

January 18, 2007  
via U.S. mail and facsimile  
Mr. Greg L. Armstrong  
c/o Mr. Tim Moore  
333 Clay Street, Suite 1600  
Houston, Texas 77002

Re: Plains All American Pipeline, L.P.  
Amendment No. 1 to Registration Statement on Form S-3  
Filed December 21, 2006  
File No. 333-138888

Dear Mr. Armstrong:

We have limited the review of your amended filing to those issues identified in our comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Selling Unitholders, page 24

1. Please revise this section to disclose the transactions whereby the selling unitholders purchased the units that are registered for resale in this registration statement. For each of these transactions, please disclose the registration statement or exemption from registration upon which you relied.

2. Please disclose if any of the selling unitholders is a registered broker-dealer or affiliate of a registered broker-dealer. If you determine that a selling unitholder is a registered broker-dealer, please revise your disclosure to indicate that such selling unitholder is an underwriter, unless such selling unitholder received its securities as compensation for investment banking services. If the selling unitholder is an affiliate of a registered broker-dealer, please disclose, if true, that such selling unitholder acquired its shares in the ordinary course of business and at the time of the acquisition did not have any arrangements or understandings with any person to distribute the securities. If not, you must indicate that such selling unitholder is an underwriter.

3. We refer you to Section 7.1 of the Common Unit Purchase Agreement dated December 13, 2006 and page S-4 of the prospectus supplement (File 333-126447) filed on December 14, 2006 with respect to a primary offering of securities to the investors identified in such documents.

Specifically, we note that the purchasers in the primary offering agreed "not to offer, sell, contract to sell, pledge or otherwise dispose of (or enter into any transaction which is designed to, or might reasonably be expected to, result in the disposition (whether by actual disposition or effective economic disposition due to cash settlement or otherwise)), directly or indirectly, including the filing (or participation in the filing) of a registration statement with the Securities and Exchange Commission (the "SEC") in respect of, or establish or increase a put equivalent position or liquidate or decrease a call equivalent position within the meaning of Section 16 of the Securities Exchange Act of 1934, as amended, with respect to the purchased common units for a period of 90 days after the closing date of th[e] transaction without [y]our prior written consent".

Despite this representation, an additional 2,002,792 units are being offered in the current registration statement by additional selling unitholders who appear to have been amongst the purchasers who bought units in the recent primary offering. Given that the 90 day lock-up period had not yet passed prior to such unitholders offering their securities in the current registration statement, provide us with your analysis as to why such unitholders are not underwriters as defined in Section 2(a)(11) of the Securities Act of 1933. We may have further comment.

4. Please tell us why you are including in this resale registration statement units that apparently have been registered already pursuant to your primary shelf registration statement (File 333-126447). We may have further comment.

#### Closing Comments

As appropriate, please amend the above filing in response to these comments. You may wish to provide us with a marked copy of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Act of 1933 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

\* should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;

\* the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and

\* the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

Please contact Mellissa Campbell Duru at (202) 551-3757 or me at (202) 551-3611 with any questions. Direct all correspondence to the following ZIP code: 20549-7010.

Sincerely,

Anne Nguyen Parker  
Branch Chief

cc: via facsimile  
David P. Oleman  
Vinson & Elkins L.L.P.  
(713) 758-2346

Mr. Greg Armstrong  
Plains All American Pipeline L.P.  
January 18, 2007  
page 1

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549-7010

DIVISION OF  
CORPORATION FINANCE  
MAIL STOP 7010