



DIVISION OF
CORPORATION FINANCE

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

August 18, 2011

Via E-mail

James A. Merrill
Chief Financial Officer
GMX Resources Inc.
One Benham Place, Suite 600
9400 North Broadway, Suite 600
Oklahoma City, OK 73114

**Re: GMX Resources Inc.
Amendment No. 1 to Registration Statement on Form S-3
Filed August 2, 2011
File No. 333-175157
Annual Report on Form 10-K for Fiscal Year ended December 31, 2010
Filed March 11, 2011
Definitive Proxy Statement on Schedule 14A
Filed April 22, 2011
Current Report on Form 8-K
Filed January 28, 2011
File No. 001-32977**

Dear Mr. Merrill:

We have reviewed your filings 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 filings, by providing the requested information, or by advising us when you will provide the requested response. Where 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 and the information you provide in response to these comments, we may have additional comments.

Amendment No. 1 to Registration Statement on Form S-3

General

1. We remind you of prior comment 1 from our letter to you dated July 25, 2011.

Annual Report on Form 10-K

General

1. We note your responses to prior comments 5, 6, 7 and 9 from our letter to you dated July 25, 2011. Please include the information in your response in your future filings.
2. We note your response to prior comment 18 from our letter to you dated July 25, 2011. Please amend your Form 10-K to incorporate your proposed draft disclosures and include the complete applicable line item.

Engineering Comments

Annual Report on Form 10-K

Estimated Quantities of Oil and Natural Gas, page F-40

2. As the industry's interest in the Haynesville Shale has been ongoing for a number of years, please tell us why the non-operated Cotton Valley Shale reserves were not removed from your proved reserves in 2009. Please also tell us how much of the negative revisions in 2008 and 2009 were due to performance revisions.
3. We note that on August 4, 2011 you announced that you were also suspending the further development of the Haynesville Shale due to low gas prices and high service costs until the economics become competitive with your oil development. Therefore, it would appear that you will need to remove the undeveloped Haynesville Shale reserves from the proved classification. Please confirm that you will be doing this in your next 10-K report.
4. All proved reserves must meet the standard of reasonable certainty. Therefore, please tell us the evidence that allowed you to determine that horizontal wells in the Haynesville Shale will produce in excess of 50 years. In that regard please tell us the estimated cumulative production of a horizontal well in the Haynesville Shale after 20 years of production. Please also tell us the initial and terminal decline rate you use for these fifty year forecasts.

5. We note that your PDP wells in the Haynesville Shale have an average EUR of 4.3 BCF with a median EUR of 4.5 BCF per well. There are three wells (10%) that have an EUR greater than 6 BCF. However, your PUD wells in the Haynesville Shale average 6.2 BCF per well with 24 wells (69%) having an estimated EUR greater than 6 BCF with most of the other PUD wells just below an EUR of 6 BCF. As an actual Haynesville Shale well on your property that has an EUR greater than 6 BCF is the exception rather than the norm it appears that your PUD reserves in the Haynesville Shale have been too high. As all proved reserves have to meet the standard of reasonable certainty and the EUR should be much more likely to increase than decrease, it appears the PUD reserves should have a median estimate of no higher than 4.5 BCF per well or total Haynesville Shale PUD reserves of 99.9 BCF instead of the 158.9 BCF that you currently carry. Therefore, your total gas reserves as of December 31, 2010 should be reduced by 59 BCF to 252.9 BCF instead of the 311.9 that you currently carry. This does not include any adjustments in Haynesville Shale gas reserves due to the issue of well life as discussed in a previous comment. Please advise or revise accordingly.
6. In regards to your response to our prior comment number 6 from our letter to you dated July 25, 2011, with a view toward disclosure, please expand your response to state whether you typically run cement bond and temperature logs after your cementing operations to verify the integrity of the cement bond and to determine the top of cement (TOC). Also discuss if you run pressure tests on the casing prior to a frac job to check for any leak off of the pressure.
7. You discuss the steps you take to insure integrity of the casing and cement jobs. However successful isolation of a aquifer may be compromised if, for example:
 - an improper cement job or other imperfections in well construction creates conditions whereby the hydraulic fracturing fluid and naturally occurring substances mobilized by the fracturing treatment leaks into the surrounding geologic formation;
 - a well, even if correctly constructed, fails over time due to downhole stresses and corrosion; and
 - during the fracturing process, “fluid-leakoff” occurs, whereby some of the hydraulic fracturing fluid flows through the artificially created fractures into the micropores or pore spaces within the formation, existing natural fractures in the formation, or small fractures opened into the formation by the pressure in the induced fracture.Please expand your response to discuss any conditions whereby isolation of the wellbore may not be successful, notwithstanding the existence of impermeable rock layers and your use of cement and steel casing pipe.
8. As to your response to our prior comment seven from our letter to you dated July 25, 2011, in order to protect groundwater as well as surface water, please tell us if you conduct baseline assessments of nearby water sources prior to any drilling or hydraulic fracturing operations.

Current Report on Form 8-K, filed January 28, 2011

9. It is not clear how DeGoyler & MacNaughton determined the proved undeveloped reserves for the Haynesville Shale wells. In their report they say they applied recovery factors to OGIP. Please tell us what these recovery factors were based on and the reliability of an original-oil-in-place calculation in the Haynesville Shale. In addition, you might consider having the reserve letter report revised to truly represent the work that was done on the GMX Resources' reserves determined and to not contain boiler plate disclosure that discusses every reserve methodology whether it was actually used or not. If they did not use a recovery factor to calculate the reserves they should not be stating that they did or may have.
10. The DeGoyler & MacNaughton reserve letter states, under economic assumptions, that estimated future gross revenue, future net revenue, and present worth of future net revenue are based on the continuation of prices in effect on December 31, 2010. This is not in compliance with the current SEC regulations on pricing. Please see the definition of Proved Reserves under Rule 210.4-10(a)(22)(v). Please revise the letter report and Standardized Measure as necessary.
11. The DeGoyler & MacNaughton reserve letter should be revised to provide the geographic location of the reserves. Please see paragraph (a)(8)(iii) of Item 1202 of Regulation S-K. The letter should also be revised to include the purpose for which the report was prepared and the date on which the report was completed. In addition the report should be revised to include a discussion regarding the inherent uncertainties of reserve estimates. Please see paragraph (a)(8)(i), paragraph (a)(8)(ii) and paragraph (a)(8)(vii) of Item 1202 of Regulation S-K.
12. The MHA reserve letter should be revised to include the purpose for which the report was prepared, the date of the completion of the report, the proportion of the registrant's total reserves that were determined and a discussion on the possible effects of government regulation on the registrant's ability to recover the estimated reserves. Please see paragraphs (a)(8)(i), (ii), (iii) and (vi) of Item 1202 of Regulation S-K. In addition, the report should be revised to remove the statement the report is for the exclusive use of GMX Resources and that should GMX Resources wish to release the report they must obtain a written release from MHA. It is not appropriate to attempt to limit the audience of an exhibit in an SEC filing.

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 Act of 1933, the Securities Exchange of 1934, and all applicable Securities Act and 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.

Mr. James A. Merrill
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Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company 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.

Please refer to Rules 460 and 461 regarding requests for acceleration. 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. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact James Murphy, Petroleum Engineer, at (202) 551-3703 with questions about engineering comments. Please contact Caroline Kim, Staff Attorney, at (202) 551-3878 or the undersigned at (202) 551-3611 with any other questions.

Sincerely,

/s/ A.N. Parker

Anne Nguyen Parker
Branch Chief

cc: David Buck, Esq.
Andrews Kurth LLP