



DIVISION OF
CORPORATION FINANCE
MAIL STOP 7010

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
100 F Street, NE
WASHINGTON, D.C. 20549-7010

February 16, 2007

Mr. Fernando Ramírez Mazarredo
Chief Financial Officer
Repsol YPF, S.A.
Paseo de la Castellana, 278-280
Madrid, Spain 28046

**Re: Repsol YPF, S.A.
Form 20-F for Fiscal Year Ended December 31, 2005
Filed July 16, 2006
Response Letter Dated January 19, 2007
File No. 1-10220**

Dear Mr. Ramírez Mazarredo:

We have reviewed your response letter and have the following comments. We have limited our review of your filings to those issues we have addressed 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.

Form 20-F for the Fiscal Year Ended December 31, 2005

12. Control Procedures, page 188

1. We have further considered your response to prior comment number three and are unable to agree with your conclusion regarding the qualifying language you use when disclosing that no changes occurred to your internal control over financial reporting except for the "numerous and effective organizational changes in 2005." Please confirm that you will revise your disclosure as previously requested. In this regard, our previous request was that you revise to state clearly, if correct, that there *were* changes in your internal control over financial reporting that occurred during this quarter that have materially affected, or are reasonably likely

to materially affect, your internal control over financial reporting. Please contact us at your convenience to further discuss this issue.

Engineering Comments

Risk Factors, page 3

Political instability and the negative regulatory environment and outlook for the oil and gas industry in Bolivia.....page 6

2. We have reviewed your response to comment 42 of our letter dated September 26, 2006. With the change in contracts or ownership structures in Bolivia, Argentina and Venezuela and the host countries taking a majority interest share and direct control of these contracts and assets indicate to us how this now affects the certainty of proved undeveloped reserves in terms of being developed and produced. Tell us if any proved undeveloped reserves will be taken out of the proved category due to this possible increased uncertainty of development. If not, tell us why not.

Operations, page 17

Oil and Gas Reserves, page 18

3. We have reviewed your response to comment 43. You indicate that the independent engineers made a comprehensive review of all the pertinent data required to prepare a reserve estimate and determined the estimate was made in accordance with SEC requirements. As an independent engineering “review” is not a well defined term please revise you document to include the following information, as it relates to each of the engineering reviews that were conducted.
 - (a) Explain that your use of the term engineering review is intended only to refer to the collective application of the procedures outlined in the document, for which the outside engineering firms were engaged to perform. Please clarify that this term may be defined and used differently by other companies.
 - (b) Include who selected the properties to be reviewed and on what basis that selection is made. Include if any material properties were withheld from the independent engineers review and if so, which property they were and the reasons.
 - (c) Disclose the nature and scope of the review procedures that were performed and identify any limitations. Please address the extent to which the engineering firms evaluated and tested the following:

- assumptions underlying decline curve analysis, as they relate to production and pressure,
 - well spacing, as it relates to reserves on un-drilled locations, and evidence of communication or potential drainage to offsetting producing wells,
 - ownership interest in the properties evaluated,
 - historical costs of operations and development of the properties evaluated,
 - product prices, including agreements impacting revenues and future operations.
- (d) Disclose the extent to which the outside engineering firms determined that your reserve estimates were reasonable or fairly stated, relative to the criteria of “reasonable certainty,” as it pertains to expectations about the recoverability of reserves in future years, under existing economic and operating conditions; consistent with the definition in Rule 4-10(a)(2) of Regulation S-X.
- (e) Disclose the quantity and percentage variances between the reserve estimates you prepared, and those of the outside engineering firm, in the aggregate and for individual properties that are material. Include the percent of wells that were greater than 10% above or below your estimate, the percentage of total proved reserves this represents and the range of difference between you and the independent engineers.

We believe the above information would be meaningfully situated in a separate subsection within your discussion of properties. Any mention of independent engineering review or assessment appearing outside of this section should include a cross reference to these disclosures for information about the scope and limitations of the procedures performed.

Closing Comments

As appropriate, please amend your filing and respond to these comments within 10 business days or tell us when you will provide us with a response. You may wish to provide us with marked copies 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.

Mr. Fernando Ramírez Mazarredo
Repsol YPF, S.A.
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Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

You may contact Jennifer Goeken at (202) 551-3721 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) 551-3683 with any other questions.

Sincerely,

Jill S. Davis
Branch Chief