own the MPLX Common Units directly held by MPLX Logistics, MPLX Holdings and MPLX GP.

Based upon 407,068,878 MPLX Common Units issued and outstanding as of December 15, 2017, as reported by the 2. Issuer to the Reporting Persons.

Name of Reporting Person:

- MPLX Logistics Holdings LLC Check the Appropriate Box if a
- Member of Group (See Instructions):
 (a) " (b) "
 SEC Use Only:
- 3. SEC

Source of Funds:

4.

OO Check if Disclosure of Legal

Proceedings is Required 5. Pursuant to Items 2(d) or

2(e):

Citizenship or Place of Organization:

6. Org

Delaware

Sole Voting Power:

7. Number

of Shared Voting Power: Shares Beneficially Owned By 50e Dispositive Power: Each Reporting Person Shared Dispositive Power: With:

10. 66,546,319

Aggregate Amount Beneficially Owned by Each Reporting Person:

66,546,319

11.

Check if the Aggregate 12. Amount in Row (11) Excludes Certain Shares: Percent of Class Represented By Amount In Row (11):

13.

 $16.3\%^{(1)}$

Type of Reporting Person:

14. 00

Based upon 407,068,878 MPLX Common Units issued and outstanding as of December 15, 2017, as reported by the 1. Issuer to the Reporting Persons.

Name of Reporting Person:

1.

MPLX Holdings Inc.

Check the Appropriate Box if a

- Member of Group (See 2.
 - Instructions):
 - (a) " (b) "
- SEC Use Only: 3.

Source of Funds:

4.

00 Check if Disclosure of Legal Proceedings is Required

5. Pursuant to Items 2(d) or 2(e):

Citizenship or Place of

Organization: 6.

Delaware

Sole Voting Power:

Number

of Shared Voting Power: Shares Beneficially 28,627,587 Owned By Sole Dispositive Power: Each Repórting Person Shared Dispositive Power: With: 10.

28,627,587

Aggregate Amount Beneficially Owned by Each Reporting Person:

11.

28,627,587

Check if the Aggregate Amount in Row (11) Excludes 12. Certain Shares:

Percent of Class Represented By Amount In Row (11):

7.0%(1)

Type of Reporting Person:

14. CO

Based upon 407,068,878 MPLX Common Units issued and outstanding as of December 15, 2017, as reported by the 1. Issuer to the Reporting Persons.

Name of Reporting Person:

1.

2.

MPLX GP LLC Check the Appropriate Box if a Member of Group (See

- Instructions):
- (a) " (b) "
- 3. SEC Use Only:

Source of Funds:

4.

OO Check if Disclosure of Legal Proceedings is Required

5. Pursuant to Items 2(d) or 2(e):

Citizenship or Place of

6. Organization:

Delaware

Sole Voting Power:

Num/ber

of — Shares Shared Voting Power: Ben&ficially Owned **B2**,916,917⁽¹⁾ Each Sole Dispositive Power: Rep@rting Person — With: Shared Dispositive Power: 10. 22,916,917⁽¹⁾ Aggregate Amount

Beneficially Owned by Each

11. Reporting Person:

22,916,917⁽¹⁾
Check if the Aggregate
12. Amount in Row (11) Excludes
Certain Shares:

13. Percent of Class Represented By Amount In Row (11): $5.6\%^{(2)}$

Type of Reporting Person:

14.

00

The Reporting Person, sole general partner of the Issuer, also owns 8,307,478 general partner units representing a 1.two percent general partner interest in the Issuer, as well as incentive distribution rights in the Issuer, entitling the Reporting Person to receive increasing percentages of quarterly distributions in excess of specified amounts. Based upon 407,068,878 MPLX Common Units issued and outstanding as of December 15, 2017, as reported by the

2. Issuer to the Reporting Persons.

Explanatory Note: This Amendment No. 7 (this "Amendment") filed by Marathon Petroleum Corporation ("MPC"), MPC Investment LLC ("MPC Investment"), MPLX Logistics Holdings LLC ("MPLX Logistics"), MPLX Holdings Inc. ("MPLX Holdings") and MPLX GP LLC ("MPLX GP") amends and supplements the statement on Schedule 13D concerning the common units representing limited partner interests ("MPLX Common Units") in MPLX LP (the "Issuer") filed on December 3, 2014 and as amended on December 12, 2014, August 19, 2015, December 7, 2015, April 4, 2016, March 6, 2017 and September 1, 2017 (the "Schedule 13D"). The Schedule 13D is not modified except as specifically provided herein. Any terms capitalized but not defined herein shall have the same meaning as defined in the Schedule 13D. Item 1. Security and Issuer

No changes to this Item.

Item 2. Identity and Background

Item 2 of the Schedule 13D is hereby supplemented as follows:

The information required by subparagraphs (a), (b), (c) and (f) of this Item with respect to the directors and executive officers of the Reporting Persons is set forth on Schedule I attached hereto and is incorporated herein by reference.