



DIVISION OF  
CORPORATION FINANCE  
Mail Stop 7010

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

August 25, 2006

Edward E. Cohen  
Chairman and Chief Executive Officer  
Atlas Energy Resources, LLC  
311 Rouser Road  
Moon Township, PA 15108

**Re: Atlas Energy Resources, LLC  
Registration Statement on Form S-1  
Filed July 28, 2006  
File No. 333-136094**

Dear Mr. Cohen:

We have reviewed your filing and have the following 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.

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

Form S-1

General

1. Please confirm that you considered Securities Act Industry Guide 5 when preparing this registration statement. Refer to Sections II.A.3.f, II.B.2, and II.B.3.b of Release No. 33-6900 for guidance. We may have additional comments.

2. To eliminate any potential for confusion, use precise captions and introductory text to distinguish clearly between you, Atlas America, Atlas Energy Management and Atlas Energy Operating company. For example, it might be useful to remind the readers that Atlas America is not the registrant and is not offering the common units being offered in this offering. Please revise to eliminate any ambiguity and to clarify the disclosure and captions as appropriate.
3. In the amended registration statement, fill in all blanks other than the information that Rule 430A permits you to omit. Also update all disclosure as appropriate. Examples include the status of your application to list on the NYSE, your website address, the ratio of taxable income to distributions and the amount you have available to borrow under your credit facility.
4. We will need time to review all new disclosure, including any artwork or graphics and the intended price range. Similarly, we will need time to review all omitted appendices and exhibits, including schedules. Please also provide us with the sales materials you propose to use, pursuant to Release No. 33-6900. You can expedite the review process by providing all this information and, where appropriate, by filing all such documents promptly. Examples include the following:
  - all material contracts;
  - the omnibus agreement;
  - the legality and tax opinions; and,
  - Atlas Energy Resource's credit facility, as amended to the latest practicable date.

Ensure that you allow sufficient time for our review in each case. With regard to future agreements, file the proposed agreements, and replace them in future amendments with the executed versions. We may have additional comments.

Summary, page 1

5. To the extent possible, shorten the summary and move any excess detail to the main body of the prospectus. Focus on the principal points. We note, for instances, that the disclosure under "Business Strategy" is repeated verbatim on pages 99-100. Refer to Item 503 of Regulation S-K.
6. Provide us with copies of the Rigdata.com data you reference on page 2. Tell us if this information is readily available to the public at nominal or no charge.

Gas and Oil Production, page 4

7. Expand the disclosure regarding the Tennessee Joint Venture Agreement, both here and on page 106, to clarify how many of the 300 net wells you have drilled to date.

Use of Proceeds, page 10

8. Both here and on page 46, explain the reasons for the distribution to Atlas America. It appears that you are receiving some, but not all, of the assets of Atlas America.

Non-GAAP Financial Measures, page 22

9. We see that you are reporting a non-GAAP measure of gross operating margin, which appears to exclude DD&A that would normally be attributable to costs of sales and reflected in the GAAP measure of gross operating margin. The guidance in Item 10(e)(1)(ii)(E) precludes the use of titles or descriptions for non-GAAP measures that are the same as or confusingly similar to those utilized for measures prepared in accordance with GAAP. Also note that the reconciliation required under paragraph (1)(i)(B) of this Item would likely be to the GAAP based measure of gross margin, rather than net income. Please revise all related disclosures to comply with this guidance.

Risk Factors, page 25

10. Additionally, please consider a risk factor indicating that you are a closely held company and that NYSE requirements for closely held companies are not as stringent as for more widely-held entities.

Our operations require substantial capital expenditures..., page 29

11. Qualify your anticipated capital expenditures for the next twelve months.

How we make cash distributions, page 50

12. Provide a more detailed discussion to clarify whether you would have been able to make the payments to unitholders for each of the most recent four quarters. Identify the limitations and reserves applicable to Atlas America and to you. IN the alternative, provide cross references to disclosure that appears elsewhere in the document as appropriate.

Definition of Operating Surplus, page 51

13. With a view towards possible disclosure, tell us whether “cash distributions paid on equity securities” (fourth bullet point) includes those made on the shares being issued in this offering or whether it references other equity securities that have been, or may be, issued.

Cash Distribution policy and restrictions on distribution, page 60

Estimated EBITDA, page 65

14. We note that for purposes of computing your estimated cash available for distribution, you have assumed your natural gas production volumes will increase during the twelve months ending June 30, 2007. Please disclose in further detail your basis for this assumption.
15. In your Note (5) on page 68, you state that you assume your general and administrative expenses will increase substantially for the twelve months ended June 30, 2007 due to the reclassification of your administrative and oversight fees as a reimbursement of general and administrative expense to revenue. It is unclear to us how this reclassification would change the underlying amount of general and administrative costs attributable to your operations. Please disclose in further detail the reason for the assumed increase in these expenses.
16. Tell us the basis for your assumption that you will raise approximately \$211.0 million through investment partnerships in the twelve-month period ending June 30, 2007.

Management’s discussion and analysis of financial condition and results of operations, page 76

Results of Operations, page 80

Year ended September 30, 2005 compared to year ended September 30, 2004, page 84

17. We note your discussion on page 85 in which you explain compensation reimbursement expense decreased due to a decrease in allocations from Resource America. Please expand your discussion to further explain the underlying reasons for the reduction in the expense amounts allocated to your from this affiliate. This comment also applies to similar disclosure on page 87.

Cash Flows- Six months ended March 31, 2006 compared to March 31, 2005, page 89

18. Expand the second bullet point to explain in more detail why cash from operations in that period declined versus the same period year earlier. We note that revenues increased at a higher percentage than production costs during that period. Also, if this constitutes a known trend, in an appropriate location, address the impact upon your ability to fund your capital expenditures and make the IQD.

Critical Accounting Policies, page 92

Dismantlement, restoration, reclamation and abandonment costs, page 93

19. We note you revised your estimates for computing your asset retirement obligation as of September 30, 2005. Please expand your discussion to identify the reasons necessitating these changes, indicate when this information came to your attention, and state whether it is reasonably likely that material changes in these estimates will occur in the future.

Management, page 119

20. Clarify for each individual who is also an executive officer of Atlas Energy Management or of Atlas America, how much of their professional time they will devote to the business of the registrant.
21. As required by Section II.B.2.b of Release No. 33-6900, provide investors with a clear understanding of the nature and amount of compensation that may be paid. Discuss how Atlas Energy Management plans to compensate its executive officers and directors. Quantify the amount of the annual retainer fees and the compensation for attending meetings for the board of directors of Atlas Energy Management. Also state the maximum amount that may be paid to Atlas Energy Management in each category of fees or compensation. If no such maximum exists, state so.

Conflicts of Interest, page 133

22. Please provide additional disclosure on how the conflicts committee will operate. Disclose who is charged with identifying the conflicts and explain how they are brought to the committee's attention. Please also discuss what happens if the committee determines that there is a conflict.
23. In the cases involving members of the board and whether the board does not seek approval of the conflicts committee, indicate whether the relevant board member will vote on the actions taken.

24. We note your statement, in the first sentence of the fourth paragraph, regarding overcoming the burden of presumption. Provide us with the basis for your statement. This appears to be a legal conclusion. We may have further comments.

Material Tax Consequences, page 151

25. You indicate at page 159 that counsel is unable to opine on the validity of your approach for Section 754 because there is no clear authority addressing this issue. In light of counsel's non-opinion in these circumstances, explain in necessary detail why your management feels justified in using this approach and the depreciation method discussed. Also explain further the nature of counsel's uncertainty in that regard. Make clear whether it believes that there is a problem with use of this method. Additionally, please explain other areas where counsel has not been able to opine such as with regard to the uniformity of your common units.
26. Obtain an opinion on all material tax matters, or provide a more detailed explanation regarding any failure to include such opinions. For example, if counsel can rely on indirect authority and other necessary means to render an opinion regarding likely tax consequences, it would be insufficient to state that there is no clear authority on an issue.

Legal Matters, page 177

27. Please remove the term "certain" from this section and describe in detail the legal matters to be passed upon.

Financial Statements

28. Please update the predecessor and pro forma financial information included in the document as required by Rules 3-12 and 11-02(c) of Regulation S-X.

Unaudited Pro Forma Combined Financial Statements, page F-2

29. We note your adjustment 2(j) in which you have adjusted the historical combined statements of income to reflect additional expense related to the amortization of an incentive plan compensation for your president. Please expand your disclosure to explain how this adjustment related to the transactions you have given effect to within the pro forma financial statements.
30. Please clarify at adjustments 2(k) the reason why you have used the average borrowing rates of Atlas America Inc. to estimate the interest expense you will incur on borrowings under your new credit facility.

Financial Statements- Atlas America E & P Operations, page F-8

Combined Statements of Cash Flows, page F-13

31. We note that you present the changes in operation assets and liabilities as a single line item in your reconciliation of net income to net cash provided by operating activities. Please revise your presentation to separately report the major classes of reconciling items included in this single item as required by paragraph 29 of SFAS 95.

Note 1- Description of Business and Basis of Presentation, page F-14

32. We note the financial statements of Atlas America E & P Operations do not include a provision for income taxes. We presume the income earned from these operations was subject to income tax expense, and Atlas America Inc. reported this income on its consolidated income tax returns. Please disclose why the historical financial statements of these operations due not include a provision for income taxes. Tell us why you believe the guidance in IRQ 3 of SAB Topic 1:B.1 would not apply to in your situation.

Note 2 - Summary of Significant Accounting Policies, page F-14

Oil and Gas Properties, page F-16

33. We note your disclosure explaining that upon the sale of retirement of a complete unit of a proved property, the cost is eliminated from the property accounts and the resultant gain or loss is reclassified to accumulated depletion. Please explain to us how your accounting policy complies with the guidance in paragraph 41 of SFAS 19, which requires the cost and related accumulated depletion to be eliminated from the property accounts, with the resultant gain or loss recognized in the statements of income, when there is a sale or retirement of a complete unit of a proved property.

Revenue Recognition, page F-18

34. We note on page 75, in a note to your selected financial data, that you have changed your classification of administrative and oversight fees on your statements of income due to changes in recent drilling agreements. Please disclose the nature of and justification for this change in accounting. In addition, please cite the accounting literature you relied upon to support your accounting and classification for these fees prior to and subsequent to the change in accounting.

Recently Issued Financial Accounting Standards, page F-18

35. Please disclose the impact that initial application of the guidance in FSPFAS 19-1 had on your financial statements, which was effective for reporting periods beginning after April 4, 2005.

Note 5 – Certain Relationships and Related Party Transactions, page F- 21

36. We note your disclosure in which you explain that Atlas America Inc. provides centralized corporate functions to the Atlas America E & P operations, and you have reflected the costs associated with providing those functions in general and administrative expense. Please disclose how you determine the amount of the expenses incurred on behalf of the Atlas America E & P operation by Atlas America Inc.; the extent to which you have complied with the guidance in IRQ 2 of SAB Topic 1:B.1 should be clear.
37. We note your disclosure on page 78 in which you state that Atlas America Inc. did not allocate debt and interest expense to its subsidiaries; therefore, the historical financial result of the Atlas America E & P operations do not include interest expense. To the extent Atlas America Inc. carried debt that specifically related to the Atlas America E & P operations, we would expect the carve out financial statements to include a charge for interest expense. In any event, please expand your disclosure to include an analysis of the intercompany debt as called for in IRQ 4 of SAB Topic 1:B.1.

Undertakings, page II-4

38. Provide the applicable undertaking required by Item 20 (c) to Industry Guide 5, or explain to us why you fail to provide it. See II.B.2.a. of Release No. 33-6900.

Engineering Comments

Prospectus Summary, page 1

39. It appears that about 30 percent of your reserves are proved undeveloped. Please disclose this information in this section. Also, it appears that your average production rate is less than 10 Mcfe per day per well. Please disclose this information also.

Natural Gas Hedging, page 5

40. Tell us if the forward sales transactions in which you participate in are production payments. If so, tell us how you report the reserves and production associated



with these payments and the percent of your production that these transactions represent.

Risk Factors, page 25

If commodity prices decline significantly...., page 26

41. As it appears that most of your wells produce at very low production rates, you should also disclose the average production rate from your wells and indicate that you are more sensitive to price declines than producers that produce at a higher average rate of production per well.

Seasonal weather conditions may impair our ability to conduct drilling activities...., page 35

42. This appears to be a risk factor that affects all companies in the industry. You should explain how this risk specifically affects you, with specific examples and analysis based on your experience or particular situation, or remove it from the filing.

Business Strategy, page 99

43. You disclose that over the past three years you drilled 1,463 wells. Please expand your disclosure to clarify that these are gross wells, and to indicate the number of net wells these gross wells represent.

Natural Gas and Oil Reserves, page 107

44. Please include the complete definition of proved reserves as found in Rule 4-10(a) of Regulation S-X.
45. Under Rule 4-10(a)(4) of Regulation S-X, you may attribute proved reserves to undrilled units not offsetting productive units only where you have "... demonstrated with certainty that there is continuity of production from the existing productive formation." Provide us with the engineering and geologic justification for any PUD reserves which are not in legal, technically justified locations offsetting (adjacent to) productive wells in the same formation. Otherwise, either affirm to us that you have not claimed PUD reserves to such locations, or delete such volumes from your measures of proved reserves.

Supplemental Oil and Gas Information, page F-27

46. Please tell us the meaning of the “current additions” caption utilized in your reserve reconciliation table on page F-29; it should be clear how this compares to the disclosures required under paragraph 11 of SFAS 69.

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As appropriate, please amend your registration statement in response to these comments. 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. Please understand that we may have additional comments after reviewing your amendment and responses to our 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 all information required under the Securities Act of 1933 and that they have provided all information investors require for an informed investment 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 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.

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 confirmation of the fact that those requesting acceleration are

Edward E. Cohen  
Atlas Energy Resources, LLC  
August 25, 2006  
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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.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

You may contact Jenifer Gallagher, Staff Accountant, at (202) 551-3706 or Karl Hiller, Branch Chief, at (202) 551-3686 if you have questions regarding comments on the financial statements and related matters. Please contact Jim Murphy, Petroleum Engineer, at (202) 551-3704 if you have any questions about comments on engineering matters. Please contact Lisa Beth Lentini, Attorney-Advisor, at (202) 551-3334, or in her absence, me at (202) 551-3745 with any other questions.

Sincerely,

H. Roger Schwall  
Assistant Director

cc: J. Baur Whittlesey

H. Schwall  
L. Lentini  
J. Gallagher  
K. Hiller