



DIVISION OF  
CORPORATION FINANCE  
MAIL STOP 7010

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

May 14, 2007

Mr. Steven D. Foster  
Chief Financial Officer  
Parallel Petroleum Corporation  
1004 N. Big Spring, Suite 400  
Midland, Texas 79701

**Re: Parallel Petroleum Corporation  
Form 10-K for Fiscal Year Ended December 31, 2006  
Filed February 28, 2007  
Form 10-Q for Fiscal Quarter Ended March 31, 2007  
Filed May 9, 2007  
Response Letter Dated May 2, 2007  
File No. 000-13305**

Dear Mr. Foster:

We have reviewed your filings and response letter and have the following comments. We have limited our review of your filing to those issues we have addressed in our comments. Please provide a written response to our comments. 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.

Draft Form 10-K/A for the Fiscal Year Ended December 31, 2006

Explanatory Note, page (i)

1. Please revise your explanatory note to replace the reference to SEC comments as the reason for your amendment with a brief summary of the main items and issues giving rise to your amendment, including reference to those areas of the document where further details about the revisions may be found.

Engineering Comments

Supplemental Oil and Natural Gas Reserve Data, page F-31

2. We have read your response to comment 8(c) of our letter dated April 16, 2007, indicating that your proved undeveloped reserves may in some cases be based on as many as eight undeveloped locations offsetting drilled units. The guidance in Rule 4-10(a)(4) of Regulation S-X specifies that proved undeveloped reserves on undrilled acreage shall be limited to those drilling units offsetting productive units that are reasonably certain of production when drilled; and that proved reserves for other undrilled units can be claimed only where it can be demonstrated with certainty that there is continuity of production from the existing productive formation.

Although there are circumstances in which a horizontal well can replace several vertical wells, areas offsetting a horizontal well that are reasonably certain of production would generally be limited to direct parallel offsets to an existing horizontal well.

Based on the information you provide, it appears that the majority of the diagonal horizontal well extends too far beyond the existing well to be considered a direct offset. Similarly, horizontal wells to be drilled in opposite directions of the toe and heel of an existing horizontal well would not provide a sufficient level of certainty to claim additional reserves. In other words, under the circumstances you describe, it appears that proved undeveloped reserves should be limited to the equivalent of two direct parallel offsetting locations to an existing horizontal well.

Please submit any additional information that you would like us to consider, which you believe would support an alternate view, or revise your undeveloped reserves as of December 31, 2006 accordingly.

Reserve Report as of December 31, 2007

3. Based on the reserve report and the tabular data submitted in Annex A in your letter dated May 2, 2007, it appears that you have several fields that one could describe as principal fields where additional information should be disclosed as required by Item 102 of Regulation S-K. These five fields make up over 62% of your total proved reserves and 70% of your total production. Therefore, please revise your filing to include the information specified in Item 102 of Regulation S-K for the Fullerton, Carm Ann, Harris, New Mexico Project, and the Barnett Shale fields and areas.
4. Please reconcile the \$23,396,000 reported in 2006 for lease operating expenses and production taxes with the \$17,216 used in the reserve report for the same costs in year 2008 for proved producing reserves.

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5. Tell us the basis for classifying the 3,235 MMBO of waterflood reserves in the Carm-Ann field as proved. Tell us the date that you booked each lease as proved secondary reserves. Provide to us any waterflood studies that were performed to justify booking these as proved reserves.

#### Closing Comments

Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

You may contact Lily Dang at (202) 551-3867 if you have questions regarding comments on the financial statements and related matters. You may contact James Murphy, Petroleum Engineer at (202) 551-3703 with questions about engineering comments. Please contact me at (202) 551-3686 with any other questions.

Sincerely,

Karl Hiller  
Branch Chief

cc: Mr. Thomas W. Ortloff – Legal Counsel