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**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM 12b-25

NOTIFICATION OF LATE FILING

(Check One): Form 10-K Form 20-F Form 11-K Form 10-Q Form 10-D Form N-SAR
 Form N-CSR

For Period Ended: December 31, 2015

- Transition Report on Form 10-K
- Transition Report on Form 20-F
- Transition Report on Form 11-K
- Transition Report on Form 10-Q
- Transition Report on Form N-SAR

For the Transition Period Ended: _____

Read Instruction (on back page) Before Preparing Form. Please Print or Type.
Nothing in this form shall be construed to imply that the Commission has verified any information contained herein.

If the notification relates to a portion of the filing checked above, identify the Item(s) to which the notification relates:

PART I — REGISTRANT INFORMATION

Vanguard Natural Resources, LLC

Full Name of Registrant

N/A

Former Name if Applicable

5847 San Felipe, Suite 3000

Address of Principal Executive Office (*Street and Number*)

Houston, TX 77057

City, State and Zip Code

1

PART II — RULES 12b-25(b) AND (c)

If the subject report could not be filed without unreasonable effort or expense and the registrant seeks relief pursuant to Rule 12b-25(b), the following should be completed. (Check box if appropriate)

- (a) The reason described in reasonable detail in Part III of this form could not be eliminated without unreasonable effort or expense;
- (b) The subject annual report, semi-annual report, transition report on Form 10-K, Form 20-F, Form 11-K, Form N-SAR or Form N-CSR, or portion thereof, will be filed on or before the fifteenth calendar day following the prescribed due date; or the subject quarterly report or transition report on Form 10-Q or subject distribution report on Form 10-D, or portion thereof, will be filed on or before the fifth calendar day following the prescribed due date; and
- (c) The accountant's statement or other exhibit required by Rule 12b-25(c) has been attached if applicable.

PART III — NARRATIVE

State below in reasonable detail why Forms 10-K, 20-F, 11-K, 10-Q, 10-D, N-SAR, N-CSR, or the transition report or portion thereof, could not be filed within the prescribed time period.

As previously disclosed in filings with the Securities and Exchange Commission (the "SEC") (i) on October 5, 2015, a subsidiary of Vanguard Natural Resources, LLC, a Delaware limited liability company (the "Company," "Vanguard," "our," "we," or "us"), merged with and into LRR Energy, L.P., a Delaware limited partnership ("LRE"), with LRE continuing as the surviving entity and as a wholly owned subsidiary of Vanguard, and, at the same time, Vanguard acquired all of the limited liability company interests in LRE GP, LLC, a Delaware limited liability company and the general partner of LRE ("LRE GP"), in exchange for common units representing limited liability company interests in Vanguard (the "LRE Merger"), and (ii) on October 8, 2015, a subsidiary of Vanguard merged with and into Eagle Rock Energy Partners, L.P., a Delaware limited partnership ("Eagle Rock"), with Eagle Rock continuing as the surviving entity and as a wholly owned subsidiary of Vanguard in exchange for common units representing limited liability company interests in Vanguard (the "Eagle Rock Merger"). Following the LRE Merger and the Eagle Rock Merger, through a series of transactions, LRE and Eagle Rock merged with and into Vanguard Operating LLC, a Delaware limited liability company and wholly owned subsidiary of Vanguard, and LRE GP merged with and into Vanguard Natural Gas, LLC, a Kentucky limited liability company and wholly owned subsidiary of Vanguard.

We have experienced unforeseen delays in collecting, compiling and integrating into our financial statements certain financial and other related data regarding the businesses that we acquired through the LRE Merger and the Eagle Rock Merger that will be included in our Annual Report on Form 10-K for the year ended December 31, 2015 ("2015 Form 10-K"). The complexity, timing and scope involved in integrating the financial statements, other related data and systems of accounting of LRE and Eagle Rock into our financial statements and systems of accounting have required substantial time and attention from our management, information technology, financial and accounting staff. These factors, in turn, caused a delay in our normal fiscal year-end financial statements closing process and our preparation of other documentation related to the 2015 Form 10-K.

Due to the foregoing reasons, we have not yet finalized our financial results for the year ended December 31, 2015. In addition, we are continuing to compile and review the non-financial information required to be presented in the 2015 Form 10-K.

2

As a result of the increased burdens on our management, information technology, financial and accounting staff described above, we are unable to file the 2015 Form 10-K within the prescribed period without unreasonable effort and expense. We expect to file the 2015 Form 10-K no later than the fifteenth calendar day following the prescribed due date, as permitted by Rule 12b-25.

PART IV — OTHER INFORMATION

- (1) Name and telephone number of person to contact in regard to this notification.

| | | |
|-------------------|-------------|--------------------|
| Richard A. Robert | 832 | 327-2255 |
| (Name) | (Area Code) | (Telephone Number) |

- (2) Have all other periodic reports required under Section 13 or 15(d) of the Securities Exchange Act of 1934 or Section 30 of the Investment Company Act of 1940 during the preceding 12 months or for such shorter period that the registrant was required to file such report(s) been filed? If answer is no, identify report(s). Yes No
- (3) Is it anticipated that any significant change in results of operations from the corresponding period for the last fiscal year will be reflected by the earnings statements to be included in the subject report or portion thereof? Yes No

If so, attach an explanation of the anticipated change, both narratively and quantitatively, and, if appropriate, state the reasons why a reasonable estimate of the results cannot be made.

As a result of the matters discussed in Part III above, we are not in a position at this point to provide any specific estimate of anticipated significant changes in results of operations from the fiscal year ended December 31, 2014 to the fiscal year ended December 31, 2015 that may be reflected in the financial statements to be included in the 2015 Form 10-K.

We, however, anticipate that total revenues, income from operations and net loss for the year ended December 31, 2015 will be significantly lower than total revenues, income from operations and net income for the year ended December 31, 2014. We expect that our revenues will be negatively impacted by the significant decline in oil, natural gas and NGLs prices during the year ended December 31, 2015. We also expect our total costs and expenses will be higher for the year ended December 31, 2015 than for the year ended December 31, 2014, primarily due to the impairment of our oil and natural gas properties during the year ended December 31, 2015 as a result of commodity price declines.

The foregoing statements are based on our current expectations as of the date of this filing and involve a number of risks and uncertainties which may cause actual results to differ, as discussed further below. The risks include, but are not limited to, unexpected changes arising during the annual audit procedures.

Cautionary Note to Investors Regarding Forward Looking Statements

This Notification of Late Filing on Form 12b-25 contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements include, among other things, the statement that Vanguard expects to file its 2015 Form 10-K no later than the fifteenth calendar day following the prescribed due date and Vanguard's financial estimates included in this Part IV—Other Information. There can be no assurance that Vanguard will be able to file its 2015 Form 10-K within that time period or that Vanguard's financial estimates will not change. Forward-looking statements are subject to a number of uncertainties and risks, and actual results may differ from those projected. Factors that could affect Vanguard's actual results include unanticipated delays in the conclusion of Vanguard's 2015 integrated audit and the effects of other various risk factors and uncertainties disclosed in Vanguard's filings with the SEC, especially on

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Vanguard Natural Resources, LLC
(Name of Registrant as Specified in Charter)

has caused this notification to be signed on its behalf by the undersigned hereunto duly authorized.

Date: February 29, 2016

By: /s/ Richard A. Robert

Name: Richard A. Robert
Title: Executive Vice President and Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

INSTRUCTION: The form may be signed by an executive officer of the registrant or by any other duly authorized representative. The name and title of the person signing the form shall be typed or printed beneath the signature. If the statement is signed on behalf of the registrant by an authorized representative (other than an executive officer), evidence of the representative's authority to sign on behalf of the registrant shall be

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ATTENTION

Intentional misstatements or omissions of fact constitute Federal Criminal Violations (See 18 U.S.C. 1001).