

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

Mail Stop 4628

June 29, 2017

Greg L. Armstrong Chief Executive Officer Plains GP Holdings, L.P. 333 Clay Street, Suite 1600 Houston, TX 77002

Re: Plains GP Holdings, L.P.

Registration Statement on Form S-3

Filed June 2, 2017 File No. 333-218463

Form 10-K for the Fiscal Year Ended December 31, 2016

Filed February 23, 2017 File No. 001-36132

Dear Mr. Armstrong:

We have limited our review of your filings to those issues we have addressed in our comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your filings and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filings and the information you provide in response to these comments, we may have additional comments.

Registration Statement on Form S-3

1. Please note that the staff's comments with regard to your Form 10-K for the fiscal year ended December 31, 2016 and related filings will need to be resolved before we will be in a position to declare your registration statement effective. Please also confirm that you will amend the registration statement, as appropriate, to reflect your responses to our comments on Form 10-K and related filings.

Form 10-K for the Fiscal Year Ended December 31, 2016

2. Please respond to these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you

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do not believe our comments apply to your facts and circumstances, please tell us why in your response.

Financial Statements

Note 1- Organization and Basis of Consolidation and Presentation, page F-9

Simplification Transactions, page F-9

3. As part of the simplification transactions you state that "These reverse splits, along with the Omnibus Agreement, resulted in economic alignment between our common unitholders and PAGP's Class A shareholders, such that the number of outstanding PAGP Class A shares equals the number of AAP units owned by PAGP, which in turn equals the number of our common units held by AAP." Per the detailed partnership structure on page 7, the number of PAGP Class A shares and AAP units is 101,206,526; however, AAP owns 241,672,409 common units of PAA. Please clarify this apparent inconsistency.

Basis of Consolidation and Presentation, page F-10

4. We note your disclosure on page F-11 stating that on January 1, 2016, you adopted FASB guidance regarding the analysis that a reporting entity must perform to determine whether it should consolidate certain types of legal entities. Among other things, the guidance modified the evaluation of whether limited partnerships are variable interest entities (VIEs) and eliminates the presumption that a general partner should consolidate a limited partnership.

We further note your disclosure explaining the reasons you determined that PAA and AAP were VIEs prior to your November15, 2016 Simplification Transactions, but no longer met the requirements to be considered VIEs as a result of your Simplification Transactions, in either case the determination did not impact your conclusion of consolidating PAA and AAP.

Referencing Accounting Standards Update (ASU) 2015-02 General Note to Accounting Standards Codification (ASC) Section 810-10-05, there are two primary models for determining whether consolidation is appropriate—the voting interest entity model and the VIE model. Additional analysis is required for consolidation of entities controlled by contracts, applicable to entities that are not VIEs. As you concluded that PAA and AAP no longer meet the requirements to be considered VIEs as a result of your Simplification Transactions, please expand your disclosure to discuss the model that you applied and the factors that supported your conclusion to continue consolidating PAA and AAP under such model, including the applicable ASU or ASC paragraphs.

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Form 8-K Filed May 8, 2017

Exhibit 99.1 – News Release of First Quarter 2017 Results

Financial Summary – Financial Data Reconciliations, page 13

5. We note that you present non GAAP measures *basic and diluted adjusted net income per common unit* for Plains All American Pipeline, LP on page 14. In future earnings releases, please expand your presentation to add reconciliations from your GAAP measures *basic and diluted net income per common unit* to comply with the Compliance and Disclosure Interpretation 102.05.

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Lily Dang, Staff Accountant, at (202) 551-3867 or Mark Wojciechowski, Staff Accountant, at (202) 551-3759 if you have questions regarding comments on the financial statements and related matters. You may contact Irene Barberena-Meissner, Attorney-Adviser, at (202) 551-6548 or Lauren P. Nguyen, Legal Branch Chief, at (202) 551-3642 with any other questions.

Sincerely,

/s/H. Roger Schwall

H. Roger Schwall Assistant Director Office of Natural Resources

cc: Alan Beck, Esq.
David Oelman, Esq.
Vinson & Elkins LLP