

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: March 31, 2011

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, TEXAS 77057

City, State and Zip Code

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

The registrant was required to file its Quarterly Report on Form 10-Q for the three months ended March 31, 2011 (the "Form 10-Q") with the U.S. Securities and Exchange Commission by May 10, 2011. The registrant was unable to file Form 10-Q by such prescribed due date because the registrant was unable to complete its financial statements in a timely manner without unreasonable effort or expense due to the additional time and effort required to consolidate all of the financial statements of Encore Energy Partners LP ("ENP") for the first time since acquiring a controlling interest from Denbury Resources Inc on December 31, 2010 and converting to a new accounting system on January 1, 2011. The registrant is diligently working to address this issue as soon as possible and expects to file the Form 10-Q on or before May 15, 2011, the fifth calendar day following the prescribed due date as required by Rule 12b-25 under the Securities Exchange Act of 1934, although there can be no assurance in this regard.

PART IV — OTHER INFORMATION

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

Richard A. Robert,
Executive Vice President and
Chief Financial Officer
(Name)

832
(Area Code)

327-2258
(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.

The registrant anticipates a significant change from results of operations for the three month period ended March 31, 2010 will be reflected in the earnings statements for the three month period ended March 31, 2011 to be included in the Form 10-Q. The registrant's earnings statements for the three month period ended March 31, 2011 consolidate all of the financial statements of ENP for the first time since the registrant acquired a controlling interest in ENP on December 31, 2010. In addition, due to the application of generally accepted accounting principles, the registrant's presentation of production and reserve information in the Form 10-Q reflects both the registrant and ENP's production and reserves on a consolidated basis, including an approximate 53.5% ownership interest in ENP's production and reserves that the registrant does not own.

Cautionary Note about Forward-Looking Statements. This Notification of Late Filing on Form 12b-25 contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934. These statements can be identified by the use of forward-looking words, including “may”, “expect”, “anticipate”, “plan”, “project”, “believe”, “estimate”, “intend”, “will”, “should” or other similar words. Statements contained in this Form 12b-25 are based upon information presently available to the registrant and assumptions that it believes to be reasonable. The registrant is not assuming any duty to update this information should those facts change or should it no longer believe the assumptions to be reasonable. Investors are cautioned that all such statements involve risks and uncertainties, including without limitation, statements concerning the filing of the Form 10-Q. The registrant’s actual decisions, performance, and results may differ materially.

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: May 11, 2011
Richard A. Robert

By: /s/ Richard A. Robert
Executive Vice President and Chief Financial Officer