

October 7, 2013

H. Roger Schwall
Assistant Director
United States Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549-3561

Re: **Plains GP Holdings, L.P.**
Amendment No. 2 to Registration Statement on Form S-1
Filed September 26, 2013
File No. 333-190227

Ladies and Gentlemen:

Set forth below are the responses of Plains GP Holdings, L.P. (“we,” “us” or “our”), to comments received from the staff of the Division of Corporation Finance (the “**Staff**”) of the Securities and Exchange Commission (the “**Commission**”) by letter dated October 4, 2013, with respect to Amendment No. 2 to Registration Statement on Form S-1, File No. 333-190227, filed with the Commission on September 26, 2013 (the “**Registration Statement**”). Concurrently with the submission of this letter, we have filed through EDGAR Amendment No. 4 to the Registration Statement (“**Amendment No. 4**”).

For your convenience, each response is prefaced by the exact text of the Staff’s corresponding comment in bold, italicized text. All references to page numbers and captions correspond to Amendment No. 4 unless otherwise specified.

Amendment No. 2 to Registration Statement on Form S-1 Filed September 26, 2013

Summary, page 1

Organizational Structure, page 13

- 1. It appears that each AAP unit is effectively linked with one of your Class B shares and a general partner unit for purposes of any transfer or exchange of AAP units. See pages 57 and 134. Therefore, please modify your “Exchange right” bullet under the “Existing Owners” oval to indicate that one AAP unit plus one Class B share plus one general partner unit is exchangeable for one Class A share. Alternatively, tell us why such a description would not be accurate. Please also make the changes to this diagram that were discussed by telephone during a call with counsel today.***

RESPONSE:

We respectfully acknowledge the Staff’s comment and have revised the diagram as requested. Please see pages 13 and 55.

Ownership of Our General Partner; Election of Directors, page 15

- 2. In the first sentence, you state that “[i]n connection with the recapitalization transactions ..., the Existing Owners will initially own all of the membership interests in PAA GP Holdings LLC, our general partner.” Disclosure elsewhere, including in the proposed pricing terms pages, reflects less than 100% interest ownership once the transactions occur. Please revise to eliminate any potential ambiguity about the timing and percentages involved. For example, make clear when the Existing Owners will in fact own a 78.9% membership interest in your general partner.***

RESPONSE:

We respectfully acknowledge the Staff’s comment and have revised the disclosure to remove any ambiguity about the fact that the Existing Owners will own a 78.9% membership interest in our general partner following the completion of the transactions. Please see pages 15, 57 and 58.

- 3. We note your statement that “[a]s the Existing Owners reduce their ownership of AAP units through this offering and in connection with future exchanges of AAP units and Class B shares for Class A shares following this offering, the Existing Owners’ ownership interest in our general partner will be reduced, and our ownership interest in our general partner will be proportionately increased.” As discussed with counsel today, please provide new Risk Factors disclosure regarding any associated risks, along with a cross-reference to the enhanced disclosure elsewhere that counsel proposed to include in order to address this issue.***

RESPONSE:

We respectfully acknowledge the Staff’s comment and have revised Amendment No. 4 to include a new risk factor describing the risks associated with our ownership of a portion of the membership interest in our general partner. The new risk factor also includes a cross reference to additional relevant disclosure in Amendment No. 4. Please see pages 33, 228 and 229.

Forms of Opinion

- 4. Prior to requesting accelerated effectiveness, you will need to file as exhibits the final, signed versions of the opinions. In the meantime, please revise the exhibit list to make clear the versions you have filed are merely “forms of opinion” at this point.***

RESPONSE:

Exhibit 8.1

5. *In the penultimate paragraph, counsel indicates in part that the opinion may not be “furnished to, assigned to, quoted to or relied upon by any other person, firm or other entity, for any purpose . . .” Notwithstanding the other portions of the paragraph, please obtain and file an opinion which does not include this limitation on reliance.*

RESPONSE:

We respectfully acknowledge the staff's comment and have revised the opinion contained in Exhibit 8.1 to remove the limitation on reliance. Please see Exhibit 8.1.

* * * * *

Please direct any questions that you have with respect to the foregoing or if any additional supplemental information is required by the Staff, please contact Alan Beck of Vinson & Elkins L.L.P. at (713) 758-3638.

Very truly yours,

PLAINS GP HOLDINGS, L.P.

By: /s/ Richard K. McGee
Name: Richard K. McGee
Title: Executive Vice President, General Counsel and Secretary

Enclosures

- cc: Paul Monsour
Timothy Levenberg
David P. Oelman
Alan Beck
Joshua Davidson
Jason Rocha
Al Swanson