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

FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended June 30, 2019

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission file number: 001-36120

ANTERO RESOURCES CORPORATION
(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)	**80-0162034** (IRS Employer Identification No.)
1615 Wynkoop Street, Denver, Colorado (Address of principal executive offices)	**80202** (Zip Code)

(303) 357-7310
(Registrant's telephone number, including area code)

Securities registered pursuant to section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.01	AR	New York Stock Exchange

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. ☒ Yes ☐ No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). ☒ Yes ☐ No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer ☒	Accelerated Filer ☐
Non-accelerated Filer ☐ Emerging Growth Company ☐	Smaller Reporting Company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act) ☐ Yes ☒ No

The registrant had 309,221,992 shares of common stock outstanding as of July 26, 2019.

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CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

The information in this Quarterly Report on Form 10-Q 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 Quarterly Report on Form 10-Q, regarding our strategy, future operations, financial position, estimated revenues and losses, projected costs, prospects, plans and objectives of management are forward looking statements. Words such as “may,” “assume,” “forecast,” “position,” “predict,” “strategy,” “expect,” “intend,” “plan,” “estimate,” “anticipate,” “believe,” “project,” “budget,” “potential,” or “continue,” and similar expressions are used 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 these forward-looking statements, investors should keep in mind the risk factors and other cautionary statements in this Quarterly Report on Form 10-Q. 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:

- business strategy;
- reserves;
- financial strategy, liquidity, and capital required for our development program;
- 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;
- our ability to successfully complete our share repurchase program;
- our ability to meet minimum volume commitments and to utilize or monetize our firm transportation commitments;
- 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;
- operations of Antero Midstream Corporation;
- general economic conditions;
- credit markets;
- uncertainty regarding our future operating results; and
- plans, objectives, expectations, and intentions.

We caution investors that these forward-looking statements are subject to all of the risks and uncertainties incidental to our business, most of which are difficult to predict and many of which are beyond our control. These risks include, but are not limited to, commodity price volatility, inflation, availability of drilling, completion, and production equipment and services, environmental risks, drilling and completion 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 flows and access to capital, the timing of development expenditures, conflicts of interest among our stockholders, and the other risks described under the heading "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2018 (the "2018 Form 10-K") on file with the Securities and Exchange Commission ("SEC").

Reserve engineering is a process of estimating underground accumulations of natural gas, NGLs, and oil that cannot be measured in an exact manner. The accuracy of any reserve estimate depends on the quality of available data, the interpretation of such data, and the price and cost assumptions made by reservoir engineers. In addition, the results of drilling, testing, and production activities, or changes in commodity prices, 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 in this Quarterly Report on Form 10-Q 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 Quarterly Report on Form 10-Q 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 to reflect events or circumstances after the date of this Quarterly Report on Form 10-Q.

PART I—FINANCIAL INFORMATION
ANTERO RESOURCES CORPORATION
Condensed Consolidated Balance Sheets
December 31, 2018 and June 30, 2019
(Unaudited)
(In thousands, except per share amounts)

	December 31, 2018	June 30, 2019
Assets		
Current assets:		
Accounts receivable	$ 51,073	49,994
Accrued revenue	474,827	308,761
Derivative instruments	245,263	346,894
Other current assets	35,450	7,400
Total current assets	806,613	713,049
Property and equipment:		
Oil and gas properties, at cost (successful efforts method):		
Unproved properties	1,767,600	1,585,355
Proved properties	12,705,672	13,357,733
Water handling and treatment systems	1,013,818	—
Gathering systems and facilities	2,470,708	17,825
Other property and equipment	65,842	69,676
	18,023,640	15,030,589
Less accumulated depletion, depreciation, and amortization	(4,153,725)	(4,115,187)
Property and equipment, net	13,869,915	10,915,402
Operating leases right-of-use assets	—	3,330,795
Derivative instruments	362,169	369,548
Investments in unconsolidated affiliates	433,642	1,967,203
Other assets	47,125	34,883
Total assets	$ 15,519,464	17,330,880
Liabilities and Equity		
Current liabilities:		
Accounts payable	$ 66,289	44,758
Accounts payable, related parties	—	98,570
Accrued liabilities	465,070	358,680
Revenue distributions payable	310,827	301,032
Derivative instruments	532	274
Short-term lease liabilities	2,459	413,691
Other current liabilities	8,363	4,102
Total current liabilities	853,540	1,221,107
Long-term liabilities:		
Long-term debt	5,461,688	3,602,379
Deferred income tax liability	650,788	1,188,975
Long-term lease liabilities	2,873	2,920,754
Other liabilities	63,098	57,965
Total liabilities	7,031,987	8,991,180
Commitments and contingencies (Notes 13 and 14)		
Equity:		
Stockholders' equity:		
Preferred stock, $0.01 par value; authorized - 50,000 shares; none issued	—	—
Common stock, $0.01 par value; authorized - 1,000,000 shares; 308,594 shares and 309,123 shares issued and outstanding at December 31, 2018 and June 30, 2019, respectively	3,086	3,091
Additional paid-in capital	6,485,174	6,138,130
Accumulated earnings	1,177,548	2,198,479
Total stockholders' equity	7,665,808	8,339,700
Noncontrolling interests in consolidated subsidiary	821,669	—
Total equity	8,487,477	8,339,700
Total liabilities and equity	$ 15,519,464	17,330,880

See accompanying notes to the unaudited condensed consolidated financial statements.

ANTERO RESOURCES CORPORATION

Condensed Consolidated Statements of Operations and Comprehensive Income (Loss)
Three Months Ended June 30, 2018 and 2019
(Unaudited)
(In thousands, except per share amounts)

	Three Months Ended June 30, 2018	2019
Revenue and other:		
Natural gas sales	$ 473,540	553,372
Natural gas liquids sales	255,985	303,963
Oil sales	38,873	49,062
Commodity derivative fair value gains	55,336	328,427
Gathering, compression, water handling and treatment	5,518	—
Marketing	160,202	63,080
Marketing derivative fair value losses	(110)	—
Other income	—	1,760
Total revenue	989,344	1,299,664
Operating expenses:		
Lease operating	30,164	40,857
Gathering, compression, processing, and transportation	307,786	566,834
Production and ad valorem taxes	25,891	30,968
Marketing	213,420	137,539
Exploration	1,471	314
Impairment of oil and gas properties	134,437	130,999
Impairment of gathering systems and facilities	8,501	—
Depletion, depreciation, and amortization	238,050	242,302
Loss on sale of assets	—	951
Accretion of asset retirement obligations	700	918
General and administrative (including equity-based compensation expense of $19,071 and $6,549 in 2018 and 2019, respectively)	61,687	42,382
Contract termination and rig stacking	—	5,604
Total operating expenses	1,022,107	1,199,668
Operating income (loss)	(32,763)	99,996
Other income (expenses):		
Equity in earnings of unconsolidated affiliates	9,264	13,585
Interest expense, net	(69,349)	(54,164)
Total other expenses	(60,085)	(40,579)
Income (loss) before income taxes	(92,848)	59,417
Provision for income tax (expense) benefit	25,573	(17,249)
Net income (loss) and comprehensive income (loss) including noncontrolling interests	(67,275)	42,168
Net income and comprehensive income attributable to noncontrolling interests	69,110	—
Net income (loss) and comprehensive income (loss) attributable to Antero Resources Corporation	$ (136,385)	42,168
Earnings (loss) per common share—basic	$ (0.43)	0.14
Earnings (loss) per common share—assuming dilution	$ (0.43)	0.14
Weighted average number of shares outstanding:		
Basic	316,992	309,062
Diluted	316,992	309,137

See accompanying notes to the unaudited condensed consolidated financial statements.

ANTERO RESOURCES CORPORATION

Condensed Consolidated Statements of Operations and Comprehensive Income (Loss)
Six Months Ended June 30, 2018 and 2019
(Unaudited)
(In thousands, except per share amounts)

	Six Months Ended June 30, 2018	Six Months Ended June 30, 2019
Revenue and other:		
Natural gas sales	$ 971,203	1,210,638
Natural gas liquids sales	490,155	617,648
Oil sales	69,146	97,114
Commodity derivative fair value gains	77,773	251,059
Gathering, compression, water handling and treatment	10,453	4,479
Marketing	304,591	154,266
Marketing derivative fair value gains	94,124	—
Other income	—	1,867
Total revenue and other	2,017,445	2,337,071
Operating expenses:		
Lease operating	56,886	82,589
Gathering, compression, processing, and transportation	599,724	991,363
Production and ad valorem taxes	51,714	66,646
Marketing	409,159	300,623
Exploration	3,356	440
Impairment of oil and gas properties	184,973	212,243
Impairment of gathering systems and facilities	8,501	6,982
Depletion, depreciation, and amortization	466,294	482,503
Loss on sale of assets	—	951
Accretion of asset retirement obligations	1,390	1,894
General and administrative (including equity-based compensation expense of $40,227 and $15,452 in 2018 and 2019, respectively)	121,717	110,584
Contract termination and rig stacking	—	13,964
Total operating expenses	1,903,714	2,270,782
Operating income	113,731	66,289
Other income (expenses):		
Equity in earnings of unconsolidated affiliates	17,126	27,666
Interest expense, net	(133,775)	(126,114)
Gain on deconsolidation of Antero Midstream Partners LP	—	1,406,042
Total other income (expenses)	(116,649)	1,307,594
Income (loss) before income taxes	(2,918)	1,373,883
Provision for income tax (expense) benefit	16,453	(305,959)
Net income and comprehensive income including noncontrolling interests	13,535	1,067,924
Net income and comprehensive income attributable to noncontrolling interests	135,087	46,993
Net income (loss) and comprehensive income (loss) attributable to Antero Resources Corporation	$ (121,552)	1,020,931
Earnings (loss) per common share—basic	$ (0.38)	3.31
Earnings (loss) per common share—assuming dilution	$ (0.38)	3.30
Weighted average number of shares outstanding:		
Basic	316,733	308,879
Diluted	316,733	309,082

ANTERO RESOURCES CORPORATION
Condensed Consolidated Statements of Equity
Three and Six Months Ended June 30, 2018
(Unaudited)
(In thousands)

	Common Stock		Additional paid-in capital	Accumulated earnings	Noncontrolling interests	Total equity
	Shares	Amount				
Balances, December 31, 2017	316,379	$ 3,164	6,570,952	1,575,065	726,955	8,876,136
Issuance of common stock upon vesting of equity-based compensation awards, net of shares withheld for income taxes	145	1	(1,067)	—	—	(1,066)
Issuance of common units in Antero Midstream Partners LP upon vesting of equity-based compensation awards, net of units withheld for income taxes	—	—	(50)	—	32	(18)
Equity-based compensation	—	—	18,802	—	2,354	21,156
Net income and comprehensive income	—	—	—	14,833	65,977	80,810
Effects of changes in ownership interests in consolidated subsidiaries	—	—	(555)	—	555	—
Distributions to noncontrolling interests	—	—	—	—	(55,915)	(55,915)
Other	—	—	—	—	(5)	(5)
Balances, March 31, 2018	316,524	$ 3,165	6,588,082	1,589,898	739,953	8,921,098
Issuance of common stock upon vesting of equity-based compensation awards, net of shares withheld for income taxes	528	6	(5,589)	—	—	(5,583)
Issuance of common units in Antero Midstream Partners LP upon vesting of equity-based compensation awards, net of units withheld for income taxes	—	—	(4,007)	—	2,707	(1,300)
Equity-based compensation	—	—	16,930	—	2,141	19,071
Net income (loss) and comprehensive income (loss)	—	—	—	(136,385)	69,110	(67,275)
Effects of changes in ownership interests in consolidated subsidiaries	—	—	2,121	—	(2,121)	—
Distributions to noncontrolling interests	—	—	—	—	(63,108)	(63,108)
Other	—	—	—	—	8	8
Balances, June 30, 2018	317,052	$ 3,171	6,597,537	1,453,513	748,690	8,802,911

See accompanying notes to the unaudited condensed consolidated financial statements.

ANTERO RESOURCES CORPORATION
Condensed Consolidated Statements of Equity
Three and Six Months Ended June 30, 2019
(Unaudited)
(In thousands)

	Common Stock		Additional paid-in capital	Accumulated earnings	Noncontrolling interests	Total equity
	Shares	Amount				
Balances, December 31, 2018	308,594	$ 3,086	6,485,174	1,177,548	821,669	8,487,477
Issuance of common stock upon vesting of equity-based compensation awards, net of shares withheld for income taxes	147	1	(451)	—	—	(450)
Issuance of common units in Antero Midstream Partners LP upon vesting of equity-based compensation awards, net of units withheld for income taxes	—	—	(85)	—	56	(29)
Equity-based compensation	—	—	7,801	—	1,102	8,903
Net income and comprehensive income	—	—	—	978,763	46,993	1,025,756
Distributions to noncontrolling interests	—	—	—	—	(85,076)	(85,076)
Effect of deconsolidation of Antero Midstream Partners LP	—	—	(359,039)	—	(784,744)	(1,143,783)
Balances, March 31, 2019	308,741	$ 3,087	6,133,400	2,156,311	—	8,292,798
Issuance of common stock upon vesting of equity-based compensation awards, net of shares withheld for income taxes	382	4	(1,819)	—	—	(1,815)
Equity-based compensation	—	—	6,549	—	—	6,549
Net income and comprehensive income	—	—	—	42,168	—	42,168
Balances, June 30, 2019	309,123	$ 3,091	6,138,130	2,198,479	—	8,339,700

See accompanying notes to the unaudited condensed consolidated financial statements.

ANTERO RESOURCES CORPORATION
Condensed Consolidated Statements of Cash Flows
Six Months Ended June 30, 2018 and 2019
(Unaudited)
(In thousands)

	Six Months Ended June 30, 2018	Six Months Ended June 30, 2019
Cash flows provided by (used in) operating activities:		
Net income including noncontrolling interests	$ 13,535	1,067,924
Adjustments to reconcile net income to net cash provided by operating activities:		
Depletion, depreciation, amortization, and accretion	467,684	484,397
Impairment of oil and gas properties	184,973	212,243
Impairment of gathering systems and facilities	8,501	6,982
Commodity derivative fair value gains	(77,773)	(251,059)
Gains on settled commodity derivatives	197,225	141,791
Marketing derivative fair value gains	(94,124)	—
Gains on settled marketing derivatives	94,158	—
Deferred income tax expense (benefit)	(16,453)	304,963
Loss on sale of assets	—	951
Equity-based compensation expense	40,227	15,452
Equity in earnings of unconsolidated affiliates	(17,126)	(27,666)
Distributions/dividends of earnings from unconsolidated affiliates	17,895	60,527
Gain on deconsolidation of Antero Midstream Partners LP	—	(1,406,042)
Other	1,932	5,670
Changes in current assets and liabilities:		
Accounts receivable	10,237	5,848
Accrued revenue	(21,092)	166,066
Other current assets	2,353	2,307
Accounts payable including related parties	2,948	(2,424)
Accrued liabilities	24,065	(22,146)
Revenue distributions payable	1,617	(9,795)
Other current liabilities	(1,842)	1,119
Net cash provided by operating activities	838,940	757,108
Cash flows provided by (used in) investing activities:		
Additions to unproved properties	(87,861)	(56,814)
Drilling and completion costs	(752,781)	(680,088)
Additions to water handling and treatment systems	(58,127)	(24,416)
Additions to gathering systems and facilities	(206,753)	(48,239)
Additions to other property and equipment	(3,502)	(4,629)
Investments in unconsolidated affiliates	(56,297)	(25,020)
Proceeds from the Antero Midstream Partners LP Transactions	—	296,611
Change in other assets	(7,026)	(4,974)
Proceeds from asset sales	—	1,983
Net cash used in investing activities	(1,172,347)	(545,586)
Cash flows provided by (used in) financing activities:		
Issuance of senior notes	—	650,000
Borrowings (repayments) on bank credit facilities, net	485,000	(145,000)
Payments of deferred financing costs	—	(8,259)
Distributions to noncontrolling interests in Antero Midstream Partners LP	(119,023)	(85,076)
Employee tax withholding for settlement of equity compensation awards	(7,967)	(2,295)
Other	(2,436)	(1,360)
Net cash provided by financing activities	355,574	408,010
Effect of deconsolidation of Antero Midstream Partners LP	—	(619,532)
Net increase in cash and cash equivalents	22,167	—
Cash and cash equivalents, beginning of period	28,441	—
Cash and cash equivalents, end of period	$ 50,608	—
Supplemental disclosure of cash flow information:		
Cash paid during the period for interest	$ 130,231	119,180
Increase (decrease) in accounts payable and accrued liabilities for additions to property and equipment	$ 2,089	(33,240)

See accompanying notes to the unaudited condensed consolidated financial statements.

ANTERO RESOURCES CORPORATION

Notes to the Unaudited Condensed Consolidated Financial Statements

December 31, 2018 and June 30, 2019

(1) Organization

Antero Resources Corporation (individually referred to as "Antero") and its consolidated subsidiaries (collectively referred to as the "Company," "we," "us" or "our") are engaged in the exploration, development, and acquisition of natural gas, NGLs, and oil properties in the Appalachian Basin in West Virginia and Ohio. The Company targets large, repeatable resource plays where horizontal drilling and advanced fracture stimulation technologies provide the means to economically develop and produce natural gas, NGLs, and oil from unconventional formations. The Company's corporate headquarters are located in Denver, Colorado.

(2) Summary of Significant Accounting Policies

(a) Basis of Presentation

These unaudited condensed consolidated financial statements have been prepared pursuant to the rules and regulations of the SEC applicable to interim financial information and should be read in the context of the December 31, 2018 consolidated financial statements and notes thereto for a more complete understanding of the Company's operations, financial position, and accounting policies. The December 31, 2018 consolidated financial statements have been filed with the Securities and Exchange Commission ("SEC") in Antero's 2018 Form 10-K.

The accompanying unaudited condensed consolidated financial statements of the Company have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP") for interim financial information, and, accordingly, do not include all of the information and footnotes required by GAAP for complete consolidated financial statements. In the opinion of management, the accompanying unaudited condensed consolidated financial statements include all adjustments (consisting of normal and recurring accruals) considered necessary to present fairly the Company's financial position as of December 31, 2018 and June 30, 2019, and the results of its operations and its cash flows for the three and six months ended June 30, 2018 and 2019. The Company has no items of other comprehensive income or loss; therefore, its net income or loss is equal to its comprehensive income or loss. Operating results for the period ended June 30, 2019 are not necessarily indicative of the results that may be expected for the full year because of the impact of fluctuations in prices received for natural gas, NGLs, and oil, natural production declines, the uncertainty of exploration and development drilling results, fluctuations in the fair value of derivative instruments, and other factors.

As of the date these financial statements were filed with the SEC, the Company completed its evaluation of potential subsequent events for disclosure and no items requiring disclosure were identified.

(b) Principles of Consolidation

The accompanying unaudited condensed consolidated financial statements include the accounts of Antero, its wholly owned subsidiaries, any entities in which the Company owns a controlling interest, and variable interest entities ("VIEs") for which the Company is the primary beneficiary.

Through March 12, 2019, Antero Midstream Partners LP ("Antero Midstream Partners"), a publicly traded limited partnership, was included in the consolidated financial statements of Antero. Prior to the Closing (defined in Note 3 to the unaudited condensed consolidated financial statements), our ownership of Antero Midstream Partners common units represented approximately a 53% limited partner interest in Antero Midstream Partners, and we consolidated Antero Midstream Partners' financial position and results of operations into our consolidated financial statements. The Transactions (defined in Note 3 to the unaudited condensed consolidated financial statements) resulted in the exchange of the limited partner interest we owned in Antero Midstream Partners for common stock of Antero Midstream Corporation representing a 31% interest. As a result, we no longer hold a controlling interest in Antero Midstream Partners and we now have an interest in Antero Midstream Corporation that provides significant influence, but not control, over Antero Midstream Corporation. Thus, effective March 13, 2019, the Company no longer consolidates Antero Midstream Partners in its consolidated financial statements and accounts for its interest in Antero Midstream Corporation using the equity method of accounting. See Note 3 to the unaudited condensed consolidated financial statements for further discussion on the Transactions.

All significant intercompany accounts and transactions have been eliminated in the Company's unaudited condensed consolidated financial statements. The noncontrolling interest in the Company's unaudited condensed consolidated financial statements represents the interests in Antero Midstream Partners, which were owned by the public prior to the Transactions, and the incentive distribution rights in Antero Midstream Partners, in both cases during the periods prior to the Transactions. Noncontrolling interests in consolidated subsidiaries is included as a component of equity in the Company's unaudited condensed consolidated balance sheets.

Investments in entities for which the Company exercises significant influence, but not control, are accounted for under the equity method. The Company's judgment regarding the level of influence over its equity investments includes considering key factors such as Antero's ownership interest, representation on the board of directors, and participation in the policy-making decisions of equity method investees. Such investments are included in Investments in unconsolidated affiliates on the Company's unaudited condensed consolidated balance sheets. Income from investees that are accounted for under the equity method is included in Equity in earnings of unconsolidated affiliates on the Company's unaudited condensed consolidated statements of operations and cash flows. When Antero records its proportionate share of net income, it increases equity income in the statements of operations and comprehensive income (loss) and the carrying value of that investment on the Company's balance sheet. When a distribution is received, it is recorded as a reduction to the carrying value of that investment on the balance sheet. Our equity in earnings of unconsolidated affiliates is adjusted for intercompany transactions and the basis differences recognized due to the difference between the cost of the equity investment in Antero Midstream Corporation and the amount of underlying equity in the net assets of Antero Midstream Partners as of the date of deconsolidation.

The Company accounts for distributions received from equity method investees under the "nature of the distribution" approach. Under this approach, distributions received from equity method investees are classified on the basis of the nature of the activity or activities of the investee that generated the distribution as either a return on investment (classified as cash inflows from operating activities) or a return of investment (classified as cash inflows from investing activities).

(c) Use of Estimates

The preparation of the unaudited condensed consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions which affect revenues, expenses, assets, and liabilities, as well as the disclosure of contingent assets and liabilities. Changes in facts and circumstances or discovery of new information may result in revised estimates, and actual results could differ from those estimates.

The Company's unaudited condensed consolidated financial statements are based on a number of significant estimates including estimates of natural gas, NGLs, and oil reserve quantities, which are the basis for the calculation of depletion and impairment of oil and gas properties. Reserve estimates, by their nature, are inherently imprecise. Other items in the Company's unaudited condensed consolidated financial statements that involve the use of significant estimates include derivative assets and liabilities, accrued revenue, deferred and current income taxes, equity-based compensation, asset retirement obligations, depreciation, amortization, and commitments and contingencies.

(d) Risks and Uncertainties

The markets for natural gas, NGLs, and oil have, and continue to, experience significant price fluctuations. Price fluctuations can result from variations in weather, levels of production, availability of transportation capacity to other regions of the country, the level of imports to and exports from the United States, and various other factors. Increases or decreases in the prices the Company receives for its production could have a significant impact on the Company's future results of operations and reserve quantities.

(e) Cash and Cash Equivalents

The Company considers all liquid investments purchased with an initial maturity of three months or less to be cash equivalents. The carrying value of cash and cash equivalents approximates fair value due to the short-term nature of these instruments. From time to time, the Company may be in the position of a "book overdraft" in which outstanding checks exceed cash and cash equivalents. The Company classifies book overdrafts in accounts payable and revenue distributions payable within its unaudited condensed consolidated balance sheets, and classifies the change in accounts payable and revenue distributions payable associated with book overdrafts as an operating activity within its unaudited condensed consolidated statements of cash flows. As of June 30, 2019, the book overdraft included within accounts payable and revenue distributions payable were $6 million and $32 million, respectively. As of December 31, 2018, the book overdraft included within accounts payable and revenue distributions payable were $10 million and $28 million, respectively.

(f) Oil and Gas Properties

The Company accounts for its natural gas, NGLs, and oil exploration and development activities under the successful efforts method of accounting. Under the successful efforts method, the costs incurred to acquire, drill, and complete productive wells, development wells, and undeveloped leases are capitalized. Oil and gas lease acquisition costs are also capitalized. Exploration costs, including personnel and other internal costs, geological and geophysical expenses, delay rentals for gas and oil leases, and costs associated with unsuccessful lease acquisitions are charged to expense as incurred. Exploratory drilling costs are initially capitalized, but charged to expense if the Company determines that the well does not contain reserves in commercially viable quantities. The Company reviews exploration costs related to wells-in-progress at the end of each quarter and makes a determination, based on known results of drilling at that time, whether the costs should continue to be capitalized pending further well testing and results, or charged to expense. The Company incurred no such charges to expense during the six months ended June 30, 2018 and 2019. During the six months ended June 30, 2019, we recorded an impairment charge of $26 million for design and initial costs related to pads that are no longer planned to be placed into service. The sale of a partial interest in a proved property is accounted for as a cost recovery, and no gain or loss is recognized as long as this treatment does not significantly affect the units-of-production amortization rate. A gain or loss is recognized for all other sales of producing properties.

Unproved properties are assessed for impairment on a property-by-property basis, and any impairment in value is charged to expense. Impairment is assessed based on remaining lease terms, commodity price outlooks, and future plans to develop acreage, as well as drilling results, and reservoir performance of wells in the area. Unproved properties and the related costs are transferred to proved properties when reserves are discovered on, or otherwise attributed to, the property. Proceeds from sales of partial interests in unproved properties are accounted for as a recovery of cost without recognition of any gain or loss until the cost has been recovered. Impairment of unproved properties was $185 million and $186 million for the six months ended June 30, 2018 and 2019, respectively.

The Company evaluates the carrying amount of its proved natural gas, NGLs, and oil properties for impairment on a geological reservoir basis whenever events or changes in circumstances indicate that a property's carrying amount may not be recoverable. If the carrying amount exceeds the estimated undiscounted future cash flows, the Company would estimate the fair value of its properties and record an impairment charge for any excess of the carrying amount of the properties over the estimated fair value of the properties. Factors used to estimate fair value may include estimates of proved reserves, estimated future commodity prices, future production estimates, anticipated capital expenditures, and a commensurate discount rate. The Company did not record any impairment expenses associated with its proved properties during the six months ended June 30, 2018 and 2019.

(g) Derivative Financial Instruments

In order to manage its exposure to natural gas, NGLs, and oil price volatility, the Company enters into derivative transactions from time to time, which may include commodity swap agreements, basis swap agreements, collar agreements, and other similar agreements related to the price risk associated with the Company's production. To the extent legal right of offset exists with a counterparty, the Company reports derivative assets and liabilities on a net basis. The Company has exposure to credit risk to the extent that the counterparty is unable to satisfy its settlement obligations. The Company actively monitors the creditworthiness of counterparties and assesses the impact, if any, on its derivative positions.

The Company records derivative instruments on the unaudited condensed consolidated balance sheets as either assets or liabilities measured at fair value and records changes in the fair value of derivatives in current earnings as they occur. Changes in the fair value of commodity derivatives, including gains or losses on settled derivatives, are classified as revenues on the Company's unaudited condensed consolidated statements of operations. The Company's derivatives have not been designated as hedges for accounting purposes.

(h) Asset Retirement Obligations

The Company is obligated to dispose of certain long-lived assets upon their abandonment. The Company's asset retirement obligations ("AROs") relate primarily to its obligation to plug and abandon oil and gas wells at the end of their lives. AROs are recorded at estimated fair value, measured by reference to the expected future cash outflows required to satisfy the retirement obligations, which is then discounted at the Company's credit-adjusted, risk-free interest rate. Revisions to estimated AROs often result from changes in retirement cost estimates or changes in the estimated timing of abandonment. The fair value of the liability is added to the carrying amount of the associated asset, and this additional carrying amount is depreciated over the life of the asset. The liability is accreted at the end of each period through charges to operating expense.

(i) Industry Segments and Geographic Information

Management has evaluated how the Company is organized and managed and has identified the following segments: (1)the exploration, development, and production of natural gas, NGLs, and oil; (2) marketing and utilization of excess firm transportation capacity and (3) our equity method investment in Antero Midstream Corporation. Through March 12, 2019, the results of Antero

Midstream Partners were included in the consolidated financial statements of Antero. Effective March 13, 2019, the results of Antero Midstream Partners are no longer consolidated in Antero's results; however, the Company's segment disclosures include our equity method investment in Antero Midstream Corporation due to its significance to the Company's operations. See Note 3 to the unaudited condensed consolidated financial statements for further discussion on the Transactions and Note 17 to the unaudited condensed consolidated financial statements for disclosures on the Company's reportable segments.

All of the Company's assets are located in the United States and substantially all of its production revenues are attributable to customers located in the United States; however, some of the Company's production revenues are attributable to customers who resell the Company's production to third parties located in foreign countries. Our revenues received from these customers are denominated in U.S. dollars and are based on pricing in foreign markets.

(j) Earnings (loss) Per Common Share

Earnings (loss) per common share—basic for each period is computed by dividing net income (loss) attributable to Antero by the basic weighted average number of shares outstanding during the period. Earnings (loss) per common share—assuming dilution for each period is computed after giving consideration to the potential dilution from outstanding equity awards, calculated using the treasury stock method. The Company includes performance share unit awards in the calculation of diluted weighted average shares outstanding based on the number of common shares that would be issuable if the end of the period was also the end of the performance period required for the vesting of the awards. During periods in which the Company incurs a net loss, diluted weighted average shares outstanding are equal to basic weighted average shares outstanding because the effect of all equity awards is anti-dilutive.

The following is a reconciliation of the Company's basic weighted average shares outstanding to diluted weighted average shares outstanding during the periods presented (in thousands):

	Three months ended June 30,		Six months ended June 30,	
	2018	2019	2018	2019
Basic weighted average number of shares outstanding	316,992	309,062	316,733	308,879
Add: Dilutive effect of restricted stock units	—	33	—	48
Add: Dilutive effect of outstanding stock options	—	—	—	—
Add: Dilutive effect of performance stock units	—	42	—	155
Diluted weighted average number of shares outstanding	316,992	309,137	316,733	309,082
Weighted average number of outstanding equity awards excluded from calculation of diluted earnings per common share [(1)]:				
Restricted stock units	2,899	2,284	3,088	1,877
Outstanding stock options	639	538	646	554
Performance stock units	1,860	2,592	1,556	1,996

(1) The potential dilutive effects of these awards were excluded from the computation of earnings (loss) per common share—assuming dilution because the inclusion of these awards would have been anti-dilutive.

(k) Treasury Share Retirement

The Company retires treasury shares acquired through share repurchases and returns those shares to the status of authorized but unissued. When treasury shares are retired, the Company's policy is to allocate the excess of the repurchase price over the par value of shares acquired first, to additional paid-in capital, and then to accumulated earnings. The portion allocable to additional paid-in capital is determined by applying a percentage, determined by dividing the number of shares to be retired by the number of shares issued, to the balance of additional paid-in capital as of retirement.

(l) Adoption of New Accounting Principle

The Company adopted ASU No. 2016-02, *Leases*, ("Topic 842") as of January 1, 2019, using the effective date method. The effective date method allows the Company to report its leases under Topic 842 prospectively as of the date of adoption, and no retrospective adjustments were required for prior periods.

The Company elected the available practical expedients and updated internal controls and implemented new lease software to enable the preparation of financial information on adoption.

The standard had a material impact on our consolidated balance sheets, but did not have a material impact on our consolidated statements of operations. The most significant impact was the recognition of operating leases right-of-use assets and short-term and long-term lease liabilities for operating leases, while our accounting for finance leases remained substantially unchanged. See Note 12 to the unaudited condensed consolidated financial statements for a description of the Company's leases.

(3) Deconsolidation of Antero Midstream Partners LP

In 2014, the Company formed Antero Midstream Partners to own, operate, and develop midstream energy assets that service Antero's production. Antero Midstream Partners' assets consist of gathering systems and compression facilities, water handling and treatment facilities, and interests in processing and fractionation plants, through which it provides services to Antero under long-term, fixed-fee contracts.

On March 12, 2019, Antero Midstream GP LP and Antero MidstreamPartners completed (the "Closing") the transactions contemplated by the previously announced Simplification Agreement (the "Simplification Agreement"), dated as of October 9, 2018, by and among Antero Midstream GP LP, Antero Midstream Partners and certain of their affiliates, pursuant to which (i) Antero Midstream GP LP was converted from a limited partnership to a corporation under the laws of the State of Delaware and changed its name to Antero Midstream Corporation, and (ii) an indirect, wholly owned subsidiary of Antero Midstream Corporation was merged with and into Antero Midstream Partners, with Antero Midstream Partners surviving the merger as an indirect, wholly owned subsidiary of Antero Midstream Corporation (together, along with the other transactions contemplated by the Simplification Agreement, the "Transactions"). In connection with the Closing, Antero received $297 million in cash and 158.4 million shares of Antero Midstream Corporation's common stock, par value $0.01 per share, in consideration for 98,870,335 common units representing limited partnership interests in Antero Midstream Partners.

Prior to the Closing, the Company's ownership of Antero Midstream Partners common units represented approximately a53% limited partner interest in Antero Midstream Partners, and the Company consolidated Antero Midstream Partners' financial position and results of operations into its consolidated financial statements. The Transactions resulted in the exchange of limited partner interests in Antero Midstream Partners owned by Antero for common stock of Antero Midstream Corporation representing a 31% interest. As a result, the Company no longer holds a controlling interest in Antero Midstream Partners and the Company now has an interest in Antero Midstream Corporation that provides significant influence, but not control, over Antero Midstream Corporation. Thus, effective March 13, 2019, the Company no longer consolidates Antero Midstream Partners in our consolidated financial statements and accounts for its interest in Antero Midstream Corporation using the equity method of accounting. In addition, the Company recorded a gain on deconsolidation of $1.4 billion calculated as the sum of (i) the cash proceeds received, (ii) the fair value of the Antero Midstream Corporation common stock received at the Closing, and (iii) the elimination of the noncontrolling interest, less the carrying amount of the investment in Antero Midstream Partners. The fair value of Antero's retained equity method investment on March 13, 2019 in Antero Midstream Corporation was $2.0 billion based on the market price of the shares received on March 12, 2019. See Note 5 to the unaudited condensed consolidated financial statements for further discussion on equity method investments.

Antero Midstream Partners' results of operations are no longer consolidated in the Company's consolidated statement of operations and comprehensive income (loss) beginning March 13, 2019. Because Antero Midstream Partners does not meet the requirements of a discontinued operation, Antero Midstream Partners' results of operations continue to be included in the Company's consolidated statement of operations and comprehensive income (loss) through March 12, 2019.

Summarized Financial Information of Antero Midstream Partners

The following table presents a summary of assets and liabilities of Antero Midstream Partners as of March 12, 2019, the date of deconsolidation.

(in thousands)		March 12, 2019
Current assets	$	763,109
Property and equipment, net		3,003,693
Other noncurrent assets		501,208
Total assets	$	4,268,010
Current liabilities	$	123,473
Long-term debt		2,359,084
Other noncurrent liabilities		123,523
Total liabilities	$	2,606,080
Net assets	$	1,661,930

(4) Revenue

(a) Revenue from Contracts with Customers

Product revenue

Our revenues are primarily derived from the sale of natural gas and oil production, as well as the sale of NGLs that are extracted from our natural gas. Sales of natural gas, NGLs, and oil are recognized when we satisfy a performance obligation by transferring control of a product to a customer. Payment is generally received in the month following the sale.

Under our natural gas sales contracts, we deliver natural gas to the purchaser at an agreed upon delivery point. Natural gas is transported from our wellheads to delivery points specified under sales contracts. To deliver natural gas to these points, Antero Midstream Partners or third parties gather, compress, process and transport our natural gas. We maintain control of the natural gas during gathering, compression, processing, and transportation. Our sales contracts provide that we receive a specific index price adjusted for pricing differentials. We transfer control of the product at the delivery point and recognize revenue based on the contract price. The costs to gather, compress, process and transport the natural gas are recorded as Gathering, compression, processing and transportation expenses.

NGLs, which are extracted from natural gas through processing, are either sold by us directly or by the processor under processing contracts. For NGLs sold by us directly, our sales contracts provide that we deliver the product to the purchaser at an agreed upon delivery point and that we receive a specific index price adjusted for pricing differentials. We transfer control of the product to the purchaser at the delivery point and recognize revenue based on the contract price. The costs to process and transport NGLs are recorded as Gathering, compression, processing, and transportation expenses. For NGLs sold by the processor, our processing contracts provide that we transfer control to the processor at the tailgate of the processing plant and we recognize revenue based on the price received from the processor.

Under our oil sales contracts, we generally sell oil to the purchaser and collect a contractually agreed upon index price, net of pricing differentials. We recognize revenue based on the contract price when we transfer control of the product to the purchaser.

Gathering, compression, water handling and treatment revenue

Substantially all revenues from the gathering, compression, water handling and treatment operations were derived from transactions for services Antero Midstream Partners provided to our exploration and production operations through March 12, 2019 and were eliminated in consolidation. Effective March 13, 2019, Antero Midstream Partners is no longer consolidated in Antero's results. See Note 3 to the unaudited condensed consolidated financial statements for further discussion on the Transactions and Note 17 to the unaudited condensed consolidated financial statements for disclosures on the Company's reportable segments. The portion of such fees shown in our consolidated financial statements prior to March 13, 2019 represent amounts charged to interest owners in

Antero-operated wells, as well as fees charged to other third parties for water handling and treatment services provided by Antero Midstream Partners or usage of Antero Midstream Partners' gathering and compression systems. For gathering and compression revenue, Antero Midstream Partners satisfies its performance obligations and recognizes revenue when low pressure volumes are delivered to a compressor station, high pressure volumes are delivered to a processing plant or transmission pipeline, and compression volumes are delivered to a high pressure line. Revenue is recognized based on the per Mcf gathering or compression fee charged by Antero Midstream Partners in accordance with the gathering and compression agreement. For water handling and treatment revenue, Antero Midstream Partners satisfies its performance obligations and recognizes revenue when the fresh water volumes have been delivered to the hydration unit of a specified well pad and the wastewater volumes have been delivered to its wastewater treatment facility. For services contracted through third-party providers, Antero Midstream Partners' performance obligation is satisfied when the service performed by the third-party provider has been completed. Revenue is recognized based on the per barrel fresh water delivery or wastewater treatment fee charged by Antero Midstream Partners in accordance with the water services agreement.

Marketing revenue

Marketing revenues are derived from activities to purchase and sell third-party natural gas and NGLs and to market excess firm transportation capacity to third parties. We retain control of the purchased natural gas and NGLs prior to delivery to the purchaser. We have concluded that we are the principal in these arrangements and therefore we recognize revenue on a gross basis, with costs to purchase and transport natural gas and NGLs presented as marketing expenses. Contracts to sell third-party gas and NGLs are generally subject to similar terms as contracts to sell our produced natural gas and NGLs. We satisfy performance obligations to the purchaser by transferring control of the product at the delivery point and recognize revenue based on the price received from the purchaser.

(b) Disaggregation of Revenue

In the following table, revenue is disaggregated by type (in thousands). The table also identifies the reportable segment to which the disaggregated revenues relate. For more information on reportable segments, see Note 17— Segment Information.

	Three months ended June 30,		Six months ended June 30,		Segment to which revenues relate
	2018	2019	2018	2019	
Revenues from contracts with customers:					
Natural gas sales	$ 473,540	553,372	$ 971,203	1,210,638	Exploration and production
Natural gas liquids sales (ethane)	32,687	30,374	59,762	65,890	Exploration and production
Natural gas liquids sales (C3+ NGLs)	223,298	273,589	430,393	551,758	Exploration and production
Oil sales	38,873	49,062	69,146	97,114	Exploration and production
Gathering and compression (1)	4,263	—	8,408	3,972	Equity method investment in AMC
Water handling and treatment (1)	1,255	—	2,045	507	Equity method investment in AMC
Marketing	160,202	63,080	304,591	154,266	Marketing
Total	934,118	969,477	1,845,548	2,084,145	
Income from derivatives and other sources	55,226	330,187	171,897	252,926	
Total revenue and other	$ 989,344	1,299,664	$ 2,017,445	2,337,071	

(1) Gathering and compression and water handling and treatment revenues were included through March 12, 2019. See Note 3 to the unaudited condensed consolidated financial statements for further discussion on the Transactions.

(c) Transaction Price Allocated to Remaining Performance Obligations

For our product sales that have a contract term greater than one year, we have utilized the practical expedient in ASC 606, which does not require the disclosure of the transaction price allocated to remaining performance obligations if the variable consideration is allocated entirely to a wholly unsatisfied performance obligation. Under our product sales contracts, each unit of product delivered to the customer represents a separate performance obligation; therefore, future volumes are wholly unsatisfied and disclosure of the transaction price allocated to remaining performance obligations is not required. For our product sales that have a contract term of one year or less, we have utilized the practical expedient in ASC 606, which does not require the disclosure of the transaction price allocated to remaining performance obligations if the performance obligation is part of a contract that has an original expected duration of one year or less.

(d) Contract Balances

Under our sales contracts, we invoice customers after our performance obligations have been satisfied, at which point payment is unconditional. Accordingly, our contracts do not give rise to contract assets or liabilities under ASC 606. At December 31, 2018 and June 30, 2019, our receivables from contracts with customers were $475 million and $309 million, respectively.

(5) Equity Method Investments

At June 30, 2019, Antero owned approximately 31.3% of Antero Midstream Corporation's common stock, which is reflected in Antero's consolidated financial statements using the equity method of accounting. See Note 3 to the unaudited condensed consolidated financial statements for further discussion on the Transactions.

Prior to March 13, 2019, our consolidated results included two equity method investments held by Antero Midstream Partners: a 15% equity interest in Stonewall Gas Gathering LLC ("Stonewall"), which operates a regional gathering pipeline on which Antero is an anchor shipper, and a 50% interest in the joint venture entered into on February 6, 2017 between Antero Midstream Partners and MarkWest Energy Partners, L.P. ("MarkWest"), a wholly owned subsidiary of MPLX, LP, to develop processing and fractionation assets in Appalachia (the "Joint Venture"). Effective March 13, 2019, the equity in earnings of these investments are accounted for in the equity in earnings of Antero Midstream Corporation.

The following table is a reconciliation of investments in unconsolidated affiliates for the six months ended June 30, 2019 (in thousands):

	Stonewall (1)	MarkWest Joint Venture	Antero Midstream Corporation (2)	Total
Balance at December 31, 2018	$ 68,103	365,539	—	433,642
Investments (3)	—	25,020	—	25,020
Equity in net income of unconsolidated affiliates	1,894	10,370	15,402	27,666
Distributions/dividends from unconsolidated affiliates	(3,000)	(9,605)	(47,922)	(60,527)
Elimination of intercompany profit	—	—	11,928	11,928
Effects of deconsolidation (4)	(66,997)	(391,324)	1,987,795	1,529,474
Balance at June 30, 2019	$ —	—	1,967,203	1,967,203

(1) Distributions are net of operating and capital requirements retained by Stonewall.

(2) As adjusted for the amortization of the difference between the cost of the equity investment in Antero Midstream Corporation and the amount of underlying equity in the net assets of Antero Midstream Partners as of the date of deconsolidation.

(3) Investments in the Joint Venture during the six months ended June 30, 2019 relate to capital contributions for construction of additional processing facilities.

(4) Effective March 13, 2019, the equity in earnings of Stonewall and the Joint Venture are accounted for in the equity in earnings of Antero Midstream Corporation.

Summarized Financial Information of Antero Midstream Corporation

The following tables present summarized financial information of Antero Midstream Corporation. Summarized financial information is presented from March 13, 2019.

Balance Sheet

(in thousands)		June 30, 2019
Current assets	$	115,367
Noncurrent assets		6,653,642
Total assets	$	6,769,009
Current liabilities	$	237,504
Noncurrent liabilities		2,559,146
Stockholders' equity		3,972,359
Total liabilities and equity	$	6,769,009

Statement of Operations

(in thousands)		For the period March 13, 2019 through June 30, 2019
Revenues	$	309,726
Operating expenses		168,056
Income from operations	$	141,670
Net income attributable to the equity method investments	$	92,471

(6) Accrued Liabilities

Accrued liabilities as of December 31, 2018 and June 30, 2019 consisted of the following items (in thousands):

		December 31, 2018	June 30, 2019
Capital expenditures	$	113,237	62,631
Gathering, compression, processing, and transportation expenses		148,032	147,797
Marketing expenses		67,082	47,018
Interest expense, net		43,444	31,599
Other		93,275	69,635
	$	465,070	358,680

(7) Long-Term Debt

Long-term debt was as follows at December 31, 2018 and June 30, 2019 (in thousands):

	December 31, 2018	June 30, 2019
Antero Resources:		
Credit Facility (a)	$ 405,000	175,000
5.375% senior notes due 2021 (b)	1,000,000	1,000,000
5.125% senior notes due 2022 (c)	1,100,000	1,100,000
5.625% senior notes due 2023 (d)	750,000	750,000
5.00% senior notes due 2025 (e)	600,000	600,000
Net unamortized premium	1,241	1,095
Net unamortized debt issuance costs	(26,700)	(23,716)
Antero Midstream Partners:		
Midstream Credit Facility [1]	990,000	—
5.375% senior notes due 2024 [1]	650,000	—
Net unamortized debt issuance costs [1]	(7,853)	—
	$ 5,461,688	3,602,379

(1) At December 31, 2018, Antero Midstream Partners' indebtedness was included in the consolidated financial statements of Antero. At June 30, 2019, following the deconsolidation, Antero Midstream Partners' outstanding indebtedness is no longer reflected in Antero's consolidated financial statements. See Note 3 to the unaudited condensed consolidated financial statements for further discussion on the Transactions.

(a) Senior Secured Revolving Credit Facility

Antero has a senior secured revolving credit facility (the "Credit Facility") with a consortium of bank lenders. Borrowings under the Credit Facility are subject to borrowing base limitations based on the collateral value of Antero's assets and are subject to regular annual redeterminations. At June 30, 2019, the borrowing base under the Credit Facility was $4.5 billion and lender commitments were $2.5 billion. Each of these amounts were reaffirmed in the annual redetermination in April 2019. The next redetermination of the borrowing base is scheduled to occur in April 2020. The maturity date of the Credit Facility is the earlier of (i) October 26, 2022 and (ii) the date that is 91 days prior to the earliest stated redemption date of any series of Antero's senior notes, unless such series of notes is refinanced.

Under the Credit Facility, "Investment Grade Period" is a period that, as long as no event of default has occurred, commences when Antero elects to give notice to the Administrative Agent that Antero has received at least one of (i) a BBB- or better rating from Standard and Poor's and (ii) a Baa3 or better rating from Moody's (an "Investment Grade Rating"). An Investment Grade Period can end at Antero's election.

During any period that is not an Investment Grade Period, the Credit Facility is ratably secured by mortgages on substantially all of Antero's properties, Antero's and Antero Subsidiary Holdings LLC's ownership interests in Antero Midstream Corporation, and guarantees from Antero's restricted subsidiaries, as applicable. During an Investment Grade Period, the liens securing the obligations under the Credit Facility shall be automatically released (subject to the provisions of the Credit Facility). The Credit Facility contains certain covenants, including restrictions on indebtedness and dividends, and requirements with respect to working capital and interest coverage ratios. During any period that is not an Investment Grade Period, interest is payable at a variable rate based on LIBOR or the prime rate determined by Antero's election at the time of borrowing, plus an applicable rate based on Antero's borrowing base utilization which ranges from 25 basis points to 225 basis points. During an Investment Grade Period, interest is payable at a variable rate based on LIBOR or the prime rate determined by Antero's election at the time of borrowing, plus an applicable rate based on Antero's credit rating which ranges from 12.5 basis points to 175 basis points. Antero was in compliance with all of the financial covenants under the Credit Facility as of December 31, 2018 and June 30, 2019.

As of June 30, 2019, Antero had an outstanding balance under the Credit Facility of $175 million, with a weighted average interest rate of 3.69%, and outstanding letters of credit of $701 million. As of December 31, 2018, Antero had an outstanding balance under the Credit Facility of $405 million, with a weighted average interest rate of 3.95%, and outstanding letters of credit of $685 million. Commitment fees on the unused portion of the Credit Facility are due quarterly at rates ranging from (i) 0.300% to 0.375% (during any period that is not an Investment Grade Period) of the unused portion based on utilization and (ii) 0.150% to 0.300% (during an Investment Grade Period) of the unused portion based on Antero's credit rating.

(b) 5.375% Senior Notes Due 2021

On November 5, 2013, Antero issued $1 billion of 5.375% senior notes due November 1, 2021 (the "2021 notes") at par. The 2021 notes are unsecured and effectively subordinated to the Credit Facility to the extent of the value of the collateral securing the Credit Facility. The 2021 notes rank pari passu to Antero's other outstanding senior notes. The 2021 notes are guaranteed on a full and unconditional and joint and several senior unsecured basis by Antero's wholly owned subsidiaries and certain of its future restricted subsidiaries. Interest on the 2021 notes is payable on May 1 and November 1 of each year. Antero may redeem all or part of the 2021 notes at any time at redemption prices ranging from 101.344% currently to 100.00% on or after November 1, 2019. If Antero undergoes a change of control, the holders of the 2021 notes will have the right to require Antero to repurchase all or a portion of the notes at a price equal to 101% of the principal amount of the 2021 notes, plus accrued and unpaid interest.

(c) 5.125% Senior Notes Due 2022

On May 6, 2014, Antero issued $600 million of 5.125% senior notes due December 1, 2022 (the "2022 notes") at par. On September 18, 2014, Antero issued an additional $500 million of the 2022 notes at 100.5% of par. The 2022 notes are unsecured and effectively subordinated to the Credit Facility to the extent of the value of the collateral securing the Credit Facility. The 2022 notes rank pari passu to Antero's other outstanding senior notes. The 2022 notes are guaranteed on a full and unconditional and joint and several senior unsecured basis by Antero's wholly owned subsidiaries and certain of its future restricted subsidiaries. Interest on the 2022 notes is payable on June 1 and December 1 of each year. Antero may redeem all or part of the 2022 notes at any time at redemption prices ranging from 101.281% currently to 100.00% on or after June 1, 2020. If Antero undergoes a change of control, the holders of the 2022 notes will have the right to require Antero to repurchase all or a portion of the notes at a price equal to 101% of the principal amount of the 2022 notes, plus accrued and unpaid interest.

(d) 5.625% Senior Notes Due 2023

On March 17, 2015, Antero issued $750 million of 5.625% senior notes due June 1, 2023 (the "2023 notes") at par. The 2023 notes are unsecured and effectively subordinated to the Credit Facility to the extent of the value of the collateral securing the Credit Facility. The 2023 notes rank pari passu to Antero's other outstanding senior notes. The 2023 notes are guaranteed on a full and unconditional and joint and several senior unsecured basis by Antero's wholly owned subsidiaries and certain of its future restricted subsidiaries. Interest on the 2023 notes is payable on June 1 and December 1 of each year. Antero may redeem all or part of the 2023 notes at any time at redemption prices ranging from 102.813% to 100.00% on or after June 1, 2021. If Antero undergoes a change of control, the holders of the 2023 notes will have the right to require Antero to repurchase all or a portion of the notes at a price equal to 101% of the principal amount of the 2023 notes, plus accrued and unpaid interest.

(e) 5.00% Senior Notes Due 2025

On December 21, 2016, Antero issued $600 million of 5.00% senior notes due March 1, 2025 (the "2025 notes") at par. The 2025 notes are unsecured and effectively subordinated to the Credit Facility to the extent of the value of the collateral securing the Credit Facility. The 2025 notes rank pari passu to Antero's other outstanding senior notes. The 2025 notes are guaranteed on a full and unconditional and joint and several senior unsecured basis by Antero's wholly owned subsidiaries and certain of its future restricted subsidiaries. Interest on the 2025 notes is payable on March 1 and September 1 of each year. Antero may redeem all or part of the 2025 notes at any time on or after March 1, 2020 at redemption prices ranging from 103.750% on or after March 1, 2020 to 100.00% on or after March 1, 2023. In addition, on or before March 1, 2020, Antero may redeem up to 35% of the aggregate principal amount of the 2025 notes with the net cash proceeds of certain equity offerings, if certain conditions are met, at a redemption price of 105.00% of the principal amount of the 2025 notes, plus accrued and unpaid interest. At any time prior to March 1, 2020, Antero may also redeem the 2025 notes, in whole or in part, at a price equal to 100% of the principal amount of the 2025 notes plus a "make-whole" premium and accrued and unpaid interest. If Antero undergoes a change of control, the holders of the 2025 notes will have the right to require Antero to repurchase all or a portion of the notes at a price equal to 101% of the principal amount of the 2025 notes, plus accrued and unpaid interest.

(f) Treasury Management Facility

Antero has a stand-alone revolving note with a lender that is also part of the Credit Facility lending consortium that provides for up to $25 million of cash management obligations in order to facilitate Antero's daily treasury management. Borrowings under the revolving note are secured by the collateral for the Credit Facility. Borrowings under the revolving note bear interest at the lender's prime rate plus 1.0%. The note matures on June 1, 2020. At December 31, 2018, there was $5.4 million in outstanding borrowings under the revolving note included in "Other current liabilities" on the Company's Consolidated Balance Sheet. At June 30, 2019, there were no outstanding borrowings under the revolving note.

(8) Asset Retirement Obligations

The following is a reconciliation of the Company's asset retirement obligations for the six months ended June 30, 2019 (in thousands):

Asset retirement obligations—December 31, 2018	$	58,979
Obligations settled		(153)
Obligations incurred		807
Revisions to prior estimates		—
Accretion expense		1,894
Effect of deconsolidation of Antero Midstream Partners LP[1]		(7,518)
Asset retirement obligations—June 30, 2019	$	54,009

(1) Effective March 13, 2019, Antero Midstream Partners is no longer consolidated in Antero's results.

Asset retirement obligations are included in other liabilities on the Company's unaudited condensed consolidated balance sheets.

(9) Equity-Based Compensation

Antero is authorized to grant up to 16,906,500 shares of common stock to employees and directors of the Company under the Antero Resources Corporation Long-Term Incentive Plan (the "Plan"). The Plan allows equity-based compensation awards to be granted in a variety of forms, including stock options, stock appreciation rights, restricted stock awards, restricted stock unit awards, dividend equivalent awards, and other types of awards. The terms and conditions of the awards granted are established by the Compensation Committee of Antero's Board of Directors. A total of 5,753,433 shares were available for future grant under the Plan as of June 30, 2019.

Antero Midstream Partners' general partner was authorized to grant up to 10,000,000 common units representing limited partner interests in Antero Midstream Partners under the Antero Midstream Partners LP Long-Term Incentive Plan (the "AMP Plan") to non-employee directors of its general partner and certain officers, employees, and consultants of Antero Midstream Partners and its affiliates (which include Antero). As part of the Transactions, each of the outstanding phantom units in the AMP Plan, whether vested or unvested, were assumed by Antero Midstream Corporation and converted into restricted stock units under the Antero Midstream Corporation Long Term Incentive Plan (the "AMC Plan") representing a right to receive 1.8926 shares of Antero Midstream Corporation's Common Stock, par value $0.01 per share ("Antero Midstream Corporation Common Stock"), for each converted phantom unit.

On March 12, 2019, the Board of Antero Midstream Corporation adopted the AMC Plan under which awards may be granted to employees, directors and other service providers of Antero and its affiliates. The AMC Plan provides for the grant of stock options, stock appreciation rights, restricted stock, restricted stock units, dividend equivalents, other stock-based awards, cash awards and substitute awards.

The Company's equity-based compensation expense, by type of award, was as follows for the three and six months ended June 30, 2018 and 2019 (in thousands):

	Three months ended June 30,		Six months ended June 30,	
	2018	2019	2018	2019
Restricted stock unit awards	$ 10,231	2,624	$ 23,675	6,600
Stock options	495	45	976	389
Performance share unit awards	3,490	2,666	6,001	5,628
Antero Midstream Partners phantom unit awards[1]	4,341	949	8,559	2,075
Equity awards issued to directors	514	265	1,016	760
Total expense	$ 19,071	6,549	$ 40,227	15,452

(1) Antero recognized compensation expense for equity awards granted under both the Plan and the AMP Plan because the awards under the AMP Plan are accounted for as if they are distributed by Antero Midstream Partners to Antero. Antero allocates a portion of equity-based compensation expense related to grants prior to the Transactions to Antero Midstream Partners based on its proportionate share of Antero's labor costs. Through March 12, 2019, the total amount of equity-based compensation is included in the consolidated financial statements of Antero; and effective March 13, 2019 (date of deconsolidation), the amount allocated to Antero Midstream Partners is no longer reflected in Antero's consolidated financial statements. See Note 3 to the unaudited condensed consolidated financial statements for further discussion on the Transactions.

Restricted Stock Unit Awards

Restricted stock unit awards vest subject to the satisfaction of service requirements. Expense related to each restricted stock unit award is recognized on a straight-line basis over the requisite service period of the entire award. Forfeitures are accounted for as they occur by reversing the expense previously recognized for awards that were forfeited during the period. The grant date fair values of these awards are determined based on the closing price of the Company's common stock on the date of the grant.

A summary of restricted stock unit award activity for the six months ended June 30, 2019 is as follows:

	Number of shares	Weighted average grant date fair value	Aggregate intrinsic value (in thousands)
Total awarded and unvested—December 31, 2018	1,712,485	$ 24.57	$ 16,080
Granted	1,568,617	$ 8.69	
Vested	(674,312)	$ 28.04	
Forfeited	(190,525)	$ 18.05	
Total awarded and unvested—June 30, 2019	2,416,265	$ 13.81	$ 13,362

Intrinsic values are based on the closing price of the Company's stock on the referenced dates. As of June 30, 2019, there was $29 million of unamortized equity-based compensation expense related to unvested restricted stock units. That expense is expected to be recognized over a weighted average period of approximately 2.7 years.

Stock Options

Stock options granted under the Plan have a maximum contractual life of 10 years. Expense related to stock options is recognized on a straight-line basis over the requisite service period of the entire award. Forfeitures are accounted for as they occur by reversing the expense previously recognized for awards that were forfeited during the period. Stock options were granted with an exercise price equal to or greater than the market price of the Company's common stock on the dates of grant.

A summary of stock option activity for the six months ended June 30, 2019 is as follows:

	Stock options		Weighted average exercise price	Weighted average remaining contractual life		Intrinsic value (in thousands)
Outstanding at December 31, 2018	579,617	$	50.55	5.81	$	—
Granted	—	$	—			
Exercised	—	$	—			
Forfeited	(46,062)	$	50.00			
Expired	—	$	—			
Outstanding at June 30, 2019	533,555	$	50.60	5.29	$	—
Vested or expected to vest as of June 30, 2019	533,555	$	50.60	5.29	$	—
Exercisable at June 30, 2019	533,555	$	50.60	5.29	$	—

Intrinsic values are based on the exercise price of the options and the closing price of the Company's stock on the referenced dates.

A Black Scholes option pricing model is used to determine the grant-date fair value of stock options. Expected volatility was derived from the volatility of the historical stock prices of a peer group of similar publicly traded companies' stock prices as the Company's common stock had traded for a relatively short period of time at the dates the options were granted. The risk free interest rate was determined using the implied yield available for zero coupon U.S. government issues with a remaining term approximating the expected life of the options. A dividend yield of zero was assumed.

As of June 30, 2019, there wasno unamortized equity-based compensation expense because all stock options were fully vested.

Performance Share Unit Awards

Performance Share Unit Awards Based on Stock Price Targets

In 2016, the Company granted performance share unit awards ("PSUs") to certain of its executive officers that are based on stock price targets. The vesting of these PSUs is conditioned on the closing price of the Company's common stock achieving specific price thresholds over 10-day periods, subject to the following vesting restrictions: no PSUs may vest before the first anniversary of the grant date; no more than one-third of the PSUs may vest before the second anniversary of the grant date; and no more than two-thirds of the PSUs may vest before the third anniversary of the grant date. Any PSUs which have not vested by the fifth anniversary of the grant date will expire. Expense related to these PSUs is recognized on a graded basis over three years. Forfeitures are accounted for as they occur by reversing the expense previously recognized for awards that were forfeited during the period.

Performance Share Unit Awards Based on Total Shareholder Return ("TSR")

In 2016 and 2017, the Company granted PSUs to certain of its employees and executive officers that vest based on the TSR of the Company's common stock relative to the TSR of a peer group of companies over a three-year performance period. The number of shares of common stock which may ultimately be earned ranges from zero to 200% of the PSUs granted. Expense related to these PSUs is recognized on a straight-line basis over three years. Forfeitures are accounted for as they occur by reversing the expense previously recognized for awards that were forfeited during the period.

In 2019, the Company granted PSUs to certain of its employees and executive officers that vest based on the Company's absolute TSR, with target payout achieved if the price per share of the Company's common stock reaches 125% of the beginning price (as defined in the award agreement) at the end of athree-year performance period. The number of shares of common stock which may ultimately be earned ranges from zero to 200% of the PSUs granted. Expense related to these PSUs is recognized on a straight-line basis over three years. Forfeitures are accounted for as they occur by reversing the expense previously recognized for awards that were forfeited during the period.

Performance Share Unit Awards Based on TSR and Return on Capital Employed ("ROCE")

In 2018, the Company granted PSUs to certain of its employees and executive officers, a portion of which vest based on the Company's absolute TSR, with target payout achieved if the price per share of the Company's common stock reaches 125% of the beginning price (as defined in the award agreement) at the end of a three-year performance period ("TSR PSUs"). The number of awards actually earned with respect to the TSR PSUs will be subject to further adjustment based on the TSR of the Company's common stock relative to the TSR of a peer group of companies over the same period. The number of shares of common stock that may ultimately be earned with respect to the TSR PSUs ranges from zero to 200% of the target number of TSR PSUs originally granted. Expense related to the TSR PSUs is recognized on a straight-line basis over three years. Forfeitures are accounted for as they occur by reversing the expense previously recognized for awards that were forfeited during the period.

The other portion of the PSUs granted in 2018 vest based on the Company's actual ROCE (as defined in the award agreement) over athree-year period as compared to a targeted ROCE ("ROCE PSUs"). The number of shares of common stock that may ultimately be earned with respect to the ROCE PSUs ranges from zero to 200% of the target number of ROCE PSUs originally granted. Expense related to the ROCE PSUs is recognized based on the number of shares of common stock that are expected to be issued at the end of the measurement period, and is reversed if the likelihood of achieving the performance condition decreases.

Summary Information for Performance Share Unit Awards

A summary of PSU activity for the six months ended June 30, 2019 is as follows:

	Number of units	Weighted average grant date fair value
Total awarded and unvested—December 31, 2018	1,767,299	$ 26.36
Granted	1,416,378	$ 9.26
Vested	(31,944)	$ 27.38
Forfeited	(342,161)	$ 32.72
Total awarded and unvested—June 30, 2019	2,809,572	$ 16.95

The grant-date fair values of market-based PSUs were determined using Monte Carlo simulations, which use a probabilistic approach for estimating the fair values of the awards. Expected volatilities were derived from the volatility of the historical stock prices of a peer group of similar publicly-traded companies. The risk-free interest rate was determined using the yield available for zero-coupon U.S. government issues with remaining terms corresponding to the service periods of the PSUs. A dividend yield of zero was assumed. The grant-date fair value for the ROCE-based PSUs is based on the closing price of the Company's common stock on the date of the grant, assuming the achievement of the performance condition.

The following table presents information regarding the weighted average fair values for market-based PSUs granted during the six months ended June 30, 2018 and 2019, and the assumptions used to determine the fair values:

	Six months ended June 30, 2018	Six months ended June 30, 2019
Dividend yield	— %	— %
Volatility	41 %	36 %
Risk-free interest rate	2.49 %	2.35 %
Weighted average fair value of awards granted	$ 24.85	$ 9.26

As of June 30, 2019, there was $26 million of unamortized equity-based compensation expense related to unvested PSUs. That expense is expected to be recognized over a weighted average period of approximately 2.1 years.

Antero Midstream Partners Phantom Unit Awards and Antero Midstream Corporation Restricted Stock Unit Awards

Phantom units granted by Antero Midstream Partners vested subject to the satisfaction of service requirements, upon the completion of which common units in Antero Midstream Partners were delivered to the holder of the phantom units. Phantom units also contained distribution equivalent rights which entitled the holder of vested common units to receive a "catch up" payment equal to common unit distributions paid by Antero Midstream Partners during the vesting period of the phantom unit award. These phantom units were treated, for accounting purposes, as if Antero Midstream Partners distributed the units to Antero. Antero recognized compensation expense as the units were granted to its employees, and a portion of the expense was allocated to Antero Midstream Partners. Expense related to each phantom unit award was recognized on a straight-line basis over the requisite service period of the entire award. Forfeitures were accounted for as they occurred by reversing the expense previously recognized for awards that were forfeited during the period. The grant date fair values of these awards was determined based on the closing price of Antero Midstream Partners' common units on the date of grant.

In connection with the closing of the Transactions, the Board of Antero Midstream Corporation adopted the AMC Plan. In accordance with the terms of the Transactions, each of the outstanding units in the AMP Plan, whether vested or unvested, was assumed by Antero Midstream Corporation and converted into restricted stock units under the AMC Plan at 1.8926 shares of Antero Midstream Corporation Common Stock LTIP for each converted phantom unit.

A summary of phantom unit awards activity for the six months ended June 30, 2019 is as follows:

	Number of units	Weighted average grant date fair value	Aggregate intrinsic value (in thousands)
Total awarded and unvested—December 31, 2018	583,000	$ 27.63	$ 12,470
Granted	5,972	$ 23.44	
Vested	(3,853)	$ 32.44	
Forfeited	(20,338)	$ 26.73	
AMP Plan Units awarded and unvested—March 12, 2019	564,781	$ 27.59	$ 13,476
Effect of conversion [1]	504,119	$ 14.58	
Vested	(317,651)	$ 14.06	
Forfeited	(18,906)	$ 13.86	
Total awarded and unvested—June 30, 2019	732,343	$ 14.82	$ 8,393

(1) Effective March 12, 2019, all outstanding units in the AMP Plan, whether vested or unvested, were assumed by Antero Midstream Corporation and converted into restricted stock units under the AMC Plan.

Intrinsic values are based on the closing price of Antero Midstream Corporation's common units on the referenced dates. As of June 30, 2019, there was $9 million of unamortized equity-based compensation expense related to unvested phantom unit awards. That expense is expected to be recognized over a weighted average period of approximately 2.1 years.

(10) Financial Instruments

The carrying values of accounts receivable and accounts payable at December 31, 2018 and June 30, 2019 approximated market values because of their short-term nature. The carrying values of the amounts outstanding under the Credit Facility and Antero Midstream Partners' credit facility at December 31, 2018 and the Credit Facility at June 30, 2019 approximated fair value because the variable interest rates are reflective of current market conditions.

Based on Level 2 market data inputs, the fair value of senior notes was approximately $3.9 billion and $3.3 billion at December 31, 2018 and June 30, 2019, respectively.

See Note 11 to the unaudited condensed consolidated financial statements for information regarding the fair value of derivative financial instruments.

(11) Derivative Instruments

(a) Commodity Derivative Positions

The Company periodically enters into natural gas, NGLs, and oil derivative contracts with counterparties to hedge the price risk associated with its production. These derivatives are not entered into for trading purposes. To the extent that changes occur in the market prices of natural gas, NGLs, and oil, the Company is exposed to market risk on these open contracts. This market risk exposure is generally offset by the change in market prices of natural gas, NGLs, and oil recognized upon the ultimate sale of the Company's production.

The Company was party to various fixed price commodity swap contracts that settled during the six months ended June30, 2018 and 2019. The Company enters into these swap contracts when management believes that favorable future sales prices for the Company's production can be secured. Under these swap agreements, when actual commodity prices upon settlement exceed the fixed price provided by the swap contracts, the Company pays the difference to the counterparty. When actual commodity prices upon settlement are less than the contractually provided fixed price, the Company receives the difference from the counterparty. In addition, the Company has entered into basis swap contracts in order to hedge the difference between the New York Mercantile Exchange ("NYMEX") index price and a local index price.

The Company also entered into NGL contracts, which establish a contractual price for the settlement month as a fixed percentage of the West Texas Intermediate Crude Oil index ("WTI") price for the settlement month. When the percentage of the contractual price is above the contracted percentage, the Company pays the difference to the counterparty. When it is below the contracted percentage, the Company receives the difference from the counterparty.

In addition, the Company has entered into natural gas collar contracts, which establish ceiling and floor prices for the sale of notional volumes of natural gas as specified in the collar contracts. Under these contracts, the Company pays the difference between the ceiling price and the published index price in the event the published index price is above the ceiling price. When the published index price is below the floor price, the Company receives the difference between the floor price and the published index price. No amounts are paid or received if the index price is between the floor and the ceiling prices. The index prices in our collars are consistent with the index prices used to sell our production.

The Company's derivative contracts have not been designated as hedges for accounting purposes; therefore, all gains and losses are recognized in the Company's statements of operations.

ANTERO RESOURCES CORPORATION

Notes to the Unaudited Condensed Consolidated Financial Statements

December 31, 2018 and June 30, 2019

As of June 30, 2019, the Company's fixed price natural gas and NGL swap positions from July 1, 2019 through December 31, 2023 were as follows (abbreviations in the table refer to the index to which the swap position is tied, as follows: NYMEX=Henry Hub; NYMEX-WTI=West Texas Intermediate; Argus Butane ARA=European Butane CIF ARA Argus; Argus Butane FEI=Argus Butane Far East Index; Argus Propane ARA=European Propane CIF ARA Argus; Argus Propane FEI=Argus Propane Far East Index):

	Natural gas MMBtu/day	Oil Bbls/day	Natural Gas Liquids MT/day	Weighted average index price
Three months ending September 30, 2019:				
NYMEX ($/MMBtu)	755,000	—	—	$ 3.32
NYMEX-WTI($/Bbl)	—	5,000	—	61.83
Argus Butane ARA ($/MT)	—	—	242	330.25
Argus Butane FEI ($/MT)	—	—	24	370.00
Argus Propane ARA ($/MT)	—	—	484	328.17
Argus Propane FEI ($/MT)	—	—	274	383.41
Total	755,000	5,000	1,024	
Three months ending December 31, 2019:				
NYMEX ($/MMBtu)	755,000	—		$ 3.45
NYMEX-WTI($/Bbl)	—	5,000		61.83
Total	755,000	5,000		
Year ending December 31, 2020:				
NYMEX ($/MMBtu)	2,227,500	—		$ 2.87
NYMEX-WTI($/Bbl)	—	5,000		59.03
Total	2,227,500	5,000		
Year ending December 31, 2021:				
NYMEX ($/MMBtu)	1,010,000			$ 2.88
Year ending December 31, 2022:				
NYMEX ($/MMBtu)	850,000			$ 3.00
Year ending December 31, 2023:				
NYMEX ($/MMBtu)	90,000			$ 2.91

As of June 30, 2019, the Company's natural gas basis swap positions, which settle on the pricing index to basis differential of TCO to the NYMEX Henry Hub natural gas price were as follows:

	Natural gas MMBtu/day	Hedged differential
Year ending December 31, 2020:	60,000	$ 0.353
Year ending December 31, 2021:	40,000	$ 0.414
Year ending December 31, 2022:	60,000	$ 0.515
Year ending December 31, 2023:	50,000	$ 0.525
Year ending December 31, 2024:	50,000	$ 0.530

As of June 30, 2019, the Company had NGL contracts totaling 500 Bbls/day of propane for July 1, 2019 through March 31, 2020 that fix the Mont Belvieu Propane index price at 50% of WTI.

As of June 30, 2019, the Company's fixed price natural gas collar positions from July 1, 2019 through December 31, 2019 were as follows (abbreviations in the table refer to the index to which the collar position is tied, as follows (NYMEX=Henry Hub):

	Natural gas MMBtu/day	Weighted average index price	
		Ceiling price	Floor price
Three months ending September 30, 2019:			
NYMEX ($/MMBtu)	1,575,000	$ 3.30	$ 2.50
Three months ending December 31, 2019:			
NYMEX ($/MMBtu)	1,575,000	$ 3.52	$ 2.50

An initial premium of $13 million was paid at the inception of natural gas collar contracts with one counterparty, and is recorded as a derivative asset measured at fair value. As of June 30, 2019, the unamortized portion of the premium was $9 million.

(b) Marketing Derivatives

In 2017, due to delay of the in-service date for a pipeline on which the Company is an anchor shipper, the Company realized it would not be able to fulfill its delivery obligations under a 2018 natural gas sales contract. In order to acquire gas to fulfill its delivery obligations, the Company entered into several natural gas purchase agreements with index-based pricing to purchase gas for resale under this sales contract. Subsequently, the Company and the counterparty to the sales contract came to an agreement that the Company's delivery obligations under the contract would not begin until the earlier of (1) the in-service date of the pipeline and (2) January 1, 2019. Consequently, in December 2017, the Company entered into natural gas sales agreements with index-based pricing to resell the purchased gas for delivery during the period from February to October 2018. The natural gas that it had purchased for January was sold on the spot market during January.

The Company determined that these gas purchase and sales agreements should be accounted for as derivatives and measured at fair value at the end of each period. For the three and six months ended June 30, 2018, the Company recognized a fair value loss of less than $1 million and a gain of $94 million, respectively. There were no marketing derivative fair value gains or losses during the three or six months ended June 30, 2019.

(c) Summary

The following table presents a summary of the fair values of the Company's derivative instruments and where such values are recorded in the consolidated balance sheets as of December 31, 2018 and June 30, 2019. None of the Company's derivative instruments are designated as hedges for accounting purposes.

	December 31, 2018		June 30, 2019	
	Balance sheet location	Fair value (In thousands)	Balance sheet location	Fair value (In thousands)
Asset derivatives not designated as hedges for accounting purposes:				
Commodity derivatives - current	Derivative instruments	$ 245,263	Derivative instruments	$ 346,894
Commodity derivatives - noncurrent	Derivative instruments	362,169	Derivative instruments	369,548
Total asset derivatives		607,432		716,442
Liability derivatives not designated as hedges for accounting purposes:				
Commodity derivatives - current	Derivative instruments	532	Derivative instruments	274
Commodity derivatives - noncurrent	Derivative instruments	—	Derivative instruments	—
Total liability derivatives		532		274
Net derivatives		$ 606,900		$ 716,168

The following table presents the gross values of recognized derivative assets and liabilities, the amounts offset under master netting arrangements with counterparties, and the resulting net amounts presented in the consolidated balance sheets as of the dates presented, all at fair value (in thousands):

	December 31, 2018			June 30, 2019		
	Gross amounts on balance sheet	Gross amounts offset on balance sheet	Net amounts of assets (liabilities) on balance sheet	Gross amounts on balance sheet	Gross amounts offset on balance sheet	Net amounts of assets (liabilities) on balance sheet
Commodity derivative assets	$ 658,830	(51,398)	607,432	$ 729,664	(13,222)	716,442
Commodity derivative liabilities	$ (51,930)	51,398	(532)	$ (13,496)	13,222	(274)

The following is a summary of derivative fair value gains and losses and where such values are recorded in the unaudited condensed consolidated statements of operations (in thousands):

	Statement of operations location	Three months ended June 30,		Six months ended June 30,	
		2018	2019	2018	2019
Commodity derivative fair value gains	Revenue	$ 55,336	328,427	77,773	251,059
Marketing derivative fair value gains (losses)	Revenue	$ (110)	—	94,124	—

The fair value of derivative instruments was determined using Level 2 inputs.

(12) Leases

On February 25, 2016, the FASB issued Accounting Standard Update ("ASU") No. 2016-02, *Leases*, which requires lessees to record lease liabilities and right-of-use assets as of the date of adoption and was incorporated into GAAP as Accounting Standards Codification ("ASC") Topic 842. The new lease standard does not substantially change accounting by lessors. The Company adopted the new standard effective January 1, 2019. The Company is a lessee to both operating and finance lease arrangements. The standard resulted in an increased in assets and liabilities related to our operating leases.

The Company leases certain office space, processing plants, drilling rigs and completion services, gas gathering lines, compressor stations, and other office and field equipment. Leases with an initial term of 12 months or less are considered short-term and are not recorded on the balance sheet. Instead, the short-term leases are recognized in expense on a straight-line basis over the lease term.

Most leases include one or more options to renew, with renewal terms that can extend the lease from one to 20 years or more. The exercise of the lease renewal options are at the Company's sole discretion. The depreciable lives of the leased assets are limited by the expected lease term, unless there is a transfer of title or purchase option reasonably certain of exercise.

Certain of the Company's lease agreements include minimum payments based on a percentage of produced volumes over contractual levels and others include rental payments adjusted periodically for inflation.

The Company has elected the effective date method for adoption of the new leasing standard under Topic 842. This method allows the Company to not make retrospective adjustments for leases that were in effect prior to the adoption date of January 1, 2019 when disclosing comparable prior periods, but instead, account for the prior period leases under Topic 840, which was the guidance in place at the time of the original reporting.

The Company considers all contracts that have assets specified in the contract, either explicitly or implicitly, that the Company has substantially all of the capacity of the asset, and has the right to obtain substantially all of the economic benefits of that asset, without the lessor's ability to have a substantive right to substitute that asset, as leased assets under Topic 842. For any contract deemed to include a leased asset, that asset is capitalized on the balance sheet as a right-of-use asset and a corresponding lease liability is recorded at the present value of the known future minimum payments of the contract using a discount rate on the date of commencement. The leased asset classification is determined at the date of recording as either operating or financing, depending upon certain criteria of the contract.

The discount rate used for present value calculations is the discount rate implicit in the contract. If an implicit rate is not determinable, a collateralized incremental borrowing rate is used at the date of commencement. The Company used the collateralized incremental borrowing rate, adjusted for length of lease term, for all of its present value calculations at the initial adoption of Topic 842.

The Company has made an accounting policy election to adopt the practical expedient for combining lease and non-lease components on an asset class basis. This expedient allows the Company to combine non-lease components such as real estate taxes, insurance, maintenance, and other operating expenses associated with the leased premises with the lease component of a lease agreement on an asset class basis when the non-lease components of the agreement cannot be easily bifurcated from the lease payment. Currently, the Company is only applying this expedient to certain office space agreements.

Supplemental Balance Sheet Information Related to Leases

The Company's lease assets as of June 30, 2019 consisted of the following items (in thousands):

	June 30, 2019	
	Operating Leases	**Finance Leases**
Right-of-use Assets:		
Processing plants	$ 1,587,374	—
Drilling rigs and completion services	115,034	—
Gas gathering lines and compressor stations (1)	1,580,130	—
Office space	42,200	—
Vehicles	5,627	2,819
Other office and field equipment	430	831
Total right-of-use assets	$ 3,330,795	3,650 (2)

(1) Gas gathering lines and compressor stations leases includes $1.4 billion related to Antero Midstream Corporation.
(2) Financing lease assets are recorded net of accumulated amortization of $9 million as of June 30, 2019.

The Company's lease liabilities as of June 30, 2019 consisted of the following items (in thousands):

	June 30, 2019	
	Operating Leases	**Finance Leases**
Location on the balance sheet:		
Short-term lease liabilities	$ 412,143	1,548
Long-term lease liabilities	2,918,652	2,102
Total lease liabilities	$ 3,330,795	3,650

Supplemental Information Related to Leases

Costs associated with operating leases were included in the statement of operations and comprehensive income (loss) for the three and six months ended June 30, 2019 (in thousands):

Statement of Operations Location	Three months ended June 30, 2019	Six months ended June 30, 2019
Gathering, compression, processing, and transportation	$ 218,542	$ 406,389
General and administrative	2,810	5,536
Contract termination and rig stacking	2,673	10,692
Total Lease Expense	$ 224,025	$ 422,617

Costs associated with finance leases of less than $1 million for each of the three and six months ended June 30, 2019 were included in interest expense.

We capitalized $53 million and $108 million, respectively, of costs related to operating leases and less than $1 million of costs related to finance leases during each of the three and six months ended June 30, 2019, respectively.

Short-term lease costs that are more than one month but less than 12 months are excluded from the above amounts and total $34 million at June 30, 2019.

Supplemental Cash Flow Information Related to Leases

The following is the Company's supplemental cash flow information related to leases for the three months ended June 30, 2019 (in thousands):

	Three months ended June 30, 2019		Six months ended June 30, 2019	
	Operating Leases	Finance Leases	Operating Leases	Finance Leases
Cash paid for amounts included in the measurement of lease liabilities:				
Operating cash out flows related to operating leases	$ 207,244	—	$ 357,564	—
Investing cash out flows related to operating leases	46,532	—	98,898	—
Financing cash out flows related to financing leases	—	873	—	1,664
	253,776	873	456,462	1,664
Noncash activities:				
Right of use assets obtained in exchange for operating lease liabilities	—	—	3,345,549	—
Right of use assets obtained in exchange for financing lease liabilities	—	—	—	—

Maturities of Lease Liabilities

The table below is a schedule of future minimum payments for operating and financing lease liabilities as of June 30, 2019 (in thousands):

(in thousands)	Operating Leases	Financing Leases	Total
Remainder of 2019	$ 206,320	99	206,419
2020	396,473	869	397,342
2021	349,212	1,294	350,506
2022	359,759	1,388	361,147
2023	377,790	—	377,790
2024	392,323	—	392,323
Thereafter	1,248,918	—	1,248,918
Total lease payments	3,330,795	3,650	3,334,445
Less: imputed interest	—	—	—
Total	$ 3,330,795	3,650	3,334,445

As of December 31, 2018, the following future minimum payments were required for office and equipment leases:

(in thousands)	Office Leases	Equipment Leases	Total
2019	$ 8,630	6,042	14,672
2020	8,471	4,517	12,988
2021	8,450	2,410	10,860
2022	8,427	274	8,701
2023	7,495	—	7,495
Thereafter	49,367	—	49,367
Total	$ 90,840	13,243	104,083

Lease Term and Discount Rate

The table below is the Company's weighted-average remaining lease term and discount rate as of June 30, 2019:

	June 30, 2019	
	Operating Leases	Finance Leases
Weighted-average remaining lease term:	8.5 years	2.2 years
Weighted-average discount rate:	6.0 %	5.5 %

As of June 30, 2019, the Company had requested additional processing capacity which will be accounted for as lease modifications when the processing capacity becomes available in 2019 and 2020.

Related party lease disclosure

The Company has a gathering and compression agreement with Antero Midstream Corporation, whereby Antero Midstream Corporation receives a low-pressure gathering fee per Mcf, a high-pressure gathering fee per Mcf, and a compression fee per Mcf, in each case subject to adjustments based on the consumer price index. If and to the extent we request that Antero Midstream Corporation construct new high pressure lines and compressor stations, the gathering and compression agreement contains minimum volume commitments that require Antero Resources to utilize or pay for 75% and 70%, respectively, of the requested capacity of such new construction for 10 years. For the three and six months ended June 30, 2019, gathering and compression fees paid by Antero related to this agreement were $163 million and $315 million, respectively. As of June 30, 2019, $59 million was included within accounts payable, related parties on the Condensed Balance Sheet as due to Antero Midstream Corporation related to this agreement.

(13) Commitments

The table below is a schedule of future minimum payments for firm transportation, drilling rig and completion services, processing, gathering and compression, and office and equipment agreements, which include leases that have remaining lease terms in excess of one year as of June 30, 2019 (in millions).

(in millions)	Firm transportation (a)	Processing, gathering and compression (b)	Land payment obligations (c)	Leases, including imputed interest (d)	Total
Remainder of 2019	$ 558	27	8	206	799
2020	1,122	54	6	397	1,579
2021	1,098	54	3	350	1,505
2022	1,045	54	—	361	1,460
2023	1,033	48	—	378	1,459
2024	993	48	—	392	1,433
Thereafter	7,807	64	—	1,250	9,121
Total	$ 13,656	349	17	3,334	17,356

(a) Firm Transportation

The Company has entered into firm transportation agreements with various pipelines in order to facilitate the delivery of its production to market. These contracts commit the Company to transport minimum daily natural gas or NGLs volumes at negotiated rates, or pay for any deficiencies at specified reservation fee rates. The amounts in this table are based on the Company's minimum daily volumes at the reservation fee rate. The values in the table represent the gross amounts that the Company is committed to pay; however, the Company will record in the consolidated financial statements its proportionate share of costs based on its working interest. None of these agreements were determined to be leases.

(b) Processing, Gathering, and Compression Service Commitments

The Company has entered into various long-term gas processing, gathering and compression service agreements. Certain of these agreements were determined to be leases. The minimum payment obligations under the agreements that are not leases are presented in this column.

The values in the table represent the gross amounts that the Company is committed to pay; however, the Company will record in the consolidated financial statements its proportionate share of costs based on its working interest. The values in the table also include minimum processing fees to be paid to the Joint Venture owned by Antero Midstream Partners and MarkWest.

(c) Land Payment Obligations

The Company has entered into various land acquisition agreements. Certain of these agreements contain minimum payment obligations over various terms. The values in the table represent the minimum payments due under these arrangements. None of these agreements were determined to be leases.

(d) Leases, including imputed interest

The Company has obligations under contracts for services provided by drilling rigs and completion fleets, processing, gathering, and compression services agreements, and office and equipment leases. The values in the table represent the gross amounts that we are committed to pay; however, we will record in our financial statements our proportionate share of costs based on our working interests. Refer to Note 12 to the unaudited condensed consolidated financial statements for more information on the Company's operating and finance leases.

(14) Contingencies

Environmental

In March 2011, we received orders for compliance from federal regulatory agencies, including the U.S. Environmental Protection Agency, relating to certain of our activities in West Virginia. The orders allege that certain of our operations at several well sites are in non-compliance with certain environmental regulations, such as unpermitted discharges of fill material into wetlands or waters of the United States that are potentially in violation of the Clean Water Act. Antero voluntarily reviewed all of its pre-2011 construction sites and entered into an agreement to restore or mitigate all areas of concern. The vast majority of the sites cited by regulators were among the sites we voluntarily reviewed. On January 31, 2019, we entered into a consent decree with state and federal regulators to settle for $3.15 million and perform restoration at these sites along with mitigation at an approved mitigation site. The settlement was filed in federal court in West Virginia on February 11, 2019, entered and approved by the court on May 22, 2019, and paid in June 2019. Our operations at these locations are not suspended, and management does not expect these matters to have a material adverse effect on our financial condition, results of operations, or cash flows.

In June 2018, following site inspections conducted in September 2017 at certain of our facilities located in Doddridge County, Tyler County, and Ritchie County, West Virginia, we received a Notice of Violation ("NOV") from the EPA Region III for alleged violations of the federal Clean Air Act and the West Virginia State Implementation Plan relating to permitting and control requirements for emissions of regulated pollutants at several of our natural gas production facilities. The NOV alleges that combustion devices at these facilities did not meet applicable air permitting requirements. Separately, in June 2018, we received an information request from EPA Region III pursuant to Section 114(a) of the Clean Air Act relating to the facilities that were inspected in September 2017 as well as additional Antero facilities for the purpose of determining if the additional facilities have the same alleged compliance issues that were identified during the September 2017 inspections. Since receipt of the NOV and information request, we have met with the EPA to discuss the alleged compliance issues but do not yet have any indication with respect to whether, and to what extent, the NOV and information request will result in monetary sanctions; however we believe that there is a reasonable possibility that these actions may result in monetary sanctions exceeding $100,000. Our operations at these facilities are not suspended, and management does not expect these matters to have a material adverse effect on our financial condition, results of operations, or cash flows.

SJGC

The Company is the plaintiff in two lawsuits against South Jersey Gas Company and South Jersey Resources Group, LLC (collectively, "SJGC") pending in United States District Court in Colorado. In March 2015, the Company filed suit against SJGC seeking relief for breach of contract and damages in the amounts that SJGC had short paid, and continued to short pay, the Company in connection with two nearly identical long term gas contracts. Under those contracts, SJGC are long term purchasers of 80,000 MMBtu/day of the Company's natural gas production. Deliveries under the contracts began in October 2011 and the term of the contracts continues through October 2019. The price for gas was based on specified indices in the contracts. Beginning in October 2014, SJGC began short paying the Company based on price indices unilaterally selected by SJGC and not the applicable index specified in the contracts. SJGC claimed that the index price specified in the contracts, and the index at which SJGC paid for deliveries from 2011 through September 2014, was no longer appropriate under the contracts because a market disruption event (as defined by the contract) had occurred and, as a result, a new index price was required to be determined by the parties. The Company rejected SJGC's contention that a market disruption event occurred. SJGC's actions constituted a breach of the contracts by failing to pay the Company based on the express price terms of the contracts and paying the Company based on unilaterally selected price indices in violation of the contracts' remedial provisions. On May 8, 2017, a jury in the United States District Court in Colorado returned a unanimous verdict finding in favor of Antero's positions in the lawsuit against SJGC. On July 21, 2017, final judgment on the jury's unanimous verdict was entered by the court. On August 18, 2017, SJGC filed post-judgment motions with the court. On March 23, 2018, the court denied SJGC's post-judgment motions. On April 20, 2018, SJGC appealed the final judgment to the United States Court of Appeals for the Tenth Circuit and the appeal remains pending.

Subsequent to the entry of judgment, SJGC continued to short pay the Company on the basis of unilaterally selected price indices and not the index specified in the contract. Accordingly, on December 21, 2017, Antero filed suit against SJGC to recover for its damages since March of 2017. The second lawsuit remains pending.

Through June 30, 2019, the Company estimates that it is owed approximately $88 million (gross damages, including interest) more than SJGC has paid using the indices unilaterally selected by them. Substantially all of this amount has not been accrued in the Company's financial statements. The Company will vigorously seek recovery from SJGC of all underpayments and damages, including interest, based on the contracted price.

WGL

The Company and Washington Gas Light Company and WGL Midstream, Inc. (collectively, "WGL") were involved in a pricing dispute involving firm gas sales contracts executed June 20, 2014 (the "Contracts") that the Company began delivering gas under in January 2016. From January 2016 through July 2017 and from December 2017 through January 2018, the aggregate daily gas volumes contracted for under the Contracts was 500,000 MMBtu/day, with the aggregate daily contracted volumes having increased to 600,000 MMBtu/day from August through November 2017. The Company invoiced WGL based on the natural gas index price specified in the Contracts and WGL paid the Company based on that invoice price. However, WGL asserted that the index price was no longer appropriate under the Contracts and claimed that an undefined alternative index was more appropriate for the delivery point of the gas. In July 2016, the matter was referred to arbitration by the Colorado district court. In January 2017, the arbitration panel ruled in the Company's favor. As a result, the index price has remained as specified in the Contracts and there will be no adjustments to the invoices that have been paid by WGL, nor will future invoices to WGL be adjusted based on the same claim rejected by the arbitration panel. The arbitration panel's award was confirmed by the Colorado district court on April 14, 2017.

In March of 2017, WGL filed a second legal proceeding against the Company in Colorado district court alleging breach of contract and seeking damages of more than $30 million. In this lawsuit, WGL claimed that the Company breached its contractual obligations under the Contracts by failing to deliver "TCO pool" gas. In subsequent filings, WGL explained that its claims were based on an alleged obligation that the Company must deliver gas to the Columbia IPP Pool ("IPP Pool"). WGL asserted this exact same issue in the arbitration and it was rejected by the arbitration panel. The arbitration panel specifically found that the Delivery Point under the Contracts was at a specific point in Braxton, West Virginia, not the IPP Pool. On August 24, 2017, the Colorado district court dismissed with prejudice WGL's claims against the Company in its new lawsuit and found that the Company had not breached its Contracts with WGL by allegedly failing to deliver to the IPP Pool. The Court dismissed WGL's lawsuit because WGL had not adequately pled a claim against Antero for the alleged failure to deliver "TCO pool" gas under the Contracts. WGL has appealed this decision to the Colorado Court of Appeals and on October 11, 2018 the Colorado Court of Appeals reversed the Colorado district court's decision finding that WGL had adequately pled a claim for relief and remanded the case back to the district court for further proceedings.

The Company is also actively engaged in pursuing cover damages against WGL based on WGL's failure to take receipt of all of the agreed quantities of gas required under the Contracts. WGL's failure to take the gas volumes specified in the Contracts is directly related to WGL's lack of primary firm transportation rights at the Delivery Point. The failures by WGL to take the full contracted volumes gas began in April 2017 and continued each month through December 2017 in varying quantities. In defense of its conduct, WGL asserted to the Company that their failure to receive gas is excused by (1) the Company's failure to deliver gas to the IPP Pool or (2) alleged instances of Force Majeure under the Contracts. However, as stated above, the alleged obligation that the Company must deliver gas to the IPP Pool was already rejected by the arbitration panel. Further, the Contracts expressly prohibit a Force Majeure claim in circumstances in which the gas purchaser does not have primary firm transportation agreements in place to transport the purchased gas. In each instance that WGL failed to receive the quantity of gas required under the Contracts, the Company resold the quantities not taken and invoiced WGL for cover damages pursuant to the terms of the Contracts. WGL refused to pay for the invoiced cover damages as required by the Contracts and also short paid the Company for, among other things, certain amounts of gas received by WGL. Through June 30, 2019, these damages amounted to approximately $109 million (gross damages, including interest). This amount has not been accrued in the Company's financial statements. The Company filed a lawsuit against WGL in Colorado district court on October 24, 2017 to recover its cover damages, other unpaid amounts, and interest. WGL's claims have been consolidated with Antero's claims in the same district court and trial began on June 10, 2019. WGL quantified its damages claim for the alleged failure to deliver TCO Pool gas and sought approximately $40 million from Antero.

On June 20, 2019, the Company was awarded a jury verdict of approximately $95.9 million in damages after the jury found that WGL breached the Contracts with the Company. In addition, the jury rejected WGL's claim against the Company, finding that the Company did not breach the Contracts by allegedly failing to deliver TCO Pool gas and awarding no damages in favor of WGL. WGL has the right to appeal the judgment.

Effective February 1, 2018, as a result of a recent amendment to its firm gas sales contract with WGL Midstream, Inc. that was executed on December 28, 2017, the total aggregate volumes to be delivered to WGL at the delivery point in Braxton, West Virginia were reduced from 500,000 MMBtu/day to 200,000 MMBtu/day and in November 2018, the total aggregate contract volumes to be delivered to WGL at a delivery point in Loudoun County, Virginia increased by 330,000 MMBtu/day. This increase of 330,000 MMBtu/day is in effect for the remaining term of our gas sale contract with WGL Midstream, which expires in 2038, and these increased volumes are subject to NYMEX-based pricing. Following this increase, the aggregate contract volumes delivered to WGL total 530,000 MMBtu/day.

Other

The Company is party to various other legal proceedings and claims in the ordinary course of its business. The Company believes that certain of these matters will be covered by insurance and that the outcome of other matters will not have a material adverse effect on the Company's consolidated financial position, results of operations, or cash flows.

(15) Contract Termination and Rig Stacking

During the three and six months ended June 30, 2019, the Company incurred $6 million and $14 million, respectively, of costs for the delay or cancelation of drilling and completion contracts with third-party contractors.

(16) Related Parties

Antero Midstream Partners' operations comprised substantially all of the operations reflected in the gathering and processing, and water handling and treatment, results through March 12, 2019. Effective March 13, 2019, Antero accounts for Antero Midstream Corporation as an equity method investment. See Note 3 to the unaudited condensed consolidated financial statements for more discussion on the Transactions. Substantially all of the revenues for gathering and processing and water handling and treatment were derived from transactions with Antero. See Note 17 to the unaudited condensed consolidated financial statements for the operating results of the Company's reportable segments.

(17) Segment Information

See Note 2(i) to the unaudited condensed consolidated financial statements for a description of the Company's determination of its reportable segments. Revenues from gathering and processing and water handling and treatment operations were primarily derived from intersegment transactions for services provided to the Company's exploration and production operations prior to the closing of the Transactions. Through March 12, 2019, the results of Antero Midstream Partners were included in the consolidated financial statements of Antero. Effective March 13, 2019, the results of Antero Midstream Partners are no longer consolidated in Antero's result; however, the Company's segment disclosures include the results of our unconsolidated affiliates due to their significance to the Company's operations. See Note 3 to the unaudited condensed consolidated financial statements for further discussion on the Transactions. Marketing revenues are primarily derived from activities to purchase and sell third-party natural gas and NGLs and to market excess firm transportation capacity to third parties.

Operating segments are evaluated based on their contribution to consolidated results, which is primarily determined by the respective operating income (loss) of each segment. General and administrative expenses were allocated to the gathering and processing and water handling and treatment segments based on the nature of the expenses and on a combination of the segments' proportionate share of the Company's consolidated property and equipment, capital expenditures, and labor costs, as applicable. General and administrative expenses related to the marketing segment are not allocated because they are immaterial. Other income, income taxes, and interest expense are primarily managed and evaluated on a consolidated basis. Intersegment sales were transacted at prices which approximate market. Accounting policies for each segment are the same as the Company's accounting policies described in Note 2 to the unaudited condensed consolidated financial statements.

The operating results and assets of the Company's reportable segments were as follows for the three months ended June 30, 2018 and 2019 (in thousands):

	Exploration and production	Marketing	Midstream	Elimination of intersegment transactions	Consolidated total
Three months ended June 30, 2018:					
Sales and revenues:					
Third-party	$ 823,734	160,092	5,518	—	989,344
Intersegment	5,179	—	245,457	(250,636)	—
Total	$ 828,913	160,092	250,975	(250,636)	989,344
Operating expenses:					
Lease operating	$ 32,312	—	62,218	(64,366)	30,164
Gathering, compression, processing, and transportation	409,708	—	12,400	(114,322)	307,786
Impairment of oil and gas properties	134,437	—	—	—	134,437
Impairment of gathering systems and facilities	—	—	8,501	—	8,501
Depletion, depreciation, and amortization	201,393	—	36,657	—	238,050
General and administrative	46,662	—	15,494	(469)	61,687
Other	27,023	213,420	4,986	(3,947)	241,482
Total	851,535	213,420	140,256	(183,104)	1,022,107
Operating income (loss)	$ (22,622)	(53,328)	110,719	(67,532)	(32,763)
Equity in earnings of unconsolidated affiliates	$ —	—	9,264	—	9,264
Segment assets	$ 13,381,044	61,684	3,293,101	(1,045,222)	15,690,607
Capital expenditures for segment assets	$ 506,055	—	130,925	(73,919)	563,061

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Notes to the Unaudited Condensed Consolidated Financial Statements

December 31, 2018 and June 30, 2019

	Exploration and production	Marketing	Equity Method Investment in Antero Midstream Corporation	Elimination of intersegment transactions and unconsolidated affiliates	Consolidated total
Three months ended June 30, 2019:					
Sales and revenues:					
Third-party	$ 1,234,824	63,080	46	—	1,297,950
Intersegment	1,760	—	255,572	(255,618)	1,714
Total	$ 1,236,584	63,080	255,618	(255,618)	1,299,664
Operating expenses:					
Lease operating	$ 40,857	—	50,549	(50,549)	40,857
Gathering, compression, processing, and transportation	566,834	—	12,311	(12,311)	566,834
Impairment of oil and gas properties	130,999	—	—	—	130,999
Impairment of gathering systems and facilities	—	—	594	(594)	—
Depletion, depreciation, and amortization	242,302	—	36,447	(36,447)	242,302
General and administrative	42,382	—	34,622	(34,622)	42,382
Other	38,755	137,539	3,504	(3,504)	176,294
Total	1,062,129	137,539	138,027	(138,027)	1,199,668
Operating income (loss)	$ 174,455	(74,459)	117,591	(117,591)	99,996
Equity in earnings of unconsolidated affiliates	$ 13,585	—	13,623	(13,623)	13,585
Investments in unconsolidated affiliates	$ 1,967,203	—	1,186,161	(1,186,161)	1,967,203
Segment assets	$ 17,305,519	25,361	6,769,009	(6,769,009)	17,330,880
Capital expenditures for segment assets	$ 342,253	—	125,185	(125,185)	342,253

The operating results and assets of the Company's reportable segments were as follows for the six months ended June 30, 2018 and 2019 (in thousands):

	Exploration and production	Marketing	Midstream	Elimination of intersegment transactions	Consolidated total
Six months ended June 30, 2018:					
Sales and revenues:					
Third-party	$ 1,608,277	398,715	10,453	—	2,017,445
Intersegment	11,054	—	470,113	(481,167)	—
Total	$ 1,619,331	398,715	480,566	(481,167)	2,017,445
Operating expenses:					
Lease operating	$ 63,574	—	117,090	(123,778)	56,886
Gathering, compression, processing, and transportation	794,053	—	23,768	(218,097)	599,724
Impairment of oil and gas properties	184,973	—	—	—	184,973
Impairment of gathering systems and facilities	—	—	8,501	—	8,501
Depletion, depreciation, and amortization	396,981	—	69,313	—	466,294
General and administrative	93,082	—	29,949	(1,314)	121,717
Other	54,371	409,159	9,910	(7,821)	465,619
Total	1,587,034	409,159	258,531	(351,010)	1,903,714
Operating income (loss)	$ 32,297	(10,444)	222,035	(130,157)	113,731
Equity in earnings of unconsolidated affiliates	$ —	—	17,126	—	17,126
Segment assets	$ 13,381,044	61,684	3,293,101	(1,045,222)	15,690,607
Capital expenditures for segment assets	$ 978,822	—	264,880	(134,678)	1,109,024

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	Exploration and production	Marketing	Equity Method Investment in Antero Midstream Corporation	Elimination of intersegment transactions and unconsolidated affiliates	Consolidated total
Six months ended June 30, 2019:					
Sales and revenues:					
Third-party	$ 2,176,459	154,266	50	—	2,330,775
Intersegment	3,518	—	309,676	(306,898)	6,296
Total	$ 2,179,977	154,266	309,726	(306,898)	2,337,071
Operating expenses:					
Lease operating	$ 83,826	—	62,377	(63,614)	82,589
Gathering, compression, processing, and transportation	1,101,849	—	15,233	(125,719)	991,363
Impairment of oil and gas properties	212,243	—	—	—	212,243
Impairment of gathering systems and facilities	—	—	7,576	(594)	6,982
Depletion, depreciation, and amortization	460,796	—	44,097	(22,390)	482,503
General and administrative	92,290	—	54,431	(36,137)	110,584
Other	82,892	300,623	4,795	(3,792)	384,518
Total	2,033,896	300,623	188,509	(252,246)	2,270,782
Operating income (loss)	$ 146,081	(146,357)	121,217	(54,652)	66,289
Equity in earnings of unconsolidated affiliates	$ 15,402	—	16,503	(4,239)	27,666
Investments in unconsolidated affiliates	$ 1,967,203	—	1,186,161	(1,186,161)	1,967,203
Segment assets	$ 17,305,519	25,361	6,769,009	(6,769,009)	17,330,880
Capital expenditures for segment assets	$ 761,034	—	141,190	(88,038)	814,186

(18) Subsidiary Guarantors

Each of Antero's wholly owned subsidiaries has fully and unconditionally guaranteed Antero's senior 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 Antero (as defined in the indentures governing the notes) 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 Antero or a restricted subsidiary of Antero, such subsidiary guarantor will be released from its obligations under its subsidiary guarantee if the sale or other disposition does not violate the covenants set forth in the indentures governing the notes.

In addition, a subsidiary guarantor will be released from its obligations under the indentures and its guarantee, upon the release or discharge of the guarantee of other Indebtedness (as defined in the indentures governing the notes) that resulted in the creation of such guarantee, except a release or discharge by or as a result of payment under such guarantee; if Antero designates such subsidiary as an unrestricted subsidiary and such designation complies with the other applicable provisions of the indentures governing the notes or in connection with any covenant defeasance, legal defeasance or satisfaction and discharge of the notes.

The following Condensed Consolidating Balance Sheets at December 31, 2018 and June 30, 2019, and the related Condensed Consolidating Statements of Operations and Comprehensive Income (Loss) for the three and six months ended June 30, 2018 and 2019, and Condensed Consolidating Statements of Cash Flows for the six months ended June 30, 2018 and 2019 present financial information for Antero on a stand-alone basis (carrying its investment in subsidiaries using the equity method), financial information for the subsidiary guarantors, financial information for the non-guarantor subsidiaries, and the consolidation and elimination entries necessary to arrive at the information for the Company on a consolidated basis. Antero's wholly owned subsidiaries are not restricted from making distributions to Antero.

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Notes to the Unaudited Condensed Consolidated Financial Statements

December 31, 2018 and June 30, 2019

Condensed Consolidating Balance Sheet
December 31, 2018
(In thousands)

	Parent (Antero)	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Assets					
Current assets:					
Accounts receivable, net	$ 49,529	—	1,544	—	51,073
Intercompany receivables	383	—	115,378	(115,761)	—
Accrued revenue	474,827	—	—	—	474,827
Derivative instruments	245,263	—	—	—	245,263
Other current assets	13,937	—	21,513	—	35,450
Total current assets	783,939	—	138,435	(115,761)	806,613
Property and equipment:					
Oil and gas properties, at cost (successful efforts method):					
Unproved properties	1,767,600	—	—	—	1,767,600
Proved properties	13,306,585	—	—	(600,913)	12,705,672
Water handling and treatment systems	—	—	1,004,793	9,025	1,013,818
Gathering systems and facilities	17,825	—	2,452,883	—	2,470,708
Other property and equipment	65,770	—	72	—	65,842
	15,157,780	—	3,457,748	(591,888)	18,023,640
Less accumulated depletion, depreciation, and amortization	(3,654,392)	—	(499,333)	—	(4,153,725)
Property and equipment, net	11,503,388	—	2,958,415	(591,888)	13,869,915
Derivative instruments	362,169	—	—	—	362,169
Investment in Antero Midstream Partners	(740,031)	—	—	740,031	—
Contingent acquisition consideration	114,995	—	—	(114,995)	—
Investments in unconsolidated affiliates	—	—	433,642	—	433,642
Other assets	31,200	—	15,925	—	47,125
Total assets	$ 12,055,660	—	3,546,417	(82,613)	15,519,464
Liabilities and Equity					
Current liabilities:					
Accounts payable	$ 44,917	—	21,372	—	66,289
Intercompany payable	111,620	—	4,141	(115,761)	—
Accrued liabilities	392,949	—	72,121	—	465,070
Revenue distributions payable	310,827	—	—	—	310,827
Derivative instruments	532	—	—	—	532
Short-term lease liabilities	2,459	—	—	—	2,459
Other current liabilities	2,162	—	2,052	4,149	8,363
Total current liabilities	865,466	—	99,686	(111,612)	853,540
Long-term liabilities:					
Long-term debt	3,829,541	—	1,632,147	—	5,461,688
Deferred income tax liability	650,788	—	—	—	650,788
Contingent acquisition consideration	—	—	114,995	(114,995)	—
Long-term lease liabilities	2,873	—	—	—	2,873
Other liabilities	55,017	—	8,081	—	63,098
Total liabilities	5,403,685	—	1,854,909	(226,607)	7,031,987
Equity:					
Stockholders' equity:					
Partners' capital	—	—	1,691,508	(1,691,508)	—
Common stock	3,086	—	—	—	3,086
Additional paid-in capital	5,471,341	—	—	1,013,833	6,485,174
Accumulated earnings	1,177,548	—	—	—	1,177,548
Total stockholders' equity	6,651,975	—	1,691,508	(677,675)	7,665,808
Noncontrolling interests in consolidated subsidiary	—	—	—	821,669	821,669
Total equity	6,651,975	—	1,691,508	143,994	8,487,477
Total liabilities and equity	$ 12,055,660	—	3,546,417	(82,613)	15,519,464

ANTERO RESOURCES CORPORATION

Notes to the Unaudited Condensed Consolidated Financial Statements

December 31, 2018 and June 30, 2019

Condensed Consolidating Balance Sheet
June 30, 2019
(In thousands)

	Parent (Antero)	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Assets					
Current assets:					
Accounts receivable, net	$ 49,994	200,337	—	(200,337)	49,994
Accrued revenue	308,761	—	—	—	308,761
Derivative instruments	346,894	—	—	—	346,894
Other current assets	7,400	—	—	—	7,400
Total current assets	713,049	200,337	—	(200,337)	713,049
Property and equipment:					
Oil and gas properties, at cost (successful efforts method):					
Unproved properties	1,585,355	—	—	—	1,585,355
Proved properties	13,357,733	—	—	—	13,357,733
Gathering systems and facilities	17,825	—	—	—	17,825
Other property and equipment	69,676	—	—	—	69,676
	15,030,589	—	—	—	15,030,589
Less accumulated depletion, depreciation, and amortization	(4,115,187)	—	—	—	(4,115,187)
Property and equipment, net	10,915,402	—	—	—	10,915,402
Operating leases right-of-use assets	3,330,795	—	—	—	3,330,795
Derivative instruments	369,548	—	—	—	369,548
Investments in unconsolidated affiliates	625,423	1,341,780	—	—	1,967,203
Investments in consolidated affiliates	1,341,780	—	—	(1,341,780)	—
Other assets	34,883	—	—	—	34,883
Total assets	$ 17,330,880	1,542,117	—	(1,542,117)	17,330,880
Liabilities and Equity					
Current liabilities:					
Accounts payable	$ 44,758	—	—	—	44,758
Accounts payable, related parties	298,907	—	—	(200,337)	98,570
Accrued liabilities	358,680	—	—	—	358,680
Revenue distributions payable	301,032	—	—	—	301,032
Derivative instruments	274	—	—	—	274
Short-term lease liabilities	413,691		—		413,691
Other current liabilities	4,102	—	—	—	4,102
Total current liabilities	1,421,444	—	—	(200,337)	1,221,107
Long-term liabilities:					
Long-term debt	3,602,379	—	—	—	3,602,379
Deferred income tax liability	1,188,975	—	—	—	1,188,975
Long-term lease liabilities	2,920,754		—		2,920,754
Other liabilities	57,965	—	—	—	57,965
Total liabilities	9,191,517	—	—	(200,337)	8,991,180
Equity:					
Stockholders' equity:					
Partners' capital	—	—	—	—	—
Common stock	3,091	—	—	—	3,091
Additional paid-in capital	6,138,130	1,341,780	—	(1,341,780)	6,138,130
Accumulated earnings	1,998,142	200,337	—	—	2,198,479
Total equity	8,139,363	1,542,117	—	(1,341,780)	8,339,700
Total liabilities and equity	$ 17,330,880	1,542,117	—	(1,542,117)	17,330,880

ANTERO RESOURCES CORPORATION

Notes to the Unaudited Condensed Consolidated Financial Statements

December 31, 2018 and June 30, 2019

Condensed Consolidating Statement of Operations and Comprehensive Income (Loss)
Three Months Ended June 30, 2018
(In thousands)

	Parent (Antero)	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Revenue and other:					
Natural gas sales	$ 473,540	—	—	—	473,540
Natural gas liquids sales	255,985	—	—	—	255,985
Oil sales	38,873	—	—	—	38,873
Commodity derivative fair value gains	55,336	—	—	—	55,336
Gathering, compression, water handling and treatment	—	—	250,392	(244,874)	5,518
Marketing	160,202	—	—	—	160,202
Marketing derivative fair value losses	(110)	—	—	—	(110)
Gain on sale of assets	—	—	583	(583)	—
Other income	5,179	—	—	(5,179)	—
Total revenue and other	989,005	—	250,975	(250,636)	989,344
Operating expenses:					
Lease operating	32,312	—	62,218	(64,366)	30,164
Gathering, compression, processing, and transportation	409,708	—	12,400	(114,322)	307,786
Production and ad valorem taxes	24,886	—	1,005	—	25,891
Marketing	213,420	—	—	—	213,420
Exploration	1,471	—	—	—	1,471
Impairment of oil and gas properties	134,437	—	—	—	134,437
Impairment of gathering systems and facilities	4,470	—	4,614	(583)	8,501
Depletion, depreciation, and amortization	201,617	—	36,433	—	238,050
Accretion of asset retirement obligations	666	—	34	—	700
General and administrative	46,662	—	15,494	(469)	61,687
Accretion of contingent acquisition consideration	—	—	3,947	(3,947)	—
Total operating expenses	1,069,649	—	136,145	(183,687)	1,022,107
Operating income (loss)	(80,644)	—	114,830	(66,949)	(32,763)
Other income (expenses):					
Equity in earnings of unconsolidated affiliates	—	—	9,264	—	9,264
Interest expense, net	(54,388)	—	(14,628)	(333)	(69,349)
Equity in earnings (loss) of consolidated subsidiaries	(26,926)	—	—	26,926	—
Total other expenses	(81,314)	—	(5,364)	26,593	(60,085)
Income (loss) before income taxes	(161,958)	—	109,466	(40,356)	(92,848)
Provision for income tax benefit	25,573	—	—	—	25,573
Net income (loss) and comprehensive income (loss) including noncontrolling interests	(136,385)	—	109,466	(40,356)	(67,275)
Net income and comprehensive income attributable to noncontrolling interests	—	—	—	69,110	69,110
Net income (loss) and comprehensive income (loss) attributable to Antero Resources Corporation	$ (136,385)	—	109,466	(109,466)	(136,385)

ANTERO RESOURCES CORPORATION

Notes to the Unaudited Condensed Consolidated Financial Statements

December 31, 2018 and June 30, 2019

Condensed Consolidating Statement of Operations and Comprehensive Income (Loss)
Three Months Ended June 30, 2019
(In thousands)

	Parent (Antero)	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Revenue and other:					
Natural gas sales	$ 553,372	—	—	—	553,372
Natural gas liquids sales	303,963	—	—	—	303,963
Oil sales	49,062	—	—	—	49,062
Commodity derivative fair value gains	328,427	—	—	—	328,427
Marketing	63,080	—	—	—	63,080
Other income	1,760	—	—	—	1,760
Total revenue and other	1,299,664	—	—	—	1,299,664
Operating expenses:					
Lease operating	40,857	—	—	—	40,857
Gathering, compression, processing, and transportation	566,834	—	—	—	566,834
Production and ad valorem taxes	30,968	—	—	—	30,968
Marketing	137,539	—	—	—	137,539
Exploration	314	—	—	—	314
Impairment of oil and gas properties	130,999	—	—	—	130,999
Depletion, depreciation, and amortization	242,302	—	—	—	242,302
Loss on sale of assets	951	—	—	—	951
Accretion of asset retirement obligations	918	—	—	—	918
General and administrative	42,382	—	—	—	42,382
Contract termination and rig stacking	5,604	—	—	—	5,604
Total operating expenses	1,199,668	—	—	—	1,199,668
Operating income	99,996	—	—	—	99,996
Other income (expenses):					
Equity in earnings of unconsolidated affiliates	13,585	—	—	—	13,585
Interest expense, net	(54,164)	—	—	—	(54,164)
Total other expenses	(40,579)	—	—	—	(40,579)
Income (loss) before income taxes	59,417	—	—	—	59,417
Provision for income tax expense	(17,249)	—	—	—	(17,249)
Net income (loss) and comprehensive income (loss) including noncontrolling interests	42,168	—	—	—	42,168
Net income (loss) and comprehensive income (loss) attributable to noncontrolling interests	—	—	—	—	—
Net income (loss) and comprehensive income (loss) attributable to Antero Resources Corporation	$ 42,168	—	—	—	42,168

ANTERO RESOURCES CORPORATION

Notes to the Unaudited Condensed Consolidated Financial Statements

December 31, 2018 and June 30, 2019

Condensed Consolidating Statement of Operations and Comprehensive Income (Loss)
Six Months Ended June 30, 2018
(In thousands)

	Parent (Antero)	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Revenue and other:					
Natural gas sales	$ 971,203	—	—	—	971,203
Natural gas liquids sales	490,155	—	—	—	490,155
Oil sales	69,146	—	—	—	69,146
Commodity derivative fair value gains	77,773	—	—	—	77,773
Gathering, compression, water handling and treatment	—	—	479,983	(469,530)	10,453
Marketing	304,591	—	—	—	304,591
Marketing derivative fair value gains	94,124	—	—	—	94,124
Gain on sale of assets	—	—	583	(583)	—
Other income	11,054	—	—	(11,054)	—
Total revenue and other	2,018,046	—	480,566	(481,167)	2,017,445
Operating expenses:					
Lease operating	63,574	—	117,090	(123,778)	56,886
Gathering, compression, processing, and transportation	794,053	—	23,768	(218,097)	599,724
Production and ad valorem taxes	49,693	—	2,021	—	51,714
Marketing	409,159	—	—	—	409,159
Exploration	3,356	—	—	—	3,356
Impairment of oil and gas properties	184,973	—	—	—	184,973
Impairment of gathering systems and facilities	4,470	—	4,614	(583)	8,501
Depletion, depreciation, and amortization	397,429	—	68,865	—	466,294
Accretion of asset retirement obligations	1,322	—	68	—	1,390
General and administrative	93,082	—	29,949	(1,314)	121,717
Accretion of contingent acquisition consideration	—	—	7,821	(7,821)	—
Total operating expenses	2,001,111	—	254,196	(351,593)	1,903,714
Operating income	16,935	—	226,370	(129,574)	113,731
Other income (expenses):					
Equity in earnings of unconsolidated affiliates	—	—	17,126	—	17,126
Interest expense, net	(107,886)	—	(25,925)	36	(133,775)
Equity in earnings (loss) of consolidated subsidiaries	(47,054)	—	—	47,054	—
Total other expenses	(154,940)	—	(8,799)	47,090	(116,649)
Income (loss) before income taxes	(138,005)	—	217,571	(82,484)	(2,918)
Provision for income tax benefit	16,453	—	—	—	16,453
Net income (loss) and comprehensive income (loss) including noncontrolling interests	(121,552)	—	217,571	(82,484)	13,535
Net income and comprehensive income attributable to noncontrolling interests	—	—	—	135,087	135,087
Net income (loss) and comprehensive income (loss) attributable to Antero Resources Corporation	$ (121,552)	—	217,571	(217,571)	(121,552)

ANTERO RESOURCES CORPORATION

Notes to the Unaudited Condensed Consolidated Financial Statements

December 31, 2018 and June 30, 2019

Condensed Consolidating Statement of Operations and Comprehensive Income
Six Months Ended June 30, 2019
(In thousands)

	Parent (Antero)	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Revenue and other:					
Natural gas sales	$ 1,210,638	—	—	—	1,210,638
Natural gas liquids sales	617,648	—	—	—	617,648
Oil sales	97,114	—	—	—	97,114
Commodity derivative fair value gains	251,059	—	—	—	251,059
Gathering, compression, water handling and treatment	—	—	218,360	(213,881)	4,479
Marketing	154,266	—	—	—	154,266
Other income	3,518	—	—	(1,651)	1,867
Total revenue and other	2,334,243	—	218,360	(215,532)	2,337,071
Operating expenses:					
Lease operating	83,826	—	64,818	(66,055)	82,589
Gathering, compression, processing, and transportation	1,101,849	—	—	(110,486)	991,363
Production and ad valorem taxes	65,706	—	—	940	66,646
Marketing	300,623	—	—	—	300,623
Exploration	440	—	—	—	440
Impairment of oil and gas properties	212,243	—	—	—	212,243
Impairment of gathering systems and facilities	—	—	6,982	—	6,982
Depletion, depreciation, and amortization	460,796	—	21,707	—	482,503
Loss on sale of assets	951	—	—	—	951
Accretion of asset retirement obligations	1,831	—	63	—	1,894
General and administrative	92,290	—	18,793	(499)	110,584
Contract termination and rig stacking	13,964	—	—	—	13,964
Accretion of contingent acquisition consideration	—	—	1,928	(1,928)	—
Total operating expenses	2,334,519	—	114,291	(178,028)	2,270,782
Operating income (loss)	(276)	—	104,069	(37,504)	66,289
Other income (expenses):					
Equity in earnings of unconsolidated affiliates	4,999	10,403	12,264	—	27,666
Interest expense, net	(109,299)	—	(16,815)	—	(126,114)
Equity in earnings of affiliates	15,021	—	—	(15,021)	—
Gain on deconsolidation of Antero Midstream Partners LP	1,205,705	200,337	—	—	1,406,042
Total other income (expenses)	1,116,426	210,740	(4,551)	(15,021)	1,307,594
Income before income taxes	1,116,150	210,740	99,518	(52,525)	1,373,883
Provision for income tax expense	(305,959)	—	—	—	(305,959)
Net income and comprehensive income including noncontrolling interests	810,191	210,740	99,518	(52,525)	1,067,924
Net income and comprehensive income attributable to noncontrolling interests	—	—	—	46,993	46,993
Net income and comprehensive income attributable to Antero Resources Corporation	$ 810,191	210,740	99,518	(99,518)	1,020,931

ANTERO RESOURCES CORPORATION

Notes to the Unaudited Condensed Consolidated Financial Statements

December 31, 2018 and June 30, 2019

Condensed Consolidating Statement of Cash Flows
Six Months Ended June 30, 2018
(In thousands)

	Parent (Antero)	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Cash flows provided by (used in) operating activities:					
Net income (loss) including noncontrolling interests	$ (121,552)	—	217,571	(82,484)	13,535
Adjustment to reconcile net income (loss) to net cash provided by operating activities:					
Depletion, depreciation, amortization, and accretion	398,751	—	68,933	—	467,684
Accretion of contingent acquisition consideration	(7,821)	—	7,821	—	—
Impairment of oil and gas properties	184,973	—	—	—	184,973
Impairment of gathering systems and facilities	4,470	—	4,614	(583)	8,501
Commodity derivative fair value gains	(77,773)	—	—	—	(77,773)
Gains on settled commodity derivatives	197,225	—	—	—	197,225
Marketing derivative fair value gains	(94,124)	—	—	—	(94,124)
Gains on settled marketing derivatives	94,158	—	—	—	94,158
Deferred income tax benefit	(16,453)	—	—	—	(16,453)
Gain on sale of assets	—	—	(583)	583	—
Equity-based compensation expense	28,149	—	12,078	—	40,227
Equity in earnings (loss) of consolidated subsidiaries	47,054	—	—	(47,054)	—
Equity in earnings of unconsolidated affiliates	—	—	(17,126)	—	(17,126)
Distributions of earnings from unconsolidated affiliates	—	—	17,895	—	17,895
Distributions from Antero Midstream Partners LP	74,647	—	—	(74,647)	—
Other	547	—	1,385	—	1,932
Changes in current assets and liabilities	14,510	—	(157)	3,933	18,286
Net cash provided by operating activities	726,761	—	312,431	(200,252)	838,940
Cash flows provided by (used in) investing activities:					
Additions to unproved properties	(87,861)	—	—	—	(87,861)
Drilling and completion costs	(887,459)	—	—	134,678	(752,781)
Additions to water handling and treatment systems	—	—	(49,054)	(9,073)	(58,127)
Additions to gathering systems and facilities	—	—	(206,753)	—	(206,753)
Additions to other property and equipment	(3,502)	—	—	—	(3,502)
Investments in unconsolidated affiliates	—	—	(56,297)	—	(56,297)
Change in other assets	2,051	—	(9,077)	—	(7,026)
Net cash used in investing activities	(976,771)	—	(321,181)	125,605	(1,172,347)
Cash flows provided by (used in) financing activities:					
Borrowings (repayments) on bank credit facility, net	270,000	—	215,000	—	485,000
Distributions to noncontrolling interests in Antero Midstream Partners LP	—	—	(193,670)	74,647	(119,023)
Employee tax withholding for settlement of equity compensation awards	(6,649)	—	(1,318)	—	(7,967)
Other	(2,336)	—	(100)	—	(2,436)
Net cash provided by financing activities	261,015	—	19,912	74,647	355,574
Net increase in cash and cash equivalents	11,005	—	11,162	—	22,167
Cash and cash equivalents, beginning of period	20,078	—	8,363	—	28,441
Cash and cash equivalents, end of period	$ 31,083	—	19,525	—	50,608

ANTERO RESOURCES CORPORATION

Notes to the Unaudited Condensed Consolidated Financial Statements

December 31, 2018 and June 30, 2019

Condensed Consolidating Statement of Cash Flows
Six Months Ended June 30, 2019
(In thousands)

	Parent (Antero)	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Cash flows provided by (used in) operating activities:					
Net income including noncontrolling interests	$ 810,191	210,740	99,518	(52,525)	1,067,924
Adjustment to reconcile net income to net cash provided by operating activities:					
Depletion, depreciation, amortization, and accretion	462,627	—	21,770	—	484,397
Impairment of oil and gas properties	212,243	—	—	—	212,243
Impairment of gathering systems and facilities	—	—	6,982	—	6,982
Commodity derivative fair value gains	(251,059)	—	—	—	(251,059)
Gains on settled commodity derivatives	141,791	—	—	—	141,791
Deferred income tax expense	304,963	—	—	—	304,963
Loss on sale of assets	951	—	—	—	951
Equity-based compensation expense	12,975	—	2,477	—	15,452
Equity in earnings of affiliates	(15,021)	—	—	15,021	—
Equity in earnings of unconsolidated affiliates	(4,999)	(10,403)	(12,264)	—	(27,666)
Distributions/dividends of earnings from unconsolidated affiliates	47,922	—	12,605	—	60,527
Gain on deconsolidation of Antero Midstream Partners LP	(1,205,705)	(200,337)	—	—	(1,406,042)
Distributions from Antero Midstream Partners LP	94,391	—	—	(94,391)	—
Other	(43,002)	—	750	47,922	5,670
Changes in current assets and liabilities	134,740	—	(10,573)	16,808	140,975
Net cash provided by operating activities	703,008	—	121,265	(67,165)	757,108
Cash flows provided by (used in) investing activities:					
Additions to unproved properties	(56,814)	—	—	—	(56,814)
Drilling and completion costs	(700,653)	—	—	20,565	(680,088)
Additions to water handling and treatment systems	—	—	(24,547)	131	(24,416)
Additions to gathering systems and facilities	—	—	(48,239)	—	(48,239)
Additions to other property and equipment	(3,567)	—	(1,062)	—	(4,629)
Investments in unconsolidated affiliates	—	—	(25,020)	—	(25,020)
Proceeds from the Antero Midstream Partners LP Transactions	296,611	—	—	—	296,611
Change in other assets	(1,617)	—	(3,357)	—	(4,974)
Proceeds from sale of assets	1,983	—	—	—	1,983
Net cash used in investing activities	(464,057)	—	(102,225)	20,696	(545,586)
Cash flows provided by (used in) financing activities:					
Issuance of senior notes	—	—	650,000	—	650,000
Borrowings (repayments) on bank credit facility, net	(235,379)	—	90,379	—	(145,000)
Payments of deferred financing costs	(791)	—	(7,468)	—	(8,259)
Distributions to noncontrolling interests in Antero Midstream Partners LP	—	—	(131,545)	46,469	(85,076)
Employee tax withholding for settlement of equity compensation awards	(2,266)	—	(29)	—	(2,295)
Other	(515)	—	(845)	—	(1,360)
Net cash provided by (used in) financing activities	(238,951)	—	600,492	46,469	408,010
Effect of deconsolidation of Antero Midstream Partners LP	—	—	(619,532)	—	(619,532)
Net increase in cash and cash equivalents	—	—	—	—	—
Cash and cash equivalents, beginning of period	—	—	—	—	—
Cash and cash equivalents, end of period	$ —	—	—	—	—

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our unaudited condensed consolidated financial statements and related notes included elsewhere in this Quarterly Report on Form 10-Q. The following discussion contains "forward-looking statements" that reflect our future plans, estimates, beliefs and expected performance. We caution that assumptions, expectations, projections, intentions, or beliefs about future events may, and often do, vary from actual results, and the differences can be material. Some of the key factors that could cause actual results to vary from our expectations include changes in natural gas, NGLs, and oil prices, the timing of planned capital expenditures, our ability to fund our development programs, availability of acquisitions, uncertainties in estimating proved reserves and forecasting production results, operational factors affecting the commencement or maintenance of producing wells, the condition of the capital markets generally, as well as our ability to access them, and uncertainties regarding environmental regulations or litigation and other legal or regulatory developments affecting our business, as well as those factors discussed below, all of which are difficult to predict. In light of these risks, uncertainties and assumptions, the forward-looking events discussed may not occur. See "Cautionary Statement Regarding Forward-Looking Statements." Also, see the risk factors and other cautionary statements described under the heading "Item 1A. Risk Factors." We do not undertake any obligation to publicly update any forward-looking statements except as otherwise required by applicable law. For more information, please refer to the 2018 Form 10-K.

In this section, references to "Antero," the" Company," "we," "us," and "our" refer to Antero Resources Corporation and its subsidiaries, unless otherwise indicated or the context otherwise requires.

Our Company

Antero is an independent oil and natural gas company engaged in the exploration, development, and production of natural gas, NGLs, and oil properties located in the Appalachian Basin. We focus on unconventional reservoirs, which can generally be characterized as fractured shale formations. Our management team has worked together for many years and has a successful track record of reserve and production growth as well as significant expertise in unconventional resource plays. Our strategy is to leverage our team's experience delineating and developing natural gas resource plays to profitably grow our reserves and production, primarily on our existing multi-year inventory of drilling locations.

We have assembled a portfolio of long-lived properties that are characterized by what we believe to be low geologic risk and repeatability. Our drilling opportunities are focused in the Marcellus Shale and Utica Shale of the Appalachian Basin. As of June 30, 2019, we held approximately 584,000 net acres of rich gas and dry gas properties located in the Appalachian Basin in West Virginia and Ohio. Our corporate headquarters are in Denver, Colorado.

We operate in the following industry segments: (i) the exploration, development, and production of natural gas, NGLs, and oil; (ii) marketing of excess firm transportation capacity; and (iii) our equity method investment in Antero Midstream Corporation. All of our operations are conducted in the United States. As described below and elsewhere in this Quarterly Report on Form 10-Q, effective March 13, 2019, the results of Antero Midstream Partners are no longer consolidated in Antero's results.

Address, Internet Website and Availability of Public Filings

Our principal executive offices are located at 1615 Wynkoop Street, Denver, Colorado 80202, and our telephone number is (303)357-7310. Our website is located at *www.anteroresources.com*.

We furnish or file with the SEC our Annual Reports on Form 10-K, our Quarterly Reports on Form 10-Q, and our Current Reports on Form 8-K. We make these documents available free of charge at *www.anteroresources.com* under the "Investors–SEC Filings" section as soon as reasonably practicable after they are furnished or filed with the SEC.

Information on our website is not incorporated into this Quarterly Report on Form 10-Q or our other filings with the SEC and is not a part of them.

2019 Developments and Highlights

Closing of Simplification Transaction

On March 12, 2019, Antero Midstream Corporation and Antero Midstream Partners completed the Transactions contemplated by the previously announced Simplification Agreement, pursuant to which (i) Antero Midstream GP LP was converted from a limited partnership to a corporation under the laws of the State of Delaware and changed its name to Antero Midstream

Corporation, and (ii) an indirect, wholly owned subsidiary of Antero Midstream Corporation was merged with and into Antero Midstream Partners, with Antero Midstream Partners surviving the merger as an indirect, wholly owned subsidiary of Antero Midstream Corporation. In connection with the Transactions, we received $297 million in cash and 158.4 million shares of Antero Midstream Corporation's common stock, par value $0.01 per share, in exchange for the 98,870,335 common units representing limited partner interests in Antero Midstream Partners owned immediately prior to the Closing.

Prior to the Transactions, our ownership of Antero Midstream Partners common units represented approximately a 53% limited partner interest in Antero Midstream Partners, and we consolidated Antero Midstream Partners' financial position and results of operations into our consolidated financial statements. The Transactions resulted in the exchange of the limited partner interest we owned in Antero Midstream Partners for common stock of Antero Midstream Corporation representing a 31% interest. Thus, effective March 13, 2019, we no longer consolidated Antero Midstream Corporation or Antero Midstream Partners in our consolidated financial statements and began accounting for our interest in Antero Midstream Corporation using the equity method of accounting starting with our financial statements for the first quarter of 2019. For more information, please see Note 3 to the unaudited condensed consolidated financial statements.

Production and Financial Results

For the three months ended June 30, 2019, our net production totaled 294 Bcfe, or 3,226 MMcfe per day, a 28% increase compared to 229 Bcfe, or 2,520 MMcfe per day, for the three months ended June 30, 2018. Production increases resulted from an increase in the number of producing wells as a result of our drilling and completion activity. Our average price received for production, before the effects of gains on settled commodity derivatives, for the three months ended June 30, 2019 was $3.09 per Mcfe compared to $3.35 per Mcfe for the three months ended June 30, 2018. Our average realized price after the effects of gains on settled commodity derivatives was $3.24 per Mcfe for the three months ended June 30, 2019 compared to $3.77 per Mcfe for the three months ended June 30, 2018.

For the three months ended June 30, 2019, we generated consolidated cash flows from operations of $218 million, consolidated net income attributable to Antero of $42 million and Adjusted EBITDAX of $252 million. This compares to consolidated cash flows from operations of $297 million, consolidated net loss attributable to Antero of $136 million and Adjusted EBITDAX of $335 million for the three months ended June 30, 2018. See "—Non-GAAP Financial Measures" for a definition of Adjusted EBITDAX and a reconciliation of Adjusted EBITDAX to net cash provided by operating activities and net income (loss).

Consolidated cash flows from operations decreased by $79 million for the three months ended June 30, 2019 compared to the prior year period because of primarily because of the deconsolidation of Antero Midstream Partners. Consolidated net income attributable to Antero of $42 million for the three months ended June 30, 2019 increased from consolidated net loss attributable to Antero of $136 million for the three months ended June 30, 2018 primarily because of changes in commodity derivative fair value gains.

Adjusted EBITDAX decreased from $335 million for the three months ended June 30, 2018 to $252 million for the three months ended June 30, 2019, a decrease of 25%, primarily because of the deconsolidation of Antero Midstream Partners.

For the six months ended June 30, 2019, our net production totaled 572 Bcfe, or 3,163 MMcfe per day, a 29% increase compared to 443 Bcfe, or 2,448 MMcfe per day, for the six months ended June 30, 2018. Production increases resulted from an increase in the number of producing wells as a result of our drilling and completion activity. Our average price received for production, before the effects of gains on settled commodity derivatives, for the six months ended June 30, 2019 was $3.36 per Mcfe compared to $3.45 per Mcfe for the six months ended June 30, 2018. Our average realized price after the effects of gains on settled commodity derivatives was $3.61 per Mcfe for the six months ended June 30, 2019 compared to $3.90 per Mcfe for the six months ended June 30, 2018.

For the six months ended June 30, 2019, we generated consolidated cash flows from operations of $757 million, consolidated net income attributable to Antero of $1.0 billion, and Adjusted EBITDAX of $694 million. This compares to consolidated cash flows from operations of $839 million, consolidated net loss attributable to Antero of $122 million, and Adjusted EBITDAX of $823 million for the six months ended June 30, 2018.

Consolidated cash flows from operations decreased by $82 million for the six months ended June 30, 2019 compared to the prior year period because of primarily because of the deconsolidation of Antero Midstream Partners. Consolidated net income attributable to Antero of $1.0 billion for the six months ended June 30, 2019 increased from consolidated net loss attributable to Antero of $122 million for the three months ended June 30, 2018 primarily because of the gain on deconsolidation of Antero Midstream Partners and changes in commodity derivative fair value gains.

Adjusted EBITDAX decreased from $823 million for the six months ended June 30, 2018 to $694 million for the six months ended June 30, 2019, a decrease of 16%, primarily because of the deconsolidation of Antero Midstream Partners.

Consolidated cash flows from operations decreased from $839 million for the six months ended June 30, 2018 to $757 million for the six months ended June 30, 2019.

2019 Capital Budget and Capital Spending

Our exploration and production capital budget for 2019 is a range of $1.4 billion to $1.6 billion, which includes: $1.3 billion to $1.45 billion for drilling and completion and $75 million to $100 million for leasehold expenditures. We do not include acquisitions in our capital budget. We periodically review our capital expenditures and adjust our budget and its allocation based on liquidity, drilling results, leasehold acquisition opportunities, and commodity prices.

For the six months ended June 30, 2019, our capital expenditures were approximately $814 million, including drilling and completion costs of $680 million, leasehold acquisitions of $57 million, and other capital expenditures of $5 million. In addition, capital expenditures for the six months ended June 30, 2019, included gathering and compression expenditures of $48 million, water handling and treatment expenditures of $24 million and $25 million of costs invested by Antero Midstream Partners in the Joint Venture. These expenditures relate to the period prior to deconsolidation.

For the three months ended June 30, 2019, our capital expenditures decreased significantly from the three months ended March 31, 2019 from approximately $399 million to $342 million. Our consolidated capital expenditures for the three months ended June 30, 2019 of $342 million include drilling and completion costs of $311 million, leasehold acquisitions of $29 million, and other capital expenditures of $1.5 million, whereas, our capital expenditures for the three months ended March 31, 2019 of $399 million included drilling and completion costs of $369 million, leasehold acquisitions of $27 million, and other capital expenditures of $3 million. This reduction in costs was a result of our well cost savings initiatives which include savings as a result of service cost deflation, sand logistics optimization and operational efficiency gains. As a result, we anticipate our consolidated capital expenditures for the remainder of the year to be more consistent with levels in the three months ended June 30, 2019 as opposed to the levels in the three months ended March 31, 2019.

Hedge Position

As of June 30, 2019, we had fixed price natural gas swap contracts for 1.7 Tcf of our projected natural gas production at a weighted average index price of $2.94 per MMBtu, including contracts for the remainder of 2019 of approximately 139 Bcf of natural gas. We had fixed price oil contracts for 2.8 MMbls of oil at a weighted average price of $59.97 per Bbl for the period July 1, 2019 through December 31, 2020, including contracts for the remainder of 2019 of approximately 0.9 MMbls of oil. We had fixed price NGL contracts for 31,750 metric tonnes of propane at a weighted average index price of $344.44/MT for the month of July 2019. Additionally, we have collar agreements for July 2019 through December 2019 for 290 Bcf of our projected natural gas production at a weighted average floor and ceiling of $2.50 and $3.41, respectively. We had basis swaps for January 2020 through December 2024 for 95 Bcf of our projected natural gas production with pricing differentials ranging from $0.353 to $0.530. We also had NGL contracts for 137,500 Bbls of propane for July 1, 2019 through March 31, 2020 that fix the Mont Belvieu Propane index price at 50% of WTI. These include contracts for the remainder of 2019 of approximately 92,000 Bbls of propane.

We believe our hedge position provides some certainty to cash flows supporting our future operations and capital spending plans. As of June 30, 2019, the estimated fair value of our commodity derivative contracts was approximately $716 million.

Credit Facility

As of June 30, 2019, our borrowing base under the Credit Facility was $4.5 billion and lender commitments were $2.5 billion. Each of these amounts were reaffirmed in the annual redetermination in April 2019. The maturity date of the Credit Facility is the earlier of (i) October 26, 2022 and (ii) the date that is 91 days prior to the earliest stated redemption date of any series of our senior notes, unless such series of notes is refinanced. The borrowing base under our Credit Facility is redetermined annually and is based on the estimated future cash flows from our proved oil and gas reserves and our commodity derivative positions. The next redetermination is scheduled to occur in April 2020. At June 30, 2019, we had $175 million of borrowings, with a weighted average interest rate of 3.69%, and $701 million of letters of credit outstanding under the Credit Facility. See "—Debt Agreements and Contractual Obligations—Senior Secured Revolving Credit Facility" for a description of the Credit Facility.

Results of Operations

The Company has three operating segments: (1) the exploration, development and production of natural gas, NGLs, and oil; (2)marketing and utilization of excess firm transportation capacity gathering and processing; and (3) equity method investment in Antero Midstream Corporation. Revenues from Antero Midstream Corporation's operations were primarily derived from intersegment transactions for services provided to our exploration and production operations by Antero Midstream Partners. All intersegment transactions were eliminated upon consolidation, including revenues from water handling and treatment services provided by Antero Midstream Partners, which were capitalized as proved property development costs by Antero. Through March 12, 2019, the results of Antero Midstream Partners were included in the consolidated financial statements of Antero. Effective March 13, 2019, the results of Antero Midstream Partners are no longer consolidated in Antero's results; however, the Company's segment disclosures include the segments of our unconsolidated affiliates due to their significance to the Company's operations. See Note 3 to the unaudited condensed consolidated financial statements for further discussion on the Transactions and Note 17 to the unaudited condensed consolidated financial statements for disclosures on the Company's reportable segments. Marketing revenues are primarily derived from activities to purchase and sell third-party natural gas and NGLs and to market and utilize excess firm transportation capacity.

Three Months Ended June 30, 2018 Compared to Three Months Ended June 30, 2019

The operating results of the Company's reportable segments were as follows for the three months ended June 30, 2018 and 2019 (in thousands):

	Exploration and production	Marketing	Midstream	Elimination of intersegment transactions	Consolidated total
Three months ended June 30, 2018:					
Revenue and other:					
Natural gas sales	$ 473,540	—	—	—	473,540
Natural gas liquids sales	255,985	—	—	—	255,985
Oil sales	38,873	—	—	—	38,873
Commodity derivative fair value gains	55,336	—	—	—	55,336
Gathering, compression, and water handling and treatment	—	—	250,392	(244,874)	5,518
Marketing	—	160,202	—	—	160,202
Marketing derivative fair value losses	—	(110)	—	—	(110)
Gain on sale of assets	—	—	583	(583)	—
Other income	5,179	—	—	(5,179)	—
Total	$ 828,913	160,092	250,975	(250,636)	989,344
Operating expenses:					
Lease operating	$ 32,312	—	62,218	(64,366)	30,164
Gathering, compression, processing, and transportation	409,708	—	12,400	(114,322)	307,786
Production and ad valorem taxes	24,886	—	1,005	—	25,891
Marketing	—	213,420	—	—	213,420
Exploration	1,471	—	—	—	1,471
Impairment of oil and gas properties	134,437	—	—	—	134,437
Impairment of gathering systems and facilities	—	—	8,501	—	8,501
Accretion of asset retirement obligations	666	—	34	—	700
Depletion, depreciation, and amortization	201,393	—	36,657	—	238,050
General and administrative (excluding equity-based compensation)	33,458	—	9,627	(469)	42,616
Equity-based compensation	13,204	—	5,867	—	19,071
Change in fair value of contingent acquisition consideration	—	—	3,947	(3,947)	—
Total	851,535	213,420	140,256	(183,104)	1,022,107
Operating income (loss)	$ (22,622)	(53,328)	110,719	(67,532)	(32,763)
Equity in earnings of unconsolidated affiliates	$ —	—	9,264	—	9,264

	Exploration and production	Marketing	Equity Method Investment in Antero Midstream Corporation	Elimination of intersegment transactions and unconsolidated affiliates	Consolidated total
Three months ended June 30, 2019:					
Revenue and other:					
Natural gas sales	$ 553,372	—	—	—	553,372
Natural gas liquids sales	303,963	—	—	—	303,963
Oil sales	49,062	—	—	—	49,062
Commodity derivative fair value gains	328,427	—	—	—	328,427
Gathering, compression, and water handling and treatment	—	—	264,152	(264,152)	—
Marketing	—	63,080	—	—	63,080
Other income (loss)	1,760	—	(8,534)	8,534	1,760
Total	$ 1,236,584	63,080	255,618	(255,618)	1,299,664
Operating expenses:					
Lease operating	$ 40,857	—	50,549	(50,549)	40,857
Gathering, compression, processing, and transportation	566,834	—	12,311	(12,311)	566,834
Production and ad valorem taxes	30,968	—	1,138	(1,138)	30,968
Marketing	—	137,539	—	—	137,539
Exploration	314	—	—	—	314
Impairment of oil and gas properties	130,999	—	—	—	130,999
Impairment of gathering systems and facilities	—	—	594	(594)	—
Depletion, depreciation, and amortization	242,302	—	36,447	(36,447)	242,302
Loss on sale of assets	951	—	—	—	951
Accretion of asset retirement obligations	918	—	69	(69)	918
General and administrative (excluding equity-based compensation)	35,833	—	13,079	(13,079)	35,833
Equity-based compensation	6,549	—	21,543	(21,543)	6,549
Change in fair value of contingent acquisition consideration	—	—	2,297	(2,297)	—
Contract termination and rig stacking	5,604	—	—	—	5,604
Total	1,062,129	137,539	138,027	(138,027)	1,199,668
Operating income (loss)	$ 174,455	(74,459)	117,591	(117,591)	99,996
Equity in earnings of unconsolidated affiliates	$ 13,585	—	13,623	(13,623)	13,585

Exploration and Production Segment Results for the Three Months Ended June 30, 2018 Compared to the Three Months Ended June 30, 2019

The following table sets forth selected operating data of the exploration and production segment for the three months ended June 30, 2018 compared to the three months ended June 30, 2019:

	Three months ended June 30, 2018	Three months ended June 30, 2019	Amount of Increase (Decrease)	Percent Change
Production data:				
Natural gas (Bcf)	167	208	41	25 %
C2 Ethane (MBbl)	3,290	3,720	430	13 %
C3+ NGLs (MBbl)	6,414	9,576	3,162	49 %
Oil (MBbl)	632	940	308	49 %
Combined (Bcfe)	229	294	65	28 %
Daily combined production (MMcfe/d)	2,520	3,226	706	28 %
Average prices before effects of derivative settlements (1):				
Natural gas (per Mcf)	$ 2.83	$ 2.66	$ (0.17)	(6)%
C2 Ethane (per Bbl)	$ 9.93	$ 8.16	$ (1.77)	(18)%
C3+ NGLs (per Bbl)	$ 34.81	$ 28.57	$ (6.24)	(18)%
Oil (per Bbl)	$ 61.55	$ 52.19	$ (9.36)	(15)%
Weighted Average Combined (per Mcfe)	$ 3.35	$ 3.09	$ (0.26)	(8)%
Average realized prices after effects of derivative settlements (1):				
Natural gas (per Mcf)	$ 3.50	$ 2.86	$ (0.64)	(18)%
C2 Ethane (per Bbl)	$ 9.93	$ 8.16	$ (1.77)	(18)%
C3+ NGLs (per Bbl)	$ 33.10	$ 28.67	$ (4.43)	(13)%
Oil (per Bbl)	$ 52.11	$ 53.49	$ 1.38	3 %
Weighted Average Combined (per Mcfe)	$ 3.77	$ 3.24	$ (0.53)	(14)%
Average costs (per Mcfe):				
Lease operating	$ 0.14	$ 0.14	$ —	— %
Gathering, compression, processing, and transportation	$ 1.79	$ 1.93	$ 0.14	8 %
Production and ad valorem taxes	$ 0.11	$ 0.11	$ —	— %
Marketing expense, net	$ 0.23	$ 0.25	$ 0.02	9 %
Depletion, depreciation, amortization, and accretion	$ 0.88	$ 0.83	$ (0.05)	(6)%
General and administrative (excluding equity-based compensation)	$ 0.15	$ 0.12	$ (0.03)	(20)%

(1) Average sales prices shown in the table reflect both the before and after effects of our settled commodity derivatives. Our calculation of such after effects includes gains on settlements of commodity derivatives but does not include proceeds from derivative monetizations, which do not qualify for hedge accounting because we do not designate or document them as hedges for accounting purposes. Oil and NGLs production was converted at 6 Mcf per Bbl to calculate total Bcfe production and per Mcfe amounts. This ratio is an estimate of the equivalent energy content of the products and does not necessarily reflect their relative economic value.

Natural gas sales. Revenues from production of natural gas increased from $474 million for the three months ended June 30, 2018 to $553 million for the three months ended June 30, 2019, an increase of $79 million, or 17%. Increased natural gas production volumes accounted for an approximate $116 million increase in year-over-year product natural gas revenues (calculated as the change in year-to-year volumes times the prior year average price), and changes in our prices, excluding the effects of derivative settlements, accounted for an approximate $37 million decrease in year-over-year product revenues (calculated as the change in the year-to-year average price times current year production volumes).

NGLs sales. Revenues from production of NGLs increased from $256 million for the three months ended June 30, 2018 to $304 million for the three months ended June 30, 2019, an increase of $48 million, or 19%. Increased NGLs production volumes accounted for an approximate $114 million increase in year-over-year product NGLs revenues (calculated as the change in year-to-year volumes times the prior year average price), and changes in our prices, excluding the effects of derivative settlements, accounted for an approximate $66 million decrease in year-over-year product revenues (calculated as the change in the year-to-year average price times current year production volumes).

Oil sales. Revenues from production of oil increased from $39 million for the three months ended June 30, 2018 to $49 million for the three months ended June 30, 2019, an increase of $10 million, or 26%. Increased oil production volumes accounted for an approximate $19 million increase in year-over-year product oil revenues (calculated as the change in year-to-year volumes times the prior year average price), and changes in our prices, excluding the effects of derivative settlements, accounted for an approximate $9 million decrease in year-over-year product revenues (calculated as the change in the year-to-year average price times current year production volumes).

During the three months ended June 30, 2018 and 2019, our natural gas prices and revenues were negatively affected by contractual issues with certain of our customers. For more information on these disputes, please see Note 14 to the unaudited condensed consolidated financial statements or "Item 1. Legal Proceedings" included elsewhere in this Quarterly Report on Form 10-Q.

Commodity derivative fair value gains. To achieve more predictable cash flows, and to reduce our exposure to price fluctuations, we enter into fixed for variable price swap contracts, basis swap contracts and collar contracts when management believes that favorable future sales prices for our production can be secured. Because we do not designate these derivatives as accounting hedges, they do not receive hedge accounting treatment. Consequently, all mark-to-market gains or losses, as well as cash receipts or payments on settled derivative instruments, are recognized in our statements of operations. For the three months ended June 30, 2018 and 2019, our commodity hedges resulted in derivative fair value gains of $55 million and $328 million, respectively. The commodity derivative fair value gains included $96 million and $45 million of gains on cash settled derivatives for the three months ended June 30, 2018 and 2019, respectively.

Commodity derivative fair value gains or losses vary based on future commodity prices and have no cash flow impact until the derivative contracts are settled or monetized prior to settlement. Derivative asset or liability positions at the end of any accounting period may reverse to the extent future commodity prices increase or decrease from their levels at the end of the accounting period, or as gains or losses are realized through settlement. We expect continued volatility in commodity prices and the related fair value of our derivative instruments in the future.

Other income. Other income decreased from $5 million for the three months ended June 30, 2018 to $2 million for the three months ended June 30, 2019.

Lease operating expense. Lease operating expense increased from $32 million for the three months ended June 30, 2018 to $41 million for the three months ended June 30, 2019, an increase of 26%. This increase is primarily due to a 28% increase in production. On a per unit basis, lease operating expenses remained flat at $0.14 per Mcfe for the three months ended June 30, 2018 and 2019.

Gathering, compression, processing, and transportation expense. Gathering, compression, processing, and transportation expense increased from $410 million for the three months ended June 30, 2018 to $567 million for the three months ended June 30, 2019. This is primarily a result of the increase in production. On a per Mcfe basis, total gathering, compression, processing and transportation expenses increased from $1.79 per Mcfe for the three months ended June 30, 2018 to $1.93 per Mcfe for the three months ended June 30, 2019. Processing costs increased from $0.56 per Mcfe for the three months ended June 30, 2018 to $0.65 per Mcfe for the three months ended June 30, 2019, as NGL production has increased as a proportion of our Mcfe production. Processing costs on a per Bbl basis have remained relatively consistent. Transportation costs increased from $0.50 per Mcfe for the three months ended June 30, 2018 to $0.56 per Mcfe for the three months ended June 30, 2019, primarily as a result of the Mountaineer Xpress pipeline placed in service in February 2019. These increases were slightly offset by a $0.01 per Mcfe decrease quarter over quarter in other gathering and compression expenses.

Production and ad valorem tax expense. Total production and ad valorem taxes increased from $25 million for the three months ended June 30, 2018 to $31 million for the three months ended June 30, 2019 as a result of an increase in production revenues. On a per Mcfe basis, production and ad valorem taxes remained flat at $0.11 per Mcfe for the three months ended June 30, 2018 and 2019.

Exploration expense. Exploration expense representing expenses incurred for unsuccessful lease acquisition efforts decreased from $1.5 million for the three months ended June 30, 2018 to less than $1 million for the three months ended June 30, 2019 as leasing activities declined.

Impairment of oil and gas properties. Impairment of oil and gas properties decreased from $134 million for the three months ended June 30, 2018 to $131 million for the three months ended June 30, 2019 due to expiring leases and impairment of design and initial costs related to pads that are no longer planned to be placed into service. We charge impairment expense for expired or soon-to-be expired leases when we determine they are impaired based on factors such as remaining lease terms, reservoir performance, commodity price outlooks, and future plans to develop the acreage.

Depletion, depreciation, and amortization expense ("DD&A"). DD&A expense increased from $201 million for the three months ended June 30, 2018 to $242 million for the three months ended June 30, 2019, primarily due to increased production. DD&A per Mcfe decreased from $0.88 per Mcfe during the three months ended June 30, 2018 to $0.83 per Mcfe during the three months ended June 30, 2019, as our net oil and gas reserve volumes increased more than our net costs. As a result of the Transactions and the associated deconsolidation of Antero Midstream Partners, our oil and gas reserves have been redetermined on a stand-alone basis.

General and administrative expense. General and administrative expense (excluding equity-based compensation expense) increased from $33 million for the three months ended June 30, 2018 to $36 million for the three months ended June 30, 2019, primarily due to an increase in legal expenses for corporate matters. On a per-unit basis, general and administrative expense excluding equity-based compensation decreased by 20%, from $0.15 per Mcfe during the three months ended June 30, 2018 to $0.12 per Mcfe during the three months ended June 30, 2019 as the increase in expenses from 2018 to 2019 was more than offset by the increase in production. We had 608 employees as of June 30, 2018 and 590 employees as of June 30, 2019.

Equity-based compensation expense. Noncash equity-based compensation expense decreased from $13 million for the three months ended June 30, 2018 to $7 million for the three months ended June 30, 2019 as a result of equity award forfeitures, as well as a decrease in the total value of awards to officers and employees in 2019 as compared to 2018. When an equity award is forfeited, expense previously recognized for the award is reversed. See Note 9 to the unaudited condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q for more information on equity-based compensation awards.

Contract termination and rig stacking. We incurred contract termination and rig stacking costs of $5.6 million during the three months ended June 30, 2019, representing fees incurred upon the delay or cancellation of drilling and completion contracts with third-party contractors in the first quarter of 2019 to align our drilling and completion activity level with our 2019 capital budget.

Discussion of Antero Midstream Corporation Segment for the Three Months Ended June 30, 2018 Compared to the Three Months Ended June 30, 2019

Through March 12, 2019, the results of Antero Midstream Partners were included in the consolidated financial statements of Antero. Effective March 13, 2019, the results of Antero Midstream Partners were no longer consolidated in Antero's results. See Note 3 to the unaudited condensed consolidated financial statements for further discussion on the Transactions. The three months ended June 30, 2018 include the results of Antero Midstream Partners while the three months ended June 30, 2019 account for our interest in Antero Midstream Corporation as an equity method investment.

Antero Midstream Corporation. Revenue from the Antero Midstream Corporation segment increased from $251 million for the three months ended June 30, 2018 to $256 million for the three months ended June 30, 2019, an increase of $5 million, or 2%, due to an increase in wells serviced by Antero Midstream Partners' system as well as new gathering lines and compressor stations placed into service partially offset by a decrease in freshwater delivery. Total operating expenses related to the segment decreased from $140 million for the three months ended June 30, 2018 to $138 million for the three months ended June 30, 2019 primarily due to decreased in operating costs partially offset by increased general and administrative costs including equity-based compensation.

In addition, Antero Midstream Partners had equity in earnings of unconsolidated affiliates of $9 million and $14 million for the three months ended June 30, 2018 and 2019, respectively.

Discussion of the Marketing Segment for the Three Months Ended June 30, 2018 Compared to the Three Months Ended June 30, 2019

Marketing. Where feasible, we purchase and sell third-party natural gas and NGLs and market our excess firm transportation capacity, or engage third parties to conduct these activities on our behalf, to optimize the revenues and reduce our net costs related to the unused capacity under these transportation agreements. We have entered into long-term firm transportation agreements for a significant portion of our current and expected future production to secure guaranteed capacity to favorable markets.

Marketing revenues were $160 million and $63 million, and expenses were $213 million and $138 million, for the three months ended June 30, 2018 and 2019, respectively, related to these activities.

Marketing expenses include firm transportation costs related to current excess capacity as well as the cost of third-party purchased gas and NGLs. This includes firm transportation costs of $41 million and $66 million for the three months ended June 30, 2018 and 2019, respectively, which increased due to increased excess capacity charges related to new firm transportation lines being placed into service in late 2018 and in the first quarter of 2019.

Operating losses on our marketing activities were $53 million and $74 million, or $0.23 per Mcfe and $0.25 per Mcfe, for the three months ended June 30, 2018 and 2019, respectively.

Discussion of Items Not Allocated to Segments for the Three Months Ended June 30, 2018 Compared to the Three Months Ended June 30, 2019

Interest expense. Interest expense decreased from $69 million for the three months ended June 30, 2018 to $54 million for the three months ended June 30, 2019, due to decreased borrowings under the Credit Facility and the three month ended June 30, 2019 not including interest related to Antero Midstream Partners' debt. The three months ended June 30, 2018 include the results of Antero Midstream Partners while the three months ended June 30, 2019 account for our interest in Antero Midstream Corporation as an equity method investment. Interest expense includes approximately $3.2 million and $2.6 million of non-cash amortization of deferred financing costs for the three months ended June 30, 2018 and 2019, respectively.

Income tax (expense) benefit. Income tax (expense) benefit changed from a deferred tax benefit of $26 million, with an effective tax rate of 28%, for the three months ended June 30, 2018 to a deferred tax expense of $17 million, with an effective tax rate of 29%, for the three months ended June 30, 2019. The change was primarily a result of the increase in book income due to the Transactions and the associated deconsolidation of Antero Midstream Partners.

At December 31, 2018, we had significant NOLs for U.S. federal and state income tax purposes. We will utilize a substantial portion of our NOLs to offset the taxable gain from the Transactions. Future interpretations of existing tax laws that vary from our current interpretation, and possible changes to state tax laws in response to the recently enacted federal legislation, may have a significant effect on our future taxable position. The impact of any such change would be recorded in the period in which such interpretation is received or legislation is enacted.

Six Months Ended June 30, 2018 Compared to Six Months Ended June 30, 2019

The operating results of the Company's reportable segments were as follows for the six months ended June 30, 2018 and 2019 (in thousands):

	Exploration and production	Marketing	Midstream	Elimination of intersegment transactions	Consolidated total
Six months ended June 30, 2018:					
Revenue and other:					
Natural gas sales	$ 971,203	—	—	—	971,203
Natural gas liquids sales	490,155	—	—	—	490,155
Oil sales	69,146	—	—	—	69,146
Commodity derivative fair value gains	77,773	—	—	—	77,773
Gathering, compression, and water handling and treatment	—	—	479,983	(469,530)	10,453
Marketing	—	304,591	—	—	304,591
Marketing derivative fair value gains	—	94,124	—	—	94,124
Gain on sale of assets	—	—	583	(583)	—
Other income	11,054	—	—	(11,054)	—
Total	$ 1,619,331	398,715	480,566	(481,167)	2,017,445
Operating expenses:					
Lease operating	$ 63,574	—	117,090	(123,778)	56,886
Gathering, compression, processing, and transportation	794,053	—	23,768	(218,097)	599,724
Production and ad valorem taxes	49,693	—	2,021	—	51,714
Marketing	—	409,159	—	—	409,159
Exploration	3,356	—	—	—	3,356
Impairment of oil and gas properties	184,973	—	—	—	184,973
Impairment of gathering systems and facilities	—	—	8,501	—	8,501
Accretion of asset retirement obligations	1,322	—	68	—	1,390
Depletion, depreciation, and amortization	396,981	—	69,313	—	466,294
General and administrative (excluding equity-based compensation)	64,933	—	17,871	(1,314)	81,490
Equity-based compensation	28,149	—	12,078	—	40,227
Change in fair value of contingent acquisition consideration	—	—	7,821	(7,821)	—
Total	1,587,034	409,159	258,531	(351,010)	1,903,714
Operating income (loss)	$ 32,297	(10,444)	222,035	(130,157)	113,731
Equity in earnings of unconsolidated affiliates	$ —	—	17,126	—	17,126

	Exploration and production	Marketing	Equity Method Investment in Antero Midstream Corporation	Elimination of intersegment transactions and unconsolidated affiliates	Consolidated total
Six months ended June 30, 2019:					
Revenue and other:					
Natural gas sales	$ 1,210,638	—	—	—	1,210,638
Natural gas liquids sales	617,648	—	—	—	617,648
Oil sales	97,114	—	—	—	97,114
Commodity derivative fair value gains	251,059	—	—	—	251,059
Gathering, compression, and water handling and treatment	—	—	320,041	(315,562)	4,479
Marketing	—	154,266	—	—	154,266
Other income (loss)	3,518	—	(10,315)	8,664	1,867
Total	$ 2,179,977	154,266	309,726	(306,898)	2,337,071
Operating expenses:					
Lease operating	$ 83,826	—	62,377	(63,614)	82,589
Gathering, compression, processing, and transportation	1,101,849	—	15,233	(125,719)	991,363
Production and ad valorem taxes	65,706	—	1,370	(430)	66,646
Marketing	—	300,623	—	—	300,623
Exploration	440	—	—	—	440
Impairment of oil and gas properties	212,243	—	—	—	212,243
Impairment of gathering systems and facilities	—	—	7,576	(594)	6,982
Depletion, depreciation, and amortization	460,796	—	44,097	(22,390)	482,503
Loss on sale of assets	951	—	—	—	951
Accretion of asset retirement obligations	1,831	—	79	(16)	1,894
General and administrative (excluding equity-based compensation)	79,315	—	21,465	(30,423)	70,357
Equity-based compensation	12,975	—	32,966	(5,714)	40,227
Change in fair value of contingent acquisition consideration	—	—	3,346	(3,346)	—
Contract termination and rig stacking	13,964	—	—	—	13,964
Total	2,033,896	300,623	188,509	(252,246)	2,270,782
Operating income (loss)	$ 146,081	(146,357)	121,217	(54,652)	66,289
Equity in earnings of unconsolidated affiliates	$ 15,402	—	16,503	(4,239)	27,666

Exploration and Production Segment Results for the Six Months Ended June 30, 2018 Compared to the Six Months Ended June 30, 2019

The following table sets forth selected operating data of the exploration and production segment for the six months ended June 30, 2018 compared to the six months ended June 30, 2019:

	Six months ended June 30, 2018	Six months ended June 30, 2019	Amount of Increase (Decrease)	Percent Change
Production data:				
Natural gas (Bcf)	326	407	81	25 %
C2 Ethane (MBbl)	6,320	7,229	909	14 %
C3+ NGLs (MBbl)	12,107	18,370	6,263	52 %
Oil (MBbl)	1,161	1,958	797	69 %
Combined (Bcfe)	443	572	129	29 %
Daily combined production (MMcfe/d)	2,448	3,163	715	29 %
Average prices before effects of derivative settlements (1):				
Natural gas (per Mcf)	$ 2.98	$ 2.97	$ (0.01)	(0)%
C2 Ethane (per Bbl)	$ 9.46	$ 9.11	$ (0.35)	(4)%
C3+ NGLs (per Bbl)	$ 35.55	$ 30.04	$ (5.51)	(15)%
Oil (per Bbl)	$ 59.54	$ 49.61	$ (9.93)	(17)%
Weighted Average Combined (per Mcfe)	$ 3.45	$ 3.36	$ (0.09)	(3)%
Average realized prices after effects of derivative settlements (1):				
Natural gas (per Mcf)	$ 3.67	$ 3.32	$ (0.35)	(10)%
C2 Ethane (per Bbl)	$ 9.46	$ 9.11	$ (0.35)	(4)%
C3+ NGLs (per Bbl)	$ 34.07	$ 30.09	$ (3.98)	(12)%
Oil (per Bbl)	$ 51.66	$ 50.23	$ (1.43)	(3)%
Weighted Average Combined (per Mcfe)	$ 3.90	$ 3.61	$ (0.29)	(7)%
Average costs (per Mcfe):				
Lease operating	$ 0.14	$ 0.15	$ 0.01	7 %
Gathering, compression, processing, and transportation	$ 1.79	$ 1.92	$ 0.13	7 %
Production and ad valorem taxes	$ 0.11	$ 0.11	$ —	— %
Marketing expense (gain), net	$ 0.24	$ 0.26	$ 0.02	8 %
Depletion, depreciation, amortization, and accretion	$ 0.90	$ 0.81	$ (0.09)	(10)%
General and administrative (excluding equity-based compensation)	$ 0.15	$ 0.14	$ (0.01)	(7)%

(1) Average sales prices shown in the table reflect both the before and after effects of our settled commodity derivatives. Our calculation of such after effects includes gains on settlements of commodity derivatives but does not include proceeds from derivative monetizations, which do not qualify for hedge accounting because we do not designate or document them as hedges for accounting purposes. Oil and NGLs production was converted at 6 Mcf per Bbl to calculate total Bcfe production and per Mcfe amounts. This ratio is an estimate of the equivalent energy content of the products and does not necessarily reflect their relative economic value.

Natural gas sales. Revenues from production of natural gas increased from $971 million for the six months ended June 30, 2018 to $1.2 billion for the six months ended June 30, 2019, an increase of $239 million, or 25%. Increased natural gas production volumes accounted for an approximate $241 million increase in year-over-year product natural gas revenues (calculated as the change in year-to-year volumes times the prior year average price), and changes in our prices, excluding the effects of derivative settlements, accounted for an approximate $2 million decrease in year-over-year product revenues (calculated as the change in the year-to-year average price times current year production volumes).

NGLs sales. Revenues from production of NGLs increased from $490 million for the six months ended June 30, 2018 to $618 million for the six months ended June 30, 2019, an increase of $128 million, or 26%. Increased NGLs production volumes accounted for an approximate $231 million increase in year-over-year product NGLs revenues (calculated as the change in year-to-year volumes times the prior year average price), and changes in our prices, excluding the effects of derivative settlements, accounted for an approximate $103 million decrease in year-over-year product revenues (calculated as the change in the year-to-year average price times current year production volumes).

Oil sales. Revenues from production of oil increased from $69 million for the six months ended June 30, 2018 to $97 million for the six months ended June 30, 2019, an increase of $28 million, or 40%. Increased oil production volumes accounted for an approximate $47 million increase in year-over-year product oil revenues (calculated as the change in year-to-year volumes times the prior year average price), and changes in our prices, excluding the effects of derivative settlements, accounted for an approximate $19 million decrease in year-over-year product revenues (calculated as the change in the year-to-year average price times current year production volumes).

During the six months ended June 30, 2018 and 2019, our natural gas prices and revenues were negatively affected by contractual issues with certain of our customers. For more information on these disputes, please see Note 14 to the unaudited condensed consolidated financial statements or “Item 1. Legal Proceedings” included elsewhere in this Quarterly Report on Form 10-Q.

Commodity derivative fair value gains. To achieve more predictable cash flows, and to reduce our exposure to price fluctuations, we enter into fixed for variable price swap contracts, basis swap contracts and collar contracts when management believes that favorable future sales prices for our production can be secured. Because we do not designate these derivatives as accounting hedges, they do not receive hedge accounting treatment. Consequently, all mark-to-market gains or losses, as well as cash receipts or payments on settled derivative instruments, are recognized in our statements of operations. For the six months ended June 30, 2018 and 2019, our commodity hedges resulted in derivative fair value gains of $78 million and $251 million, respectively. The commodity derivative fair value gains included $197 million and $143 million of gains on cash settled derivatives for the six months ended June 30, 2018 and 2019, respectively.

Commodity derivative fair value gains or losses vary based on future commodity prices and have no cash flow impact until the derivative contracts are settled or monetized prior to settlement. Derivative asset or liability positions at the end of any accounting period may reverse to the extent future commodity prices increase or decrease from their levels at the end of the accounting period, or as gains or losses are realized through settlement. We expect continued volatility in commodity prices and the related fair value of our derivative instruments in the future.

Other income. Other income decreased from $11 million for the six months ended June 30, 2018 to $4 million for the six months ended June 30, 2019.

Lease operating expense. Lease operating expense increased from $64 million for the six months ended June 30, 2018 to $84 million for the six months ended June 30, 2019, an increase of 32%. This increase is primarily due to a 29% increase in production. On a per unit basis, lease operating expenses increased slightly from $0.14 for the six months ended June 30, 2018 to $0.15 for the six months ended June 30, 2019 primarily as a result of increased water disposal costs.

Gathering, compression, processing, and transportation expense. Gathering, compression, processing, and transportation expense increased from $794 million for the six months ended June 30, 2018 to $1.1 billion for the six months ended June 30, 2019. This is primarily a result of the increase in production. On a per Mcfe basis, total gathering, compression, processing and transportation expenses increased from $1.79 per Mcfe for the six months ended June 30, 2018 to $1.92 per Mcfe for the six months ended June 30, 2019. Processing costs increased from $0.54 per Mcfe for the three months ended June 30, 2018 to $0.63 per Mcfe for the three months ended June 30, 2019, as NGL production has increased as a proportion of our Mcfe production. Processing costs on a per Bbl basis have remained relatively consistent. Transportation costs increased from $0.52 per Mcfe for the three months ended June 30, 2018 to $0.55 per Mcfe for the three months ended June 30, 2019, primarily as a result of the Mountaineer Xpress pipeline placed in service in February 2019. Other gathering and compression expenses increased from $0.73 per Mcfe for the three months ended June 30, 2018 to $0.74 per Mcfe for the three months ended June 30, 2019 due to an increase in fees paid to Antero Midstream Partners as our production growth required the use of more compression services.

Production and ad valorem tax expense. Total production and ad valorem taxes increased from $50 million for the six months ended June 30, 2018 to $66 million for the six months ended June 30, 2019 as a result of an increase in production revenues. On a per Mcfe basis, production and ad valorem taxes remained relatively flat at $0.11 per Mcfe for the six months ended June 30, 2018 and 2019.

Exploration expense. Exploration expense representing expenses incurred for unsuccessful lease acquisition efforts decreased from $3.4 million for the six months ended June 30, 2018 to less than $1 million for the six months ended June 30, 2019 as leasing activities declined.

Impairment of oil and gas properties. Impairment of oil and gas properties increased from $185 million for the six months ended June 30, 2018 to $212 million for the six months ended June 30, 2019 due to expiring leases and impairment of design and initial costs related to pads that are no longer planned to be placed into service. We charge impairment expense for expired or soon-to-be expired leases when we determine they are impaired based on factors such as remaining lease terms, reservoir performance, commodity price outlooks, and future plans to develop the acreage.

Depletion, depreciation, and amortization expense (“DD&A”). DD&A expense increased from $397 million for the six months ended June 30, 2018 to $461 million for the six months ended June 30, 2019, primarily due to increased production. DD&A per Mcfe decreased from $0.90 per Mcfe during the six months ended June 30, 2018 to $0.81 per Mcfe during the six months ended

June 30, 2019, as our net oil and gas reserve volumes increased more than our net costs. As a result of the Transactions and the associated deconsolidation of Antero Midstream Partners, our oil and gas reserves have been redetermined on a stand-alone basis.

General and administrative expense. General and administrative expense (excluding equity-based compensation expense) increased from $65 million for the six months ended June 30, 2018 to $79 million for the six months ended June 30, 2019, primarily due to $6.3 million in legal and other expenses related to the Transactions, as well as an increase in other legal costs related to corporate matters. On a per-unit basis, general and administrative expense excluding equity-based compensation decreased by 7%, from $0.15 per Mcfe during the six months ended June 30, 2018 to $0.14 per Mcfe during the six months ended June 30, 2019 as the increase in expenses from 2018 to 2019 was nearly offset by a 29% increase in production. We had 608 employees as of June 30, 2018 and 590 employees as of June 30, 2019.

Equity-based compensation expense. Noncash equity-based compensation expense decreased from $28 million for the six months ended June 30, 2018 to $13 million for the six months ended June 30, 2019 as a result of equity award forfeitures, as well as a decrease in the total value of awards to officers and employees in 2019 as compared to 2018. When an equity award is forfeited, expense previously recognized for the award is reversed. See Note 9 to the unaudited condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q for more information on equity-based compensation awards.

Contract termination and rig stacking. We incurred contract termination and rig stacking costs of $14 million during the six months ended June 30, 2019, representing fees incurred upon the delay or cancellation of drilling and completion contracts with third-party contractors in the first quarter of 2019 in order to align our drilling and completion activity level with our 2019 capital budget.

Discussion of Antero Midstream Corporation Segment for the Six Months Ended June 30, 2018 Compared to the Six Months Ended June 30, 2019

Through March 12, 2019, the results of Antero Midstream Partners were included in the consolidated financial statements of Antero. Effective March 13, 2019, the results of Antero Midstream Partners were no longer consolidated in Antero's results. See Note 3 to the unaudited condensed consolidated financial statements for further discussion on the Transactions. The six months ended June 30, 2018 include the results of Antero Midstream Partners while the six months ended June 30, 2019 include partial results of Antero Midstream Partners through March 12, 2019.

Antero Midstream Corporation. Revenue from the Antero Midstream Corporation segment decreased from $481 million for the six months ended June 30, 2018 to $310 million for the six months ended June 30, 2019, a decrease of $171 million, or 36%. Total operating expenses related to the segment decreased from $259 million for the six months ended June 30, 2018 to $189 million for the six months ended June 30, 2019. The decreases were primarily due to the Transactions. See Note 3 to the unaudited condensed consolidated financial statements for further discussion on the Transactions.

In addition, Antero Midstream Partners had equity in earnings of unconsolidated affiliates of $17 million for each of the six months ended June 30, 2018 and 2019.

Discussion of the Marketing Segment for the Six Months Ended June 30, 2018 Compared to the Six Months Ended June 30, 2019

Marketing. Where feasible, we purchase and sell third-party natural gas and NGLs and market our excess firm transportation capacity, or engage third parties to conduct these activities on our behalf, in order to optimize the revenues and reduce our net costs related to the unused capacity under these transportation agreements. We have entered into long-term firm transportation agreements for a significant portion of our current and expected future production in order to secure guaranteed capacity to favorable markets.

Marketing revenues were $399 million and $154 million and expenses of $409 million and $301 million for the six months ended June 30, 2018 and 2019, respectively, related to these activities.

Marketing expenses include firm transportation costs related to current excess capacity as well as the cost of third-party purchased gas and NGLs. This includes firm transportation costs of $76 million and $127 million for the six months ended June 30, 2018 and 2019, respectively, which increased due to increased excess capacity charges related to new firm transportation lines being placed into service in late 2018 and in the first quarter of 2019. Additionally, the marketing segment recorded a fair value gain of $94 million in the six months ended June 30, 2018 related to several natural gas purchase and sales contracts which were determined to be derivative instruments.

Operating losses on our marketing activities were $10 million and $146 million, or $0.24 per Mcfe and $0.26 per Mcfe, for the six months ended June30, 2018 and 2019, respectively.

Discussion of Items Not Allocated to Segments for the Six Months Ended June 30, 2018 Compared to the Six Months Ended June 30, 2019

Interest expense. Interest expense decreased from $134 million for the six months ended June 30, 2018 to $126 million for the six months ended June 30, 2019, due to decreased borrowings under the Credit Facility and due to the six months ended June 30, 2019 including interest related to Antero Midstream Partners' debt through March 12, 2019. Interest expense includes approximately $6.1 million and $5.7 million of non-cash amortization of deferred financing costs for the six months ended June 30, 2018 and 2019, respectively. Interest expense related to stand-alone Antero was $109 million for the six months ended June 30, 2019.

Income tax (expense) benefit. Income tax (expense) benefit changed from a deferred tax benefit of $16 million, with an effective tax rate of 564%, for the six months ended June 30, 2018 to a deferred tax expense of $305 million and $1 million of current tax expense, with an effective tax rate of 22%, for the six months ended June 30, 2019. The change was primarily a result of the increase in book income due to the Transactions and the associated deconsolidation of Antero Midstream Partners.

At December 31, 2018, we had significant NOLs for U.S. federal and state income tax purposes. We will utilize a substantial portion of our NOLs to offset the taxable gain from the Transactions. Future interpretations of existing tax laws that vary from our current interpretation, and possible changes to state tax laws in response to the recently enacted federal legislation, may have a significant effect on our future taxable position. The impact of any such change would be recorded in the period in which such interpretation is received or legislation is enacted.

Capital Resources and Liquidity

Our primary sources of liquidity have been through net cash provided by operating activities including proceeds from derivatives, borrowings under the Credit Facility, issuances of debt and equity securities, and distributions/dividends of earnings from unconsolidated affiliates. Our primary use of cash has been for the exploration, development, and acquisition of oil and natural gas properties, as well as for development of gathering and compression systems and facilities, and fresh water handling and wastewater treatment infrastructure through March 12, 2019. As we pursue the development of our reserves, we continually monitor what capital resources, including equity and debt financings, are available to meet our future financial obligations, planned capital expenditure activities, and liquidity requirements. Our future success in growing our proved reserves and production will be highly dependent on net cash provided by operating activities and the capital resources available to us.

As of June 30, 2019, we believe that funds from operating cash flows and available borrowings under the Credit Facility, distributions/dividends of earnings from unconsolidated affiliates or capital market transactions will be sufficient to meet our cash requirements, including normal operating needs, debt service obligations, capital expenditures, and commitments and contingencies for at least the next 12 months. For more information on our outstanding indebtedness, see Note 7 to the unaudited condensed consolidated financial statements included in this Quarterly Report on Form 10-Q.

The following table summarizes our cash flows for the six months ended June 30, 2018 and 2019:

	Six Months Ended June 30,		Increase
(in thousands)	**2018**	**2019**	**(Decrease)**
Net cash provided by operating activities	$ 838,940	757,108	(81,832)
Net cash used in investing activities	(1,172,347)	(545,586)	626,761
Net cash provided by financing activities	355,574	408,010	52,436
Effect of deconsolidation of Antero Midstream Partners LP	—	(619,532)	(619,532)
Net increase in cash and cash equivalents	$ 22,167	—	(22,167)

The Company's condensed consolidated cash flow statements for the six months ended June30, 2018 and 2019 includes the cash flows related to Antero Midstream Corporation for periods prior to March 13, 2019. Effective March 13, 2019, the Company's cash flows include only the operating, investing and financing activities related to Antero and; therefore, the cash flows for the six months ended June 30, 2018 and 2019 are not representative of the expected future cash flows of the Company.

Cash Flows Provided by Operating Activities

Net cash provided by operating activities was $839 million and $757 million for the six months ended June 30, 2018 and 2019, respectively.

Our net operating cash flows are sensitive to many variables, the most significant of which is the volatility of natural gas, NGLs, and oil prices, as well as volatility in the cash flows attributable to settlement of our commodity derivatives. Prices for natural gas, NGLs, and oil are primarily determined by prevailing market conditions. Regional and worldwide economic activity, weather, infrastructure capacity to reach markets, and other variables influence the market conditions for these products. These factors are beyond our control and are difficult to predict.

Cash Flows Used in Investing Activities

During the six months ended June 30, 2018 and 2019, we used cash flows in investing activities of $1.2 billion and $546 million, respectively, primarily as a result of our capital expenditures for drilling, development, and acquisitions. In addition, cash flows in investing activities included expenditures of Antero Midstream Partners related to construction of midstream and water handling and treatment infrastructure and investments in joint ventures through March 12, 2019. Effective March 13, 2019, these expenditures are no longer consolidated in Antero's results.

Cash flows used in investing activities decreased from $1.2 billion for the six months ended June 30, 2018 to $546 million for the six months ended June 30, 2019, primarily due to a decrease in capital expenditures of $295 million during the six months ended June 30, 2019 as compared to the same period in 2018, and $297 million in proceeds received in connection with the Transactions. See Note 3 to the unaudited condensed consolidated financial statements for further discussion on the Transactions. Total capital expenditures for oil and gas properties decreased from $841 million during the six months ended June 30, 2018 to $737 million during the six months ended June 30, 2019 due to a decrease in drilling and completion activity. Capital expenditures for water handling and treatment systems decreased $34 million from $58 million for the six months ended June 30, 2018 to $24 million for the six months ended June 30, 2019, and capital expenditures for gathering and compression systems decreased $159 million from $207 million to $48 million for the six months ended June 30, 2019. The decreases in capital expenditures for both the water handling and treatment systems, and the gathering and compression systems are due to the six months ended June 30, 2019 only including Antero Midstream Partners' activity through the deconsolidation date of March 12, 2019 as compared to the six months ending June 30, 2018 including Antero Midstream Partners' activity for the entire period. Additionally, investments in joint ventures by Antero Midstream Partners decreased $31 million from $56 million during the six months ended June 30, 2018 to $25 million during the six months ended June 30, 2019 due to the deconsolidation as of March 12, 2019.

Our exploration and production capital budget for 2019 is a range of $1.4 billion to $1.6 billion, which includes: $1.3 billion to $1.45 billion for drilling and completion and $75 million to $100 million for leasehold expenditures. Our capital budget may be adjusted as business conditions warrant as the amount, timing, and allocation of capital expenditures is largely discretionary and within our control. If natural gas, NGLs, and oil prices decline to levels that do not generate an acceptable level of corporate returns, or costs increase to levels that do not generate an acceptable level of corporate returns, we may defer a significant portion of our budgeted capital expenditures until later periods to achieve the desired balance between sources and uses of liquidity, and to prioritize capital projects that we believe have the highest expected returns and potential to generate near-term cash flows. We routinely monitor and adjust our capital expenditures in response to changes in commodity prices, availability of financing, drilling and acquisition costs, industry conditions, the timing of regulatory approvals, the availability of rigs, success or lack of success in drilling activities, contractual obligations, internally generated cash flows, and other factors both within and outside our control.

For the three months ended June 30, 2019, our exploration and production capital expenditures decreased significantly from the three months ended March 31, 2019 from approximately $399 million to $342 million. Our consolidated capital expenditures for the three months ended June 30, 2019 of $342 million include drilling and completion costs of $311 million, leasehold acquisitions of $29 million, and other capital expenditures of $1.5 million, whereas, our capital expenditures for the three months ended March 31, 2019 of $399 million included drilling and completion costs of $369 million, leasehold acquisitions of $27 million, and other capital expenditures of $3 million. We anticipate our exploration and production capital expenditures for the remainder of the year to be generally consistent with levels in the three months ended June 30, 2019.

Cash Flows Provided by Financing Activities

During the six months ended June 30, 2018 and 2019, net cash flows provided by financing activities increased from $356 million to $408 million primarily as a result of the issuance of senior notes by Antero Midstream Partners prior to the Transactions and the associated deconsolidation of Antero Midstream Partners, partially offset by net repayments on our Credit Facility and Antero Midstream Partners' credit facility.

Net borrowings (repayments) on our Credit Facility and Antero Midstream Partners' credit facility changed from net borrowings of $485 million during the six months ended June 30, 2018 to net repayments of $145 million during the six months ended June 30, 2019.

Debt Agreements and Contractual Obligations

Senior Secured Revolving Credit Facility. Our Credit Facility is with a consortium of bank lenders. Borrowings under the Credit Facility are subject to borrowing base limitations based on the collateral value of our assets and are subject to regular annual redeterminations. At June 30, 2019, the borrowing base was $4.5 billion and lender commitments were $2.5 billion. Each of these amounts were reaffirmed in the annual redetermination in April 2019. The next redetermination of the borrowing base is scheduled to occur by the end of April 2020. At June 30, 2019, we had $175 million of borrowings with a weighted average interest rate of 3.69% and $701 million of letters of credit outstanding under the Credit Facility. At December 31, 2018, we had $405 million of borrowings and $685 million of letters of credit outstanding under the Credit Facility, with a weighted average interest rate of 3.95%. The maturity date of the Credit Facility is the earlier of (i) October 26, 2022 and (ii) the date that is 91 days prior to the earliest stated redemption date of any series of our senior notes, unless such series of senior notes is refinanced. Our Credit Facility provides for borrowing under either LIBOR or an Alternative Rate of Interest.

Under the Credit Facility, "Investment Grade Period" is a period that, as long as no event of default has occurred, commences when Antero elects to give notice to the Administrative Agent that Antero has received at least one of either (i) a BBB- or better rating from Standard and Poor's or (ii) a Baa3 or better rating from Moody's (an "Investment Grade Rating"). An Investment Grade Period can end at Antero's election. During any period that is not an Investment Grade Period, the Credit Facility requires Antero and its restricted subsidiaries to maintain the following two financial ratios as of the end of each fiscal quarter:

- a current ratio, which is the ratio of our current assets (including any unused borrowing base under the facilities and excluding derivative assets) to our current liabilities (excluding derivative liabilities and lease liabilities), of not less than 1.0 to 1.0; and
- an interest coverage ratio, which is the ratio of EBITDAX (as defined by the credit facility agreement) to interest expense over the most recent four quarters, of not less than 2.5 to 1.0.

During an Investment Grade Period, the Credit Facility requires Antero and its restricted subsidiaries to maintain the following three financial ratios as of the end of each fiscal quarter

- a current ratio, which is the ratio of our current assets (including any unused borrowing base under the facilities and excluding derivative assets) to our current liabilities (excluding derivative liabilities), of not less than 1.0 to 1.0;
- a ratio of total Indebtedness (as defined by the credit facility agreement) to EBITDAX (as defined by the credit facility agreement) of not more than 4.25 to 1.00; and
- a ratio of PV-9 reflected in the most recently delivered reserve report to its total Indebtedness of not less than 1.50 to 1.00, but only if Antero does not have both (i) an unsecured rating from Moody's of Baa3 or better and (ii) an unsecured rating from S&P of BBB- or better.

We were in compliance with the applicable covenants and ratios as of December 31, 2018 and June30, 2019. The actual borrowing capacity available to us may be limited by the financial ratio covenants. At June 30, 2019, our current ratio was 4.94 to 1.0 (based on the $4.5 billion borrowing base under the Credit Facility) and our interest coverage ratio was 8.54 to 1.0.

For more information on the terms, conditions, and restrictions under the Credit Facility, please refer to our 2018 Form 10-K.

Senior Notes. Please refer to Note 7 to the unaudited condensed consolidated financial statements included in this Quarterly Report on Form 10-Q and to "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" included in our Annual Report on Form 10-K for the year ended December 31, 2018 for information on our senior notes.

We may, from time to time, seek to retire or purchase our outstanding debt through cash purchases and/or exchanges for equity securities, in open market purchases, privately negotiated transactions, or otherwise. Such repurchases or exchanges, if any, will depend on prevailing market conditions, our liquidity requirements, contractual restrictions, and other factors. The amounts involved could be material.

Contractual Obligations. A summary of our contractual obligations as of June 30, 2019 is provided in the table below. Future capital contributions to unconsolidated affiliates are excluded from the table as neither the amounts nor the timing of the obligations can be determined in advance.

(in millions)	Remainder of 2019	Year ended December 31, 2020	2021	2022	2023	2024	Thereafter	Total
Recorded contractual obligations:								
Credit Facility (1)	$ —	—	175	—	—	—	—	175
Antero senior notes—principal (2)	—	—	1,000	1,100	750	—	600	3,450
Antero senior notes—interest (2)	92	182	155	129	51	30	30	669
Operating leases, including imputed interest (3)	206	396	349	360	378	392	1,250	3,331
Finance leases, including imputed interest (3)	—	1	1	1	—	—	—	3
Asset retirement obligations (4)	—	—	—	—	—	—	54	54
Unrecorded contractual obligations:								
Firm transportation (5)	558	1,122	1,098	1,045	1,033	993	7,807	13,656
Processing, gathering, and compression services (6)	27	54	54	54	48	48	64	349
Land payment obligations (7)	8	6	3	—	—	—	—	17
Total	$ 891	1,761	2,835	2,689	2,260	1,463	9,805	21,704

(1) Includes outstanding principal amounts at June 30, 2019. This table does not include future commitment fees, interest expense, or other fees on our Credit Facility because they are floating rate instruments and we cannot determine with accuracy the timing of future loan advances, repayments, or future interest rates to be charged. The maturity date of the Credit Facility is the earlier of (i) October 26, 2022 and (ii) the date that is 91 days prior to the earliest stated redemption of any series of Antero's senior notes, unless such series of notes is refinanced.

(2) Our senior notes include the 5.375% notes due 2021, the 5.125% notes due 2022, the 5.625% notes due 2023, and the 5.00% notes due 2025.

(3) Includes contracts for services provided by drilling rigs and completion fleets, processing, gathering and compression services agreements and office and equipment leases accounted for as leases. The values in the table represent the gross amounts that we are committed to pay; however, we will record in our financial statements our proportionate share of costs based on our working interests. See Note 12 to the unaudited condensed consolidated financial statements for more information on the Company's operating and finance leases.

(4) Represents the present value of our estimated asset retirement obligations. Neither the ultimate settlement amounts nor the timing of our asset retirement obligations can be precisely determined in advance; however, we believe it is likely that a very small amount of these obligations will be settled within the next five years.

(5) Includes firm transportation agreements with various pipelines in order to facilitate the delivery of our production to market. These contracts commit us to transport minimum daily natural gas or NGLs volumes at negotiated rates, or pay for any deficiencies at specified reservation fee rates. The amounts in this table reflect our minimum daily volumes at the reservation fee rates. The values in the table represent the gross amounts that we are committed to pay; however, we will record in our financial statements our proportionate share of costs based on our working interests. None of these agreements were determined to be leases.

(6) Contractual commitments for processing, gathering, and compression services agreements represent minimum commitments under long-term agreements not accounted for as leases. This includes fees to be paid to the Joint Venture owned by Antero Midstream Partners and MarkWest. The values in the table represent the gross amounts that we are committed to pay; however, we will record in our financial statements our proportionate share of costs based on our working interests. The obligations determined to be leases are included within finance and operating leases in the table above.

(7) Includes contractual commitments for land acquisition agreements. The values in the table represent the minimum payments due under these arrangements. None of these agreements were determined to be leases.

Non-GAAP Financial Measures

Adjusted EBITDAX is a non-GAAP financial measure that we define as net income or loss, including noncontrolling interests, before interest expense, interest income, gains or losses from commodity derivatives and marketing derivatives, but including net cash receipts or payments on derivative instruments included in derivative gains or losses other than proceeds from derivative monetizations, income taxes, impairment, depletion, depreciation, amortization, and accretion, exploration expense, equity-based compensation, gain or loss on early extinguishment of debt, contract termination and rig stacking costs, simplification transaction fees, and gain or loss on sale of assets.

Through March 12, 2019, the financial results of Antero MidstreamPartners were included in the consolidated results of Antero. Effective March 13, 2019, Antero no longer consolidates Antero Midstream Partners and accounts for its interest in Antero Midstream Corporation using the equity method of accounting (see Note 5 to the unaudited condensed consolidated financial statements). Adjusted EBITDAX also includes distributions received with respect to limited partner interests in Antero Midstream Partners common units through March 12, 2019.

Adjusted EBITDAX as used and defined by us, may not be comparable to similarly titled measures employed by other companies and is not a measure of performance calculated in accordance with GAAP. Adjusted EBITDAX should not be considered in isolation or as a substitute for operating income or loss, net income or loss, cash flows provided by operating, investing, and financing activities, or other income or cash flow statement data prepared in accordance with GAAP. Adjusted EBITDAX provides no information regarding our capital structure, borrowings, interest costs, capital expenditures, working capital movement, or tax position. Adjusted EBITDAX does not represent funds available for discretionary use because those funds may be required for debt service, capital expenditures, working capital, income taxes, exploration expenses, and other commitments and obligations. However, our management team believes Adjusted EBITDAX is useful to an investor in evaluating our financial performance because this measure:

- is widely used by investors in the oil and natural gas industry to measure operating performance without regard to items excluded from the calculation of such term, which may vary substantially from company to company depending upon accounting methods and the book value of assets, capital structure, and the method by which assets were acquired, among other factors;

- helps investors to more meaningfully evaluate and compare the results of our operations from period to period by removing the effect of our capital and legal structure from our consolidated operating structure; and

- is used by our management team for various purposes, including as a measure of our operating performance, in presentations to our Board of Directors, and as a basis for strategic planning and forecasting. Adjusted EBITDAX is also used by our Board of Directors as a performance measure in determining executive compensation.

There are significant limitations to using Adjusted EBITDAX as a measure of performance, including the inability to analyze the effects of certain recurring and non-recurring items that materially affect our net income or loss, the lack of comparability of results of operations of different companies, and the different methods of calculating Adjusted EBITDAX reported by different companies.

The following table represents a reconciliation of our net income (loss), including noncontrolling interest, to Adjusted EBITDAX and a reconciliation of our Adjusted EBITDAX to net cash provided by operating activities per our consolidated statements of cash flows, in each case, for the three and six months ended June 30, 2018 and 2019:

	Three months ended June 30,		Six months ended June 30,	
(in thousands)	2018	2019	2018	2019
Reconciliation of net income (loss) to Adjusted EBITDAX:				
Net income (loss) and comprehensive income (loss) attributable to Antero Resources Corporation	$ (136,385)	42,168	$ (121,552)	1,020,931
Net income and comprehensive income attributable to noncontrolling interests	69,110	—	135,087	46,993
Commodity derivative fair value gains (1)	(55,336)	(328,427)	(77,773)	(251,059)
Gains on settled commodity derivatives (1)	95,884	44,699	197,225	141,791
Marketing derivative fair value (gains) losses (1)	110	—	(94,124)	—
Gains (losses) on settled marketing derivatives (1)	(15,884)	—	94,158	—
Loss on sale of assets	—	951	—	951
Gain on deconsolidation of Antero Midstream Partners LP	—	—	—	(1,406,042)
Interest expense, net	69,349	54,164	133,775	126,114
Income tax expense (benefit)	(25,573)	17,249	(16,453)	305,959
Depletion, depreciation, amortization, and accretion	238,750	243,220	467,684	484,397
Impairment of oil and gas properties	134,437	130,999	184,973	212,243
Impairment of gathering systems and facilities	8,501	—	8,501	6,982
Exploration expense	1,471	314	3,356	440
Equity-based compensation expense	19,071	6,549	40,227	15,452
Equity in earnings of unconsolidated affiliates	(9,264)	(13,585)	(17,126)	(27,666)
Distributions/dividends from unconsolidated affiliates	10,810	47,922	17,895	60,527
Contract termination and rig stacking	—	5,604	—	13,964
Simplification transaction fees	—	—	—	15,482
	405,051	251,827	955,853	767,459
Net income and comprehensive income attributable to noncontrolling interests	(69,110)	—	(135,087)	(46,993)
Antero Midstream Partners interest expense, net (2)	(14,961)	—	(25,889)	(16,815)
Antero Midstream Partners depreciation, accretion of ARO and accretion of contingent consideration (2)	(40,414)	—	(76,754)	(21,770)
Antero Midstream Partners impairment	(4,031)	—	(4,031)	(6,982)
Antero Midstream Partners equity-based compensation expense (2)	(5,867)	—	(12,078)	(2,477)
Antero Midstream Partners equity in earnings of unconsolidated affiliates (2)	9,264	—	17,126	12,264
Antero Midstream Partners distributions from unconsolidated affiliates (2)	(10,810)	—	(17,895)	(12,605)
Equity in earnings of Antero Midstream Partners (2)	26,926	—	47,054	(15,021)
Distributions from Antero Midstream Partners (2)	38,559	—	74,647	46,469
Antero Midstream Partners Simplification transaction fees	—	—	—	(9,185)
Antero Midstream Partners related adjustments	(70,444)	—	(132,907)	(73,115)
Adjusted EBITDAX	$ 334,607	251,827	$ 822,946	694,344
Reconciliation of our Adjusted EBITDAX to net cash provided by operating activities:				
Adjusted EBITDAX	$ 334,607	251,827	$ 822,946	694,344
Antero Midstream Partners related adjustments	70,444	—	132,907	73,115
Interest expense, net	(69,349)	(54,164)	(133,775)	(126,114)
Exploration expense	(1,471)	(314)	(3,356)	(440)
Changes in current assets and liabilities	(37,803)	31,910	18,286	140,975
Simplification transaction fees	—	—	—	(15,482)
Other	—	(5,744)	—	(14,960)
Other non-cash items	963	(5,411)	1,932	5,670
Net cash provided by operating activities	$ 297,391	218,104	$ 838,940	757,108

(1) The adjustments for the derivative fair value gains and losses and gains on settled derivatives have the effect of adjusting net income (loss) from operations for changes in the fair value of unsettled derivatives, which are recognized at the end of each accounting period. As a result, derivative gains included in the calculation Adjusted EBITDAX only reflect derivatives that settled during the period.

(2) Amounts reflected are net of any elimination adjustments for intercompany activity and include activity related to Antero Midstream Partners through March 12, 2019 (date of the Closing). Effective March 13, 2019, Antero accounts for its unconsolidated investment in Antero Midstream Corporation using the equity method of accounting. See Note 5 to the unaudited condensed consolidated financial statements for further discussion on equity method investments.

Critical Accounting Policies and Estimates

The discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with GAAP. The preparation of our financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. Certain accounting policies involve judgments and uncertainties to such an extent that there is reasonable likelihood that materially different amounts could have been reported under different conditions, or if different assumptions had been used. We evaluate our estimates and assumptions on a regular basis. We base our estimates on historical experience and various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates and assumptions used in preparation of our consolidated financial statements. Our more significant accounting policies and estimates include the successful efforts method of accounting for our production activities, estimates of natural gas, NGLs, and oil reserve quantities and standardized measures of future cash flows, and impairment of proved properties. We provide an expanded discussion of our more significant accounting policies, estimates and judgments in our 2018 Form 10-K. We believe these accounting policies reflect our more significant estimates and assumptions used in the preparation of our consolidated financial statements. Also, see Note 2 to the consolidated financial statements, included in our 2018 Form 10-K, for a discussion of additional accounting policies and estimates made by management.

We evaluate the carrying amount of our proved natural gas, NGLs, and oil properties for impairment on a geological reservoir basis whenever events or changes in circumstances indicate that a property's carrying amount may not be recoverable. Under GAAP for successful efforts accounting, if the carrying amount exceeded the estimated undiscounted future net cash flows (measured using futures prices), we estimate the fair value of our proved properties and record an impairment charge for any excess of the carrying amount of the properties over the estimated fair value of the properties. We compared estimated undiscounted future net cash flows using futures pricing for our Utica and Marcellus Shale properties to the carrying values of those properties. Estimated undiscounted future net cash flows exceeded the carrying values at June 30, 2019, and thus, no further evaluation of our proved properties for impairment is required under GAAP. As a result, we have not recorded any impairment expenses associated with our proved properties during the six months ended June 30, 2018 and 2019.

The estimated future net cash flows decreased significantly from December 31, 2018 as a result of the deconsolidation of Antero Midstream, which resulted in an increase in capital and operating costs on a stand-alone basis. Based on future prices at June 30, 2019, we estimate that future prices would have to further decline by approximately 10% from levels at June 30, 2019 before further evaluation of our Marcellus properties would be required to determine if an impairment charge would be necessary. Estimated undiscounted future net cash flows from our Utica properties were slightly higher than the carrying amount of the properties and further evaluation of the fair value of those properties was not required. If future prices decline further from levels at June 30, 2019, we may be required to determine the fair value of Utica properties to determine if an impairment charge would be necessary. We are unable, however, to predict future commodity prices with any reasonable certainty.

Off-Balance Sheet Arrangements

As of June 30, 2019, we did not have any off balance sheet arrangements other than contractual obligations for firm transportation and processing, gathering, and compression services. See "—Debt Agreements and Contractual Obligations—Contractual Obligations" for our commitments under these agreements.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

The primary objective of the following information is to provide forward-looking quantitative and qualitative information about our potential exposure to market risk. The term "market risk" refers to the risk of loss arising from adverse changes in natural gas, NGLs, and oil prices, as well as interest rates. These disclosures are not meant to be precise indicators of expected future losses, but rather indicators of reasonably possible losses. This forward-looking information provides indicators of how we view and manage our ongoing market risk exposures.

Commodity Hedging Activities

Our primary market risk exposure is in the price we receive for our natural gas, NGLs, and oil production. Pricing is primarily driven by spot regional market prices applicable to our U.S. natural gas production and the prevailing worldwide price for oil. Pricing for natural gas, NGLs, and oil has, historically, been volatile and unpredictable, and we expect this volatility to continue in the future. The prices we receive for our production depend on many factors outside of our control, including volatility in the differences between product prices at sales points and the applicable index price.

To mitigate some of the potential negative impact on our cash flows caused by changes in commodity prices, we enter into financial derivative instruments for a portion of our natural gas, NGLs, and oil production when management believes that favorable future prices can be secured.

Our financial hedging activities are intended to support natural gas, NGLs, and oil prices at targeted levels and to manage our exposure to natural gas, NGLs, and oil price fluctuations. These contracts may include commodity price swaps whereby we will receive a fixed price and pay a variable market price to the contract counterparty, collars that set a floor and ceiling price for the hedged production, or basis differential swaps. These contracts are financial instruments, and do not require or allow for physical delivery of the hedged commodity. At June 30, 2019, our commodity derivatives included fixed price swaps, basis differential swaps and collars at index-based pricing.

At June 30, 2019, we had in place natural gas swaps and collars covering portions of our projected production through 2023. Our commodity hedge position as of June 30, 2019 is summarized in Note 11 to our unaudited condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q. Under the Credit Facility, we are permitted to hedge up to 75% of our projected production for the next 60 months. We may enter into hedge contracts with a term greater than 60 months, and for no longer than 72 months, for up to 65% of our estimated production. Based on our production and our fixed price swap contracts which settled during the six months ended June 30, 2019, our revenues would have decreased by approximately $40 million for each $0.10 decrease per MMBtu in natural gas prices and $1.00 decrease per Bbl in oil and NGLs prices, excluding the effects of changes in the fair value of our derivative positions which remain open at June 30, 2019.

All derivative instruments, other than those that meet the normal purchase and normal sale scope exception, are recorded at fair market value in accordance with GAAP and are included in our consolidated balance sheets as assets or liabilities. The fair values of our derivative instruments are adjusted for non-performance risk. Because we do not designate these derivatives as accounting hedges, they do not receive hedge accounting treatment; therefore, all mark-to-market gains or losses, as well as cash receipts or payments on settled derivative instruments, are recognized in our statements of operations. We present total gains or losses on commodity derivatives (for both settled derivatives and derivative positions which remain open) within operating revenues as “Commodity derivative fair value gains.”

Mark-to-market adjustments of derivative instruments cause earnings volatility but have no cash flow impact relative to changes in market prices until the derivative contracts are settled or monetized prior to settlement. We expect continued volatility in the fair value of our derivative instruments. Our cash flows are only impacted when the associated derivative contracts are settled or monetized by making or receiving payments to or from the counterparty. At June 30, 2019, the estimated fair value of our commodity derivative instruments was a net asset of $716 million comprised of current assets and liabilities and noncurrent assets. At December 31, 2018, the estimated fair value of our commodity derivative instruments was a net asset of $607 million comprised of current assets and liabilities and noncurrent assets.

By reducing price volatility from a portion of our expected production through December2023, we have mitigated, but not eliminated, the potential negative effects of changing prices on our operating cash flows for those periods. While mitigating the negative effects of falling commodity prices, these derivative contracts also limit the benefits we would receive from increases in commodity prices above the fixed hedge prices.

Counterparty and Customer Credit Risk

Our principal exposures to credit risk are through receivables resulting from the following: commodity derivative contracts ($716 million at June 30, 2019); and the sale of our natural gas, NGLs and oil production ($292 million at June 30, 2019), which we market to energy companies, end users, and refineries.

By using derivative instruments that are not traded on an exchange to hedge exposures to changes in commodity prices, we expose ourselves to the credit risk of our counterparties. Credit risk is the potential failure of a counterparty to perform under the terms of a derivative contract. When the fair value of a derivative contract is positive, the counterparty is expected to owe us, which creates credit risk. To minimize the credit risk in derivative instruments, it is our policy to enter into derivative contracts only with counterparties that are creditworthy financial institutions that management deems to be competent and competitive market makers. The creditworthiness of our counterparties is subject to periodic review. We have commodity hedges in place with sixteen different counterparties, fourteen of which are lenders under our Credit Facility. The fair value of our commodity derivative contracts of approximately $716 million at June 30, 2019 included the following derivative assets by bank counterparty: Morgan Stanley - $121 million; Wells Fargo - $120 million; Citigroup - $118 million; JP Morgan - $105 million; Scotiabank - $99 million; Canadian Imperial Bank of Commerce - $64 million; BNP Paribas - $26 million; Bank of Montreal - $16 million; PNC – $15 million; Natixis - $11 million; Toronto Dominion - $8 million; SunTrust - $8 million; Capital One - $3 million; Fifth Third - $1 million; and DNB Bank - $1 million. The estimated fair value of our commodity derivative assets has been risk-adjusted using a discount rate based upon the counterparties' respective published credit default swap rates (if available, or if not available, a discount rate based on the applicable Reuters bond rating) at June 30, 2019 for each of the European and American banks. We believe that all of these institutions, currently, are acceptable credit risks. Other than as provided by the Credit Facility, we are not required to provide credit support or collateral to any of our counterparties under our derivative contracts, nor are they required to provide credit support to us. As of June 30, 2019, we did not have any past-due receivables from, or payables to, any of the counterparties to our derivative contracts.

We are also subject to credit risk due to the concentration of our receivables from several significant customers for sales of natural gas, NGLs, and oil. We generally do not require our customers to post collateral. The inability or failure of our significant customers to meet their obligations to us, or their insolvency or liquidation, may adversely affect our financial results.

Interest Rate Risks

Our primary exposure to interest rate risk results from outstanding borrowings under our Credit Facility. The Credit Facility has a floating interest rate. The average annualized interest rate incurred on the Credit Facility during the six months ended June 30, 2019 was approximately 4.57%. We estimate that a 1.0% increase in each of the applicable average interest rates for the six months ended June 30, 2019 would have resulted in an estimated $1.1 million increase in interest expense.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

As required by Rule 13a-15(b) under the Exchange Act, we have evaluated, under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this Quarterly Report on Form 10-Q. Our disclosure controls and procedures are designed to provide reasonable assurance that the information required to be disclosed by us in reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosures and is recorded, processed, summarized, and reported within the time periods specified in the rules and forms of the SEC. Based upon that evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective as of June 30, 2019 at a level of reasonable assurance.

Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the three months ended June 30, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings.

The information required by this item is included in Note 14 to our unaudited condensed consolidated financial statements and is incorporated herein.

Item 1A. Risk Factors.

We are subject to certain risks and hazards due to the nature of the business activities we conduct. For a discussion of these risks, see "Item 1A. Risk Factors" in our 2018 Form 10-K. The risks described in our 2018 Form 10-K could materially and adversely affect our business, financial condition, cash flows, and results of operations. There have been no material changes to the risks described in our 2018 Form 10-K. We may experience additional risks and uncertainties not currently known to us. Furthermore, as a result of developments occurring in the future, conditions that we currently deem to be immaterial may also materially and adversely affect our business, financial condition, cash flows, and results of operations.

Item 2. Unregistered Sales of Equity Securities

Issuer Purchases of Equity Securities

The following table sets forth our share purchase activity for each period presented:

Period	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans	Maximum Number of Shares that May Yet be Purchased Under the Plan
April 1, 2019 - April 30, 2019	211,444	$ 8.59	—	N/A
May 1, 2019 - May 31, 2019	—	$ —	—	N/A
June 1, 2019 - June 30, 2019	—	$ —	—	N/A

Shares purchased represent shares of our common stock transferred to us in order to satisfy tax withholding obligations incurred upon the vesting of Antero equity awards held by our employees.

In October 2018, the Company's Board of Directors authorized a $600 million share repurchase program. During the three months ended June 30, 2019, there were no shares repurchased under this program.

Item 6. Exhibits.

Exhibit Number	Description of Exhibit
3.1	Amended and Restated Certificate of Incorporation of Antero Resources Corporation (incorporated by reference to Exhibit 3.1 to Current Report on Form 8-K (Commission File No. 001-36120) filed on October 17, 2013).
3.2	Amended and Restated Bylaws of Antero Resources Corporation (incorporated by reference to Exhibit 3.2 to Current Report on Form 8-K (Commission File No. 001-36120) filed on October 17, 2013).
10.1*	Form of Performance Share Unit Grant Notice and Performance Share Unit Agreement under the Antero Resources Corporation Long-Term Incentive Plan.
31.1*	Certification of the Company's Chief Executive Officer Pursuant to Section 302 of the Sarbanes Oxley Act of 2002 (18 U.S.C. Section 7241).
31.2*	Certification of the Company's Chief Financial Officer Pursuant to Section 302 of the Sarbanes Oxley Act of 2002 (18 U.S.C. Section 7241).
32.1*	Certification of the Company's Chief Executive Officer Pursuant to Section 906 of the Sarbanes Oxley Act of 2002 (18 U.S.C. Section 1350).
32.2*	Certification of the Company's Chief Financial Officer Pursuant to Section 906 of the Sarbanes Oxley Act of 2002 (18 U.S.C. Section 1350).
101*	The following financial information from this Quarterly Report on Form 10-Q of Antero Resources Corporation for the quarter ended June 30, 2019 formatted in iXBRL (Inline eXtensible Business Reporting Language): (i) Condensed Consolidated Balance Sheets, (ii) Condensed Consolidated Statements of Operations and Comprehensive Income (Loss), (iii) Condensed Consolidated Statements of Equity, (iv) Condensed Consolidated Statements of Cash Flows, and (v) Notes to the Condensed Consolidated Financial Statements, tagged as blocks of text.

The exhibits marked with the asterisk symbol (*) are filed or furnished with this Quarterly Report on Form 10-Q.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

ANTERO RESOURCES CORPORATION

By: /s/ GLEN C. WARREN, JR.
Glen C. Warren, Jr.
President, Chief Financial Officer and Secretary

Date: July 31, 2019

Exhibit 10.1

ANTERO RESOURCES CORPORATION
LONG-TERM INCENTIVE PLAN

PERFORMANCE SHARE UNIT GRANT NOTICE

Pursuant to the terms and conditions of the Antero Resources Corporation Long-Term Incentive Plan, as amended from time to time (the "Plan"), Antero Resources Corporation (the "Company") hereby grants to the individual listed below ("you" or the "Participant") an award (this "Award") of Performance Share Units (the "PSUs") subject to the terms and conditions set forth herein and in the Performance Share Unit Agreement attached hereto as Exhibit A (the "Agreement") and the Plan, each of which is incorporated herein by reference. Capitalized terms used but not defined herein shall have the meanings set forth in the Plan.

Participant:	[___________________________________]
Date of Grant:	[___________]
Target PSUs:	[___________] PSUs (the "Target Amount PSUs")
Performance Period:	[___________] to [___________]
Earning of PSUs:	Subject to the Agreement, the Plan and the other terms and conditions set forth herein, the PSUs shall become earned in the manner set forth on Exhibit B attached hereto so long as you remain continuously employed by the Company from the Date of Grant through [___________].

By your signature below, you agree to be bound by the terms and conditions of the Plan, the Agreement and this Performance Share Unit Grant Notice (this "Grant Notice"). You acknowledge that you have reviewed the Agreement, the Plan and this Grant Notice in their entirety and fully understand all provisions of the Agreement, the Plan and this Grant Notice. You hereby agree to accept as binding, conclusive and final all decisions or interpretations of the Committee regarding any questions or determinations arising under the Agreement, the Plan or this Grant Notice. This Grant Notice may be executed in one or more counterparts (including portable document format (.pdf) and facsimile counterparts), each of which shall be deemed to be an original, but all of which together shall constitute one and the same agreement.

[Remainder of Page Intentionally Blank;
Signature Page Follows]

IN WITNESS WHEREOF, the Company has caused this Grant Notice to be executed by an officer thereunto duly authorized, and the Participant has executed this Grant Notice, effective for all purposes as provided above.

ANTERO RESOURCES CORPORATION

By: ______________________________
John Giannuala
Vice President – Human Resources and Administration

PARTICIPANT

____
[Name of Employee]

SIGNATURE PAGE TO
PERFORMANCE SHARE UNIT GRANT NOTICE

EXHIBIT A

PERFORMANCE SHARE UNIT AGREEMENT

This Performance Share Unit Agreement (this "Agreement") is made as of the Date of Grant set forth in the Grant Notice to which this Agreement is attached (the "Date of Grant") by and between Antero Resources Corporation, a Delaware corporation (the "Company"), and [____________________] ("Employee"). Capitalized terms used but not specifically defined herein shall have the meanings specified in the Plan or the Grant Notice.

1 . **Award**. Effective as of the Date of Grant, the Company hereby grants to Employee the number of PSUs set forth in the Grant Notice on the terms and conditions set forth in the Grant Notice, this Agreement and the Plan, which is incorporated herein by reference as a part of this Agreement. In the event of any inconsistency between the Plan and this Agreement, the terms of the Plan shall control. To the extent earned, each PSU represents the right to receive one share of Stock ("Common Stock"), subject to the terms and conditions set forth in the Grant Notice, this Agreement and the Plan; provided, however, that, depending on the level of performance determined to be attained with respect to the Performance Goals, the number of shares of Common Stock that may be earned hereunder in respect of this Award may range from [___]% to [___]% of the Target Amount PSUs. Unless and until the PSUs have become earned in the manner set forth in the Grant Notice and this Agreement, Employee will have no right to receive any Common Stock or other payments in respect of the PSUs. Prior to settlement of this Award, the PSUs and this Award represent an unsecured obligation of the Company, payable only from the general assets of the Company.

2. **Earning of PSUs**.

(a) Following [___________], the Committee will determine the level of achievement of the Performance Goals for the Performance Period. The number of PSUs, if any, that actually become earned for the Performance Period will be determined by the Committee in accordance with the Grant Notice (and any PSUs that do not become so earned shall be automatically forfeited). Unless and until the PSUs have become earned and been settled in accordance with Section 3, Employee will have no right to receive any dividends or other distributions with respect to the PSUs. In the event of the termination of Employee's employment prior to [___________], except as otherwise provided in Section 2(b) and 2(c) below, all of the PSUs (and all rights arising from such PSUs and from being a holder thereof), will terminate automatically without any further action by the Company and will be automatically forfeited without further notice and at no cost to the Company.

(b) [___________]

(c) [___________]

3 . **Settlement of PSUs**. As soon as administratively practicable following the Committee's determination of the level of achievement of the Performance Goals for the Performance Period, but in no event later than 60 days following [___________], Employee (or Employee's permitted transferee, if applicable) shall be issued a number of shares of Common Stock equal to the number of PSUs subject to this Award that become earned based on the level

of achievement of the Performance Goals as determined by the Committee in accordance with Section 2. Any fractional PSU that becomes earned hereunder shall be rounded down at the time shares of Common Stock are issued in settlement of such PSU. No fractional shares of Common Stock, nor the cash value of any fractional shares of Common Stock, will be issuable or payable to Employee pursuant to this Agreement. All shares of Common Stock issued hereunder shall be delivered either by delivering one or more certificates for such shares to Employee or by entering such shares in book-entry form, as determined by the Committee in its sole discretion. The value of shares of Common Stock shall not bear any interest owing to the passage of time. Neither this Section 3 nor any action taken pursuant to or in accordance with this Agreement shall be construed to create a trust or a funded or secured obligation of any kind.

4. **Rights as Stockholder**. Neither Employee nor any person claiming under or through Employee shall have any of the rights or privileges of a holder of shares of Common Stock in respect of any shares that may become deliverable hereunder unless and until certificates representing such shares have been issued or recorded in book entry form on the records of the Company or its transfer agents or registrars, and delivered in certificate or book entry form to Employee or any person claiming under or through Employee.

5 . **Tax Withholding**. To the extent that the receipt, vesting or settlement of the PSUs results in compensation income or wages to Employee for federal, state, local and/or foreign tax purposes, the Company shall have the authority and the right to deduct or withhold (or cause one of its Affiliates to deduct or withhold), or to require Employee to remit to the Company (or one of its Affiliates), an amount sufficient to satisfy all applicable federal, state and local taxes required by law to be withheld with respect to such event. In satisfaction of the foregoing requirement, unless otherwise determined by the Committee, the Company or one of its Affiliates shall withhold, or cause to be surrendered, from any remuneration (including any of the shares of Common Stock that may be issuable under this Agreement) then or thereafter payable to Employee an amount equal to the aggregate amount of taxes required to be withheld with respect to such event. If such tax obligations are satisfied through net settlement or the surrender of previously owned shares of Common Stock, the maximum number of shares of Common Stock that may be so withheld (or surrendered) shall be the number of shares of Common Stock that have an aggregate Fair Market Value on the date of withholding or surrender equal to the aggregate amount of such tax liabilities determined based on the greatest withholding rates for federal, state, local and/or foreign tax purposes, including payroll taxes, that may be utilized without creating adverse accounting treatment for the Company with respect to the PSUs, as determined by the Committee. Employee acknowledges that there may be adverse tax consequences upon the receipt, vesting or settlement of the PSUs or disposition of the underlying shares of Common Stock and that Employee has been advised, and hereby is advised, to consult a tax advisor. Employee acknowledges and agrees that none of the Board, the Committee, the Company or any of its Affiliates have made any representation or warranty as to the tax consequences to Employee as a result of the receipt of the PSUs, the earning of the PSUs or the forfeiture of any of the PSUs. Employee represents that Employee is in no manner relying on the Board, the Committee, the Company or any of its Affiliates or any of their respective managers, directors, officers, employees or authorized representatives (including, without limitation, attorneys, accountants, consultants, bankers, lenders, prospective lenders and financial representatives) for tax advice or an assessment of such tax consequences.

6 . **Non-Transferability**. During the lifetime of Employee, the PSUs may not be sold, pledged, assigned or transferred in any manner other than by will or the laws of descent and distribution, unless and until the shares of Common Stock underlying the PSUs have been issued, and all restrictions applicable to such shares have lapsed. Neither the PSUs nor any interest or right therein shall be liable for the debts, contracts or engagements of Employee or his or her successors in interest or shall be subject to disposition by transfer, alienation, anticipation, pledge, encumbrance, assignment or any other means whether such disposition be voluntary or involuntary or by operation of law by judgment, levy, attachment, garnishment or any other legal or equitable proceedings (including bankruptcy), and any attempted disposition thereof shall be null and void and of no effect, except to the extent that such disposition is permitted by the preceding sentence.

7 . **Compliance with Securities Law**. Notwithstanding any provision of this Agreement to the contrary, the issuance of shares of Common Stock hereunder will be subject to compliance with all applicable requirements of applicable law with respect to such securities and with the requirements of any stock exchange or market system upon which the Common Stock may then be listed. No shares of Common Stock will be issued hereunder if such issuance would constitute a violation of any applicable law or regulation or the requirements of any stock exchange or market system upon which the Common Stock may then be listed. In addition, shares of Common Stock will not be issued hereunder unless (a) a registration statement under the Securities Act is in effect at the time of such issuance with respect to the shares to be issued or (b) in the opinion of legal counsel to the Company, the shares to be issued are permitted to be issued in accordance with the terms of an applicable exemption from the registration requirements of the Securities Act. The inability of the Company to obtain from any regulatory body having jurisdiction the authority, if any, deemed by the Company's legal counsel to be necessary for the lawful issuance and sale of any shares of Common Stock hereunder will relieve the Company of any liability in respect of the failure to issue such shares as to which such requisite authority has not been obtained. As a condition to any issuance of Common Stock hereunder, the Company may require Employee to satisfy any requirements that may be necessary or appropriate to evidence compliance with any applicable law or regulation and to make any representation or warranty with respect to such compliance as may be requested by the Company.

8 . **Legends**. If a stock certificate is issued with respect to shares of Common Stock delivered hereunder, such certificate shall bear such legend or legends as the Committee deems appropriate in order to reflect the restrictions set forth in this Agreement and to ensure compliance with the terms and provisions of this Agreement, the rules, regulations and other requirements of the Securities and Exchange Commission, any applicable laws or the requirements of any stock exchange on which the Common Stock is then listed. If the shares of Common Stock issued hereunder are held in book-entry form, then such entry will reflect that the shares are subject to the restrictions set forth in this Agreement.

9 . **Execution of Receipts and Releases**. Any issuance or transfer of shares of Common Stock or other property to Employee or Employee's legal representative, heir, legatee or distributee, in accordance with this Agreement shall be in full satisfaction of all claims of such person hereunder. As a condition precedent to such payment or issuance, the Company may require Employee or Employee's legal representative, heir, legatee or distributee to execute (and

not revoke within any time provided to do so) a release and receipt therefor in such form as it shall determine appropriate; provided, however, that any review period under such release will not modify the date of settlement with respect to earned PSUs.

10. **No Right to Continued Employment or Awards**.

(a) For purposes of this Agreement, Employee shall be considered to be employed by the Company as long as Employee remains an Employee, or an employee of a corporation or other entity (or a parent or subsidiary of such corporation or other entity) assuming or substituting a new award for this Award. Without limiting the scope of the preceding sentence, it is specifically provided that Employee shall be considered to have terminated employment with the Company at the time of the termination of the “Affiliate” status of the entity or other organization that employs Employee. Nothing in the adoption of the Plan, nor the award of the PSUs thereunder pursuant to the Grant Notice and this Agreement, shall confer upon Employee the right to continued employment by, or a continued service relationship with, the Company or any such Affiliate, or any other entity, or affect in any way the right of the Company or any such Affiliate, or any other entity to terminate such employment at any time. Unless otherwise provided in a written employment agreement or by applicable law, Employee’s employment by the Company, or any such Affiliate, or any other entity shall be on an at-will basis, and the employment relationship may be terminated at any time by either Employee or the Company, or any such Affiliate, or other entity for any reason whatsoever, with or without cause or notice. Any question as to whether and when there has been a termination of such employment, and the cause of such termination, shall be determined by the Committee or its delegate, and such determination shall be final, conclusive and binding for all purposes.

(b) The grant of the PSUs is a one-time benefit and does not create any contractual or other right to receive a grant of Awards or benefits in lieu of Awards in the future. Any future Awards will be at the sole discretion of the Company.

11. **Notices**. Any notices or other communications provided for in this Agreement shall be sufficient if in writing. In the case of Employee, such notices or communications shall be effectively delivered if hand delivered to Employee at Employee’s principal place of employment or if sent by registered or certified mail to Employee at the last address Employee has filed with the Company. In the case of the Company, such notices or communications shall be effectively delivered if sent by registered or certified mail to the Company at its principal executive offices.

12. **Consent to Electronic Delivery; Electronic Signature**. In lieu of receiving documents in paper format, Employee agrees, to the fullest extent permitted by law, to accept electronic delivery of any documents that the Company may be required to deliver (including, but not limited to, prospectuses, prospectus supplements, grant or award notifications and agreements, account statements, annual and quarterly reports and all other forms of communications) in connection with this and any other Award made or offered by the Company. Electronic delivery may be via a Company electronic mail system or by reference to a location on a Company intranet to which Employee has access. Employee hereby consents to any and all procedures the Company has established or may establish for an electronic signature system for delivery and acceptance of any such documents that the Company may be required to deliver,

and agrees that his or her electronic signature is the same as, and shall have the same force and effect as, his or her manual signature.

13. **Agreement to Furnish Information**. Employee agrees to furnish to the Company all information requested by the Company to enable it to comply with any reporting or other requirement imposed upon the Company by or under any applicable statute or regulation.

14. **Entire Agreement; Amendment**. This Agreement constitutes the entire agreement of the parties with regard to the subject matter hereof, and contains all the covenants, promises, representations, warranties and agreements between the parties with respect to the PSUs granted hereby; provided¸ however, that the terms of this Agreement shall not modify and shall be subject to the terms and conditions of any employment and/or severance agreement between the Company (or an Affiliate or other entity) and Employee in effect as of the date a determination is to be made under this Agreement. Without limiting the scope of the preceding sentence, except as provided therein, all prior understandings and agreements, if any, among the parties hereto relating to the subject matter hereof are hereby null and void and of no further force and effect. The Committee may, in its sole discretion, amend this Agreement from time to time in any manner that is not inconsistent with the Plan; provided, however, that except as otherwise provided in the Plan or this Agreement, any such amendment that materially reduces the rights of Employee shall be effective only if it is in writing and signed by both Employee and an authorized officer of the Company.

15. **Governing Law**. This Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, without regard to conflicts of law principles thereof.

16. **Successors and Assigns**. The Company may assign any of its rights under this Agreement without Employee's consent. This Agreement will be binding upon and inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer set forth herein and in the Plan, this Agreement will be binding upon Employee and Employee's beneficiaries, executors, administrators and the person(s) to whom the PSUs may be transferred by will or the laws of descent or distribution.

17. **Clawback**. Notwithstanding any provision in this Agreement, the Grant Notice or the Plan to the contrary, to the extent required by (a) applicable law, including, without limitation, the requirements of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, any Securities and Exchange Commission rule or any applicable securities exchange listing standards and/or (b) any policy that may be adopted or amended by the Board from time to time, all shares of Common Stock issued hereunder shall be subject to forfeiture, repurchase, recoupment and/or cancellation to the extent necessary to comply with such law(s) and/or policy.

18. **Counterparts**. The Grant Notice may be executed in one or more counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument. Delivery of an executed counterpart of the Grant Notice by facsimile or pdf attachment to electronic mail shall be effective as delivery of a manually executed counterpart of the Grant Notice.

19. **Severability**. If a court of competent jurisdiction determines that any provision of this Agreement is invalid or unenforceable, then the invalidity or unenforceability of such provision shall not affect the validity or enforceability of any other provision of this Agreement, and all other provisions shall remain in full force and effect.

20. **Code Section 409A**. None of the PSUs or any amounts payable pursuant to this Agreement are intended to constitute or provide for a deferral of compensation that is subject to Section 409A of the Code and the Treasury regulations and other interpretive guidance issued thereunder (collectively, "Section 409A"). Nevertheless, to the extent that the Committee determines that the PSUs may not be exempt from Section 409A, then, if Employee is deemed to be a "specified employee" within the meaning of Section 409A, as determined by the Committee, at a time when Employee becomes eligible for settlement of the PSUs upon his "separation from service" within the meaning of Section 409A, then to the extent necessary to prevent any accelerated or additional tax under Section 409A, such settlement will be delayed until the earlier of: (a) the date that is six months following Employee's separation from service and (b) Employee's death. Notwithstanding the foregoing, the Company makes no representations that the payments provided under this Agreement are exempt from or compliant with Section 409A and in no event shall the Company be liable for all or any portion of any taxes, penalties, interest or other expenses that may be incurred by Employee on account of non-compliance with Section 409A.

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<u>EXHIBIT B</u>

PERFORMANCE SHARE UNIT PERFORMANCE GOAL

[_________________________]

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO RULE 13A-14(A) AND RULE 15D-14(A)
OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED

I, Paul M. Rady, Chairman and Chief Executive Officer of Antero Resources Corporation, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2019 of Antero Resources Corporation (the "registrant");

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared; and

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles; and

   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: July 31, 2019

/s/ Paul M. Rady
Paul M. Rady
Chief Executive Officer

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO RULE 13A-14(A) AND RULE 15D-14(A)
OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED

I, Glen C. Warren, Jr., President and Chief Financial Officer of Antero Resources Corporation, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2019 of Antero Resources Corporation (the "registrant");

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared; and

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles; and

   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: July 31, 2019

/s/ Glen C. Warren, Jr.
Glen C. Warren, Jr.
Chief Financial Officer

Exhibit 32.1

CERTIFICATION OF
CHIEF EXECUTIVE OFFICER
OF ANTERO RESOURCES CORPORATION
PURSUANT TO 18 U.S.C. SECTION 1350

In connection with this Quarterly Report on Form 10-Q of Antero Resources Corporation for the quarter ended June 30, 2019, I, Paul M. Rady, Chief Executive Officer of Antero Resources Corporation, hereby certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1. This Quarterly Report on Form 10-Q for the quarter ended June 30, 2019 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in this Quarterly Report on Form 10-Q for the quarter ended June 30, 2019 fairly presents, in all material respects, the financial condition and results of operations of Antero Resources Corporation for the periods presented therein.

Date: July 31, 2019

/s/ Paul M. Rady
Paul M. Rady
Chief Executive Officer

Exhibit 32.2

CERTIFICATION OF
CHIEF FINANCIAL OFFICER
OF ANTERO RESOURCES CORPORATION
PURSUANT TO 18 U.S.C. SECTION 1350

In connection with this Quarterly Report on Form 10-Q of Antero Resources Corporation for the quarter ended June 30, 2019, I, Glen C. Warren, Jr., Chief Financial Officer of Antero Resources Corporation, hereby certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1. This Quarterly Report on Form 10-Q for the quarter ended June 30, 2019 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in this Quarterly Report on Form 10-Q for the quarter ended June 30, 2019 fairly presents, in all material respects, the financial condition and results of operations of Antero Resources Corporation for the periods presented therein.

Date: July 31, 2019

/s/ Glen C. Warren, Jr.
Glen C. Warren, Jr.
Chief Financial Officer