

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

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934

PLAINS GP HOLDINGS, L.P.

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(Name of Issuer)

CLASS A SHARES

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(Title of Class of Securities)

72651A108

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(CUSIP Number)

Check the following box if a fee is being paid with this statement . (A fee is not required only if the filing person: (1) has a previous statement on file reporting beneficial ownership of more than five percent of the class of securities described in Item 1; and (2) has filed no amendment subsequent thereto reporting beneficial ownership of five percent or less of such class.) (See Rule 13d-7.)

\*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 the disclosures provided in a prior cover page.

The information required in 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 ("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).

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<b>1</b>	<b>NAMES OF REPORTING PERSONS</b> <b>S.S. or I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)</b> (A) KAYNE ANDERSON CAPITAL ADVISORS, L.P. - 95-4486379 (B) RICHARD A. KAYNE -	
<b>2</b>	<b>CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*</b> (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
<b>3</b>	<b>SEC USE ONLY</b>	
<b>4</b>	<b>CITIZENSHIP OR PLACE OF ORGANIZATION</b> (A) IS A CALIFORNIA LIMITED PARTNERSHIP (B) UNITED STATES	
<b>NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH</b>	<b>5</b>	<b>SOLE VOTING POWER</b> (A) 0 (B) 501,441
	<b>6</b>	<b>SHARED VOTING POWER</b> (A) 13,112,040 (B) 13,112,040
	<b>7</b>	<b>SOLE DISPOSITIVE POWER</b> (A) 0 (B) 501,441
	<b>8</b>	<b>SHARED DISPOSITIVE POWER</b> (A) 13,112,040 (B) 13,112,040
<b>9</b>	<b>AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON*</b> (A) 13,112,040 (B) 13,613,481	
<b>10</b>	<b>CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* (SEE INSTRUCTIONS)</b> <input type="checkbox"/>	
<b>11</b>	<b>PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)</b> (A) 5.77% (B) 5.99%	
<b>12</b>	<b>TYPE OF REPORTING PERSON* (SEE INSTRUCTIONS)</b> (A) IA (B) IN	

\*SEE INSTRUCTIONS BEFORE FILLING OUT!

United States  
Securities and Exchange Commission

Schedule 13G

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Item 1. (a) Issuer: Plains GP Holdings, L.P.  
(b) Address: 333 Clay Street Suite 1600  
Houston, TX 77002

Item 2. (a) Filing Persons: Kayne Anderson Capital Advisors, L.P. Richard A. Kayne  
(b) Addresses: 1800 Avenue of the Stars, Third Floor, Los Angeles, CA 90067 1800 Avenue of the Stars, Third Floor, Los Angeles, CA 90067  
(c) Citizenship: Kayne Anderson Capital Advisors, L.P. is a California limited partnership  
Richard A. Kayne is a U.S. Citizen  
(d) Title of Class of Securities: Class A Shares  
(e) Cusip Number: 72651A108

Item 3. If this statement is filed pursuant to Rule 13d-1(b) or 13d-2(b), check whether the person filing is a:

(e) Kayne Anderson Capital Advisors, L.P., is an investment adviser registered under section 203 of the Investment Advisers Act of 1940.

Item 4. Ownership

(a) Amount Beneficially Owned:

Kayne Anderson Capital Advisors, L.P. Managed Accounts 13,112,040  
Richard A. Kayne 13,613,481

(b) Percent of Class: (A) 5.77%  
(B) 5.99%

(c) Number of shares as to which such person has:  
(i) sole power to vote or direct to vote (A) 0  
(B) 501,441  
(ii) shared power to vote or direct the vote (A) 13,112,040  
(B) 13,112,040  
(iii) sole power to dispose or direct the disposition (A) 0  
(B) 501,441  
(iv) shared power to dispose or direct the disposition of (A) 13,112,040  
(B) 13,112,040

**Schedule 13G**

Plains GP Holdings, L.P.(Issuer)  
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- Item 5. Ownership of Five Percent or Less of a Class  
If this statement is being filed to report the fact that as of the date hereof the reporting persons have ceased to be the beneficial owner of more than five percent of the class of securities, check the following .  
Not applicable.
- Item 6. Ownership of More than Five Percent on Behalf of Another Person.  
Not applicable.
- Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company  
Not applicable.
- Item 8. Identification and Classification of Members of the Group  
Not applicable
- Item 9. Notice of Dissolution of Group  
Not applicable
- Item 10. Certification  
By signing below we certify that, to the best of our knowledge and belief, the securities referred to above were acquired in the ordinary course of business and were not acquired for the purpose of and do not have the effect of changing or influencing the control of the issuer of such securities and were not acquired in connection with or as a participant in any transaction having such purposes or effect.

**Schedule 13G**

Plains GP Holdings, L.P.(Issuer)  
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**SIGNATURE**

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

February 1, 2016

\_\_\_\_\_  
Date

/S/ RICHARD A. KAYNE

\_\_\_\_\_  
Richard A. Kayne

KAYNE ANDERSON CAPITAL ADVISORS, L.P.

By: Kayne Anderson Investment Management, Inc.

By: /S/ DAVID J. SHLADOVSKY

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David J. Shladovsky, Secretary

JOINT FILING AGREEMENT PURSUANT TO RULE 13d-1(f)(1).

This agreement is made pursuant to Rule 13d-1(f)(1) under the Securities Exchange Act of 1934 (the "Act") by and between the parties listed below, each referred to herein as a "Joint Filer." The Joint Filers agree that a statement of beneficial ownership as required by Section 13(d) of the Act and the Rules thereunder may be filed on each of their behalf on Schedule 13D or Schedule 13G, as appropriate, and that said joint filing may thereafter be amended by further joint filings. The Joint Filers state that they each satisfy the requirements for making a joint filing under Rule 13d-1.

February 1, 2016

\_\_\_\_\_  
Date

/S/ RICHARD A. KAYNE

\_\_\_\_\_  
Richard A. Kayne

KAYNE ANDERSON CAPITAL ADVISORS, L.P.

By: Kayne Anderson Investment Management, Inc.

By: /S/ DAVID J. SHLADOVSKY

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David J. Shladovsky, Secretary

**Schedule 13G**

(cover page)

Plains GP Holdings, L.P.(Issuer)

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Box 9. The reported units are owned by investment accounts (investment limited partnerships, a registered investment company and institutional accounts) managed, with discretion to purchase or sell securities, by Kayne Anderson Capital Advisors, L.P., as a registered investment adviser.

Kayne Anderson Capital Advisors, L.P. is the general partner (or general partner of the general partner) of the limited partnerships and investment adviser to the other accounts. Richard A. Kayne is the controlling shareholder of the corporate owner of Kayne Anderson Investment Management, Inc., the general partner of Kayne Anderson Capital Advisors, L.P. Mr. Kayne is also a limited partner of each of the limited partnerships and a shareholder of the registered investment company. Kayne Anderson Capital Advisors, L.P. disclaims beneficial ownership of the units reported, except those units attributable to it by virtue of its general partner interests in the limited partnerships. Mr. Kayne disclaims beneficial ownership of the units reported, except those units held by him or attributable to him by virtue of his limited partnership interests in the limited partnerships, his indirect interest in the interest of Kayne Anderson Capital Advisors, L.P. in the limited partnerships, and his ownership of common stock of the registered investment company.

**UNDERTAKING**

The undersigned agree jointly to file the attached Statement of Beneficial Ownership on Schedule 13G with the U.S. Securities Exchange Commission and Plains GP Holdings, L.P.

Dated: February 1, 2016

/S/ RICHARD A. KAYNE

Richard A. Kayne

KAYNE ANDERSON CAPITAL ADVISORS, L.P.

By: Kayne Anderson Investment Management, Inc.

By: /S/ DAVID J. SHLADOVSKY

David J. Shladovsky, Secretary