PALENSKY FRED J
Form 4/A
February 23, 2011

FORM 4

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. *See* Instruction 1(b).

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

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

OMB APPROVAL
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(Print or Type Responses)

1. Name and Address of Reporting Person *
PALENSKY FRED J
(Last) (First) (Middle)
3M CENTER
(Street)
ST. PAUL, MN 55144-1000
(City) (State) (Zip)

2. Issuer Name **and** Ticker or Trading Symbol
3M CO [MMM]

3. Date of Earliest Transaction (Month/Day/Year)
02/07/2011

4. If Amendment, Date Original Filed(Month/Day/Year)
02/09/2011

5. Relationship of Reporting Person(s) to Issuer
(Check all applicable)
_____ Director _____ 10% Owner
__X__ Officer (give title below) _____ Other (specify below)
EXEC VP R&D & CHF TECH OFF

6. Individual or Joint/Group Filing(Check Applicable Line)
_X_ Form filed by One Reporting Person
___ Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1.Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	01/28/2011		G	V	80	D	$ 0	29,499	D	
Common Stock	02/07/2011		A		4,917.93 (1)	A	$ 0	34,416.93	D	
Common Stock	02/07/2011		F		1,638.93 (1)	D	$ 89.47	32,778	D	

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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SEC 1474 (9-02)

number.

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned
(*e.g.*, puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Underlying Securities (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Nu Deriv Secur Bene Owne Follo Repo Trans (Instr
								Date Exercisable	Expiration Date	Title	Amount or Number of Shares		
				Code	V	(A)	(D)						

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
PALENSKY FRED J 3M CENTER ST. PAUL, MN 55144-1000			EXEC VP R&D & CHF TECH OFF	

Signatures

George Ann Biros, attorney-in-fact for Fred J. Palensky	02/23/2011
**Signature of Reporting Person	Date

Explanation of Responses:

* If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

(1) On February 9, 2011, the reporting person reported the imminent delivery of a number of shares of 3M Common Stock earned as a result of the 2008 performance shares awarded to such person under the 3M Performance Unit Plan. The number of shares to be withheld from this delivery for the payment of withholding taxes was unknown. This amendment is being filed to update the Form 4 with the number of shares used for tax withholding, in addition to correcting the number of shares to be delivered. The amount reported on February 9, 2011 reflected a rounded whole number of shares, while the amount of shares actually earned includes a fractional share of stock. This updated Form 4 reflects the shares earned without rounding.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.
Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number. ffect. Base rate loans bear interest at a rate per annum equal to the greatest of (i) the agent bank's reference rate, (ii) the federal funds effective rate plus 50 basis points and (iii) the rate for one month Eurodollar loans plus 100 basis points, plus an applicable margin ranging from 50 to 125 basis points, depending on the leverage ratio then in effect.

The Midstream Facility is secured by mortgages on substantially all of Antero Midstream's and its restricted subsidiaries' properties – primarily assets used in the provision of gathering and compression services and water handling and treatment services to Antero and third parties – and guarantees from its restricted subsidiaries. The Midstream Facility is not guaranteed by Antero. Interest is payable at a variable rate based on LIBOR or the prime rate based on Antero Midstream's election at the time of borrowing. The Midstream Facility contains restrictive covenants that may limit Antero Midstream's ability to, among other things:

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

Borrowings under the Midstream Facility also require Antero Midstream to maintain the following financial ratios:

- an interest coverage ratio, which is the ratio of Antero Midstream's consolidated EBITDA to its consolidated current interest charges of at least 2.5 to 1.0 at the end of each fiscal quarter; provided that upon obtaining an investment grade rating, the borrower may elect not to be subject to such ratio;
- a consolidated total leverage ratio, which is the ratio of consolidated debt to consolidated EBITDA (annualized until the fiscal quarter ending September 30, 2016), of not more than 5.00 to 1.0 at the end of each quarter; provided that after electing to issue unsecured high yield notes, the consolidated total leverage ratio will not be more than 5.25 to 1.0, or, following the election of the borrower for two fiscal quarters after a material acquisition, 5.50 to 1.0; and
- if Antero Midstream elects to issue unsecured high yield notes, a consolidated senior secured leverage ratio, which is the ratio of consolidated senior secured debt to consolidated EBITDA, of not more than 3.75 to 1.0.

Antero Midstream was in compliance with such covenants and ratios as of December 31, 2015 and June 30, 2016.

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Senior Notes. We have $525 million of 6.00% senior notes outstanding, which are due December 1, 2020. The 2020 notes are unsecured and effectively subordinated to the Credit Facility to the extent of the value of the collateral securing the Credit Facility. The 2020 notes rank pari passu to our other outstanding senior notes. The 2020 notes are guaranteed on a senior unsecured basis by our wholly-owned subsidiaries and certain of our future restricted subsidiaries. Interest on the 2020 notes is payable on June 1 and December 1 of each year. We may redeem all or part of the 2020 notes at any time at redemption prices ranging from 104.50% currently to 100.00% on or after December 1, 2018. If we undergo a change of control, the holders of the 2020 notes will have the right to require us to repurchase all or a portion of the notes at a price equal to 101% of the principal amount of the 2020 notes, plus accrued interest.

We also have $1.0 billion of 5.375% senior notes outstanding, which are due November 1, 2021. 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 our other outstanding senior notes. The 2021 notes are guaranteed by our wholly-owned subsidiaries and certain of our future restricted subsidiaries. Interest on the 2021 notes is payable on May 1 and November 1 of each year. We may redeem all or part of the 2021 notes at any time on or after November 1, 2016 at redemption prices ranging from 104.031% on or after November 1, 2016 to 100.00% on or after November 1, 2019. In addition, on or before November 1, 2016, we may redeem up to 35% of the aggregate principal amount of the 2021 notes with the net cash proceeds of certain equity offerings, if certain conditions are met, at a redemption price of 105.375%. At any time prior to November 1, 2016, we may also redeem the 2021 notes, in whole or in part, at a price equal to 100% of the principal amount of the 2021 notes plus a “make-whole” premium and accrued interest. If we undergo a change of control, we may be required to offer to purchase the 2021 notes from the holders at a price equal to 101% of the principal amount of the 2021 notes, plus accrued interest.

We also have $1.1 billion of 5.125% senior notes outstanding, which are due December 1, 2022. 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 our other outstanding senior notes. The 2022 notes are guaranteed by our wholly-owned subsidiaries and certain of our future restricted subsidiaries. Interest on the 2022 notes is payable on June 1 and December 1 of each year. We may redeem all or part of the 2022 notes at any time on or after June 1, 2017 at redemption prices ranging from 103.844% on or after June 1, 2017 to 100.00% on or after June 1, 2020. In addition, on or before June 1, 2017, we may redeem up to 35% of the aggregate principal amount of the 2022 notes with the net cash proceeds of certain equity offerings, if certain conditions are met, at a redemption price of 105.125%. At any time prior to June 1, 2017, we may also redeem the 2022 notes, in whole or in part, at a price equal to 100% of the principal amount of the 2022 notes plus a “make-whole” premium and accrued interest. If we undergo a change of control, the holders of the 2022 notes will have the right to require us 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 interest.

We also have $750 million of 5.625% senior notes outstanding, which are due June 1, 2023. 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 our other outstanding senior notes. The 2023 notes are guaranteed by our wholly-owned subsidiaries and certain of our future restricted subsidiaries. Interest on the 2023 notes is payable on June 1 and December 1 of each year. We may redeem all or part of the 2023 notes at any time on or after June 1, 2018 at redemption prices ranging from 104.219% on or after June 1, 2018 to 100.00% on or after June 1, 2021. In addition, on or before June 1, 2018, we may redeem up to 35% of the aggregate principal amount of the 2023 notes with the net cash proceeds of certain equity offerings, if certain conditions are met, at a redemption price of 105.625%. At any time prior to June 1, 2018, we may also redeem the 2023 notes, in whole or in part, at a price equal to 100% of the principal amount of the 2023 notes plus a “make-whole” premium and accrued interest. If we undergo a change of control, the holders of the 2023 notes will have the right to require us 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 interest.

We used the proceeds from the issuances of the senior notes to repay borrowings outstanding under the Credit Facility, redeem previously issued senior notes, and for development of our oil and natural gas properties.

The senior notes indentures each contain restrictive covenants and restrict our ability to incur additional debt unless a pro forma minimum interest coverage ratio requirement of 2.25:1 is maintained. We were in compliance with such covenants as of December 31, 2015 and June 30, 2016.

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 may be material.

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Treasury Management Facility. We have a stand-alone revolving note with a lender under the Credit Facility which provides for up to $25 million of cash management obligations in order to facilitate our daily treasury management. Borrowings under the revolving note are secured by the collateral for the Credit Facility. Borrowings under the facility bear interest at the lender's prime rate plus 1.0%. The note matures on May 1, 2017. At December 31, 2015 and June 30, 2016, there were no outstanding borrowings under this facility.

Contractual Obligations. A summary of our contractual obligations as of June 30, 2016 is provided in the table below. Contractual obligations listed exclude minimum fees that we will pay to Antero Midstream, our consolidated subsidiary, under gathering and compression, and water services agreements.

	Year Ended June 30,						
(in millions)	2017	2018	2019	2020	2021	Thereafter	Total
Credit Facility(1)	$ —	—	140	—	—	—	140
Antero Midstream Partners LP Facility(1)	—	—	—	760	—	—	760
Senior notes—principal(2)	—	—	—	—	525	2,850	3,375
Senior notes—interest(2)	184	184	184	184	168	168	1,072
Drilling rig and completion service commitments(3)	106	98	86	17	—	—	307
Firm transportation (4)	508	840	1,014	1,073	1,076	10,469	14,980
Processing, gathering, and compression services (5)	343	320	211	186	185	783	2,028
Office and equipment leases	13	12	10	8	7	28	78
Asset retirement obligations(6)	—	—	—	—	—	35	35
Total	$ 1,154	1,454	1,645	2,228	1,961	14,333	22,775

(1) Includes outstanding principal amounts at June 30, 2016. This table does not include future commitment fees, interest expense or other fees on our Credit Facility or the Midstream 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.

(2) Includes the 6.00% notes due 2020, the 5.375% notes due 2021, the 5.125% notes due 2022, and the 5.625% notes due 2023.

(3) Includes contracts for the services of drilling rigs and hydraulic fracturing fleets, which expire at various dates from August 2016 through December 2019. 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 interest.

(4) Includes firm transportation agreements with various pipelines in order to facilitate the delivery of 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 represent our minimum daily volumes at the reservation fee rate. 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 interest.

(5) Contractual commitments for processing, gathering and compression services agreements represent minimum commitments under long-term agreements. 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 interest.

(6) 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.

Non-GAAP Financial Measure

“Adjusted EBITDAX” is a non-GAAP financial measure that we define as net income or loss, including noncontrolling interests, before interest expense, interest income, derivative fair value gains or losses (excluding net cash receipts or payments on derivative instruments included in derivative fair value gains or losses), taxes, impairments, depletion, depreciation, amortization, and accretion, exploration expense, franchise taxes, equity-based compensation, loss on early extinguishment of debt, contract termination and rig stacking costs, and gain or loss on sale of assets, and excluding equity in earnings of unconsolidated affiliates. “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

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performance calculated in accordance with GAAP. Adjusted EBITDAX should not be considered in isolation or as a substitute for operating income, 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 a company's capital structure, borrowings, interest costs, capital expenditures, and 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, franchise 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 a company's operating performance without regard to items excluded from the calculation of such term, which can vary substantially from company to company depending upon accounting methods and 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 structure from our operating structure; and

· is used by our management team for various purposes, including as a measure of operating performance, in presentations to our board of directors, and as a basis for strategic planning and forecasting. Adjusted EBITDAX, as defined by our Credit Facility, is used by our lenders pursuant to covenants under our revolving credit facility and the indentures governing our senior notes.

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.

"Segment Adjusted EBITDAX" is also used by our management team for various purposes, including as a measure of operating performance and as a basis for strategic planning and forecasting. Segment Adjusted EBITDAX is a non-GAAP financial measure that we define as operating income before derivative fair value gains or losses (excluding net cash receipts or payments on derivative instruments included in derivative fair value gains or losses), impairments, depletion, depreciation, amortization, and accretion, exploration expense, franchise taxes, equity-based compensation, loss on early extinguishment of debt, contract termination and rig stacking costs, gain or loss on sale of assets, and gain or loss on contingent acquisition consideration accretion. Operating income represents net income, including noncontrolling interest, before interest expense and income taxes, and is the most directly comparable GAAP financial measure to Segment Adjusted EBITDAX because we do not account for income tax expense or interest expense on a segment basis. The following tables represent a reconciliation of our operating income to Segment Adjusted EBITDAX for the three and six months ended June 30, 2015 and 2016 (in thousands):

	Exploration and	Gathering and	Water handling	Marketing	Elimination of	Consolidated total

	production	compression	and treatment		intersegment transactions	
Three months ended June 30, 2015:						
Operating income (loss)	(147,059)	20,086	15,629	(29,224)	(23,181)	(163,749)
Commodity derivative fair value losses	2,227	—	—	—	—	2,227
Gains on settled derivatives	195,880	—	—	—	—	195,880
Depletion, depreciation, amortization, and accretion	155,994	15,298	6,162	—	—	177,454
Impairment of unproved properties	26,339	—	—	—	—	26,339
Exploration expense	628	—	—	—	—	628
Equity-based compensation expense	20,985	5,388	1,209	—	—	27,582
State franchise taxes	(106)	—	—	—	—	(106)
Contract termination and rig stacking	1,937	—	—	—	—	1,937
Segment and consolidated Adjusted EBITDAX	$ 256,825	40,772	23,000	(29,224)	(23,181)	268,192

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	Exploration and production	Gathering and compression	Water handling and treatment	Marketing	Elimination of intersegment transactions	Consolidated total
Three months ended June 30, 2016:						
Operating income (loss)	(877,520)	37,159	15,939	(35,075)	(30,376)	(889,873)
Commodity derivative fair value losses	684,634	—	—	—	—	684,634
Gains on settled derivatives	292,500	—	—	—	—	292,500
Depletion, depreciation, amortization, and accretion	173,635	17,172	7,175	—	—	197,982
Impairment of unproved properties	19,944	—	—	—	—	19,944
Exploration expense	1,109	—	—	—	—	1,109
Loss (gain) on contingent acquisition consideration accretion	(3,461)	—	3,461	—	—	—
Equity-based compensation expense	19,022	5,302	1,492	—	—	25,816
State franchise taxes	—	—	—	—	—	—
Segment and consolidated Adjusted EBITDAX	$ 309,863	59,633	28,067	(35,075)	(30,376)	332,112

	Exploration and production	Gathering and compression	Water handling and treatment	Marketing	Elimination of intersegment transactions	Consolidated total
Six months ended June 30, 2015:						
Operating income (loss)	557,676	36,464	33,909	(44,793)	(47,311)	535,945
Commodity derivative fair value gains	(757,327)	—	—	—	—	(757,327)
Gains on settled derivatives	380,720	—	—	—	—	380,720
Depletion, depreciation, amortization, and accretion	317,899	29,973	12,282	—	—	360,154
Impairment of unproved properties	34,916	—	—	—	—	34,916
Exploration expense	1,999	—	—	—	—	1,999
Equity-based compensation expense	42,989	10,011	2,365	—	—	55,365
State franchise taxes	129	—	—	—	—	129
Contract termination and rig stacking	10,902	—	—	—	—	10,902

Segment and consolidated Adjusted EBITDAX	$ 589,903	76,448	48,556	(44,793)	(47,311)	622,803

	Exploration and production	Gathering and compression	Water handling and treatment	Marketing	Elimination of intersegment transactions	Consolidated total
Six months ended June 30, 2016:						
Operating income (loss)	(780,797)	72,764	26,749	(73,792)	(56,048)	(811,124)
Commodity derivative fair value losses	404,710	—	—	—	—	404,710
Gains on settled derivatives	616,847	—	—	—	—	616,847
Depletion, depreciation, amortization, and accretion	341,785	34,240	14,137	—	—	390,162
Impairment of unproved properties	35,470	—	—	—	—	35,470
Exploration expense	2,123	—	—	—	—	2,123
Loss (gain) on contingent acquisition consideration accretion	(6,857)	—	6,857	—	—	—
Equity-based compensation expense	36,520	9,688	3,078	—	—	49,286
State franchise taxes	39	—	—	—	—	39
Segment and consolidated Adjusted EBITDAX	$ 649,840	116,692	50,821	(73,792)	(56,048)	687,513

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The following table represents a reconciliation of our net income from continuing operations, including noncontrolling interest, to total Segment and consolidated Adjusted EBITDAX from continuing operations and a reconciliation of our total Segment and consolidated Adjusted EBITDAX to net cash provided by operating activities per our consolidated statements of cash flows, in each case, for the periods presented:

	Three months ended June 30,		Six months ended June 30,	
(in thousands)	2015	2016	2015	2016
Net income (loss) including noncontrolling interest	$ (139,483)	(575,490)	259,688	(564,840)
Commodity derivative fair value (gains) losses(1)	2,227	684,634	(757,327)	404,710
Gains on settled derivatives(1)	195,880	292,500	380,720	616,847
Interest expense	59,823	62,595	113,008	125,879
Income tax expense (benefit)	(84,089)	(376,494)	163,249	(371,679)
Depletion, depreciation, amortization, and accretion	177,454	197,982	360,154	390,162
Impairment of unproved properties	26,339	19,944	34,916	35,470
Exploration expense	628	1,109	1,999	2,123
Equity-based compensation expense	27,582	25,816	55,365	49,286
Equity in earnings of unconsolidated affiliate	—	(484)	—	(484)
State franchise taxes	(106)	—	129	39
Contract termination and rig stacking	1,937	—	10,902	—
Total Segment and consolidated Adjusted EBITDAX	268,192	332,112	622,803	687,513
Interest expense	(59,823)	(62,595)	(113,008)	(125,879)
Exploration expense	(628)	(1,109)	(1,999)	(2,123)
Changes in current assets and liabilities	35,361	(30,218)	94,344	18,612
State franchise taxes	106	—	(129)	(39)
Other non-cash items	460	348	(6,903)	622
Net cash provided by operating activities	$ 243,668	238,538	595,108	578,706

(1) The adjustments for the derivative fair value gains and losses and gains on settled derivatives have the effect of adjusting net income 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 of Adjusted EBITDAX only reflects derivatives which settled during the period.

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 2015 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 of the notes to our audited consolidated financial statements, included in our 2015 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 would estimate the fair value of our properties and record an impairment charge for any excess of the carrying amount of the properties over the estimated fair value of the properties. Given the rapid decline in the market prices of natural gas, NGLs, and oil that occurred during the fourth quarter of 2014 and continued through 2015 and into 2016, at June 30, 2016, we compared estimated undiscounted future cash flows using futures pricing for our Utica and Marcellus Basin properties to the carrying

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value of those properties. Estimated undiscounted future cash flows exceeded the carrying values at June 30, 2016 and thus, no further evaluation of the fair value of the properties for impairment is required under GAAP. As a result, we have not recorded any impairment expenses associated with our Utica and Marcellus Basin proved properties during the three or six months ended June 30, 2016. Additionally, we did not record any impairment expenses for proved properties during the year ended December 31, 2015. Based on current futures commodity prices, we currently do not anticipate having to record any impairment charge for our proved properties in the near future. We are unable, however, to predict commodity prices with any greater precision than the futures market.

New Accounting Pronouncements

On May 28, 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers, which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The ASU will replace most existing revenue recognition guidance in GAAP when it becomes effective. Additionally, on May 3, 2016, the FASB issued ASU No. 2016-11, which rescinds SEC accounting guidance regarding the use of the entitlements method for recognition of natural gas revenues. The new standards become effective for the Company on January 1, 2018. Early application is not permitted. The standards permit the use of either the retrospective or cumulative effect transition method. The Company is evaluating the effect that ASU 2014-09 and ASU No. 2016-11 will have on its consolidated financial statements and related disclosures. The Company has not yet selected a transition method nor has it determined the effect of the standards on its ongoing financial reporting.

On February 25, 2016, the FASB issued ASU No. 2016-02, Leases, which requires all leasing arrangements to be presented in the balance sheet as liabilities along with a corresponding asset. The ASU will replace most existing leases guidance in GAAP when it becomes effective. The new standard becomes effective for the Company on January 1, 2019. Although early application is permitted, the Company does not plan to early adopt the ASU. The standard requires the use of the modified retrospective transition method. The Company is evaluating the effect that ASU 2016-02 will have on its consolidated financial statements and related disclosures and has not yet determined the effect of the standard on its ongoing financial reporting.

On June 16, 2016, the FASB issued ASU No. 2016-13, Measurement of Credit Losses on Financial Instruments, which requires an entity to measure its financial assets at the net amount expected to be collected. The ASU will replace most existing guidance in GAAP regarding the valuation of financial assets when it becomes effective. The new standard becomes effective for the Company on January 1, 2020. The Company does not believe that this standard will have a material impact on its ongoing financial reporting upon adoption.

Off-Balance Sheet Arrangements

As of June 30, 2016, we did not have any off-balance sheet arrangements other than operating leases and contractual commitments for drilling rig and hydraulic fracturing services, firm transportation, gas processing, and gathering and compression services. See "—Debt Agreements and Contractual Obligations—Contractual Obligations" for commitments under operating leases, drilling rig and hydraulic fracturing service agreements, firm transportation, gas processing, and gathering and compression service agreements.

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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. The 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. All of our market risk sensitive instruments were entered into for hedging purposes, rather than for speculative trading.

Commodity Hedging Activities

Our primary market risk exposure is in the price we receive for our natural gas, NGLs, and oil production. Realized pricing is primarily driven by spot regional market prices applicable to our U.S. natural gas production and the prevailing worldwide price for crude oil. Pricing for natural gas, NGLs, and oil production has, historically, been volatile and unpredictable, and we expect this volatility to continue in the future. The prices we receive for 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 flow caused by changes in commodity prices, we enter into derivative instruments to receive fixed prices for a portion of our natural gas, NGLs, and oil production when management believes that favorable future prices can be secured. We hedge part of our production at fixed prices for our sales points to mitigate the risk of differentials to the sales point prices. Part of our production is also hedged at NYMEX prices.

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 counterparty, commodity price swaps whereby we will pay a fixed price to the contract counterparty and receive a variable market price, cashless price 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. The Company was not party to any collars as of or during the six months ended June 30, 2016.

At June 30, 2016, we had in place natural gas and NGLs swaps covering portions of our projected production from 2016 through 2022. Our commodity hedge position as of June 30, 2016 is summarized in note 8 to our condensed consolidated financial statements included elsewhere herein. The Credit Facility allows us to hedge up to 75% of our projected production for the next five years, and 65% of our subsequent estimated proved reserves through December 31, 2022. Based on our production and our fixed price swap contracts which settled during the six months ended June 30, 2016, our income before taxes would have decreased by approximately $2.5 million for each $0.10 decrease per MMBtu in natural gas prices and $1.00 decrease per Bbl in oil and NGLs prices.

All derivative instruments, other than those that meet the normal purchase and normal sales 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 (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. We expect continued volatility in the fair value of our derivative instruments. Our cash flows are only impacted when the associated derivative instrument contracts are settled by making or receiving payments to or from the counterparty. At June 30, 2016, the estimated fair value of our commodity derivative instruments was a net asset of $2.1 billion comprised of current and noncurrent assets and current and noncurrent liabilities. At December 31, 2015, the estimated fair value of our commodity derivative instruments was a net asset of $3.1 billion comprised of current and noncurrent assets. None of these commodity derivative instruments were entered into for trading or speculative purposes.

By removing price volatility from a portion of our expected production through December 2022, we have mitigated, but not eliminated, the potential negative effects of changing prices on our operating cash flows for those periods. While mitigating 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.

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Counterparty and Customer Credit Risk

Our principal exposures to credit risk are through receivables resulting from commodity derivative contracts ($2.1 billion at June 30, 2016), the sale of our oil and gas production ($110 million at June 30, 2016) which we market to energy companies, end users and refineries, and joint interest receivables ($39 million at June 30, 2016).

By using derivative instruments that are not traded on an exchange to hedge our exposures to changes in commodity prices, we expose ourselves to the credit risk of our counterparties. Credit risk is the potential failure of the counterparty to perform under the terms of the 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 which 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 fifteen different counterparties, all of which are lenders under our Credit Facility. The fair value of our commodity derivative contracts of approximately $2.1 billion at June 30, 2016 includes the following values by bank counterparty: Morgan Stanley - $568 million; Barclays - $461 million; JP Morgan - $388 million; Wells Fargo - $204 million; Scotiabank - $148 million; Citigroup - $126 million; BNP Paribas - $81 million; Toronto Dominion - $51 million; Canadian Imperial Bank of Commerce - $30 million; Fifth Third - $24 million; Bank of Montreal - $13 million; SunTrust - $6 million; and Capital One - $4 million. The credit ratings of certain of these banks were downgraded in recent years because of their exposure to the sovereign debt crisis in Europe. The estimated fair value of our commodity derivative assets has been risk adjusted using a discount rate based upon the 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, 2016 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, 2016, 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.

Joint interest receivables arise from our billing of entities who own partial interests in the wells we operate. These entities participate in our wells primarily based on their ownership in leased properties on which we drill. We have minimal control over deciding who participates in our wells.

Interest Rate Risks

Our primary exposure to interest rate risk results from outstanding borrowings under our Credit Facility and the Midstream Facility of our consolidated subsidiary, Antero Midstream. Each of these credit facilities has a floating interest rate. The average annualized interest rate incurred on this indebtedness during the six months ended June 30, 2016 was approximately 2.26%. A 1.0% increase in each of the applicable average interest rates for the six months ended June 30, 2016 would have resulted in an estimated $6.9 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 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 disclosure 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, 2016 at a reasonable assurance level.

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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, 2016 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

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PART II—OTHER INFORMATION

Item 1.Legal Proceedings.

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. We have responded to all pending orders and are actively cooperating with the relevant agencies. No fine or penalty relating to these matters has been proposed at this time, but we believe that these actions will result in monetary sanctions exceeding $100,000. We are unable to estimate the total amount of such monetary sanctions or costs to remediate these locations in order to bring them into compliance with applicable environmental laws and regulations. We have not, however, been required to suspend our operations at these locations to date, and management does not expect these matters to have a material adverse effect on our financial condition, results of operations, or cash flows.

The Company is the plaintiff in two nearly identical lawsuits against South Jersey Gas Company and South Jersey Resources Group, LLC (collectively "SJGC") pending in United States District Court in Colorado. The Company filed suit against SJGC seeking relief for breach of contract and damages in the amounts that SJGC has short paid, and continues to short pay, the Company in connection with two long term gas contracts. Under those contracts, SJGC are long term purchasers of some of the Company's natural gas production. Deliveries under the contracts began in October 2011 and the delivery obligation continues through October 2019. SJGC unilaterally breached the contracts claiming that the index prices specified in the contracts, and the index prices at which SJGC paid for deliveries from 2011 through September 2014, are no longer appropriate under the contracts because a market disruption event (as defined by the contract) has occurred and, as a result, a new index price is to be determined by the parties. Beginning in October 2014, SJGC began short paying the Company based on indexes unilaterally selected by SJGC and not the index specified in the contract. The Company contends that no market disruption event has occurred and that SJGC have breached the contracts by failing to pay the Company based on the express price terms of the contracts. Through June 30, 2016, the Company estimates that it is owed approximately $46 million more than SJGC has paid using the indexes unilaterally selected by them.

The Company and Washington Gas Light Company and WGL Midstream, Inc. (collectively "WGL") are also involved in a pricing dispute involving contracts that the Company began delivering gas under in January 2016. The Company has invoiced WGL at the index price specified in the contract and WGL has paid the Company based on that invoice price; however, WGL maintains that the index price is no longer appropriate under the contracts and that an undefined alternative index is more appropriate for the delivery point of the gas. The matter has been submitted to arbitration. The Company believes that there is no basis for WGL's position and intends to vigorously dispute the WGL claim in arbitration.

We are party to various other legal proceedings and claims in the ordinary course of our business. We believe 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 our consolidated financial condition, results of operations, or cash flows.

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 2015 Form 10-K. The risks described in our 2015 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 2015 Form 10-K. We may experience additional risks and uncertainties not currently known to us; or, 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.

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Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

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, 2016 - April 30, 2016	182,376	$ 25.69	—	N/A
May 1, 2016 - May 31, 2016	—	$ —	—	N/A
June 1, 2016 - June 30, 2016	—	$ —	—	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 restricted stock and restricted stock units held by our employees.

Item 5.Other Information.

Disclosure pursuant to Section 13(r) of the Securities Exchange Act of 1934

Pursuant to Section 13(r) of the Securities Exchange Act of 1934, we, Antero Resources Corporation, may be required to disclose in our annual and quarterly reports to the Securities and Exchange Commission (the “SEC”), whether we or any of our “affiliates” knowingly engaged in certain activities, transactions or dealings relating to Iran or with certain individuals or entities targeted by U.S. economic sanctions. Disclosure is generally required even where the activities, transactions or dealings were conducted in compliance with applicable law. Because the SEC defines the term “affiliate” broadly, it includes any entity under common “control” with us (and the term “control” is also construed broadly by the SEC).

The description of the activities below has been provided to us by Warburg Pincus LLC (“WP”), affiliates of which: (i) beneficially own more than 10% of our outstanding common stock and/or are members of our board of directors, (ii) beneficially own more than 10% of the equity interests of, and have the right to designate members of the board of directors of Santander Asset Management Investment Holdings Limited (“SAMIH”). SAMIH may therefore be deemed to be under common “control” with us; however, this statement is not meant to be an admission that common control exists.

The disclosure below relates solely to activities conducted by SAMIH and its affiliates. The disclosure does not relate to any activities conducted by us or by WP and does not involve our or WP’s management. Neither we nor WP has had any involvement in or control over the disclosed activities, and neither we nor WP has independently verified or participated in the preparation of the disclosure. Neither we nor WP is representing as to the accuracy or completeness of the disclosure nor do we or WP undertake any obligation to correct or update it.

We understand that one or more SEC-reporting affiliates of SAMIH intends to disclose in its next annual or quarterly SEC report that:

(a) Santander UK plc (“Santander UK”) holds two frozen savings accounts and two frozen current accounts for three customers resident in the United Kingdom (“UK”) who are currently designated by the United States (“US”) under the Specially Designated Global Terrorist (“SDGT”) sanctions program. The accounts held by each customer were blocked after the customer’s designation and have remained blocked and dormant through the first half of 2016. Revenue generated by Santander UK on these accounts in the first half of 2016 was £7.31 whilst net profits in the first half of 2016 were negligible relative to the overall profits of Banco Santander S.A.

(b) An Iranian national, resident in the UK, who is currently designated by the US under the Iranian Financial Sanctions Regulations (“IFSR”) and the Weapons of Mass Destruction Proliferators Sanctions Regulations, held a mortgage with Santander UK that was issued prior to any such designation. The mortgage account was redeemed and closed on April 13, 2016. No further drawdown has been made (or would be allowed) under this mortgage although Santander UK continued to receive repayment instalments prior to redemption. In the first half of 2016, total revenue generated by Santander UK in connection with the mortgage

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was £434.64 whilst net profits were negligible relative to the overall profits of Banco Santander S.A. Santander UK does not intend to enter into any new relationships with this customer, and any disbursements will only be made in accordance with applicable sanctions. The same Iranian national also held two investment accounts with Santander ISA Managers Limited. The funds within both accounts were invested in the same portfolio fund. The accounts remained frozen until the investments were closed on May 12, 2016 and checks issued to the customer on May 13, 2016. The investment returns are being automatically reinvested, and no disbursements have been made to the customer. Total revenue in the first half of 2016 generated by Santander UK in connection with the investment accounts was £7.60 whilst net profits in the first half of 2016 were negligible relative to the overall profits of Banco Santander S.A.

(c) A UK national designated by the US under the SDGT sanctions program holds a Santander UK current account. The account remained in arrears through the first half of 2016 (£1,344.01 in debit) and is currently being managed by Santander UK Collections & Recoveries department.

(d) In addition, during the first half of 2016, Santander UK has identified an OFAC match on a power of attorney account. A party listed on the account is currently designated by the US under the SDGT and IFSR sanctions programs. During the first half of 2016, related revenue generated by Santander UK was £129.21 whilst net profits in the first half of 2016 were negligible relative to the overall profits of Banco Santander S.A.

Item 6.Exhibits.

The exhibits required to be filed pursuant to the requirements of Item 601 of Regulation S-K are set forth in the Exhibit Index accompanying this Quarterly Report on Form 10-Q and are incorporated herein by reference.

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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: August 2, 2016

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EXHIBIT INDEX

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	Nineteenth Amendment to Fourth Amended and Restated Credit Agreement, dated as of April 8, 2016, among Antero Resources Corporation, certain subsidiaries of the Borrower, as Guarantors, the Lenders party thereto, and JPMorgan Chase Bank, N.A., as Administrative Agent (incorporated by reference to Exhibit 10.3 to Quarterly Report on Form 10-Q (Commission File No. 001-36120) filed on April 27, 2016).
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, 2016 formatted in XBRL (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.