Filed Pursuant to Rule 424(b)(3) Registration File No. 333-200605

PROSPECTUS



Antero Resources Corporation

Offer to Exchange
Up to \$1,100,000,000 of
5.125% Senior Notes due 2022
That Have Not Been Registered Under the Securities Act,
which are referred to as the "old notes,"
for
Up to \$1,100,000,000 of
5.125% Senior Notes due 2022
That Have Been Registered Under the Securities Act,
which are referred to as the "new notes"

Terms of the New 5.125% Senior Notes due 2022 Offered in the Exchange Offer:

• The terms of the new notes are substantially identical to the terms of the old notes that were issued on May 6, 2014 and September 4, 2014, except that the new notes will be registered under the Securities Act of 1933, as amended (the "Securities Act"), and will not contain restrictions on transfer, registration rights or provisions for additional interest.

Terms of the Exchange Offer:

- We are offering to exchange up to \$1,100,000,000 of our old notes for an equal principal amount of new notes with substantially identical terms that have been registered under the Securities Act and are freely tradable.
- We will exchange old notes that are validly tendered and not validly withdrawn before the Exchange Offer expires for an equal principal amount of new notes.
- The Expiration Date for the Exchange Offer is 11:59 p.m., New York City time, on February 25, 2015, unless extended.
- Tenders of old notes may be withdrawn at any time prior to the expiration of the Exchange Offer.
- The exchange of new notes for old notes will not be a taxable event for U.S. federal income tax purposes.
- We will not receive any proceeds from the Exchange Offer.

You should carefully consider the risks set forth under "Risk Factors" beginning on page 8 of this prospectus before participating in the Exchange Offer.

Each broker-dealer that receives new notes for its own account pursuant to the Exchange Offer must acknowledge that it will deliver a prospectus in connection with any resale of such new notes. This prospectus, as it may be amended or supplemented from time to time, may be used by a broker-dealer in connection with resales of new notes received in exchange for old notes where such old notes were acquired by such broker-dealer as a result of market-making activities or other trading activities. Please read "Plan of Distribution."

	Commission nor any state securities commission has approved or disapproved of these is truthful or complete. Any representation to the contrary is a criminal offense.				
The date of this prospectus is January 28, 2015					

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This prospectus incorporates by reference business and financial information about us that is not included in or delivered with this prospectus. We will provide to each person, including any beneficial owner to whom a prospectus is delivered, a copy of these filings, other than an exhibit to these filings unless we have specifically incorporated that exhibit by reference into the filing, upon written or oral request and at no cost. Requests should be made by writing us at the following address: 1615 Wynkoop Street, Denver, Colorado 80202, or by calling (303) 357-7310. **To obtain timely delivery, you must request the information no later than February 18, 2015**.

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-4 that we have filed with the Securities and Exchange Commission (the "SEC"). This prospectus does not contain all of the information found in the registration statement. Before you decide to participate in this Exchange Offer, please review the full registration statement, including the information set forth under the heading the "Risk Factors" beginning on page 8 of this prospectus, the documents described under the heading "Where You Can Find More Information" in this prospectus, the exhibits to the registration statement and any additional information you may need to make your investment decision. You should rely only on the information contained in the registration statement, including this prospectus and the accompanying letter of transmittal. We have not authorized anyone to provide you with any other information and if anyone provides you with different or inconsistent information, you should not rely on it. You should not assume that the information contained in this prospectus is accurate as of any date other than the date as set forth on the front cover. Our business, financial condition and results of operations may have changed since that date. We will disclose any material changes to such in an amendment to this prospectus or a prospectus supplement.

We are not making an offer to sell these securities or soliciting an offer to buy these securities in any jurisdiction where an offer or solicitation is not authorized or in which the person making that offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation.

We are not making any representation to you regarding the legality of your participation in the Exchange Offer under applicable law. You should consult with your own legal advisors as to the legal, tax, business, financial and related aspects of participating in the Exchange Offer.

CERTAIN TERMS USED IN THIS PROSPECTUS

All references to "Antero," "we," "us" and "our" refer to Antero Resources Corporation, a Delaware corporation, unless otherwise indicated or the context otherwise requires.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

The information in this prospectus, including the documents incorporated by reference herein, includes "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). All statements, other than statements of historical fact included in this prospectus, regarding our strategy, future operations, financial position, estimated revenues and losses, projected costs, prospects, plans and objectives of management are forward-looking statements. When used, the words "could," "believe," "anticipate," "intend," "estimate," "expect," "project" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain such identifying words. These forward-looking statements are based on our current expectations and assumptions about future events and are based on currently available information as to the outcome and timing of future events. When considering forward-looking statements, you should keep in mind the risk factors and other cautionary statements described under the heading "Risk Factors" in this prospectus and in our Annual Report on Form 10-K for the year ended December 31, 2013, which is incorporated by reference herein. These forward-looking statements are based on management's current belief, based on currently available information, as to the outcome and timing of future events.

Forward-looking statements may include statements about our:

- business strategy;
- reserves;

- financial strategy, liquidity and capital required for our development program;
- realized natural gas, natural gas liquids ("NGLs") and oil prices;
- timing and amount of future production of natural gas, NGLs and oil;
- hedging strategy and results;
- future drilling plans;
- competition and government regulations;
- pending legal or environmental matters;
- marketing of natural gas, NGLs and oil;
- leasehold or business acquisitions;
- costs of developing our properties and conducting our midstream operations;
- general economic conditions;
- credit markets;
- uncertainty regarding our future operating results; and
- plans, objectives, expectations and intentions contained or incorporated by reference in this prospectus that are not historical.

We caution you that these forward-looking statements are subject to all of the risks and uncertainties, most of which are difficult to predict and many of which are beyond our control, incident to the exploration for and development, production, gathering and sale of natural gas, NGLs, and oil. These risks include, but are not limited to, commodity price volatility, inflation, lack of availability of drilling and production equipment and services, environmental risks, drilling and other operating risks, marketing and transportation risks, regulatory changes, the uncertainty inherent in estimating natural gas, NGLs, and oil reserves and in projecting future rates of production, cash flow and access to capital, the timing of development expenditures, and the other risks described under the heading "Risk Factors" in this prospectus and in our Annual Report on Form 10-K for the year ended December 31, 2013, which is incorporated by reference herein.

Reserve engineering is a process of estimating underground accumulations of natural gas, NGLs, and oil that cannot be measured in an exact way. The accuracy of any reserve estimate depends on the quality of available data, the interpretation of such data and price and cost assumptions made by reservoir engineers. In addition, the results of drilling, testing and production activities may justify revisions of estimates that were made previously. If significant, such revisions would change the schedule of any further production and development drilling. Accordingly, reserve estimates may differ significantly from the quantities of natural gas, NGLs, and oil that are ultimately recovered.

Should one or more of the risks or uncertainties described or incorporated by reference in this prospectus occur, or should underlying assumptions prove incorrect, our actual results and plans could differ materially from those expressed in any forward-looking statements.

All forward-looking statements, expressed or implied, included in this prospectus are expressly qualified in their entirety by this cautionary statement. This cautionary statement should also be considered in connection with any subsequent written or oral forward-looking statements that we or persons acting on our behalf may issue.

Except as otherwise required by applicable law, we disclaim any duty to update any forward-looking statements, all of which are expressly qualified by the statements in this section, to reflect events or circumstances after the date of this prospectus.

PROSPECTUS SUMMARY

This summary highlights certain information about us and the Exchange Offer. You should carefully read the entire prospectus and the information incorporated by reference in this prospectus for a more complete understanding of our business and terms of the notes, as well as the tax and other considerations that are important to you, before making an investment decision. You should pay special attention to the "Risk Factors" section beginning on page 8 of this prospectus and the risk factors described under the heading "Risk Factors" included in Item 1A of Part I of our Annual Report on Form 10-K for the year ended December 31, 2013, which is incorporated by reference in this prospectus.

Our Company

Overview

We are an independent oil and natural gas company engaged in the exploitation, development and acquisition of natural gas, NGLs, and oil properties located in the Appalachian Basin.

For additional information regarding our company and our financial statements, see "Where You Can Find More Information."

Principal Executive Offices

Our principal executive offices are located at 1615 Wynkoop Street, Denver, Colorado 80202, and our telephone number is (303) 357-7310. Our website address is *www.anteroresouces.com*. Except for information specifically incorporated by reference into this prospectus that may be accessed from our website, the information on our website is not part of this prospectus, and you should rely only on information contained or incorporated by reference in this prospectus when making a decision as to whether or not to tender your notes.

The Exchange Offer

The following summary contains basic information about the Exchange Offer and is not intended to be complete. For a more complete understanding of the Exchange Offer, please refer to the section entitled "The Exchange Offer" in this prospectus.

On May 6, 2014 and September 4, 2014, we, issued \$600 million and \$500 million, respectively, in aggregate principal amount of 5.125% Senior Notes due 2022, which we refer to herein as the "old notes." Certain of our subsidiaries guaranteed the old notes. The old notes were issued, and the new notes will be issued, under the Indenture (as such term is defined herein).

At closing of the old notes offerings on May 6, 2014 and September 18, 2014, we and the subsidiary guarantors entered into Registration Rights Agreements dated May 6, 2014 and September 18, 2014 (the "Registration Rights Agreements") with the initial purchasers in the private offerings, pursuant to which all of us agreed to deliver to you this prospectus and use our commercially reasonable efforts to complete the Exchange Offer by May 6, 2015.

Exchange Offer We are offering to exchange the new notes for the old notes.

Expiration Date The Exchange Offer will expire at 11:59 p.m., New York City time, on February 25, 2015, unless we decide to extend it (such date and time, as may be extended from time to time, the

"Expiration Date").

Condition to the Exchange Offer

The Registration Rights Agreements do not require us to accept old notes for exchange if the exchange offer, or the making of any exchange by a holder of the old notes, would violate any applicable law or interpretation of the staff of the Securities and Exchange Commission.

The Exchange Offer is conditioned upon the effectiveness of this registration statement and certain other customary conditions, as discussed in "The Exchange Offer—Conditions to the Exchange Offer."

The Exchange Offer is not conditioned on a minimum aggregate principal amount of old notes being tendered.

Consequences If You Do Not Exchange Your Old Notes Old notes that are not tendered in the Exchange Offer or that are not accepted for exchange will continue to be subject to the restrictions on transfer described in the legend on your old notes. In general, you may only offer or sell the old notes if they are registered under the Securities Act and applicable state securities laws, or offered and sold under an exemption from these requirements. After the completion of the Exchange Offer, we will no longer have an obligation to register the old notes, except in limited circumstances as required by the Registration Rights Agreements. The tender of old notes under the Exchange Offer will reduce the principal amount of the currently outstanding old notes. The corresponding reduction in liquidity may have an adverse effect upon, and increase the volatility of, the market price of any old notes that you continue to hold following completion of the Exchange Offer.

For more information, see "The Exchange Offer—Consequences of Not Tendering."

Procedures for Tendering Old Notes

To participate in the Exchange Offer, you must follow the procedures established by The Depository Trust Company ("DTC") for tendering notes held in book-entry form. These procedures for using DTC's Automated Tender Offer Program ("ATOP") require that (i) the Exchange Agent receive, prior to the Expiration Date of the Exchange Offer, a computergenerated message known as an "agent's message" that is transmitted through DTC's automated tender offer program, and (ii) DTC confirms that:

- · DTC has received your instructions to exchange your notes; and
- you agree to be bound by the terms of the letter of transmittal.

For more information on tendering your old notes, see "The Exchange Offer-Terms of the Exchange Offer" and "The Exchange Offer—Procedures for Tendering."

Guaranteed Delivery

Procedures None.

Withdrawal of Tenders

You may withdraw your tender of old notes at any time prior to the Expiration Date. Any withdrawn old notes will be credited to the tendering holder's account at DTC or, if the withdrawn old notes are held in certificated form, will be returned to the tendering holder. We will accept for exchange any and all old notes validly tendered and not validly withdrawn prior to 11:59 p.m., New York City time, on the Expiration Date. Please see "The Exchange Offer —Withdrawal of Tenders."

Old Notes and Delivery of New Notes

Acceptance of If you fulfill all conditions required for proper acceptance of old notes, we will accept any and all old notes that you validly tender in the Exchange Offer before 11:59 p.m., New York City time, on the Expiration Date. We will return any old notes that we do not accept for exchange to you without expense promptly after the Expiration Date and acceptance of the old notes for exchange. Please refer to the section in this prospectus entitled "The Exchange Offer—Terms of the Exchange Offer."

Fees and Expenses

We will bear expenses related to the Exchange Offer. Please see "The Exchange Offer-Fees and Expenses."

Use of Proceeds

The issuance of the new notes will not provide us with any new proceeds. We are making this Exchange Offer solely to satisfy our obligations under the Registration Rights Agreements.

U.S. Federal Income Tax Consequences

The exchange of new notes for old notes in the Exchange Offer will not be a taxable event for U.S. federal income tax purposes. Please see "Certain United States Federal Income Tax Consequences."

Exchange Agent

We have appointed Wells Fargo Bank, National Association, as Exchange Agent for the Exchange Offer (the "Exchange Agent"). You should direct questions and requests for assistance and requests for additional copies of this prospectus or the letter of transmittal to the Exchange Agent addressed as follows:

By Registered & Certified Mail: Wells Fargo Bank, N.A. Corporate Trust Operations MAC N9303-121 PO Box 1517 Minneapolis, Minnesota 55480

By regular mail or overnight courier: Wells Fargo Bank, N.A. Corporate Trust Operations MAC N9303-121 Sixth & Marquette Avenue Minneapolis, Minnesota 55479

In person by hand only:
Wells Fargo Bank, N.A.
12th Floor—Northstar East Building
Corporate Trust Operations
608 Second Avenue South
Minneapolis, Minnesota 55402

Eligible institutions may make requests by facsimile at (877) 407-4679 and may confirm facsimile delivery by calling (800) 344-5128.

Terms of the New Notes

The following summary contains basic information about the new notes and is not intended to be complete. For a more complete understanding of the new notes, please refer to the section entitled "Description of Notes" in this prospectus.

The new notes will be substantially identical to the old notes, except that the new notes are registered under the Securities Act and will not have restrictions on transfer, registration rights or provisions for additional interest. The new notes will evidence the same debt as the old notes, and the same Indenture will govern the new notes and the old notes. We refer to the new notes and the old notes collectively as the "notes."

Issuer Antero Resources Corporation

Notes Offered \$1,100,000,000 aggregate principal amount of 5.125% Senior Notes

due 2022.

Maturity Date December 1, 2022.

Interest Rate 5.125%

Interest Payment Dates Interest on the new notes will be payable semi-annually in arrears

on June 1 and December 1 of each year with the initial interest date being June 1, 2015. Interest will accrue on the new notes from

December 1, 2014.

Ranking The new notes, like the old notes, will be our general senior

unsecured obligations and:

 will rank equally in right of payment with all of our other senior indebtedness (including our credit facility and our existing senior

notes); and

• will rank senior in right of payment to any of our future

subordinated indebtedness.

The guarantees of the new notes will be the guarantors' general senior unsecured obligations and will rank equally in right of payment with all of the other senior indebtedness of the guarantors.

The new notes and guarantees will effectively rank junior in right of payment to all of our and the guarantors' existing and future secured indebtedness, including guarantees under our credit facility, to the extent of the value of the collateral securing such indebtedness.

The new notes and guarantees will be structurally subordinated to any liabilities (including trade payables) of our non-guarantor

subsidiaries.

Guarantees

The payment of the principal, premium and interest on the notes is currently fully and unconditionally guaranteed on a senior unsecured basis by all of our wholly owned subsidiaries. Any wholly owned domestic subsidiary of ours formed after the issue date of the old notes and any domestic subsidiary of ours that guarantees any of our indebtedness or the indebtedness of any subsidiary guarantor (in each case, other than an immaterial subsidiary) will also guarantee the notes. See "Description of Notes—Guarantees."

Optional Redemption

We have the option to redeem the notes, in whole or in part, at any time on or after June 1, 2017, in each case at the redemption prices described herein under the heading "Description of Notes—Optional Redemption."

In addition, on or prior to June 1, 2017, we may, from time to time, redeem up to 35% of the aggregate principal amount of the notes, but in an amount not greater than the net cash proceeds of certain equity offerings, at a redemption price equal to 105.125% of the principal amount of the notes, plus any accrued and unpaid interest to, but excluding, the date of such redemption.

At any time prior to June 1, 2017, we may redeem the notes, in whole or in part, at a "make-whole" redemption price described under "Description of Notes—Optional Redemption," together with any accrued and unpaid interest to, but excluding, the date of such redemption.

If certain transactions that would constitute a change of control occur prior to December 1, 2015, we may redeem all, but not less than all, of the notes at a redemption price equal to 110% of the principal amount of the notes redeemed plus any accrued and unpaid interest to, but excluding, the date of such redemption.

Mandatory Offers to Purchase

Upon the occurrence of a change of control, holders of the notes may have the right to require us to repurchase all or a portion of the notes at a price equal to 101% of the aggregate principal amount of the notes, together with any accrued and unpaid interest to, but excluding, the date of purchase. In connection with certain asset dispositions, we will be required to use the net cash proceeds of the asset dispositions to make an offer to purchase the notes at 100% of the principal amount, together with any accrued and unpaid interest to, but excluding, the date of purchase.

Certain Covenants

The Indenture governing the notes, among other things, limits our ability and the ability of our restricted subsidiaries to:

- incur, assume or guarantee additional indebtedness or issue preferred stock;
- pay dividends on equity securities, repurchase equity securities or redeem subordinated indebtedness;

- issue certain preferred stock or similar equity securities;
- make investments or other restricted payments;
- create liens to secure indebtedness;
- restrict dividends, loans or other asset transfers from our restricted subsidiaries;
- sell or otherwise dispose of assets, including capital stock of subsidiaries;
- · enter into transactions with affiliates; and
- consolidate with or merge with or into, or sell substantially all of our properties to, another person.

However, many of these covenants will terminate if:

- both Standard & Poor's Ratings Services and Moody's Investors Service, Inc. assign the notes an investment grade rating; and
- no default under the Indenture has occurred and is continuing.

These covenants are subject to important exceptions and qualifications, which are described under "Description of Notes—Certain Covenants."

Transfer Restrictions; Absence of a Public Market for the New Notes

The new notes will be freely transferable but will be new securities for which there will not initially be a market. We do not intend to apply for a listing of the new notes on any securities exchange or any automated dealer quotation system. Accordingly, there can be no assurance as to the development or liquidity of any market for the new notes.

Risk Factors

In evaluating an investment in the new notes, investors should carefully consider, along with the other information in this prospectus, the specific factors relating to us and the Exchange Offer set forth under the section entitled "Risk Factors."

RISK FACTORS

An investment in the new notes involves risks. You should carefully consider all of the information contained in this prospectus and the documents incorporated by reference as provided under "Where You Can Find More Information," including our Annual Report on Form 10-K for the year ended December 31, 2013. This prospectus and the documents incorporated by reference also contain forward-looking statements that involve risks and uncertainties. Please read "Cautionary Statement Regarding Forward-Looking Statements." Our actual results could differ materially from those anticipated in the forward-looking statements as a result of certain factors, including the risks described below, elsewhere in this prospectus and in the documents incorporated by reference. If any of these risks occur, our business, financial condition or results of operation could suffer In addition to the other information set forth elsewhere in this prospectus, investors should carefully consider the following factors relating to the notes and the Exchange Offer before making an investment in the new notes.

Risks Related to the Notes and the Exchange Offer

If you do not properly tender your old notes, you will continue to hold unregistered old notes and your ability to transfer old notes will remain restricted and may be adversely affected.

We will only issue new notes in exchange for old notes that you timely and properly tender. Therefore, you should allow sufficient time to ensure timely delivery of the old notes and you should carefully follow the instructions on how to tender your old notes. Neither we nor the exchange agent is required to tell you of any defects or irregularities with respect to your tender of old notes.

If you do not exchange your old notes for new notes pursuant to the Exchange Offer, the old notes you hold will continue to be subject to the existing transfer restrictions. In general, you may not offer or sell the old notes except under an exemption from, or in a transaction not subject to, the Securities Act and applicable state securities laws. We do not plan to register old notes under the Securities Act unless the Registration Rights Agreements require us to do so. Further, if you continue to hold any old notes after the Exchange Offer is consummated, you may have trouble selling them because there will be fewer of these notes outstanding.

Your ability to transfer the notes may be limited by the absence of an active trading market, and there is no assurance that any active trading market will develop for the new notes.

The old notes have not been registered under the Securities Act, and may not be resold by purchasers thereof unless the old notes are subsequently registered or an exemption from the registration requirements of the Securities Act is available. However, we cannot assure you that, even following registration or exchange of the old notes for new notes, that an active trading market for the old notes or the new notes will exist, and we will have no obligation to create such a market. At the time of the private placement of the old notes, the initial purchasers advised us that they intended to make a market in the old notes and, if issued, the new notes. The initial purchasers are not obligated, however, to make a market in the old notes or the new notes and any market-making may be discontinued at any time at their sole discretion. No assurance can be given as to the liquidity of or trading market for the old notes or the new notes.

The liquidity of any trading market for the notes and the market price quoted for the notes will depend upon the number of holders of the notes, the overall market for high yield securities, our financial performance or prospects or the prospects for companies in our industry generally, the interest of securities dealers in making a market in the notes and other factors.

Our substantial indebtedness could adversely affect our financial condition and prevent us from fulfilling our obligations under the notes.

We have a significant amount of indebtedness. As of September 30, 2014, we had approximately \$4.1 billion in total indebtedness, including \$2.625 billion of senior notes and approximately \$1.5 billion outstanding under our credit facilities. Additionally, we had approximately \$332 million of letters of credit outstanding under our credit facility. The credit facility had a borrowing base of \$3.0 billion at September 30, 2014, including \$500 million under our midstream credit facility. On October 16, 2014, the maximum borrowing capacity of our credit facility was increased from \$3.5 billion to \$4.0 billion and the borrowing base was increased from \$3.0 billion to \$4.0 billion, including \$500 million of commitments under the midstream credit facility. In November 2014, we replaced the \$500 million midstream credit facility with the \$200 million water credit facility. The total borrowing base of our credit facility remained unchanged.

Subject to the limits contained in the credit agreement governing our credit facility and the water credit facility, the indenture that governs the notes, the indentures that govern our other series of senior notes and our other debt instruments, we may be able to incur substantial additional debt from time to time to finance working capital, capital expenditures, investments or acquisitions, or for other purposes. If we do so, the risks related to our high level of debt could intensify. Specifically, our high level of debt could have important consequences to the holders of the notes, including:

- making it more difficult for us to satisfy our obligations with respect to the notes and our other debt;
- limiting our ability to obtain additional financing to fund future working capital, capital expenditures, acquisitions or other general corporate requirements;
- requiring a substantial portion of our cash flows to be dedicated to debt service payments instead of other purposes, thereby reducing the amount of cash flows available for working capital, capital expenditures, acquisitions and other general corporate purposes;
- increasing our vulnerability to general adverse economic and industry conditions;
- exposing us to the risk of increased interest rates as certain of our borrowings, including borrowings under the credit facility, are at variable rates of interest;
- limiting our flexibility in planning for and reacting to changes in the industry in which we compete;
- placing us at a disadvantage compared to other, less leveraged competitors; and
- increasing our cost of borrowing.

We may not be able to generate sufficient cash to service all of our indebtedness, including the notes, and may be forced to take other actions to satisfy our obligations under our indebtedness, which may not be successful.

Our ability to make scheduled payments on or to refinance our indebtedness obligations, including our revolving credit facility and the water credit facility, our our other series of senior notes and the notes depends on our financial condition and operating performance, which are subject to prevailing economic and competitive conditions and certain financial, business and other factors beyond our control. We may not be able to maintain a level of cash flows from operating activities sufficient to permit us to pay the principal, premium, if any, and interest on our indebtedness, including the notes.

If our cash flows and capital resources are insufficient to fund our debt service obligations, we may be forced to reduce or delay investments and capital expenditures, sell assets, seek additional capital or restructure or refinance our indebtedness, including the notes. Our ability to restructure or refinance our indebtedness will depend on the condition of the capital markets and our financial condition at such time. Any refinancing of our indebtedness could be at higher interest rates and may require us to

comply with more onerous covenants, which could further restrict our business operations. The terms of existing or future debt instruments, including the indenture governing the notes and the indentures governing our other senior notes, may restrict us from adopting some of these alternatives. In addition, any failure to make payments of interest and principal on our outstanding indebtedness on a timely basis would likely result in a reduction of our credit rating, which could harm our ability to incur additional indebtedness. In the absence of sufficient cash flows and capital resources, we could face substantial liquidity problems and might be required to dispose of material assets or operations to meet our debt service and other obligations. Our revolving credit facility and the indenture governing the notes and the indenture governing our other senior notes currently restrict our ability to dispose of assets and our use of the proceeds from such disposition. We may not be able to consummate those dispositions, and the proceeds of any such disposition may not be adequate to meet any debt service obligations then due. These alternative measures may not be successful and may not permit us to meet our scheduled debt service obligations.

As of September 30, 2014, our aggregate borrowing base under our credit facility and the midstream credit facility was \$3.0 billion and lender commitments were \$2.5 billion. On October 16, 2014, the maximum borrowing capacity of our credit facility was increased from \$3.5 billion to \$4.0 billion and the borrowing base was increased from \$3.0 billion to \$4.0 billion, including \$500 million of commitments under the midstream credit facility. In November 2014, we replaced the \$500 million midstream credit facility with the \$200 million water credit facility. The total borrowing base of our credit facility remained unchanged. Our next scheduled borrowing base redetermination is expected to occur in April 2015. In the future, we may not be able to access adequate funding under our revolving credit facility as a result of a decrease in our borrowing base due to the issuance of new indebtedness, the outcome of a subsequent semi-annual borrowing base redetermination or an unwillingness or inability on the part of our lending counterparties to meet their funding obligations and the inability of other lenders to provide additional funding to cover the defaulting lender's portion. Declines in commodity prices could result in a determination to lower the borrowing base in the future and, in such a case, we could be required to repay any indebtedness in excess of the redetermined borrowing base. As a result, we may be unable to implement our drilling and development plan, make acquisitions or otherwise carry out our business plan, which would have a material adverse effect on our financial condition and results of operations and impair our ability to service our indebtedness, including the notes.

If we are unable to comply with the restrictions and covenants in the agreements governing the notes, our other senior notes and other indebtedness, there could be a default under the terms of these agreements, which could result in an acceleration of payment of funds that we have borrowed and would impact our ability to make principal and interest payments on the notes.

If we are unable to comply with the restrictions and covenants in the indentures governing the notes and our other senior notes or in our credit facility and the water credit facility, or in any future debt financing agreements, there could be a default under the terms of these agreements. Our ability to comply with these restrictions and covenants, including meeting financial ratios and tests, may be affected by events beyond our control. As a result, we cannot assure you that we will be able to comply with these restrictions and covenants or meet these tests. Any default under the agreements governing our indebtedness, including a default under our credit facility and the water credit facility or the indenture governing the notes or the indentures governing our other senior notes, that is not waived by the requisite number of lenders and the remedies sought by the holders of such indebtedness, could prevent us from paying principal, premium, if any, and interest on the notes and substantially decrease the market value of the notes. If we are unable to generate sufficient cash flow and are otherwise unable to obtain funds necessary to meet required payments of principal, premium, if any, and interest on our indebtedness or if we otherwise fail to comply with the various covenants, including financial and operating covenants in the instruments governing our indebtedness (including covenants in our

credit facility and in the indenture governing our existing senior notes), we could be in default under the terms of these agreements. In the event of such default:

- the holders of such indebtedness could elect to declare all the funds borrowed thereunder to be immediately due and payable, together with any accrued and unpaid interest;
- the lenders under our credit facility and the water credit facility could elect to terminate their commitments thereunder, cease
 making further loans to us and institute foreclosure proceedings against our assets; and
- we could be forced into bankruptcy or liquidation.

If our operating performance declines, in the future we may need to obtain waivers from the requisite number of lenders under our credit facility or the water credit facility to avoid being in default. If we breach our covenants under our credit facility or the water credit facility and seek a waiver, we may not be able to obtain a waiver from the required lenders on terms that are acceptable to us, if at all. If this occurs, we would be in default under our credit facility or the water credit facility, as applicable, the lenders could exercise their rights, as described above, and we could be forced into bankruptcy or liquidation. See "—Restrictions in our existing and future debt agreements could limit our growth and our ability to engage in certain activities."

The notes and the guarantees are unsecured and effectively subordinated to the rights of our secured indebtedness.

The notes and the guarantees are general unsecured senior obligations ranking effectively junior to all of our existing and future secured indebtedness, including our obligations under our credit facility, to the extent of the value of the collateral securing the indebtedness. If we were unable to repay such indebtedness under our credit facility or the water credit facility, the lenders under those facilities could foreclose on the pledged assets to the exclusion of holders of the notes, even if an event of default exists under the indenture that will govern the notes at such time. Furthermore, if the lenders foreclose and sell the pledged equity interests in any guarantor in a transaction permitted under the terms of the indenture that will govern the notes, then such guarantor will be released from its guarantee of the notes automatically and immediately upon such sale. In any such event, because the notes will not be secured by any of such assets or by the equity interests in any such guarantor, it is possible that there would be no assets from which your claims could be satisfied or, if any assets existed, they might be insufficient to satisfy your claims in full.

If we or any guarantor is declared bankrupt, becomes insolvent or is liquidated or reorganized, any of our secured indebtedness will be entitled to be paid in full from our assets or the assets of any guarantor securing that indebtedness before any payment may be made with respect to the notes or the affected guarantees. Holders of the notes will participate ratably in our remaining assets with all holders of any unsecured indebtedness that does not rank junior to the notes, based upon the respective amounts owed to each holder or creditor. In any of the foregoing events, there may not be sufficient assets to pay amounts due on the notes or the guarantees. As a result, holders of the notes would likely receive less, ratably, than holders of secured indebtedness.

As of September 30, 2014, we had \$1.505 billion in borrowings and \$332 million in letters of credit outstanding under our revolving credit and the midstream facilities, which had a total borrowing base of \$3.0 billion and lender commitments of \$2.5 billion.

We may incur substantially more indebtedness, including indebtedness ranking equal to the notes and the guarantees. This could increase the risks associated with the notes.

Subject to the restrictions in the indenture that governs the notes, the indentures governing our other senior notes, our credit facility and the water credit facility, we may incur substantial additional indebtedness (including secured indebtedness) in the future. Although the instruments governing our

credit facility and the water credit facility and the indentures governing our senior notes (including the indenture that governs the notes) each contain restrictions on the incurrence of additional indebtedness, these restrictions are subject to certain qualifications and exceptions, and indebtedness incurred in compliance with these restrictions could be substantial. These restrictions also will not prevent us from incurring obligations that do not constitute indebtedness.

If the issuer or any guarantor incurs any additional indebtedness that ranks equally with the notes (or with the guarantees thereof), including trade payables, the holders of that indebtedness will be entitled to share ratably with noteholders in any proceeds distributed in connection with any insolvency, liquidation, reorganization, dissolution or other winding-up of the issuer or such guarantor. This may have the effect of reducing the amount of proceeds paid to noteholders in connection with such a distribution. As of September 30, 2014, we had \$1.505 billion in borrowings and \$332 million in letters of credit outstanding under our revolving credit and the midstream facilities, which had a total borrowing base of \$3.0 billion.

Any increase in our level of indebtedness will have several important effects on our future operations, including, without limitation:

- we will have additional cash requirements in order to support the payment of interest on our outstanding indebtedness;
- increases in our outstanding indebtedness and leverage will increase our vulnerability to adverse changes in general economic and industry conditions, as well as to competitive pressure;
- depending on the levels of our outstanding indebtedness, our ability to obtain additional financing for working capital, capital
 expenditures, general corporate and other purposes may be limited; and
- our level of indebtedness may prevent us from engaging in certain transactions that might otherwise be beneficial to us.

Any of these factors could result in a material adverse effect on our business, financial condition, results of operations, business prospects and ability to satisfy our obligations under the notes.

The notes are structurally subordinated to all obligations of our future subsidiaries that do not become guarantors of the notes.

The notes are guaranteed by all of our wholly owned subsidiaries, and in the future will be guaranteed by (a) any wholly-owned domestic subsidiary of ours formed after the issue date of the new notes and (b) any domestic subsidiary of ours that guarantees any of our other indebtedness, or that of any other subsidiary guarantor (in each case, other than an immaterial subsidiary).

The subsidiaries that do not guarantee the notes will have no obligation, contingent or otherwise, to pay amounts due under the notes or to make any funds available to pay those amounts, whether by dividend, distribution, loan or other payment. The notes are structurally subordinated to all indebtedness and other obligations of any non-guarantor subsidiary such that in the event of insolvency, liquidation, reorganization, dissolution or other winding up of any subsidiary that is not a guarantor, all of that subsidiary's creditors (including trade creditors) would be entitled to payment in full out of that subsidiary's assets before we would be entitled to any payment.

In addition, the indenture that governs the notes, subject to some limitations, permits these non-guarantor subsidiaries to incur additional indebtedness and does not contain any limitation on the amount of other liabilities, such as trade payables, that may be incurred by these subsidiaries. Further, the subsidiaries that provide, or will provide, guarantees of the notes will be automatically released from those guarantees upon the occurrence of certain events, including the following:

the designation of that subsidiary guarantor as an unrestricted subsidiary;

- the release or discharge of any guarantee or indebtedness that resulted in the creation of the guarantee of the notes by such subsidiary guarantor; or
- the sale or other disposition, including the sale of substantially all the assets, of that subsidiary guarantor.

If any subsidiary guarantee is released, no holder of the notes will have a claim as a creditor against that subsidiary, and the indebtedness and other liabilities, including trade payables and preferred stock, if any, whether secured or unsecured, of that subsidiary will be structurally senior to the claim of any holders of the notes. In November 2014, Antero Resources Midstream LLC and Antero Midstream LLC, who were the initial subsidiary guarantors, were released of their obligations, and the original Indenture was amended by the First Supplemental Indenture to add Antero Water LLC and AR OHIO LLC as Subsidiary Guarantors. In January 2015, the original indenture was further amended by the Second Supplemental Indenture to add Monroe Pipeline LLC as a Subsidiary Guarantor. See "Description of Notes—Guarantees."

Restrictions in our existing and future debt agreements could limit our growth and our ability to engage in certain activities.

Our credit facility and the water credit facility contain a number of significant restrictive covenants (in addition to covenants restricting the incurrence of additional indebtedness) that may limit our ability to, among other things:

- sell assets;
- make loans to others;
- make investments;
- enter into mergers;
- make certain payments;
- hedge future production;
- incur liens; and
- engage in certain other transactions without the prior consent of the lenders.

The indentures governing our senior notes (including the indenture that governs the notes) contain similar restrictive covenants. In addition, our credit facility and the water credit facility require us to maintain certain financial ratios or to reduce our indebtedness if we are unable to comply with such ratios. These restrictions, together with those in the indentures governing our senior notes (including the indenture that governs the notes), may also limit our ability to obtain future financings to withstand a future downturn in our business or the economy in general, or to otherwise conduct necessary corporate activities. We may also be prevented from taking advantage of business opportunities that arise because of the limitations that the restrictive covenants under the indentures governing our senior notes (including the indenture that governs the notes) and our credit facility impose on us.

Our credit facility and the water credit facility limit the amounts we can borrow in the aggregate up to a borrowing base amount, which the lenders, in their sole discretion, determine on a semi-annual basis based upon projected revenues from the natural gas properties securing our loan. The respective lenders under our credit facility and the water credit facility can unilaterally adjust the borrowing base and the borrowings permitted to be outstanding under the respective facility. Any increase in the borrowing base requires the consent of the lenders holding 100% of the commitments under the respective facility. If the requisite number of lenders do not agree to an increase, then the borrowing base will be the lowest borrowing base acceptable to such lenders. Outstanding borrowings in excess of the borrowing base must be repaid, or we must pledge other natural gas properties as additional collateral after applicable grace periods. We do not currently have any substantial unpledged properties,

and we may not have the financial resources in the future to make mandatory principal prepayments required under our credit facility or the water credit facility. On October 16, 2014, the maximum borrowing capacity of our credit facility was increased from \$3.5 billion to \$4.0 billion and the borrowing base was increased from \$3.0 billion to \$4.0 billion, including \$500 million of commitments under the midstream credit facility. In November 2014, we replaced the \$500 million midstream credit facility with the \$200 million water credit facility. The total borrowing base of our credit facility remained unchanged. Aggregate commitments under the water credit facility are \$200 million and the aggregate commitment under our credit facility remains \$3.0 billion. Our next scheduled borrowing base redetermination is expected to occur in April 2015.

A breach of any covenant in our credit facility or the water credit facility would result in a default under that agreement after any applicable grace periods. A default, if not waived, could result in acceleration of the indebtedness outstanding under the facilities and in a default with respect to, and an acceleration of, the indebtedness outstanding under other debt agreements. The accelerated indebtedness would become immediately due and payable. If that occurs, we may not be able to make all of the required payments or borrow sufficient funds to refinance such indebtedness. Even if new financing were available at that time, it may not be on terms that are acceptable to us. See "Description of Notes—Events of Default."

We may not be able to repurchase the notes in certain circumstances.

Under the terms of the indentures governing our senior notes (including the indenture that governs the notes), holders may require us to repurchase all or a portion of our outstanding senior notes (including the notes) if we sell certain assets or in the event of a change of control. We may not have enough funds to pay the repurchase price on a purchase date (in which case, we could be required to issue equity securities to pay the repurchase price). Additionally, under the credit facility and the water credit facility, a change of control (as defined therein) constitutes an event of default that permits the lenders to accelerate the maturity of borrowings under the respective facility and terminate their commitments to lend. The source of funds for any purchase of our senior notes (including the notes) and repayment of borrowings under our credit facility and the water credit facility would be our available cash or cash generated from our subsidiaries' operations or other sources, including borrowings, sales of assets or sales of equity. We may not be able to repurchase our outstanding senior notes (including the notes) upon a change of control because we may not have sufficient financial resources to purchase all of the debt securities that are tendered upon a change of control and repay our other indebtedness that will become due. We may require additional financing from third parties to fund any such purchases, and we may be unable to obtain financing on satisfactory terms or at all. Further, our ability to repurchase our outstanding senior notes (including the notes) may be limited by law. In order to avoid the obligations to repurchase our outstanding senior notes (including the notes) and events of default and potential breaches of the agreements governing our credit facility and the water credit facility, we may have to avoid certain change of control transactions that would otherwise be beneficial to us.

In addition, some important corporate events, such as leveraged recapitalizations, may not, under the indentures governing our outstanding senior notes (including the indenture that governs the notes), constitute a "change of control" that would require us to repurchase our outstanding senior notes (including the notes), even though those corporate events could increase the level of our indebtedness or otherwise adversely affect our capital structure, credit ratings or the value of the notes. See "Description of Notes—Change of Control."

One of the circumstances under which a change of control may occur is upon the sale or disposition of all or substantially all of our consolidated assets. However, the phrase "all or substantially all" will likely be interpreted under applicable state law and will be dependent upon particular facts and circumstances. As a result, there may be a degree of uncertainty in ascertaining

whether a sale or disposition of "all or substantially all" of our consolidated assets has occurred, in which case, the ability of a holder of the notes to obtain the benefit of an offer to repurchase all or a portion of the notes held by such holder may be impaired.

The exercise by the holders of notes of their right to require us to repurchase the notes pursuant to a change of control offer could cause a default under the agreements governing our other indebtedness, including future agreements, even if the change of control itself does not, due to the financial effect of such repurchases on us. In the event a change of control offer is required to be made at a time when we are prohibited from purchasing notes, we could attempt to refinance the borrowings that contain such prohibitions. If we do not obtain a consent or repay those borrowings, we will remain prohibited from purchasing notes. In that case, our failure to purchase tendered notes would constitute an event of default under the indenture which could, in turn, constitute a default under our other indebtedness.

Any guarantees of the notes by our subsidiaries could be deemed fraudulent conveyances under certain circumstances, and a court may subordinate or void the guarantees.

The notes are currently guaranteed by our wholly owned subsidiaries, Antero Water LLC, AR OHIO LLC and Monroe Pipeline LLC. In certain circumstances, any of our future subsidiaries may be required to guarantee the notes. A court could subordinate or void the guarantees under various fraudulent conveyance or fraudulent transfer laws. Generally, to the extent that a U.S. court were to find that at the time the guarantee was entered:

- the guarantee was incurred with the intent to hinder, delay, or defraud any present or future creditor, or contemplated insolvency with a design to favor one or more creditors to the exclusion of others; or
- the guaranter did not receive fair consideration or reasonably equivalent value for issuing the guarantee and, at the time the guaranter issued the guarantee, it:
 - was insolvent or became insolvent as a result of issuing the guarantee,
 - was engaged or about to engage in a business or transaction for which its remaining assets constituted unreasonably small capital, or intended to incur, or believed that it would incur, debts beyond its ability to pay those debts as they matured:

then the court would void or subordinate the guarantees in favor of the guarantor's other obligations.

As a general matter, value is given for a transfer or an obligation if, in exchange for the transfer or obligation, property is transferred or a valid antecedent debt is secured or satisfied. A court would likely find that a subsidiary guarantor did not receive reasonably equivalent value or fair consideration for its guarantee to the extent the guarantor did not obtain a reasonably equivalent benefit directly or indirectly from the issuance of the notes.

We cannot be certain as to the standards a court would use to determine whether or not we or the guarantors were insolvent at the relevant time or, regardless of the standard that a court uses, whether the notes or the guarantees would be subordinated to our or any of our guarantors' other debt. In general, however, a court would deem an entity insolvent if:

- the sum of its debts, including contingent liabilities, was greater than the fair saleable value of all its assets;
- the present fair saleable value of its assets was less than the amount that would be required to pay its probable liability on its existing debts, including contingent liabilities, as they became absolute and mature; or
- it could not pay its debts as they became due.

If a court were to find that the issuance of the notes or the incurrence of a guarantee was a fraudulent transfer or conveyance, the court could void the payment obligations under the notes or that guarantee, could subordinate the notes or that guarantee to presently existing and future indebtedness of ours or of the related guarantor or could require the holders of the notes to repay any amounts received with respect to that guarantee. In the event that a finding that a fraudulent transfer or conveyance occurred, you may not receive any repayment on the notes. Further, the avoidance of the notes could result in an event of default with respect to our and our subsidiaries' other debt that could result in acceleration of that debt. Finally, as a court of equity, the bankruptcy court may subordinate the claims in respect of the notes to other claims against us under the principle of equitable subordination if the court determines that (1) the holder of notes engaged in some type of inequitable conduct, (2) the inequitable conduct resulted in injury to our other creditors or conferred an unfair advantage upon the holders of notes and (3) equitable subordination is not inconsistent with the provisions of the bankruptcy code.

Each guarantee contains a provision intended to limit the guarantor's liability to the maximum amount that it could incur without causing the incurrence of obligations under its guarantee to be a fraudulent conveyance or fraudulent transfer. This provision may not be effective to protect the guarantees from being voided under applicable law.

A lowering or withdrawal of the ratings assigned to our debt securities by rating agencies may increase our future borrowing costs and reduce our access to capital.

Our debt currently has a non-investment grade rating, and any rating assigned to the notes could be lowered or withdrawn entirely by a rating agency if, in that rating agency's judgment, future circumstances relating to the basis of the rating, such as adverse changes, so warrant. Consequently, real or anticipated changes in our credit ratings will generally affect the market value of the notes. Credit ratings are not recommendations to purchase, hold or sell the notes. Additionally, credit ratings may not reflect the potential effect of risks relating to the structure or marketing of the notes.

Any future lowering of our ratings likely would make it more difficult or more expensive for us to obtain additional debt financing. If any credit rating initially assigned to the notes is subsequently lowered or withdrawn for any reason, you may not be able to resell your notes without a substantial discount.

Many of the covenants contained in the indenture governing the notes will terminate if the notes are rated investment grade by both Standard & Poor's Ratings Services and Moody's Investors Service, Inc.

Many of the covenants in the indenture governing the notes will terminate if the notes are rated investment grade by both Standard & Poor's Ratings Services and Moody's Investors Service, Inc., provided at such time no default under the indenture governing the notes has occurred and is continuing. These covenants restrict, among other things, our ability to pay dividends, to incur indebtedness and to enter into certain other transactions. There can be no assurance that the notes will ever be rated investment grade, or that if they are rated investment grade, that the notes will maintain such ratings. However, termination of these covenants would allow us to engage in certain transactions that would not be permitted while these covenants were in force. See "Description of Notes—Certain Covenants—Covenant Termination."

USE OF PROCEEDS

The Exchange Offer is intended to satisfy our obligations under the Registration Rights Agreements. We will not receive any proceeds from the issuance of the new notes in the Exchange Offer. In consideration for issuing the new notes as contemplated by this prospectus, we will receive old notes in a like principal amount. The form and terms of the new notes are substantially identical in all respects to the form and terms of the old notes, except the new notes will be registered under the Securities Act and will not contain restrictions on transfer, registration rights or provisions for additional interest. Old notes surrendered in exchange for new notes will be retired and cancelled and will not be reissued. Accordingly, the issuance of the new notes will not result in any change in outstanding indebtedness.

RATIO OF EARNINGS TO FIXED CHARGES

The following table sets forth our ratio of earnings to fixed charges for the periods indicated.

For purposes of computing the ratio of earnings to fixed charges, "earnings" consists of pretax income (loss) from continuing operations plus fixed charges. "Fixed charges" represents interest incurred, amortization of deferred debt offering costs and that portion of rental expense on operating leases deemed to be the equivalent of interest.

	Nine Months	Year Ended December 31,				
	Ended					
	September 30,					
	2014	2013	2012	2011	2010	2009
Ratio of earnings to fixed charges	2.25x	2.18x	4.54x	7.11x	1.02x	(1)

(1) Earning were deficient to cover fixed charges by \$60,197,000.

THE EXCHANGE OFFER

General

The old notes were originally sold in private offerings on May 6, 2014 and September 4, 2014. Concurrently with the closing of the old notes offerings on May 6, 2014 and September 18, 2014, we and the then subsidiary guarantors entered into Registration Rights Agreements with the initial purchasers of the old notes that required us to file a registration statement under the Securities Act with respect to the new notes and, upon the effectiveness of the registration statement, to offer to the holders of the old notes the opportunity to exchange their old notes for a like principal amount of new notes.

The Registration Rights Agreements provide that we must (a) use our commercially reasonable efforts to (i) cause to be filed the registration statement of which this prospectus is a part and complete the Exchange Offer by May 6, 2015 and (ii) to have such registration statement become and remain effective until 180 days after the last Exchange Date (as such term is defined in the Registration Rights Agreements) for use by one or more participating broker-dealers. The Exchange Offer shall commence promptly after the registration statement of which this prospectus is a part is declared effective by the SEC.

Copies of the Registration Rights Agreements have been incorporated by reference as an exhibit to the registration statement of which this prospectus is a part. Following the completion of the Exchange Offer, holders of old notes not tendered will not have any further registration rights other than as set forth in the paragraphs below, and the old notes will continue to be subject to certain restrictions on transfer.

Subject to certain conditions, including the representations set forth below, the new notes will be issued without a restrictive legend and generally may be reoffered and resold without registration under the Securities Act. In order to participate in the Exchange Offer, a holder must represent to us, among other things, that:

- the new notes acquired pursuant to the Exchange Offer are being acquired in the ordinary course of business of the person receiving such new notes, whether or not such person is a holder;
- neither such holder nor, to the knowledge of such holder, any other person receiving new notes from such holder has an arrangement or understanding with any person to participate in the distribution (within the meaning of the Securities Act) of the new notes in violation of the provisions of the Securities Act;
- if the holder is not a broker-dealer, or is a broker-dealer but will not receive the new notes for its own account in exchange for the old notes, neither the holder nor, to the knowledge of such holder, any other person is engaged in or intends to participate in a distribution (within the meaning of the Securities Act) of the new notes in violation of the provisions of the Securities Act; and
- neither the holder nor, to the knowledge of such holder, any other person receiving new notes from such holder is an "affiliate" of ours within the meaning of Rule 405 under the Securities Act or, if such Person is an "affiliate," that such holder will comply with the registration and prospectus delivery requirements of the Securities Act to the extent applicable.

Based on an interpretation by the SEC's staff set forth in no-action letters issued to third parties unrelated to us, we believe that, with the exceptions set forth below, the new notes issued in the Exchange Offer may be offered for resale, resold and otherwise transferred by the holder of new notes

without compliance with the registration and prospectus delivery requirements of the Securities Act, unless the holder:

- is an "affiliate" of ours within the meaning of Rule 405 under the Securities Act;
- is a broker-dealer who purchased old notes directly from us for resale under Rule 144A, Regulation S or any other available exemption under the Securities Act;
- acquired the new notes other than in the ordinary course of the holder's business;
- has an arrangement or understanding with any person to engage in the distribution of the new notes; or
- is prohibited by any law or policy of the SEC from participating in the Exchange Offer.

Any holder who tenders in the Exchange Offer for the purpose of participating in a distribution of the new notes cannot rely on this interpretation by the SEC's staff and must comply with the registration and prospectus delivery requirements of the Securities Act in connection with a secondary resale transaction. Each broker-dealer that receives new notes for its own account in exchange for old notes, where such old notes were acquired by such broker-dealer as a result of market-making activities or other trading activities, must acknowledge that it will deliver a prospectus in connection with any resale of such new note. See "Plan of Distribution." Broker-dealers who acquired old notes directly from us and not as a result of market-making activities or other trading activities may not rely on the staff's interpretations discussed above, and must comply with the registration and prospectus delivery requirements of the Securities Act in order to sell the old notes.

Terms of the Exchange Offer

Upon the terms and subject to the conditions set forth in this prospectus and in the letter of transmittal, we will accept any and all old notes validly tendered and not withdrawn prior to 11:59 p.m., New York City Time on the Expiration Date. We will issue \$2,000 in principal amount of new notes in exchange for each \$2,000 principal amount of old notes accepted in the Exchange Offer. Holders may tender some or all of their old notes pursuant to the Exchange Offer. Old notes may be tendered only in denominations of \$2,000 and any integral multiples of \$1,000 in excess of \$2,000.

The new notes will evidence the same debt as the old notes and will be issued under the terms of, and entitled to the benefits of, the indenture relating to the old notes. As of the date of this prospectus, \$1.1 billion in aggregate principal amount of old notes are outstanding. This prospectus, together with the letter of transmittal, is being sent to all registered holders of old notes. There will be no fixed record date for determining registered holders of old notes entitled to participate in the Exchange Offer. We intend to conduct the Exchange Offer in accordance with the applicable requirements of the Exchange Act and the rules and regulations of the SEC promulgated under the Exchange Act.

Holders who tender old notes in the Exchange Offer will not be required to pay brokerage commissions or fees or, subject to the instructions in the letter of transmittal, transfer taxes with respect to the exchange of old notes in the Exchange Offer. We will pay all charges and expenses, other than certain applicable taxes, applicable to the Exchange Offer. See "—Fees and Expenses."

Expiration Date; Extensions; Amendments

The Expiration Date shall be 11:59 p.m., New York City Time, on February 25, 2015, unless we, in our sole discretion, extend the Exchange Offer, in which case the Expiration Date shall be the latest date and time to which the Exchange Offer is extended. We reserve the right, in our sole discretion:

- to extend the Exchange Offer or, if any of the conditions set forth under "—Conditions to the Exchange Offer" shall not have been satisfied or waived, to terminate the Exchange Offer, or
- to amend or modify the terms of the Exchange Offer in any manner or waive any conditions to the Exchange Offer. In the event of a material modification, including the waiver of a material condition, we will extend the offer, if necessary so that at least five business days remain after notice of the amendment and before the Expiration Date.

In order to extend the Exchange Offer, we will notify the Exchange Agent and each registered holder of any extension by oral or written notice prior to 9:00 a.m., New York City Time, on the next business day after the previously scheduled Expiration Date and will also disseminate notice of any extension by press release or other public announcement prior to 9:00 a.m. New York City Time on such date.

During any extension of the Exchange Offer and consent solicitation, all old notes previously validly tendered and not validly withdrawn will remain subject to the Exchange Offer. Any waiver, amendment or modification of the Exchange Offer will apply to all old notes previously validly tendered and not validly withdrawn.

Procedures for Tendering

When the holder of old notes tenders, and we accept such notes for exchange pursuant to that tender, a binding agreement between us and the tendering holder is created, subject to the terms and conditions set forth in this prospectus and the accompanying letter of transmittal.

General. If you wish to participate in the Exchange Offer, you must validly tender (and not validly withdraw) your old notes to the Exchange Agent at or prior to 11:59 p.m., New York City time, on the Expiration Date in accordance with the procedures described below. In order to meet this deadline, custodians and clearing systems may require you to act on a date prior to the Expiration Date. Additionally, they may require further information in order to process all requests to tender. Holders are urged to contact their custodians and clearing systems as soon as possible to ensure compliance with their procedures and deadlines.

The method of delivery of the old notes, the letter of transmittal and all other required documents to the Exchange Agent is at the election and risk of the holder. Where applicable, holders should use an overnight or hand delivery service, properly insured. In all cases, sufficient time should be allowed to assure delivery to and receipt by the Exchange Agent at or prior to the Expiration Date. Do not send the letter of transmittal or any old notes to anyone other than the Exchange Agent.

If you have questions regarding tender or consent procedures or require additional copies of this prospectus or the letter of transmittal, please contact the Exchange Agent. Contact information for the Exchange Agent are set forth below under the heading "—Exchange Agent." Holders whose old notes are held by a custodial entity such as a broker, dealer, commercial bank, trust company or other nominee can also contact such custodial entity for assistance in tendering their old notes.

Valid Tender of Old Notes. If you are a holder of old notes and you wish to tender your old notes for exchange pursuant to the Exchange Offer, on or prior to the Expiration Date you must:

- (1) agree to be bound by the terms of the Exchange Offer by transmitting either:
 - a properly completed and duly executed letter of transmittal, which accompanies this prospectus, or a facsimile of the letter of transmittal, with all signature guarantees and other documents required by the letter of transmittal, to the Exchange Agent at the address set forth below under the heading "—Exchange Agent"; or
 - a computer-generated message transmitted by means of DTC's ATOP, as described below, and received by the Exchange Agent in which you acknowledge and agree to be bound by the terms of the letter of transmittal; and
- (2) deliver the old notes to the Exchange Agent by either:
 - transmitting a timely confirmation of book-entry transfer of your old notes into the Exchange Agent's account at DTC pursuant to the procedure for book-entry transfers described below; or
 - if the old notes are held in physical form, delivering the old notes to the Exchange Agent as described below.

Delivery of Physical Letter of Transmittal. You may transmit your acceptance of the terms of the Exchange Offer by delivering a properly completed and duly executed physical letter of transmittal, which accompanies this prospectus, or a facsimile of the letter of transmittal, with all signature guarantees and other documents required by the letter of transmittal, to the Exchange Agent at the address set forth below under the heading "—Exchange Agent".

Signatures on all letters of transmittal must be guaranteed by a recognized participant in the Securities Transfer Agents Medallion Program, the New York Stock Exchange, Inc. Medallion Signature Program or the Stock Exchange Medallion Program (each, a "Medallion Signature Guarantor"), unless the old notes tendered thereby are tendered (i) by a holder of old notes (or by a participant in DTC whose name appears on a security position listing as the owner of such old notes) who has not completed the box entitled "Special Delivery Instructions" on the letter of transmittal, or (ii) for the account of a member firm of a registered national securities exchange, a member of FINRA or a commercial bank or trust company having an office or correspondent in the United States.

Delivery of Letter of Transmittal Through ATOP. In lieu of physically completing and executing the letter of transmittal and delivering it to the Exchange Agent, DTC participants that have the old notes credited to their DTC account and held of record by DTC's nominee may electronically transmit their acceptance of the Exchange Offer through ATOP, for which the transaction will be eligible. In accordance with ATOP procedures, DTC will then verify the acceptance of the Exchange Offer and send an agent's message to the Exchange Agent for its acceptance. An "agent's message" is a message transmitted by DTC, received by the Exchange Agent, which states that DTC has received an express acknowledgement from you that you have received the Exchange Offer documents and agree to be bound by the terms of the letter of transmittal, and that we may enforce such agreement against you.

Delivery of documents to DTC does not constitute delivery to the Exchange Agent. If you desire to tender your old notes through DTC, you must allow sufficient time for completion of the ATOP procedures during the normal procedures of DTC. We will have the right, which may be waived, to reject the defective tender of old notes as invalid and ineffective.

Holders whose old notes are held by DTC should be aware that DTC may have deadlines earlier than the Expiration Date for the Exchange Offer. Accordingly, such holders are urged to contact DTC as soon as possible.

Book-Entry Delivery of Old Notes. The Exchange Agent has established (or will shortly establish) an account with respect to the old notes at DTC for purposes of the Exchange Offer, and any financial institution that is a participant in the DTC system and whose name appears on a security position listing as the record owner of the old notes may make book-entry delivery of old notes by causing DTC to transfer the old notes into the Exchange Agent's account at DTC in accordance with DTC's procedure for transfer.

Delivery of Old Notes Held in Physical Form. We do not believe any old notes exist in physical form. If you believe you hold old notes in physical form, please contact the Exchange Agent regarding procedures for participating in the Exchange Offer. Any old notes in physical form must be tendered using a physical letter of transmittal and such old notes must be delivered to the Exchange Agent at its address set forth below under the heading "—Exchange Agent."

Tendering with Respect to Old Notes Held Through a Custodian. Any holder whose old notes are held by a custodial entity such as a broker, dealer, commercial bank, trust company or other nominee and who wishes to tender old notes should contact such custodial entity promptly and instruct such custodial entity to tender the old notes and deliver consents on such holder's behalf.

A custodial entity cannot tender old notes on behalf of a holder of old notes without such holder's instructions. Holders whose old notes are held by a custodial entity such as a broker, dealer, commercial bank, trust company or other nominee should be aware that such nominee may have deadlines earlier than the Expiration Date. Accordingly, such holders are urged to contact any custodial entity such as a broker, dealer, commercial bank, trust company or other nominee through which they hold their old notes as soon as possible in order to learn of the applicable deadlines of such nominees.

Determination of Validity. All questions as to the validity, form, eligibility (including time of receipt) and acceptance of any tendered old notes pursuant to any of the procedures described above, and the form and validity (including time of receipt of notices of withdrawal) of all documents will be determined by us in our sole discretion, which determination will be final and binding absent a finding to the contrary by a court of competent jurisdiction. We reserve the absolute right to reject any or all tenders of any old notes determined by us not to be in proper form, or if the acceptance of or exchange of such old notes may, in the opinion of our counsel, be unlawful or result in a breach of contract. A waiver of any defect or irregularity with respect to the tender of one old note shall not constitute a waiver of the same or any other defect or irregularity with respect to the tender of any other old note. Notwithstanding the foregoing, we do not expect to treat any holder of old notes differently from other holders to the extent they present the same facts or circumstances.

Your tender of old notes will not be deemed to have been validly made until all defects or irregularities in your tender have been cured or waived. None of us, the Exchange Agent or any other person or entity is under any duty to give notification of any defects or irregularities in any tender or withdrawal of any old notes, or will incur any liability for failure to give any such notification.

Acceptance of Old Notes for Exchange; Delivery of New Notes Issued in the Exchange Offer

Upon satisfaction or waiver of all the conditions to the Exchange Offer, and assuming we do not otherwise terminate the Exchange Offer, we will accept, promptly after the Expiration Date, all old notes validly tendered that have not been validly withdrawn and will issue new notes registered under the Securities Act in exchange for the tendered old notes. For purposes of the Exchange Offer, we shall be deemed to have accepted properly tendered old notes for exchange when, as and if we have given oral or written notice to the Exchange Agent, with written confirmation of any oral notice to be given promptly thereafter, and complied with the applicable provisions of the Registration Rights Agreements. If any tendered old notes are not accepted for any reason described in the terms and conditions of the Exchange Offer, such unaccepted old notes will be returned to the tendering holder

at our expense promptly after the expiration or termination of the Exchange Offer. Any withdrawn or unaccepted old notes will be credited to the tendering holder's account at DTC or, if the tendered old notes are held in physical form, by delivering the withdrawn or unaccepted old notes to the tendering holder. Under no circumstances will we be required to accept old notes for exchange that have not been validly tendered in accordance with the procedures set forth in this prospectus. See "—Procedures for Tendering."

For each old note accepted for exchange, the holder will receive a new note registered under the Securities Act having a principal amount equal to that of the surrendered old note. New notes will be delivered in book-entry form by deposit with DTC. DTC will transmit the new notes to holders in accordance with its procedures. Registered holders of new notes issued in the Exchange Offer on the relevant record date for the first interest payment date following the consummation of the Exchange Offer will receive interest accruing from the most recent date to which interest has been paid or, if no interest has been paid, from the issue date of the old notes. Holders of new notes will not receive any payment in respect of accrued interest on old notes otherwise payable on any interest payment date, the record date for which occurs on or after the consummation of the Exchange Offer. Under the Registration Rights Agreements, we may be required to make payments of additional interest to the holders of the old notes under circumstances relating to the timing of the Exchange Offer.

Withdrawal of Tenders

Tenders of old notes may be validly withdrawn at any time prior to the expiration of the Exchange Offer. For a withdrawal of a tender to be effective, a written or facsimile transmission notice of withdrawal, or a properly transmitted "request message" through ATOP, must be received by the Exchange Agent prior to the Expiration Date at its address set forth below under "—Exchange Agent." Any such written or facsimile-transmitted notice must:

- specify the name of the tendering holder of old notes;
- bear a description of the old notes to be withdrawn;
- specify, in the case of old notes tendered by physical delivery of certificates, the certificate numbers shown on the particular certificates evidencing those old notes;
- specify the aggregate principal amount represented by those old notes;
- specify, in the case of old notes tendered by physical delivery of certificates for those old notes, the name of the registered holder, if different from that of the tendering holder, or specify, in the case of old notes tendered by book-entry transfer, the name and number of the account at DTC to be credited with the withdrawn old notes;
- specify, in the case of old notes tendered by physical delivery of certificates for those old notes, mailing instructions for the return of such notes to the tendering holder; and
- be signed by the holder of those old notes in the same manner as the original signature on the letter of transmittal and consent, including any required signature guarantees, or be accompanied by evidence satisfactory to us that the person withdrawing the tender has succeeded to the beneficial ownership of those old notes.

Any withdrawn old notes will be credited to the tendering holder's account at DTC or, if the withdrawn old notes are held in certificated form, will be returned to the tendering holder at our expense. Withdrawal of tenders of old notes may not be rescinded, and any old notes validly withdrawn will thereafter be deemed not to have been validly tendered for purposes of the Exchange Offer. Validly withdrawn old notes may, however, be re-tendered by again following the procedures described in "—Procedures for Tendering" on or prior to the expiration of the Exchange Offer.

All questions as to the validity, form, eligibility (including time of receipt) and acceptance of any withdrawal of old notes pursuant to the procedures described above, and the form and validity (including time of receipt) of all documents will be determined by us in our sole discretion, which determination will be final and binding absent a finding to the contrary by a court of competent jurisdiction. None of us, the Exchange Agent or any other person or entity is under any duty to give notification of any defects or irregularities in any withdrawal of any old notes, or will incur any liability for failure to give any such notification.

Conditions to the Exchange Offer

Notwithstanding any other provision of the Exchange Offer, we will not be required to deliver any new notes, and we may terminate the Exchange Offer or, at our option, modify, extend or otherwise amend the Exchange Offer, if we determine, in our reasonable judgment, that (i) the Exchange Offer violates applicable law or any applicable interpretation of the staff of the SEC; (ii) an action or proceeding shall have been instituted or threatened in any court or by any governmental agency which might materially impair our ability to proceed with the Exchange Offer or a material adverse development shall have occurred in any existing action or proceeding with respect to us; or (iii) all governmental approvals that we deem necessary for the consummation of the Exchange Offer have not been obtained.

The foregoing conditions are for our sole benefit and may be asserted by us regardless of the circumstances giving rise to any such condition or may be waived by us in whole or in part at any time and from time to time. The failure by us at any time to exercise any of the foregoing rights shall not be deemed a waiver of any of those rights and each of those rights shall be deemed an ongoing right which may be asserted at any time and from time to time.

In addition, we will not accept for exchange any old notes tendered, and no new notes will be issued in exchange for those old notes, if at such time the registration statement of which this prospectus forms a part has not been declared effective by the SEC, or if at such time any stop order shall be threatened or in effect with respect to the registration statement of which this prospectus constitutes a part or the qualification of the Indenture under the Trust Indenture Act of 1939. In any of those events we are required to use commercially reasonable efforts to have the registration statement of which this prospectus forms a part be declared effective by the SEC and obtain the withdrawal of any stop order at the earliest possible moment, as applicable.

Consequences of Not Tendering

Old notes that are not tendered or are tendered but not accepted will, following the consummation of the Exchange Offer, continue to accrue interest and to be subject to the provisions in the indenture regarding the transfer and exchange of the old notes and the existing restrictions on transfer set forth in the legend on the old notes relating to the old notes. After the completion of the Exchange Offer, we will have no further obligation to provide for the registration under the Securities Act of those old notes except in limited circumstances with respect to specific types of holders of old notes. In general, old notes, unless registered under the Securities Act, may not be offered or sold except pursuant to an exemption from, or in a transaction not subject to, the Securities Act and applicable state securities laws.

Exchange Agent

All executed letters of transmittal should be directed to the Exchange Agent. Wells Fargo Bank, National Association has been appointed as Exchange Agent for the Exchange Offer. Questions, requests for assistance and requests for additional copies of this prospectus or of the letter of transmittal should be directed to the Exchange Agent addressed as follows:

By Registered & Certified Mail:

Wells Fargo Bank, N.A. Corporate Trust Operations MAC N9303-121 PO Box 1517 Minneapolis, Minnesota 55480

By regular mail or overnight courier:

Wells Fargo Bank, N.A. Corporate Trust Operations MAC N9303-121 Sixth & Marquette Avenue Minneapolis, Minnesota 55479

In person by hand only:

Wells Fargo Bank, N.A. 12th Floor—Northstar East Building Corporate Trust Operations 608 Second Avenue South Minneapolis, Minnesota 55402

Fees and Expenses

We will not make any payments to brokers, dealers or others soliciting acceptances of the Exchange Offer. The estimated cash expenses to be incurred in connection with the Exchange Offer will be paid by us and will include fees and expenses of the Exchange Agent, accounting, legal, printing and related fees and expenses.

Accounting Treatment

We will record the new notes at the same carrying value as the old notes, as reflected in our accounting records on the date of the exchange. Accordingly, we will not recognize any gain or loss for accounting purposes as the terms of the new notes are substantially identical to those of the old notes. The expenses of the Exchange Offer will be amortized over the term of the new notes.

Transfer Taxes

Holders who tender their old notes for exchange will not be obligated to pay any transfer taxes in connection with that tender or exchange, except that holders who instruct us to register new notes in the name of, or request that old notes not tendered or not accepted in the Exchange Offer be returned to, a person other than the registered tendering holder will be responsible for the payment of any applicable transfer tax on those old notes.

DESCRIPTION OF NOTES

You can find the definitions of certain terms used in this description under the subheading "—Certain Definitions." References to the "notes" in this section of the prospectus include both the old notes issued on May 6, 2014 and September 4, 2014 and the new notes, unless the context otherwise requires. For purposes of this description, references to "the Issuer," "we," "our" and "us" refer only to Antero Resources Corporation, the issuer of the new notes.

The new notes will be issued and the old notes were issued under an indenture (the "Based Indenture") dated May 6, 2016 by and among us, as issuer, Antero Resources Midstream LLC and Antero Midstream LLC, as Subsidiary Guarantors, and Wells Fargo Bank, National Association, as trustee (the "Trustee"). Subsequently, the two initial Subsidiary Guarantors were released of their obligations and the original Indenture was amended by the First Supplemental Indenture to add Antero Water LLC and AR OHIO LLC as Subsidiary Guarantors. In January 2015, the original indenture was further amended by the Second Supplemental Indenture to add Monroe Pipeline LLC as a Subsidiary Guarantor. We refer to the Base Indenture, as amended by the First Supplemental Indenture, as the "Indenture." The terms of the notes include those expressly set forth in the Indenture and those made part of the Indenture by reference to the Trust Indenture Act of 1939, as amended (the "Trust Indenture Act").

Currently, \$1.1 billion in aggregate principal amount of notes is outstanding. In the future, we may issue an unlimited principal amount of additional notes having identical terms and conditions as the notes (the "Additional Notes"). We will be permitted to issue such Additional Notes only in compliance with the covenant described under the subheading "—Certain Covenants—Limitation on Indebtedness and Preferred Stock." Any such Additional Notes will have identical terms to, other than the issue date and the initial interest payment date, and will be part of the same series as, the old notes and the new notes and will vote on all matters with the holders of the old notes and the new notes. Unless the context otherwise requires, for all purposes of the Indenture and this "Description of Notes," references to the notes include any Additional Notes we may issue in the future as well as the old notes and the new notes.

This "Description of Notes" is intended to be a useful overview of the material provisions of the notes and the Indenture. Since this "Description of Notes" is only a summary, you should refer to these documents for a complete description of the obligations of the Issuer and the Subsidiary Guarantors and your rights.

The following description of the notes is a summary of the material provisions of the Indenture. It does not restate the Indenture in its entirety. We urge you to read the Base Indenture and the First Supplemental Indenture because they, and not this description, define your rights as holders of the notes. A copy of each of the Base Indenture and the First Supplemental Indenture is filed as an exhibit to the registration statement of which this prospectus is a part.

If the Exchange Offer contemplated by this prospectus is consummated, holders of old notes who do not exchange those notes for new notes in the Exchange Offer will vote together with holders of new notes for all relevant purposes under the Indenture. In that regard, the Indenture requires that certain actions by the holders thereunder must be taken, and certain rights must be exercised, by specified minimum percentages of the aggregate principal amount of the outstanding securities issued under the Indenture. In determining whether holders of the requisite percentage in principal amount of notes have given any notice, consent or waiver or taken any other action permitted under the Indenture, any old notes that remain outstanding after the Exchange Offer will be aggregated with the new notes, and the holders of such old notes and the new notes will vote together as a single class for all such purposes. Accordingly, all references herein to specified percentages in aggregate principal amount of the notes outstanding shall be deemed to mean, at any time after the Exchange Offer is

consummated, such percentages in aggregate principal amount of the old notes and the new notes then outstanding.

The registered holder of a note will be treated as the owner of it for all purposes. Only registered holders of notes have rights under the Indenture, and all references to "holders" in this description of notes are to registered holders of notes.

The Notes

General

The notes. The new notes, like the old notes:

- will be general unsecured, senior obligations of the Issuer;
- will mature on December 1, 2022;
- will be issued only in denominations of \$2,000 and integral multiples of \$1,000 in excess of \$2,000;
- will be represented by one or more registered notes in global form, but in certain circumstances may be represented by notes in definitive form, see "Book-entry, Delivery and Form";
- will rank senior in right of payment to any future Subordinated Obligations of the Issuer;
- will rank equally in right of payment to any other senior Indebtedness of the Issuer (including the Issuer's borrowings and guarantees under the Senior Secured Credit Agreements), without giving effect to collateral arrangements;
- will be guaranteed on a senior unsecured basis by each current Subsidiary of the Issuer (see "—Guarantees"); and
- will effectively rank junior to any secured Indebtedness of the Issuer, to the extent of the value of the collateral securing such Indebtedness.

The guarantees. The Subsidiary Guarantors will unconditionally guarantee the new notes on a senior unsecured basis. Each Guarantee of the new notes:

- will be a general unsecured, senior obligation of the Subsidiary Guarantors;
- will rank senior in right of payment to any future Guarantor Subordinated Obligations of the Subsidiary Guarantors;
- will rank equally in right of payment to any other existing and future senior Indebtedness of the Subsidiary Guarantors, without giving effect to collateral arrangements;
- will effectively rank junior to all existing and future secured Indebtedness of the Subsidiary Guarantors, including any borrowings and guarantees under the Senior Secured Credit Agreements, to the extent of the value of the collateral securing such Indebtedness; and
- will rank structurally junior to all future Indebtedness and other obligations of any non-guarantor Subsidiary of the Subsidiary Guarantors.

Certain Subsidiaries of the Issuer are not, and certain future Subsidiaries of the Issuer may not be, required to guarantee the notes. See "—Certain Covenants—Future Subsidiary Guarantors." Also, under the circumstances described below in the definition of "Unrestricted Subsidiary" under the heading "—Certain Definitions," the Issuer may designate certain of its Subsidiaries as "Unrestricted Subsidiaries." Unrestricted Subsidiaries will not guarantee the notes and will not be subject to the restrictive covenants in the Indenture.

Interest. Interest on the new notes will:

- accrue at the rate of 5.125% per annum;
- accrue from the the most recent interest payment date on the notes, December 1, 2014;
- be payable in cash semi-annually in arrears on June 1 and December 1, with the first interest payment date being on June 1, 2015:
- be payable to the holders of record on the May 15 and November 15 immediately preceding the related interest payment dates;
- be computed on the basis of a 360-day year comprised of twelve 30-day months.

If an interest payment date falls on a day that is not a Business Day, the interest payment to be made on such interest payment date will be made on the next succeeding Business Day with the same force and effect as if made on such interest payment date, and no additional interest will accrue as a result of such delayed payment. The Issuer will pay interest on overdue principal of the notes at the above rate, and overdue installments of interest at such rate, to the extent lawful.

Payments on the Notes; Paying Agent and Registrar

We will pay principal of, premium, if any, and interest on the notes at the office or agency designated by us in the City and State of New York, except that we may, at our option, pay interest on the notes by check mailed to each holder of the notes at its registered address as it appears in the registrar's books. We have initially designated the corporate trust office of the Trustee in Minneapolis, Minnesota to act as our paying agent and its corporate trust office in Dallas, Texas to act as registrar.

We may, however, change the paying agent or registrar without prior notice to the holders of the notes, and any of the Restricted Subsidiaries may act as paying agent or registrar.

We will pay principal of, premium, if any, and interest on, notes in global form registered in the name of or held by The Depository Trust Company ("DTC") or its nominee in immediately available funds to DTC or its nominee, as the case may be, as the registered holder of such global note.

Transfer and Exchange

A holder may transfer or exchange notes in accordance with the Indenture. The registrar and the Trustee may require a holder, among other things, to furnish appropriate endorsements and transfer documents in connection with a transfer of notes. No service charge will be imposed by the Issuer, the Trustee or the registrar for any registration of transfer or exchange of notes, but the Issuer may require a holder to pay a sum sufficient to cover any transfer tax or other governmental taxes and fees required by law or permitted by the Indenture. The Issuer is not required to transfer or exchange any note selected for redemption. Also, the Issuer is not required to transfer or exchange any note for a period of 15 days before a selection of notes to be redeemed.

Optional Redemption

On and after June 1, 2017, we may redeem all or, from time to time, a part of the notes upon notice as set forth under "—Selection and Notice," at the following redemption prices (expressed as a percentage of principal amount of the notes), plus accrued and unpaid interest, if any, to, but excluding, the applicable redemption date (subject to the right of holders of record on the relevant

record date to receive interest due on the relevant interest payment date), if redeemed during the 12 month period beginning on June 1 of the years indicated below:

<u>Year</u>	Percentage
2017	103.844%
2018	102.563%
2019	101.281%
2020 and thereafter	100.000%

On or prior to June 1, 2017, we may, at our option, on any one or more occasions, upon notice as set forth under "—Selection and Notice," redeem up to 35% of the aggregate principal amount of the notes (including any other Additional Notes) issued under the Indenture, but in an amount not greater than the Net Cash Proceeds of one or more Equity Offerings, at a redemption price of 105.125% of the principal amount thereof, plus accrued and unpaid interest, if any, to, but excluding, the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date); provided that:

- (1) at least 65% of the aggregate principal amount of the notes (including any other Additional Notes) issued under the Indenture remains outstanding after each such redemption; and
 - (2) the redemption occurs within 180 days after the closing of the related Equity Offering.

If a Change of Control occurs at any time prior to December 1, 2015, the Issuer may, at its option, redeem all, but not less than all, of the notes upon notice as set forth under "—Selection and Notice," at a redemption price equal to 110.0% of the principal amount of the notes redeemed, plus accrued and unpaid interest, if any, to the redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date). If the Issuer elects to exercise this redemption right, it must do so by sending a redemption notice to each Holder with a copy to the Trustee within 60 days following the Change of Control (or, at the Issuer's option, prior to such Change of Control but after the transaction giving rise to such Change of Control is publicly announced). Any such redemption may be conditioned upon the Change of Control occurring if the notice is sent prior to the Change of Control. If the Issuer exercises the Change of Control redemption right, it may elect not to make the Change of Control Offer described below under "—Change of Control" unless it defaults in payments due upon redemption.

In addition, the notes may be redeemed, in whole or in part, at any time prior to June 1, 2017 at the option of the Issuer upon notice set forth under "—Selection and Notice," at a redemption price equal to 100% of the principal amount of the notes redeemed plus the Applicable Premium as of, and accrued and unpaid interest to, but excluding, the applicable redemption date (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

"Applicable Premium" means, with respect to any note at any time, the greater of:

- (1) 1.0% of the principal amount of such Note; or
- (2) the excess, if any, of:
 - (a) the present value at such time of (i) the redemption price of such note at June 1, 2017 (such redemption price being set forth in the table appearing in the first paragraph of this "Optional Redemption" section) plus (ii) all required interest payments (excluding accrued and unpaid interest to such redemption date) due on such note through June 1, 2017 computed using a discount rate equal to the Treasury Rate as of such redemption date plus

50 basis points discounted to the redemption date on a semi annual basis (assuming a 360 day year consisting of twelve 30 day calendar months); over

(b) the principal amount of such note.

"Treasury Rate" means, with respect to any redemption date, the yield to maturity at the time of computation of United States Treasury securities with a constant maturity (as compiled and published in the most recent Federal Reserve Statistical Release H.15 (519) which has become publicly available at least two Business Days prior to the redemption date (or, if such Statistical Release is no longer published, any publicly available source of similar market data)) most nearly equal to the period from the redemption date to June 1, 2017; provided, however, that if the period from the redemption date to June 1, 2017 is not equal to the constant maturity of a United States Treasury security for which a weekly average yield is given, the Treasury Rate shall be obtained by linear interpolation (calculated to the nearest one-twelfth of a year) from the weekly average yields of United States Treasury securities for which such yields are given, except that if the period from the redemption date to June 1, 2017 is less than one year, the weekly average yield on actually traded United States Treasury securities adjusted to a constant maturity of one year shall be used. The Issuer will (a) calculate the Treasury Rate as of a date no later than the fourth Business Day preceding the applicable redemption date and (b) prior to such redemption date file with the Trustee an Officers' Certificate setting forth the Applicable Premium and the Treasury Rate and showing the calculation of each in reasonable detail.

Selection and Notice

If the Issuer is redeeming less than all of the outstanding notes, the Trustee will select the notes for redemption in compliance with the requirements of the principal national securities exchange, if any, on which the notes are listed or, if the notes are not listed, then on a pro rata basis, by lot or by such other method as the Trustee in its sole discretion will deem to be fair and appropriate (or, in the case of notes in global form, the Trustee will select notes for redemption based on DTC's method that most nearly approximates a pro rata selection), although no note of \$2,000 in original principal amount or less will be redeemed in part. Notices of redemption will be sent at least 30 but not more than 60 days before the redemption date to each holder of notes to be redeemed at its registered address, except that redemption notices may be sent more than 60 days prior to a redemption date if the notice is issued in connection with a legal defeasance or covenant defeasance of the notes or a satisfaction and discharge of the Indenture. If any note is to be redeemed in part only, the notice of redemption relating to such note will state the portion of the principal amount thereof to be redeemed. A new note in principal amount equal to the unredeemed portion thereof will be issued in the name of the holder thereof upon cancellation of the partially redeemed note. On and after the redemption date, interest will cease to accrue on notes or the portion of them called for redemption without any condition precedent, unless we default in the payment thereof. Any redemption or notice of redemption may, at our discretion, be subject to one or more conditions precedent and, in the case of a redemption with the Net Cash Proceeds of an Equity Offering, be given prior to the completion of the related Equity Offering.

Mandatory Redemption; Offers to Purchase; Open Market Purchases

We will not be required to make mandatory redemption payments or sinking fund payments with respect to the notes. However, under certain circumstances, we may be required to offer to purchase notes as described under the captions "—Change of Control" and "—Certain Covenants—Limitation on Sales of Assets and Subsidiary Stock." The Issuer and its Subsidiaries may acquire notes by means other than a redemption or required repurchase, whether by tender offer, open market purchases, negotiated transactions or otherwise, in accordance with applicable securities laws, so long as such acquisition does not otherwise violate the terms of the Indenture. However, other existing or future agreements may limit our ability or the ability of our Subsidiaries to purchase notes prior to maturity.

Ranking

The notes are the general unsecured obligations of the Issuer and rank senior in right of payment to any of its future Indebtedness that is expressly subordinated in right of payment to the notes. The notes rank equally in right of payment with all other Indebtedness of the Issuer that is not so subordinated and are effectively subordinated to any of its secured Indebtedness (including any borrowings and guarantees under the Senior Secured Credit Agreements), to the extent of the value of the collateral securing such Indebtedness.

The obligations of each of the Subsidiary Guarantors under the Guarantees rank equally in right of payment with all other Indebtedness of such Subsidiary Guarantor, except to the extent such other Indebtedness is expressly subordinated in right of payment to the obligations arising under its Guarantee. However, such obligations effectively rank junior to all existing and future secured Indebtedness of the Subsidiary Guarantors (including any borrowings and guarantees under the Senior Secured Credit Agreements), to the extent of the value of the collateral securing such Indebtedness. In the event of bankruptcy, liquidation, reorganization or other winding up of the Issuer or the Subsidiary Guarantors, or upon a default in payment with respect to, or the acceleration of, any Indebtedness under the Senior Secured Credit Agreements or other secured Indebtedness, the assets of the Issuer and the Subsidiary Guarantors that secure secured Indebtedness will be available to pay obligations on the notes and the Guarantees only after all Indebtedness under the Senior Secured Credit Agreements and other secured Indebtedness has been repaid in full from such assets. In addition, in the event of bankruptcy, liquidation, reorganization or other winding up of a non-guarantor Subsidiary, the assets of such Subsidiary will be available to pay obligations on the notes and the Guarantees only after all obligations of such Subsidiary have been repaid in full from such assets. We advise you that there may not be sufficient assets remaining to pay amounts due on any or all the notes and the Guarantees then outstanding.

Guarantees

The Subsidiary Guarantors jointly and severally, fully and unconditionally guarantee on a senior unsecured basis our obligations under the notes and all obligations under the Indenture, and they will do likewise with respect to the new notes.

The obligations of each of the Subsidiary Guarantors under the Guarantees will rank equally in right of payment with all other Indebtedness of such Subsidiary Guarantor, except to the extent such other Indebtedness is expressly subordinated in right of payment to the obligations arising under its Guarantee.

Although the Indenture limits the amount of Indebtedness that the Issuer and its Restricted Subsidiaries may Incur, such Indebtedness may be substantial and such limitation is subject to a number of significant qualifications. Moreover, the Indenture will not impose any limitation on the Incurrence by such Persons of liabilities that are not considered Indebtedness under the Indenture. See "—Certain Covenants—Limitation on Indebtedness and Preferred Stock."

The obligations of each Subsidiary Guarantor under its Guarantee will be limited as necessary to prevent that Guarantee from constituting a fraudulent conveyance or fraudulent transfer under applicable law, although no assurance can be given that a court would give the holder the benefit of such provision. See "Risk Factors—Risks Related to the Notes and the Exchange Offer—Any guarantees of the notes by our subsidiaries could be deemed fraudulent conveyances under certain circumstances, and a court may subordinate or void the guarantees." If a Guarantee were rendered voidable, it could be subordinated by a court to all other indebtedness (including guarantees and other contingent liabilities) of the applicable Subsidiary Guarantor, and, depending on the amount of such indebtedness, a Subsidiary Guarantor's liability on its Guarantee could be reduced to zero. If the obligations of a Subsidiary Guarantor under its Guarantee were avoided, holders of notes would have

to look to the assets of any remaining Subsidiary Guarantors for payment. There can be no assurance in that event that such assets would suffice to pay the outstanding principal and interest on the notes.

In the event a Subsidiary Guarantor is sold or disposed of (whether by merger, consolidation, the sale of a sufficient amount of its Capital Stock so that it no longer qualifies as a "Subsidiary" of the Issuer or the sale of all or substantially all of its assets (other than by lease)) and whether or not the Subsidiary Guarantor is the surviving entity in such transaction to a Person which is not the Issuer or a Restricted Subsidiary of the Issuer, such Subsidiary Guarantor will be released from its obligations under its Guarantee if the sale or other disposition does not violate the covenants described under "—Certain Covenants—Limitation on Sales of Assets and Subsidiary Stock."

In addition, a Subsidiary Guarantor will be released from its obligations under the Indenture and its Guarantee, upon the release or discharge of the guarantee of other Indebtedness that resulted in the creation of such Guarantee pursuant to clause (b) of the covenant described under "—Certain Covenants—Future Subsidiary Guarantors," except a release or discharge by or as a result of payment under such guarantee; if the Issuer designates such Subsidiary as an Unrestricted Subsidiary and such designation complies with the other applicable provisions of the Indenture or in connection with any covenant defeasance, legal defeasance or satisfaction and discharge of the notes as provided below under the captions "—Defeasance" and "—Satisfaction and Discharge."

Change of Control

If a Change of Control occurs, unless the Issuer has previously or concurrently exercised its right to redeem all of the notes as described under "—Optional Redemption" or one of the other two exceptions described below applies, each holder will have the right to require the Issuer to repurchase all or any part (equal to \$2,000 or an integral multiple of \$1,000 in excess of \$2,000) of such holder's notes at a purchase price in cash equal to 101% of the principal amount of the notes plus accrued and unpaid interest, if any, to, but excluding, the date of purchase (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

Within 30 days following any Change of Control, unless we have previously or concurrently exercised our right to redeem all of the notes as described under "—Optional Redemption" or one of the other two exceptions described below applies, we will send a notice (the "Change of Control Offer") to each holder, with a copy to the Trustee, stating:

- (1) that a Change of Control has occurred and that such holder has the right to require us to purchase such holder's notes at a purchase price in cash equal to 101% of the principal amount of such notes plus accrued and unpaid interest, if any, to the date of purchase (subject to the right of holders of record on a record date to receive interest on the relevant interest payment date) (the "Change of Control Payment");
- (2) the repurchase date (which shall be no earlier than 30 days nor later than 60 days from the date such notice is sent) (the "Change of Control Payment Date");
 - (3) that any note not properly tendered will remain outstanding and continue to accrue interest;
- (4) that unless we default in the payment of the Change of Control Payment, all notes accepted for payment pursuant to the Change of Control Offer will cease to accrue interest on the Change of Control Payment Date;
- (5) that holders electing to have any notes in certificated form purchased pursuant to a Change of Control Offer will be required to surrender such notes, with the form entitled "Option of Holder to Elect Purchase" on the reverse of such notes completed, to the paying agent specified

in the notice at the address specified in the notice prior to the close of business on the third Business Day preceding the Change of Control Payment Date;

- (6) that holders will be entitled to withdraw their tendered notes and their election to require us to purchase such notes, *provided* that the paying agent receives, not later than the close of business on the third Business Day preceding the Change of Control Payment Date, a telegram, telex, facsimile transmission or letter setting forth the name of the holder of the notes, the principal amount of notes tendered for purchase, and a statement that such holder is withdrawing its tendered notes and its election to have such notes purchased;
- (7) that if we are repurchasing a portion of the note of any holder, the holder will be issued a new note equal in principal amount to the unpurchased portion of the note surrendered, *provided* that the unpurchased portion of the note must be equal to a minimum principal amount of \$2,000 and an integral multiple of \$1,000 in excess of \$2,000; and
- (8) the procedures determined by us, consistent with the Indenture, that a holder must follow in order to have its notes repurchased.

On the Change of Control Payment Date, the Issuer will, to the extent lawful:

- (1) accept for payment all notes or portions of notes (in a minimum principal amount of \$2,000 and integral multiples of \$1,000 in excess of \$2,000) properly tendered pursuant to the Change of Control Offer and not properly withdrawn;
- (2) deposit with the paying agent an amount equal to the Change of Control Payment in respect of all notes or portions of notes accepted for payment; and
- (3) deliver or cause to be delivered to the Trustee the notes so accepted together with an Officers' Certificate stating the aggregate principal amount of notes or portions of notes being purchased by the Issuer.

The paying agent will promptly mail or deliver to each holder of notes accepted for payment the Change of Control Payment for such notes, and the Trustee will promptly authenticate and mail (or cause to be transferred by book entry) to each holder a new note equal in principal amount to any unpurchased portion of the notes surrendered, if any; *provided* that each such new note will be in a minimum principal amount of \$2,000 or an integral multiple of \$1,000 in excess of \$2,000.

If the Change of Control Payment Date is on or after an interest record date and on or before the related interest payment date, any accrued and unpaid interest, will be paid to the Person in whose name a note is registered at the close of business on such record date, and no further interest will be payable to holders who tender pursuant to the Change of Control Offer.

The Change of Control provisions described above are applicable whether or not any other provisions of the Indenture are applicable. Except as described above with respect to a Change of Control, the Indenture does not contain provisions that permit the holders to require that the Issuer or any Subsidiary of the Issuer repurchase or redeem the notes in the event of a takeover, recapitalization or similar transaction.

We will not be required to make a Change of Control Offer upon a Change of Control if (1) any other Person makes the Change of Control Offer in the manner, at the times and otherwise in compliance with the requirements set forth in the Indenture applicable to a Change of Control Offer made by us and purchases all notes validly tendered and not withdrawn under such Change of Control Offer, (2) notice of redemption of all outstanding notes has been given pursuant to the Indenture as described above under "—Optional Redemption," unless and until there is a default in payment of the applicable redemption price, or (3) in connection with or in contemplation of any Change of Control, the Issuer has made an offer to purchase (an "Alternate Offer") any and all notes validly tendered at a

cash price equal to or higher than the Change of Control Payment and has purchased all notes properly tendered in accordance with the terms of such Alternate Offer.

A Change of Control Offer may be made in advance of a Change of Control, and conditioned upon the occurrence of a Change of Control, if a definitive agreement is in place for the Change of Control at the time of making the Change of Control Offer.

We will comply, to the extent applicable, with the requirements of Rule 14e-1 of the Exchange Act and any other securities laws or regulations in connection with the repurchase of notes as a result of a Change of Control. To the extent that the provisions of any securities laws or regulations conflict with provisions of this covenant, we will comply with the applicable securities laws and regulations and will not be deemed to have breached our obligations under the Indenture by virtue of our compliance with such securities laws or regulations.

Our ability to repurchase notes pursuant to a Change of Control Offer may be limited by a number of factors. The occurrence of certain of the events that constitute a Change of Control would constitute a default under the Senior Secured Credit Agreements. In addition, certain events that may constitute a change of control under the Senior Secured Credit Agreements and cause a default under that agreement will not constitute a Change of Control under the Indenture. Future Indebtedness of our Subsidiaries may also contain prohibitions of certain events that would constitute a Change of Control or require such Indebtedness to be repaid upon a Change of Control. Moreover, the exercise by the holders of their right to require us to repurchase the notes could cause a default under such Indebtedness, even if the Change of Control itself does not, due to the financial effect of such repurchase on the Issuer and its Restricted Subsidiaries. Finally, our ability to pay cash to the holders upon a repurchase may be limited by the then existing financial resources of our Restricted Subsidiaries. There can be no assurance that sufficient funds will be available when necessary to make any required repurchases.

Even if sufficient funds were otherwise available, the future Indebtedness of the Issuer and its Restricted Subsidiaries may prohibit our repurchase of notes before their scheduled maturity. Consequently, if we and our Restricted Subsidiaries are not able to prepay the Indebtedness under the Senior Secured Credit Agreements and any such other Indebtedness containing similar restrictions or obtain requisite consents, we will be unable to fulfill our repurchase obligations if holders of notes exercise their repurchase rights following a Change of Control, resulting in a default under the Indenture. A default under the Indenture may result in a cross default under the Senior Secured Credit Agreements.

If holders of not less than 90% in aggregate principal amount of the outstanding notes validly tender and do not withdraw such notes in a Change of Control Offer or Alternate Offer and the Issuer, or any other Person making a Change of Control Offer in lieu of the Issuer as described above, purchases all of the notes validly tendered and not withdrawn by such holders, the Issuer will have the right, upon not less than 30 nor more than 60 days' prior notice, given not more than 30 days following such purchase pursuant to the Change of Control Offer or Alternate Offer, as applicable, to redeem all notes that remain outstanding following such purchase at a redemption price in cash equal to the applicable Change of Control Payment plus, to the extent not included in the Change of Control Payment, accrued and unpaid interest, if any, to the date of redemption (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date).

The Change of Control provisions described above may deter certain mergers, tender offers and other takeover attempts involving us. The Change of Control purchase feature is a result of negotiations between the initial purchasers and us. As of the date hereof, we have no present intention to engage in a transaction involving a Change of Control, although it is possible that we could decide to do so in the future. Subject to the limitations discussed below, we and our Subsidiaries could, in the future, enter into certain transactions, including acquisitions, refinancings or other recapitalizations, that

would not constitute a Change of Control under the Indenture, but that could increase the amount of indebtedness outstanding at such time or otherwise affect our capital structure or credit ratings. Restrictions on the ability of us and our Restricted Subsidiaries to incur additional Indebtedness are contained in the covenants described under "—Certain Covenants—Limitation on Indebtedness and Preferred Stock" and "—Certain Covenants—Limitation on Liens." Such restrictions in the Indenture can be waived only with the consent of the holders of a majority in principal amount of the notes then outstanding. Except for the limitations contained in such covenants, however, the Indenture does not contain any covenants or provisions that may afford holders of the notes protection in the event of a highly leveraged transaction.

The definition of "Change of Control" includes a disposition of all or substantially all of the assets of us and our Restricted Subsidiaries taken as a whole to any Person. Although there is a limited body of case law interpreting the phrase 'substantially all,' there is no precise established definition of the phrase under applicable law. Accordingly, in certain circumstances there may be a degree of uncertainty as to whether a particular transaction would involve a disposition of 'all or substantially all" of the assets of a Person. As a result, it may be unclear as to whether a Change of Control has occurred and whether a holder of notes may require us to make an offer to repurchase the notes as described above.

The provisions under the Indenture relative to our obligation to make an offer to repurchase the notes as a result of a Change of Control may be waived or modified or terminated with the consent of the holders of a majority in principal amount of the notes then outstanding (including consents obtained in connection with a tender offer or exchange offer for the notes) prior to the occurrence of such Change of Control.

Certain Covenants

Limitation on Indebtedness and Preferred Stock

We will not, and we will not permit any of our Restricted Subsidiaries to, directly or indirectly, Incur any Indebtedness (including Acquired Indebtedness), and we will not permit any of our Restricted Subsidiaries to issue Preferred Stock; *provided, however*, that we may Incur Indebtedness and we and any of the Subsidiary Guarantors may Incur Indebtedness and issue Preferred Stock if on the date thereof:

- (1) the Consolidated Coverage Ratio for us and our Restricted Subsidiaries is at least 2.25 to 1.00, determined on a pro forma basis (including a pro forma application of proceeds); and
- (2) no Default would occur as a consequence of, and no Event of Default would be continuing following, Incurring the Indebtedness or its application.

The first paragraph of this covenant will not prohibit the Incurrence of the following Indebtedness:

- (1) Indebtedness under one or more Credit Facilities of (a) the Issuer or any Subsidiary Guarantor Incurred pursuant to this clause (1) in an aggregate amount not to exceed the greater of (i) \$3.1 billion or (ii) the sum of \$400.0 million and 30.0% of the Issuer's Adjusted Consolidated Net Tangible Assets determined as of the date of the Incurrence of such Indebtedness after giving effect to the application of the proceeds therefrom and (b) any Foreign Subsidiary Incurred pursuant to this clause (1) in an aggregate amount not to exceed \$50.0 million, in each case outstanding at any one time:
- (2) guarantees of Indebtedness Incurred in accordance with the provisions of the Indenture; *provided* that in the event such Indebtedness that is being guaranteed is a Subordinated Obligation or a Guarantor Subordinated Obligation, then the related guarantee shall be subordinated in right of payment to the notes or the Guarantee to at least the same extent as the Indebtedness being guaranteed, as the case may be;

- (3) Indebtedness of the Issuer owing to and held by any Restricted Subsidiary or Indebtedness of a Restricted Subsidiary owing to and held by the Issuer or any Restricted Subsidiary; *provided, however*, that (a)(i) if the Issuer is the obligor on such Indebtedness and the obligee is not a Subsidiary Guarantor, such Indebtedness must be expressly subordinated to the prior payment in full in cash of all obligations with respect to the notes and (ii) if a Subsidiary Guarantor is the obligor of such Indebtedness and the obligee is neither the Issuer nor a Subsidiary Guarantor, such Indebtedness must be expressly subordinated to the prior payment in full in cash of all obligations of such Subsidiary Guarantor with respect to its Guarantee and (b)(i) any subsequent issuance or transfer of Capital Stock or any other event which results in any such Indebtedness being held by a Person other than the Issuer or a Restricted Subsidiary and (ii) any sale or other transfer of any such Indebtedness to a Person other than the Issuer or a Restricted Subsidiary of the Issuer shall be deemed, in each case, to constitute an Incurrence of such Indebtedness by Issuer or such Restricted Subsidiary, as the case may be, that was not permitted by this clause;
- (4) Indebtedness represented by (a) the notes issued on the Issue Date and all Guarantees, (b) any Indebtedness (other than the Indebtedness described in clauses (1), (2) and 4(a)) outstanding on the Issue Date, (c) any notes (including the new notes) and related Guarantees issued pursuant to a Registration Rights Agreements and (d) any Refinancing Indebtedness Incurred in respect of any Indebtedness described in this clause (4) or clause (5) or (7) or Incurred pursuant to the first paragraph of this covenant;
 - (5) Permitted Acquisition Indebtedness;
- (6) Indebtedness Incurred in respect of (a) self-insurance obligations, bid, appeal, reimbursement, performance, surety and similar bonds and completion guarantees provided by the Issuer or a Restricted Subsidiary in the ordinary course of business and any guarantees or letters of credit functioning as or supporting any of the foregoing bonds or obligations and (b) obligations represented by letters of credit for the account of the Issuer or a Restricted Subsidiary in order to provide security for workers' compensation claims (in the case of clauses (a) and (b) other than for an obligation for money borrowed);
- (7) Indebtedness of the Issuer or any Restricted Subsidiary represented by Capitalized Lease Obligations (whether or not incurred pursuant to Sale/Leaseback Transactions) or other Indebtedness Incurred in connection with the acquisition, construction, improvement or development of real or personal, movable or immovable, property, in each case Incurred for the purpose of financing, refinancing, renewing, defeasing or refunding all or any part of the purchase price or cost of acquisition, construction, improvement or development of property used in the business of the Issuer or its Restricted Subsidiaries; *provided* that the aggregate principal amount Incurred by the Issuer or any Restricted Subsidiary pursuant to this clause (7) outstanding at any time shall not exceed 2.0% of the Issuer's Adjusted Consolidated Net Tangible Assets; and *provided further* that the principal amount of any Indebtedness permitted under this clause (7) did not in each case at the time of incurrence exceed the Fair Market Value, as determined in accordance with the definition of such term, of the acquired or constructed asset or improvement or development so financed:
 - (8) Preferred Stock (other than Disqualified Stock) of any Restricted Subsidiary;
- (9) Cash Management Obligations of the Issuer or any Subsidiary Guarantor in an aggregate amount not to exceed \$50.0 million outstanding at any one time; and
- (10) in addition to the items referred to in clauses (1) through (9) above, Indebtedness of the Issuer and its Restricted Subsidiaries in an aggregate outstanding principal amount which, when taken together with the principal amount of all other Indebtedness Incurred pursuant to this

clause (10) and then outstanding, will not exceed the greater of \$250.0 million or 2.5% of the Issuer's Adjusted Consolidated Net Tangible Assets, determined as of the date of Incurrence of such Indebtedness after giving effect to such Incurrence and the application of the proceeds therefrom.

For purposes of determining compliance with, and the outstanding principal amount of any particular Indebtedness Incurred pursuant to and in compliance with, this covenant:

- (1) in the event an item of that Indebtedness meets the criteria of more than one of the types of Indebtedness described in the first and second paragraphs of this covenant, the Issuer, in its sole discretion, will classify such item of Indebtedness on the date of Incurrence and, subject to clause (2) below may later classify, reclassify or redivide all or a portion of such item of Indebtedness, in any manner that complies with this covenant;
- (2) all Indebtedness outstanding on the date of the Indenture under the Senior Secured Credit Agreements shall be deemed Incurred on the Issue Date under clause (1) of the second paragraph of this covenant;
- (3) guarantees of, or obligations in respect of letters of credit supporting, Indebtedness which is otherwise included in the determination of a particular amount of Indebtedness shall not be included;
- (4) if obligations in respect of letters of credit are Incurred pursuant to a Credit Facility and are being treated as Incurred pursuant to clause (1) of the second paragraph above and the letters of credit relate to other Indebtedness, then such other Indebtedness shall not be included;
- (5) the principal amount of any Disqualified Stock of the Issuer or a Restricted Subsidiary, or Preferred Stock of a Restricted Subsidiary that is not a Subsidiary Guarantor, will be equal to the greater of the maximum mandatory redemption or repurchase price (not including, in either case, any redemption or repurchase premium) or the liquidation preference thereof;
- (6) Indebtedness permitted by this covenant need not be permitted solely by reference to one provision permitting such Indebtedness but may be permitted in part by one such provision and in part by one or more other provisions of this covenant permitting such Indebtedness; and
- (7) the amount of Indebtedness issued at a price that is less than the principal amount thereof will be equal to the amount of the liability in respect thereof determined in accordance with GAAP.

Accrual of interest, accrual of dividends, the amortization of debt discount or the accretion of accreted value, the payment of interest in the form of additional Indebtedness, the payment of dividends in the form of additional shares of Preferred Stock or Disqualified Stock and unrealized losses or charges in respect of Hedging Obligations (including those resulting from the application of FASB Accounting Standards Codification ("ASC") Topic No. 815, Derivatives and Hedging) will not be deemed to be an Incurrence of Indebtedness for purposes of this covenant

The Issuer will not permit any of its Unrestricted Subsidiaries to Incur any Indebtedness (including to issue any shares of Disqualified Stock) other than Non-Recourse Debt. If at any time an Unrestricted Subsidiary becomes a Restricted Subsidiary, any Indebtedness of such Subsidiary shall be deemed to be Incurred by a Restricted Subsidiary as of such date (and, if such Indebtedness is not permitted to be Incurred as of such date under this "Limitation on Indebtedness and Preferred Stock" covenant, the Issuer shall be in Default of this covenant).

For purposes of determining compliance with any U.S. dollar denominated restriction on the Incurrence of Indebtedness, the U.S. dollar equivalent principal amount of Indebtedness denominated in a foreign currency shall be calculated based on the relevant currency exchange rate in effect on the date such Indebtedness was Incurred, in the case of term Indebtedness, or first committed, in the case of revolving credit Indebtedness; *provided* that if such Indebtedness is Incurred to refinance other Indebtedness denominated in a foreign currency, and such refinancing would cause the applicable U.S. dollar denominated restriction to be exceeded if calculated at the relevant currency exchange rate in effect on the date of such refinancing, such U.S. dollar denominated restriction shall be deemed not to have been exceeded so long as the principal amount of such refinancing Indebtedness does not exceed the principal amount of such Indebtedness being refinanced. Notwithstanding any other provision of this covenant, the maximum amount of Indebtedness that any Person may Incur pursuant to this covenant shall not be deemed to be exceeded solely as a result of fluctuations in the exchange rates of currencies. The principal amount of any Indebtedness Incurred to refinance other Indebtedness, if Incurred in a different currency from the Indebtedness being refinanced, shall be calculated based on the currency exchange rate applicable to the currencies in which such Refinancing Indebtedness is denominated that is in effect on the date of such refinancing.

The Indenture does not treat (1) unsecured Indebtedness as subordinated or junior to secured Indebtedness merely because it is unsecured or (2) senior Indebtedness as subordinated or junior to any other senior Indebtedness merely because it has a junior priority with respect to the same collateral.

Limitation on Restricted Payments

The Issuer will not, and will not permit any of its Restricted Subsidiaries, directly or indirectly, to:

- (1) declare or pay any dividend or make any payment or distribution on or in respect of the Issuer's Capital Stock (including any payment or distribution in connection with any merger or consolidation involving the Issuer or any of its Restricted Subsidiaries) except:
 - (a) dividends or distributions by the Issuer payable solely in Capital Stock of the Issuer (other than Disqualified Stock but including options, warrants or other rights to purchase such Capital Stock of the Issuer); and
 - (b) dividends or distributions payable to the Issuer or a Restricted Subsidiary and if such Restricted Subsidiary is not a Wholly-Owned Subsidiary, to minority stockholders (or owners of an equivalent interest in the case of a Subsidiary that is an entity other than a corporation) so long as the Issuer or a Restricted Subsidiary receives at least its pro rata share of such dividend or distribution;
- (2) purchase, repurchase, redeem, defease or otherwise acquire or retire for value any Capital Stock of the Issuer or any direct or indirect parent of the Issuer held by Persons other than the Issuer or a Restricted Subsidiary (other than in exchange for Capital Stock of the Issuer (other than Disqualified Stock));
- (3) purchase, repurchase, redeem, defease or otherwise acquire or retire for value, prior to scheduled maturity, scheduled repayment or scheduled sinking fund payment, any Subordinated Obligations or Guarantor Subordinated Obligations (other than (x) Indebtedness permitted under clause (3) of the second paragraph of the covenant described under "—Limitation on Indebtedness and Preferred Stock" or (y) the purchase, repurchase, redemption, defeasance or other acquisition or retirement for value of Subordinated Obligations or Guarantor Subordinated Obligations purchased in anticipation of satisfying a sinking fund obligation, principal installment or final maturity, in each case due within one year of the date of purchase, repurchase, redemption, defeasance or other acquisition or retirement for value); or

(4) make any Restricted Investment in any Person;

(any such dividend, distribution, purchase, redemption, repurchase, defeasance, other acquisition, retirement or Restricted Investment referred to in clauses (1) through (4) shall be referred to herein as a "Restricted Payment"), if at the time the Issuer or such Restricted Subsidiary makes such Restricted Payment:

- (a) a Default shall have occurred and be continuing (or would result therefrom);
- (b) the Issuer is not able to Incur an additional \$1.00 of Indebtedness pursuant to the covenant described under the first paragraph under "—Limitation on Indebtedness and Preferred Stock" after giving effect, on a pro forma basis, to such Restricted Payment; or
- (c) the aggregate amount of such Restricted Payment and all other Restricted Payments declared or made subsequent to the Prior Issue Date would exceed the sum of:
 - (i) 50% of Consolidated Net Income for the period (treated as one accounting period) from January 1, 2013 to the end of the most recent fiscal quarter ending prior to the date of such Restricted Payment for which internal financial statements are in existence (or, in case such Consolidated Net Income is a deficit, *minus* 100% of such deficit);
 - (ii) 100% of the aggregate Net Cash Proceeds and the Fair Market Value of property or securities other than cash (including Capital Stock of Persons engaged primarily in the Oil and Gas Business or assets used in the Oil and Gas Business), in each case received by the Issuer from the issue or sale of its Capital Stock (other than Disqualified Stock) or other capital contributions subsequent to the Prior Issue Date (other than Net Cash Proceeds received from an issuance or sale of such Capital Stock to (x) management, employees, directors or any direct or indirect parent of the Issuer, to the extent such Net Cash Proceeds have been used to make a Restricted Payment pursuant to clause (5)(a) of the next succeeding paragraph, (y) a Subsidiary of the Issuer or (z) an employee stock ownership plan, option plan or similar trust (to the extent such sale to an employee stock ownership plan, option plan or similar trust is financed by loans from or guaranteed by the Issuer or any Restricted Subsidiary unless such loans have been repaid with cash on or prior to the date of determination));
 - (iii) the amount by which Indebtedness of the Issuer or its Restricted Subsidiaries is reduced on the Issuer's balance sheet upon the conversion or exchange (other than by a Subsidiary of the Issuer) subsequent to the Prior Issue Date of any Indebtedness of the Issuer or its Restricted Subsidiaries convertible or exchangeable for Capital Stock (other than Disqualified Stock) of the Issuer (less the amount of any cash, or the Fair Market Value of any other property (other than such Capital Stock), distributed by the Issuer upon such conversion or exchange), together with the net proceeds, if any, received by the Issuer or any of its Restricted Subsidiaries upon such conversion or exchange; and
 - (iv) the amount equal to the aggregate net reduction in Restricted Investments made by the Issuer or any of its Restricted Subsidiaries in any Person after the Prior Issue Date resulting from:
 - (A) repurchases, repayments or redemptions of such Restricted Investments by such Person, proceeds realized upon the sale of such Restricted Investment (other than to a Subsidiary of the Issuer), repayments of loans or advances or other transfers of assets (including by way of dividend or distribution) by such Person to the Issuer or any Restricted Subsidiary:

- (B) the redesignation of Unrestricted Subsidiaries as Restricted Subsidiaries (valued in each case as provided in the definition of "Investment") not to exceed, in the case of any Unrestricted Subsidiary, the amount of Investments previously made by the Issuer or any Restricted Subsidiary in such Unrestricted Subsidiary, which amount in each case under this clause (iv) was included in the calculation of the amount of Restricted Payments; provided, however, that no amount will be included under this clause (iv) to the extent it is already included in Consolidated Net Income; and
- (C) the sale by the Issuer or any Restricted Subsidiary (other than to the Issuer or a Restricted Subsidiary) of all or a portion of the Capital Stock of an Unrestricted Subsidiary or a distribution from an Unrestricted Subsidiary or a dividend from an Unrestricted Subsidiary (whether any such distribution or dividend is made with proceeds from the issuance by such Unrestricted Subsidiary of its Capital Stock or otherwise).

The provisions of the preceding paragraph will not prohibit:

- (1) any Restricted Payment made by exchange for, or out of the proceeds of the substantially concurrent sale of, Capital Stock of the Issuer (other than Disqualified Stock and other than Capital Stock issued or sold to a Subsidiary of the Issuer or an employee stock ownership plan or similar trust to the extent such sale to an employee stock ownership plan or similar trust is financed by loans from or guaranteed by the Issuer or any Restricted Subsidiary unless such loans have been repaid with cash on or prior to the date of determination) or a substantially concurrent cash capital contribution received by the Issuer from its shareholders; *provided, however*, that (a) such Restricted Payment will be excluded from subsequent calculations of the amount of Restricted Payments and (b) the Net Cash Proceeds from such sale of Capital Stock or capital contribution will be excluded from clause (c)(ii) of the preceding paragraph;
- (2) any purchase, repurchase, redemption, defeasance or other acquisition or retirement for value of Subordinated Obligations of the Issuer or Guarantor Subordinated Obligations of any Subsidiary Guarantor made by exchange for, or out of the proceeds of the substantially concurrent sale of, Subordinated Obligations of the Issuer or any purchase, repurchase, redemption, defeasance or other acquisition or retirement for value of Guarantor Subordinated Obligations made by exchange for or out of the proceeds of the substantially concurrent sale of Guarantor Subordinated Obligations that, in each case, is permitted to be Incurred pursuant to the covenant described under "—Limitation on Indebtedness and Preferred Stock"; provided, however, that such purchase, redemption, defeasance, acquisition or retirement for value will be excluded from subsequent calculations of the amount of Restricted Payments;
- (3) any purchase, repurchase, redemption, defeasance or other acquisition or retirement for value of Disqualified Stock of the Issuer or a Restricted Subsidiary made by exchange for, or out of the proceeds of the substantially concurrent sale of, Disqualified Stock of the Issuer or such Restricted Subsidiary, as the case may be, that, in each case, is permitted to be Incurred pursuant to the covenant described under "—Limitation on Indebtedness and Preferred Stock"; *provided, however*, that such purchase, redemption, defeasance, acquisition or retirement for value will be excluded from subsequent calculations of the amount of Restricted Payments;
- (4) dividends paid or distributions made within 60 days after the date of declaration if at such date of declaration such dividend or distribution would have complied with this covenant; *provided*, *however*, that such dividends and distributions will be included in subsequent calculations of the amount of Restricted Payments; and *provided further*, *however*, that for purposes of clarification, this clause (4) shall not include cash payments in lieu of the issuance of fractional shares included in clause (9) below;

- (5) so long as no Default has occurred and is continuing, (a) the repurchase or other acquisition of Capital Stock (including options, warrants, equity appreciation rights or other rights to purchase or acquire Capital Stock) of the Issuer held by any existing or former employees, management or directors of the Issuer or any Restricted Subsidiary of the Issuer or their assigns, estates or heirs, in each case pursuant to the repurchase or other acquisition provisions under employee stock option or stock purchase plans or agreements or other agreements to compensate management, employees or directors, in each case approved by the Issuer's Board of Directors; provided that such repurchases or other acquisitions pursuant to this subclause (a) during any calendar year will not exceed \$2.0 million in the aggregate (with unused amounts in any calendar year being carried over to succeeding calendar years); provided further, that such amount in any calendar year may be increased by an amount not to exceed (A) the cash proceeds received by the Issuer from the sale of Capital Stock of the Issuer to members of management or directors of the Issuer and its Restricted Subsidiaries that occurs after the Prior Issue Date (to the extent the cash proceeds from the sale of such Capital Stock have not otherwise been applied to the payment of Restricted Payments by virtue of the clause (c) of the preceding paragraph), plus (B) the cash proceeds of key man life insurance policies received by the Issuer and its Restricted Subsidiaries after the Prior Issue Date, less (C) the amount of any Restricted Payments made pursuant to clauses (A) and (B) of this clause (5)(a); provided further, however, that the amount of any such repurchase or other acquisition under this subclause (a) will be excluded in subsequent calculations of the amount of Restricted Payments and the proceeds received from any such transaction will be excluded from clause (c)(ii) of the preceding paragraph; and (b) loans or advances to employees or directors of the Issuer or any Subsidiary of the Issuer, in each case as permitted by Section 402 of the Sarbanes-Oxley Act of 2002, the proceeds of which are used to purchase Capital Stock of the Issuer, or to refinance loans or advances made pursuant to this clause (5)(b), in an aggregate principal amount not in excess of \$2.0 million at any one time outstanding; provided, however, that the amount of such loans and advances will be included in subsequent calculations of the amount of Restricted Payments;
- (6) purchases, repurchases, redemptions or other acquisitions or retirements for value of Capital Stock deemed to occur upon the exercise of stock options, warrants, rights to acquire Capital Stock or other convertible securities if such Capital Stock represents a portion of the exercise or exchange price thereof, and any purchases, repurchases, redemptions or other acquisitions or retirements for value of Capital Stock made in lieu of withholding taxes in connection with any exercise or exchange of warrants, options or rights to acquire Capital Stock; *provided, however*, that such acquisitions or retirements will be excluded from subsequent calculations of the amount of Restricted Payments;
- (7) the purchase, repurchase, redemption, defeasance or other acquisition or retirement for value of any Subordinated Obligation (i) at a purchase price not greater than 101% of the principal amount of such Subordinated Obligation in the event of a Change of Control in accordance with provisions similar to the covenant described under "—Change of Control" or (ii) at a purchase price not greater than 100% of the principal amount thereof in accordance with provisions similar to the covenant described under "—Limitation on Sales of Assets and Subsidiary Stock"; *provided* that, prior to or simultaneously with such purchase, redemption, defeasance or other acquisition or retirement, the Issuer has made the Change of Control Offer or Asset Disposition Offer, as applicable, as provided in such covenant with respect to the notes and has completed the repurchase or redemption of all notes validly tendered for payment in connection with such Change of Control Offer or Asset Disposition Offer; *provided, however*, that such acquisitions or retirements will be included in subsequent calculations of the amount of Restricted Payments;
- (8) payments or distributions to dissenting stockholders pursuant to applicable law or in connection with the settlement or other satisfaction of legal claims made pursuant to or in

connection with a consolidation, merger or transfer of assets; *provided, however*, that any payment pursuant to this clause (8) will be included in the calculation of the amount of Restricted Payments;

- (9) cash payments in lieu of the issuance of fractional shares; *provided, however*, that any payment pursuant to this clause (9) will be excluded in the calculation of the amount of Restricted Payments;
- (10) the declaration and payment of scheduled or accrued dividends to holders of any class of or series of Disqualified Stock of the Issuer issued after the Issue Date in accordance with the covenant captioned "—Limitation on Indebtedness and Preferred Stock," to the extent such dividends are included in Consolidated Interest Expense; *provided, however*, that any payment pursuant to this clause (10) will be excluded in the calculation of the amount of Restricted Payments;
 - (11) Permitted Tax Distributions, if any, prior to October 16, 2013; and
- (12) Restricted Payments in an amount not to exceed \$25 million in the aggregate since the Prior Issue Date; *provided, however*, that the amount of such Restricted Payments will be included in subsequent calculations of the amount of Restricted Payments.

The amount of all Restricted Payments (other than cash) shall be the Fair Market Value on the date of such Restricted Payment of the asset(s) or securities proposed to be paid, transferred or issued by the Issuer or such Restricted Subsidiary, as the case may be, pursuant to such Restricted Payment, except that the Fair Market Value of any non-cash dividend or distribution made within 60 days after the date of declaration shall be determined as of such date. The Fair Market Value of any cash Restricted Payment shall be its face amount and the Fair Market Value of any non-cash Restricted Payment shall be determined in accordance with the definition of that term. Not later than the date of making any Restricted Payment in excess of \$15.0 million that will be included in subsequent calculations of the amount of Restricted Payments, the Issuer shall deliver to the Trustee an Officers' Certificate stating that such Restricted Payment is permitted and setting forth the basis upon which the calculations required by the this covenant were computed.

In the event that a Restricted Payment meets the criteria of more than one of the exceptions described in (1) through (12) above or is entitled to be made pursuant to the first paragraph above, the Issuer shall, in its sole discretion, classify such Restricted Payment.

The Issuer will not permit any Unrestricted Subsidiary to become a Restricted Subsidiary except pursuant to the last sentence of the definition of "Unrestricted Subsidiary." For purpose of designating any Restricted Subsidiary as an Unrestricted Subsidiary, all outstanding Investments by the Issuer and its Restricted Subsidiaries (except to the extent such Investments (i) are repaid or (ii) represent Permitted Investments) in the Subsidiary so designated will be deemed to be Restricted Payments in an amount determined as set forth in the last sentence of the definition of "Investment." Such designation will be permitted only if a Restricted Payment in such amount would be permitted at such time, whether pursuant to the first paragraph of this covenant or under clause (12) of the second paragraph of this covenant, or pursuant to the definition of "Permitted Investments," and if such Subsidiary otherwise meets the definition of an Unrestricted Subsidiary. Unrestricted Subsidiaries will not be subject to any of the restrictive covenants set forth in the Indenture.

Limitation on Liens

The Issuer will not, and will not permit any of its Restricted Subsidiaries to, directly or indirectly, create, Incur or suffer to exist any Lien (the "*Initial Lien*") other than Permitted Liens upon any of its property or assets (including Capital Stock of Restricted Subsidiaries), including any income or profits therefrom, whether owned on the date of the Indenture or acquired after that date, which Lien is

securing any Indebtedness, unless contemporaneously with the Incurrence of such Lien effective provision is made to secure the notes or, in respect of Liens on any Restricted Subsidiary's property or assets, any Guarantee of such Restricted Subsidiary, equally and ratably with (or senior in priority to in the case of Liens with respect to Subordinated Obligations or Guarantor Subordinated Obligations, as the case may be) the Indebtedness secured by such Lien for so long as such Indebtedness is so secured.

Any Lien created for the benefit of the holders of the notes pursuant to the preceding paragraph shall provide by its terms that such Lien shall be automatically and unconditionally released and discharged upon the release and discharge of the Initial Lien.

Limitation on Restrictions on Distributions from Restricted Subsidiaries

The Issuer will not, and will not permit any Restricted Subsidiary to, create or otherwise cause or permit to exist or become effective any consensual encumbrance or consensual restriction on the ability of any such Restricted Subsidiary to:

- (1) pay dividends or make any other distributions on its Capital Stock or pay any Indebtedness or other obligations owed to the Issuer or any Restricted Subsidiary (it being understood that the priority of any Preferred Stock in receiving dividends or liquidating distributions prior to dividends or liquidating distributions being paid on Common Stock shall not be deemed a restriction on the ability to make distributions on Capital Stock);
- (2) make any loans or advances to the Issuer or any Restricted Subsidiary (it being understood that the subordination of loans or advances made to the Issuer or any Restricted Subsidiary to other Indebtedness Incurred by the Issuer or any Restricted Subsidiary shall not be deemed a restriction on the ability to make loans or advances); or
 - (3) sell, lease or transfer any of its property or assets to the Issuer or any Restricted Subsidiary.

The preceding provisions will not prohibit:

- (i) any encumbrance or restriction pursuant to or by reason of an agreement in effect at or entered into on the Issue Date, including, without limitation, the Indenture as in effect on such date;
- (ii) any encumbrance or restriction with respect to a Person pursuant to or by reason of an agreement relating to any Capital Stock or Indebtedness Incurred by a Person on or before the date on which such Person was acquired by the Issuer or another Restricted Subsidiary (other than Capital Stock or Indebtedness Incurred as consideration in, or to provide all or any portion of the funds utilized to consummate, the transaction or series of related transactions pursuant to which such Person was acquired by the Issuer or a Restricted Subsidiary or in contemplation of the transaction) and outstanding on such date; *provided* that any such encumbrance or restriction shall not extend to any assets or property of the Issuer or any other Restricted Subsidiary other than the assets and property so acquired;
- (iii) encumbrances and restrictions contained in contracts entered into in the ordinary course of business, not relating to any Indebtedness, and that do not, individually or in the aggregate, detract from the value of, or from the ability of the Issuer and the Restricted Subsidiaries to realize the value of, property or assets of the Issuer or any Restricted Subsidiary in any manner material to the Issuer or any Restricted Subsidiary;
- (iv) any encumbrance or restriction with respect to a Unrestricted Subsidiary pursuant to or by reason of an agreement that the Unrestricted Subsidiary is a party to entered into before the date on which such Unrestricted Subsidiary became a Restricted Subsidiary; *provided* that such agreement was not entered into in anticipation of the Unrestricted Subsidiary becoming a

Restricted Subsidiary and any such encumbrance or restriction shall not extend to any assets or property of the Issuer or any other Restricted Subsidiary other than the assets and property so acquired;

- (v) with respect to any Foreign Subsidiary, any encumbrance or restriction contained in the terms of any Indebtedness or any agreement pursuant to which such Indebtedness was Incurred if either (1) the encumbrance or restriction applies only in the event of a payment default or a default with respect to a financial covenant in such Indebtedness or agreement or (2) the Issuer determines that any such encumbrance or restriction will not materially affect the Issuer's ability to make principal or interest payments on the notes, as determined in good faith by the Board of Directors of the Issuer, whose determination shall be conclusive;
- (vi) any encumbrance or restriction with respect to a Restricted Subsidiary pursuant to an agreement effecting a refunding, replacement or refinancing of Indebtedness Incurred pursuant to an agreement referred to in clauses (i) through (v) or clause (xii) of this paragraph or this clause (vi) or contained in any amendment, restatement, modification, renewal, supplemental, refunding, replacement or refinancing of an agreement referred to in clauses (i) through (v) or clause (xii) of this paragraph or this clause (vi); provided that the encumbrances and restrictions with respect to such Restricted Subsidiary contained in any such agreement taken as a whole are no less favorable in any material respect to the holders of the notes than the encumbrances and restrictions contained in the agreements governing the Indebtedness being refunded, replaced or refinanced;
 - (vii) in the case of clause (3) of the first paragraph of this covenant, any encumbrance or restriction:
 - (a) that restricts in a customary manner the subletting, assignment or transfer of any property or asset that is subject to a lease (including leases governing leasehold interests or farm-in agreements or farm-out agreements relating to leasehold interests in Oil and Gas Properties), license or similar contract, or the assignment or transfer of any such lease (including leases governing leasehold interests or farm-in agreements or farm-out agreements relating to leasehold interests in Oil and Gas Properties), license (including, without limitation, licenses of intellectual property) or other contract;
 - (b) contained in mortgages, pledges or other security agreements permitted under the Indenture securing Indebtedness of the Issuer or a Restricted Subsidiary to the extent such encumbrances or restrictions restrict the transfer of the property subject to such mortgages, pledges or other security agreements;
 - (c) contained in any agreement creating Hedging Obligations permitted from time to time under the Indenture;
 - (d) pursuant to customary provisions restricting dispositions of real property interests set forth in any reciprocal easement agreements of the Issuer or any Restricted Subsidiary;
 - (e) restrictions on cash or other deposits imposed by customers under contracts entered into in the ordinary course of business; or
 - (f) provisions with respect to the disposition or distribution of assets or property in operating agreements, joint venture agreements, development agreements, area of mutual interest agreements and other agreements that are customary in the Oil and Gas Business and entered into in the ordinary course of business:
- (viii) any encumbrance or restriction contained in (a) purchase money obligations for property acquired in the ordinary course of business and (b) Capitalized Lease Obligations permitted under

the Indenture, in each case, that impose encumbrances or restrictions of the nature described in clause (3) of the first paragraph of this covenant on the property so acquired;

- (ix) any encumbrance or restriction with respect to a Restricted Subsidiary (or any of its property or assets) imposed pursuant to an agreement entered into for the direct or indirect sale or disposition of all or a portion of the Capital Stock or assets of such Restricted Subsidiary (or the property or assets that are subject to such restriction) pending the closing of such sale or disposition;
- (x) any customary encumbrances or restrictions imposed pursuant to any agreement of the type described in the definition of 'Permitted Business Investment'';
 - (xi) encumbrances or restrictions arising or existing by reason of applicable law or any applicable rule, regulation or order;
- (xii) encumbrances or restrictions contained in agreements governing Indebtedness of the Issuer or any of its Restricted Subsidiaries permitted to be Incurred pursuant to an agreement entered into subsequent to the Issue Date in accordance with the covenant described under the caption "—Limitation on Indebtedness and Preferred Stock"; *provided* that the provisions relating to such encumbrance or restriction contained in such Indebtedness are not materially less favorable to the Issuer taken as a whole, as determined by the Board of Directors of the Issuer in good faith, than the provisions contained in the Senior Secured Credit Agreements and in the Indenture as in effect on the Issue Date;
- (xiii) the issuance of Preferred Stock by a Restricted Subsidiary or the payment of dividends thereon in accordance with the terms thereof; *provided* that issuance of such Preferred Stock is permitted pursuant to the covenant described under the caption "— Limitation on Indebtedness and Preferred Stock" and the terms of such Preferred Stock do not expressly restrict the ability of a Restricted Subsidiary to pay dividends or make any other distributions on its Capital Stock (other than requirements to pay dividends or liquidation preferences on such Preferred Stock prior to paying any dividends or making any other distributions on such other Capital Stock);
- (xiv) supermajority voting requirements existing under corporate charters, bylaws, stockholders agreements and similar documents and agreements;
- (xv) restrictions on cash or other deposits or net worth imposed by customers under contracts entered into in the ordinary course of business; and
- (xvi) any encumbrance or restriction contained in the Senior Secured Credit Agreements as in effect as of the Issue Date, and in any amendments, modifications, restatements, renewals, increases, supplements, refundings, replacements or refinancings thereof; provided that such amendments, modifications, restatements, renewals, increases, supplements, refundings, replacements or refinancings are no more restrictive with respect to such dividend and other payment restrictions than those contained in the Senior Secured Credit Agreements as in effect on the Issue Date.

Limitation on Sales of Assets and Subsidiary Stock

The Issuer will not, and will not permit any of its Restricted Subsidiaries to, make any Asset Disposition unless:

(1) the Issuer or any of its Restricted Subsidiaries receives consideration at the time of such Asset Disposition at least equal to the Fair Market Value (such Fair Market Value to be determined on the date of contractually agreeing to such Asset Disposition) of the shares or other assets subject to such Asset Disposition;

- (2) at least 75% of the aggregate consideration received by the Issuer or any of its Restricted Subsidiaries from such Asset Disposition and all other Asset Dispositions since the Issue Date, on a cumulative basis, is in the form of cash or Cash Equivalents or Additional Assets, or any combination thereof; and
- (3) except as provided in the next paragraph, an amount equal to 100% of the Net Available Cash from such Asset Disposition is applied, within 365 days from the later of the date of such Asset Disposition or the receipt of such Net Available Cash, by the Issuer or such Restricted Subsidiary, as the case may be:
 - (a) to prepay, repay, redeem or purchase Pari Passu Indebtedness of the Issuer (including the notes) or a Subsidiary Guarantor or any Indebtedness (other than Disqualified Stock) of a Restricted Subsidiary that is not a Subsidiary Guarantor (in each case, excluding Indebtedness owed to the Issuer or an Affiliate of the Issuer); *provided, however*, that, in connection with any prepayment, repayment, redemption or purchase of Indebtedness pursuant to this clause (a), the Issuer or such Restricted Subsidiary will retire such Indebtedness and will cause the related commitment (if any) to be permanently reduced in an amount equal to the principal amount so prepaid, redeemed or purchased; or

(b) to invest in Additional Assets;

provided that pending the final application of any such Net Available Cash in accordance with clause (a) or clause (b) above, the Issuer and its Restricted Subsidiaries may temporarily reduce Indebtedness or otherwise invest such Net Available Cash in any manner not prohibited by the Indenture.

Any Net Available Cash from Asset Dispositions that is not applied or invested as provided in the preceding paragraph will be deemed to constitute "Excess Proceeds." Not later than the 366th day from the later of the date of such Asset Disposition or the receipt of such Net Available Cash, if the aggregate amount of Excess Proceeds exceeds \$20.0 million, the Issuer will be required to make an offer ("Asset Disposition Offer") to all holders of notes and, to the extent required by the terms of other Pari Passu Indebtedness, to all holders of other Pari Passu Indebtedness outstanding with similar provisions requiring the Issuer to make an offer to purchase such Pari Passu Indebtedness with the proceeds from any Asset Disposition ("Pari Passu Notes") to purchase the maximum principal amount of Notes and any such Pari Passu Notes to which the Asset Disposition Offer applies that may be purchased out of the Excess Proceeds, at an offer price in cash in an amount equal to 100% of the principal amount (or, in the event such Pari Passu Indebtedness was issued with significant original issue discount, 100% of the accreted value thereof) of the notes and Pari Passu Notes plus accrued and unpaid interest, if any (or in respect of such Pari Passu Indebtedness, such lesser price, if any, as may be provided for by the terms of such Indebtedness), to, but excluding, the date of purchase (subject to the right of holders of record on the relevant record date to receive interest due on the relevant interest payment date), in accordance with the procedures set forth in the Indenture or the agreements governing the Pari Passu Notes, as applicable, in each case in minimum principal amount of \$2,000 and integral multiples of \$1,000 in excess of \$2,000. If the aggregate principal amount of notes surrendered by holders thereof and other Pari Passu Notes surrendered by holders or lenders, collectively, exceeds the amount of Excess Proceeds, the Trustee shall select the notes to be purchased on a pro rata basis on the basis of the aggregate principal amount of tendered notes and Pari Passu Notes. To the extent that the aggregate principal amount of notes and Pari Passu Notes so validly tendered and not properly withdrawn pursuant to an Asset Disposition Offer is less than the Excess Proceeds, the Issuer and its Restricted Subsidiaries may use any remaining Excess Proceeds for general corporate purposes, subject to the other covenants contained in the Indenture. Upon completion of such Asset Disposition Offer, the amount of Excess Proceeds shall be reset at zero.

The Asset Disposition Offer will remain open for a period of 20 Business Days following its commencement, except to the extent that a longer period is required by applicable law (the "Asset Disposition Offer Period"). No later than five Business Days after the termination of the Asset Disposition Offer Period (the "Asset Disposition Purchase Date"), the Issuer will purchase the principal amount of notes and Pari Passu Notes required to be purchased pursuant to this covenant (the "Asset Disposition Offer Amount") or, if less than the Asset Disposition Offer Amount has been so validly tendered and not properly withdrawn, all notes and Pari Passu Notes validly tendered and not properly withdrawn in response to the Asset Disposition Offer.

If the Asset Disposition Purchase Date is on or after an interest record date and on or before the related interest payment date, any accrued and unpaid interest, if any, will be paid to the Person in whose name a Note is registered at the close of business on such record date, and no further interest will be payable to holders who tender notes pursuant to the Asset Disposition Offer.

On or before the Asset Disposition Purchase Date, the Issuer will, to the extent lawful, accept for payment, on a pro rata basis to the extent necessary, the Asset Disposition Offer Amount of notes and Pari Passu Notes or portions of notes and Pari Passu Notes so validly tendered and not properly withdrawn pursuant to the Asset Disposition Offer, or if less than the Asset Disposition Offer Amount has been validly tendered and not properly withdrawn, all notes and Pari Passu Notes so validly tendered and not properly withdrawn, in each case in minimum principal amount of \$2,000 and integral multiples of \$1,000 in excess of \$2,000. The Issuer will deliver to the Trustee an Officers' Certificate stating that such notes or portions thereof were accepted for payment by the Issuer in accordance with the terms of this covenant and, in addition, the Issuer will deliver all certificates and notes required, if any, by the agreements governing the Pari Passu Notes. The Issuer or the paying agent, as the case may be, will promptly (but in any case not later than five Business Days after the termination of the Asset Disposition Offer Period) mail or deliver to each tendering holder of notes or holder or lender of Pari Passu Notes, as the case may be, an amount equal to the purchase price of the notes or Pari Passu Notes so validly tendered and not properly withdrawn by such holder or lender, as the case may be, and accepted by the Issuer for purchase, and the Issuer will promptly issue a new Note, and the Trustee, upon delivery of an Officers' Certificate from the Issuer, will authenticate and mail or deliver such new Note to such holder, in a principal amount equal to any unpurchased portion of the Note surrendered; provided that each such new Note will be in a minimum principal amount of \$2,000 or an integral multiple of \$1,000 in excess of \$2,000. In addition, the Issuer will take any and all other actions required by the agreements governing the Pari Passu Notes. Any Note not so accepted will be promptly mailed or delivered by the Issuer to the holder thereof. The Issuer will publicly announce the results of the Asset Disposition Offer on the Asset Disposition Purchase Date.

The Issuer will comply, to the extent applicable, with the requirements of Rule 14e-1 of the Exchange Act and any other securities laws or regulations in connection with the repurchase of notes pursuant to an Asset Disposition Offer. To the extent that the provisions of any securities laws or regulations conflict with provisions of this covenant, the Issuer will comply with the applicable securities laws and regulations and will not be deemed to have breached its obligations under the Indenture by virtue of its compliance with such securities laws or regulations.

For the purposes of clause (2) of the first paragraph of this covenant, the following will be deemed to be cash:

(1) the assumption by the transferee of Indebtedness (other than Guarantor Subordinated Obligations or Disqualified Stock) of the Issuer or Indebtedness of a Restricted Subsidiary (other than Subordinated Obligations or Disqualified Stock of the Issuer and Guarantor Subordinated Obligations or Disqualified Stock of any Restricted Subsidiary that is a Subsidiary Guarantor) and the release of the Issuer or such Restricted Subsidiary from all liability on such Indebtedness in connection with such Asset Disposition (in which case the Issuer will, without further action, be

deemed to have applied such deemed cash to Indebtedness in accordance with clause (3)(a) of the first paragraph of this covenant;

- (2) with respect to any Asset Disposition of oil and gas properties by the Issuer or any of its Restricted Subsidiaries in which the Issuer or such Restricted Subsidiary still retains an interest, any agreement by the transferee (or any Affiliate thereof) to pay all or a portion of, the costs and expenses related to the exploration, development, completion or production of such properties and activities related thereto; and
- (3) securities, notes or other obligations received by the Issuer or any Restricted Subsidiary from the transferee that are converted by the Issuer or such Restricted Subsidiary into cash within 180 days after receipt thereof.

Notwithstanding the foregoing, the 75% limitation referred to in clause (2) of the first paragraph of this covenant shall be deemed satisfied with respect to any Asset Disposition in which the cash or Cash Equivalents portion of the consideration received therefrom, determined in accordance with the foregoing provision on an after-tax basis, is equal to or greater than what the after-tax proceeds would have been had such Asset Disposition complied with the aforementioned 75% limitation.

The requirement of clause (3)(b) of the first paragraph of this covenant above shall be deemed to be satisfied if an agreement (including a lease, whether a capital lease or an operating lease) committing to make the acquisitions or expenditures referred to therein is entered into by the Issuer or its Restricted Subsidiary within the specified time period and such Net Available Cash is subsequently applied in accordance with such agreement within six months following such agreement.

The Issuer will not, and will not permit any Restricted Subsidiary to, engage in any Asset Swaps, unless:

- (1) at the time of entering into such Asset Swap and immediately after giving effect to such Asset Swap, no Default or Event of Default shall have occurred and be continuing or would occur as a consequence thereof; and
- (2) in the event such Asset Swap involves the transfer by the Issuer or any Restricted Subsidiary of assets having an aggregate Fair Market Value in excess of \$20.0 million, the terms of such Asset Swap have been approved by a majority of the members of the Board of Directors of the Issuer.

Limitation on Affiliate Transactions

The Issuer will not, and will not permit any of its Restricted Subsidiaries to, directly or indirectly, enter into, make, amend or conduct any transaction (including making a payment to, the purchase, sale, lease or exchange of any property or the rendering of any service), contract, agreement or understanding with or for the benefit of any Affiliate of the Issuer (an "Affiliate Transaction") unless:

- (1) the terms of such Affiliate Transaction are not materially less favorable to the Issuer or such Restricted Subsidiary, as the case may be, than those that could reasonably be expected to be obtained in a comparable transaction at the time of such transaction in arm's length dealings with a Person who is not such an Affiliate; and
 - (2) either:
 - (a) if such Affiliate Transaction involves an aggregate consideration in excess of \$20.0 million but not greater than \$50.0 million, the Issuer delivers to the Trustee an Officers' Certificate certifying that such Affiliate Transaction satisfies the criteria in clause (1) above, or
 - (b) if such Affiliate Transaction involves an aggregate consideration in excess of \$50.0 million, the Issuer delivers to the Trustee a resolution adopted by a majority of the

members of the Board of Directors of the Issuer having no personal stake in such transaction approving the terms of such transaction and set forth in an Officers' Certificate certifying that such Affiliate Transaction satisfies the criteria in clause (1) above.

The preceding paragraph will not apply to:

- (1) any Restricted Payment permitted to be made pursuant to the covenant described under "—Limitation on Restricted Payments" or any Permitted Investment;
- (2) any issuance of Capital Stock (other than Disqualified Stock), or other payments, awards or grants in cash, Capital Stock (other than Disqualified Stock) or otherwise pursuant to, or the funding of, employment or severance agreements and other compensation arrangements, options to purchase Capital Stock (other than Disqualified Stock) of the Issuer, restricted stock plans, long-term incentive plans, stock appreciation rights plans, participation plans or similar employee benefits plans and/or insurance and indemnification arrangements provided to or for the benefit of directors and employees approved by the Board of Directors of the Issuer;
- (3) loans or advances to employees, officers or directors in the ordinary course of business of the Issuer or any of its Restricted Subsidiaries;
- (4) advances to or reimbursements of employees for moving, entertainment and travel expenses, drawing accounts and similar expenditures in the ordinary course of business of the Issuer or any of its Restricted Subsidiaries;
- (5) any transaction between the Issuer and a Restricted Subsidiary or between Restricted Subsidiaries, and guarantees issued by the Issuer or a Restricted Subsidiary for the benefit of the Issuer or a Restricted Subsidiary, as the case may be, in accordance with the covenant described under "—Limitation on Indebtedness and Preferred Stock";
- (6) any transaction with a joint venture or similar entity which would constitute an Affiliate Transaction solely because the Issuer or a Restricted Subsidiary owns, directly or indirectly, an Equity Interest in or otherwise controls such joint venture or similar entity:
- (7) the issuance or sale of any Capital Stock (other than Disqualified Stock) of the Issuer to an Affiliate, or the receipt by the Issuer of any capital contribution from its shareholders;
- (8) indemnities of officers, directors and employees of the Issuer or any of its Restricted Subsidiaries permitted by bylaw or statutory provisions and any employment agreement or other employee compensation plan or arrangement entered into in the ordinary course of business by the Issuer or any of its Restricted Subsidiaries;
- (9) the payment of reasonable compensation and fees paid to, and indemnity provided on behalf of, officers or directors of the Issuer or any Restricted Subsidiary;
- (10) the performance of obligations of the Issuer or any of its Restricted Subsidiaries under the terms of any agreement to which the Issuer or any of its Restricted Subsidiaries is a party as of or on the Issue Date, as these agreements may be amended, modified, supplemented, extended or renewed from time to time; *provided, however*, that any future amendment, modification, supplement, extension or renewal entered into after the Issue Date will be permitted only to the extent that its terms are not materially more disadvantageous, taken as a whole, to the holders of the notes than the terms of the agreements in effect on the Issue Date;
- (11) transactions with customers, clients, suppliers, or purchasers or sellers of goods or services, in each case in the ordinary course of business and otherwise in compliance with the terms of the Indenture, *provided* that in the reasonable determination of the Board of Directors of the Issuer or the senior management of the Issuer, such transactions are on terms not materially less favorable to the Issuer or the relevant Restricted Subsidiary than those that could reasonably

be expected to be obtained in a comparable transaction at such time on an arm's length basis from a Person that is not an Affiliate of the Issuer:

- (12) transactions with a Person (other than an Unrestricted Subsidiary) that is an Affiliate of the Issuer solely because the Issuer owns, directly or through a Restricted Subsidiary, an Equity Interest in such Person; and
- (13) transactions between the Issuer or any Restricted Subsidiary and any Person, a director of which is also a director of the Issuer or any direct or indirect parent of the Issuer, and such director is the sole cause for such Person to be deemed an Affiliate of the Issuer or any Restricted Subsidiary; *provided, however*, that such director shall abstain from voting as a director of the Issuer or such direct or indirect parent, as the case may be, on any matter involving such other Person.

Provision of Financial Information

Whether or not we are subject to the reporting requirements of Section 13 or Section 15(d) of the Exchange Act, to the extent not prohibited by the Exchange Act, we will file with the SEC, and make available to the Trustee and the holders of the notes without cost to any holder, the annual reports and the information, documents and other reports (or copies of such portions of any of the foregoing as the SEC may by rules and regulations prescribe) that are specified in Sections 13 and 15(d) of the Exchange Act and applicable to a U.S. corporation within the time periods specified therein with respect to a non-accelerated filer. In the event that we are not permitted to file such reports, documents and information with the SEC pursuant to the Exchange Act, we will nevertheless make available such Exchange Act information to the Trustee and the holders of the notes without cost to any holder as if the Issuer were subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act within the time periods specified therein with respect to a non-accelerated filer.

If we have designated any of our Subsidiaries as Unrestricted Subsidiaries, then the financial information required will include a reasonably detailed presentation, either on the face of the financial statements or in the footnotes thereto, and in any accompanying Management's Discussion and Analysis of Financial Condition and Results of Operations, of the financial condition and results of operations of us and our Restricted Subsidiaries separate from the financial condition and results of operations of the Unrestricted Subsidiaries.

The availability of the foregoing materials on the SEC's website or on our website shall be deemed to satisfy the foregoing delivery obligations.

Merger and Consolidation

The Issuer will not consolidate with or merge with or into or wind up into (whether or not it is the surviving Person), or sell, lease, transfer, convey or otherwise dispose of all or substantially all its assets in one or more related transactions to, any Person, unless:

- (1) the resulting, surviving or transferee Person (the "Successor Company") will be a corporation, partnership, trust or limited liability company organized and existing under the laws of the United States of America, any State of the United States or the District of Columbia and the Successor Company (if not the Issuer) will expressly assume, by supplemental indenture, executed and delivered to the Trustee, in form reasonably satisfactory to the Trustee, all the obligations of the Issuer under the Indenture and the notes;
- (2) immediately after giving effect to such transaction (and treating any Indebtedness that becomes an obligation of the Successor Company or any Subsidiary of the Successor Company as a result of such transaction as having been Incurred by the Successor Company or such Subsidiary at

the time of such transaction), no Default or Event of Default shall have occurred and be continuing;

- (3) immediately after giving effect to such transaction on a pro forma basis and any related financing transactions as if the same had occurred at the beginning of the applicable four quarter period, either (A) the Successor Company would be able to Incur at least an additional \$1.00 of Indebtedness pursuant to the first paragraph of the covenant described under "—Limitation on Indebtedness and Preferred Stock" or (B) the Consolidated Coverage Ratio of the Issuer is equal to or greater than the Consolidated Coverage Ratio of Issuer immediately before such transaction;
- (4) if the Issuer is not the Successor Company, each Subsidiary Guarantor (unless it is the other party to the transactions, in which case clause (1) shall apply) shall have by supplemental indenture confirmed that its Guarantee shall apply to the Successor Company's obligations in respect of the Indenture and the notes and that its Guarantee shall continue to be in effect; and
- (5) the Issuer shall have delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that such transaction and such supplemental indenture (if any) comply with the Indenture.

For purposes of this covenant, the sale, lease, transfer, conveyance, or other disposition of all or substantially all of the assets of one or more Subsidiaries of the Issuer, which assets, if held by the Issuer instead of such Subsidiaries, would constitute all or substantially all of the assets of the Issuer on a consolidated basis, shall be deemed to be the disposition of all or substantially all of the assets of the Issuer.

The Successor Company will succeed to, and be substituted for, and may exercise every right and power of, the Issuer under the Indenture; and its predecessor, except in the case of a lease of all or substantially all its assets, will be released from all obligations under the Indenture and the notes.

Although there is a limited body of case law interpreting the phrase 'substantially all,' there is no precise established definition of the phrase under applicable law. Accordingly, in certain circumstances there may be a degree of uncertainty as to whether a particular transaction would involve "all or substantially all" of the assets of a Person.

Notwithstanding the preceding clause (3), (x) any Restricted Subsidiary may consolidate with, merge into or wind up into, or dispose of all or part of its assets to the Issuer and the Issuer may consolidate with, merge into or wind up into, or dispose of all or part of its assets to a Subsidiary Guarantor and (y) the Issuer may merge with or into an Affiliate incorporated solely for the purpose of reorganizing the Issuer in another jurisdiction; and *provided further* that, in the case of a Restricted Subsidiary that consolidates with, merges into, winds up into or disposes of all or part of its properties and assets to the Issuer, the Issuer will not be required to comply with the preceding clause (5).

In addition, the Issuer will not permit any Subsidiary Guarantor to consolidate with, merge with or into or wind up into, and will not permit the disposition of all or substantially all of the assets of any Subsidiary Guarantor to, any Person (other than the Issuer or another Subsidiary Guarantor) unless:

(1) (a) the resulting, surviving or transferee Person will be a corporation, partnership, trust or limited liability company organized and existing under the laws of the United States of America, any State of the United States or the District of Columbia and such Person (if not such Subsidiary Guarantor) will expressly assume, by supplemental indenture, executed and delivered to the Trustee, all the obligations of such Subsidiary Guarantor under its Guarantee; and (b) immediately after giving effect to such transaction (and treating any Indebtedness that becomes an obligation of the resulting, surviving or transferee Person or any Restricted Subsidiary as a result of such transaction as having been Incurred by such Person or such Restricted Subsidiary at the time of such transaction), no Default shall have occurred and be continuing; or

- (2) the transaction results in the release of the Subsidiary Guarantor from its obligations under the Indenture and its Guarantee after and upon compliance with the provisions described under "—Guarantees"; and
- (3) the Issuer will have delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that such transaction and such supplemental indenture (if any) comply with the Indenture.

Future Subsidiary Guarantors

We will cause (a) each of our Wholly-Owned Subsidiaries (other than a Foreign Subsidiary) formed or acquired after the Issue Date and (b) any other Domestic Subsidiary that is not already a Subsidiary Guarantor that guarantees any of our Indebtedness or any Indebtedness of a Subsidiary Guarantor, in each case to execute and deliver to the Trustee within 30 days a supplemental indenture (in the form specified in the Indenture) pursuant to which such Subsidiary will unconditionally guarantee, on a joint and several basis, the full and prompt payment of the principal of, premium, if any, and interest on the notes on a senior basis; *provided* that any Restricted Subsidiary that constitutes an Immaterial Subsidiary need not become a Subsidiary Guarantor until such time as it ceases to be an Immaterial Subsidiary.

Payments for Consent

Neither we nor any of our Restricted Subsidiaries will, directly or indirectly, pay or cause to be paid any consideration, whether by way of interest, fees or otherwise, to any holder of any notes for or as an inducement to any consent, waiver or amendment of any of the terms or provisions of the Indenture or the notes unless such consideration is offered to be paid or is paid to all holders of the notes that consent, waive or agree to amend in the time frame set forth in the solicitation documents relating to such consent, waiver or amendment.

Covenant Termination

From and after the occurrence of an Investment Grade Rating Event, we and our Restricted Subsidiaries will no longer be subject to the provisions of the Indenture described above under "—Certain Covenants" under the following subheadings:

- "—Limitation on Indebtedness and Preferred Stock,"
- "—Limitation on Restricted Payments,"
- "—Limitation on Restrictions on Distributions from Restricted Subsidiaries,"
- "—Limitation on Sales of Assets and Subsidiary Stock,"
- "—Limitation on Affiliate Transactions" and
- Clause (3) of "—Merger and Consolidation"

(collectively, the "Eliminated Covenants"). As a result, after the date on which we and our Restricted Subsidiaries are no longer subject to the Eliminated Covenants, the notes will be entitled to substantially reduced covenant protection.

After the foregoing covenants have been terminated, we may not designate any of our Subsidiaries as Unrestricted Subsidiaries pursuant to the second sentence of the definition of "Unrestricted Subsidiary."

Events of Default

Each of the following is an Event of Default with respect to the notes:

- (1) default in any payment of interest on any note when due, continued for 30 days;
- (2) default in the payment of principal of or premium, if any, on any note when due at its Stated Maturity, upon optional redemption, upon required repurchase, upon declaration of acceleration or otherwise;
- (3) failure by the Issuer or any Subsidiary Guarantor to comply with its obligations under "—Certain Covenants—Merger and Consolidation";
- (4) failure by the Issuer to comply for 30 days (or 180 days in the case of a Reporting Failure) after notice as provided below with any of its obligations under the covenant described under "—Change of Control" above or under the covenants described under "—Certain Covenants" above (in each case, other than a failure to purchase notes which will constitute an Event of Default under clause (2) above and other than a failure to comply with "—Certain Covenants—Merger and Consolidation" which is covered by clause (3));
- (5) failure by the Issuer to comply for 60 days after notice as provided below with its other agreements contained in the Indenture;
- (6) default under any mortgage, indenture or instrument under which there may be issued or by which there may be secured or evidenced any Indebtedness for money borrowed by the Issuer or any of its Restricted Subsidiaries (or the payment of which is guaranteed by the Issuer or any of its Restricted Subsidiaries), other than Indebtedness owed to the Issuer or a Restricted Subsidiary, whether such Indebtedness or guarantee existed at the Issue date, or was created thereafter, which default:
 - (a) is caused by a failure to pay principal of, or interest or premium, if any, on such Indebtedness prior to the expiration of the grace period provided in such Indebtedness (and any extensions of any grace period) ("payment default"); or
 - (b) results in the acceleration of such Indebtedness prior to its Stated Maturity (the "cross acceleration provision");

and, in each case, the principal amount of any such Indebtedness, together with the principal amount of any other such Indebtedness under which there has been a payment default or the maturity of which has been so accelerated, aggregates \$10.0 million or more;

- (7) certain events of bankruptcy, insolvency or reorganization of the Issuer or a Significant Subsidiary or group of Restricted Subsidiaries that, taken together (as of the latest audited consolidated financial statements for the Issuer and its Restricted Subsidiaries), would constitute a Significant Subsidiary (the "bankruptcy provisions");
- (8) failure by the Issuer or any Significant Subsidiary or group of Restricted Subsidiaries that, taken together (as of the latest audited consolidated financial statements for the Issuer and its Restricted Subsidiaries), would constitute a Significant Subsidiary to pay final judgments aggregating in excess of \$10.0 million (to the extent not covered by insurance by a reputable and creditworthy insurer as to which the insurer has not disclaimed coverage), which judgments are not paid or discharged, and there shall be any period of 60 consecutive days following entry of such final judgment or decree during which a stay of enforcement of such final judgment or decree, by reason of pending appeal or otherwise, shall not be in effect (the "judgment default provision"); or
- (9) any Guarantee of a Significant Subsidiary or group of Restricted Subsidiaries that, taken together (as of the latest audited consolidated financial statements for the Issuer and its Restricted

Subsidiaries) would constitute a Significant Subsidiary, ceases to be in full force and effect (except as contemplated by the terms of the Indenture) or is declared null and void in a judicial proceeding or the Issuer or any Subsidiary Guarantor that is a Significant Subsidiary or group of Subsidiary Guarantors that, taken together (as of the latest audited consolidated financial statements of the Issuer and its Restricted Subsidiaries) would constitute a Significant Subsidiary, denies or disaffirms its obligations under the Indenture or its Guarantee.

However, a default under clauses (4) and (5) of this paragraph will not constitute an Event of Default until the Trustee or the holders of at least 25% in principal amount of the outstanding notes notify the Issuer in writing and, in the case of a notice given by the holders, the Trustee of the default and the Issuer does not cure such default within the time specified in clauses (4) and (5) of this paragraph after receipt of such notice.

If an Event of Default (other than an Event of Default described in clause (7) above) occurs and is continuing, the Trustee by notice to the Issuer, or the holders of at least 25% in principal amount of the outstanding notes by notice to the Issuer and the Trustee, may, and the Trustee at the request of such holders shall, declare the principal of, premium, if any, accrued and unpaid interest, if any, on all the notes to be due and payable. If an Event of Default described in clause (7) above occurs and is continuing, the principal of, premium, if any, accrued and unpaid interest, if any, on all the notes will become and be immediately due and payable without any declaration or other act on the part of the Trustee or any holders. The holders of a majority in principal amount of the outstanding notes may rescind any such acceleration with respect to the notes and its consequences if, among other requirements, (1) rescission would not conflict with any judgment or decree of a court of competent jurisdiction and (2) all existing Events of Default, other than the nonpayment of the principal of, premium, if any, and interest on the notes that have become due solely by such declaration of acceleration, have been cured or waived.

Notwithstanding the foregoing, if an Event of Default specified in clause (6) above shall have occurred and be continuing, such Event of Default and any consequential acceleration (to the extent not in violation of any applicable law or in conflict with any judgment or decree of a court of competent jurisdiction) shall be automatically rescinded if (i) the Indebtedness that is the subject of such Event of Default has been repaid or (ii) if the default relating to such Indebtedness is waived by the holders of such Indebtedness or cured and if such Indebtedness has been accelerated, then the holders thereof have rescinded their declaration of acceleration in respect of such Indebtedness, in each case within 20 days after the declaration of acceleration with respect thereto, and (iii) any other existing Events of Default, except nonpayment of principal, premium or interest on the notes that became due solely because of the acceleration of the notes, have been cured or waived.

Subject to the provisions of the Indenture relating to the duties of the Trustee if an Event of Default occurs and is continuing, the Trustee will be under no obligation to exercise any of the rights or powers under the Indenture at the request or direction of any of the holders unless such holders have offered to the Trustee reasonable indemnity or security against any loss, liability or expense. Except to enforce the right to receive payment of principal, premium, if any, or interest when due, no holder may pursue any remedy with respect to the Indenture or the notes unless:

- (1) such holder has previously given the Trustee notice that an Event of Default is continuing;
- (2) holders of at least 25% in principal amount of the outstanding notes have requested the Trustee to pursue the remedy;
- (3) such holders have offered the Trustee reasonable security or indemnity against any loss, liability or expense;

- (4) the Trustee has not complied with such request within 60 days after the receipt of the request and the offer of security or indemnity; and
- (5) the holders of a majority in principal amount of the outstanding notes have not waived such Event of Default or otherwise given the Trustee a direction that, in the opinion of the Trustee, is inconsistent with such request within such 60-day period.

Subject to certain restrictions, the holders of a majority in principal amount of the outstanding notes are given the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or of exercising any trust or power conferred on the Trustee. If an Event of Default has occurred and is continuing, the Trustee will be required in the exercise of its powers to use the degree of care that a prudent person would use in the conduct of his own affairs. The Trustee, however, may refuse to follow any direction that conflicts with law or the Indenture or that the Trustee determines is unduly prejudicial to the rights of any other holder or that would involve the Trustee in personal liability. Prior to taking any action under the Indenture, the Trustee will be entitled to indemnification satisfactory to it in its sole discretion against all losses and expenses caused by taking or not taking such action.

If a Default occurs and is continuing and is known to the Trustee, the Trustee must send to each holder notice of the Default within 90 days after it occurs. Except in the case of a Default in the payment of principal of, premium, if any, or interest on any note, the Trustee may withhold such notice if and so long as a committee of trust officers of the Trustee in good faith determines that withholding notice is in the interests of the holders. In addition, the Issuer is required to deliver to the Trustee, within 120 days after the end of each fiscal year, a certificate indicating whether the signers thereof know of any Default that occurred during the previous year. The Issuer also is required to deliver to the Trustee, within 30 days after the occurrence thereof, written notice of any Defaults, their status and what action the Issuer is taking or proposing to take in respect thereof.

Amendments and Waivers

Subject to certain exceptions, the Indenture and the notes may be amended with the consent of the holders of a majority in principal amount of the notes then outstanding (including without limitation, consents obtained in connection with a purchase of, or tender offer or exchange offer for, notes) and, subject to certain exceptions, any past default or compliance with any provisions may be waived with the consent of the holders of a majority in principal amount of the notes then outstanding (including, without limitation, consents obtained in connection with a purchase of, or tender offer or exchange offer for, notes). However, without the consent of each holder of an outstanding note affected, no amendment may, among other things:

- (1) reduce the principal amount of notes whose holders must consent to an amendment or waiver;
- (2) reduce the stated rate of or extend the stated time for payment of interest on any note;
- (3) reduce the principal of or extend the Stated Maturity of any note;
- (4) reduce the premium payable upon the redemption of any note as described above under "—Optional Redemption," change the time at which any Note may be redeemed as described above under "—Optional Redemption" (except provisions relating to minimum required notice of optional redemption) or make any change relative to our obligation to make an offer to repurchase the notes as a result of a Change of Control as described above under "—Change of Control" after (but not before) the occurrence of such Change of Control;
 - (5) make any note payable in money other than that stated in the Note;

- (6) impair the right of any holder to receive payment of the principal of, premium, if any, and interest on such holder's notes on or after the due dates therefor or to institute suit for the enforcement of any payment on or with respect to such holder's notes;
 - (7) make any change in the amendment provisions which require each holder's consent or in the waiver provisions;
 - (8) modify the Guarantees in any manner adverse to the holders of the notes; or
 - (9) make any change to or modify the ranking of the notes that would adversely affect the holders.

Notwithstanding the foregoing, without the consent of any holder, the Issuer, the Subsidiary Guarantors and the Trustee may amend the Indenture and the notes to:

- (1) cure any ambiguity, omission, defect, mistake or inconsistency;
- (2) provide for the assumption by a successor of the obligations of the Issuer or any Subsidiary Guarantor under the Indenture;
- (3) provide for uncertificated notes in addition to or in place of certificated notes (*provided* that the uncertificated notes are issued in registered form for purposes of Section 163(f) of the Code);
- (4) add Subsidiary Guarantors with respect to the notes or release a Subsidiary Guarantor from its Guarantee and terminate such Guarantee; *provided* that the release and termination is in accordance with the applicable provisions of the Indenture;
 - (5) secure the notes or Guarantees;
- (6) add to the covenants of the Issuer or a Subsidiary Guarantor for the benefit of the holders or surrender any right or power conferred upon the Issuer or a Subsidiary Guarantor;
- (7) make any change that does not adversely affect the rights of any holder; *provided, however*, that any change to conform the Indenture to the "Description of Notes" in our offering memorandum relating to the old notes issued on May 6, 2014 and September 4, 2014 will not be deemed to adversely affect such legal rights;
- (8) comply with any requirement of the SEC in connection with the qualification of the Indenture under the Trust Indenture Act; or
- (9) provide for the succession of a successor Trustee, *provided* that the successor Trustee is otherwise qualified and eligible to act as such under the Indenture.

The consent of the holders will not be necessary under the Indenture to approve the particular form of any proposed amendment. It is sufficient if such consent approves the substance of the proposed amendment. A consent to any amendment or waiver under the Indenture by any holder of notes given in connection with a tender of such holder's notes will not be rendered invalid by such tender. After an amendment under the Indenture requiring the consent of the holders becomes effective, the Issuer will be required to send to the holders a notice briefly describing such amendment. However, the failure to give such notice to all the holders, or any defect in the notice will not impair or affect the validity of the amendment.

Defeasance

The Issuer at any time may terminate all its obligations under the notes and the Indenture ("legal defeasance"), except for certain obligations, including those respecting the defeasance trust and

obligations to register the transfer or exchange of the notes, to replace mutilated, destroyed, lost or stolen notes and to maintain a registrar and paying agent in respect of the notes.

The Issuer at any time may terminate its obligations described under "—Change of Control" and the obligations of itself under the covenants described under "—Certain Covenants" (other than clauses (1), (2), (4) and (5) of "—Merger and Consolidation"), the operation of the cross default upon a payment default, cross acceleration provisions, the bankruptcy provisions with respect to Significant Subsidiaries, the judgment default provision, the Subsidiary Guarantee provision described under "—Events of Default" above and the limitations contained in clause (3) under "—Certain Covenants—Merger and Consolidation" above ("covenant defeasance").

If the Issuer exercises its legal defeasance or its covenant defeasance option, the Guarantees in effect at such time will terminate.

The Issuer may exercise its legal defeasance option notwithstanding its prior exercise of its covenant defeasance option. If the Issuer exercises its legal defeasance option, payment of the notes may not be accelerated because of an Event of Default with respect to the notes. If the Issuer exercises its covenant defeasance option, payment of the notes may not be accelerated because of an Event of Default specified in clause (4), (5), (6), (7) (with respect only to Significant Subsidiaries), (8) or (9) under "—Events of Default" above or because of the failure of the Issuer to comply with clause (3) under "—Certain Covenants—Merger and Consolidation" above.

In order to exercise either legal defeasance or covenant defeasance:

- (1) the Issuer must irrevocably deposit with the Trustee, in trust, for the benefit of the holders of the notes, cash in U.S. dollars, U.S. Government Obligations, or a combination thereof, in amounts as will be sufficient, in the opinion of an accounting, appraisal or investment banking firm of national standing, to pay the principal of, premium, if any, on, and interest, if any, on, the outstanding notes on the stated date for payment thereof or on the applicable redemption date, as the case may be, and the Issuer must specify whether the notes are being defeased to such stated date for payment or to a particular redemption date (*provided* that if such redemption is made as provided in the fourth paragraph under "—Optional Redemption," (x) the amount of cash in U.S. dollars, U.S. Government Obligations, or a combination thereof, that must be irrevocably deposited will be determined using an assumed Applicable Premium calculated as of the date of such deposit and (y) the depositor must irrevocably deposit or cause to be deposited additional money in trust on the redemption date as necessary to pay the Applicable Premium as determined on such date);
- (2) in the case of legal defeasance, the Issuer must deliver to the Trustee an Opinion of Counsel reasonably acceptable to the Trustee confirming that (a) the Issuer has received from, or there has been published by, the Internal Revenue Service a ruling or (b) since the Issue Date, there has been a change in the applicable federal income tax law, in either case to the effect that, and based thereon such opinion of counsel will confirm that, the holders of the outstanding notes will not recognize income, gain or loss for federal income tax purposes as a result of such legal defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such legal defeasance had not occurred;
- (3) in the case of covenant defeasance, the Issuer must deliver to the Trustee an Opinion of Counsel reasonably acceptable to the Trustee confirming that the holders of the outstanding notes will not recognize income, gain or loss for federal income tax purposes as a result of such covenant defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such covenant defeasance had not occurred;
- (4) no Default or Event of Default has occurred and is continuing on the date of such deposit (other than a Default or Event of Default resulting from the borrowing of funds to be

applied to such deposit (and any similar concurrent deposit relating to other Indebtedness), and the granting of Liens to secure such borrowings);

- (5) such legal defeasance or covenant defeasance will not result in a breach or violation of, or constitute a default under, any material agreement or instrument (other than the Indenture and the agreements governing any other Indebtedness being defeased, discharged or replaced) to which the Issuer or any of its Subsidiaries is a party or by which the Issuer or any of its Subsidiaries is bound:
- (6) the Issuer must deliver to the Trustee an Officers' Certificate stating that the deposit was not made by the Issuer with the intent of preferring the holders of the notes over the other creditors of the Issuer with the intent of defeating, hindering, delaying or defrauding any creditors of the Issuer or others; and
- (7) the Issuer must deliver to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent relating to the legal defeasance or the covenant defeasance have been complied with.

Satisfaction and Discharge

The Indenture will be satisfied and discharged and will cease to be of further effect as to all notes issued thereunder, when:

(1) either

- (a) all notes that have been authenticated (except lost, stolen or destroyed notes that have been replaced or paid and notes for whose payment money has theretofore been deposited in trust or segregated and held in trust by the Issuer and thereafter repaid to the Issuer or discharged from such trust) have been delivered to the Trustee for cancellation, or
- (b) all notes that have not been delivered to the Trustee for cancellation have become due and payable or will become due and payable within one year by reason of the giving of a notice of redemption or otherwise and the Issuer or any Subsidiary Guarantor has irrevocably deposited or caused to be irrevocably deposited with the Trustee as trust funds in trust solely for such purpose, cash in U.S. dollars, U.S. Government Obligations, or a combination thereof, in such amounts as will be sufficient without consideration of any reinvestment of interest, to pay and discharge the entire indebtedness on the notes not delivered to the Trustee for cancellation for principal and accrued interest to the date of Stated Maturity or redemption (*provided* that if such redemption is made as provided in the fourth paragraph under "—Optional Redemption," (x) the amount of cash in U.S. dollars, U.S. Government Obligations, or a combination thereof, that must be irrevocably deposited will be determined using an assumed Applicable Premium calculated as of the date of such deposit and (y) the depositor must irrevocably deposit or cause to be deposited additional money in trust on the redemption date as necessary to pay the Applicable Premium as determined by such date);
- (2) in respect of clause (1)(b), no Event of Default has occurred and is continuing on the date of the deposit (other than an Event of Default resulting from the borrowing of funds to be applied to such deposit and any similar deposit relating to other Indebtedness and, in each case, the granting of Liens to secure such borrowings) and the deposit will not result in a breach or violation of, or constitute a default under, any other instrument to which either the Issuer or any Subsidiary Guarantor is a party or by which either the Issuer or any Subsidiary Guarantor is bound (other than with respect to the borrowing of funds to be applied concurrently to make the deposit required to effect such satisfaction and discharge and any similar concurrent deposit relating to other Indebtedness, and in each case the granting of Liens to secure such borrowings);

- (3) the Issuer has paid or caused to be paid all other sums payable by the Issuers under the indenture; and
- (4) the Issuer has delivered irrevocable instructions to the trustee to apply the deposited money toward the payment of the notes at Stated Maturity or on the redemption date, as the case may be.

In addition, the Issuer must deliver an Officers' Certificate and an Opinion of Counsel to the Trustee stating that all conditions precedent to satisfaction and discharge have been satisfied.

No Personal Liability of Directors, Officers, Employees and Stockholders

No director, officer, employee, incorporator, stockholder, member, partner or trustee of the Issuer or any Subsidiary Guarantor, as such, shall have any liability for any obligations of the Issuer or any Subsidiary Guarantor under the notes, the Indenture or the Guarantees or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each holder by accepting a note waives and releases all such liability. The waiver and release are part of the consideration for issuance of the notes.

Concerning the Trustee

Wells Fargo Bank, National Association is the Trustee under the Indenture and is the registrar and paying agent with regard to the notes. Such bank is the trustee under the indenture for each other series of senior notes of the Issuer and a lender under the Senior Secured Credit Agreements.

The Indenture contains certain limitations on the rights of the Trustee, should it become a creditor of the Issuer or any Subsidiary Guarantor, to obtain payment of claims in certain cases, or to realize on certain property received in respect of any such claim as security or otherwise. The Trustee will be permitted to engage in other transactions; *provided, however*, that if it acquires any conflicting interest (as defined in the Trust Indenture Act) while any Default exists it must eliminate such conflict within 90 days, apply to the SEC for permission to continue as Trustee (if the Indenture is then qualified under the Trust Indenture Act) with such conflict or resign as Trustee.

Governing Law

The Indenture and the notes are governed by, and will be construed in accordance with, the laws of the State of New York.

Additional Information

Anyone who receives this prospectus may obtain a copy of each of the Base Indenture and the First Supplemental Indenture without charge by writing to Antero Resources Corporation, 1615 Wynkoop Street, Denver, Colorado 80202, Attention: Chief Financial Officer.

Certain Definitions

"Acquired Indebtedness" means Indebtedness (i) of a Person or any of its Subsidiaries existing at the time such Person becomes or is merged with and into a Restricted Subsidiary or (ii) assumed in connection with the acquisition of assets from such Person, in each case whether or not Incurred by such Person in connection with, or in anticipation or contemplation of, such Person becoming a Restricted Subsidiary or such acquisition. Acquired Indebtedness shall be deemed to have been Incurred, with respect to clause (i) of the preceding sentence, on the date such Person becomes or is merged with and into a Restricted Subsidiary and, with respect to clause (ii) of the preceding sentence, on the date of consummation of such acquisition of assets.

"Additional Assets" means:

- (1) any properties or assets to be used by the Issuer or a Restricted Subsidiary in the Oil and Gas Business;
- (2) capital expenditures by the Issuer or a Restricted Subsidiary in the Oil and Gas Business;
- (3) the Capital Stock of a Person that becomes a Restricted Subsidiary as a result of the acquisition of such Capital Stock by the Issuer or a Restricted Subsidiary; or
 - (4) Capital Stock constituting a Minority Interest in any Person that at such time is a Restricted Subsidiary;

provided, however, that, in the case of clauses (3) and (4), such Restricted Subsidiary is primarily engaged in the Oil and Gas Business.

"Adjusted Consolidated Net Tangible Assets" of the Issuer means (without duplication), as of the date of determination, the remainder of:

(a) the sum of:

- (i) discounted future net revenues from proved oil and gas reserves of the Issuer and its Restricted Subsidiaries calculated in accordance with SEC guidelines (but giving effect to applicable Commodity Agreements in place as of the date of determination (whether positive or negative)) before any state or federal income taxes, as estimated by the Issuer in a reserve report prepared as of the end of the Issuer's most recently completed fiscal year for which audited financial statements are available, as increased by, as of the date of determination, the estimated discounted future net revenues from
 - (A) estimated proved oil and gas reserves acquired since such year end, which reserves were not reflected in such year-end reserve report, and
 - (B) estimated oil and gas reserves attributable to extensions, discoveries and other additions and upward revisions of estimates of proved oil and gas reserves since such year-end due to exploration, development or exploitation, production or other activities, which would, in accordance with standard industry practice, cause such revisions (including the impact to proved reserves and future net revenues from estimated development costs incurred and the accretion of discount since such year-end),

and decreased by, as of the date of determination, the estimated discounted future net revenues from

- (C) estimated proved oil and gas reserves produced or disposed of since such year end to the extent such estimated discounted future net revenues were included in such year end reserve report or such estimated reserves under clauses (A) or (B) above, and
- (D) estimated oil and gas reserves attributable to downward revisions of estimates of proved oil and gas reserves since such year-end due to changes in geological conditions or other factors which would, in accordance with standard industry practice, cause such revisions, in the case of clauses (A), (B) and (D) calculated on a pre-tax basis substantially in accordance with SEC guidelines utilizing prices and costs calculated in accordance with SEC guidelines (but giving effect to applicable Commodity Agreements in place as of the date of determination (whether positive or negative)) as if the end of the most recent fiscal quarter preceding the date of determination for which such information is available to the Issuer were year-end; *provided, however*, that in the case of each of the determinations made pursuant to clauses (A) through (D), such increases and decreases shall be as estimated by the Issuer's petroleum engineers;

- (ii) the capitalized costs that are attributable to Oil and Gas Properties of the Issuer and its Restricted Subsidiaries to which no proved oil and gas reserves are attributable, based on the Issuer's books and records as of a date no earlier than the date of the Issuer's latest available annual or quarterly financial statements;
- (iii) the Net Working Capital of the Issuer and its Restricted Subsidiaries on a date no earlier than the date of the Issuer's latest annual or quarterly financial statements; and

(iv) the greater of

- (A) the net book value of other tangible assets of the Issuer and its Restricted Subsidiaries, as of a date no earlier than the date of the Issuer's latest annual or quarterly financial statements, and
- (B) the appraised value, as estimated by independent appraisers, of other tangible assets of the Issuer and its Restricted Subsidiaries, as of a date no earlier than the date of the Issuer's latest audited financial statements; *provided*, that, if no such appraisal has been performed the Issuer shall not be required to obtain such an appraisal and only clause (iv)(A) of this definition shall apply;

minus

(b) the sum of:

- (i) Minority Interests;
- (ii) any net gas balancing liabilities of the Issuer and its Restricted Subsidiaries reflected in the Issuer's latest annual or quarterly balance sheet (to the extent not deducted in calculating Net Working Capital of the Issuer in accordance with clause (a)(iii) above of this definition);
- (iii) to the extent included in (a)(i) above, the discounted future net revenues, calculated in accordance with SEC guidelines (but utilizing prices and costs calculated in accordance with SEC guidelines as if the end of the most recent fiscal quarter preceding the date of determination for which such information is available to the Issuer were year-end), attributable to reserves which are required to be delivered to third parties to fully satisfy the obligations of the Issuer and its Restricted Subsidiaries with respect to Volumetric Production Payments (determined, if applicable, using the schedules specified with respect thereto); and
- (iv) the discounted future net revenues, calculated in accordance with SEC guidelines, attributable to reserves subject to Dollar Denominated Production Payments which, based on the estimates of production and price assumptions included in determining the discounted future net revenues specified in (a)(i) above, would be necessary to fully satisfy the payment obligations of the Issuer and its Subsidiaries with respect to Dollar Denominated Production Payments (determined, if applicable, using the schedules specified with respect thereto).

If the Issuer changes its method of accounting from the successful efforts method of accounting to the full cost or a similar method, "Adjusted Consolidated Net Tangible Assets" will continue to be calculated as if the Issuer were still using the successful efforts method of accounting.

"Affiliate" of any specified Person means any other Person, directly or indirectly, controlling or controlled by or under direct or indirect common control with such specified Person. For the purposes of this definition, "control" when used with respect to any Person means the power to direct the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise; and the terms "controlling" and "controlled" have meanings correlative to the foregoing.

"Asset Disposition" means any direct or indirect sale, lease (including by means of Production Payments and Reserve Sales and a Sale/Leaseback Transaction but excluding an operating lease entered into in the ordinary course of the Oil and Gas Business), transfer, issuance or other disposition, or a series of related sales, leases, transfers, issuances or dispositions that are part of a common plan, of (A) any Capital Stock of a Restricted Subsidiary (other than Preferred Stock of Restricted Subsidiaries issued in compliance with the covenant described under the heading "—Certain Covenants—Limitation on Indebtedness and Preferred Stock," and directors' qualifying shares or shares required by applicable law to be held by a Person other than the Issuer or a Restricted Subsidiary), (B) all or substantially all the assets of any division or line of business of the Issuer or any Restricted Subsidiary (excluding any division or line of business the assets of which are owned by an Unrestricted Subsidiary) or (C) any other assets of the Issuer or any Restricted Subsidiary outside of the ordinary course of business of the Issuer or such Restricted Subsidiary (each referred to for the purposes of this definition as a "disposition"), in each case by the Issuer or any of its Restricted Subsidiaries, including any disposition by means of a merger, consolidation or similar transaction.

Notwithstanding the preceding, the following items shall not be deemed to be Asset Dispositions:

- (1) a disposition by a Restricted Subsidiary to the Issuer or by the Issuer or a Restricted Subsidiary to a Restricted Subsidiary;
- (2) a disposition of cash, Cash Equivalents or other financial assets in the ordinary course of business;
- (3) a disposition of Hydrocarbons or mineral products inventory in the ordinary course of business;
- (4) a disposition of damaged, unserviceable, obsolete or worn out equipment or equipment that is no longer necessary for the proper conduct of the business of the Issuer and its Restricted Subsidiaries and that is disposed of in each case in the ordinary course of business;
 - (5) transactions in accordance with the covenant described under "—Certain Covenants—Merger and Consolidation";
 - (6) an issuance of Capital Stock by a Restricted Subsidiary to the Issuer or to a Restricted Subsidiary;
- (7) the making of a Permitted Investment or a Restricted Payment (or a disposition that would constitute a Restricted Payment but for the exclusions from the definition thereof) permitted by the covenant described under "—Certain Covenants—Limitation on Restricted Payments";
 - (8) an Asset Swap;
 - (9) dispositions of assets with a Fair Market Value of less than \$10.0 million;
 - (10) Permitted Liens;
- (11) dispositions of receivables in connection with the compromise, settlement or collection thereof in the ordinary course of business or in bankruptcy or similar proceedings and exclusive of factoring or similar arrangements;
- (12) the licensing or sublicensing of intellectual property (including, without limitation, the licensing of seismic data) or other general intangibles and licenses, leases or subleases of other property in the ordinary course of business which do not materially interfere with the business of the Issuer and its Restricted Subsidiaries;
 - (13) foreclosure on assets;

- (14) any Production Payments and Reserve Sales; *provided* that any such Production Payments and Reserve Sales, other than incentive compensation programs on terms that are reasonably customary in the Oil and Gas Business for geologists, geophysicists and other providers of technical services to the Issuer or a Restricted Subsidiary, shall have been created, Incurred, issued, assumed or guaranteed in connection with the financing of, and within 60 days after the acquisition of, the property that is subject thereto;
- (15) surrender or waiver of contract rights, oil and gas leases, or the settlement, release or surrender of contract, tort or other claims of any kind;
- (16) the abandonment, farmout, lease or sublease of developed or undeveloped Oil and Gas Properties in the ordinary course of business; and
- (17) a disposition (whether or not in the ordinary course of business) of any Oil and Gas Property or interest therein to which no proved reserves are attributable at the time of such disposition.
- "Asset Swap" means any substantially contemporaneous (and in any event occurring within 180 days of each other) purchase and sale or exchange of any oil or natural gas properties or assets or interests therein between the Issuer or any of its Restricted Subsidiaries and another Person; provided, that any cash received must be applied in accordance with "—Certain Covenants—Limitation on Sales of Assets and Subsidiary Stock" as if the Asset Swap were an Asset Disposition.
- "Average Life" means, as of the date of determination, with respect to any Indebtedness or Preferred Stock, the quotient obtained by dividing (1) the sum of the products of the numbers of years from the date of determination to the dates of each successive scheduled principal payment of such Indebtedness or redemption or similar payment with respect to such Preferred Stock multiplied by the amount of such payment by (2) the sum of all such payments.
- "Beneficial Owner" has the meaning assigned to such term in Rule 13d-3 and Rule 13d-5 under the Exchange Act, except that in calculating the beneficial ownership of any particular "person" (as that term is used in Section 13(d)(3) of the Exchange Act), such "person" will be deemed to have beneficial ownership of all securities that such "person" has the right to acquire by conversion or exercise of other securities, whether such right is currently exercisable or is exercisable only after the passage of time. The terms "Beneficially Owns" and "Beneficially Owned" have a corresponding meaning. For purposes of this definition, a Person shall not be deemed to Beneficially Own securities that are the subject of a stock purchase agreement, merger agreement or similar agreement until consummation of the transactions or, as applicable, series of related transactions contemplated thereby.
- "Board of Directors" means, as to any Person that is a corporation, the board of directors of such Person or any duly authorized committee thereof or as to any Person that is not a corporation, the board of managers or such other individual or group serving a similar function.
- "Business Day" means each day that is not a Saturday, Sunday or other day on which commercial banking institutions in New York, New York are authorized or required by law to close.
- "Capital Stock" of any Person means any and all shares, units, interests, rights to purchase, warrants, options, participations or other equivalents of or interests in (however designated) equity of such Person, including any Preferred Stock, but excluding any debt securities convertible into, or exchangeable for, such equity.
- "Capitalized Lease Obligations" means an obligation that is required to be classified and accounted for as a capitalized lease for financial reporting purposes in accordance with GAAP, and the amount of Indebtedness represented by such obligation will be the capitalized amount of such obligation at the time any determination thereof is to be made as determined in accordance with GAAP, and the Stated Maturity thereof will be the date of the last payment of rent or any other amount due under such lease

prior to the first date such lease may be terminated without penalty. Notwithstanding the preceding, any lease (whether entered into before or after the Issue Date) that would have been classified as an operating lease pursuant to GAAP as in effect on the Issue Date will be deemed not to represent a Capitalized Lease Obligation.

"Cash Equivalents" means:

- (1) securities issued or directly and fully guaranteed or insured by the United States Government or any agency or instrumentality of the United States (*provided* that the full faith and credit of the United States is pledged in support thereof), having maturities of not more than one year from the date of acquisition;
- (2) marketable general obligations issued by any state of the United States of America or any political subdivision of any such state or any public instrumentality thereof maturing within one year from the date of acquisition and, at the time of acquisition, having a credit rating of "A" (or the equivalent thereof) or better from either S&P or Moody's;
- (3) certificates of deposit, time deposits, eurodollar time deposits, overnight bank deposits or bankers' acceptances having maturities of not more than one year from the date of acquisition thereof issued by any commercial bank the short-term deposit of which is rated at the time of acquisition thereof at least "A-2' or the equivalent thereof by S&P, or "P-2" or the equivalent thereof by Moody's, and having combined capital and surplus in excess of \$100.0 million;
- (4) repurchase obligations with a term of not more than seven days for underlying securities of the types described in clauses (1), (2) and (3) entered into with any bank meeting the qualifications specified in clause (3) above;
- (5) commercial paper rated at the time of acquisition thereof at least "A-2" or the equivalent thereof by S&P or "P-2" or the equivalent thereof by Moody's, or carrying an equivalent rating by a nationally recognized rating agency, if both of the two named Rating Agencies cease publishing ratings of investments, and in any case maturing within one year after the date of acquisition thereof; and
- (6) interests in any investment company or money market fund which invests 95% or more of its assets in instruments of the type specified in clauses (1) through (5) above.

"Cash Management Obligations" means, with respect to the Issuer or any Subsidiary Guarantor, any obligations of such Person to U.S. Bank National Association or any other lender in respect of treasury management arrangements, depositary or other cash management services, including any treasury management line of credit.

"Change of Control" means:

- (1) any "person" or "group" of related persons (as such terms are used in Sections 13(d) and 14(d) of the Exchange Act), other than a Permitted Holder, is or becomes the Beneficial Owner, directly or indirectly, of more than 50% of the total voting power of the Voting Stock of the Issuer (or its successor by merger, consolidation or purchase of all or substantially all of its assets) (for the purposes of this clause (1), such person or group shall be deemed to Beneficially Own any Voting Stock of the Issuer held by a parent entity, if such person or group Beneficially Owns, directly or indirectly, more than 50% of the total voting power of the Voting Stock of such parent entity), which occurrence is followed by a Rating Decline within 90 days;
- (2) the sale, lease, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or a series of related transactions, of all or substantially all of the assets of the Issuer and its Restricted Subsidiaries taken as a whole to any "person" (as such term is used in

Sections 13(d) and 14(d) of the Exchange Act), which occurrence is followed by a Rating Decline within 90 days; or

(3) the adoption by the Board of Directors of the Issuer of a plan or proposal for the liquidation or dissolution of the Issuer.

Notwithstanding the preceding, a conversion of the Issuer or any of its Restricted Subsidiaries from a limited liability company, corporation, limited partnership or other form of entity to a limited liability company, corporation, limited partnership or other form of entity or an exchange of all of the outstanding Capital Stock in one form of entity for Capital Stock for another form of entity shall not constitute a Change of Control, so long as following such conversion or exchange the "persons" (as that term is used in Section 13(d)(3) of the Exchange Act) who Beneficially Owned the Capital Stock of the Issuer immediately prior to such transactions continue to Beneficially Own in the aggregate more than 50% of the Voting Stock of such entity, or continue to Beneficially Own sufficient Equity Interests in such entity to elect a majority of its directors, managers, trustees or other persons serving in a similar capacity for such entity, and, in either case no "person" Beneficially Owns more than 50% of the Voting Stock of such entity.

"Code" means the Internal Revenue Code of 1986, as amended.

"Commodity Agreements" means, in respect of any Person, any forward contract, commodity swap agreement, commodity option agreement or other similar agreement or arrangement in respect of Hydrocarbons used, produced, processed or sold by such Person that are customary in the Oil and Gas Business and designed to protect such Person against fluctuation in Hydrocarbon prices.

"Common Stock" means, with respect to any Person, any and all shares, interests or other participations in, and other equivalents (however designated and whether voting or nonvoting) of such Person's common stock whether or not outstanding on the Issue Date, and includes, without limitation, all series and classes of such common stock.

"Consolidated Coverage Ratio" means as of any date of determination, the ratio of (x) the aggregate amount of Consolidated EBITDAX of the Issuer for the period of the most recent four consecutive fiscal quarters ending prior to the date of such determination for which financial statements are in existence to (y) Consolidated Interest Expense for such four fiscal quarters, provided, however, that:

- (1) if the Issuer or any Restricted Subsidiary:
 - (a) has Incurred any Indebtedness since the beginning of such period that remains out-standing on such date of determination or if the transaction giving rise to the need to calculate the Consolidated Coverage Ratio is an Incurrence of Indebtedness, Consolidated EBITDAX and Consolidated Interest Expense for such period will be calculated after giving effect on a pro forma basis to such Indebtedness and the use of proceeds thereof as if such Indebtedness had been Incurred on the first day of such period and such proceeds had been applied as of such date (except that in making such computation, the amount of Indebtedness under any revolving Credit Facility outstanding on the date of such calculation will be deemed to be (i) the average daily balance of such Indebtedness during such four fiscal quarters or such shorter period for which such facility was outstanding or (ii) if such revolving Credit Facility was created after the end of such four fiscal quarters, the average daily balance of such Indebtedness during the period from the date of creation of such revolving Credit Facility to the date of such calculation, in each case, *provided* that such average daily balance shall take into account any repayment of Indebtedness under such revolving Credit Facility as pro-vided in clause (b)); or

- (b) has repaid, repurchased, defeased or otherwise discharged any Indebtedness since the beginning of the period, including with the proceeds of such new Indebtedness, that is no longer outstanding on such date of determination or if the transaction giving rise to the need to calculate the Consolidated Coverage Ratio involves a discharge of Indebtedness (in each case other than Indebtedness Incurred under any revolving Credit Facility unless such Indebtedness has been permanently repaid and the related commitment terminated), Consolidated EBITDAX and Consolidated Interest Expense for such period will be calculated after giving effect on a pro forma basis to such discharge of such Indebtedness as if such discharge had occurred on the first day of such period;
- (2) if, since the beginning of such period, the Issuer or any Restricted Subsidiary has made any Asset Disposition or if the transaction giving rise to the need to calculate the Consolidated Coverage Ratio is such an Asset Disposition, the Consolidated EBITDAX for such period will be reduced by an amount equal to the Consolidated EBITDAX (if positive) directly attributable to the assets which are the subject of such Asset Disposition for such period or increased by an amount equal to the Consolidated EBITDAX (if negative) directly attributable thereto for such period and Consolidated Interest Expense for such period shall be reduced by an amount equal to the Consolidated Interest Expense directly attributable to any Indebtedness of the Issuer or any Restricted Subsidiary repaid, repurchased, defeased or otherwise discharged with respect to the Issuer and its continuing Restricted Subsidiaries in connection with or with the proceeds from such Asset Disposition for such period (or, if the Capital Stock of any Restricted Subsidiary is sold, the Consolidated Interest Expense for such period directly attributable to the Indebtedness of such Restricted Subsidiary to the extent the Issuer and its continuing Restricted Subsidiaries are no longer liable for such Indebtedness after such sale);
- (3) if, since the beginning of such period, the Issuer or any Restricted Subsidiary (by merger or otherwise) has made an Investment in any Restricted Subsidiary (or any Person which becomes a Restricted Subsidiary or is merged with or into the Issuer or a Restricted Subsidiary) or an acquisition (or will have received a contribution) of assets, including any acquisition or contribution of assets occurring in connection with a transaction causing a calculation to be made under the Indenture, which constitutes all or substantially all of a company, division, operating unit, segment, business, group of related assets or line of business, Consolidated EBITDAX and Consolidated Interest Expense for such period will be calculated after giving pro forma effect thereto (including the Incurrence of any Indebtedness) as if such Investment or acquisition or contribution had occurred on the first day of such period; and
- (4) if, since the beginning of such period, any Person (that subsequently became a Restricted Subsidiary or was merged with or into the Issuer or any Restricted Subsidiary since the beginning of such period) made any Asset Disposition or any Investment or acquisition of assets that would have required an adjustment pursuant to clause (2) or (3) above if made by the Issuer or a Restricted Subsidiary during such period, Consolidated EBITDAX and Consolidated Interest Expense for such period will be calculated after giving pro forma effect thereto as if such Asset Disposition or Investment or acquisition of assets had occurred on the first day of such period.

For purposes of this definition, whenever pro forma effect is to be given to any calculation under this definition, the pro forma calculations will be determined in good faith by a responsible financial or accounting officer of the Issuer; *provided* that such officer may in his or her discretion include any reasonably identifiable and factually supportable pro forma changes to Consolidated EBITDAX, including any pro forma expenses and cost reductions, that have occurred or in the judgment of such officer are reasonably expected to occur within 12 months of the date of the applicable transaction (regardless of whether such expense or cost reduction or any other operating improvements could then be reflected properly in pro forma financial statements prepared in accordance with Regulation S-X under the Securities Act or any other regulation or policy of the SEC). If any Indebtedness bears a

floating rate of interest and is being given pro forma effect, the interest expense on such Indebtedness will be calculated as if the average rate in effect from the beginning of such period to the date of determination had been the applicable rate for the entire period (taking into account any Interest Rate Agreement applicable to such Indebtedness, but if the remaining term of such Interest Rate Agreement is less than 12 months, then such Interest Rate Agreement shall only be taken into account for that portion of the period equal to the remaining term thereof). If any Indebtedness that is being given pro forma effect bears an interest rate at the option of the Issuer, the interest rate shall be calculated by applying such optional rate chosen by the Issuer. Interest on Indebtedness that may optionally be determined at an interest rate based upon a factor of a prime or similar rate, a eurocurrency interbank offered rate, or other rate, shall be deemed to have been based upon the rate actually chosen, or, if none, then based upon such optional rate chosen as the Issuer may designate.

"Consolidated EBITDAX" for any period means, without duplication, the Consolidated Net Income for such period, plus the following, without duplication and to the extent deducted (and not added back) in calculating such Consolidated Net Income:

- (1) Consolidated Interest Expense;
- (2) Consolidated Income Tax Expense;
- (3) consolidated depletion and depreciation expense of the Issuer and its Restricted Subsidiaries;
- (4) consolidated amortization expense or impairment charges of the Issuer and its Restricted Subsidiaries recorded in connection with the application of FASB ASC Topic No. 350, Intangibles—Goodwill and Others, and FASB ASC Topic No. 360, Property, Plant and Equipment;
- (5) other non-cash charges of the Issuer and its Restricted Subsidiaries (excluding any such non-cash charge to the extent it represents an accrual of or reserve for cash charges in any future period or amortization of a prepaid cash expense that was paid in a prior period not included in the calculation); and
 - (6) consolidated exploration and abandonment expense of the Issuer and its Restricted Subsidiaries,

if applicable for such period; and less, to the extent included in calculating such Consolidated Net Income and in excess of any costs or expenses attributable thereto that were deducted (and not added back) in calculating such Consolidated Net Income, the sum of (x) the amount of deferred revenues that are amortized during such period and are attributable to reserves that are subject to Volumetric Production Payments, (y) amounts recorded in accordance with GAAP as repayments of principal and interest pursuant to Dollar Denominated Production Payments and (z) other non-cash gains (excluding any non-cash gain to the extent it represents the reversal of an accrual or reserve for a potential cash item that reduced Consolidated EBITDAX in any prior period).

Notwithstanding the preceding sentence, clauses (2) through (6) relating to amounts of a Restricted Subsidiary of the Issuer will be added to Consolidated Net Income to compute Consolidated EBITDAX of the Issuer only to the extent (and in the same proportion) that the net income (loss) of such Restricted Subsidiary was included in calculating the Consolidated Net Income of the Issuer and, to the extent the amounts set forth in clauses (2) through (6) are in excess of those necessary to offset a net loss of such Restricted Subsidiary or if such Restricted Subsidiary has net income for such period included in Consolidated Net Income, only if a corresponding amount would be permitted at the date of determination to be dividended to the Issuer by such Restricted Subsidiary (unless it is a Subsidiary Guarantor) without prior approval (that has not been obtained), pursuant to the terms of its charter and all agreements, instruments, judgments, decrees, orders, statutes, rules and governmental regulations applicable to that Restricted Subsidiary or the holders of its Capital Stock.

"Consolidated Income Tax Expense" means, with respect to any period, the provision for federal, state, local and foreign income taxes (including state franchise taxes) of the Issuer and its Restricted Subsidiaries for such period as determined in accordance with GAAP.

"Consolidated Interest Expense" means, for any period, the total consolidated interest expense (less interest income) of the Issuer and its Restricted Subsidiaries, whether paid or accrued, plus, to the extent not included in such interest expense and without duplication:

- (1) interest expense attributable to Capitalized Lease Obligations and the interest component of any deferred payment obligations;
- (2) amortization of debt discount and debt issuance cost (*provided* that any amortization of bond premium will be credited to reduce Consolidated Interest Expense unless, pursuant to GAAP, such amortization of bond premium has otherwise reduced Consolidated Interest Expense);
 - (3) non-cash interest expense;
 - (4) commissions, discounts and other fees and charges owed with respect to letters of credit and bankers' acceptance financing;
- (5) the interest expense on Indebtedness of another Person that is guaranteed by the Issuer or one of its Restricted Subsidiaries or secured by a Lien on assets of the Issuer or one of its Restricted Subsidiaries, to the extent such guarantee becomes payable or such Lien becomes subject to foreclosure;
- (6) cash costs associated with Interest Rate Agreements (including amortization of fees); *provided, however*, that if Interest Rate Agreements result in net cash benefits rather than costs, such benefits shall be credited to reduce Consolidated Interest Expense unless, pursuant to GAAP, such net benefits are otherwise reflected in Consolidated Net Income;
 - (7) the consolidated interest expense of the Issuer and its Restricted Subsidiaries that was capitalized during such period; and
- (8) all dividends paid or payable in cash, Cash Equivalents or Indebtedness or accrued during such period on any series of Disqualified Stock of the Issuer or on Preferred Stock of its Restricted Subsidiaries payable to a party other than the Issuer or a Wholly-Owned Subsidiary,

minus, to the extent included above, any interest attributable to Dollar Denominated Production Payments.

For the purpose of calculating the Consolidated Coverage Ratio in connection with the Incurrence of any Indebtedness described in the final paragraph of the definition of "Indebtedness," the calculation of Consolidated Interest Expense shall include all interest expense (including any amounts described in clauses (1) through (8) above) relating to any Indebtedness of the Issuer or any Restricted Subsidiary described in the final paragraph of the definition of "Indebtedness."

"Consolidated Net Income" means, for any period, the aggregate net income (loss) of the Issuer and its consolidated Subsidiaries determined in accordance with GAAP and before any reduction in respect of Preferred Stock dividends of such Person; provided, however, that there will not be included (to the extent otherwise included therein) in such Consolidated Net Income:

- (1) any net income (loss) of any Person (other than the Issuer) if such Person is not a Restricted Subsidiary, except that:
 - (a) subject to the limitations contained in clauses (3) and (4) below, the Issuer's equity in the net income of any such Person for such period will be included in such Consolidated Net Income up to the aggregate amount of cash actually distributed by such Person during such period to the Issuer or a Restricted Subsidiary as a dividend or other distribution

(subject, in the case of a dividend or other distribution to a Restricted Subsidiary, to the limitations contained in clause (2) below); and

- (b) the Issuer's equity in a net loss of any such Person for such period will be included in determining such Consolidated Net Income to the extent such loss has been funded with cash from the Issuer or a Restricted Subsidiary during such period;
- (2) any net income (but not loss) of any Restricted Subsidiary (other than a Subsidiary Guarantor) if such Subsidiary is subject to restrictions, directly or indirectly, on the payment of dividends or the making of distributions by such Restricted Subsidiary, directly or indirectly, to the Issuer, except that:
 - (a) subject to the limitations contained in clauses (3), (4) and (5) below, the Issuer's equity in the net income of any such Restricted Subsidiary for such period will be included in such Consolidated Net Income up to the aggregate amount of cash that could have been distributed by such Restricted Subsidiary during such period to the Issuer or another Restricted Subsidiary as a dividend or other distribution (subject, in the case of a dividend or other distribution paid to another Restricted Subsidiary, to the limitation contained in this clause); and
 - (b) the Issuer's equity in a net loss of any such Restricted Subsidiary for such period will be included in determining such Consolidated Net Income;
- (3) any gain (loss) realized upon the sale or other disposition of any property, plant or equipment of the Issuer or its consolidated Subsidiaries (including pursuant to any Sale/Leaseback Transaction) which is not sold or otherwise disposed of in the ordinary course of business and any gain (loss) realized upon the sale or other disposition of any Capital Stock of any Person;
- (4) any extraordinary or nonrecurring gains or losses, together with any related provision for taxes on such gains or losses and all related fees and expenses;
 - (5) the cumulative effect of a change in accounting principles;
 - (6) any asset impairment writedowns on Oil and Gas Properties under GAAP or SEC guidelines;
- (7) any unrealized non-cash gains or losses or charges in respect of Hedging Obligations (including those resulting from the application of FASB ASC Topic No. 815, Derivatives and Hedging);
- (8) income or loss attributable to discontinued operations (including, without limitation, operations disposed of during such period whether or not such operations were classified as discontinued);
- (9) all deferred financing costs written off, and premiums paid, in connection with any early extinguishment of Indebtedness; and
- (10) any non-cash compensation charge arising from any grant of stock, stock options or other equity based awards; *provided* that the proceeds resulting from any such grant will be excluded from clause (c)(ii) of the first paragraph of the covenant described under "—Certain Covenants—Limitation on Restricted Payments."

"Credit Facility" means, with respect to the Issuer or any Restricted Subsidiary, one or more debt facilities (including, without limitation, the Senior Secured Credit Agreements), indentures or commercial paper facilities providing for revolving credit loans, term loans, capital markets financings, receivables financing (including through the sale of receivables to such lenders or to special purpose entities formed to borrow from such lenders against such receivables) or letters of credit, in each case, as amended, restated, modified, renewed, refunded, replaced or refinanced in whole or in part from time to time (and whether or not with the original administrative agent and lenders or another administrative agent or agents or other lenders and whether provided under the a Senior Secured Credit Agreement or any other credit or other agreement or indenture).

"Currency Agreement" means in respect of a Person any foreign exchange contract, currency swap agreement, futures contract, option contract or other similar agreement as to which such Person is a party or a beneficiary.

"Customary Recourse Exceptions" means, with respect to any Non-Recourse Debt of an Unrestricted Subsidiary, exclusions from the exculpation provisions with respect to such Non-Recourse Debt for the voluntary bankruptcy of such Unrestricted Subsidiary, fraud, misapplication of cash, environmental claims, waste, willful destruction and other circumstances customarily excluded by lenders from exculpation provisions or included in separate indemnification agreements in non-recourse financings.

"Default" means any event which is, or after notice or passage of time or both would be, an Event of Default.

"Disqualified Stock" means, with respect to any Person, any Capital Stock of such Person which by its terms (or by the terms of any security into which it is convertible or for which it is exchangeable) at the option of the holder of the Capital Stock or upon the happening of any event:

- (1) matures or is mandatorily redeemable (other than redeemable only for Capital Stock of such Person which is not itself Disqualified Stock) pursuant to a sinking fund obligation or otherwise;
- (2) is convertible or exchangeable for Disqualified Stock or other Indebtedness (excluding Capital Stock which is convertible or exchangeable solely at the option of such Person or a Subsidiary thereof); or
 - (3) is redeemable at the option of the holder of the Capital Stock in whole or in part,

in each case on or prior to the date that is 91 days after the earlier of the date (a) of the Stated Maturity of the notes or (b) on which there are no notes outstanding; provided that only the portion of Capital Stock which so matures or is mandatorily redeemable, is so convertible or exchangeable or is so redeemable at the option of the holder thereof prior to such date will be deemed to be Disqualified Stock; provided further, that any Capital Stock that would constitute Disqualified Stock solely because the holders thereof have the right to require the Issuer to repurchase such Capital Stock upon the occurrence of a change of control or asset sale (each defined in a substantially identical manner to the corresponding definitions in the Indenture) shall not constitute Disqualified Stock if the terms of such Capital Stock (and all such securities into which it is convertible or for which it is exchangeable) provide that (i) the Issuer may not repurchase or redeem any such Capital Stock (and all such securities into which it is convertible or for which it is ratable or exchangeable) pursuant to such provision prior to compliance by the Issuer with the provisions of the Indenture described under the captions "—Change of Control" and "—Certain Covenants—Limitation on Sales of Assets and Subsidiary Stock" and (ii) such repurchase or redemption will be permitted solely to the extent also permitted in accordance with the provisions of the Indenture described under the caption "—Certain Covenants—Limitation on Restricted Payments."

"Dollar Denominated Production Payments" means production payment obligations recorded as liabilities in accordance with GAAP, together with all undertakings and obligations in connection therewith.

"Domestic Subsidiary" means any Restricted Subsidiary that is organized under the laws of the United States of America or any state thereof or the District of Columbia.

"Equity Interests" means Capital Stock and all warrants, options or other rights to acquire Capital Stock (but excluding any debt security that is convertible into, or exchangeable for, Capital Stock).

"Equity Offering" means a public or private offering for cash by the Issuer of Capital Stock (other than Disqualified Stock), other than public offerings registered on Form S-8.

"Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations of the SEC promulgated thereunder.

"Fair Market Value" means, with respect to any asset or property, the sale value that would be obtained in an arm's length free market transaction between an informed and willing seller under no compulsion to sell and an informed and willing buyer under no compulsion to buy. Fair Market Value of an asset or property in excess of \$10.0 million shall be determined by the Board of Directors of the Issuer acting in good faith, whose determination shall be conclusive and evidenced by a resolution of such Board of Directors, and any lesser Fair Market Value may be determined by an officer of the Issuer acting in good faith.

"Foreign Subsidiary" means any Restricted Subsidiary that is not organized under the laws of the United States of America or any state thereof or the District of Columbia.

"GAAP" means generally accepted accounting principles in the United States of America as in effect from time to time. All ratios and computations based on GAAP contained in the Indenture will be computed in conformity with GAAP.

"Guarantee" means, individually, any guarantee of payment of the notes by a Subsidiary Guarantor pursuant to the terms of the Indenture and any supplemental indenture thereto, and, collectively, all such guarantees.

The term "guarantee" means any obligation, contingent or otherwise, of any Person directly or indirectly guaranteeing any Indebtedness of any other Person and any obligation, direct or indirect, contingent or otherwise, of such Person:

- (1) to purchase or pay (or advance or supply funds for the purchase or payment of) such Indebtedness of such other Person (whether arising by virtue of partnership arrangements, or by agreement to keep-well, to purchase assets, goods, securities or services, to take-or-pay, or to maintain financial statement conditions or otherwise); or
- (2) entered into for purposes of assuring in any other manner the obligee of such Indebtedness of the payment thereof or to protect such obligee against loss in respect thereof (in whole or in part);

provided, however, that the term "guarantee" will not include endorsements for collection or deposit in the ordinary course of business or any obligation to the extent it is payable only in Capital Stock of the Subsidiary Guarantor that is not Disqualified Stock. The term "guarantee" used as a verb has a corresponding meaning.

"Guarantor Subordinated Obligation" means, with respect to a Subsidiary Guarantor, any Indebtedness of such Subsidiary Guarantor (whether outstanding on the Issue Date or thereafter Incurred) which is expressly subordinated in right of payment to the obligations of such Subsidiary Guarantor under its Guarantee pursuant to a written agreement.

"Hedging Obligations" of any Person means the obligations of such Person pursuant to any Interest Rate Agreement, Currency Agreement or Commodity Agreement.

"holder" means a Person in whose name a note is registered on the registrar's books.

"*Hydrocarbons*" means oil, natural gas, casing head gas, drip gasoline, natural gasoline, condensate, distillate, liquid hydrocarbons, gaseous hydrocarbons and all constituents, elements or compounds thereof and products refined or processed therefrom.

"Immaterial Subsidiary" means, as of any date, any Restricted Subsidiary whose total assets, as of the end of the most recent month for which financial statements are available, are less than \$1,000,000 and whose total revenues for the most recent 12-month period for which financial statements are available do not exceed \$1,000,000; provided that a Restricted Subsidiary will not be considered to be an Immaterial Subsidiary if it, directly or indirectly, guarantees or otherwise provides direct credit support for any Indebtedness of the Issuer.

"Incur" means issue, create, assume, guarantee, incur or otherwise become directly or indirectly liable for, contingently or otherwise; provided, however, that any Indebtedness or Capital Stock of a Person existing at the time such Person becomes a Restricted Subsidiary (whether by merger, consolidation, acquisition or otherwise) will be deemed to be Incurred by such Restricted Subsidiary at the time it becomes a Restricted Subsidiary; and the terms "Incurred" and "Incurrence" have meanings correlative to the foregoing.

"Indebtedness" means, with respect to any Person on any date of determination (without duplication, whether or not contingent):

- (1) the principal of and premium (if any) in respect of indebtedness of such Person for borrowed money;
- (2) the principal of and premium (if any) in respect of obligations of such Person evidenced by bonds, debentures, notes or other similar instruments;
- (3) the principal component of all obligations of such Person in respect of letters of credit, bankers' acceptances or other similar instruments (including reimbursement obligations with respect thereto except to the extent such reimbursement obligation relates to a trade payable, and except to the extent such letters of credit are not drawn upon or, if and to the extent drawn upon, such obligation is satisfied within 30 days of payment on the letter of credit);
- (4) the principal component of all obligations of such Person (other than obligations payable solely in Capital Stock that is not Disqualified Stock) to pay the deferred and unpaid purchase price of property (except as described in clause (8) of the penultimate paragraph of this definition of "Indebtedness"), which purchase price is due more than six months after the date of placing such property in service or taking delivery and title thereto to the extent such obligations would appear as a liabilities upon the consolidated balance sheet of such Person in accordance with GAAP;
- (5) Capitalized Lease Obligations of such Person to the extent such Capitalized Lease Obligations would appear as liabilities on the consolidated balance sheet of such Person in accordance with GAAP;
- (6) the principal component or liquidation preference of all obligations of such Person with respect to the redemption, repayment or other repurchase of any Disqualified Stock or, with respect to any Subsidiary of such Person, any Preferred Stock (but excluding, in each case, any accrued dividends);
- (7) the principal component of all Indebtedness of other Persons secured by a Lien on any asset of such Person, whether or not such Indebtedness is assumed by such Person; *provided, however*, that the amount of such Indebtedness will be the lesser of (a) the Fair Market Value of such asset at such date of determination and (b) the amount of such Indebtedness of such other Persons;
 - (8) the principal component of Indebtedness of other Persons to the extent guaranteed by such Person; and

(9) to the extent not otherwise included in this definition, net obligations of such Person under Commodity Agreements, Currency Agreements and Interest Rate Agreements (the amount of any such obligations to be equal at any time to the termination value of such agreement or arrangement giving rise to such obligation that would be payable by such Person at such time);

provided, however, that any indebtedness which has been defeased in accordance with GAAP or defeased pursuant to the deposit of cash or Cash Equivalents (in an amount sufficient to satisfy all such indebtedness obligations at maturity or redemption, as applicable, and all payments of interest and premium, if any) in a trust or account created or pledged for the sole benefit of the holders of such indebtedness, and subject to no other Liens, shall not constitute "Indebtedness."

The amount of Indebtedness of any Person at any date will be the outstanding balance at such date of all unconditional obligations as described above and the maximum liability, upon the occurrence of the contingency giving rise to the obligation, of any contingent obligations at such date.

Notwithstanding the preceding, "Indebtedness" of a Person shall not include:

- (1) Production Payments and Reserve Sales;
- (2) any obligation of such Person in respect of a farm-in agreement or similar arrangement whereby such Person agrees to pay all or a share of the drilling, completion or other expenses of an exploratory or development well (which agreement may be subject to a maximum payment obligation, after which expenses are shared in accordance with the working or participation interest therein or in accordance with the agreement of the parties) or perform the drilling, completion or other operation on such well in exchange for an ownership interest in an oil or gas property;
- (3) any obligations under Currency Agreements, Commodity Agreements and Interest Rate Agreements; *provided* that such Agreements are entered into for bona fide hedging purposes of such Person or its Subsidiaries (as determined in good faith by the Board of Directors or senior management of such Person, whether or not accounted for as a hedge in accordance with GAAP) and, in the case of Currency Agreements or Commodity Agreements, such Currency Agreements or Commodity Agreements are related to business transactions of such Person or its Subsidiaries entered into in the ordinary course of business and, in the case of Interest Rate Agreements, such Interest Rate Agreements substantially correspond in terms of notional amount, duration and interest rates, as applicable, to Indebtedness of such Person or its Subsidiaries Incurred without violation of the Indenture;
- (4) any obligation arising from agreements of such Person or a Subsidiary providing for indemnification, guarantees, adjustment of purchase price, holdbacks, contingency payment obligations or similar obligations, in each case, Incurred or assumed in connection with the acquisition or disposition of any business, assets or Capital Stock of a Restricted Subsidiary, *provided* that such Indebtedness is not reflected on the face of the balance sheet of such Person or any Subsidiary;
- (5) any obligation arising from the honoring by a bank or other financial institution of a check, draft or similar instrument (including daylight overdrafts) drawn against insufficient funds in the ordinary course of business, *provided* that such Indebtedness is extinguished within five Business Days of Incurrence;
 - (6) in-kind obligations relating to net oil or natural gas balancing positions arising in the ordinary course of business;
- (7) all contracts and other obligations, agreements, instruments or arrangements described in clause (19), (20), (21) or (28)(a) of the definition of "Permitted Liens";

- (8) accrued expenses and trade payables and other accrued liabilities arising in the ordinary course of business that are not overdue by 90 days past the invoice or billing date or more or are being contested in good faith by appropriate proceedings promptly instituted and diligently conducted; and
- (9) any repayment or reimbursement obligation of such Person or any of its Subsidiaries with respect to Customary Recourse Exceptions, unless and until an event or circumstance occurs that triggers the Person's or such Subsidiary's direct repayment or reimbursement obligation (as opposed to contingent or performance obligations) to the lender or other Person to whom such obligation is actually owed, in which case the amount of such direct payment or reimbursement obligation shall constitute Indebtedness.

In addition, "Indebtedness" of any Person shall include Indebtedness described in the first paragraph of this definition of "Indebtedness" that would not appear as a liability on the balance sheet of such Person if:

- (1) such Indebtedness is the obligation of a partnership or joint venture that is not a Subsidiary of such Person (a "Joint Venture");
- (2) such Person or a Restricted Subsidiary of such Person is a general partner of the Joint Venture or otherwise liable for all or a portion of the Joint Venture's liabilities (a "General Partner"); and
- (3) there is recourse, by contract or operation of law, with respect to the payment of such Indebtedness to property or assets of such Person or a Subsidiary of such Person; and then such Indebtedness shall be included in an amount not to exceed:
 - (a) the lesser of (i) the net assets of the General Partner and (ii) the amount of such obligations to the extent that there is recourse, by contract or operation of law, to the property or assets of such Person or a Subsidiary of such Person; or
 - (b) if less than the amount determined pursuant to clause (a) immediately above, the actual amount of such Indebtedness that is with recourse to such Person or a Subsidiary of such Person, if the Indebtedness is evidenced by a writing and is for a determinable amount and the related interest expense shall be included in Consolidated Interest Expense to the extent actually paid by such Person and its Subsidiaries.

"Interest Rate Agreement" means with respect to any Person any interest rate protection agreement, interest rate future agreement, interest rate option agreement, interest rate swap agreement, interest rate cap agreement, interest rate collar agreement, interest rate hedge agreement or other similar agreement or arrangement as to which such Person is party or a beneficiary.

"Investment" means, with respect to any Person, all investments by such Person in other Persons (including Affiliates) in the form of any direct or indirect advance, loan or other extensions of credit (including by way of guarantee or similar arrangement, but excluding any debt or extension of credit represented by a bank deposit other than a time deposit and advances or extensions of credit to customers in the ordinary course of business) or capital contribution to (by means of any transfer of cash or other property to others or any payment for property or services for the account or use of others), or any purchase or acquisition of Capital Stock, Indebtedness or other similar instruments (excluding any interest in a crude oil or natural gas leasehold to the extent constituting a security under applicable law) issued by, such other Person and all other items that are or would be classified as investments on a balance sheet prepared in accordance with GAAP; provided that none of the following will be deemed to be an Investment:

(1) Hedging Obligations entered into in the ordinary course of business and in compliance with the Indenture;

- (2) endorsements of negotiable instruments and documents in the ordinary course of business; and
- (3) an acquisition of assets, Capital Stock or other securities by such Person or a Subsidiary for consideration to the extent such consideration consists of Common Stock of such Person.

The amount of any Investment shall not be adjusted for increases or decreases in value, write-ups, write downs or write-offs with respect to such Investment.

For purposes of the definition of "Unrestricted Subsidiary" and the covenant described under "—Certain Covenants—Limitation on Restricted Payments,"

- (1) "Investment" will include the portion (proportionate to the Issuer's equity interest in a Restricted Subsidiary to be designated as an Unrestricted Subsidiary) of the Fair Market Value of the net assets of such Restricted Subsidiary at the time that such Restricted Subsidiary is designated an Unrestricted Subsidiary; provided, however, that upon a redesignation of such Subsidiary as a Restricted Subsidiary, the Issuer will be deemed to continue to have a permanent "Investment" in an Unrestricted Subsidiary in an amount (if positive) equal to (a) the Issuer's "Investment" in such Subsidiary at the time of such redesignation less (b) the portion (proportionate to the Issuer's equity interest in such Subsidiary) of the Fair Market Value of the net assets of such Subsidiary at the time that such Subsidiary is so re-designated a Restricted Subsidiary; and
- (2) any property transferred to or from an Unrestricted Subsidiary will be valued at its Fair Market Value at the time of such transfer; and
- (3) if the Company or any Restricted Subsidiary sells or otherwise disposes of any Capital Stock of any Restricted Subsidiary such that, after giving effect to any such sale or disposition, such entity is no longer a Subsidiary of the Company, then the Company shall be deemed to have made an Investment on the date of any such sale or disposition equal to the Fair Market Value of the Capital Stock of such former Subsidiary not sold or disposed of.

"Investment Grade Rating" means a rating equal to or higher than:

- (1) Baa3 (or the equivalent) with a stable or better outlook by Moody's; and
- (2) BBB (or the equivalent) with a stable or better outlook by S&P,

or, if either such entity ceases to make a rating on the notes publicly available for reasons outside of the Issuer's control, the equivalent investment grade credit rating from any other Rating Agency.

"Investment Grade Rating Event" means the first day on which the notes have an Investment Grade Rating from each Rating Agency, and no Default has occurred and is then continuing under the Indenture.

"Issue Date" means May 6, 2014, the first date on which the notes were issued under the Indenture.

"Lien" means, with respect to any asset, any mortgage, lien (statutory or otherwise), pledge, hypothecation, charge, security interest, preference, priority or encumbrance of any kind in respect of such asset, whether or not filed, recorded or otherwise perfected under applicable law, including any conditional sale or other title retention agreement, any lease in the nature thereof, any option or other agreement to sell or give a security interest in and any filing of or agreement to give any financing statement under the Uniform Commercial Code (or equivalent statutes) of any jurisdiction; provided that in no event shall an operating lease be deemed to constitute a Lien.

"Minority Interest" means the percentage interest represented by any class of Capital Stock of a Restricted Subsidiary that are not owned by the Issuer or a Restricted Subsidiary.

"Moody's" means Moody's Investors Service, Inc., or any successor to the rating agency business thereof.

"Net Available Cash" from an Asset Disposition means cash payments received (including any cash payments received by way of deferred payment of principal pursuant to a note or installment receivable or otherwise and net proceeds from the sale or other disposition of any securities received as consideration, but only as and when received, but excluding any other consideration received in the form of assumption by the acquiring Person of Indebtedness or other obligations relating to the properties or assets that are the subject of such Asset Disposition or received in any other non-cash form), including consideration deemed to be cash pursuant to the seventh paragraph of the covenant described under "—Certain Covenants—Limitation on Sales of Assets and Subsidiary Stock," therefrom, in each case net of:

- (1) all legal, accounting, investment banking, title and recording tax expenses, commissions and other fees and expenses Incurred, and all federal, state, provincial, foreign and local taxes required to be paid or accrued as a liability under GAAP (after taking into account any available tax credits or deductions and any tax sharing agreements), as a consequence of such Asset Disposition;
- (2) all payments made on any Indebtedness (including any Hedging Obligation) which is secured by any assets subject to such Asset Disposition, in accordance with the terms of any Lien upon such assets, or which must by its terms, or in order to obtain a necessary consent to such Asset Disposition, or by applicable law be repaid out of the proceeds from such Asset Disposition;
- (3) all distributions and other payments required to be made to minority interest holders in Subsidiaries or joint ventures or to holders of royalty or similar interests as a result of such Asset Disposition;
- (4) the deduction of appropriate amounts to be provided by the seller as a reserve, in accordance with GAAP, against any liabilities associated with the assets disposed of in such Asset Disposition and retained by the Issuer or any Restricted Subsidiary after such Asset Disposition; and
- (5) all relocation expenses incurred as a result thereof and all related severance and associated costs, expenses and charges of personnel related to assets and related operations disposed of;

provided, however, that if any consideration for an Asset Disposition (that would otherwise constitute Net Available Cash) is required to be held in escrow pending determination of whether or not a purchase price adjustment will be made, such consideration (or any portion thereof) shall become Net Available Cash only at such time as it is released to the Issuer or any of its Restricted Subsidiaries from escrow.

"Net Cash Proceeds," with respect to any issuance or sale of Capital Stock or any contribution to equity capital, means the cash proceeds of such issuance, sale or contribution net of attorneys' fees, accountants' fees, underwriters' or placement agents' fees, discounts or commissions and brokerage, consultant and other fees and charges actually Incurred in connection with such issuance, sale or contribution and net of taxes paid or payable as a result of such issuance or sale (after taking into account any available tax credit or deductions and any tax sharing arrangements).

"Net Working Capital" means (a) the sum of (i) all current assets of the Issuer and its Restricted Subsidiaries, except current assets from commodity price risk management activities arising in the ordinary course of the Oil and Gas Business, plus (ii) the amount of revolving credit borrowings available to be Incurred under the Senior Secured Credit Agreements, less (b) all current liabilities of the Issuer and its Restricted Subsidiaries, except current liabilities (i) associated with asset retirement

obligations relating to Oil and Gas Properties, (ii) included in Indebtedness and (iii) any current liabilities from commodity price risk management activities arising in the ordinary course of the Oil and Gas Business, in each case as set forth in the consolidated financial statements of the Issuer prepared in accordance with GAAP.

"Non-Recourse Debt" means Indebtedness of a Person:

- (1) as to which neither the Issuer nor any Restricted Subsidiary (a) provides any guarantee or credit support of any kind (including any undertaking, guarantee, indemnity, agreement or instrument that would constitute Indebtedness) or (b) is directly or indirectly liable (as a guaranter or otherwise), except for Customary Recourse Exceptions;
- (2) no default with respect to which (including any rights that the holders thereof may have to take enforcement action against an Unrestricted Subsidiary) would permit (upon notice, lapse of time or both) any holder of any other Indebtedness of the Issuer or any Restricted Subsidiary to declare a default under such other Indebtedness or cause the payment thereof to be accelerated or payable prior to its stated maturity; and
- (3) the explicit terms of which provide there is no recourse against any of the assets of the Issuer or its Restricted Subsidiaries, except for Customary Recourse Exceptions.

"Officer" means the Chairman of the Board, the Chief Executive Officer, the President, the Chief Financial Officer, any Vice President, the Treasurer or the Secretary of the Issuer. Officer of any Subsidiary Guarantor has a correlative meaning.

"Officers' Certificate" means a certificate signed by two Officers of the Issuer.

"Oil and Gas Business" means:

- (1) the business of acquiring, exploring, exploiting, developing, producing, operating and disposing of interests in oil, natural gas, liquefied natural gas and other Hydrocarbon and mineral properties or products produced in association with any of the foregoing;
- (2) the business of gathering, marketing, distributing, treating, processing, storing, refining, selling and transporting of any production from such interests or properties and products produced in association therewith and the marketing of oil, natural gas, other Hydrocarbons and minerals obtained from unrelated Persons;
- (3) any other related energy business, including power generation and electrical transmission business, directly or indirectly, from oil, natural gas and other Hydrocarbons and minerals produced substantially from properties in which the Issuer or its Restricted Subsidiaries, directly or indirectly, participate;
 - (4) any business relating to oil field sales and service; and
- (5) any business or activity relating to, arising from, or necessary, appropriate or incidental to the activities described in the foregoing clauses (1) through (4) of this definition.

"Oil and Gas Properties" means all properties, including equity or other ownership interests therein, owned by a Person which contain or are believed to contain oil and gas reserves.

"Opinion of Counsel" means a written opinion from legal counsel who is acceptable to the Trustee. The counsel may be an employee of or counsel to the Issuer, a Subsidiary Guarantor or the Trustee.

"Pari Passu Indebtedness" means any Indebtedness of the Issuer or any Subsidiary Guarantor that ranks equally in right of payment to the notes or the Guarantees, as the case may be.

"Permitted Acquisition Indebtedness" means Indebtedness (including Disqualified Stock) of the Issuer or any of the Restricted Subsidiaries to the extent such Indebtedness was Indebtedness:

- (1) of an acquired Person prior to the date on which such Person became a Restricted Subsidiary as a result of having been acquired and not incurred in contemplation of such acquisition; or
- (2) of a Person that was merged, consolidated or amalgamated with or into the Issuer or a Restricted Subsidiary that was not incurred in contemplation of such merger, consolidation or amalgamation,

provided that on the date such Person became a Restricted Subsidiary or the date such Person was merged, consolidated and amalgamated with or into the Issuer or a Restricted Subsidiary, as applicable, after giving pro forma effect thereto,

- (a) the Restricted Subsidiary or the Issuer, as applicable, would be permitted to incur at least \$1.00 of additional Indebtedness pursuant to the Consolidated Coverage Ratio test described under "—Certain Covenants—Limitation on Indebtedness and Preferred Stock," or
- (b) the Consolidated Coverage Ratio for the Issuer would be greater than the Consolidated Coverage Ratio for the Issuer immediately prior to such transaction.

"Permitted Business Investment" means any Investment made in the ordinary course of, and of a nature that is or shall have become customary in, the Oil and Gas Business including investments or expenditures for actively exploiting, exploring for, acquiring, developing, producing, processing, gathering, marketing or transporting oil, natural gas or other Hydrocarbons and minerals through agreements, transactions, interests or arrangements which permit one to share risks or costs, comply with regulatory requirements regarding local ownership or satisfy other objectives customarily achieved through the conduct of the Oil and Gas Business jointly with third parties including:

- (1) ownership interests in oil, natural gas, other Hydrocarbons and minerals properties, liquefied natural gas facilities, processing facilities, gathering systems, pipelines, storage facilities or related systems or ancillary real property interests;
- (2) Investments in the form of or pursuant to operating agreements, working interests, royalty interests, mineral leases, processing agreements, farm-in agreements, farm-out agreements, contracts for the sale, transportation or exchange of oil, natural gas, other Hydrocarbons and minerals, production sharing agreements, participation agreements, development agreements, area of mutual interest agreements, unitization agreements, pooling agreements, joint bidding agreements, service contracts, joint venture agreements, partnership agreements (whether general or limited), subscription agreements, stock purchase agreements, stockholder agreements and other similar agreements (including for limited liability companies) with third parties; and
- (3) direct or indirect ownership interests in drilling rigs and related equipment, including, without limitation, transportation equipment.

For the avoidance of doubt, any Investments by the Issuer pursuant to the Contribution Agreement, dated as of October 16, 2013, by and between Antero Resources Midstream LLC and the Issuer shall constitute Permitted Business Investments.

"Permitted Holder" means each of (i) Warburg Pincus & Co.; (ii) Paul M. Rady ("Rady"); (iii) Glen C. Warren, Jr. ("Warren"); (iv) Rady's wife or Warren's wife; (v) any lineal descendant of either Rady or Warren; (vi) the guardian or other legal representative of either Rady or Warren; (vii) the estate of either Rady or Warren; (viii) any trust of which at least one of the trustees is either Rady or Warren, or the principal beneficiaries of which are any one or more of the Persons referred to in the preceding clauses (ii) through (vii); (ix) any Person that is controlled by any one or more of the Persons in the preceding clauses (i) through (viii); and (x) any group (within the meaning of the Exchange Act) that includes one or more of the Persons described in the preceding clauses (i) through (ix), provided that such Persons described in the preceding clauses (i) through (viii); and (viii) power of such group.

"Permitted Investment" means an Investment by the Issuer or any Restricted Subsidiary in:

- (1) the Issuer, a Restricted Subsidiary or a Person which will, upon the making of such Investment, become a Restricted Subsidiary; *provided, however*, that the primary business of such Restricted Subsidiary is the Oil and Gas Business;
- (2) another Person whose primary business is the Oil and Gas Business if as a result of such Investment such other Person becomes a Restricted Subsidiary or is merged or consolidated with or into, or transfers or conveys all or substantially all its assets to, the Issuer or a Restricted Subsidiary and, in each case, any Investment held by such Person; *provided* that such Investment was not acquired by such Person in contemplation of such acquisition, merger, consolidation or transfer;
 - (3) cash and Cash Equivalents;
- (4) receivables owing to the Issuer or any Restricted Subsidiary created or acquired in the ordinary course of business and payable or dischargeable in accordance with customary trade terms; *provided, however*, that such trade terms may include such concessionary trade terms as the Issuer or any such Restricted Subsidiary deems reasonable under the circumstances;
- (5) payroll, commission, travel, relocation and similar advances to cover matters that are expected at the time of such advances ultimately to be treated as expenses for accounting purposes and that are made in the ordinary course of business;
- (6) loans or advances to employees (other than executive officers) made in the ordinary course of business consistent with past practices of the Issuer or such Restricted Subsidiary;
- (7) Capital Stock, obligations or securities received in settlement of debts (x) created in the ordinary course of business and owing to the Issuer or any Restricted Subsidiary or in satisfaction of judgments or (y) pursuant to any plan of reorganization or similar arrangement in a bankruptcy or insolvency proceeding;
- (8) any Person as a result of the receipt of non-cash consideration from an Asset Disposition that was made pursuant to and in compliance with the covenant described under "Certain Covenants—Limitation on Sales of Assets and Subsidiary Stock";
 - (9) Investments in existence on the Issue Date;
- (10) Commodity Agreements, Currency Agreements, Interest Rate Agreements and related Hedging Obligations, which transactions or obligations are Incurred in compliance with "—Certain Covenants—Limitation on Indebtedness and Preferred Stock";
- (11) guarantees issued in accordance with the covenant described under "—Certain Covenants—Limitation on Indebtedness and Preferred Stock";
 - (12) Permitted Business Investments;
- (13) any Person where such Investment was acquired by the Issuer or any of its Restricted Subsidiaries (a) in exchange for any other Investment or accounts receivable held by the Issuer or any such Restricted Subsidiary in connection with or as a result of a bankruptcy, workout, reorganization or recapitalization of the issuer of such other Investment or accounts receivable or (b) as a result of a foreclosure by the Issuer or any of its Restricted Subsidiaries with respect to any secured Investment or other transfer of title with respect to any secured Investment in default;
- (14) any Person to the extent such Investments consist of prepaid expenses, negotiable instruments held for collection and lease, utility and workers' compensation, performance and other similar deposits made in the ordinary course of business by the Issuer or any Restricted Subsidiary:

- (15) guarantees of performance or other obligations (other than Indebtedness) arising in the ordinary course in the Oil and Gas Business, including obligations under oil and natural gas exploration, development, joint operating, and related agreements and licenses, concessions or operating leases related to the Oil and Gas Business;
 - (16) Investments in the notes; and
- (17) Investments by the Issuer or any of its Restricted Subsidiaries, together with all other Investments pursuant to this clause (17), in an aggregate amount outstanding at the time of such Investment not to exceed the greater of \$150.0 million and 1.5% of the Issuer's Adjusted Consolidated Net Tangible Assets (with the Fair Market Value of such Investment being measured at the time such Investment is made and without giving effect to subsequent changes in value; *provided, however*, that if any Investment pursuant to this clause (17) is made in any Person that is not a Restricted Subsidiary at the date of the making of such Investment and such Person becomes a Restricted Subsidiary after such date, such Investment shall thereafter be deemed to have been made pursuant to clause (1) above and shall cease to have been made pursuant to this clause (17) for so long as such Person continues to be a Restricted Subsidiary).

"Permitted Liens" means, with respect to any Person:

- (1) Liens securing Indebtedness under a Credit Facility permitted to be Incurred under the Indenture;
- (2) pledges or deposits by such Person under workers' compensation laws, unemployment insurance laws, social security or old age pension laws or similar legislation, or good faith deposits in connection with bids, tenders, contracts (other than for the payment of Indebtedness) or leases to which such Person is a party, or deposits (which may be secured by a Lien) to secure public or statutory obligations of such Person including letters of credit and bank guarantees required or requested by the United States, any State thereof or any foreign government or any subdivision, department, agency, organization or instrumentality of any of the foregoing in connection with any contract or statute (including lessee or operator obligations under statutes, governmental regulations, contracts or instruments related to the ownership, exploration and production of oil, natural gas, other hydrocarbons and minerals on State, Federal or foreign lands or waters), or deposits of cash or United States government bonds to secure indemnity performance, surety or appeal bonds or other similar bonds to which such Person is a party, or deposits as security for contested taxes or import or customs duties or for the payment of rent, in each case Incurred in the ordinary course of business;
- (3) statutory and contractual Liens of landlords and Liens imposed by law, including carriers', warehousemen's, mechanics', materialmen's and repairmen's Liens, in each case for sums not yet due or being contested in good faith by appropriate proceedings if a reserve or other appropriate provisions, if any, as shall be required by GAAP shall have been made in respect thereof;
- (4) Liens for taxes, assessments or other governmental charges or claims not yet subject to penalties for non-payment or which are being contested in good faith by appropriate proceedings; *provided* that appropriate reserves, if any, required pursuant to GAAP have been made in respect thereof;
- (5) Liens in favor of issuers of surety or performance bonds or bankers' acceptances issued pursuant to the request of and for the account of such Person in the ordinary course of its business;
- (6) survey exceptions, encumbrances, ground leases, easements or reservations of, or rights of others for, licenses, rights of way, sewers, electric lines, telegraph and telephone lines and other similar purposes, or zoning, building codes or other restrictions (including, without limitation,

minor defects or irregularities in title and similar encumbrances) as to the use of real properties or Liens incidental to the conduct of the business of such Person or to the ownership of its properties which do not in the aggregate materially adversely affect the value of the assets of such Person and its Restricted Subsidiaries, taken as a whole, or materially impair their use in the operation of the business of such Person;

- (7) Liens securing Hedging Obligations;
- (8) leases, licenses, subleases and sublicenses of assets (including, without limitation, real property and intellectual property rights) which do not materially interfere with the ordinary conduct of the business of the Issuer or any of its Restricted Subsidiaries;
- (9) prejudgment Liens and judgment Liens not giving rise to an Event of Default so long as such Lien is adequately bonded and any appropriate legal proceedings which may have been duly initiated for the review of such judgment have not been finally terminated or the period within which such proceedings may be initiated has not expired;
- (10) Liens for the purpose of securing the payment of all or a part of the purchase price of, or Capitalized Lease Obligations, purchase money obligations or other payments Incurred to finance the acquisition, lease, improvement or construction of or repairs or additions to, assets or property acquired or constructed in the ordinary course of business; *provided* that:
 - (a) the aggregate principal amount of Indebtedness secured by such Liens is otherwise permitted to be Incurred under the Indenture and does not exceed the cost of the assets or property so acquired or constructed; and
 - (b) such Liens are created within 360 days of the later of the acquisition, lease, completion of improvements, construction, repairs or additions or commencement of full operation of the assets or property subject to such Lien and do not encumber any other assets or property of the Issuer or any Restricted Subsidiary other than such assets or property and assets affixed or appurtenant thereto;
- (11) Liens arising solely by virtue of any statutory or common law provisions relating to banker's Liens, rights of set-off or similar rights and remedies as to deposit accounts or other funds maintained with a depositary institution; *provided* that:
 - (a) such deposit account is not a dedicated cash collateral account and is not subject to restrictions against access by the Issuer in excess of those set forth by regulations promulgated by the Federal Reserve Board; and
 - (b) such deposit account is not intended by the Issuer or any Restricted Subsidiary to provide collateral to the depository institution;
- (12) Liens arising from Uniform Commercial Code financing statement filings regarding operating leases entered into by the Issuer and its Restricted Subsidiaries in the ordinary course of business;
 - (13) Liens existing on the Issue Date, other than Liens securing the Senior Secured Credit Agreements;
- (14) Liens on property or shares of Capital Stock of a Person at the time such Person becomes a Subsidiary; *provided, however*, that such Liens are not created or Incurred in connection with, or in contemplation of, such other Person becoming a Subsidiary; *provided further, however*, that any such Lien may not extend to any other property owned by the Issuer or any Restricted Subsidiary (other than assets or property affixed or appurtenant thereto);

- (15) Liens on property at the time the Issuer or any of its Subsidiaries acquired the property, including any acquisition by means of a merger or consolidation with or into the Issuer or any of its Subsidiaries; *provided, however*, that such Liens are not created or Incurred in connection with, or in contemplation of, such acquisition; *provided further, however*, that such Liens may not extend to any other property owned by the Issuer or any Restricted Subsidiary (other than assets or property affixed or appurtenant thereto);
 - (16) Liens securing the notes, Guarantees and other obligations under the Indenture;
- (17) Liens securing Refinancing Indebtedness Incurred to refinance Indebtedness that was previously so secured, *provided* that any such Lien is limited to all or part of the same property or assets (plus improvements, accessions, proceeds or dividends or distributions in respect thereof) that secured (or, under the written arrangements under which the original Lien arose, could secure) the Indebtedness being refinanced or is in respect of property or assets that is the security for a Permitted Lien hereunder;
 - (18) any interest or title of a lessor under any Capitalized Lease Obligation or operating lease;
- (19) Liens in respect of Production Payments and Reserve Sales, which Liens shall be limited to the property that is the subject of such Production Payments and Reserve Sales;
- (20) Liens arising under farm-out agreements, farm-in agreements, division orders, contracts for the sale, purchase, exchange, transportation, gathering or processing of Hydrocarbons, unitizations and pooling designations, declarations, orders and agreements, development agreements, joint venture agreements, partnership agreements, operating agreements, royalties, working interests, net profits interests, joint interest billing arrangements, participation agreements, production sales contracts, area of mutual interest agreements, gas balancing or deferred production agreements, injection, repressuring and recycling agreements, salt water or other disposal agreements, seismic or geophysical permits or agreements, and other agreements which are customary in the Oil and Gas Business; *provided, however*, in all instances that such Liens are limited to the assets that are the subject of the relevant agreement, program, order or contract;
 - (21) Liens on pipelines or pipeline facilities that arise by operation of law;
- (22) Liens securing Indebtedness in an aggregate principal amount outstanding at any one time, added together with all other Indebtedness secured by Liens Incurred pursuant to this clause (22), not to exceed the greater of \$100.0 million and 1.0% of the Issuer's Adjusted Consolidated Net Tangible Assets, as determined on the date of Incurrence of such Indebtedness after giving pro forma effect to such Incurrence and the application of the proceeds therefrom;
 - (23) Liens in favor of the Issuer or any Subsidiary Guarantor;
 - (24) deposits made in the ordinary course of business to secure liability to insurance carriers;
- (25) Liens in favor of customs and revenue authorities arising as a matter of law to secure payment of customs duties in connection with the importation of goods in the ordinary course of business;
- (26) Liens deemed to exist in connection with Investments in repurchase agreements permitted under "—Certain Covenants—Limitation on Restricted Payments"; *provided* that such Liens do not extend to any assets other than those that are the subject of such repurchase agreement;
- (27) Liens encumbering reasonable customary initial deposits and margin deposits and similar Liens attaching to commodity trading accounts or other brokerage accounts incurred in the ordinary course of business and not for speculative purposes;

- (28) any (a) interest or title of a lessor or sublessor under any lease, liens reserved in oil, gas or other Hydrocarbons, minerals, leases for bonus, royalty or rental payments and for compliance with the terms of such leases; (b) restriction or encumbrance that the interest or title of such lessor or sublessor may be subject to (including, without limitation, ground leases or other prior leases of the demised premises, mortgages, mechanics' liens, tax liens, and easements); or (c) subordination of the interest of the lessee or sublessee under such lease to any restrictions or encumbrance referred to in the preceding clause (b);
- (29) Liens upon specific items of inventory or other goods and proceeds of any Person securing such Person's obligations in respect of bankers' acceptances issued or created for the account of such Person to facilitate the purchase, shipment or storage of such inventory or other goods;
- (30) Liens arising under the Indenture in favor of the Trustee for its own benefit and similar Liens in favor of other trustees, agents and representatives arising under instruments governing Indebtedness permitted to be incurred under the Indenture, *provided, however*, that such Liens are solely for the benefit of the trustees, agents or representatives in their capacities as such and not for the benefit of the holders of such Indebtedness:
- (31) Liens arising from the deposit of funds or securities in trust for the purpose of decreasing or defeasing Indebtedness so long as such deposit of funds or securities and such decreasing or defeasing of Indebtedness are permitted under the covenant described under "—Certain Covenants—Limitation on Restricted Payments"; and
- (32) Liens in favor of collecting or payer banks having a right of setoff, revocation, or charge back with respect to money or instruments of the Issuer or any Subsidiary of the Issuer on deposit with or in possession of such bank.

In each case set forth above, notwithstanding any stated limitation on the assets that may be subject to such Lien, a Permitted Lien on a specified asset or group or type of assets may include Liens on all improvements, additions and accessions thereto and all products and proceeds thereof (including dividends, distributions and increases in respect thereof).

"Permitted Tax Distributions" means, for any calendar year or portion thereof during which the Issuer was a pass-through entity for U.S. federal income tax purposes, any payments or distributions made by the Issuer to its members on or about each estimated tax payment date as well as each other applicable due date to enable the members of the Issuer (or, if any of them is itself a pass-through entity for U.S. federal income tax purposes, the owners of such member's Capital Stock) to make payments of U.S. federal and state income taxes (including estimates thereof) as a result of the operations of the Issuer and its Subsidiaries during the current or any previous calendar year, not to exceed an amount equal to each such member's (or in the case of a pass-through entity, the owners of its Capital Stock) U.S. federal and state income tax liability resulting solely from the pass-through tax treatment of such member's (or its owners') interest in the Issuer and as calculated pursuant to the terms of the limited liability company agreement of the Issuer as in effect on the Prior Issue Date and as it may have been amended thereafter in a manner that was not, considered as a whole, adverse to the holders of the notes.

"Person" means any individual, corporation, partnership, joint venture, association, joint stock company, trust, unincorporated organization, limited liability company, government or any agency or political subdivision thereof or any other entity.

"Preferred Stock," as applied to the Capital Stock of any corporation or other Person, means Capital Stock of any class or classes (however designated) which is preferred as to the payment of dividends, or as to the distribution of assets upon any voluntary or involuntary liquidation or dissolution

of such corporation or other Person, over Capital Stock of any other class of such corporation or other Person.

"Prior Issue Date" means November 19, 2012, the initial date of issuance of the Issuer's 6.0% Senior Notes due 2020.

"Production Payments and Reserve Sales" means the grant or transfer by the Issuer or a Restricted Subsidiary to any Person of a royalty, overriding royalty, net profits interest, production payment (whether volumetric or dollar denominated), partnership or other interest in Oil and Gas Properties, reserves or the right to receive all or a portion of the production or the proceeds from the sale of production attributable to such properties where the holder of such interest has recourse solely to such production or proceeds of production, subject to the obligation of the grantor or transferor to operate and maintain, or cause the subject interests to be operated and maintained, in a reasonably prudent manner or other customary standard or subject to the obligation of the grantor or transferor to indemnify for environmental, title or other matters customary in the Oil and Gas Business, including any such grants or transfers pursuant to incentive compensation programs on terms that are reasonably customary in the Oil and Gas Business for geologists, geophysicists or other providers of technical services to the Issuer or a Restricted Subsidiary.

"Rating Agency" means each of S&P and Moody's, or if S&P or Moody's or both shall not make a rating on the Notes publicly available, a nationally recognized statistical rating agency or agencies, as the case may be, selected by the Issuer (as certified by a resolution of the Board of Directors) which shall be substituted for S&P or Moody's, or both, as the case may be.

"Rating Decline" means the occurrence of a decrease of one or more gradations (including gradations within rating categories as well as between rating categories) in the rating of the notes by either Rating Agency.

"Refinancing Indebtedness" means Indebtedness that is Incurred to refund, refinance, replace, exchange, renew, repay, extend, prepay, redeem or retire (including pursuant to any defeasance or discharge mechanism) (collectively, "refinance" and "refinances" and "refinances" shall have correlative meanings) any Indebtedness (including Indebtedness of the Issuer that refinances Indebtedness of any Restricted Subsidiary and Indebtedness of any Restricted Subsidiary that refinances Indebtedness of another Restricted Subsidiary, but excluding Indebtedness of a Subsidiary that is not a Restricted Subsidiary that refinances Indebtedness of the Issuer or a Restricted Subsidiary), including Indebtedness that refinances Refinancing Indebtedness, provided, however, that:

- (1) (a) if the Stated Maturity of the Indebtedness being refinanced is the same as or earlier than the Stated Maturity of the notes, the Refinancing Indebtedness has a Stated Maturity no earlier than the Stated Maturity of the Indebtedness being refinanced or (b) if the Stated Maturity of the Indebtedness being refinanced is later than the Stated Maturity of the notes, the Refinancing Indebtedness has a Stated Maturity at least 91 days later than the Stated Maturity of the notes;
- (2) the Refinancing Indebtedness has an Average Life at the time such Refinancing Indebtedness is Incurred that is equal to or greater than the Average Life of the Indebtedness being refinanced;
- (3) such Refinancing Indebtedness is Incurred in an aggregate principal amount (or if issued with original issue discount, an aggregate issue price) that is equal to or less than the sum of the aggregate principal amount (or if issued with original issue discount, the aggregate accreted value) then outstanding of the Indebtedness being refinanced (plus, without duplication, any additional Indebtedness Incurred to pay interest, premiums or defeasance costs required by the instruments governing such existing Indebtedness and fees and expenses Incurred in connection therewith); and

(4) if the Indebtedness being refinanced is subordinated in right of payment to the notes or a Guarantee, such Refinancing Indebtedness is subordinated in right of payment to the notes or the Guarantee on terms at least as favorable to the holders as those contained in the documentation governing the Indebtedness being refinanced.

"Registration Rights Agreement" means that certain registration rights agreement dated as of the Issue Date by and among the Issuer, the Subsidiary Guarantors and the initial purchasers set forth therein and, with respect to any Additional Notes, one or more substantially similar registration rights agreements among the Issuer and the other parties thereto, as any such agreement may be amended from time to time

"Reporting Failure" means the failure of the Issuer to file with the SEC and make available or otherwise deliver to the Trustee and each holder of notes, within the time periods specified in "—Certain Covenants—Provision of Financial Information" (after giving effect to any grace period specified under Rule 12b-25 under the Exchange Act), the periodic reports, information, documents or other reports which the Issuer may be required to file with the SEC pursuant to such provision.

"Restricted Investment" means any Investment other than a Permitted Investment.

"Restricted Subsidiary" means any Subsidiary of the Issuer other than an Unrestricted Subsidiary.

"S&P" means Standard & Poor's Rating Services, a division of The McGraw-Hill Companies, Inc., or any successor to the rating agency business thereof.

"Sale/Leaseback Transaction" means an arrangement relating to property now owned or hereafter acquired whereby the Issuer or a Restricted Subsidiary transfers such property to a Person and the Issuer or a Restricted Subsidiary leases it from such Person.

"SEC" means the United States Securities and Exchange Commission.

"Senior Secured Credit Agreements" means (i) the Fourth Amended and Restated Credit Agreement dated as of November 4, 2010, among Antero Resources Arkoma LLC (F/K/A Antero Resources Corporation), Antero Resources Piceance LLC (F/K/A Antero Resources Piceance Corporation), Antero Resources Pipeline LLC (F/K/A Antero Resources Pipeline Corporation), Antero Resources Appalachian Corporation, the subsidiary guarantors party thereto, JPMorgan Chase Bank, N.A., as administrative agent, and the lenders parties thereto from time to time, and (ii) the Credit Agreement, dated as of February 28, 2014, among Antero Midstream LLC (F/K/A Antero Resources Midstream Operating LLC), the guarantors party thereto, JPMorgan Chase Bank, N.A., as administrative agent, Wells Fargo Bank, N.A., as syndication agent, and the lender parties thereto from time to time, in each case including any guarantees, collateral documents, instruments and agreements executed in connection therewith, and any amendments, supplements, modifications, extensions, renewals, restatements, refundings or refinancings thereof and any indentures or credit facilities or commercial paper facilities with banks or other institutional lenders or investors that replace, refund or refinance any part of the loans, notes, other credit facilities or commitments thereunder, including any such replacement, refunding or refinancing facility or indenture that increases the amount borrowable thereunder or alters the maturity thereof (provided that such increase in borrowings is permitted under "—Certain Covenants—Limitation on Indebtedness and Preferred Stock" above).

"Significant Subsidiary" means any Restricted Subsidiary that would be a "Significant Subsidiary" of the Issuer within the meaning of Rule 1-02 under Regulation S-X promulgated by the SEC, as in effect on the Issue Date.

"Stated Maturity" means, with respect to any security, the date specified in such security as the fixed date on which the payment of principal of such security is due and payable, including pursuant to any mandatory redemption provision, but shall not include any contingent obligations to repay, redeem or repurchase any such principal prior to the date originally scheduled for the payment thereof.

"Subordinated Obligation" means any Indebtedness of the Issuer (whether outstanding on the Issue Date or thereafter Incurred) which is expressly subordinated in right of payment to the notes pursuant to a written agreement.

"Subsidiary" of any Person means (a) any corporation, association or other business entity (other than a partnership, joint venture, limited liability company or similar entity) of which more than 50% of the total ordinary voting power of shares of Capital Stock entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers or trustees thereof (or Persons performing similar functions) or (b) any partnership, joint venture, limited liability company or similar entity of which more than 50% of the capital accounts, distribution rights, total equity and voting interests or general or limited partnership interests, as applicable, that is, in the case of clauses (a) and (b), at the time owned or controlled, directly or indirectly, by (1) such Person, (2) such Person and one or more Subsidiaries of such Person or (3) one or more Subsidiaries of such Person. Unless otherwise specified in the Indenture or the context indicates otherwise, each reference to a Subsidiary (other than in this definition) will refer to a Subsidiary of the Issuer.

"Subsidiary Guarantors" means any Subsidiary of the Issuer that is a guarantor of the notes, including any Person that is required after the Issue Date to guarantee the notes pursuant to the "Future Subsidiary Guarantors" covenant, in each case until a successor replaces such Person pursuant to the applicable provisions of the Indenture and, thereafter, means such successor.

"Unrestricted Subsidiary" means:

- (1) any Subsidiary of the Issuer (other than the Issuer) that at the time of determination shall be designated an Unrestricted Subsidiary by the Board of Directors of the Issuer in the manner provided below; and
 - (2) any Subsidiary of an Unrestricted Subsidiary.

The Board of Directors of the Issuer may designate any Subsidiary of the Issuer (including any newly acquired or newly formed Subsidiary or a Person becoming a Subsidiary through merger or consolidation or Investment therein) to be an Unrestricted Subsidiary only if

- (1) such Subsidiary or any of its Subsidiaries does not own any Capital Stock or Indebtedness of or have any Investment in, or own or hold any Lien on any property of, any other Subsidiary of the Issuer which is not a Subsidiary of the Subsidiary to be so designated or otherwise an Unrestricted Subsidiary;
- (2) all the Indebtedness of such Subsidiary and its Subsidiaries shall, at the date of designation, and will at all times thereafter, consist of Non-Recourse Debt;
- (3) on the date of such designation, such designation and the Investment of the Issuer or a Restricted Subsidiary in such Subsidiary complies with "—Certain Covenants—Limitation on Restricted Payments";
- (4) such Subsidiary is a Person with respect to which neither the Issuer nor any of its Restricted Subsidiaries has any direct or indirect obligation to subscribe for additional Capital Stock of such Person;
- (5) such Subsidiary, either alone or in the aggregate with all other Unrestricted Subsidiaries, does not operate, directly or indirectly, all or substantially all of the business of the Issuer and its Subsidiaries; and
- (6) on the date such Subsidiary is designated an Unrestricted Subsidiary, such Subsidiary is not a party to any agreement, contract, arrangement or understanding with the Issuer or any Restricted Subsidiary with terms substantially less favorable to the Issuer or such Restricted

Subsidiary than those that might have been obtained from Persons who are not Affiliates of the Issuer.

Any such designation by the Board of Directors of the Issuer shall be evidenced to the Trustee by filing with the Trustee a resolution of the Board of Directors of the Issuer giving effect to such designation and an Officers' Certificate certifying that such designation complies with the foregoing conditions. If, at any time, any Unrestricted Subsidiary would fail to meet the foregoing requirements as an Unrestricted Subsidiary, it shall thereafter cease to be an Unrestricted Subsidiary for purposes of the Indenture and any Indebtedness of such Subsidiary shall be deemed to be Incurred as of such date.

The Board of Directors of the Issuer may designate any Unrestricted Subsidiary to be a Restricted Subsidiary; *provided* that immediately after giving effect to such designation, no Default or Event of Default shall have occurred and be continuing or would occur as a consequence thereof and the Issuer could Incur at least \$1.00 of additional Indebtedness under the first paragraph of the covenant described under "—Certain Covenants—Limitation on Indebtedness and Preferred Stock" on a pro forma basis taking into account such designation.

"U.S. Government Obligations" means securities that are (a) direct obligations of the United States of America for the timely payment of which its full faith and credit is pledged or (b) obligations of a Person controlled or supervised by and acting as an agency or instrumentality of the United States of America the timely payment of which is unconditionally guaranteed as a full faith and credit obligation of the United States of America, which, in either case, are not callable or redeemable at the option of the issuer thereof, and shall also include a depositary receipt issued by a bank (as defined in Section 3(a)(2) of the Securities Act), as custodian with respect to any such U.S. Government Obligations or a specific payment of principal of or interest on any such U.S. Government Obligations held by such custodian for the account of the holder of such depositary receipt; provided that (except as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such depositary receipt from any amount received by the custodian in respect of the U.S. Government Obligations or the specific payment of principal of or interest on the U.S. Government Obligations evidenced by such depositary receipt.

"Volumetric Production Payments" means production payment obligations recorded as deferred revenue in accordance with GAAP, together with all undertakings and obligations in connection therewith.

"Voting Stock" of an entity means all classes of Capital Stock of such entity then outstanding and normally entitled to vote in the election of members of such entity's Board of Directors.

"Wholly-Owned Subsidiary" means a Restricted Subsidiary, all of the Capital Stock of which (other than directors' qualifying shares) is owned by Issuer or another Wholly-Owned Subsidiary.

BOOK ENTRY, DELIVERY AND FORM

The new notes initially will be represented by one or more permanent global notes in registered form without interest coupons (the "Global Notes").

The Global Notes will be deposited upon issuance with the Trustee as custodian for The Depository Trust Company ("DTC") and registered in the name of DTC's nominee, Cede & Co., in each case for credit to an account of a direct or indirect participant in DTC as described below. Beneficial interests in the Global Notes may be held through the Euroclear System ("Euroclear") and the Clearstream System ("Clearstream") (as indirect participants in DTC).

The Global Notes may be transferred, in whole but not in part, only to another nominee of DTC or to a successor of DTC or its nominee. Beneficial interests in the Global Notes may not be exchanged for notes in registered, certificated form ("Certificated Notes") except in the limited circumstances described below. See "—Exchange of Global Notes for Certificated Notes."

Depository Procedures

The following description of the operations and procedures of DTC, Euroclear and Clearstream are provided solely as a matter of convenience. These operations and procedures are solely within the control of their respective settlement systems and are subject to changes by them. We take no responsibility for these operations and procedures and urge investors to contact the systems or their participants directly to discuss these matters.

DTC has advised us that DTC is a limited-purpose trust company created to hold securities for its participants and to facilitate the clearance and settlement of transactions in those securities between these participants through electronic book-entry changes in accounts of its participants. The participants include securities brokers and dealers, banks, trust companies, clearing corporations and certain other organizations. Access to DTC's system is also available to indirect participants, which include other entities such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a participant, either directly or indirectly. Persons who are not participants may beneficially own securities held by or on behalf of DTC only through the participants or the indirect participants. The ownership interests in, and transfers of ownership interests in, each security held by or on behalf of DTC are recorded on the records of the participants and indirect participants.

DTC has also advised us that, pursuant to procedures established by it:

- (1) upon deposit of the global notes, DTC will credit the accounts of participants designated by the Exchange Agent with portions of the principal amount of the global notes; and
- (2) ownership of these interests in the global notes will be shown on, and the transfer of ownership thereof will be effected only through, records maintained by DTC (with respect to the participants) or by the participants and the indirect participants (with respect to other owners of beneficial interest in the global notes).

Investors in the Global Notes who are participants in DTC's system may hold their interests therein directly through DTC. Investors in the Global Notes who are not participants may hold their interests therein indirectly through organizations (including Euroclear and Clearstream) which are participants in such system.

Euroclear and Clearstream will hold interests in the Global Notes on behalf of their participants through customers' securities accounts in their respective names on the books of their respective depositaries, which are Euroclear Bank N.V./S.A. for Euroclear, and Clearstream Banking, S.A. for Clearstream. All interests in a Global Note, including those held through Euroclear or Clearstream, may be subject to the procedures and requirements of DTC. Interests held through Euroclear or Clearstream may also be subject to the procedures and requirements of such systems. The laws of some

states require that certain Persons take physical delivery in definitive form of securities that they own. Consequently, the ability to transfer beneficial interests in a Global Note to such Persons will be limited to that extent. Because DTC can act only on behalf of participants, which in turn act on behalf of indirect participants, the ability of a Person having beneficial interests in a Global Note to pledge such interests to persons that do not participate in the DTC system, or otherwise take actions in respect of such interests, may be affected by the lack of a physical certificate evidencing such interests.

Except as described below, owners of interests in the Global Notes will not have notes registered in their names, will not receive physical delivery of notes in certificated form and will not be considered the registered owners or "holders" thereof under the Indenture for any purpose.

Payments in respect of the principal of, and interest and premium, if any, on a Global Note registered in the name of DTC or its nominee will be payable to DTC in its capacity as the registered Holder under the Indenture. Under the terms of the Indenture, we and the Trustee will treat the Persons in whose names the notes, including the Global Notes, are registered as the owners for the purpose of receiving payments and for all other purposes. Consequently, none of us, the Trustee or any agent of ours or the Trustee has or will have any responsibility or liability for:

- (1) any aspect of DTC's records or any participant's or indirect participant's records relating to, or payments made on account of, beneficial ownership interests in the global notes or for maintaining, supervising or reviewing any of DTC's records or any participant's or indirect participant's records relating to the beneficial ownership interests in the Global Notes; or
 - (2) any other matter relating to the actions and practices of DTC or any of its participants or indirect participants.

DTC has advised us that its current practice, upon receipt of any payment in respect of securities such as the notes (including principal and interest), is to credit the accounts of the relevant participants with the payment on the payment date in accordance with instructions provided to DTC. Each relevant participant is credited with an amount proportionate to its beneficial ownership of an interest in the principal amount of the relevant security as shown on the records of DTC. Payments by the participants and the indirect participants to the beneficial owners of notes will be governed by standing instructions and customary practices and will be the responsibility of the participants or the indirect participants and will not be the responsibility of DTC, the Trustee or us. Neither we nor the Trustee will be liable for any delay by DTC or any of its participants in identifying the beneficial owners of the notes, and we and the Trustee may conclusively rely on and will be protected in relying on instructions from DTC or its nominee for all purposes.

Subject to the transfer restrictions set forth under "Notice to Investors," transfers between participants in DTC will be effected in accordance with DTC's procedures, and will be settled in same-day funds, and transfers between participants in Euroclear and Clearstream will be effected in accordance with their respective rules and operating procedures.

Subject to compliance with the transfer restrictions applicable to the notes described herein, cross-market transfers between the participants in DTC, on the one hand, and Euroclear and Clearstream participants, on the other hand, will be effected through DTC in accordance with DTC's rules on behalf of each of Euroclear and Clearstream, as the case may be, by their respective depositaries; however, such cross-market transactions will require delivery of instructions to Euroclear or Clearstream, as the case may be, by the counterparty in such system in accordance with the rules and procedures and within the established deadlines (Brussels time) of such system. Euroclear or Clearstream, as the case may be, will, if the transaction meets its settlement requirements, deliver instructions to its depositary to take action to effect final settlement on its behalf by delivering or receiving interests in the relevant global note to or from DTC, and making or receiving payment in accordance with normal procedures for same-day funds settlement applicable to DTC. Euroclear

participants and Clearstream participants may not deliver instructions directly to the depositaries for Euroclear or Clearstream.

DTC has advised us that it will take any action permitted to be taken by a Holder of notes only at the direction of one or more participants to whose account DTC has credited the interests in the global notes and only in respect of such portion of the aggregate principal amount of the notes as to which such participant or participants has or have given such direction. However, if there is an Event of Default under the notes, DTC reserves the right to exchange the global notes for legended notes in certificated form, and to distribute such notes to its participants.

Although DTC, Euroclear and Clearstream have agreed to the foregoing procedures to facilitate transfers of interests in the global notes among participants in DTC, Euroclear and Clearstream, they are under no obligation to perform or to continue to perform such procedures, and may discontinue such procedures at any time. None of us, the Trustee or any agent of ours or the Trustee will have any responsibility for the performance by DTC, Euroclear, Clearstream, or their respective participants or indirect participants of their respective obligations under the rules and procedures governing their operations.

Exchange of Global Notes for Certificated Notes

A Global Note is exchangeable for definitive notes in registered certificated form, which we refer to as certificated notes, if:

- (1) DTC notifies us that it (a) is unwilling or unable to continue as depositary for the Global Notes or (b) has ceased to be a clearing agency registered under the Exchange Act and, in either case, we fail to appoint a successor depositary within 120 days after the date of such notice:
 - (2) we, at our option, notify the Trustee in writing that we elect to cause the issuance of the certificated notes; or
 - (3) there shall have occurred and be continuing a Default or Event of Default with respect to the notes.

In addition, beneficial interests in a Global Note may be exchanged for certificated notes upon prior written notice given to the Trustee by or on behalf of DTC in accordance with the Indenture. In all cases, certificated notes delivered in exchange for any Global Note or beneficial interests in global notes will be registered in the names, and issued in any approved denominations, requested by or on behalf of the depositary (in accordance with its customary procedures).

Exchange of Certificated Notes for Global Notes

Certificated notes may not be exchanged for beneficial interests in any Global Note unless the transferor first delivers to the Trustee a written certificate, in the form provided in the Indenture, to the effect that such transfer will comply with the appropriate transfer restrictions applicable to such notes.

CERTAIN UNITED STATES FEDERAL INCOME TAX CONSEQUENCES

The following discussion is a summary of certain U.S. federal income tax consequences relevant to the exchange of old notes for new notes, but does not purport to be a complete analysis of all potential tax effects. The discussion is based upon the Internal Revenue Code of 1986, as amended (the "Code"), Treasury Regulations, Internal Revenue Service rulings and pronouncements and judicial decisions now in effect, all of which may be subject to at any time by legislative, judicial or administrative action. These changes may be applied retroactively in a manner that could adversely affect a holder of notes. Some holders, including financial institutions, insurance companies, regulated investment companies, tax-exempt organizations, dealers in securities or currencies, U.S. persons whose functional currency is not the U.S. dollar, or persons who hold the notes as part of a hedge, conversion transaction, straddle or other risk reduction transaction may be subject to special rules not discussed below.

We recommend that each holder consult its own tax advisor as to the particular tax consequences of exchanging such holder's old notes for new notes, including the applicability and effect of any foreign, state, local or other tax laws or estate or gift tax considerations.

The exchange of old notes for new notes will not be an exchange or otherwise a taxable event to a holder for U.S. federal income tax purposes. Accordingly, a holder will not recognize gain or loss upon receipt of a new note in exchange for an old note in the exchange, and the holder will have the same basis and holding period in the new note as it had in the corresponding old note immediately before the exchange.

PLAN OF DISTRIBUTION

You may transfer new notes issued under the Exchange Offer in exchange for the old notes if:

- you acquire the new notes in the ordinary course of your business;
- you have no arrangement or understanding with any person to participate in the distribution (within the meaning of the Securities Act) of such new notes in violation of the provisions of the Securities Act; and
- you are not our "affiliate" (within the meaning of Rule 405 under the Securities Act) or, if you are an "affiliate," you will comply with the registration and prospectus delivery requirements of the Securities Act to the extent applicable; and.

Each broker-dealer that receives new notes for its own account pursuant to the Exchange Offer in exchange for old notes that were acquired by such broker-dealer as a result of market-making or other trading activities must acknowledge that it will deliver a prospectus in connection with any resale of such new notes. This prospectus, as it may be amended or supplemented from time to time, may be used by a broker-dealer in connection with resales of new notes received in exchange for old notes where such old notes were acquired as a result of market-making activities or other trading activities.

If you wish to exchange new notes for your old notes in the Exchange Offer, you will be required to make representations to us as described in "The Exchange Offer—Purpose and Effect of the Exchange Offer" and "The Exchange Offer—Procedures for Tendering" in this prospectus and in the letter of transmittal. In addition, if you are a broker-dealer who receives new notes for your own account in exchange for old notes that were acquired by you as a result of market-making activities or other trading activities, you will be required to acknowledge that you will deliver a prospectus in connection with any resale by you of such new notes.

We will not receive any proceeds from any sale of new notes by broker-dealers. New notes received by broker-dealers for their own account pursuant to the Exchange Offer may be sold from time to time on one or more transactions in any of the following ways:

- in the over-the-counter market;
- in negotiated transactions;
- through the writing of options on the new notes or a combination of such methods of resale;
- at market prices prevailing at the time of resale;
- · at prices related to such prevailing market prices; or
- at negotiated prices.

Any such resale may be made directly to purchasers or to or through brokers or dealers who may receive compensation in the form of commissions or concessions from any such broker-dealer or the purchasers of any such new notes.

Any broker-dealer that resells new notes that were received by it for its own account pursuant to the Exchange Offer in exchange for old notes that were acquired by such broker-dealer as a result of market-making or other trading activities may be deemed to be an "underwriter" within the meaning of the Securities Act. The letter of transmittal states that by acknowledging that it will deliver and by delivering a prospectus, a broker-dealer will not be deemed to admit that it is an "underwriter" within the meaning of the Securities Act. We agreed to provide sufficient copies of the latest version of this prospectus to broker-dealers promptly upon request at any time during the period ending on the earlier of (i) 180 days from the date on which the Registration Statement is declared effective and (ii) the date on which a broker-dealer is no longer required to deliver a prospectus in connection with market-

making or other trading activities. Furthermore, we agreed to use our commercially reasonable efforts to amend or supplement this prospectus during such period if so requested in order to expedite or facilitate the disposition of any new notes by broker-dealers.

We have agreed to pay all expenses incident to the performance of or compliance with the Registration Rights Agreements, other than underwriting discounts and commissions and transfer taxes, if any, relating to the sale or disposition of the notes by a holder and will indemnify the holders of the old notes (including any broker-dealers) against certain liabilities, including liabilities under the Securities Act.

LEGAL MATTERS

The validity of the new notes offered in this Exchange Offer and certain other legal matters will be passed upon for us by Vinson & Elkins L.L.P., Houston, Texas.

EXPERTS

The consolidated financial statements of Antero Resources Corporation as of December 31, 2012 and 2013 and for each of the years in the three-year period ended December 31, 2013 have been incorporated by reference herein in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

The information incorporated by reference into this prospectus regarding estimates of our natural gas and oil reserves, related future net cash flows and the present values thereof related to our Appalachian Basin properties as of December 31, 2013, 2012 and 2011 were based in part upon reserve reports audited by independent petroleum engineers, DeGolyer and MacNaughton. The information incorporated by reference into this prospectus regarding estimates of our natural gas and oil reserves, related future net cash flows and the present values thereof related to our Piceance Basin properties as of December 31, 2011 were based in part in upon reserve reports audited by independent petroleum engineers, Ryder Scott & Company. We have included these estimates in reliance on the authority of such firms as experts in such matters.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's public reference room located at 100 F Street, N.E., Washington, DC 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference room. Our SEC filings are also available to the public at the SEC's web site at www.sec.gov. You may also access the information we file electronically with the SEC through our website at www.anteroresources.com. We have not incorporated by reference into this prospectus the information included on, or linked from, our website (other than to the extent specified elsewhere herein), and you should not consider it to be a part of this prospectus. You may also inspect reports, proxy statements and other information about Antero Resources Corporation at the offices of the New York Stock Exchange, 20 Broad Street, New York, NY 10005.

We "incorporate by reference" information into this prospectus, which means that we disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, except for any information superseded by information contained expressly in this prospectus. You should not assume that the information in this prospectus is current as of any date other than the date on the cover page of this prospectus.

Any information that we file under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act from the date of this prospectus until the notes offering pursuant to this registration statement is terminated, and that is deemed "filed" with the SEC, will automatically update and supersede this information. We also incorporate by reference the documents listed below:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2013, including information specifically incorporated by reference from our Proxy Statement for our 2014 Annual Meeting of Stockholders;
- our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2014, June 30, 2014 and September 30, 2014;
 and
- our Current Reports on Form 8-K filed on February 10, 2014, March 25, 2014, April 23, 2014, April 24, 2014, May 8, 2014, May 16, 2014, May 22, 2014, July 31, 2014, September 4, 2014, September 5, 2014, September 10, 2014, September 24, 2014, October 22, 2014 and November 17, 2014 (excluding any information furnished pursuant to Item 2.02 or Item 7.01 of any such Current Report on Form 8-K).

In addition, we incorporate by reference in this prospectus any future filings made by us with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") (excluding any information furnished pursuant to Item 2.02 or Item 7.01 on any Current Report on Form 8-K), after the date on which the registration statement that includes this prospectus was initially filed with the SEC and until the registration statement that includes this prospectus is declared effective by the SEC.

You can obtain copies of any of these documents without charge upon written or oral request by requesting them in writing or by telephone at:

Antero Resources Corporation 1615 Wynkoop St. Denver, Colorado 80202 (303) 357-7310

LETTER OF TRANSMITTAL

TO TENDER
OLD 5.125% SENIOR NOTES DUE 2022
OF

ANTERO RESOURCES CORPORATION

PURSUANT TO THE EXCHANGE OFFER AND PROSPECTUS
DATED JANUARY 28, 2015

THE EXCHANGE OFFER AND WITHDRAWAL RIGHTS WILL EXPIRE AT 11:59 P.M., NEW YORK CITY TIME, ON FEBRUARY 25, 2015 (THE "EXPIRATION DATE"), UNLESS EXTENDED BY THE ISSUER.

The Exchange Agent for the Exchange Offer is Wells Fargo Bank, National Association, and its contact information is as follows:

By Registered & Certified Mail:
Wells Fargo Bank, N.A.
Corporate Trust Operations
MAC N9303—121
PO Box 1517
Minneapolis, Minnesota 55480

By Regular Mail or Overnight Courier:
Wells Fargo Bank, N.A.
Corporate Trust Operations
MAC N9303—121
Sixth & Marquette Avenue
Minneapolis, Minnesota 55479

In Person by Hand Only:
Wells Fargo Bank, N.A.

12th Floor—Northstar East Building
Corporate Trust Operations
608 Second Avenue South
Minneapolis, MN 55402

By Facsimile (for Eligible Institutions only): (877) 407-4679

For Information or Confirmation by Telephone: (800) 344-5128

If you wish to exchange your issued and outstanding 5.125% Senior Notes due 2022 (the "old notes") for an equal aggregate principal amount of 5.125% Senior Notes due 2022 (the "new notes") with substantially identical terms that have been registered under the Securities Act of 1933, as amended (the "Securities Act"), pursuant to the Exchange Offer, you must validly tender (and not withdraw) old notes to the Exchange Agent prior to the Expiration Date.

We refer you to the prospectus, dated January 28, 2015 (the "Prospectus"), of Antero Resources Corporation (the "Issuer") and this Letter of Transmittal (this "Letter of Transmittal"), which together describe the Issuer's offer (the "Exchange Offer") to exchange the old notes for a like aggregate principal amount of new notes. Capitalized terms used but not defined herein have the respective meaning given to them in the Prospectus.

The Issuer reserves the right, at any time or from time to time, to extend the Exchange Offer at its discretion, in which event the term "Expiration Date" shall mean the latest date to which the Exchange Offer is extended. The Issuer shall notify the Exchange Agent and each registered holder of the old notes of any extension by oral or written notice prior to 9:00 a.m., New York City time, on the next business day after the previously scheduled Expiration Date.

This Letter of Transmittal is to be used by holders of the old notes. Tender of the old notes in book-entry form is to be made according to the Automated Tender Offer Program ("ATOP") of The

Depository Trust Company ("DTC") pursuant to the procedures set forth in the Prospectus under the caption "The Exchange Offer—
Procedures for Tendering." DTC participants that are accepting the Exchange Offer must transmit their acceptance to DTC, which will verify the acceptance and execute a book-entry delivery to the Exchange Agent's DTC account. DTC will then send a computer generated message known as an "agent's message" to the Exchange Agent for its acceptance. For you to validly tender your old notes in the Exchange Offer, the Exchange Agent must receive, prior to the Expiration Date, an agent's message under the ATOP procedures that confirms that:

- DTC has received your instructions to tender your old notes; and
- you agree to be bound by the terms of this Letter of Transmittal.

BY USING THE ATOP PROCEDURES TO TENDER OLD NOTES, YOU WILL NOT BE REQUIRED TO DELIVER THIS LETTER OF TRANSMITTAL TO THE EXCHANGE AGENT. HOWEVER, YOU WILL BE BOUND BY ITS TERMS, AND YOU WILL BE DEEMED TO HAVE MADE THE ACKNOWLEDGMENTS AND THE REPRESENTATIONS AND WARRANTIES IT CONTAINS, JUST AS IF YOU HAD SIGNED IT.

PLEASE READ THE ACCOMPANYING INSTRUCTIONS CAREFULLY.

Ladies and Gentlemen:

- 1. By tendering old notes in the Exchange Offer, you acknowledge receipt of the Prospectus and this Letter of Transmittal.
- 2. By tendering old notes in the Exchange Offer, you represent and warrant that you have (1) full authority to tender the old notes described above and will, upon request, execute and deliver any additional documents deemed by the Issuer to be necessary or desirable to complete the tender of old notes, (2) the Issuer will acquire good, marketable and unencumbered title to the tendered old notes, free and clear of all liens, restrictions, charges and other encumbrances, and (3) the old notes tendered hereby are not subject to any adverse claims or proxies.
- 3. You understand that the tender of the old notes pursuant to all of the procedures set forth in the Prospectus will constitute an agreement between you and the Issuer as to the terms and conditions set forth in the Prospectus.
- 4. By tendering old notes in the Exchange Offer, you acknowledge that the Exchange Offer is being made in reliance upon interpretations contained in no-action letters issued to third parties by the staff of the Securities and Exchange Commission (the "SEC"), including Exxon Capital Holdings Corp., SEC No-Action Letter (available April 13, 1989), Morgan Stanley & Co., Inc., SEC No-Action Letter (available June 5, 1991) and Shearman & Sterling, SEC No-Action Letter (available July 2, 1993), that the new notes issued in exchange for the old notes pursuant to the Exchange Offer may be offered for resale, resold and otherwise transferred by holders thereof without compliance with the registration and prospectus delivery provisions of the Securities Act of 1933, as amended (the "Securities Act") (other than a broker-dealer who purchased old notes exchanged for such new notes directly from the Issuer to resell pursuant to Rule 144A or any other available exemption under the Securities Act and any such holder that is an "affiliate" of the Issuer within the meaning of Rule 405 under the Securities Act), provided that such new notes are acquired in the ordinary course of such holders' business and such holders are not participating in, and have no arrangement with any other person to participate in, the distribution of such new notes.
- 5. By tendering old notes in the Exchange Offer, you hereby represent and warrant that:
 - (a) the new notes acquired pursuant to the Exchange Offer are being acquired in the ordinary course of business of you, whether or not you are the holder;
 - (b) you have not engaged in and do not intend to engage in the distribution of the new notes;
 - (c) you have no arrangement or understanding with any person to participate in the distribution of old notes or new notes within the meaning of the Securities Act;
 - (d) you are not an "affiliate," as such term is defined under Rule 405 promulgated under the Securities Act, of the Issuer; and
 - (e) if you are a broker-dealer, that you will receive the new notes for your own account in exchange for old notes that were acquired as a result of market-making activities or other trading activities and that you acknowledge that you will deliver a prospectus (or, to the extent permitted by law, make available a prospectus) in connection with any resale of such new notes.

You may, if you are unable to make all of the representations and warranties contained in Item 5 above and as otherwise permitted in the Registration Rights Agreements (as defined

below), elect to have your old notes registered in the shelf registration statement described in the Registration Rights Agreements, dated May 6, 2014 and September 18, 2014 (the "Registration Rights Agreements"), by and among the Issuer, the Subsidiary Guarantors and the Initial Purchasers (as defined therein), on behalf of the purchasers of the old notes. Such election may be made by notifying the Issuer in writing at 1615 Wynkoop Street, Denver, Colorado 80202, Attention: Secretary. By making such election, you agree, as a holder of old notes participating in a shelf registration, to indemnify and hold harmless the Issuer, each of the directors of the Issuer, each of the officers of the Issuer who signs such shelf registration statement, each person who controls the Issuer within the meaning of either the Securities Act or the Exchange Act, and each other holder of old notes, from and against any and all losses, claims, damages or liabilities caused by any untrue statement or alleged untrue statement of a material fact contained in any shelf registration statement or prospectus, or in any supplement thereto or amendment thereof, or caused by the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; but only with respect to information relating to you furnished in writing by or on behalf of you expressly for use in a shelf registration statement, a prospectus or any amendments or supplements thereto. Any such indemnification shall be governed by the terms and subject to the conditions set forth in the Registration Rights Agreements, including, without limitation, the provisions regarding notice, retention of counsel, contribution and payment of expenses set forth therein. The above summary of the indemnification provision of the Registration Rights Agreements is not intended to be exhaustive and is qualified in its entirety by the Registration Rights Agreements.

- 6. If you are a broker-dealer that will receive new notes for your own account in exchange for old notes that were acquired as a result of market-making activities or other trading activities, you acknowledge by tendering old notes in the Exchange Offer, that you will deliver a prospectus in connection with any resale of such new notes; however, by so acknowledging and by delivering a prospectus, you will not be deemed to admit that you are an "underwriter" within the meaning of the Securities Act
- 7. If you are a broker-dealer and old notes held for your own account were not acquired as a result of market-making or other trading activities, such old notes cannot be exchanged pursuant to the Exchange Offer.
- 8. Any of your obligations hereunder shall be binding upon your successors, assigns, executors, administrators, trustees in bankruptcy and legal and personal representatives.

INSTRUCTIONS FORMING PART OF THE TERMS AND CONDITIONS OF THE EXCHANGE OFFER

1. Book-Entry Confirmations.

Any confirmation of a book-entry transfer to the Exchange Agent's account at DTC of old notes tendered by book-entry transfer (a "Book-Entry Confirmation"), as well as Agent's Message and any other documents required by this Letter of Transmittal, must be received by the Exchange Agent at one of its addresses set forth herein prior to 11:59 p.m., New York City time, on the Expiration Date.

2. Partial Tenders.

Tenders of old notes will be accepted only in minimum denominations of \$2,000 and integral multiples of \$1,000 in excess thereof. The entire principal amount of old notes delivered to the Exchange Agent will be deemed to have been tendered unless otherwise communicated to the Exchange Agent. If the entire principal amount of all old notes is not tendered, then old notes for the principal amount of old notes not tendered and new notes issued in exchange for any old notes accepted will be delivered to the holder via the facilities of DTC promptly after the old notes are accepted for exchange.

3. Validity of Tenders.

All questions as to the validity, form, eligibility (including time of receipt), acceptance, and withdrawal of tendered old notes will be determined by the Issuer, in its sole discretion, which determination will be final and binding. The Issuer reserves the absolute right to reject any or all tenders not in proper form or the acceptance for exchange of which may, in the opinion of counsel for the Issuer, be unlawful. The Issuer also reserves the absolute right to waive any of the conditions of the Exchange Offer or any defect or irregularity in the tender of any old notes. The Issuer's interpretation of the terms and conditions of the Exchange Offer (including the instructions on the Letter of Transmittal) will be final and binding on all parties. Unless waived, any defects or irregularities in connection with tenders of old notes must be cured within such time as the Issuer shall determine. Although the Issuer intends to notify holders of defects or irregularities with respect to tenders of old notes, neither the Issuer, the Exchange Agent, nor any other person shall be under any duty to give notification of any defects or irregularities in tenders or incur any liability for failure to give such notification. Tenders of old notes will not be deemed to have been made until such defects or irregularities have been cured or waived. Any old notes received by the Exchange Agent that are not properly tendered and as to which the defects or irregularities have not been cured or waived will be returned by the Exchange Agent to the tendering holders, unless otherwise provided in the Letter of Transmittal, promptly following the Expiration Date.

4. Waiver of Conditions.

The Issuer reserves the absolute right to waive, in whole or part, up to the expiration of the Exchange Offer, any of the conditions to the Exchange Offer set forth in the Prospectus or in this Letter of Transmittal.

5. No Conditional Tender.

No alternative, conditional, irregular or contingent tender of old notes will be accepted.

6. Request for Assistance or Additional Copies.

Requests for assistance or for additional copies of the Prospectus or this Letter of Transmittal may be directed to the Exchange Agent using the contact information set forth on the cover page of this

Letter of Transmittal. Holders may also contact their broker, dealer, commercial bank, trust company or other nominee for assistance concerning the Exchange Offer.

7. Withdrawal.

Tenders may be withdrawn only pursuant to the limited withdrawal rights set forth in the Prospectus under the caption "The Exchange Offer—Withdrawal of Tenders."

8. No Guarantee of Late Delivery.

There is no procedure for guarantee of late delivery in the Exchange Offer.

IMPORTANT: BY USING THE ATOP PROCEDURES TO TENDER OLD NOTES, YOU WILL NOT BE REQUIRED TO DELIVER THIS LETTER OF TRANSMITTAL TO THE EXCHANGE AGENT. HOWEVER, YOU WILL BE BOUND BY ITS TERMS, AND YOU WILL BE DEEMED TO HAVE MADE THE ACKNOWLEDGMENTS AND THE REPRESENTATIONS AND WARRANTIES IT CONTAINS, JUST AS IF YOU HAD SIGNED IT.

