



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-4628

September 28, 2010

Mr. B.F. Weatherly
Chief Financial Officer
Callon Petroleum Company
200 North Canal Street
Natchez, Mississippi 39120

**Re: Callon Petroleum Company
Form 10-K for the Fiscal Year Ended December 31, 2009
Filed March 12, 2010
File No. 001-14039**

Dear Mr. Weatherly:

We have reviewed your filing and have the following 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 within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. 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 filing and the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Fiscal Year Ended December 31, 2009

Financial Statements

Note 15 – Oil and Gas Properties, page 76

1. Please provide the disclosures required by FASB ASC paragraph 932-235-50-1B related to your capitalized exploratory well costs.
2. We note your tabular disclosures indicating that you incurred negative development costs in 2009. Please explain the events or circumstances that

caused your development costs to become negative and provide an analysis which quantifies the effects of these events on your development costs.

Note 18 – Supplemental Oil and Gas Reserve Data (Unaudited), page 79

Estimated Reserves, page 80

3. Please provide separate disclosures of the changes in your proved developed and undeveloped reserves to comply with FASB ASC paragraphs 932-235-50-4 and 50-5.

Engineering Comments

Business and Properties, page 3

Acquisitions and Divestitures, page 4

4. We note your statement, “We estimate that the typical well in this [Haynesville] field will have gross recoverable reserves of 6.4 billion cubic feet of natural gas (“Bcf”) per well and cost approximately \$9.0 million to drill and complete” and its lack of category specification. With a view toward possible disclosure, please support this statement to us with engineering evidence and explain the reason(s) that you presented probable reserves for this property on your website, but did not disclose probable reserves in your filing.

Oil and Gas Properties Summary, page 5

5. We note the proved reserve assignment of 29.7 BCFE to your 15% working interest in the Medusa project which is operated by Murphy Exploration. For this same property, the operator appears to disclose total proved reserves at year-end 2009 of 49.2 BCFE which seems to indicate your share to be 7.4 BCFE. Please support to us your reserve estimates for this property with engineering evidence. We may have further comment.

Leasehold Acreage, page 12

6. Please expand the presentation of your undeveloped acreage to discuss the near term expiration of any material undeveloped acreage as contemplated in Item 1208(b) of Regulation S-K.

Major Customers, page 12

7. Please expand your discussion to include the information pertaining to your product delivery commitments, if any, as specified in Item 1207 of Regulation S-K. If you have none, please so state.

Risk Factors, page 17

Our reserve information represents estimates that may turn out to be incorrect if the assumptions upon which these estimates are based are inaccurate. Any material inaccuracies in these reserve estimates or underlying assumptions will materially affect the quantities and present value of our reserves., page 19

8. We note your statement, "In addition, estimates of proved reserves may be adjusted to reflect production history, results of exploration and development, prevailing oil and gas prices and other factors, many of which are beyond our control." Please expand this disclosure to discuss the assumptions over which you have control, e.g. hydrocarbons in place, recovery factors, initial production rates.

Weather, unexpected subsurface conditions, and other unforeseen operating hazards may adversely impact our ability to conduct business., page 23

9. Please expand your statement, "we could experience blowouts or other damages to the productive formations that may require a well to be re-drilled or other corrective action to be taken;" to discuss the consequences of loss of hydrocarbon containment during drilling, transportation or processing. Address offshore operations separately.

Standardized Measure, page 81

10. We note the prices used in your computation of the 2009 standardized measure of \$4.75/MCFG and \$57.40/BO. Please tell us the bench mark prices and illustrate for us your determination of these adjusted prices.

Exhibit 99.1

11. We note the omission of items prescribed by Item 1202(a)(8) of Regulation S-K. Please obtain and file a third party reserve report that includes:
 - The date on which the report was completed;

- The bench mark product prices (prior to adjustment of quality, transportation, etc.) used in the estimation of your 2009 proved reserves;
- A discussion of the possible effects of regulation on the ability of the registrant to recover the estimated reserves; and
- A discussion regarding the inherent uncertainties of reserves estimates.

Closing 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 the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

You may contact Craig Arakawa at (202) 551-3650, or Lily Dang at (202) 551-3867 if you have questions regarding comments on the financial statements and related matters. You may contact Ronald Winfrey, Petroleum Engineer, at (202) 551-3704 with questions about engineering comments. Please contact me at (202) 551-3686 with any other questions.

Sincerely,

Karl Hiller
Branch Chief