

**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 September 30, 2016

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: 001-12209

RANGE RESOURCES CORPORATION

(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

100 Throckmorton Street, Suite 1200

Fort Worth, Texas
(Address of Principal Executive Offices)

34-1312571
(IRS Employer
Identification No.)

76102
(Zip Code)

Registrant's telephone number, including area code
(817) 870-2601

Former Name, Former Address and Former Fiscal Year, if changed since last report: Not applicable

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 and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for shorter period that the registrant was required to submit and post such files).

Yes No

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

Large Accelerated Filer Accelerated Filer

Non-Accelerated Filer (Do not check if smaller reporting company) Smaller Reporting Company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No

247,145,294 Common Shares were outstanding on October 24, 2016

RANGE RESOURCES CORPORATION
FORM 10-Q
Quarter Ended September 30, 2016

Unless the context otherwise indicates, all references in this report to “Range Resources,” “Range,” “we,” “us,” or “our” are to Range Resources Corporation and its directly and indirectly owned subsidiaries and its ownership interests in equity method investments.

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ITEM 1. Financial Statements

RANGE RESOURCES CORPORATION
CONSOLIDATED BALANCE SHEETS
(In thousands, except share data)

	<u>September 30,</u> <u>2016</u>	<u>December 31,</u> <u>2015</u>
	<u>(Unaudited)</u>	
Assets		
Current assets:		
Cash and cash equivalents	\$ 542	\$ 471
Accounts receivable, less allowance for doubtful accounts of \$5,555 and \$4,994	183,883	123,842
Derivative assets	158,340	281,544
Inventory and other	36,445	33,217
Total current assets	<u>379,210</u>	<u>439,074</u>
Derivative assets	21,480	7,218
Goodwill	1,630,981	—
Natural gas and oil properties, successful efforts method	12,200,382	8,996,336
Accumulated depletion and depreciation	<u>(2,994,282)</u>	<u>(2,635,031)</u>
	<u>9,206,100</u>	<u>6,361,305</u>
Other property and equipment	114,911	110,013
Accumulated depreciation and amortization	<u>(96,603)</u>	<u>(90,558)</u>
	<u>18,308</u>	<u>19,455</u>
Other assets	71,180	72,979
Total assets	<u>\$ 11,327,259</u>	<u>\$ 6,900,031</u>
Liabilities		
Current liabilities:		
Accounts payable	\$ 124,348	\$ 117,346
Asset retirement obligations	15,071	15,071
Accrued liabilities	294,253	188,028
Accrued interest	21,185	30,139
Derivative liabilities	7,277	1,136
Total current liabilities	<u>462,134</u>	<u>351,720</u>
Bank debt	930,669	86,427
Senior notes	2,847,564	738,101
Senior subordinated notes	48,476	1,826,775
Deferred tax liabilities	1,176,353	777,947
Derivative liabilities	3,934	21
Deferred compensation liabilities	119,645	104,792
Asset retirement obligations and other liabilities	<u>277,671</u>	<u>254,590</u>
Total liabilities	<u>5,866,446</u>	<u>4,140,373</u>
Commitments and contingencies		
Stockholders' Equity		
Preferred stock, \$1 par, 10,000,000 shares authorized, none issued and outstanding	—	—
Common stock, \$0.01 par, 475,000,000 shares authorized, 247,145,228 issued at September 30, 2016 and 169,375,743 issued at December 31, 2015	2,471	1,693
Common stock held in treasury, 44,772 shares at September 30, 2016 and 59,283 shares at December 31, 2015	(1,701)	(2,245)
Additional paid-in capital	5,512,727	2,442,623
Retained earnings (deficit)	<u>(52,684)</u>	<u>317,587</u>
Total stockholders' equity	<u>5,460,813</u>	<u>2,759,658</u>
Total liabilities and stockholders' equity	<u>\$ 11,327,259</u>	<u>\$ 6,900,031</u>

See accompanying notes.

RANGE RESOURCES CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited, in thousands, except per share data)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
Revenues and other income:				
Natural gas, NGLs and oil sales	\$ 304,477	\$ 252,065	\$ 738,570	\$ 835,601
Derivative fair value income (loss)	64,556	202,004	(11,334)	290,052
Brokered natural gas, marketing and other	44,174	25,864	119,181	61,688
Total revenues and other income	413,207	479,933	846,417	1,187,341
Costs and expenses:				
Direct operating	22,387	35,058	67,112	106,975
Transportation, gathering, processing and compression	138,764	99,634	400,871	284,258
Production and ad valorem taxes	6,717	7,336	18,653	26,506
Brokered natural gas and marketing	44,622	32,331	122,105	80,924
Exploration	6,943	4,235	18,641	17,146
Abandonment and impairment of unproved properties	6,082	12,366	23,769	36,187
General and administrative	41,024	46,178	127,745	150,471
Memorial merger expenses	33,791	—	36,412	—
Termination costs	136	(77)	303	6,290
Deferred compensation plan	(11,636)	(43,705)	30,166	(56,611)
Interest	45,967	42,904	121,464	125,590
Loss on early extinguishment of debt	—	22,495	—	22,495
Depletion, depreciation and amortization	131,489	153,993	374,440	453,178
Impairment of proved properties	—	502,233	43,040	502,233
Loss (gain) on the sale of assets	2,597	681	7,544	(2,053)
Total costs and expenses	468,883	915,662	1,392,265	1,753,589
Loss before income taxes	(55,676)	(435,729)	(545,848)	(566,248)
Income tax benefit:				
Current	—	—	—	—
Deferred	(13,705)	(134,781)	(187,231)	(174,390)
	(13,705)	(134,781)	(187,231)	(174,390)
Net loss	\$ (41,971)	\$ (300,948)	\$ (358,617)	\$ (391,858)
Net loss per common share:				
Basic	\$ (0.23)	\$ (1.81)	\$ (2.09)	\$ (2.36)
Diluted	\$ (0.23)	\$ (1.81)	\$ (2.09)	\$ (2.36)
Dividends paid per common share	\$ 0.02	\$ 0.04	\$ 0.06	\$ 0.12
Weighted average common shares outstanding:				
Basic	180,683	166,517	171,571	166,327
Diluted	180,683	166,517	171,571	166,327

See accompanying notes.

RANGE RESOURCES CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited, in thousands)

	Nine Months Ended September 30,	
	2016	2015
Operating activities:		
Net loss	\$ (358,617)	\$ (391,858)
Adjustments to reconcile net loss to net cash provided from operating activities:		
Deferred income tax benefit	(187,231)	(174,390)
Depletion, depreciation and amortization and impairment	417,480	955,411
Exploration dry hole costs	2	87
Abandonment and impairment of unproved properties	23,769	36,187
Derivative fair value loss (income)	11,334	(290,052)
Cash settlements on derivative financial instruments	260,657	360,645
Allowance for bad debt	800	600
Amortization of deferred financing costs, loss on extinguishment of debt and other	5,383	27,572
Deferred and stock-based compensation	72,689	(10,679)
Loss (gain) on the sale of assets	7,544	(2,053)
Changes in working capital:		
Accounts receivable	31,985	79,448
Inventory and other	(776)	(7,073)
Accounts payable	(41,268)	(13,158)
Accrued liabilities and other	(41,714)	(55,127)
Net cash provided from operating activities	202,037	515,560
Investing activities:		
Additions to natural gas and oil properties	(339,446)	(901,227)
Additions to field service assets	(1,542)	(2,878)
Acreage purchases	(29,203)	(61,213)
Memorial Merger, net of cash acquired	7,180	—
Other	—	(75)
Proceeds from disposal of assets	191,834	14,825
Purchases of marketable securities held by the deferred compensation plan	(33,460)	(23,594)
Proceeds from the sales of marketable securities held by the deferred compensation plan	37,900	28,168
Net cash used in investing activities	(166,737)	(945,994)
Financing activities:		
Borrowings on credit facilities	1,887,000	1,940,000
Repayments on credit facilities	(1,045,000)	(1,676,000)
Repayment of Memorial credit facility	(597,000)	—
Issuance of senior notes	—	750,000
Repayment of senior notes	(273,011)	—
Repayment of subordinated notes	—	(516,875)
Debt issuance costs and other	(6,381)	(14,156)
Dividends paid	(11,654)	(20,308)
Change in cash overdrafts	432	(40,123)
Proceeds from the sales of common stock held by the deferred compensation plan	10,385	7,938
Net cash (used in) provided from financing activities	(35,229)	430,476
Increase in cash and cash equivalents	71	42
Cash and cash equivalents at beginning of period	471	448
Cash and cash equivalents at end of period	\$ 542	\$ 490

See accompanying notes.

(1) SUMMARY OF ORGANIZATION AND NATURE OF BUSINESS

Range Resources Corporation is a Fort Worth, Texas-based independent natural gas, natural gas liquids (“NGLs”) and oil company primarily engaged in the exploration, development and acquisition of natural gas and oil properties in the Appalachian and the North Louisiana regions of the United States. Our objective is to build stockholder value through consistent growth in reserves and production on a cost-efficient basis. Range is a Delaware corporation with our common stock listed and traded on the New York Stock Exchange under the symbol “RRC.”

(2) BASIS OF PRESENTATION

These interim financial statements should be read in conjunction with the consolidated financial statements and notes thereto included in the Range Resources Corporation 2015 Annual Report on Form 10-K filed with the Securities and Exchange Commission (the “SEC”) on February 25, 2016. The results of operations for the third quarter and the nine months ended September 30, 2016 are not necessarily indicative of the results to be expected for the full year. These consolidated financial statements are unaudited but, in the opinion of management, reflect all adjustments necessary for fair presentation of the results for the periods presented. All adjustments are of a normal recurring nature unless otherwise disclosed. These consolidated financial statements, including selected notes, have been prepared in accordance with the applicable rules of the SEC and do not include all of the information and disclosures required by accounting principles generally accepted in the United States of America (“U.S. GAAP”) for complete financial statements.

On September 16, 2016, we issued approximately 77.0 million shares of common stock in exchange for all outstanding shares of common stock of Memorial Resources Development Corp. (“Memorial”) using an exchange ratio of 0.375 of a share of Range common stock for each share of Memorial common stock. For additional information, see Note 4. In connection with the allocation of purchase price for this merger, approximately \$1.6 billion has been recorded as goodwill. Goodwill represents the excess of the purchase price over the estimated fair value of the net assets acquired in the acquisition of a business. Goodwill is not amortized, but rather is tested for impairment annually or when events and changes in circumstances indicate that the fair value of a reporting unit with goodwill has been reduced below carrying value. We assess goodwill for impairment annually on November 1, or more frequently as circumstances require. The impairment test requires allocating goodwill and other assets and liabilities to a reporting unit level, which is represented by our oil and natural gas operations in the United States. The fair value of a reporting unit is determined and compared to the book value of the reporting unit. If the fair value of the reporting unit is less than the book value, including goodwill, then the recorded goodwill is impaired to its implied fair value with a charge to impairment expense.

Inventory. As of September 30, 2016, we had \$13.6 million of material and supplies inventory compared to \$20.8 million at December 31, 2015. Material and supplies inventory consist of primarily tubular goods and equipment used in our operations and is stated at lower of specific cost of each inventory item or market. At September 30, 2016, we also had commodity inventory of \$13.6 million compared to \$4.8 million at December 31, 2015. Commodity inventory as of September 30, 2016 consists of natural gas and NGLs held in storage or as line fill in pipelines.

(3) NEW ACCOUNTING STANDARDS**Not Yet Adopted**

In May 2014, an accounting standards update was issued that supersedes the existing revenue recognition requirements. This standard includes a five-step revenue recognition model to depict the transfer of goods or services to customers in an amount that reflects the consideration to which we expect to be entitled in exchange for those goods or services. Among other things, the standard also eliminates industry-specific revenue guidance, requires enhanced disclosures about revenue, provides guidance for transactions that were not previously addressed comprehensively and improves guidance for multiple-element arrangements. This standard is effective for us in first quarter 2018 and will be applied retrospectively to each prior reporting period presented or with the cumulative effect of initially applying the update recognized at the date of initial application. Early adoption is permitted with an effective date no earlier than first quarter 2017. We are evaluating the provisions of this accounting standards update and assessing the impact, if any, it may have on our consolidated results of operations, financial position, cash flows or financial disclosures.

In August 2014, an accounting standards update was issued that requires management to assess an entity’s ability to continue as a going concern by incorporating and expanding upon certain principles that are currently in United States auditing standards. This standard is effective for us in fourth quarter 2016 and early adoption is permitted. We do not expect the adoption of this standard to have a significant impact on our consolidated results of operations, financial position, cash flows or financial disclosures.

In February 2016, an accounting standards update was issued that requires an entity to recognize a right-of-use asset and lease liability for all leases with terms of more than 12 months. Classification of leases as either a finance or operating lease will determine the recognition, measurement and presentation of expenses. This accounting standard update also requires certain quantitative and qualitative disclosures about leasing arrangements. This standard is effective for us in first quarter 2019 and should be applied using a

modified retrospective approach for leases that exist or are entered into after the beginning of the earliest comparative period in the financial statements and early adoption is permitted. We are evaluating the provisions of this accounting standards update and assessing the impact it may have, if any, on our consolidated results of operations, financial position or cash flows.

In March 2016, an accounting standards update was issued that simplifies several aspects of the accounting for share-based payment award transactions. Among other things, this new guidance will require all income tax effects of share-based awards to be recognized in the statement of operations when the awards vest or are settled, will allow an employer to repurchase more of an employee's shares for tax withholding purposes than it can today without triggering liability accounting and will allow a policy election to account for forfeitures as they occur. This standard is effective for us in first quarter 2017 with prospective application and early adoption is permitted. We are evaluating the provisions of this accounting standards update and assessing the impact it may have, if any, on our consolidated results of operations, financial position or cash flows.

In August 2016, an accounting standards update was issued that clarifies how entities classify certain cash receipts and cash payments on the statement of cash flows. The guidance is effective for us in first quarter 2018 and will be applied retrospectively with early adoption permitted. We are evaluating the provisions of this accounting standards update and assessing the impact, if any, it may have on our consolidated cash flow statement presentation.

Recently Adopted

In April 2015, an accounting standards update was issued that requires debt issuance costs to be presented in the balance sheet as a direct reduction from the associated debt liability. This standard was effective for the reporting period beginning on January 1, 2016 with early adoption permitted. As of December 31, 2015, we adopted this standard retrospectively and have accounted for the debt issuance costs as a reduction of the associated debt liability. This adoption only affected our consolidated balance sheets and did not have an impact on our consolidated results of operations or cash flows.

In November 2015, an accounting standards update was issued which requires entities to classify all deferred tax assets and liabilities as noncurrent on the balance sheet instead of separating deferred taxes into current and noncurrent amounts. This standard is effective for the reporting period beginning January 1, 2017 with early adoption permitted. As of December 31, 2015, we adopted this standard retrospectively and reclassified our current deferred tax assets and liabilities into non-current deferred tax assets and liabilities. This adoption only affected our consolidated balance sheets and did not have an impact on our consolidated results of operations or cash flows.

(4) ACQUISITIONS AND DISPOSITIONS

Memorial Merger

On September 16, 2016, Range Resources Corporation completed its merger with Memorial (the "Memorial Merger,") which was accomplished through the merger of Medina Merger Sub, Inc., a Delaware corporation and a direct, wholly-owned subsidiary of Range, with and into Memorial, with Memorial surviving as a wholly-owned subsidiary of Range. The results of Memorial's operations since the effective time of the merger are included in our consolidated statement of operations. The merger was effected through the issuance of approximately 77.0 million shares of Range common stock in exchange for all outstanding shares of Memorial using an exchange ratio of 0.375 of a share of Range common stock for each share of Memorial common stock. At the effective time of the merger, Memorial's liabilities, which are reflected in Range's consolidated financial statements, included approximately \$1.2 billion fair value of outstanding debt. In connection with the Memorial Merger, we have incurred merger-related costs of approximately \$36.4 million to date including consulting, investment banking, advisory, legal and other merger-related fees.

Allocation of Purchase Price. The Memorial Merger has been accounted for as a business combination, using the acquisition method. The following table represents the preliminary allocation of the total purchase price of the Memorial Merger to the assets acquired and the liabilities assumed based on the fair value at the effective time of the merger, with any excess of the purchase price over the estimated fair value of the identifiable net assets acquired recorded as goodwill. Certain data necessary to complete the purchase price allocation is not yet available, and includes, but is not limited to, valuation of pre-merger contingencies, final tax returns that provide the underlying tax basis of Memorial's assets and liabilities and final appraisals of assets acquired and liabilities assumed. We expect to complete the purchase price allocation during the 12-month period following the merger date, in line with the acquisition method of accounting, during which time the value of the assets and liabilities, including goodwill, may be revised as appropriate.

The following table sets forth our preliminary purchase price allocation (in thousands, except shares and stock price):

Purchase price:	
Shares of Range common stock issued to Memorial stockholders	77,042,749
Range common stock price per share on September 15, 2016 (close)	\$ 39.37
Total purchase price	\$ 3,033,173
Plus fair value of liabilities assumed by Range:	
Accounts payable	54,905
Other current liabilities	96,734
Long-term debt	1,204,449
Deferred taxes	583,575
Other long-term liabilities	19,169
Total purchase price plus liabilities assumed	\$ 4,992,005
Fair value of Memorial assets:	
Cash and equivalents	\$ 7,180
Other current assets	93,911
Derivative instruments	152,994
Oil and gas properties:	
Proved property	1,096,035
Unproved property	2,007,200
Other property and equipment	3,579
Goodwill (a)	1,630,981
Other	125
Total asset value	\$ 4,992,005

(a) Goodwill will not be deductible for income tax purposes.

The fair value measurements of derivative instruments assumed were determined based on published forward commodity price curves as of the date of the Memorial Merger and represent Level 2 inputs. Derivative instruments in an asset position include a measure of counterparty nonperformance risk and the fair values of commodity derivative instruments in a liability position include a measure of our own nonperformance risk, each based on the current published credit default swap rates. The fair value measurements of long-term debt were estimated based on published market prices and represent Level 1 inputs.

The fair value measurements of oil and natural gas properties and asset retirement obligations are based on inputs that are not observable in the market and therefore represent Level 3 inputs. The fair value of oil and natural gas properties and asset retirement obligations were measured using valuation techniques that convert future cash flows to a single discounted amount. Significant inputs to the valuation of oil and natural gas properties include estimates of: (i) recoverable reserves; (ii) production rates; (iii) future operating and development costs; (iv) future commodity prices; and (v) a market-based weighted average costs of capital rate. These inputs require significant judgments and estimates by management at the time of the valuation and may be subject to change. Management utilized the assistance of a third party valuation expert to estimate the value of the oil and natural gas properties acquired. In some cases, certain amounts allocated to unproved properties are based on a market approach using third party published data which provides lease pricing information based on certain geographic areas and represent Level 2 inputs.

Goodwill is attributed to net deferred tax liabilities arising from the differences between the purchase price allocated to Memorial's assets and liabilities based on fair value and the tax basis of these assets and liabilities. In addition, the total consideration for the merger included a control premium, which resulted in a higher value compared to the fair value of net assets acquired. There are also other qualitative assumptions of long-term factors that the merger creates for Range stockholders including additional potential for exploration and development opportunities, additional scale and efficiencies in other basins in which we operate and substantial operating and administrative synergies.

The results of operations attributable to Memorial are included in our consolidated statement of operations beginning on September 16, 2016. Revenues of \$21.1 million and field net operating income of \$12.3 million from Memorial were generated from September 16, 2016 to September 30, 2016.

Pro forma Financial Information. The following pro forma condensed combined financial information was derived from the historical financial statements of Range and Memorial and gives effect to the merger as if it had occurred on January 1, 2015. The below information reflects pro forma adjustments for the issuance of Range common stock in exchange for Memorial's outstanding shares of common stock, as well as pro forma adjustments based on available information and certain assumptions that we believe are reasonable, including (i) the depletion of Memorial's fair-valued proved oil and gas properties and (ii) the estimated tax impacts of the pro forma adjustments. Additionally, pro forma earnings for the three and nine months ended September 30, 2016 were adjusted to

exclude \$33.8 million for third quarter 2016 and \$36.4 million for first nine months 2016 of merger-related costs incurred by Range and \$9.3 million incurred by Memorial. The pro forma results of operations do not include any cost savings or other synergies that may result from the Memorial Merger or any estimated costs that have been or will be incurred by us to integrate the Memorial assets. The pro forma condensed combined financial information has been included for comparative purposes and is not necessarily indicative of the results that might have actually occurred had the Memorial Merger taken place on January 1, 2015. In addition, the pro forma financial information below is not intended to be a projection of future results (in thousands, except per share amounts).

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2016	2015	2016	2015
Revenues	\$ 521,668	\$ 716,753	\$ 1,080,767	\$ 1,667,516
Net loss	\$ (17,882)	\$ (223,154)	\$ (427,946)	\$ (268,433)
Loss per share:				
Basic	\$ (0.07)	\$ (0.92)	\$ (1.75)	\$ (1.10)
Diluted	\$ (0.07)	\$ (0.92)	\$ (1.75)	\$ (1.10)

2016 Dispositions

We recognized a pretax net loss on the sale of assets of \$2.6 million in third quarter 2016 compared to a pretax net loss of \$681,000 in the same period of the prior year and a pretax net loss on the sale of assets of \$7.5 million in the nine months ended September 30, 2016 compared to a pretax net gain of \$2.1 million in the same period of the prior year.

Western Oklahoma. In first six months 2016, we sold certain properties in Western Oklahoma for proceeds of \$77.7 million and we recorded a loss of \$6.2 million related to this sale, after closing adjustments and transaction fees. In third quarter 2016, we sold additional properties in Western Oklahoma for proceeds of \$900,000 and we recorded a loss of \$2.6 million.

Pennsylvania. In first quarter 2016, we sold our non-operated interest in certain wells and gathering facilities in northeast Pennsylvania for proceeds of \$111.5 million. After closing adjustments, we recorded a loss of \$2.1 million related to this sale.

Other. In third quarter 2016, we sold miscellaneous inventory and surface property for proceeds of \$131,000 resulting in a gain of \$30,000. In first six months 2016, we sold miscellaneous proved and unproved properties, inventory, other assets and surface acreage for proceeds of \$1.7 million resulting in a loss of \$198,000. Included in the \$1.7 million of proceeds is \$1.2 million received from the sale of proved properties in Mississippi and South Texas.

2015 Dispositions

In third quarter 2015, we sold miscellaneous unproved properties and inventory for proceeds of \$524,000 resulting in a loss of \$681,000. In first six months 2015, we sold miscellaneous unproved property, proved property and inventory for proceeds of \$14.3 million resulting in a gain of \$2.7 million. Included in the \$14.3 million of proceeds is \$10.5 million received from the sale of certain West Texas properties which closed in February 2015.

(5) INCOME TAXES

Income tax benefit was as follows (in thousands):

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2016	2015	2016	2015
Income tax benefit	\$ (13,705)	\$ (134,781)	\$ (187,231)	\$ (174,390)
Effective tax rate	24.6%	30.9%	34.3%	30.8%

We compute our quarterly taxes under the effective tax rate method based on applying an anticipated annual effective rate to our year-to-date income, except for discrete items. Income taxes for discrete items are computed and recorded in the period that the specific transaction occurs. For third quarter and the nine months ended September 30, 2016 and 2015, our overall effective tax rate was different than the federal statutory rate of 35% due primarily to state income taxes, valuation allowances and other permanent differences. The three months ended September 30, 2016 includes \$5.3 million income tax expense related to Memorial Merger transaction costs that are not deductible for tax purposes. The three months ended September 30, 2016 also includes \$2.8 million and the nine months ended September 30, 2016 includes \$10.5 million of tax expense related to an increase in our valuation allowance for state net operating loss carryforwards that we do not believe are realizable. The three months ended September 30, 2016 includes an income tax benefit of \$682,000 and the nine months ended September 30, 2016 includes an

income tax expense of \$1.8 million to adjust the valuation allowance on our deferred tax asset related to future deferred compensation plan distributions of our senior executives. In addition, for the nine months ended September 30, 2016, we recorded income tax expense of \$3.7 million related to equity compensation because our compensation expense recorded for financial reporting exceeded our corresponding income tax deduction.

The three months ended September 30, 2015 includes income tax expense of \$8.5 million and the nine months ended September 30, 2015 includes income tax expense of \$19.8 million related to increases in our valuation allowances for state net operating loss carryforwards and credit carryforwards. The three months ended September 30, 2015 also includes income tax benefit of \$2.6 million and the nine months ended September 30, 2015 includes income tax benefit of \$3.5 million adjusting our valuation allowance for our deferred tax asset related to future deferred compensation plan distributions of our senior executives.

(6) LOSS PER COMMON SHARE

Basic income or loss per share attributable to common shareholders is computed as (1) income or loss attributable to common shareholders (2) less income allocable to participating securities (3) divided by weighted average basic shares outstanding. Diluted income or loss per share attributable to common shareholders is computed as (1) basic income or loss attributable to common shareholders (2) plus diluted adjustments to income allocable to participating securities (3) divided by weighted average diluted shares outstanding. The following tables set forth a reconciliation of income or loss attributable to common shareholders to basic income or loss attributable to common shareholders to diluted income or loss attributable to common shareholders (in thousands except per share amounts):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
Net loss, as reported	\$ (41,971)	\$ (300,948)	\$ (358,617)	\$ (391,858)
Participating earnings (a)	(56)	(114)	(167)	(338)
Basic net loss attributed to common shareholders	(42,027)	(301,062)	(358,784)	(392,196)
Reallocation of participating earnings (a)	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$
Diluted net loss attributed to common shareholders	\$ (42,027)	\$ (301,062)	\$ (358,784)	\$ (392,196)
Net loss per common share:				
Basic	\$ (0.23)	\$ (1.81)	\$ (2.09)	\$ (2.36)
Diluted	\$ (0.23)	\$ (1.81)	\$ (2.09)	\$ (2.36)

(a) Restricted Stock Awards represent participating securities because they participate in nonforfeitable dividends or distributions with common equity owners. Income allocable to participating securities represents the distributed and undistributed earnings attributable to the participating securities. Participating securities, however, do not participate in undistributed net losses.

The following table provides a reconciliation of basic weighted average common shares outstanding to diluted weighted average common shares outstanding (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
Weighted average common shares outstanding – basic (1)	180,683	166,517	171,571	166,327
Effect of dilutive securities:				
Director and employee SARs	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$
Weighted average common shares outstanding – diluted	180,683	166,517	171,571	166,327

(1) Includes common stock issued in connection with the exchange of 77.0 million shares for all outstanding Memorial common stock on September 16, 2016.

Weighted average common shares outstanding-basic for both the three months ended September 30, 2016 and the three months ended September 30, 2015 excludes 2.8 million shares of restricted stock held in our deferred compensation plan (although all awards are issued and outstanding upon grant). Weighted average common shares outstanding-basic for both the nine months ended September 30, 2016 and the nine months ended September 30, 2015 also exclude 2.8 million shares of restricted stock held in our deferred compensation plan. Due to our net loss from operations for the three months and nine months ended September 30, 2016 and 2015, we excluded all outstanding stock appreciation rights (“SARs”) and restricted stock from the computation of diluted net loss per share because the effect would have been anti-dilutive.

(7) SUSPENDED EXPLORATORY WELL COSTS

We capitalize exploratory well costs until a determination is made that the well has either found proved reserves or that it is impaired. Capitalized exploratory well costs are included in natural gas and oil properties in the accompanying consolidated balance sheets. If an exploratory well is determined to be impaired, the well costs are charged to exploration expense in the accompanying consolidated statements of operations. We did not have any exploratory well costs that have been capitalized for a period greater than

one year as of September 30, 2016. The following table reflects the change in capitalized exploratory well costs for the nine months ended September 30, 2016 and the year ended December 31, 2015 (in thousands):

	September 30, 2016	December 31, 2015
Balance at beginning of period	\$ 4,161	\$ 2,996
Additions to capitalized exploratory well costs pending the determination of proved reserves	1,684	1,165
Reclassifications to wells, facilities and equipment based on determination of proved reserves	(5,845)	¾
Divested wells	¾	¾
Balance at end of period	¾	4,161
Less exploratory well costs that have been capitalized for a period of one year or less	¾	(1,165)
Capitalized exploratory well costs that have been capitalized for a period greater than one year	\$ ¾	\$ 2,996
Number of projects that have exploration well costs that have been capitalized greater than one year	¾	1

(8) INDEBTEDNESS

We had the following debt outstanding as of the dates shown below (bank debt interest rate at September 30, 2016 is shown parenthetically) (in thousands). No interest was capitalized during the three or nine months ended September 30, 2016 or the year ended December 31, 2015.

	September 30, 2016	December 31, 2015
Bank debt (2.0%) (a)	\$ 937,000	\$ 95,000
Senior notes:		
4.875% senior notes due 2025	750,000	750,000
5.00% senior notes due 2023	741,514	—
5.00% senior notes due 2022	580,032	—
5.875% senior notes due 2022 (b)	329,244	—
5.75% senior notes due 2021	475,952	—
Other senior notes due 2022 (c)	1,090	—
Total senior notes	2,877,832	750,000
Senior subordinated notes:		
5.00% senior subordinated notes due 2023	7,712	750,000
5.00% senior subordinated notes due 2022	19,054	600,000
5.75% senior subordinated notes due 2021	22,214	500,000
Total senior subordinated notes	48,980	1,850,000
Total debt	3,863,812	2,695,000
Unamortized premium	7,552	—
Unamortized debt issuance costs	(44,655)	(43,697)
Total debt net of debt issuance costs	\$ 3,826,709	\$ 2,651,303

(a) As of September 16, 2016, we repaid the \$597.0 million balance outstanding on the Memorial credit facility with funds borrowed under the Range credit facility and terminated the Memorial credit facility.

(b) Represents senior notes assumed in the Memorial Merger that were not purchased for cash and were exchanged for Range 5.875% senior notes due 2022. See Senior Note Exchange below.

(c) Represents the remaining Memorial 5.875% senior notes assumed in the Memorial Merger that were not purchased for cash or exchanged for Range 5.875% senior notes due 2022. See Senior Note Exchange below.

Bank Debt

In October 2014, we entered into an amended and restated revolving bank facility, which we refer to as our bank debt or our bank credit facility, which is secured by substantially all of our assets and has a maturity date of October 16, 2019. The bank credit facility provides for a maximum facility amount of \$4.0 billion. The bank credit facility provides for a borrowing base subject to

redeterminations annually by May and for event-driven unscheduled redeterminations. As part of our annual redetermination completed on March 17, 2016, our borrowing base was reaffirmed at \$3.0 billion and our bank commitment was also reaffirmed at \$2.0 billion. As of September 30, 2016, our bank group was composed of twenty-nine financial institutions with no one bank holding more than 5.8% of the total facility. The borrowing base may be increased or decreased based on our request and sufficient proved reserves, as determined by the bank group. The commitment amount may be increased to the borrowing base, subject to payment of a mutually acceptable commitment fee to those banks agreeing to participate in the facility increase. As of September 30, 2016, the outstanding balance under our bank credit facility was \$937.0 million, before deducting debt issuance costs. Additionally, we had \$253.9 million of undrawn letters of credit leaving \$809.1 million of committed borrowing capacity available under the facility. During a non-investment grade period, borrowings under the bank credit facility can either be at the alternate base rate (“ABR,” as defined in the bank credit facility agreement) plus a spread ranging from 0.25% to 1.25% or LIBOR borrowings at the LIBOR Rate (as defined in the bank credit facility agreement) plus a spread ranging from 1.25% to 2.25%. The applicable spread is dependent upon borrowings relative to the borrowing base. We may elect, from time to time, to convert all or any part of our LIBOR loans to base rate loans or to convert all or any of the base rate loans to LIBOR loans. The weighted average interest rate was 2.3% for the three months ended September 30, 2016 compared to 1.7% for the three months ended September 30, 2015. The weighted average interest rate was 2.3% for the nine months ended September 30, 2016 compared to 1.7% for the nine months ended September 30, 2015. A commitment fee is paid on the undrawn balance based on an annual rate of 0.30% to 0.375%. At September 30, 2016, the commitment fee was 0.30% and the interest rate margin was 1.5% on our LIBOR loans and 0.5% on our base rate loans.

At any time during which we have an investment grade debt rating from Moody’s Investors Service, Inc. or Standard & Poor’s Ratings Services and we have elected, at our discretion, to effect the investment grade rating period, certain collateral security requirements, including the borrowing base requirement and restrictive covenants, will cease to apply and an additional financial covenant (as defined in the bank credit facility) will be imposed. During the investment grade period, borrowings under the credit facility can either be at the ABR plus a spread ranging from 0.125% to 0.75% or at the LIBOR Rate plus a spread ranging from 1.125% to 1.75% depending on our debt rating. The commitment fee paid on the undrawn balance would range from 0.15% to 0.30%. We currently do not have an investment grade debt rating.

Senior Notes

In May 2015, we issued \$750.0 million aggregate principal amount of 4.875% senior notes due 2025 (the “Outstanding Notes”) for net proceeds of \$737.4 million after underwriting discounts and commissions of \$12.6 million. The notes were issued at par and were offered to qualified institutional buyers and non-U.S. persons outside the United States in compliance with Rule 144A and Regulation S under the Securities Act of 1933, as amended (the “Securities Act”). On April 8, 2016, all of the Outstanding Notes were exchanged for an equal principal amount of registered 4.875% senior notes due 2025 pursuant to an effective registration statement on Form S-4 filed with the SEC on February 29, 2016 under the Securities Act (the “Exchange Notes”). The Exchange Notes are identical to the Outstanding Notes except the Exchange Notes are registered under the Securities Act and do not have restrictions on transfer, registration rights or provisions for additional interest. Under certain circumstances, if we experience a change of control, noteholders may require us to repurchase all of our senior notes at 101% of the aggregate principal amount plus accrued and unpaid interest, if any.

Senior Note Exchange and Cash Tender Offer

On September 16, 2016, we completed a debt exchange offer to exchange all validly tendered and accepted Memorial senior notes assumed in the Memorial Merger. We exchanged 54.9% of the outstanding Memorial senior notes, whereby we issued \$329.2 million senior unsecured 5.875% notes due 2022 (the “5.875% Notes”). The 5.875% Notes were offered to qualified institutional buyers and to non-U.S. persons outside the United States in compliance with Rule 144A and Regulations S under the Securities Act. Interest on the 5.875% Notes is payable in January and July and will mature on July 1, 2022 and is unconditionally guaranteed on a senior unsecured basis by all of our subsidiary guarantors. On or after April 1, 2022, we may redeem the 5.875% Notes in whole or in part and from time to time, at 100% of the principal amount, plus accrued and unpaid interest. The 5.875% Notes are unsecured and are subordinated to all of our existing and future secured debt, rank equally with all of our existing and future senior unsecured debt and rank senior to all of our existing and future subordinated debt. The deferred financing cost for this exchange was \$6.3 million. The early cash tender premium paid was \$4.1 million, which was paid to note holders who tendered their notes within the ten business day early offer period.

Also on September 16, 2016, we completed our concurrent offer to purchase for cash the Memorial senior notes assumed in the Memorial Merger. We were able to purchase 44.9% of the outstanding Memorial senior notes, or \$269.7 million principal amount of the senior notes assumed in the Memorial Merger, which we purchased for cash. The early cash tender premium paid was \$3.3 million which was paid to note holders who tendered their notes within the ten business days early offer period. The cash tender offer and early cash tender premium were financed with borrowings under our bank credit facility. Both the offer to exchange and the cash tender offer for the 5.875% senior notes assumed in the Memorial Merger were subject to the consummation of the merger. Concurrently with the Memorial senior note exchange offer and cash tender offer, we also solicited consents from the eligible holders to amend the indenture that governed the existing Memorial senior notes. The amendments included eliminating certain of the covenants, restrictive provisions, reporting requirements and events of default. Once a majority of consents were received, the amendments were accepted for all existing Memorial senior note holders, even if the senior notes were not tendered in either the exchange offer or cash tender offer.

Senior Subordinated Note Exchange

On September 16, 2016, we also completed our debt exchange offer to exchange all validly tendered and accepted Range senior subordinated notes as detailed below (in thousands):

Existing Note	New Note	Principal Amount of Existing Notes Validly Tendered	Approximate Percentage Validly Tendered
5.00% senior subordinated notes due 2023	5.00% senior notes due 2023	\$742,291	99.0%
5.00% senior subordinated notes due 2022	5.00% senior notes due 2022	\$580,946	96.8%
5.75% senior subordinated notes due 2021	5.75% senior notes due 2021	\$477,786	95.6%

We recorded \$6.6 million of third party costs in interest expense in third quarter 2016 related to this exchange. The new senior notes were issued at par and were offered to qualified institutional buyers and non-U.S. persons outside the United States in compliance with Rule 144A and Regulation S under the Securities Act. A \$3.5 million premium was recorded in connection with the exchange for certain holders that participated in the exchange after the early tender period and received 95% of face amount tendered in exchange consideration. Interest on the new 5.00% senior notes due 2023 is payable in March and September with a maturity date of March 15, 2023. Interest on the new 5.00% senior notes due 2022 is payable in February and August with a maturity of August 15, 2022. Interest on the new 5.75% senior notes due 2021 is payable in June and December with a maturity date of June 1, 2021. All of the new senior notes are unconditionally guaranteed on a senior unsecured basis by all of our subsidiary guarantors. The new senior notes are unsecured and are subordinated to all of our existing and future senior secured debt and rank senior to all of our existing and future subordinated debt. Under certain circumstances, if we experience a change of control, noteholders may require us to repurchase all of our senior notes at 101% of the aggregate principal amount plus accrued and unpaid interest, if any. Concurrently with the senior subordinated notes exchange offer, we also solicited consents from the eligible holders to amend the indentures that governed each of the existing senior subordinated notes. The amendments included eliminating certain of the covenants, restrictive provisions, reporting requirements and events of default. Once a majority of consents were received, the amendments were accepted for all senior subordinated notes holders, even if the remaining senior subordinated notes were not exchanged. The offer to exchange the senior subordinated notes was subject to the consummation of the Memorial Merger.

Senior Subordinated Notes

If we experience a change of control, noteholders may require us to repurchase all or a portion of our senior subordinated notes at 101% of the aggregate principal amount plus accrued and unpaid interest, if any. All of the senior subordinated notes and the guarantees by our subsidiary guarantors are general, unsecured obligations and are subordinated to our bank debt and are subordinated to existing and future senior debt that we or our subsidiary guarantors are permitted to incur.

Guarantees

Range is a holding company which owns no operating assets and has no significant operations independent of its subsidiaries. The guarantees by our subsidiaries (including the guarantees by our new Memorial Merger subsidiaries), which are directly or indirectly owned by Range, of our senior notes, senior subordinated notes and our bank credit facility are full and unconditional and joint and several, subject to certain customary release provisions. A subsidiary guarantor may be released from its obligations under the guarantee:

- in the event of a sale or other disposition of all or substantially all of the assets of the subsidiary guarantor or a sale or other disposition of all the capital stock of the subsidiary guarantor, to any corporation or other person (including an unrestricted subsidiary of Range) by way of merger, consolidation, or otherwise; or
- if Range designates any restricted subsidiary that is a guarantor to be an unrestricted subsidiary in accordance with the terms of the indenture.

Debt Covenants

Our bank credit facility contains negative covenants that limit our ability, among other things, to pay cash dividends, incur additional indebtedness, sell assets, enter into certain hedging contracts, change the nature of our business or operations, merge, consolidate, or make certain investments. In addition, we are required to maintain a ratio of EBITDAX (as defined in the bank credit facility agreement) to cash interest expense of equal to or greater than 2.5 and a current ratio (as defined in the bank credit facility agreement) of no less than 1.0. In addition, the ratio of the present value of proved reserves (as defined in the credit agreement) to total debt must be equal to or greater than 1.5 until Range has two investment grade ratings. We were in compliance with applicable covenants under the bank credit facility at September 30, 2016.

(9) ASSET RETIREMENT OBLIGATIONS

Our asset retirement obligations primarily represent the estimated present value of the amounts we will incur to plug, abandon and remediate our producing properties at the end of their productive lives. Significant inputs used in determining such obligations include estimates of plugging and abandonment costs, estimated future inflation rates and well lives. The inputs are calculated based on historical data as well as current estimated costs. A reconciliation of our liability for plugging and abandonment costs for the nine months ended September 30, 2016 is as follows (in thousands):

	Nine Months Ended September 30, 2016
Beginning of period	\$ 264,137
Acquisition of wells	16,600
Liabilities incurred	1,516
Liabilities settled	(8,153)
Disposition of wells	(4,731)
Accretion expense	12,231
Change in estimate	3,139
End of period	284,739
Less current portion	(15,071)
Long-term asset retirement obligations	\$ 269,668

Accretion expense is recognized as a component of depreciation, depletion and amortization expense in the accompanying consolidated statements of operations.

(10) CAPITAL STOCK

We have authorized capital stock of 485.0 million shares which includes 475.0 million shares of common stock and 10.0 million shares of preferred stock. We currently have no preferred stock issued or outstanding. The following is a schedule of changes in the number of common shares outstanding since the beginning of 2015:

	Nine Months Ended September 30, 2016	Year Ended December 31, 2015
Beginning balance	169,316,460	168,628,177
Memorial Merger	77,042,749	—
SARs exercised	—	77,002
Restricted stock grants	464,428	335,103
Restricted stock units vested	263,047	252,507
Shares retired	(739)	—
Treasury shares issued	14,511	23,671
Ending balance	247,100,456	169,316,460

(11) DERIVATIVE ACTIVITIES

We use commodity-based derivative contracts to manage exposure to commodity price fluctuations. We do not enter into these arrangements for speculative or trading purposes. We do not utilize complex derivatives, as we typically utilize commodity swaps or options to (1) reduce the effect of price volatility of the commodities we produce and sell and (2) support our annual capital budget and expenditure plans. The fair value of our derivative contracts, represented by the estimated amount that would be realized upon termination, based on a comparison of the contract price and a reference price, generally the New York Mercantile Exchange ("NYMEX") for natural gas and crude oil or Mont Belvieu for NGLs, approximated a net asset of \$150.9 million at September 30, 2016. These contracts expire monthly through December 2018. The following table sets forth our commodity-based derivative volumes by year as of September 30, 2016, excluding our basis and freight swaps which are discussed separately below:

Period	Contract Type	Volume Hedged	Weighted Average Hedge Price
Natural Gas			
2016	Swaps (1)	901,739 Mmbtu/day	\$ 3.32
2017	Swaps (1)	478,192 Mmbtu/day	\$ 3.14
2018	Swaps	70,000 Mmbtu/day	\$ 2.92
2016	Collar (1)	32,609 Mmbtu/day	\$ 4.00-\$ 4.71
2017	Collar (1)	34,521 Mmbtu/day	\$ 4.00-\$ 5.06
2016	Purchased Put (1)	218,478 Mmbtu/day	\$ 3.54 (2)
2017	Purchased Put (1)	175,890 Mmbtu/day	\$ 3.48 (3)
Crude Oil			
2016	Swaps (1)	8,640 bbls/day	\$ 69.49
2017	Swaps (1)	5,416 bbls/day	\$ 57.18
2018	Swaps	500 bbls/day	\$ 54.25
2016	Collar (1)	848 bbls/day	\$ 80.00-\$ 99.70
NGLs (C2-Ethane)			
2016	Swaps (1)	5,839 bbls/day	\$ 0.46/gallon
2017	Swaps	3,000 bbls/day	\$ 0.27/gallon
NGLs (C3-Propane)			
2016	Swaps (1)	11,142 bbls/day	\$ 0.75/gallon
2017	Swaps	6,966 bbls/day	\$ 0.52/gallon
NGLs (iC4-isobutane)			
2016	Swaps (1)	1,969 bbls/day	\$ 1.21/gallon
NGLs (NC4-Normal Butane)			
2016	Swaps (1)	6,071 bbls/day	\$ 0.72/gallon
2017	Swaps	1,500 bbls/day	\$ 0.65/gallon
NGLs (C5-Natural Gasoline)			
2016	Swaps (1)	8,142 bbls/day	\$ 1.36/gallon
2017	Swaps	2,000 bbls/day	\$ 0.98/gallon

(1) Includes derivative instruments assumed in connection with the Memorial Merger.

(2) Weighted average deferred premium is (\$0.34).

(3) Weighted average deferred premium is (\$0.32).

Every derivative instrument is required to be recorded on the balance sheet as either an asset or a liability measured at its fair value. If the derivative does not qualify as a hedge or is not designated as a hedge, changes in fair value of these non-hedge derivatives are recognized in earnings as derivative fair value income or loss.

Basis Swap Contracts

In addition to the swaps above, at September 30, 2016, we had natural gas basis swap contracts which lock in the differential between NYMEX and certain of our physical pricing indices primarily in Appalachia. These contracts settle monthly through December 2017 and include a total volume of 59,385,000 Mmbtu. The fair value of these contracts was a gain of \$13.8 million on September 30, 2016.

At September 30, 2016, we also had propane spread swap contracts which lock in the differential between Mont Belvieu and international propane indices. The contracts settle monthly through December 2017 and include a total volume of 525,000 barrels in 2016 and 1,837,500 barrels in 2017. The fair value of these contracts was a gain of \$4.1 million on September 30, 2016.

Freight Swap Contracts

In connection with our international propane spread swaps, at September 30, 2016, we had freight swap contracts which lock in the freight rate for a specific trade route on the Baltic Exchange. These contracts settle monthly in fourth quarter 2016 and fourth quarter 2017 and cover 5,000 metric tons per month with a fair value loss of \$155,000 on September 30, 2016. These contracts use observable third-party pricing inputs that we consider to be a Level 2 fair value classification.

Derivative Assets and Liabilities

The combined fair value of derivatives included in the accompanying consolidated balance sheets as of September 30, 2016 and December 31, 2015 is summarized below. The assets and liabilities are netted where derivatives with both gain and loss positions are held by a single counterparty and we have master netting arrangements. The tables below provide additional information relating to our master netting arrangements with our derivative counterparties (in thousands):

		September 30, 2016		
		Gross Amounts of Recognized Assets	Gross Amounts Offset in the Balance Sheet	Net Amounts of Assets Presented in the Balance Sheet
Derivative assets:				
Natural gas	–swaps	\$ 68,069	\$ (24,934)	\$ 43,135
	–basis swaps	15,066	(1,191)	13,875
	–collars	15,086	^¾	15,086
	–puts	50,792	(145)	50,647
Crude oil	–swaps	29,696	(1,292)	28,404
	–collars	2,416	^¾	2,416
NGLs	–C2 ethane swaps	6,332	(185)	6,147
	–C3 propane swaps	8,535	(3,719)	4,816
	–C3 propane spread swaps	12,585	(8,506)	4,079
	–NC4 butane swaps	1,282	(371)	911
	–iC4 isobutane swaps	3,557	^¾	3,557
	–C5 natural gasoline swaps	9,722	(2,820)	6,902
Freight	–swaps	2	(157)	(155)
		<u>\$ 223,140</u>	<u>\$ (43,320)</u>	<u>\$ 179,820</u>

		September 30, 2016		
		Gross Amounts of Recognized (Liabilities)	Gross Amounts Offset in the Balance Sheet	Net Amounts of (Liabilities) Presented in the Balance Sheet
Derivative (liabilities):				
Natural gas	–swaps	\$ (31,557)	\$ 24,934	\$ (6,623)
	–basis swaps	(1,278)	1,191	(87)
	–puts	^¾	145	145
Crude oil	–swaps	(2,456)	1,292	(1,164)
NGLs	–C2 ethane swaps	(185)	185	^¾
	–C3 propane swaps	(3,538)	3,719	181
	–C3 propane spread swaps	(8,506)	8,506	^¾
	–NC4 butane swaps	(2,407)	371	(2,036)
	–C5 natural gasoline swaps	(4,447)	2,820	(1,627)
Freight	–swaps	(157)	157	^¾
		<u>\$ (54,531)</u>	<u>\$ 43,320</u>	<u>\$ (11,211)</u>

		December 31, 2015		
		Gross Amounts of Recognized Assets	Gross Amounts Offset in the Balance Sheet	Net Amounts of Assets Presented in the Balance Sheet
Derivative assets:				
Natural gas	–swaps	\$ 219,357	\$ (10,245)	\$ 209,112
	–basis swaps	8,251	(2,765)	5,486
Crude oil	–swaps	38,699	¾	38,699
NGLs	–C3 propane swaps	15,884	¾	15,884
	–C3 propane spread swaps	2,497	(2,497)	¾
	–NC4 butane swaps	6,968	¾	6,968
	–C5 natural gasoline swaps	12,694	(81)	12,613
		<u>\$ 304,350</u>	<u>\$ (15,588)</u>	<u>\$ 288,762</u>

		December 31, 2015		
		Gross Amounts of Recognized (Liabilities)	Gross Amounts Offset in the Balance Sheet	Net Amounts of (Liabilities) Presented in the Balance Sheet
Derivative (liabilities):				
Natural gas	–swaps	\$ (10,245)	\$ 10,245	\$ ¾
	–basis swaps	(2,786)	2,765	(21)
NGLs	–C3 propane spread swap	(3,633)	2,497	(1,136)
	–C5 natural gasoline swaps	(81)	81	¾
		<u>\$ (16,745)</u>	<u>\$ 15,588</u>	<u>\$ (1,157)</u>

The effects of our derivatives on our consolidated statements of operations are summarized below (in thousands):

		Three Months Ended September 30,	
		Derivative Fair Value Income (Loss)	
		2016	2015
Commodity swaps		\$ 38,662	\$ 198,245
Re-purchased swaps		¾	1,683
Collars		1,320	5,626
Puts		2,842	¾
Basis swaps		21,853	(3,550)
Freight swaps		(121)	¾
Total		<u>\$ 64,556</u>	<u>\$ 202,004</u>

		Nine Months Ended September 30,	
		Derivative Fair Value Income (Loss)	
		2016	2015
Commodity swaps		\$ (40,270)	\$ 281,921
Re-purchased swaps		¾	1,683
Collars		1,320	12,391
Puts		2,842	¾
Basis swaps		24,929	(5,943)
Freight swaps		(155)	¾
Total		<u>\$ (11,334)</u>	<u>\$ 290,052</u>

(12) FAIR VALUE MEASUREMENTS

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. There are three approaches for measuring the fair value of assets and liabilities: the market approach, the income approach and the cost approach, each of which includes multiple valuation techniques. The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities. The income approach uses valuation techniques to measure fair value by converting future amounts, such as cash flows or earnings, into a single present value amount using current market expectations about those future amounts. The cost approach is based on the amount that would currently be required to replace the service capacity of an asset. This is often referred to as current replacement cost. The cost approach assumes that the fair value would not exceed what it would cost a market participant to acquire or construct a substitute asset of comparable utility, adjusted for obsolescence.

The fair value accounting standards do not prescribe which valuation technique should be used when measuring fair value and do not prioritize among the techniques. These standards establish a fair value hierarchy that prioritizes the inputs used in applying the various valuation techniques. Inputs broadly refer to the assumptions that market participants use to make pricing decisions, including assumptions about risk. Level 1 inputs are given the highest priority in the fair value hierarchy while Level 3 inputs are given the lowest priority. The three levels of the fair value hierarchy are as follows:

- Level 1 – Observable inputs that reflect unadjusted quoted prices for identical assets or liabilities in active markets as of the reporting date. Active markets are those in which transactions for the asset or liability occur in sufficient frequency and volume to provide pricing information on an ongoing basis.
- Level 2 – Observable market-based inputs or unobservable inputs that are corroborated by market data. These are inputs other than quoted prices in active markets included in Level 1, which are either directly or indirectly observable as of the reporting date.
- Level 3 – Unobservable inputs that are not corroborated by market data and may be used with internally developed methodologies that result in management's best estimate of fair value.

Valuation techniques that maximize the use of observable inputs are favored. Assets and liabilities are classified in their entirety based on the lowest priority level of input that is significant to the fair value measurement. The assessment of the significance of a particular input to the fair value measurement requires judgment and may affect the placement of assets and liabilities within the levels of the fair value hierarchy.

Significant uses of fair value measurements include:

- impairment assessments of long-lived assets;
- impairment assessments of goodwill; and
- recorded value of derivative instruments.

The need to test long-lived assets and goodwill can be based on several indicators, including a significant reduction in prices of natural gas, oil and condensate, NGLs, sustained declines in our common stock, unfavorable adjustments to reserves, significant changes in the expected timing of production, other changes to contracts or changes in the regulatory environment in which a property is located.

Fair Values – Recurring

We use a market approach for our recurring fair value measurements and endeavor to use the best information available. The following tables present the fair value hierarchy table for assets and liabilities measured at fair value, on a recurring basis (in thousands):

	Fair Value Measurements at September 30, 2016 using:			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Carrying Value as of September 30, 2016
Trading securities held in the deferred compensation plans	\$ 60,955	\$ —	\$ —	\$ 60,955
Derivatives —swaps	—	82,603	—	82,603
—collars	—	17,502	—	17,502
—puts	—	50,792	—	50,792
—basis swaps	—	17,867	—	17,867
—freight swaps	—	(155)	—	(155)

	Fair Value Measurements at December 31, 2015 using:			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Carrying Value as of December 31, 2015
Trading securities held in the deferred compensation plans	\$ 62,376	\$ —	\$ —	\$ 62,376
Derivatives —swaps	—	283,276	—	283,276
—basis swaps	—	4,329	—	4,329

Our trading securities in Level 1 are exchange-traded and measured at fair value with a market approach using end of period market values. Derivatives in Level 2 are measured at fair value with a market approach using third-party pricing services, which have been corroborated with data from active markets or broker quotes.

Our trading securities held in the deferred compensation plan are accounted for using the mark-to-market accounting method and are included in other assets in the accompanying consolidated balance sheets. We elected to adopt the fair value option to simplify our accounting for the investments in our deferred compensation plan. Interest, dividends, and mark-to-market gains or losses are included in deferred compensation plan expense in the accompanying consolidated statements of operations. For third quarter 2016, interest and dividends were \$192,000 and the mark-to-market adjustment was a gain of \$2.3 million compared to interest and dividends of \$164,000 and a mark-to-market loss of \$4.5 million in third quarter 2015. For the nine months ended September 30, 2016, interest and dividends were \$509,000 and the mark-to-market gain was \$3.7 million compared to interest and dividends of \$412,000 and mark-to-market adjustment of a loss of \$3.7 million in the same period of 2015.

Fair Values—Non-recurring

Our proved natural gas and oil properties are reviewed for impairment periodically as events or changes in circumstances indicate the carrying amount may not be recoverable. In the nine months ended September 30, 2016, due to declines in commodity prices, there were indicators that the carrying value of certain of our oil and gas properties may be impaired and undiscounted future cash flows attributed to these assets indicated their carrying amounts were not expected to be recovered. Their remaining fair value was measured using an income approach based upon internal estimates of future production levels, prices, drilling and operating costs and discount rates, which are Level 3 measurements. We also considered the potential sale of certain of these properties. We recorded non-cash impairment charges during the nine months ended September 30, 2016 of \$43.0 million related to our natural gas and oil properties in Western Oklahoma. We recorded non-cash charges during the three months and the nine months ended September 30, 2015 of \$502.2 million related to natural gas and oil properties in Northern Oklahoma and shallow legacy natural gas and oil properties in Northwest Pennsylvania. Our estimates of future cash flows attributable to our natural gas and oil properties could decline further with commodity prices which may result in additional impairment charges. The following table presents the value of these assets measured at fair value on a non-recurring basis at the time impairment was recorded (in thousands):

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2016		2015		2016		2015	
	Fair Value	Impairment	Fair Value	Impairment	Fair Value	Impairment	Fair Value	Impairment
Natural gas and oil properties	\$ —	\$ —	\$ 98,872	\$ 502,233	\$ 90,150	\$ 43,040	\$ 98,872	\$ 502,233

Goodwill as of September 30, 2016 is associated with the Memorial Merger, which may be revised as we complete our purchase price allocation for that transaction. We assess goodwill for impairment annually on November 1, or more frequently as circumstances require. At September 30, 2016, we performed a qualitative assessment by examining relevant events and circumstances that could have a negative impact on goodwill, such as macroeconomic conditions, industry and market conditions, including current commodity prices, earnings and cash flows, overall financial performance and other relevant entity-specific events. Based on our qualitative assessment of these circumstances, we concluded a full impairment test was not warranted.

Fair Values—Reported

The following table presents the carrying amounts and the fair values of our financial instruments as of September 30, 2016 and December 31, 2015 (in thousands):

	September 30, 2016		December 31, 2015	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Assets:				
Commodity swaps, options and basis swaps	\$ 179,820	\$ 179,820	\$ 288,762	\$ 288,762
Marketable securities (a)	60,955	60,955	62,376	62,376
(Liabilities):				
Commodity swaps, options and basis swaps	(11,211)	(11,211)	(1,157)	(1,157)
Bank credit facility (b)	(937,000)	(937,000)	(95,000)	(95,000)
Deferred compensation plan (c)	(148,829)	(148,829)	(122,918)	(122,918)
5.75% senior notes due 2021 (b)	(475,952)	(482,496)	—	—
5.00% senior notes due 2022 (b)	(580,032)	(577,132)	—	—
5.875% senior notes due 2022 (b)	(329,244)	(332,536)	—	—
Other senior notes due 2022 (b)	(1,090)	(1,091)	—	—
5.00% senior notes due 2023 (b)	(741,514)	(723,903)	—	—
4.875% senior notes due 2025 (b)	(750,000)	(721,875)	(750,000)	(572,813)
5.75% senior subordinated notes due 2021 (b)	(22,214)	(22,408)	(500,000)	(396,250)
5.00% senior subordinated notes due 2022 (b)	(19,054)	(18,506)	(600,000)	(447,000)
5.00% senior subordinated notes due 2023 (b)	(7,712)	(7,490)	(750,000)	(551,250)

(a) Marketable securities, which are held in our deferred compensation plans, are actively traded on major exchanges.

(b) The book value of our bank debt approximates fair value because of its floating rate structure. The fair value of our senior notes and our senior subordinated notes is based on end of period market quotes which are Level 2 inputs.

(c) The fair value of our deferred compensation plan is updated at the closing price on the balance sheet date which is a Level 1 input.

Our current assets and liabilities contain financial instruments, the most significant of which are trade accounts receivable and payable. We believe the carrying values of our current assets and liabilities approximate fair value. Our fair value assessment incorporates a variety of considerations, including (1) the short-term duration of the instruments and (2) our historical and expected incurrence of bad debt expense. Non-financial liabilities initially measured at fair value include asset retirement obligations. For additional information, see Note 10.

Concentrations of Credit Risk

As of September 30, 2016, our primary concentrations of credit risk are the risks of not collecting accounts receivable and the risk of a counterparty's failure to perform under derivative obligations. Most of our receivables are from a diverse group of companies, including major energy companies, pipeline companies, local distribution companies, financial institutions and end-users in various industries. Letters of credit or other appropriate security are obtained as deemed necessary to limit our risk of loss. Our allowance for uncollectable receivables was \$5.5 million at September 30, 2016 and \$5.0 million at December 31, 2015. As of September 30, 2016, our derivative contracts consist of swaps and options. Our derivative exposure to credit risk is diversified primarily among major investment grade financial institutions, where we have master netting agreements which provide for offsetting payables against receivables from separate derivative contracts. To manage counterparty risk associated with our derivatives, we select and monitor our counterparties based on our assessment of their financial strength and/or credit ratings. We may also limit the level of exposure with any single counterparty. At September 30, 2016, our derivative counterparties include twenty-four financial institutions,

of which all but six are secured lenders in our bank credit facility. At September 30, 2016, our net derivative assets include a net receivable from these six counterparties that are not participants in our bank credit facility of \$24.1 million.

(13) STOCK-BASED COMPENSATION PLANS

Stock-Based Awards

We have one active equity-based stock plan, our Amended and Restated 2005 Equity-Based Incentive Compensation Plan, which we refer to as the 2005 Plan. Under this plan, incentive and non-qualified stock options, SARs, and various other awards may be issued to non-employee directors and employees pursuant to decisions of the Compensation Committee, which is comprised of only non-employee, independent directors. In 2005, we began granting SARs which represent the right to receive a payment equal to the excess of the fair market value of shares of our common stock on the date the right is exercised over the value of the stock on the date of grant. All SARs granted under the 2005 Plan will be settled in shares of stock, vest over a three-year period and have a maximum term of five years from the date they are granted. In 2011, the Compensation Committee of the Board of Directors began granting restricted stock units under our equity-based stock compensation plans. These restricted stock units, which we refer to as restricted stock Equity Awards, vest over a three-year period. All awards granted have been issued at prevailing market prices at the time of grant and the vesting of these shares is based upon an employee's continued employment with us, with the exception of employment termination due to death, disability or retirement.

In first quarter 2014, the Compensation Committee also began granting performance share unit ("PSU") awards under our 2005 Plan. The number of shares to be issued is determined by our total shareholder return compared to the total shareholder return of a predetermined group of peer companies over the performance period. The grant date fair value of the PSU awards is determined using a Monte Carlo simulation and is recognized as stock-based compensation expense over the three-year performance period. The actual payout of shares granted depends on our total shareholder return compared to our peer companies and will be between zero and 150%.

The Compensation Committee also grants restricted stock to certain employees and non-employee directors of the Board of Directors as part of their compensation. Upon grant of these restricted shares, which we refer to as restricted stock Liability Awards, the shares generally are placed in our deferred compensation plan and, upon vesting, employees are allowed to take withdrawals either in cash or in stock based on their distribution elections. Compensation expense is recognized over the vesting period, which is typically three years for employee grants and immediate vesting for non-employee directors. All restricted stock awards are issued at prevailing market prices at the time of the grant and vesting is based upon an employee's continued employment with us, with the exception of employment termination due to death, disability or retirement. Prior to vesting, all restricted stock awards have the right to vote such shares and receive dividends thereon. These Liability Awards are classified as a liability and are remeasured at fair value each reporting period. This mark-to-market adjustment is reported as deferred compensation plan expense in the accompanying consolidated statements of operations.

Total Stock-Based Compensation Expense

Stock-based compensation represents amortization of restricted stock, PSUs and SARs expense. Unlike the other forms of stock-based compensation, the mark-to-market adjustment of the liability related to the vested restricted stock held in our deferred compensation plan is directly tied to the change in our stock price and not directly related to the functional expenses and therefore, is not allocated to the functional categories. The following table details the allocation of stock-based compensation to functional expense categories (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
Direct operating expense	\$ 497	\$ 609	\$ 1,781	\$ 2,149
Brokered natural gas and marketing expense	455	618	1,349	1,743
Exploration expense	608	688	1,669	2,171
General and administrative expense	11,126	11,512	37,682	38,545
Termination costs	¾	(1)	¾	1,720
Total stock-based compensation	<u>\$ 12,686</u>	<u>\$ 13,426</u>	<u>\$ 42,481</u>	<u>\$ 46,328</u>

Performance Share Unit Awards

The following is a summary of our non-vested PSU awards outstanding at September 30, 2016:

	Number of Units	Weighted Average Grant Date Fair Value
Outstanding at December 31, 2015	262,124	\$ 64.77
Units granted ^(a)	413,959	36.64
Units vested	(175,306)	53.01
Units forfeited	(42,603)	46.09
Outstanding at September 30, 2016	<u>458,174</u>	<u>\$ 45.60</u>

^(a) Amounts granted reflect the number of performance units granted; however, the actual payout of shares will be between zero percent and 150% of the performance units granted depending on the total shareholder return ranking compared to the peer companies at the end of the three-year performance period.

The following assumptions were used to estimate the fair value of PSUs granted during first nine months 2016 and 2015:

	Nine Months Ended September 30,	
	2016	2015
Risk-free interest rate	0.94%	1.0%
Expected annual volatility	49%	33%
Weighted average grant date fair value per unit	\$ 36.64	\$ 56.78

We recorded PSU compensation expense of \$9.1 million in first nine months 2016 compared to \$6.5 million in the same period of 2015.

Restricted Stock Awards

Equity Awards

In first nine months 2016, we granted 940,000 restricted stock Equity Awards to employees at an average grant price of \$28.18 compared to 586,000 restricted stock Equity Awards granted to employees at an average grant price of \$52.35 in first nine months 2015. These awards generally vest over a three-year period. We recorded compensation expense for these Equity Awards of \$17.2 million in first nine months 2016 compared to \$19.8 million in the same period of 2015. Equity Awards are not issued to employees until they are vested. Employees do not have the option to receive cash.

Liability Awards

In first nine months 2016, we granted 457,000 shares of restricted stock Liability Awards as compensation to employees at an average price of \$35.70 with vesting over a three-year period and 56,000 shares were granted to non-employee directors at an average price of \$38.62 with immediate vesting. In first nine months 2015, we granted 295,000 shares of Liability Awards as compensation to employees at an average price of \$56.17 with vesting over a three-year period and 48,000 shares were granted to non-employee directors at an average price of \$55.03 with immediate vesting. We recorded compensation expense for Liability Awards of \$14.6 million in first nine months 2016 compared to \$16.1 million in the same period of 2015. Substantially all of these awards are held in our deferred compensation plan, are classified as a liability and are remeasured at fair value at the end of each reporting period. This mark-to-market adjustment is reported as deferred compensation expense in our consolidated statements of operations (see additional discussion below). The following is a summary of the status of our non-vested restricted stock outstanding at September 30, 2016:

	Equity Awards		Liability Awards	
	Shares	Weighted Average Grant Date Fair Value	Shares	Weighted Average Grant Date Fair Value
Outstanding at December 31, 2015	436,764	\$ 59.74	308,737	\$ 65.80
Granted	940,491	28.18	513,535	36.02
Vested	(401,259)	44.25	(284,647)	52.59
Forfeited	(117,304)	42.66	(49,519)	40.33
Outstanding at September 30, 2016	<u>858,692</u>	<u>\$ 34.75</u>	<u>488,106</u>	<u>\$ 44.76</u>

Stock Appreciation Right Awards

There were 1.0 million SARs outstanding at September 30, 2016. Information with respect to SARs activity in the nine months ended September 30, 2016 is summarized below:

	Shares	Weighted Average Exercise Price
Outstanding at December 31, 2015	1,510,977	\$ 63.73
Exercised	—	—
Expired/forfeited	(507,377)	53.16
Outstanding at September 30, 2016	<u>1,003,600</u>	<u>\$ 69.08</u>

Deferred Compensation Plan

Our deferred compensation plan gives non-employee directors and officers the ability to defer all or a portion of their salaries, bonuses or director fees and invest in Range common stock or make other investments at the individual's discretion. Range provides a partial matching contribution to officers which vests over three years. The assets of the plan are held in a grantor trust, which we refer to as the Rabbi Trust, and are therefore available to satisfy the claims of our general creditors in the event of bankruptcy or insolvency. Our stock held in the Rabbi Trust is treated as a liability award as employees are allowed to take withdrawals from the Rabbi Trust either in cash or in Range stock. The liability for the vested portion of the stock held in the Rabbi Trust is reflected as deferred compensation liability in the accompanying consolidated balance sheets and is adjusted to fair value each reporting period by a charge or credit to deferred compensation plan expense on our consolidated statements of operations. The assets of the Rabbi Trust, other than our common stock, are invested in marketable securities and reported at their market value as other assets in the accompanying consolidated balance sheets. The deferred compensation liability reflects the vested market value of the marketable securities and Range stock held in the Rabbi Trust. Changes in the market value of the marketable securities and changes in the fair value of the deferred compensation plan liability are charged or credited to deferred compensation plan expense each quarter. We recorded mark-to-market gain of \$11.6 million in third quarter 2016 compared to mark-to-market gain of \$43.7 million in third quarter 2015. We recorded a mark-to-market loss of \$30.2 million in first nine months 2016 compared to a gain of \$56.6 million in first nine months 2015. The Rabbi Trust held 2.8 million shares (2.3 million of which were vested) of Range stock at September 30, 2016 compared to 2.8 million shares (2.5 million of which were vested) at December 31, 2015.

(14) SUPPLEMENTAL CASH FLOW INFORMATION

	Nine Months Ended September 30,	
	2016	2015
	(in thousands)	
Net cash provided from operating activities included:		
Income taxes (refunded) paid to taxing authorities	\$ (101)	\$ 100
Interest paid	134,583	128,132
Non-cash investing and financing activities included:		
Increase in asset retirement costs capitalized	4,655	19,862
Increase (decrease) in accrued capital expenditures	12,523	(195,472)

(15) COMMITMENTS AND CONTINGENCIES

Litigation

We are the subject of, or party to, a number of pending or threatened legal actions, administrative proceedings and claims arising in the ordinary course of our business. While many of these matters involve inherent uncertainty, we believe that the amount of the liability, if any, ultimately incurred with respect to these actions, proceedings or claims will not have a material adverse effect on our consolidated financial position as a whole or on our liquidity, capital resources or future annual results of operations. We estimate and provide for potential losses that may arise out of litigation and regulatory proceedings to the extent that such losses are probable and can be reasonably estimated. We will continue to evaluate our litigation and regulatory proceedings quarterly and will establish and adjust any estimated liability as appropriate to reflect our assessment of the then current status of litigation and regulatory proceedings. Significant judgment is required in making these estimates and our final liabilities may ultimately be materially different.

Transportation and Gathering Contracts

In first nine months 2016, our transportation and gathering commitments increased by approximately \$2.8 billion over the next fifteen years primarily due to firm transportation contracts for both ethane and propane in connection with the start-up of the Mariner East pipeline, other pricing changes to current contracts and the Memorial Merger. As of September 30, 2016, the increase to future minimum transportation and gathering fees is as follows (in thousands):

	Transportation and Gathering Contracts
2016	\$ 60,522
2017	263,118
2018	263,734
2019	264,293
2020	214,487
Thereafter	1,774,351
	<u>\$ 2,840,505</u>

Delivery Commitments

In first nine months 2016, we entered into new agreements with several pipeline companies and end users to deliver natural gas volumes from our production. The new agreements are to deliver from 1,500 to 50,560 Mmbtu per day of natural gas and the commitments are between one and five years and began as early as second quarter 2016.

In first nine months 2016, in connection with the startup of Mariner East, we have contracted to deliver ethane production volumes from our Marcellus Shale wells of 20,000 bbls per day for 15 years.

(16) OFFICE CLOSING AND TERMINATION COSTS

In first quarter 2015, we announced the closing of our Oklahoma City administrative and operational office to reduce our general and administrative expenses, due in part to the impact of lower commodity prices on our operations. In fourth quarter 2014, we initially accrued an estimated \$8.4 million of termination costs relating to the closure of this office as it was probable of occurring. In early 2015, those plans and personnel involved were finalized which resulted in additional accruals in 2015 for severance and other personnel costs of \$275,000, additional accelerated vesting of stock-based compensation of \$608,000 and \$3.2 million of building lease costs. There are no office closing or termination costs associated with the Memorial Merger. The following summarizes our termination costs for the nine months ended September 30, 2016 and 2015 (in thousands):

	Nine Months Ended September 30,	
	2016	2015
Termination costs	\$ —	\$ 1,414
Building lease	303	3,156
Stock-based compensation	—	1,720
Total termination costs	<u>\$ 303</u>	<u>\$ 6,290</u>

The following details our accrued liability as of September 30, 2016 (in thousands):

	September 30, 2016
Beginning balance at December 31, 2015	\$ 11,630
Accrued building rent	303
Payments	(8,858)
Ending balance at September 30, 2016	<u>\$ 3,075</u>

(17) CAPITALIZED COSTS AND ACCUMULATED DEPRECIATION, DEPLETION AND AMORTIZATION (a)

	September 30, 2016	December 31, 2015
	(in thousands)	
Natural gas and oil properties:		
Properties subject to depletion	\$ 9,263,853	\$ 8,047,181
Unproved properties	2,936,529	949,155
Total	<u>12,200,382</u>	<u>8,996,336</u>
Accumulated depreciation, depletion and amortization	(2,994,282)	(2,635,031)
Net capitalized costs	<u>\$ 9,206,100</u>	<u>\$ 6,361,305</u>

(a) Includes capitalized asset retirement costs and the associated accumulated amortization.

(18) COSTS INCURRED FOR PROPERTY ACQUISITION, EXPLORATION AND DEVELOPMENT (a)

	Nine Months Ended September 30, 2016	Year Ended December 31, 2015
	(in thousands)	
Acquisitions:		
Acreage purchases	\$ 16,282	\$ 73,025
Oil and gas properties	3,086,635	¾
Asset retirement obligations	16,609	¾
Development	302,518	708,268
Exploration:		
Drilling	37,528	87,505
Expense	16,972	18,421
Stock-based compensation expense	1,669	2,985
Gas gathering facilities:		
Development	1,345	13,337
Subtotal	<u>3,479,558</u>	<u>903,541</u>
Asset retirement obligations	4,655	22,184
Total costs incurred	<u>\$ 3,484,213</u>	<u>\$ 925,725</u>

(a) Includes costs incurred whether capitalized or expensed.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion is intended to assist you in understanding our business and results of operations together with our present financial condition. Certain sections of Management's Discussion and Analysis of Financial Condition and Results of Operations include forward-looking statements concerning trends or events potentially affecting our business. These statements contain words such as "anticipates," "believes," "expects," "targets," "plans," "projects," "could," "may," "should," "would" or similar words indicating that future outcomes are uncertain. In accordance with "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, these statements are accompanied by cautionary language identifying important factors, though not necessarily all such factors, which could cause future outcomes to differ materially from those set forth in the forward-looking statements. These forward-looking statements are based on our current expectations and beliefs concerning future developments and their potential effect on us. While management believes that these forward-looking statements are reasonable when made, there can be no assurance that future developments affecting us will be those that we anticipate. All comments concerning our expectations for future revenues and operating results are based on our current forecasts for our existing operations and do not include the potential impact of any future events. We undertake no obligation to publicly update or revise any forward-looking statements after the date they are made, whether as a result of new information, future events or otherwise. For additional risk factors affecting our business, see Item 1A. Risk Factors as set forth in our Annual Report on Form 10-K for the year ended December 31, 2015, as filed with the SEC on February 25, 2016.

Overview of Our Business

We are a Fort Worth, Texas-based independent natural gas, natural gas liquids ("NGLs") and oil company engaged in the exploration, development and acquisition of natural gas and oil properties primarily in the Appalachian and North Louisiana regions of the United States. We operate in one segment and have a single company-wide management team that administers all properties as a whole rather than by discrete operating segments. We track only basic operational data by area. We do not maintain complete separate financial statement information by area. We measure financial performance as a single enterprise and not on an area-by-area basis. Our overarching business objective is to build stockholder value through consistent growth in reserves and production on a cost-efficient basis. Our strategy to achieve our business objective is to increase reserves and production through internally generated drilling projects occasionally coupled with complementary acquisitions and divestitures of non-core assets. Our revenues, profitability and future growth depend substantially on prevailing prices for natural gas, NGLs, crude oil and condensate and on our ability to economically find, develop, acquire and produce natural gas, NGLs and crude oil reserves. Natural gas, NGLs and crude oil prices continue to be depressed. Prices for natural gas, NGLs and oil fluctuate widely and affect:

- revenues, profitability and cash flow;
- the quantity of natural gas, NGLs and oil we can economically produce;
- the amount of cash flows available for capital expenditures; and
- our ability to borrow and raise additional capital.

We prepare our financial statements in conformity with generally accepted accounting principles, which require us to make estimates and assumptions that affect our reported results of operations and the amount of our reported assets, liabilities and proved natural gas, NGLs and oil reserves. We use the successful efforts method of accounting for our natural gas, NGLs and oil activities.

Market Conditions

Prices for our products significantly impact our revenue, net income and cash flow. Natural gas, NGLs and oil are commodities and prices for these commodities are inherently volatile. Since year-end 2015, prices have remained under pressure given the current oversupply of such commodities. The following table lists average New York Mercantile Exchange ("NYMEX") prices for natural gas and oil and the Mont Belvieu NGL composite price for the three months ended and nine months ended September 30, 2016 and 2015:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
Average NYMEX prices (a)				
Natural gas (per mcf)	\$ 2.82	\$ 2.76	\$ 2.31	\$ 2.79
Oil (per bbl)	44.96	46.61	41.24	51.18
Mont Belvieu NGLs composite (per gallon) (b)	0.40	0.37	0.38	0.40

(a) Based on weighted average of bid week prompt month prices.

(b) Based on our estimated NGLs product component per barrel.

Consolidated Results of Operations

Overview of Third Quarter 2016 Results

During third quarter 2016, we achieved the following financial and operating results:

- completed the Memorial Merger (see “Memorial Merger” below);
- 4% production growth over the same period of 2015;
- revenue from the sale of natural gas, NGLs and oil increased 21% from the same period of 2015 with a 16% increase in average realized prices (before cash settlements on our derivatives) and an increase in production volumes;
- revenue realized from the sale of natural gas, NGLs and oil including cash settlements on our derivatives declined 8% from the same period of 2015;
- continued expansion of our activities in the Marcellus Shale in Pennsylvania by growing production and proving up and holding acreage;
- reduced direct operating expenses per mcfe by 38% from the same period of 2015;
- reduced general and administrative expense per mcfe 14% from the same period of 2015;
- reduced our depletion, depreciation and amortization (“DD&A”) rate per mcfe by 18% from the same period of 2015;
- entered into additional derivative contracts for 2016, 2017 and 2018; and
- realized \$32.4 million of cash flow from operating activities.

Our financial results have been significantly impacted by lower commodity prices. We experienced a decrease in revenue from the sale of natural gas, NGLs and oil due to a 28% decrease in realized prices (average prices including all derivative settlements and third party transportation costs paid by us) partially offset by 4% higher production volumes when compared to third quarter 2015. During third quarter 2016, we recognized a net loss of \$42.0 million, or \$0.23 per diluted common share compared to net loss of \$300.9 million, or \$1.81 per diluted common share, during third quarter 2015.

Overview of the First Nine Months 2016 Results

During the nine months ended September 30, 2016, we achieved the following financial and operating results:

- completed the Memorial Merger (see “Memorial Merger” below);
- 4% production growth over the same period of 2015;
- revenue from the sale of natural gas, NGLs and oil decreased 12% from the same period of 2015 with a 15% decline in average realized prices (before cash settlements on our derivatives) partially offset by our increase in production volumes;
- revenue from the sale of natural gas, NGLs and oil including cash settlements on our derivatives declined 16% from the same period of 2015;
- continued expansion of our activities in the Marcellus Shale in Pennsylvania by growing production, proving up acreage and acquiring additional unproved acreage;
- reduced direct operating expense per mcfe by 39% from the same period of 2015;
- reduced general and administrative expense per mcfe 20% from the same period of 2015;
- reduced interest expense per mcfe 6% from the same period of 2015;
- reduced our DD&A rate by 21% from the same period of 2015;
- entered into additional derivative contracts for 2016, 2017 and 2018;
- received proceeds of \$111.5 million from the sale of our non-operated interest in certain wells and gathering facilities in Northeast Pennsylvania and \$78.6 million of proceeds from the sale of certain properties in Western Oklahoma; and
- realized \$202.0 million of cash flow from operating activities.

For the nine months ended September 30, 2016, we recognized a net loss of \$358.6 million, or \$2.09 per diluted common share compared to net loss of \$391.9 million or \$2.36 per diluted common share in the same period of 2015. In first nine months 2016, we experienced a decrease in revenue from the sale of natural gas, NGLs and oil due to a 37% decrease in realized prices (average prices including all derivative settlements and third party transportation costs paid by us) partially offset by 4% higher production volumes.

Memorial Merger

On September 16, 2016, we completed the Memorial Merger. This merger adds a premier onshore U.S. natural gas resource play to our existing core operating areas. The North Louisiana location provides geographic and marketing diversity to our high quality Appalachia basin assets. We anticipate continuing to improve drilling and well performance in this play by applying best practices from our Marcellus division and capitalizing on synergies. On September 16, 2016, we issued approximately 77.0 million shares of common stock in exchange for all outstanding shares of Memorial using an exchange ratio of 0.375 of a share of Range common stock for each share of Memorial common stock. The transaction was approved by Range and Memorial stockholders at special meetings held September 15, 2016. See also Note 4 to our unaudited consolidated financial statements.

Natural Gas, NGLs and Oil Sales, Production and Realized Price Calculations

Our revenues vary primarily as a result of changes in realized commodity prices and production volumes. We generally sell natural gas, NGLs and oil under two types of agreements, which are common in our industry. Both types include transportation charges. One type of agreement is a netback agreement, under which we sell natural gas or oil at the wellhead and collect a price, net of transportation costs incurred by the purchaser. In this case, we record revenue at the price we receive from the purchaser. At times, for NGLs, we receive a net price from the purchaser (which is net of processing costs) which is also recorded as revenue at the net price we receive from the purchaser. Under the other type of agreement, we sell natural gas, NGLs or oil at a specific delivery point, pay transportation to a third party and receive proceeds from the purchaser with no transportation cost deduction. In that case, we record transportation costs that we pay to third parties as transportation, gathering and compression expense.

In third quarter 2016, natural gas, NGLs and oil sales increased 21% compared to third quarter 2015 with a 16% increase in average realized prices and a 4% increase in average daily production. In the nine months ended September 30, 2016 natural gas, NGLs and oil sales decreased 12% compared to the same period of 2015 with a 15% decrease in average realized prices partially offset by a 4% increase in average daily production. The following table illustrates the primary components of natural gas, NGLs, oil and condensate sales for the three and nine months ended September 30, 2016 and 2015 (in thousands):

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2016	2015	Change	%	2016	2015	Change	%
Natural gas, NGLs and oil sales								
Gas	\$ 197,476	\$ 189,113	\$ 8,363	4%	\$ 464,098	\$ 589,517	\$ (125,419)	(21%)
NGLs	75,259	31,066	44,193	142%	198,877	131,822	67,055	51%
Oil	31,742	31,886	(144)	¾%	75,595	114,262	(38,667)	(34%)
Total natural gas, NGLs and oil sales	<u>\$ 304,477</u>	<u>\$ 252,065</u>	<u>\$ 52,412</u>	21%	<u>\$ 738,570</u>	<u>\$ 835,601</u>	<u>\$ (97,031)</u>	(12%)

Our production continues to grow through drilling success, additional NGLs extraction and newly acquired production but is partially offset by the natural production decline of our wells and non-core asset sales. When compared to the same period of 2015, our third quarter 2016 production volumes increased 1% in our Appalachian region, despite the sale of our Virginia and West Virginia properties at the end of 2015. Production volumes from the Marcellus Shale in third quarter 2016 were 1.4 Bcfe per day. When compared to the same period of 2015, our Marcellus production volumes increased 9% for third quarter 2016. For the nine months ended September 30, 2016, our production volumes increased 5% in our Appalachian region when compared to the same period of 2015. Production volumes from the Marcellus Shale for the nine months ended September 30, 2016 were 1.3 Bcfe per day. When compared to the same period of 2015, our Marcellus production volumes increased 14%. Our production for the three months ended and nine months ended September 30, 2016 and 2015 is set forth in the following table:

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2016	2015	Change	%	2016	2015	Change	%
Production (a)								
Natural gas (mcf)	93,466,385	97,273,739	(3,807,354)	(4%)	261,331,126	265,511,105	(4,179,979)	(2%)
NGLs (bbls)	6,739,161	4,985,092	1,754,069	35%	19,579,843	15,449,495	4,130,348	27%
Crude oil (bbls)	810,878	958,628	(147,750)	(15%)	2,504,757	3,187,005	(682,248)	(21%)
Total (mcfe) (b)	138,766,619	132,936,059	5,830,560	4%	393,838,726	377,330,105	16,508,621	4%
Average daily production (a)								
Natural gas (mcf)	1,015,939	1,057,323	(41,384)	(4%)	953,763	972,568	(18,805)	(2%)
NGLs (bbls)	73,252	54,186	19,066	35%	71,459	56,592	14,867	26%
Crude oil (bbls)	8,814	10,420	(1,606)	(15%)	9,141	11,674	(2,533)	(22%)
Total (mcfe) (b)	1,508,333	1,444,957	63,376	4%	1,437,368	1,382,162	55,206	4%

(a) Represents volumes sold regardless of when produced.

(b) Oil and NGLs are converted to mcfe at the rate of one barrel equals six mcf based upon the approximate relative energy content of oil to natural gas, which is not indicative of the relationship between oil and natural gas prices.

Our average realized price received (including all derivative settlements and third-party transportation costs) during third quarter 2016 was \$1.58 per mcfe compared to \$2.18 per mcfe in third quarter 2015. Our average realized price received (including all derivative settlements and third party transportation costs) was \$1.52 per mcfe in the nine months ended September 30, 2016 compared to \$2.42 per mcfe in the same period of the prior year. Although we record transportation costs on two separate bases, as required by U.S. GAAP, we believe computed final realized prices should include the total impact of transportation, gathering, processing and compression expense. Our average realized price (including all derivative settlements and third-party transportation costs) calculation also includes all cash settlements for derivatives. Average realized prices (excluding derivative settlements) do not include derivative settlements or third party transportation costs which are reported in transportation, gathering, processing and compression expense on the accompanying consolidated statements of operations. Average realized prices (excluding derivative settlements) do include transportation costs where we receive net revenue proceeds from purchasers.

Realized prices include the impact of basis differentials. The price we receive for our natural gas can be more or less than the NYMEX price because of adjustments for delivery location, relative quality and other factors. Average natural gas differentials were \$0.71 per mcf below NYMEX in third quarter 2016 compared to \$0.82 per mcf below NYMEX in third quarter 2015. We also realized gains on our basis hedging in third quarter 2016 of \$0.03 per mcf compared to a realized gain of \$0.04 per mcf in third quarter 2015. Average natural gas differentials were \$0.53 per mcf below NYMEX in first nine months 2016 compared to \$0.57 per mcf below NYMEX in first nine months 2015. We also realized gains on basis hedging of \$0.04 per mcf in first nine months 2016 compared to a loss of \$0.01 per mcf in first nine months 2015. Average realized price calculations for the three months ended and nine months ended September 30, 2016 and 2015 are shown below:

	Three Months Ended				Nine Months Ended			
	September 30,				September 30,			
	2016	2015	Change	%	2016	2015	Change	%
Average Prices								
Average realized prices (excluding derivative settlements):								
Natural gas (per mcf)	\$ 2.11	\$ 1.94	\$ 0.17	9%	\$ 1.78	\$ 2.22	\$ (0.44)	(20%)
NGLs (per bbl)	11.17	6.23	4.94	79%	10.16	8.53	1.63	19%
Crude oil and condensate (per bbl)	39.15	33.26	5.89	18%	30.18	35.85	(5.67)	(16%)
Total (per mcf) (a)	2.19	1.89	0.30	16%	1.88	2.21	(0.33)	(15%)
Average realized prices (including all derivative settlements):								
Natural gas (per mcf)	\$ 2.50	\$ 2.77	\$ (0.27)	(10%)	\$ 2.56	\$ 3.06	\$ (0.50)	(16%)
NGLs (per bbl)	12.43	9.45	2.98	32%	11.45	10.58	0.87	8%
Crude oil and condensate (per bbl)	49.97	76.25	(26.28)	(34%)	41.87	68.93	(27.06)	(39%)
Total (per mcf) (a)	2.58	2.93	(0.35)	(12%)	2.54	3.17	(0.63)	(20%)
Average realized prices (including all derivative settlements and third party transportation costs paid by Range):								
Natural gas (per mcf)	\$ 1.43	\$ 1.87	\$ (0.44)	(24%)	\$ 1.46	\$ 2.13	\$ (0.67)	(31%)
NGLs (per bbl)	6.60	7.09	(0.49)	(7%)	5.71	8.21	(2.50)	(30%)
Crude oil and condensate (per bbl)	49.97	76.25	(26.28)	(34%)	41.87	68.93	(27.06)	(39%)
Total (per mcf) (a)	1.58	2.18	(0.60)	(28%)	1.52	2.42	(0.90)	(37%)

(a) Oil and NGLs are converted to mcfe at the rate of one barrel equals six mcf based upon the approximate relative energy content of oil to natural gas, which is not indicative of the relationship between oil and natural gas prices.

Transportation, gathering, processing and compression expense was \$138.8 million in third quarter 2016 compared to \$99.6 million in third quarter 2015. Transportation, gathering, processing and compression expense was \$400.9 million in the nine months ended September 30, 2016 compared to \$284.3 million in the same period of 2015. These third party costs are higher than 2015 due to our production growth in the Marcellus Shale where we have third party gathering, processing, compression and transportation agreements. In addition, first nine months 2016 includes additional expenses related to the commencement of a new NGLs pipeline project where we are able to sell both ethane and propane for export internationally. Also included are additional ethane pipeline capacity charges for ethane transportation to the Gulf Coast. We have included these costs in the calculation of average realized prices (including all derivative settlements and third party transportation expenses paid by Range). The following table summarizes transportation, gathering, processing and compression expense for the three months and nine months ended September 30, 2016 and 2015 (in thousands) and on a per mcf and per barrel basis:

	Three Months Ended				Nine Months Ended			
	September 30,				September 30,			
	2016	2015	Change	%	2016	2015	Change	%
Natural gas	\$ 99,465	\$ 87,886	\$ 11,579	13%	\$ 288,355	\$ 247,743	\$ 40,612	16%
NGLs	39,299	11,748	27,551	235%	112,516	36,515	76,001	208%
Total	\$ 138,764	\$ 99,634	\$ 39,130	39%	\$ 400,871	\$ 284,258	\$ 116,613	41%
Natural gas (per mcf)	\$ 1.06	\$ 0.90	\$ 0.16	18%	\$ 1.10	\$ 0.93	\$ 0.17	18%
NGLs (per bbl)	\$ 5.83	\$ 2.36	\$ 3.47	147%	\$ 5.75	\$ 2.36	\$ 3.39	144%

Derivative fair value income (loss) was income of \$64.6 million in third quarter 2016 compared to \$202.0 million in third quarter 2015. Derivative fair value income (loss) was a loss of \$11.3 million in the nine months ended September 30, 2016 compared to an income of \$290.1 million in the same period of 2015. All of our derivatives are accounted for using the mark-to-market accounting method. Mark-to-market accounting treatment can result in more volatility of our revenues as the change in the fair value of our commodity derivative positions is included in total revenue. As commodity prices increase or decrease, such changes will have an opposite effect on the mark-to-market value of our derivatives. Gains on our derivatives generally indicate lower wellhead revenues in the future while losses indicate higher future wellhead revenues. The following table summarizes the impact of our commodity derivatives for the three months and nine months ended September 30, 2016 and 2015 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
Derivative fair value income (loss) per consolidated statements of operations	\$ 64,556	\$ 202,004	\$ (11,334)	\$ 290,052
Non-cash fair value gain (loss): ⁽¹⁾				
Natural gas derivatives	\$ 25,441	\$ 38,604	\$ (195,038)	\$ (26,380)
Oil derivatives	(5,221)	5,822	(35,556)	(60,798)
NGLs derivatives	(8,656)	19,649	(41,242)	16,585
Freight derivatives	(121)	¾	(155)	¾
Total non-cash fair value gain (loss) ⁽¹⁾	\$ 11,443	\$ 64,075	\$ (271,991)	\$ (70,593)
Net cash receipt on derivative settlements:				
Natural gas derivatives	\$ 35,822	\$ 80,675	\$ 205,985	\$ 223,603
Oil derivatives	8,777	41,207	29,277	105,434
NGLs derivatives	8,514	16,047	25,395	31,608
Total net cash receipt (payment)	\$ 53,113	\$ 137,929	\$ 260,657	\$ 360,645

⁽¹⁾ Non-cash fair value adjustments on commodity derivatives is a non-U.S. GAAP measure. Non-cash fair value adjustments on commodity derivatives only represent the net change between periods of the fair market values of commodity derivative positions and exclude the impact of settlements on commodity derivatives during the period. We believe that non-cash fair value adjustments on commodity derivatives is a useful supplemental disclosure to differentiate non-cash fair market value adjustments from settlements on commodity derivatives during the period. Non-cash fair value adjustments on commodity derivatives is not a measure of financial or operating performance under U.S. GAAP, nor should it be considered a substitute for derivative fair value income or loss as reported in our consolidated statements of operations.

Brokered natural gas, marketing and other revenue in third quarter 2016 was \$44.2 million compared to \$25.9 million in third quarter 2015 with significantly higher brokered natural gas volumes and higher average sales prices. The third quarter 2015 included \$5.4 million of gathering, marketing and broker revenue from our Virginia and West Virginia properties which were sold in fourth quarter 2015. Brokered natural gas, marketing and other revenues in first nine months 2016 was \$119.2 million compared to \$61.7 million in the same period of the prior year with significantly higher brokered natural gas volumes offset by slightly lower average sales prices. In the nine months ended September 30, 2016, we also received \$8.9 million from the sale of brokered propane and ethane compared to no revenue from such sales in the same period of 2015. The nine months ended September 30, 2015 included \$9.6 million of gathering, marketing and broker revenue from our Virginia and West Virginia properties which were sold in fourth quarter 2015.

Operating Costs Per mcfe

We believe some of our expense fluctuations are best analyzed on a unit-of-production, or per mcfe, basis. The following presents information about certain of our expenses on a per mcfe basis for the three months and nine months ended September 30, 2016 and 2015:

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2016	2015	Change	%	2016	2015	Change	%
Direct operating expense	\$ 0.16	\$ 0.26	\$ (0.10)	(38%)	\$ 0.17	\$ 0.28	\$ (0.11)	(39%)
Production and ad valorem tax expense	0.05	0.06	(0.01)	(17%)	0.05	0.07	(0.02)	(29%)
General and administrative expense	0.30	0.35	(0.05)	(14%)	0.32	0.40	(0.08)	(20%)
Interest expense	0.33	0.32	0.01	3%	0.31	0.33	(0.02)	(6%)
Depletion, depreciation and amortization expense	0.95	1.16	(0.21)	(18%)	0.95	1.20	(0.25)	(21%)

Direct operating expense was \$22.4 million in third quarter 2016 compared to \$35.1 million in third quarter 2015. Direct operating expenses include normally recurring expenses to operate and produce our wells, non-recurring well workovers and repair-related expenses. Our production volumes increased 4% but, on an absolute basis, our spending for direct operating expenses for third quarter 2016 declined 36% from the prior year quarter. Our direct operating costs have declined as a result of our cost reduction efforts and the sale of non-core assets. We have experienced cost decreases in most categories of direct operating expenses including lower well service costs, lower personnel expenses, lower water handling and disposal costs, lower workover costs and lower utilities. We incurred \$1.6 million of workover costs in third quarter 2016 compared to \$2.6 million in third quarter 2015.

On a per mcfe basis, direct operating expense in third quarter 2016 decreased 38% from the same period of 2015 with the decrease consisting of lower well service costs, lower water handling and disposal costs and lower personnel costs. We expect to experience lower costs per mcfe as we increase production from our Marcellus Shale wells due to their lower operating cost, especially in the dry area of the play, relative to our other operating areas.

Direct operating expense was \$67.1 million in the nine months ended September 30, 2016 compared to \$107.0 million in the same period of 2015. Our production volumes increased 4% but, on an absolute basis, our spending for direct operating expenses decreased 37% from the same period of the prior year. We have experienced cost decreases in most categories of direct operating expenses due to our cost cutting measures and the sale of certain non-core assets. We incurred \$3.0 million of workover costs in the nine months ended September 30, 2016 compared to \$5.1 million in the same period of 2015.

On a per mcfe basis, direct operating expense in the nine months ended September 30, 2016 decreased 39% to \$0.17 from \$0.28 in the same period of 2015, with the decrease consisting of lower well service costs, lower water handling and disposal costs and lower field personnel costs. Stock-based compensation expense represents the amortization of restricted stock grants as part of the compensation of field employees. The following table summarizes direct operating expenses per mcfe for the three months ended and nine months ended September 30, 2016 and 2015:

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2016	2015	Change	%	2016	2015	Change	%
Lease operating expense	\$ 0.15	\$ 0.24	\$ (0.09)	(38%)	\$ 0.16	\$ 0.26	\$ (0.10)	(38%)
Workovers	0.01	0.02	(0.01)	(50%)	0.01	0.01	¾	¾%
Stock-based compensation (non-cash)	¾	¾	¾	¾%	¾	0.01	(0.01)	(100%)
Total direct operating expense	\$ 0.16	\$ 0.26	\$ (0.10)	(38%)	\$ 0.17	\$ 0.28	\$ (0.11)	(39%)

Production and ad valorem taxes are paid based on market prices, not hedged prices. This expense category also includes the Pennsylvania impact fee. Production and ad valorem taxes (excluding the impact fee) were \$946,000 in third quarter 2016 compared to \$1.8 million in third quarter 2015. On a per mcfe basis, production and ad valorem taxes (excluding the impact fee) were \$0.01 in third quarter 2016 compared to \$0.02 in third quarter 2015 due to an increase in volumes not subject to production or ad valorem taxes and lower prices. In February 2012, the Commonwealth of Pennsylvania enacted an "impact fee" which functions as a tax on unconventional natural gas and oil production from the Marcellus Shale in Pennsylvania. Included in third quarter 2016 is a \$5.8 million impact fee (\$0.04 per mcfe) compared to \$5.5 million (\$0.04 per mcfe) in third quarter 2015.

Production and ad valorem taxes (excluding the impact fee) were \$1.9 million (\$0.01 per mcfe) in first nine months 2016 compared to \$8.4 million (\$0.02 per mcfe) in the same period of 2015 due to lower prices and an increase in volumes not subject to production taxes. Included in first nine months 2016 is a \$16.8 million (\$0.04 per mcfe) impact fee compared to \$18.1 million (\$0.05 per mcfe) in the same period of 2015. The properties acquired in the Memorial Merger are subject to Louisiana severance tax.

General and administrative (“G&A”) expense was \$41.0 million in third quarter 2016 compared to \$46.2 million for third quarter 2015. The third quarter 2016 decrease of \$5.2 million when compared to the same period of 2015 is primarily due to lower salaries and benefits, lower stock-based compensation, lower legal expenses, lower professional fees and lower office expenses. At September 30, 2016, the number of G&A employees declined 13% when compared to September 30, 2015 (excluding the personnel impact of the Memorial Merger). G&A expense for the nine months ended September 30, 2016 decreased \$22.7 million when compared to the same period prior year due to lower salaries and benefits, lower stock-based compensation, lower public relations costs, lower office expenses and lower legal expenses. On a per mcfe basis, third quarter 2016 G&A expense decreased 14% from third quarter 2015 and 20% from the nine months ended September 30, 2015. The following table summarizes G&A expenses per mcfe for the three months ended and nine months ended September 30, 2016 and 2015:

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2016	2015	Change	%	2016	2015	Change	%
General and administrative	\$ 0.22	\$ 0.26	\$ (0.04)	(15%)	\$ 0.22	\$ 0.30	\$ (0.08)	(27%)
Stock-based compensation (non-cash)	0.08	0.09	(0.01)	(11%)	0.10	0.10	¾	¾
Total general and administrative expense	\$ 0.30	\$ 0.35	\$ (0.05)	(14%)	\$ 0.32	\$ 0.40	\$ (0.08)	(20%)

Interest expense was \$46.0 million for third quarter 2016 compared to \$42.9 million for third quarter 2015 and was \$121.5 million in the nine months ended 2016 compared to \$125.6 million in the nine months ended September 30, 2015. The following table presents information about interest expense per mcfe for the three months and nine months ended September 30, 2016 and 2015:

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2016	2015	Change	%	2016	2015	Change	%
Bank credit facility	\$ 0.03	\$ 0.03	\$ ¾	¾	\$ 0.02	\$ 0.03	\$ (0.01)	(33%)
Senior notes	0.10	0.07	0.03	43%	0.08	0.04	0.04	100%
Subordinated notes	0.14	0.20	(0.06)	(30%)	0.17	0.24	(0.07)	(29%)
Amortization of deferred financing costs and other	0.06	0.02	0.04	200%	0.04	0.02	0.02	100%
Total interest expense	\$ 0.33	\$ 0.32	\$ 0.01	3%	\$ 0.31	\$ 0.33	\$ (0.02)	(6%)
Average debt outstanding (in thousands)	\$ 2,875,991	\$ 3,587,772	\$ (711,781)	(20%)	\$ 2,768,873	\$ 3,415,762	\$ (646,889)	(19%)
Average interest rate ^(a)	5.2%	4.6%	0.6%	13%	5.3%	4.7%	0.6%	13%

(a) Includes commitment fees but excludes debt issue costs and amortization of discounts.

On an absolute basis, the increase in interest expense for third quarter 2016 from the same period of 2015 was primarily due to higher average interest rates and senior subordinated debt exchange fees partially offset by lower average outstanding debt balances. In August 2015, we redeemed all of our \$500.0 million 6.75% senior subordinated notes due 2020. In May 2015, we issued \$750.0 million of 4.875% senior notes due 2025. The third quarter 2016 includes an additional \$6.6 million of transaction costs associated with our senior subordinated note exchange. See Note 8 to our unaudited consolidated financial statements for additional information. Average debt outstanding on the bank credit facility for third quarter 2016 was \$226.1 million compared to \$810.8 million in third quarter 2015 and the weighted average interest rate on the bank credit facility was 2.3% in third quarter 2016 compared to 1.7% in third quarter 2015.

On an absolute basis, the decrease in interest expense for the nine months ended September 30, 2016 from the same period of 2015 was primarily due to lower average outstanding debt balances somewhat offset by higher average interest rates. Average debt outstanding on the bank credit facility was \$151.8 million for the nine months ended September 30, 2016 compared to \$790.5 million for the same period of 2015 and the weighted average interest rate on the bank credit facility was 2.3% in the nine months ended September 30, 2016 compared to 1.7% in the same period of 2015.

Depletion, depreciation and amortization (“DD&A”) expense was \$131.5 million in third quarter 2016 compared to \$154.0 million in third quarter 2015. This decrease is due to a 17% decrease in depletion rates somewhat offset by a 4% increase in production volumes. Depletion expense, the largest component of DD&A expense, was \$0.91 per mcfe in third quarter 2016 compared to \$1.10 per mcfe in third quarter 2015. We have historically adjusted our depletion rates in the fourth quarter of each year based on

the year-end reserve report and at other times during the year when circumstances indicate there has been a significant change in reserves or costs. Our depletion rate per mcfe continues to decline due to the mix of our production from our properties with lower depletion rates, impairment of properties in 2015 and early 2016 which reduced our carrying values and asset sales. We do not expect our DD&A rate to be materially impacted by the Memorial acquisition.

DD&A expense was \$374.4 million in the nine months ended September 30, 2016 compared to \$453.2 million in the same period of 2015. This decrease is due to a 21% decrease in depletion rates somewhat offset by a 4% increase in production volumes. Depletion expense was \$0.90 per mcfe in the nine months ended September 30, 2016 compared to \$1.14 per mcfe in the same period of 2015. The following table summarizes DD&A expense per mcfe for the three months and the nine months ended September 30, 2016 and 2015:

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2016	2015	Change	%	2016	2015	Change	%
Depletion and amortization	\$ 0.91	\$ 1.10	\$ (0.19)	(17%)	\$ 0.90	\$ 1.14	\$ (0.24)	(21%)
Depreciation	0.01	0.02	(0.01)	(50%)	0.02	0.02	¾	¾%
Accretion and other	0.03	0.04	(0.01)	(25%)	0.03	0.04	(0.01)	(25%)
Total DD&A expense	<u>\$ 0.95</u>	<u>\$ 1.16</u>	<u>\$ (0.21)</u>	(18%)	<u>\$ 0.95</u>	<u>\$ 1.20</u>	<u>\$ (0.25)</u>	(21%)

Other Operating Expenses

Our total operating expenses also include other expenses that generally do not trend with production. These expenses include stock-based compensation, brokered natural gas and marketing expense, exploration expense, abandonment and impairment of unproved properties, Memorial Merger expenses, termination costs, deferred compensation plan expenses and impairment of proved properties. Stock-based compensation includes the amortization of restricted stock grants, PSUs and SARs grants. The following table details the allocation of stock-based compensation to functional expense categories for the three months and nine months ended September 30, 2016 and 2015 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
Direct operating expense	\$ 497	\$ 609	\$ 1,781	\$ 2,149
Brokered natural gas and marketing expense	455	618	1,349	1,743
Exploration expense	608	688	1,669	2,171
General and administrative expense	11,126	11,512	37,682	38,545
Termination costs	¾	(1)	¾	1,720
Total stock-based compensation	<u>\$ 12,686</u>	<u>\$ 13,426</u>	<u>\$ 42,481</u>	<u>\$ 46,328</u>

Brokered natural gas and marketing expense was \$44.6 million in third quarter 2016 compared to \$32.3 million in third quarter 2015. The increase reflects significantly higher brokered natural gas volumes, higher purchase prices somewhat offset by lower expenses related to company owned gathering lines (which were sold in fourth quarter 2015). Brokered natural gas and marketing expense was \$122.1 million for the nine months ended September 30, 2016 compared to \$80.9 million in the same period of 2015. The increase reflects significantly higher brokered natural gas volumes and \$8.5 million of brokered propane and ethane purchases somewhat offset by lower expenses related to company owned gathering lines (which were sold in fourth quarter 2015) and lower purchase prices.

Exploration expense was \$6.9 million in third quarter 2016 compared to \$4.2 million in third quarter 2015 due to higher delay rental costs. Exploration expense was \$18.6 million in the nine months ended September 30, 2016 compared to \$17.1 million in the same period of 2015 due to lower personnel expense partially offset by higher delay rentals. The following table details our exploration related expenses for the three months and nine months ended September 30, 2016 and 2015 (in thousands):

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2016	2015	Change	%	2016	2015	Change	%
Seismic	\$ 236	\$ 110	\$ 126	115%	\$ 1,417	\$ 1,685	\$ (268)	(16%)
Delay rentals and other	2,804	819	1,985	242%	7,432	3,577	3,855	108%
Personnel expense	3,293	2,637	656	25%	8,121	9,626	(1,505)	(16%)
Stock-based compensation expense	608	688	(80)	(12%)	1,669	2,171	(502)	(23%)
Dry hole expense	2	(19)	21	111%	2	87	(85)	(98%)
Total exploration expense	<u>\$ 6,943</u>	<u>\$ 4,235</u>	<u>\$ 2,708</u>	64%	<u>\$ 18,641</u>	<u>\$ 17,146</u>	<u>\$ 1,495</u>	9%

Abandonment and impairment of unproved properties was \$6.1 million in third quarter 2016 compared to \$12.4 million in third quarter 2015. Abandonment and impairment of unproved properties was \$23.8 million in the nine months ended September 30, 2016 compared to \$36.2 million in the same period of 2015. We assess individually significant unproved properties for impairment on a quarterly basis and recognize a loss where circumstances indicate impairment in value. In determining whether a significant unproved property is impaired we consider numerous factors including, but not limited to, current exploration plans, favorable or unfavorable activity on the property being evaluated and/or adjacent properties, our geologists' evaluation of the property and the remaining months in the lease term for the property. Impairment of individually insignificant unproved properties is assessed and amortized on an aggregate basis based on our average holding period, expected forfeiture rate and anticipated drilling success. As we continue to review our acreage positions and high grade our drilling inventory based on the current price environment, additional leasehold impairments and abandonments may be recorded.

Memorial Merger expenses of \$33.8 million in the three months ended September 30, 2016 and \$36.4 million in the nine months ended September 30, 2016 represents amounts paid through September 30, 2016 in connection with the merger with Memorial including consulting, investment banking, advisory, legal and other merger-related fees. See "Memorial Merger" above.

Termination costs were \$136,000 for the three months ended September 30, 2016 compared to a gain of \$77,000 in the same period of 2015. Termination costs were \$303,000 for nine months ended September 30, 2016 compared to \$6.3 million in the same period of 2015. In the nine months ended September 30, 2016, these costs represent additional building lease costs related to the closing of our Oklahoma City office. In 2015, these costs included \$3.2 million of accrued building lease costs for our Oklahoma City office, additional severance and stock-based compensation for accelerated vesting of restricted stock grants for both our Oklahoma City office employees and employees from other areas where we determined a need to reduce personnel due to the commodity price environment.

Deferred compensation plan expense was a gain of \$11.6 million in third quarter 2016 compared to a gain of \$43.7 million in third quarter 2015. This non-cash item relates to the increase or decrease in value of the liability associated with our common stock that is vested and held in our deferred compensation plan. The deferred compensation liability is adjusted to fair value by a charge or a credit to deferred compensation plan expense. Our stock price decreased from \$43.14 at June 30, 2016 to \$38.75 at September 30, 2016. In the same quarter of the prior year, our stock price decreased from \$49.38 at June 30, 2015 to \$32.12 at September 30, 2015. During the nine months ended September 30, 2016, deferred compensation was a loss of \$30.2 million compared to a gain of \$56.6 million in the same period of 2015. Our stock price increased from \$24.61 at December 31, 2015 to \$38.75 at September 30, 2016. In the same period of 2015, our stock price decreased from \$53.45 at December 31, 2014 to \$32.12 at September 30, 2015.

Impairment of proved properties was \$43.0 million in the nine months ended September 30, 2016 compared to \$502.2 million in both the three months and the nine months ended September 30, 2015. We assess our proved natural gas and oil properties whenever events or circumstances indicate the carrying value of these assets may not be recoverable. The cash flows we use to assess proved property impairment includes numerous assumptions including (1) future reserve adjustments, both positive and negative, to proved reserves and appropriate risk-adjusted probable and possible reserves (2) results of future drilling activities (3) future commodity prices and (4) increases or decreases in production and capital costs. All inputs are evaluated at each measurement date. In the nine months ended September 30, 2016, impairment expense was recorded related to certain of our oil and gas properties in Oklahoma. In the three months and the nine months ended September 30, 2015, impairment was recorded related to certain of our oil and gas properties in Northern Oklahoma and our legacy producing assets in Northwest Pennsylvania. Due to falling commodity prices, our analysis of these properties, which included the possibility of a sale of certain of these properties, determined that undiscounted future cash flows were less than their carrying values.

Loss (gain) on the sale of assets was \$2.6 million in third quarter 2016 compared to a loss of \$681,000 in third quarter 2015. Loss on the sale of assets was \$7.5 million in the nine month period ending September 30, 2016 compared to a gain of \$2.1 million for the same period of 2015. In third quarter 2016, we sold certain properties in Western Oklahoma for proceeds of \$900,000 and recognized a loss of \$2.6 million. In second quarter 2016, we sold certain properties in Western Oklahoma for proceeds of \$77.7 million and we recorded a \$2.7 million loss, after closing adjustments. In first quarter 2016, we sold our non-operated interest in certain wells and gathering facilities in Northeast Pennsylvania for proceeds of \$111.5 million and, after closing adjustments, we recognized a loss of \$2.1 million related to this sale. In third quarter 2015, we sold miscellaneous unproved properties and inventory for proceeds of \$524,000 resulting in a loss of \$681,000. In first six months 2015, we sold miscellaneous unproved and proved properties along with inventory for proceeds of \$14.3 million and recognized a gain of \$2.7 million.

Income tax benefit was \$13.7 million in third quarter 2016 compared to \$134.8 million in third quarter 2015. For the third quarter, the effective tax rate was 24.6% in 2016 compared to 30.9% in 2015. Income tax benefit was \$187.2 million in the nine months ended September 30, 2016 compared to \$174.4 million in the same period of 2015. For the nine months ended September 30, 2016, the effective tax rate was 34.3% compared to 30.8% in the nine months ended September 30, 2015. In third quarter 2016, we recorded additional tax expense related to the non-deductible Memorial Merger transaction costs. In third quarter and the nine months ended September 30, 2016, we increased our valuation allowances for state net operating loss carryforwards we do not believe are realizable and decreases to our valuation allowance for our deferred tax asset related to future deferred compensation plan distributions of our senior executives. The 2016 and 2015 effective tax rates were different than the statutory tax rate due to state income taxes, permanent differences, changes in our valuation allowances related to deferred tax assets associated with senior executives to the extent their estimated future compensation, which includes distributions from the deferred compensation plan, is expected to exceed the \$1.0 million annual deductible limit provided under section 162(m) of the Internal Revenue Code, changes to our valuation allowances related to state net operating loss carryforwards and additional tax expense related to the tax impact of excess financial accounting compensation expense over the corresponding corporate income tax deduction for equity compensation awards that have fully vested. There is no additional paid-in capital pool available to offset these reduced tax benefits. We expect our effective tax rate to be approximately 38% for the remainder of 2016, before any discrete tax items.

Management's Discussion and Analysis of Financial Condition, Capital Resources and Liquidity

Cash Flow

Cash flows from operations are primarily affected by production volumes and commodity prices, net of the effects of settlements of our derivatives. Our cash flows from operations are also impacted by changes in working capital. We generally maintain low cash and cash equivalent balances because we use available funds to reduce our bank debt. Short-term liquidity needs are satisfied by borrowings under our bank credit facility. Because of this, and because our principal source of operating cash flows (proved reserves to be produced in the following year) cannot be reported as working capital, we often have low or negative working capital. From time to time, we enter into various derivative contracts to provide an economic hedge of our exposure to commodity price risk associated with anticipated future natural gas, NGLs and oil production. The production we hedge has varied and will continue to vary from year-to-year depending on, among other things, our expectation of future commodity prices. Any payments due to counterparties under our derivative contracts should ultimately be funded by prices received from the sale of our production. Production receipts, however, often lag payments to the counterparties. As of September 30, 2016, we have entered into hedging agreements covering 128.7 Bcfe for the remainder of 2016, 288.9 Bcfe for 2017 and 26.6 Bcfe for 2018. We have also entered into natural gas basis hedges for 59,385,000 Mmbtus through December 2017 and propane spread swaps for 525,000 barrels in 2016 and 1,837,500 barrels in 2017.

The following table presents sources and uses of cash and cash equivalents for the nine months ended September 30, 2016 and 2015 (in thousands):

	Nine Months Ended	
	September 30,	
	2016	2015
Sources of cash and cash equivalents		
Operating activities	\$ 202,037	\$ 515,560
Disposal of assets	191,834	14,825
Borrowing on credit facility	1,887,000	1,940,000
Issuance of debt	¾	750,000
Memorial Merger, net of cash acquired	7,180	¾
Other	48,717	36,106
Total sources of cash and cash equivalents	<u>\$ 2,336,768</u>	<u>\$ 3,256,491</u>
Uses of cash and cash equivalents		
Additions to natural gas and oil properties	\$ (339,446)	\$ (901,227)
Repayment of debt	(273,011)	(516,875)
Acreage purchases	(29,203)	(61,213)
Other property	(1,542)	(2,878)
Repayments on credit facility	(1,045,000)	(1,676,000)
Repayment of Memorial credit facility	(597,000)	¾
Dividends paid	(11,654)	(20,308)
Other	(39,841)	(77,948)
Total uses of cash and cash equivalents	<u>\$ (2,336,697)</u>	<u>\$ (3,256,449)</u>

Net cash provided from operating activities in first nine months 2016 was \$202.0 million compared to \$515.6 million in first nine months 2015. Cash provided from continuing operations is largely dependent upon commodity prices and production volumes, net of the effects of settlement of our derivative contracts. The decrease in cash provided from operating activities from 2015 to 2016 reflects a 4% increase in production and lower operating costs more than offset by lower realized prices (a decline of 37%), expenses related to the Memorial Merger and costs related to the senior subordinated note exchange. As of September 30, 2016, we have hedged more than 80% of our projected total production for the remainder of 2016, with more than 80% of our projected natural gas production hedged. Net cash provided from continuing operations is affected by working capital changes or the timing of cash receipts and disbursements. Changes in working capital (as reflected in our consolidated statements of cash flows) for first nine months 2016 were negative \$51.8 million compared to positive \$4.1 million for first nine months 2015.

Disposal of assets in the nine months ended September 30, 2016 includes \$78.6 million of proceeds received from the sale of certain Western Oklahoma properties which closed in May and July, 2016 and \$111.5 million of proceeds received from the sale of our non-operated interest in certain wells and gathering facilities in Northeast Pennsylvania which closed in March 2016. The nine months ended September 30, 2015 includes \$10.5 million of proceeds received from the sale of certain of our West Texas properties which closed in February 2015.

Issuance of debt in the nine months ended September 30, 2015 includes the issuance of \$750.0 million aggregate principal amount of 4.875% senior notes due 2025.

Repayment of debt in the nine months ended September 30, 2016 includes the cash paid for the cash tender offer and cash tender premium for the senior notes assumed in the Memorial Merger. The nine months ended September 30, 2015 includes the redemption of our 6.75% senior subordinated notes due 2020 at 103.375% of par.

Liquidity and Capital Resources

Our main sources of liquidity and capital resources are internally generated cash flow from operations, a bank credit facility with uncommitted and committed availability, access to the debt and equity capital markets and asset sales. We must find new reserves and develop existing reserves to maintain and grow our production and cash flows. We accomplish this primarily through successful drilling programs which require substantial capital expenditures. We continue to take steps to ensure we have adequate capital resources and liquidity to fund our capital expenditure program. In first nine months 2016, we significantly reduced our operating costs per unit of production and we entered into additional commodity derivative contracts for 2016, 2017 and 2018 to protect future cash flows. In March 2016, our borrowing base and credit facility commitment were reaffirmed through May 1, 2017.

During first nine months 2016, our net cash provided from operating activities of \$202.0 million and the proceeds we received from asset sales were used to fund approximately \$370.2 million of capital expenditures (including acreage acquisitions). Cash payments for capital expenditures in the first nine months 2016 include payments for services incurred in the prior year capital budget. At September 30, 2016, we had \$542,000 in cash and total assets of \$11.3 billion.

Long-term debt at September 30, 2016 totaled \$3.9 billion, including \$937.0 million outstanding on our bank credit facility, \$2.9 billion of senior notes and \$49.0 million of senior subordinated notes. Our available committed borrowing capacity at September 30, 2016 was \$809.1 million. Cash is required to fund capital expenditures necessary to offset inherent declines in production and reserves that are typical in the oil and natural gas industry. Future success in growing reserves and production will be highly dependent on capital resources available and the success of finding or acquiring additional reserves. We currently believe that net cash generated from operating activities, unused committed borrowing capacity under the bank credit facility and proceeds from asset sales combined with our natural gas, NGLs and oil derivatives contracts currently in place will be adequate to satisfy near-term financial obligations and liquidity needs. To the extent our capital requirements exceed our internally generated cash flow and proceeds from asset sales, debt or equity securities may be issued to fund these requirements. Long-term cash flows are subject to a number of variables including the level of production and prices as well as various economic conditions that have historically affected the oil and natural gas business. A further material decline in natural gas, NGLs and oil prices or a reduction in production and reserves would reduce our ability to fund capital expenditures, meet financial obligations and operate profitably. We establish a capital budget at the beginning of each calendar year and review it during the course of the year, taking into account various factors including the commodity price environment. Our 2016 capital budget, excluding the Memorial Merger, is \$495.0 million. We operate in an environment with numerous financial and operating risks, including, but not limited to, the inherent risks of the search for, development and production of natural gas, NGLs and oil, the ability to buy properties and sell production at prices which provide an attractive return and the highly competitive nature of the industry. Our ability to expand our reserve base is, in part, dependent on obtaining sufficient capital through internal cash flow, bank borrowings, asset sales or the issuance of debt or equity securities. There can be no assurance that internal cash flow and other capital sources will provide sufficient funds to maintain capital expenditures that we believe are necessary to offset inherent declines in production and proven reserves.

Credit Arrangements

As of September 30, 2016, we maintained a revolving credit facility with a borrowing base of \$3.0 billion and aggregate lender commitments of \$2.0 billion, which we refer to as our bank credit facility. The bank credit facility, during a non-investment grade period, is secured by substantially all of our assets and has a maturity date of October 16, 2019. Availability under the bank credit facility is subject to a borrowing base set by the lenders annually with an option to set more often in certain circumstances. Availability under the bank credit facility, during an investment grade period, is limited to aggregate lender commitments. As of September 30, 2016, the outstanding balance under our credit facility was \$937.0 million. Additionally, we had \$253.9 million of undrawn letters of credit leaving \$809.1 million of committed borrowing capacity available under the facility at the end of third quarter 2016.

Our bank credit facility imposes limitations on the payment of dividends and other restricted payments (as defined under our bank credit facility). These agreements also contain customary covenants relating to debt incurrence, liens, investments and financial ratios. We were in compliance with all covenants at September 30, 2016. See Note 8 to our unaudited consolidated financial statements for additional information regarding our bank debt.

Cash Dividend Payments

In February 2016, the Board of Directors approved a reduction of our quarterly dividend from \$0.04 per share to \$0.02 per share. On September 1, 2016, our Board of Directors declared a dividend of two cents per share (\$4.9 million) on our outstanding common stock, which was paid on September 30, 2016 to stockholders of record at the close of business on September 16, 2016. The amount of future dividends is subject to discretionary declaration by the Board of Directors and primarily depends on earnings, capital expenditures, debt covenants and various other factors.

Cash Contractual Obligations

Our contractual obligations include long-term debt, operating leases, drilling commitments, derivative obligations, asset retirement obligations and transportation and gathering commitments. As of September 30, 2016, we do not have any capital leases. As of September 30, 2016, we do not have any significant off-balance sheet debt or other such unrecorded obligations and we have not guaranteed any debt of any unrelated party. As of September 30, 2016, we had a total of \$253.9 million of undrawn letters of credit under our bank credit facility.

Since December 31, 2015, there have been no material changes to our contractual obligations other than a \$842.0 million increase in our outstanding bank credit facility balance and additional firm transportation, gathering and new delivery commitments in connection with the start-up of Mariner East and the Memorial Merger. Our contractual obligations for firm transportation and gathering contracts increased by approximately \$2.8 billion over the next fifteen years.

In conjunction with the Memorial Merger, we have various midstream service agreements in North Louisiana for gathering, processing and transportation of natural gas and NGLs. Pursuant to the gas processing agreement, we must pay a quarterly deficiency payment based on the firm-commitment fixed fee if the cumulative minimum volume commitment as of the end of a quarter exceeds the sum of (i) the cumulative volumes processed under the processing agreement as of the end of the quarter plus (ii) volumes corresponding to deficiency payments incurred prior to each quarter. All net costs associated with these agreements are reflected in transportation, gathering, processing and compression expense in the consolidated statement of operations.

Hedging – Oil and Gas Prices

We use commodity-based derivative contracts to manage our exposure to commodity price fluctuations. We do not enter into these arrangements for speculative or trading purposes. We do not utilize complex derivatives, as we typically utilize commodity swap and option contracts to (1) reduce the effect of price volatility on the commodities we produce and sell and (2) support our annual capital budget and expenditure plans. While there is a risk that the financial benefit of rising natural gas, NGLs and oil prices may not be captured, we believe the benefits of stable and predictable cash flow are more important. Among these benefits are a more efficient utilization of existing personnel and planning for future staff additions, the flexibility to enter into long-term projects requiring substantial committed capital, smoother and more efficient execution of our on-going development drilling and production enhancement programs, more consistent returns on invested capital, and better access to bank and other credit markets. The fair value of these contracts which is represented by the estimated amount that would be realized or payable on termination is based on a comparison of the contract price and a reference price, generally NYMEX for natural gas and oil or Mont Belvieu for NGLs, approximated a pretax gain of \$150.9 million at September 30, 2016. The contracts expire monthly through December 2018. At September 30, 2016, the following commodity-based derivative contracts were outstanding, excluding our basis swaps which are discussed separately below:

Period	Contract Type	Volume Hedged	Weighted Average Hedge Price
Natural Gas			
2016	Swaps (1)	901,739 Mmbtu/day	\$ 3.32
2017	Swaps (1)	478,192 Mmbtu/day	\$ 3.14
2018	Swaps	70,000 Mmbtu/day	\$ 2.92
2016	Collar (1)	32,609 Mmbtu/day	\$ 4.00-\$ 4.71
2017	Collar (1)	34,521 Mmbtu/day	\$ 4.00-\$ 5.06
2016	Purchased Put (1)	218,478 Mmbtu/day	\$ 3.54 (2)
2017	Purchased Put (1)	175,890 Mmbtu/day	\$ 3.48 (3)
Crude Oil			
2016	Swaps (1)	8,640 bbls/day	\$ 69.49
2017	Swaps (1)	5,416 bbls/day	\$ 57.18
2018	Swaps	500 bbls/day	\$ 54.25
2016	Collar (1)	848 bbls/day	\$ 80.00-\$ 99.70
NGLs (C2-Ethane)			
2016	Swaps (1)	5,839 bbls/day	\$ 0.46/gallon
2017	Swaps	3,000 bbls/day	\$ 0.27/gallon
NGLs (C3-Propane)			
2016	Swaps (1)	11,142 bbls/day	\$ 0.75/gallon
2017	Swaps	6,966 bbls/day	\$ 0.52/gallon
NGLs (iC4-isobutane)			
2016	Swaps (1)	1,969 bbls/day	\$ 1.21/gallon
NGLs (NC4-Normal Butane)			
2016	Swaps (1)	6,071 bbls/day	\$ 0.72/gallon
2017	Swaps	1,500 bbls/day	\$ 0.65/gallon
NGLs (C5-Natural Gasoline)			
2016	Swaps (1)	8,142 bbls/day	\$ 1.36/gallon
2017	Swaps	2,000 bbls/day	\$ 0.98/gallon

(1) Includes derivative instruments assumed in connection with the Memorial Merger.

(2) Weighted average deferred premium is (\$0.34).

(3) Weighted average deferred premium is (\$0.32).

In addition to the swaps discussed above, we have entered into natural gas basis swap agreements. The price we received for our natural gas production can be more or less than the NYMEX price because of adjustments for delivery location (“basis”), relative quality and other factors; therefore, we have entered into basis swap agreements that effectively fix the basis adjustments. The fair value of the basis swaps was a gain of \$13.8 million at September 30, 2016. The volumes are for 59,385,000 Mmbtu and they expire through December 2017.

At September 30, 2016, we also had propane spread swap contracts which lock in the differential between Mont Belvieu and international propane indices. These contracts settle monthly through December 2017 and include total volume of 525,000 barrels in 2016 and 1,837,500 barrels in 2017. The fair value of these contracts was a gain of \$4.1 million on September 30, 2016.

Interest Rates

At September 30, 2016, we had approximately \$3.9 billion of debt outstanding. Of this amount, \$2.9 billion bore interest at fixed rates averaging 5.2%. Bank debt totaling \$937.0 million bears interest at floating rates, which averaged 2.0% at September 30, 2016. The 30-day LIBOR Rate on September 30, 2016 was approximately 0.5%. A 1% increase in short-term interest rates on the floating-rate debt outstanding on September 30, 2016 would cost us approximately \$9.4 million in additional annual interest expense.

Off-Balance Sheet Arrangements

We do not currently utilize any significant off-balance sheet arrangements with unconsolidated entities to enhance our liquidity or capital resource position, or for any other purpose. However, as is customary in the oil and gas industry, we have various contractual work commitments, some of which are described above under cash contractual obligations.

Inflation and Changes in Prices

Our revenues, the value of our assets and our ability to obtain bank loans or additional capital on attractive terms have been and will continue to be affected by changes in natural gas, NGLs and oil prices and the costs to produce our reserves. Natural gas, NGLs and oil prices are subject to significant fluctuations that are beyond our ability to control or predict. Although certain of our costs and expenses are affected by general inflation, inflation does not normally have a significant effect on our business. We expect costs for the remainder of 2016 to continue to be a function of supply and demand and we believe, based on a continuing lower commodity price environment, we expect to see continued cost reductions. However, the timing and amount of such cost reductions cannot be predicted.

Critical Accounting Estimates

On September 16, 2016, we issued approximately 77.0 million shares of common stock in exchange for all outstanding shares of Memorial using an exchange ratio of 0.375 of a share of Range common stock for each share of Memorial common stock. In connection with the allocation of purchase price for this merger, approximately \$1.6 billion has been recorded as goodwill. Goodwill represents the excess of the purchase price over the estimated fair value of the net assets acquired in the acquisition of a business. Goodwill is not amortized, but rather is tested for impairment annually or when events and changes in circumstances indicate that the fair value of a reporting unit with goodwill has been reduced below carrying value. The impairment test requires allocating goodwill and other assets and liabilities to a reporting unit level. The fair value of a reporting unit is determined and compared to the book value of the reporting unit. If the fair value of the reporting unit is less than the book value, including goodwill, then the recorded goodwill is impaired to its implied fair value with a charge to impairment expense. We assess goodwill for impairment annually on November 1, or more frequently as circumstances require. The goodwill impairment test is performed at the reporting unit level, which is represented by our oil and natural gas operations in the United States.

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 risks. The term “market risk” refers to the risk of loss arising from adverse changes in natural gas, NGLs and oil prices and 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 exposure. All of our market-risk sensitive instruments were entered into for purposes other than trading. All accounts are U.S. dollar denominated.

Market Risk

We are exposed to market risks related to the volatility of natural gas, NGLs and oil prices. We employ various strategies, including the use of commodity derivative instruments, to manage the risks related to these price fluctuations. These derivative instruments apply to a varying portion of our production and provide only partial price protection. These arrangements limit the benefit to us of increases in prices but offer protection in the event of price declines. Further, if our counterparties defaulted, this protection might be limited as we might not receive the benefits of the derivatives. Realized prices are primarily driven by worldwide

prices for oil and spot market prices for North American natural gas production. Natural gas and oil prices have been volatile and unpredictable for many years. Changes in natural gas prices affect us more than changes in oil prices because approximately 63% of our December 31, 2015 proved reserves are natural gas. We are also exposed to market risks related to changes in interest rates. These risks did not change materially from December 31, 2015 to September 30, 2016.

Commodity Price Risk

We use commodity-based derivative contracts to manage exposures to commodity price fluctuations. We do not enter into these arrangements for speculative or trading purposes. We do not utilize complex derivatives such as swaptions, knockouts or extendable swaps. At times, certain of our derivatives are swaps where we receive a fixed price for our production and pay market prices to the counterparty. Our derivatives program can also include collars, which establish a minimum floor price and a predetermined ceiling price. At September 30, 2016, our derivative program includes swaps and options. These contracts expire monthly through December 2018. The fair value of these contracts, represented by the estimated amount that would be realized upon immediate liquidation as of September 30, 2016, approximated a net unrealized pretax gain of \$150.9 million. At September 30, 2016, the following commodity derivative contracts were outstanding, excluding our basis swaps which are discussed below:

Period	Contract Type	Volume Hedged	Weighted Average Hedge Price	Fair Market Value (in thousands)
Natural Gas				
2016	Swaps (1)	901,739 Mmbtu/day	\$ 3.32	\$ 26,845
2017	Swaps (1)	478,192 Mmbtu/day	\$ 3.14	\$ 9,536
2018	Swaps	70,000 Mmbtu/day	\$ 2.92	\$ 132
2016	Collar (1)	32,609 Mmbtu/day	\$ 4.00-\$ 4.71	\$ 2,982
2017	Collar (1)	34,521 Mmbtu/day	\$ 4.00-\$ 5.06	\$ 12,104
2016	Purchased Put (1)	218,478 Mmbtu/day	\$ 3.54 (2)	\$ 11,747
2017	Purchased Put (1)	175,890 Mmbtu/day	\$ 3.48 (3)	\$ 39,045
Crude Oil				
2016	Swaps (1)	8,640 bbls/day	\$ 69.49	\$ 16,235
2017	Swaps (1)	5,416 bbls/day	\$ 57.18	\$ 10,886
2018	Swaps	500 bbls/day	\$ 54.25	\$ 119
2016	Collar (1)	848 bbls/day	\$ 80.00-\$ 99.70	\$ 2,416
NGLs (C2-Ethane)				
2016	Swaps (1)	5,839 bbls/day	\$ 0.46/gallon	\$ 5,348
2017	Swaps	3,000 bbls/day	\$ 0.27/gallon	\$ 798
NGLs (C3-Propane)				
2016	Swaps (1)	11,142 bbls/day	\$ 0.75/gallon	\$ 8,508
2017	Swaps	6,966 bbls/day	\$ 0.52/gallon	\$ (3,511)
NGLs (iC4-isobutane)				
2016	Swaps (1)	1,969 bbls/day	\$ 1.21/gallon	\$ 3,557
NGLs (NC4-Normal Butane)				
2016	Swaps (1)	6,071 bbls/day	\$ 0.72/gallon	\$ 48
2017	Swaps	1,500 bbls/day	\$ 0.65/gallon	\$ (1,173)
NGLs (C5-Natural Gasoline)				
2016	Swaps (1)	8,142 bbls/day	\$ 1.36/gallon	\$ 8,726
2017	Swaps	2,000 bbls/day	\$ 0.98/gallon	\$ (3,451)

(1) Includes derivative instruments assumed in connection with the Memorial Merger.

(2) Weighted average deferred premium is (\$0.34).

(3) Weighted average deferred premium is (\$0.32).

In the future, we expect our NGLs production to continue to increase. We believe NGLs prices are somewhat seasonal, particularly for propane. Therefore, the relationship of NGLs prices to NYMEX WTI (or West Texas Intermediate) will vary due to product components, seasonality and geographic supply and demand. We sell NGLs in several regional and international markets. If we are not able to sell or store NGLs, we may be required to curtail production or shift our drilling activities to dry gas areas.

Currently, the Appalachian region has limited local demand and infrastructure to accommodate ethane. We have previously announced three ethane agreements wherein we have contracted to either sell or transport ethane from our Marcellus Shale area, two of which began operations in late 2013. Our Mariner East transportation agreement and our terminal/storage arrangements at Sunoco's Marcus Hook Industrial Complex facility near Philadelphia began ethane operations late in first quarter 2016. We cannot assure you that these facilities will remain available. If we are not able to sell ethane under at least one of these agreements, we may be required to curtail production or, as we have in the past, purchase or divert natural gas to blend with our rich residue gas.

Other Commodity Risk

We are impacted by basis risk, caused by factors that affect the relationship between commodity futures prices reflected in derivative commodity instruments and the cash market price of the underlying commodity. Natural gas transaction prices are frequently based on industry reference prices that may vary from prices experienced in local markets. If commodity price changes in one region are not reflected in other regions, derivative commodity instruments may no longer provide the expected hedge, resulting in increased basis risk. Therefore, in addition to the swaps discussed above, we have entered into natural gas basis swap agreements. The price we receive for our gas production can be more or less than the NYMEX price because of basis adjustments, relative quality and other factors. Basis swap agreements effectively fix the basis adjustments. The fair value of the natural gas basis swaps was a gain of \$13.8 million at September 30, 2016 and they settle monthly through December 2017.

At September 30, 2016, we also had propane basis spread contracts which lock in the differential between Mont Belvieu and international propane indices. The contracts settle monthly through December 2017 and include a total volume of 525,000 barrels in 2016 and 1,837,500 barrels in 2017. The fair value of these contracts was a gain of \$4.1 million on September 30, 2016.

The following table shows the fair value of our swaps and basis swaps and the hypothetical changes in fair value that would result from a 10% and a 25% change in commodity prices at September 30, 2016. We remain at risk for possible changes in the market value of commodity derivative instruments; however, such risks should be mitigated by price changes in the underlying physical commodity (in thousands):

	Fair Value	Hypothetical Change in Fair Value Increase of		Hypothetical Change in Fair Value Decrease of	
		10%	25%	10%	25%
Swaps	\$ 82,603	\$ (111,809)	\$ (279,140)	\$ 112,679	\$ 281,911
Collars	17,502	(4,126)	(9,776)	4,391	11,367
Puts	50,792	(13,638)	(28,143)	16,674	46,517
Basis swaps	17,867	10	174	(102)	(268)
Freight swap	(155)	66	163	(65)	(163)

Our commodity-based derivative contracts expose us to the credit risk of non-performance by the counterparty to the contracts. Our exposure is diversified primarily among major investment grade financial institutions and we have master netting agreements with our counterparties that provide for offsetting payables against receivables from separate derivative contracts. Our derivative contracts are with multiple counterparties to minimize our exposure to any individual counterparty. At September 30, 2016, our derivative counterparties include twenty-four financial institutions, of which all but six are secured lenders in our bank credit facility. Counterparty credit risk is considered when determining the fair value of our derivative contracts. While our counterparties are primarily major investment grade financial institutions, the fair value of our derivative contracts has been adjusted to account for the risk of non-performance by certain of our counterparties, which was immaterial. Our propane sales from the Marcus Hook facility near Philadelphia are short-term and are to a single purchaser. Ethane sales from Marcus Hook are to a single international customer bearing a credit rating similar to Range.

Interest Rate Risk

We are exposed to interest rate risk on our bank debt. We attempt to balance variable rate debt, fixed rate debt and debt maturities to manage interest costs, interest rate volatility and financing risk. This is accomplished through a mix of fixed rate senior and senior subordinated debt and variable rate bank debt. At September 30, 2016, we had \$3.9 billion of debt outstanding. Of this amount, \$2.9 billion bears interest at fixed rates averaging 5.2%. Bank debt totaling \$937.0 million bears interest at floating rates, which was 2.0% on September 30, 2016. On September 30, 2016, the 30-day LIBOR Rate was approximately 0.5%. A 1% increase in

short-term interest rates on the floating-rate debt outstanding on September 30, 2016, would cost us approximately \$9.4 million in additional annual interest expense.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

As required by Rule 13a-15(b) of the Securities Exchange Act of 1934, as amended (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 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 the evaluation, our principal executive officer and principal financial officer have concluded that our disclosure controls and procedures were effective as of September 30, 2016 at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

There was no change in our system of internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the quarter ended September 30, 2016 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

See Note 15 to our unaudited consolidated financial statements entitled “Commitments and Contingencies” included in Part I Item 1 above for a summary of our legal proceedings, such information being incorporated herein by reference.

Environmental Proceedings

Our subsidiary, Range Resources – Appalachia, LLC, was notified by the Pennsylvania Department of Environmental Protection (“DEP”), in the second quarter of 2015, that it intends to assess a civil penalty under the Clean Streams Law and the 2012 Oil and Gas Act in connection with one well in Lycoming County. The DEP has directed us to prevent methane and other substances from escaping from this gas well into groundwater and a stream. We have considerable evidence that this well is not leaking and pre-drill testing of surrounding water wells showed the presence of methane in the water before commencement of our operations. While we intend to vigorously assert this position with the DEP; resolution of this matter may nonetheless result in monetary sanctions of more than \$100,000.

ITEM 1A. RISK FACTORS

We are subject to various risks and uncertainties in the course of our business. In addition to the factors discussed elsewhere in this report, you should carefully consider the risks and uncertainties described under Item 1A. Risk Factors filed in our Annual Report on Form 10-K for the year ended December 31, 2015. There have been no material changes from the risk factors previously disclosed in that Form 10-K.

ITEM 6. EXHIBITS

Exhibits included in this report are set forth in the Index to Exhibits which immediately precedes such exhibits, and are incorporated herein by reference.

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.

Date: October 25, 2016

RANGE RESOURCES CORPORATION

By: /s/ ROGER S. MANNY

Roger S. Manny
*Executive Vice President and
Chief Financial Officer*

Date: October 25, 2016

RANGE RESOURCES CORPORATION

By: /s/ DORI A. GINN

Dori A. Ginn
*Senior Vice President – Controller and
Principal Accounting Officer*

Exhibit index

Exhibit Number	Exhibit Description
2.1	Agreement and Plan of Merger by and among Range Resources Corporation, Medina Merger Sub, Inc. and Memorial Resources Development Corp., dated as of May 15, 2016 (incorporated by reference to Exhibit 2.1 to our Form 8-K (File No. 001-12209) as filed with the SEC on May 19, 2016)
3.1	Restated Certificate of Incorporation of Range Resources Corporation (incorporated by reference to Exhibit 3.1.1 to our Form 10-Q (File No. 001-12209) as filed with the SEC on May 5, 2004, as amended by the Certificate of First Amendment to Restated Certificate of Incorporation of Range Resources Corporation (incorporated by reference to Exhibit 3.1 to our Form 10-Q (File No. 001-12209) as filed with the SEC on July 28, 2005) and the Certificate of Second Amendment to Restated Certificate of Incorporation of Range Resources Corporation (incorporated by reference to Exhibit 3.1 to our Form 10-Q (File No. 001-12209) as filed with the SEC on July 24, 2008)
3.2	Amended and Restated By-laws of Range Resources Corporation (incorporated by reference to Exhibit 3.1 to our Form 8-K (File No. 001-12209) as filed with the SEC on May 19, 2016)
4.1	Second Supplemental Indenture, by and among Range Resources Corporation, the guarantors named therein and The Bank of New York Mellon Trust Company, N.A., dated as of August 23, 2016 (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K (File No. 001-12209) as filed with the SEC on August 23, 2016)
4.2	Second Supplemental Indenture, by and among Range Resources Corporation, the guarantors named therein and The Bank of New York Mellon Trust Company, N.A., dated as of August 23, 2016 (incorporated by reference to Exhibit 4.2 to our Current Report on Form 8-K (File No. 001-12209) as filed with the SEC on August 23, 2016)
4.3	First Supplemental Indenture, by and among Range Resources Corporation, the guarantors named therein and U.S. Bank National Association, dated as of August 23, 2016 (incorporated by reference to Exhibit 4.3 to our Current Report on Form 8-K (File No. 001-12209) as filed with the SEC on August 23, 2016)
4.4	Indenture, by and among Range Resources Corporation, the guarantors named therein and U.S. Bank National Association, dated as of September 16, 2016, in respect of 5.75% senior notes due 2021 (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K (File No. 001-12209) as filed with the SEC on September 19, 2016)
4.5	Indenture, by and among Range Resources Corporation, the guarantors named therein and U.S. Bank National Association, dated as of September 16, 2016, in respect of 5.00% senior notes due 2022 (incorporated by reference to Exhibit 4.2 to our Current Report on Form 8-K (File No. 001-12209) as filed with the SEC on September 19, 2016)
4.6	Indenture, by and among Range Resources Corporation, the guarantors named therein and U.S. Bank National Association, dated as of September 16, 2016, in respect of 5.00% senior notes due 2023 (incorporated by reference to Exhibit 4.3 to our Current Report on Form 8-K (File No. 001-12209) as filed with the SEC on September 19, 2016)
4.7	Indenture, by and among Range Resources Corporation, the guarantors named therein and U.S. Bank National Association, dated as of September 16, 2016, in respect of 5.875% senior notes due 2022 (incorporated by reference to Exhibit 4.4 to our Current Report on Form 8-K (File No. 001-12209) as filed with the SEC on September 19, 2016)
4.8	Registration Rights Agreement, by and among Range Resources Corporation, the guarantors named therein, and Merrill Lynch, Pierce, Fenner & Smith Incorporated, Citigroup Global Markets Inc. and J.P. Morgan Securities LLC, the dealer managers for the offers (the "Dealer Managers"), dated as of September 16, 2016, in respect of 5.75% senior notes due 2021 (incorporated by reference to Exhibit 4.5 to our Current Report on Form 8-K (File No. 001-12209) as filed with the SEC on September 19, 2016)
4.9	Registration Rights Agreement, by and among Range Resources Corporation, the guarantors named therein and the Dealer Managers, dated as of September 16, 2016, in respect of 5.00% senior notes due 2022 (incorporated by reference to Exhibit 4.6 to our Current Report on Form 8-K (File No. 001-12209) as filed with the SEC on September 19, 2016)
4.10	Registration Rights Agreement, by and among Range Resources Corporation, the guarantors named therein and the Dealer Managers, dated as of September 16, 2016, in respect of 5.00% senior notes due 2023 (incorporated by reference to Exhibit 4.7 to our Current Report on Form 8-K (File No. 001-12209) as filed with the SEC on September 19, 2016)

Exhibit Number	Exhibit Description
4.11	Registration Rights Agreement, by and among Range Resources Corporation, the guarantors named therein and the Dealer Managers, dated as of September 16, 2016, in respect of 5.875% senior notes due 2022 (incorporated by reference to Exhibit 4.8 to our Current Report on Form 8-K (File No. 001-12209) as filed with the SEC on September 19, 2016)
10.1	Voting Support and Nomination Agreement, dated as of August 7, 2016, by and among Range Resources Corporation, SailingStone Capital Partners LLC, SailingStone Holdings LLC, MacKenzie B. Davis and Kenneth L. Settles Jr. (incorporated by reference to Exhibit 99.1 to our Current Report on Form 8-K (File No. 001-12209) as filed with the SEC on August 8, 2016)
31.1*	Certification by the President and Chief Executive Officer of Range Resources Corporation Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2*	Certification by the Chief Financial Officer of Range Resources Corporation Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1**	Certification by the President and Chief Executive Officer of Range Resources Corporation Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2**	Certification by the Chief Financial Officer of Range Resources Corporation Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101. INS*	XBRL Instance Document
101. SCH*	XBRL Taxonomy Extension Schema
101. CAL*	XBRL Taxonomy Extension Calculation Linkbase Document
101. DEF*	XBRL Taxonomy Extension Definition Linkbase Document
101. LAB*	XBRL Taxonomy Extension Label Linkbase Document
101. PRE*	XBRL Taxonomy Extension Presentation Linkbase Document

* filed herewith

** furnished herewith

CERTIFICATION OF CHIEF EXECUTIVE OFFICER

I, Jeff L. Ventura, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Range 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 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;
 - (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;
 - (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; and
5. The registrant’s other certifying officer 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: October 25, 2016

/s/ JEFF L. VENTURA

Jeff L. Ventura
President and Chief Executive Officer

CERTIFICATION OF CHIEF FINANCIAL OFFICER

I, Roger S. Manny, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Range 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 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;
 - (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;
 - (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; and
5. The registrant’s other certifying officer 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: October 25, 2016

/s/ ROGER S. MANNY

Roger S. Manny
Executive Vice President and Chief Financial Officer

**CERTIFICATION OF
PRESIDENT AND CHIEF EXECUTIVE OFFICER
OF RANGE RESOURCES CORPORATION
PURSUANT TO 18 U.S.C. SECTION 1350 AS ADOPTED
PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report on Form 10-Q for the period ending September 30, 2016 and filed with the Securities and Exchange Commission on the date hereof (the "Report") and pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, I, Jeff L. Ventura, President and Chief Executive Officer of Range Resources Corporation (the "Company"), hereby certify that, to my knowledge:

1. The Report 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 the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

By: /s/ JEFF L. VENTURA
Jeff L. Ventura

October 25, 2016

**CERTIFICATION OF
CHIEF FINANCIAL OFFICER
OF RANGE RESOURCES CORPORATION
PURSUANT TO 18 U.S.C. SECTION 1350 AS ADOPTED
PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report on Form 10-Q for the period ending September 30, 2016 and filed with the Securities and Exchange Commission on the date hereof (the "Report") and pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, I, Roger S. Manny, Chief Financial Officer of Range Resources Corporation (the "Company"), hereby certify that, to my knowledge:

1. The Report 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 the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

By: /s/ ROGER S. MANNY
Roger S. Manny

October 25, 2016