



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-0405

January 30, 2005

via U.S. Mail

Kathleen L. Quirk
Senior Vice President and Treasurer
McMoRan Exploration Co.
1615 Poydras Street
New Orleans, Louisiana 70112

Re: McMoRan Exploration Co.
Form S-3 filed December 29, 2004
File No. 333-121779

Form 10-K/A for the fiscal year ended December 31, 2003
Filed March 24, 2004
File No. 0-07791

Forms 10-Q for the periods March 31, 2004, June 30, 2004 and September 30, 2004
Filed May 5, 2004, August 6, 2004 and November 9, 2004, respectively

Dear Ms. Quirk:

We have limited our review of the above filings to Items 507 and 508 of Regulation S-K and to the issues previously identified by our Staff in their communications to you in connection with the examination of the Form 10-K for the fiscal year ended December 31, 2003. We have the following comments. If you disagree, we will consider your explanation as to why our comments are inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation.

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 on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form S-3

General

1. Please be advised that resolution of all previously issued comments and the following comments will be preconditions to a request for acceleration of effectiveness. In that regard, we remind you that you have represented to the Staff, in connection with their review of your Form 10-K for the fiscal year ended December 31, 2003, that you will amend the Form 10-K/A for the fiscal year ended December 31, 2003 and the Forms 10-Q filed during the fiscal year ended December 31, 2004 to ensure that the disclosure is consistent with the requirements of Items 307 and 308 (c) of Regulation S-K. This comment applies to your Form 10-K/A for the fiscal year ended December 31, 2003 and Forms 10-Q for the periods ended March 31, 2004, June 30, 2004 and September 30, 2004. Please amend the filings accordingly.

Selling Stockholders, page 43

2. We note that it appears the aggregate dollar value of the notes (and the number of underlying shares) issued to named persons does not equate to the aggregate dollar amount (and number of shares) registered. Please include a separate line item in your Selling Securityholder table that aggregates the dollar value of (or number of) offered securities attributable to unnamed selling securityholders. Further, please state that these securityholders cannot use the prospectus to sell shares. Also, indicate that you will file a post-effective amendment that contains the information required by Item 507 of Regulation S-K for all the unnamed securityholders.
3. Consistent with the requirements of Item 507 of Regulation S-K, please disclose the amount and percentage of securities to be held by each selling securityholder after completion of the offering. In this regard, you should assume that all shares and notes being registered for resale are sold.
4. Please identify any selling stockholders who are registered broker-dealers or affiliates of registered broker-dealers. If you determine that any selling stockholder is a registered broker-dealer, please revise your disclosure to indicate that such selling stockholder is an underwriter, unless such selling stockholder received its notes or shares as compensation for investment banking services. With respect to any affiliate of a registered broker-dealer, please disclose, if true, that such selling stockholder 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 stockholder is an underwriter.
5. Please identify in the selling stockholder table the natural persons who exercise voting and/or investment power over each listed entity. Refer to Interpretation 4S of the Regulation S-K portion of the March 1999 supplement to the 1997 CF Manual of Publicly Available Telephone Interpretations.

Closing Comments

As appropriate, please respond to this letter within 10 business days or tell us when you will provide us with a response. Detailed cover letters greatly facilitate our review. Please file your cover letter on EDGAR. Please understand that we may have additional comments after reviewing your response to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors require for an informed 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 this action 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 a 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.

Please direct all questions relating to the above to Mellissa Campbell Duru, at (202) 942-1930, or in her absence, to Tangela Richter, Branch Chief, at (202) 942-1837. Direct all correspondence to the following ZIP code: 20549-0405.

Sincerely,

H. Roger Schwall
Assistant Director

McMoRan Exploration Co.

January 30, 2005

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cc: via facsimile
Douglas Currault II, Esq.
Jones, Walker, Waechter
Poitevent, Carrière & Denègre, L.L.P
504-589-8412 (fax)

T. Richter

M.Duru