

**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, 2020

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: 1-13283



**PENN VIRGINIA
CORPORATION**

PENN VIRGINIA CORPORATION
(Exact name of registrant as specified in its charter)

Virginia

(State or other jurisdiction of
incorporation or organization)

23-1184320

(I.R.S. Employer
Identification Number)

16285 PARK TEN PLACE, SUITE 500

HOUSTON, TX 77084

(Address of principal executive offices) (Zip Code)

(713) 722-6500

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act

Title of each class

Common Stock, \$0.01 Par Value

Trading Symbol(s)

PVAC

Name of each exchange on which registered

Nasdaq Global Select Market

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 ("Exchange Act") during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

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

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

Large Accelerated Filer

Non-accelerated Filer

Accelerated Filer

Smaller Reporting Company

Emerging Growth Company

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

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

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Exchange Act subsequent to the distribution of securities under a plan confirmed by a court. Yes No

As of October 30, 2020, 15,200,435 shares of common stock of the registrant were outstanding.

PENN VIRGINIA CORPORATION
QUARTERLY REPORT ON FORM 10-Q
For the Quarterly Period Ended September 30, 2020

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Part I. FINANCIAL INFORMATION

Item 1. Financial Statements.

PENN VIRGINIA CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS – unaudited
(in thousands, except per share data)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Revenues				
Crude oil	\$ 63,227	\$ 110,618	\$ 190,732	\$ 319,461
Natural gas liquids	2,824	3,546	6,295	12,596
Natural gas	2,563	4,215	7,273	13,782
Gain on sales of assets, net	—	77	14	118
Other revenues, net	797	848	1,958	1,342
Total revenues	69,411	119,304	206,272	347,299
Operating expenses				
Lease operating	8,275	11,868	27,901	33,234
Gathering, processing and transportation	5,760	6,600	16,797	16,937
Production and ad valorem taxes	4,368	7,401	13,152	20,672
General and administrative	8,585	6,876	23,801	20,173
Depreciation, depletion and amortization	37,038	46,519	114,891	129,687
Impairments of oil and gas properties	235,989	—	271,498	—
Total operating expenses	300,015	79,264	468,040	220,703
Operating income (loss)	(230,604)	40,040	(261,768)	126,596
Other income (expense)				
Interest expense	(7,497)	(8,736)	(24,213)	(27,270)
Derivatives	(6,891)	24,248	109,879	(30,166)
Other, net	21	(248)	(42)	(134)
Income (loss) before income taxes	(244,971)	55,304	(176,144)	69,026
Income tax (expense) benefit	1,558	(942)	1,110	(1,736)
Net income (loss)	\$ (243,413)	\$ 54,362	\$ (175,034)	\$ 67,290
Net income (loss) per share:				
Basic	\$ (16.03)	\$ 3.60	\$ (11.54)	\$ 4.45
Diluted	\$ (16.03)	\$ 3.59	\$ (11.54)	\$ 4.44
Weighted average shares outstanding – basic	15,183	15,110	15,168	15,105
Weighted average shares outstanding – diluted	15,183	15,160	15,168	15,165

See accompanying notes to condensed consolidated financial statements.

PENN VIRGINIA CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME – unaudited
(in thousands)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Net income (loss)	\$ (243,413)	\$ 54,362	\$ (175,034)	\$ 67,290
Other comprehensive loss:				
Change in pension and postretirement obligations, net of tax	(2)	—	(4)	(2)
	(2)	—	(4)	(2)
Comprehensive income (loss)	<u>\$ (243,415)</u>	<u>\$ 54,362</u>	<u>\$ (175,038)</u>	<u>\$ 67,288</u>

See accompanying notes to condensed consolidated financial statements.

PENN VIRGINIA CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEETS – unaudited
(in thousands, except share data)

	September 30, 2020	December 31, 2019
Assets		
Current assets		
Cash and cash equivalents	\$ 20,516	\$ 7,798
Accounts receivable, net of allowance for credit losses	26,030	70,716
Derivative assets	50,414	4,131
Income taxes receivable	—	1,236
Other current assets	12,836	4,458
Total current assets	109,796	88,339
Property and equipment, net (full cost method)	835,500	1,120,425
Derivative assets	2,619	2,750
Other assets	5,259	6,724
Total assets	<u>\$ 953,174</u>	<u>\$ 1,218,238</u>
Liabilities and Shareholders' Equity		
Current liabilities		
Accounts payable and accrued liabilities	\$ 48,345	\$ 105,824
Derivative liabilities	22,861	23,450
Total current liabilities	71,206	129,274
Other liabilities	8,443	8,382
Deferred income taxes	1,393	1,424
Derivative liabilities	5,542	3,385
Long-term debt, net	518,858	555,028
Commitments and contingencies (Note 12)		
Shareholders' equity:		
Preferred stock of \$0.01 par value – 5,000,000 shares authorized; none issued	—	—
Common stock of \$0.01 par value – 45,000,000 shares authorized; 15,200,435 and 15,135,598 shares issued as of September 30, 2020 and December 31, 2019, respectively	152	151
Paid-in capital	202,766	200,666
Retained earnings	144,877	319,987
Accumulated other comprehensive loss	(63)	(59)
Total shareholders' equity	347,732	520,745
Total liabilities and shareholders' equity	<u>\$ 953,174</u>	<u>\$ 1,218,238</u>

See accompanying notes to condensed consolidated financial statements.

PENN VIRGINIA CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS – unaudited
(in thousands)

	Nine Months Ended September 30,	
	2020	2019
Cash flows from operating activities		
Net income (loss)	\$ (175,034)	\$ 67,290
Adjustments to reconcile net income (loss) to net cash provided by operating activities:		
Depreciation, depletion and amortization	114,891	129,687
Impairments of oil and gas properties	271,498	—
Derivative contracts:		
Net (gains) losses	(109,879)	30,166
Cash settlements and premiums received (paid), net	65,295	(4,330)
Deferred income tax expense (benefit)	(31)	2,972
Gain on sales of assets, net	(14)	(118)
Non-cash interest expense	3,336	2,544
Share-based compensation	2,582	3,101
Other, net	23	39
Changes in operating assets and liabilities, net	17,056	12,862
Net cash provided by operating activities	<u>189,723</u>	<u>244,213</u>
Cash flows from investing activities		
Acquisitions, net	—	(5,956)
Capital expenditures	(139,010)	(291,733)
Proceeds from sales of assets, net	83	215
Net cash used in investing activities	<u>(138,927)</u>	<u>(297,474)</u>
Cash flows from financing activities		
Proceeds from credit facility borrowings	51,000	62,400
Repayment of credit facility borrowings	(89,000)	(13,000)
Debt issuance costs paid	(78)	(2,616)
Net cash provided by (used in) financing activities	<u>(38,078)</u>	<u>46,784</u>
Net increase (decrease) in cash and cash equivalents	12,718	(6,477)
Cash and cash equivalents – beginning of period	7,798	17,864
Cash and cash equivalents – end of period	<u>\$ 20,516</u>	<u>\$ 11,387</u>
Supplemental disclosures:		
Cash paid for:		
Interest, net of amounts capitalized	\$ 20,959	\$ 24,721
Income taxes, net of (refunds)	\$ (2,471)	\$ —
Reorganization items, net	\$ —	\$ 79
Non-cash investing and financing activities:		
Changes in accounts receivable related to acquisitions	\$ —	\$ (152)
Changes in accrued liabilities related to acquisitions	\$ —	\$ (504)
Changes in accrued liabilities related to capital expenditures	\$ (30,579)	\$ 2,672
Changes in other liabilities for asset retirement obligations related to acquisitions	\$ —	\$ 83

See accompanying notes to condensed consolidated financial statements

PENN VIRGINIA CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS – unaudited
For the Quarterly Period Ended September 30, 2020
(in thousands, except per share amounts or where otherwise indicated)

1. Nature of Operations

Penn Virginia Corporation (together with its consolidated subsidiaries, unless the context otherwise requires, “Penn Virginia,” the “Company,” “we,” “us” or “our”) is an independent oil and gas company focused on the onshore exploration, development and production of oil, natural gas liquids (“NGLs”) and natural gas. Our current operations consist of drilling unconventional horizontal development wells and operating our producing wells in the Eagle Ford Shale (the “Eagle Ford”) in Gonzales, Lavaca, Fayette and DeWitt Counties in South Texas. We operate in and report our financial results and disclosures as one segment, which is the exploration, development and production of crude oil, NGLs and natural gas.

2. Basis of Presentation

Our unaudited Condensed Consolidated Financial Statements include the accounts of Penn Virginia and all of our subsidiaries. Intercompany balances and transactions have been eliminated. Our Condensed Consolidated Financial Statements have been prepared in conformity with accounting principles generally accepted in the United States of America (“GAAP”). Preparation of these statements involves the use of estimates and judgments where appropriate. In the opinion of management, all adjustments, consisting of normal recurring accruals, considered necessary for a fair presentation of our Condensed Consolidated Financial Statements, have been included. Our Condensed Consolidated Financial Statements should be read in conjunction with the Consolidated Financial Statements and Notes included in our Annual Report on Form 10-K for the year ended December 31, 2019. Operating results for the nine months ended September 30, 2020 are not necessarily indicative of the results that may be expected for the year ending December 31, 2020.

Adoption of Recently Issued Accounting Pronouncements

Effective January 1, 2020, we adopted and began applying the relevant guidance provided in the Financial Accounting Standards Board’s (“FASB”) Accounting Standards Update (“ASU”) 2016–13, *Measurement of Credit Losses on Financial Instruments* (“ASU 2016–13”). We adopted ASU 2016–13 using the optional transition approach with a charge to the beginning balance of retained earnings as of January 1, 2020 (see Note 4 for the impact and disclosures associated with the adoption of ASU 2016–13). Comparative periods and related disclosures have not been restated for the application of ASU 2016–13.

Risks and Uncertainties

As an oil and gas exploration and development company, we are exposed to a number of risks and uncertainties that are inherent to our industry. In addition to such industry-specific risks, the global public health crisis associated with the novel coronavirus (“COVID-19”) has, and is anticipated to continue to have, an adverse effect on global economic activity for the immediate future and has resulted in travel restrictions, business closures, limitations to person-to-person contact and the institution of quarantining and other restrictions on movement in many communities. The slowdown in global economic activity attributable to COVID-19 has resulted in a dramatic decline in the demand for energy, which directly impacts our industry and the Company. In addition, global crude oil prices experienced a collapse starting in early March 2020 as a direct result of disagreements between the Organization of the Petroleum Exporting Countries (“OPEC”) and Russia (together with OPEC, collectively “OPEC+”) with respect to production curtailments. Production curtailment allocations were ultimately agreed to by OPEC+ in the second quarter of 2020 and while these curtailment efforts have generally held through the third quarter of 2020 leading to a modest recovery in prices from their historic lows at the height of the COVID-19 pandemic, the group is scheduled to formally meet again at the end of November 2020 to assess the circumstances heading into 2021.

Despite a significant decline in drilling by U.S. producers that began in mid-March 2020, domestic supply and demand imbalances continue to create operational stress with respect to capacity limitations associated with storage, pipeline and refining infrastructure, particularly within the Gulf Coast region. Limited progress in containing the COVID-19 pandemic domestically, including the effects of recent spikes in many regions of the United States, including Texas, has hampered economic recovery. Furthermore, government stimulus and economic relief efforts are uncertain and additional economic support may be required in order to stabilize and enhance current domestic economic activity levels. These efforts are further impacted by election year uncertainties and related political conflicts. The combined effect of these global and domestic factors is anticipated to have a continuing adverse impact on the industry in general and our operations specifically.

During 2020, we initiated several actions to mitigate the anticipated adverse economic conditions for the immediate future and to support our financial position and liquidity. The more significant actions that we took during that time included: (i) temporarily suspending our drilling program from April through September 2020, (ii) curtailing production through selected well shut-ins for a period of several weeks in April and May, (iii) securing crude oil storage capacity (see Note 12) in order to maintain a reasonable level of production to (a) allow for the continued marketing of NGLs and natural gas rather than delaying revenues through additional shut-ins and (b) capitalize on potential increases in commodity prices, (iv) substantially expanding the scope and range of our commodity derivatives portfolio (see Note 5), (v) utilizing certain provisions of the Coronavirus Aid, Relief and Economic Security Act (the “CARES Act”) and related regulations, the most significant of which resulted in the receipt in June 2020 of an accelerated refund of our remaining refundable alternative minimum tax (“AMT”) credit carryforwards in the amount of \$2.5 million and (vi) elimination of annual cost-of-living and similar adjustments to our salaries and wages for 2020, and in July 2020, a limited reduction-in-force (“RIF”). We incurred and paid employee termination and severance benefits of approximately \$0.2 million in connection with the limited RIF and those costs have been included in G&A.

Executive Transition

In August 2020, we appointed Darrin Henke our new president and chief executive officer, or CEO, and director following the retirement of John Brooks. We incurred incremental G&A costs of approximately \$1.2 million, in connection with Mr. Henke’s appointment and Mr. Brooks’ separation.

Going Concern Presumption

Our unaudited Condensed Consolidated Financial Statements have been prepared on a going concern basis, which contemplates the realization of assets and the satisfaction of liabilities and other commitments in the normal course of business.

Subsequent Events

On November 2, 2020, we entered into the following agreements in connection with the previously announced strategic transaction between the Company and certain affiliates of Juniper Capital Advisors, L.P. (“Juniper”):

- a Contribution Agreement (the “Contribution Agreement”), among the Company, a newly formed subsidiary of the Company (the “Partnership”), and an affiliate of Juniper (“Purchaser”), pursuant to which, among other things, upon the satisfaction of the terms and conditions set forth therein, (i) the Company will contribute to the Partnership all of its equity interests in Penn Virginia Holding Corp., a Delaware corporation, that will be converted into a limited liability company prior to the closing date of the Transactions (as defined below) (the “Closing Date”), in exchange for a number of newly issued common units representing limited partner interests of the Partnership (the “Common Units”) equal to the number of shares of the Company’s common stock outstanding as of the Closing Date and (ii) Purchaser will contribute to the Partnership, as a capital contribution, \$150 million in exchange for 17,142,857 newly issued Common Units. In addition, the Company will issue to Purchaser 171,429 shares of newly designated Series A Preferred Stock, par value \$0.01, of the Company (the “Preferred Stock”) (which Preferred Stock will be a non-economic voting interest), at a price equal to the par value of the shares acquired (such transactions contemplated by the Contribution Agreement, the “Equity Transaction”); and
- an Asset Contribution Agreement (the “Asset Agreement”), by and among Rocky Creek Resources, LLC, an affiliate of Juniper (“Rocky Creek”), the Company and the Partnership, pursuant to which the Company will purchase certain oil and gas leasehold and other real and personal property interests in Lavaca County, Texas and Fayette County, Texas and assume certain liabilities from Rocky Creek, in exchange for 4,959,000 newly issued Common Units at a price per unit of \$7.74, or \$38,382,660 in the aggregate, subject to adjustment as set forth therein. In addition Rocky Creek will acquire 49,590 shares of Preferred Stock at a price equal to the par value of the shares acquired (such transactions contemplated by the Asset Agreement, the “Asset Transaction” and together with the Equity Transaction, the “Transactions”).

After completion of the Transactions, Juniper is expected to own approximately 59 percent of Penn Virginia’s equity. As part of the transaction, Juniper will be restricted from selling any of its equity securities in Penn Virginia for six months following the closing of the transaction.

We expect to use \$50.0 million of the cash proceeds to pay down and restructure our \$200 million Second Lien Credit Agreement dated as of September 29, 2017 (the “Second Lien Facility”), with the balance of the cash proceeds used to significantly reduce the amount outstanding under our credit agreement (the “Credit Facility”) and to pay transaction fees and expenses.

Following the closing, Edward Geiser, Juniper’s Managing Partner, will serve as Penn Virginia’s Chairman of the Board, and Juniper will appoint four additional members to the Board. Darrin Henke and the other members of our senior management are expected to continue in their roles, and the Company’s current directors, including Mr. Henke, will remain on the Board immediately following the closing.

On November 2, 2020, we also entered into an amendment to the Second Lien Facility. Upon the consummation of the Transactions and the satisfaction of certain other conditions precedent, including the prepayment of \$50 million of outstanding advances under the Second Lien Facility and the prepayment of \$100 million of outstanding loans under the Credit Facility (less all applicable costs, fees and expenses in connection with the Transactions and the Second Lien Facility and Credit Facility), the amendment provides that, among other things, the Second Lien Facility will be automatically amended to (1) extend the maturity date of the Second Lien Facility to September 29, 2024 (the "Maturity Date"), (2) increase the margin applicable to advances under the Second Lien Facility; (3) impose certain limitations on capital expenditures, acquisitions and investments if the Asset Coverage Ratio (as defined therein) at the end of any fiscal quarter is less than 1.25 to 1.00 and (4) require maximum and, in certain circumstances as described therein, minimum hedging arrangements. In addition, upon the consummation of the Transactions and the satisfaction of certain other conditions precedent, the guarantee of the Company will be released and the Partnership will become a guarantor.

Upon the effective date of the amendment, we will be required to make quarterly amortization payments equal to \$1,875,000, and outstanding borrowings under the Second Lien Facility will bear interest at a rate equal to, at the option of the borrower, either (a) customary reference rate based on the prime rate plus an applicable margin of 8.25% or (b) a customary London interbank offered rate ("LIBOR") plus an applicable margin of 7.25%; provided that the applicable margin will increase to 9.25% and 8.25% respectively during any quarter in which the quarterly amortization payment is not made.

The Transactions are expected to close in the first quarter of 2021, subject to the satisfaction of customary closing conditions, including obtaining the requisite shareholder and regulatory approvals as well as approval under the Credit Facility.

Each of the Contribution Agreement and Asset Agreement contain certain termination rights. The Contribution Agreement provides that, upon termination of the Contribution Agreement under certain circumstances, we would be required to pay Purchaser a termination fee equal to \$7,500,000 or reimburse Purchaser for certain expenses. The Asset Agreement provides that, upon termination of the Asset Agreement under certain circumstances, we would be required to pay Rocky Creek a termination fee equal to \$1,919,133 or reimburse Rocky Creek for certain expenses. In the event the Company is required to reimburse either the Purchaser's or Rocky Creek's expenses, the expense reimbursement under the Asset Agreement and Contribution Agreement will not exceed \$2,826,000 in aggregate.

During the third quarter of 2020, we incurred certain professional fees and consulting costs of approximately \$0.5 million in connection with the Transactions which were recognized in G&A.

Management has evaluated all of our activities through the issuance date of our Condensed Consolidated Financial Statements and has concluded that, other than the aforementioned Transactions, no subsequent events have occurred that would require recognition in our Condensed Consolidated Financial Statements or disclosure in the Notes thereto.

3. Acquisitions

Eagle Ford Working Interests

In 2019, we acquired working interests in certain properties for which we are the operator from our joint venture partners therein for cash consideration of approximately \$6.5 million. Funding for this acquisition was provided by borrowings under the Credit Facility.

4. Accounts Receivable and Revenues from Contracts with Customers

Accounts Receivable and Major Customers

The following table summarizes our accounts receivable by type as of the dates presented:

	September 30,		December 31,	
	2020		2019	
Customers	\$	24,443	\$	63,165
Joint interest partners		1,741		6,929
Other		—		674
		26,184		70,768
Less: Allowance for credit losses		(154)		(52)
	\$	26,030	\$	70,716

For the nine months ended September 30, 2020, three customers accounted for \$113.4 million, or approximately 56%, of our consolidated product revenues. The revenues generated from these customers during the nine months ended September 30, 2020, were \$46.0 million, \$40.4 million and \$27.0 million, or 23%, 20% and 13% of the consolidated total, respectively. As of September 30, 2020 and December 31, 2019, \$17.9 million and \$34.6 million, or approximately 73% and 55%, respectively, of our consolidated accounts receivable from customers was related to these customers. For the nine months ended September 30, 2019, four customers accounted for \$261.4 million, or approximately 76%, of our consolidated product revenues. No significant uncertainties exist related to the collectability of amounts owed to us by any of these customers. As of September 30, 2020 and December 31, 2019, the allowance for credit losses is entirely attributable to receivables from joint interest partners.

Credit Losses and Allowance for Credit Losses

Adoption of ASU 2016-13

Effective January 1, 2020, we adopted ASU 2016-13 and have applied the guidance therein to our portfolio of accounts receivable including those from our customers and our joint interest partners. We have adopted ASU 2016-13 using the modified retrospective method resulting in an adjustment of less than \$0.1 million to the beginning balance of retained earnings and a corresponding increase to the allowance for credit losses as of January 1, 2020.

Accounting Policies for Credit Losses

We monitor and assess our portfolio of accounts receivable, including those from our customers, our joint interest partners and others, when applicable, for credit losses on a monthly basis as we originate the underlying financial assets. Our review process and related internal controls take into appropriate consideration (i) past events and historical experience with the identified portfolio segments, (ii) current economic and related conditions within the broad energy industry as well as those factors with broader applicability and (iii) reasonable supportable forecasts consistent with other estimates that are inherent in our financial statements. In order to facilitate our processes for the review and assessment of credit losses, we have identified the following portfolio segments which are described below: (i) customers for our commodity production and (ii) joint interest partners which are further stratified into the following sub-segments: (a) mutual operators which includes joint interest partners with whom we are a non-operating joint interest partner in properties for which they are the operator, (b) large partners consisting of those legal entities that maintain a working interest of at least 10 percent in properties for which we are the operator and (c) all others which includes legal entities that maintain working interests of less than 10 percent in properties for which we are the operator as well as legal entities with whom we no longer have an active joint interest relationship, but continue to have transactions, including joint venture audit settlements, that from time-to-time give rise to the origination of new accounts receivable.

Customers. We sell our commodity products to approximately 20 customers. A substantial majority of these customers are large, internationally recognized refiners and marketers in the case of our crude oil sales and large domestic processors and interstate pipelines with respect to our NGL and natural gas sales. As noted in our disclosures regarding major customers above, a significant portion of our outstanding customer accounts receivable are concentrated within a group of up to five customers at any given time. Due primarily to the historical market efficiencies and generally timely settlements associated with commodity sale transactions for crude oil, NGLs and natural gas, we have assessed this portfolio segment at zero risk for credit loss upon the adoption of ASU 2016-13 and for each of the nine months included in the period ended September 30, 2020. Historically, we have never experienced a credit loss with such customers including the periods during the 2008-2009 financial crisis and the more recent periods of significant commodity price declines. While we believe that the receivables that originated in September 2020 will be fully collected despite the ongoing uncertainty associated with the COVID-19 pandemic and the related global energy market disruptions, future originations of customer receivables will continue to be assessed with a greater emphasis on current economic conditions and reasonable supportable forecasts.

Mutual Operators. As of September 30, 2020, we had mutual joint interest partner relationships with three upstream producers that also operate properties within the Eagle Ford for which we have non-operated working interests. Historically we have had full and timely collection experiences with these entities and we ourselves are timely with respect to our payments to them of joint venture costs. Upon adoption of ASU 2016–13, we had assessed this portfolio segment at zero risk for credit loss; however, in light of the potential for liquidity concerns due to current economic conditions in the near-term, we have assessed receivables originating in 2020 with a five percent risk.

Large Partners. As of September 30, 2020, four legal entities had working interests of 10 percent or greater in properties that we operate. These entities are primarily passive investors. Historically we have had full and timely collection experiences with these entities. Upon adoption of ASU 2016–13, we had assessed this portfolio segment at a risk of one percent for credit loss; however, in light of the potential for liquidity concerns due to current economic conditions in the near-term, we have increased the assessed receivables originating in 2020 to a two percent risk.

All Others. As of September 30, 2020, approximately 30 legal entities had working interests of less than 10 percent in properties that we operate. Historically, this is the only portfolio segment with whom we have experienced credit losses. Generally, this group includes passive investors and smaller producers that may not have the wherewithal or alternative sources of liquidity to settle their obligations to us in the event of individual challenges unique to smaller entities as well as adverse economic conditions in general. Upon adoption of ASU 2016–13, we had assessed this portfolio segment at a risk of five percent for credit loss; however, in light of the potential for liquidity concerns due to current economic conditions in the near-term, we have increased the assessed receivables originated in 2020 to a 10 percent risk. As of September 30, 2020, approximately \$0.2 million of accounts receivables attributable to this portfolio segment was past due, or over 60 days.

Supplemental Disclosures

The following table summarizes the activity in our allowance for credit losses, by portfolio segment, for the nine months ended September 30, 2020:

	Joint Interest Partners					Total
	Customers	Mutual Operators	Large Partners	All Others		
Balance at beginning of period	\$ —	\$ —	\$ —	\$ 52	\$ —	\$ 52
Adjustment upon adoption	—	—	60	16	—	76
Provision for expected credit losses	—	5	7	14	—	26
Write-offs and recoveries	—	—	—	—	—	—
Balance at end of period	\$ —	\$ 5	\$ 67	\$ 82	\$ —	\$ 154

5. Derivative Instruments

We utilize derivative instruments, typically swaps, put options and call options which are placed with financial institutions that we believe are acceptable credit risks, to mitigate our financial exposure to commodity price volatility associated with anticipated sales of our future production and volatility in interest rates attributable to our variable rate debt instruments. Our derivative instruments are not formally designated as hedges in the context of GAAP. While the use of derivative instruments limits the risk of adverse commodity price and interest rate movements, such use may also limit the beneficial impact of future product revenues and interest expense from favorable commodity price and interest rate movements. From time to time, we may enter into incremental derivative contracts in order to increase the notional volume of production we are hedging, restructure existing derivative contracts or enter into other derivative contracts resulting in modification to the terms of existing contracts. In accordance with our internal policies, we do not utilize derivative instruments for speculative purposes.

Commodity Derivatives

The following is a general description of the commodity derivative instruments we have employed:

Swaps. A swap contract is an agreement between two parties pursuant to which the parties exchange payments at specified dates on the basis of a specified notional amount, or the swap price, with the payments calculated by reference to specified commodities or indexes. The counterparty to a swap contract is required to make a payment to us based on the amount of the swap price in excess of the settlement price multiplied by the notional volume if the settlement price for any settlement period is below the swap price for such contract. We are required to make a payment to the counterparty based on the amount of the settlement price in excess of the swap price multiplied by the notional volume if the settlement price for any settlement period is above the swap price for such contract.

Put Options. A put option has a defined strike, or floor price. We have entered into put option contracts in the roles of buyer and seller depending upon our particular hedging objective. The buyer of the put option pays the seller a premium to enter into the contract. When the settlement price is below the floor price, the seller pays the buyer an amount equal to the difference between the settlement price and the strike price multiplied by the notional volume. When the settlement price is above the floor price, the put option expires worthless. Certain of our purchased put options have deferred premiums. For the deferred premium puts, we agree to pay a premium to the counterparty at the time of settlement.

Call Options. A call option has a defined strike, or ceiling price. We have entered into call option contracts in the roles of buyer and seller depending upon our particular hedging objective. The buyer of the call option pays the seller a premium to enter into the call option. When the settlement price is above the ceiling price, the seller pays the buyer an amount equal to the difference between the settlement price and the strike price multiplied by the notional volume. When the settlement price is below the ceiling price, the call option expires worthless.

We typically combine swaps, purchased put options, purchased call options, sold put options and sold call options in order to achieve various hedging objectives. Certain of these objectives result in combinations that operate as collars which include purchased put options and sold call options, three-way collars which include purchased put options, sold put options and sold call options, and enhanced swaps, which include either sold put options or sold call options with the associated premiums rolled into an enhanced fixed price swap, among others.

We determine the fair values of our commodity derivative instruments using industry-standard models that consider various assumptions, including current market value and contractual prices for the underlying instruments, implied volatilities, time value and nonperformance risk. For the current market prices, we use third-party quoted forward prices, as applicable, for NYMEX West Texas Intermediate (“NYMEX WTI”), Magellan East Houston (“MEH”) crude oil and NYMEX Henry Hub (“NYMEX HH”) natural gas closing prices as of the end of the reporting period. Nonperformance risk is incorporated by utilizing discount rates adjusted for the credit risk of our counterparties if the derivative is in an asset position, and our own credit risk if the derivative is in a liability position.

The following table sets forth our commodity derivative positions, presented on a net basis by period of maturity, as of September 30, 2020:

	4Q2020	1Q2021	2Q2021	3Q2021	4Q2021
NYMEX WTI Crude Swaps					
Average Volume Per Day (barrels)	10,174	3,333	3,297		
Weighted Average Swap Price (\$/barrel)	\$ 57.59	\$ 55.89	\$ 55.89		
NYMEX WTI Purchased Puts/Sold Calls					
Average Volume Per Day (barrels)	2,000	6,667	6,593	4,891	4,891
Weighted Average Purchased Put Price (\$/barrel)	\$ 48.00	\$ 44.50	\$ 44.50	\$ 40.67	\$ 40.67
Weighted Average Sold Call (\$/barrel)	\$ 57.10	\$ 53.53	\$ 53.53	\$ 53.50	\$ 53.50
NYMEX WTI Sold Puts					
Average Volume Per Day (barrels)	3,783	11,667	11,538	4,891	4,891
Weighted Average Sold Put Price (\$/barrel)	\$ 43.55	\$ 36.93	\$ 36.93	\$ 35.00	\$ 35.00
MEH-WTI Basis Swaps					
Average Volume Per Day (barrels)	6,348				
Weighted Average Fixed Basis Price (\$/barrel)	\$ 1.31				
NYMEX WTI Crude CMA Roll Basis Swaps					
Average Volume Per Day (barrels)	2,174				
Weighted Average Swap Price (\$/barrel)	\$ (0.42)				
NYMEX HH Purchased Puts/Sold Calls					
Average Volume Per Day (MMBtus)	12,804	10,000	9,890	9,783	9,783
Weighted Average Purchased Put (\$/MMBtu)	\$ 2.00	\$ 2.61	\$ 2.61	\$ 2.61	\$ 2.61
Weighted Average Sold Call (\$/MMBtu)	\$ 2.21	\$ 3.12	\$ 3.12	\$ 3.12	\$ 3.12
NYMEX HH Sold Puts					
Average Volume Per Day (MMBtus)		6,667	6,593	6,522	6,522
Weighted Average Sold Put Price (\$/MMBtus)		\$ 2.00	\$ 2.00	\$ 2.00	\$ 2.00

As of September 30, 2020, we were unhedged with respect to NGL production.

Interest Rate Derivatives

We have entered into a series of interest rate swap contracts (the “Interest Rate Swaps”) to establish fixed interest rates on a portion of our variable interest rate indebtedness under the Credit Facility and the Second Lien Facility. The notional amount of the Interest Rate Swaps totals \$300 million, with us paying a weighted average fixed rate of 1.36% on the notional amount, and the counterparties paying a variable rate equal to LIBOR through May 2022.

Financial Statement Impact of Derivatives

The impact of our derivative activities on income is included in the “Derivatives” caption on our Condensed Consolidated Statements of Operations. The effects of derivative gains and (losses) and cash settlements are reported as adjustments to reconcile net income to net cash provided by operating activities. These items are recorded in the “Derivative contracts” section of our Condensed Consolidated Statements of Cash Flows under “Net (gains) losses” and “Cash settlements, net.”

The following table summarizes the effects of our derivative activities for the periods presented:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Interest rate swap gains (losses) recognized in the Consolidated Statements of Operations	\$ 32	\$ —	\$ (7,527)	\$ —
Commodity gains (losses) recognized in the Consolidated Statements of Operations	(6,923)	24,248	117,406	(30,166)
	<u>\$ (6,891)</u>	<u>\$ 24,248</u>	<u>\$ 109,879</u>	<u>\$ (30,166)</u>
Interest rate cash settlements recognized in the Consolidated Statements of Cash Flows	\$ (919)	\$ —	\$ (1,287)	\$ —
Commodity cash settlements and premiums received (paid) recognized in the Consolidated Statements of Cash Flows	7,337	(423)	66,582	(4,330)
	<u>\$ 6,418</u>	<u>\$ (423)</u>	<u>\$ 65,295</u>	<u>\$ (4,330)</u>

The following table summarizes the fair values of our derivative instruments presented on a gross basis, as well as the locations of these instruments on our Condensed Consolidated Balance Sheets as of the dates presented:

Type	Balance Sheet Location	September 30, 2020		December 31, 2019	
		Derivative	Derivative	Derivative	Derivative
		Assets	Liabilities	Assets	Liabilities
Interest rate contracts	Derivative assets/liabilities - current	\$ —	\$ 3,601	\$ —	\$ —
Commodity contracts	Derivative assets/liabilities – current	50,414	19,260	4,131	23,450
Interest rate contracts	Derivative assets/liabilities - noncurrent	—	2,639	—	—
Commodity contracts	Derivative assets/liabilities – noncurrent	2,619	2,903	2,750	3,385
		<u>\$ 53,033</u>	<u>\$ 28,403</u>	<u>\$ 6,881</u>	<u>\$ 26,835</u>

As of September 30, 2020, we reported net commodity derivative assets of \$0.9 million and net Interest Rate Swap liabilities of \$6.2 million. The contracts associated with these positions are with seven counterparties for commodity derivatives and four counterparties for Interest Rate Swaps, all of which are investment grade financial institutions and are participants in the Credit Facility. This concentration may impact our overall credit risk in that these counterparties may be similarly affected by changes in economic or other conditions.

The agreements underlying our derivative instruments include provisions for the netting of settlements with the counterparties for contracts of similar type. We have neither paid to, nor received from, our counterparties any cash collateral in connection with our derivative positions. Furthermore, our derivative contracts are not subject to margin calls or similar accelerations. No significant uncertainties exist related to the collectability of amounts that may be owed to us by these counterparties.

6. Property and Equipment

The following table summarizes our property and equipment as of the dates presented:

	September 30, 2020	December 31, 2019
Oil and gas properties:		
Proved	\$ 1,509,097	\$ 1,409,219
Unproved	52,910	53,200
Total oil and gas properties	1,562,007	1,462,419
Other property and equipment	27,495	25,915
Total properties and equipment	1,589,502	1,488,334
Accumulated depreciation, depletion and amortization	(754,002)	(367,909)
	<u>\$ 835,500</u>	<u>\$ 1,120,425</u>

Unproved property costs of \$52.9 million and \$53.2 million have been excluded from amortization as of September 30, 2020 and December 31, 2019, respectively. We transferred \$4.5 million and \$0.2 million of undeveloped leasehold costs associated with acreage unlikely to be drilled or associated with proved undeveloped reserves, including capitalized interest, from unproved properties to the full cost pool during the nine months ended September 30, 2020 and 2019, respectively. We capitalized internal costs of \$1.3 million and \$3.2 million and interest of \$2.1 million and \$3.2 million during the nine months ended September 30, 2020 and 2019, respectively, in accordance with our accounting policies. Average depreciation, depletion and amortization per barrel of oil equivalent of proved oil and gas properties was \$16.63 and \$17.47 for the nine months ended September 30, 2020 and 2019, respectively.

At the end of each quarterly reporting period, the unamortized cost of our oil and gas properties, net of deferred income taxes, is limited to the sum of the estimated discounted future net revenues from proved properties adjusted for costs excluded from amortization and related income taxes (the "Ceiling Test"). As of September 30, 2020, the carrying value of our proved oil and gas properties exceeded the limit determined by the Ceiling Test by \$236.0 million. Accordingly, we recorded an impairment of our oil and gas properties by this amount in the three months ended September 30, 2020 and, when combined with the \$35.5 million recorded in the second quarter, \$271.5 million in the nine months ended September 30, 2020. Because the Ceiling Test utilizes commodity prices based on a trailing twelve month average, it does not, as of September 30, 2020, fully reflect the substantial decline in commodity prices due to the economic impact of the COVID-19 pandemic and the ongoing disruption in global energy markets. Accordingly, we may incur additional impairments during the fourth quarter of 2020 and into the first quarter of 2021.

7. Long-Term Debt

The following table summarizes our debt obligations as of the dates presented:

	September 30, 2020		December 31, 2019	
	Principal	Unamortized Discount and Deferred Issuance Costs ^{1,2}	Principal	Unamortized Discount and Deferred Issuance Costs ^{1,2}
Credit facility	\$ 324,400		\$ 362,400	
Second lien term loan	200,000	\$ 5,542	200,000	\$ 7,372
Totals	524,400	\$ 5,542	562,400	\$ 7,372
Less: Unamortized discount ²		(1,814)		(2,415)
Less: Unamortized deferred issuance costs ^{1,2}		(3,728)		(4,957)
Long-term debt, net	<u>\$ 518,858</u>		<u>\$ 555,028</u>	

¹ Excludes issuance costs of the Credit Facility, which represent costs attributable to the access to credit over its contractual term, that have been presented as a component of Other assets (see Note 10) and are being amortized over the term of the Credit Facility using the straight-line method.

² Discount and issuance costs of the Second Lien Facility are being amortized over the term of the underlying loan using the effective-interest method.

Credit Facility

In April 2020, we entered into the Borrowing Base Redetermination Agreement and Amendment No. 7 to Credit Agreement (the “Seventh Amendment”). The Seventh Amendment, which became effective on April 30, 2020, provides a \$1.0 billion revolving commitment and initially provided for a \$400 million borrowing base, including a \$25 million sublimit for the issuance of letters of credit. The borrowing base decreased to \$375 million in accordance with the terms of the Seventh Amendment effective July 1, 2020 and, effective October 1, 2020, availability under the Credit Facility is further limited to a maximum of \$350 million until the next redetermination of the borrowing base. During the nine months ended September 30, 2020, we incurred and capitalized approximately \$0.1 million of issue and other costs associated with the Seventh Amendment and wrote-off \$0.9 million of previously capitalized issue costs due to the decrease in the borrowing base associated with the Seventh Amendment. Availability under the Credit Facility may not exceed the lesser of the aggregate commitments or the borrowing base, provided that effective October 1, 2020, availability under the Credit Facility is limited to a maximum of \$350 million. The borrowing base under the Credit Facility is redetermined semi-annually, generally in the Spring and Fall of each year. The Fall 2020 borrowing base redetermination is in process. Additionally, we and the Credit Facility lenders may, upon request, initiate a redetermination at any time during the six-month period between scheduled redeterminations. The Credit Facility is available to us for general corporate purposes, including working capital. We had \$0.4 million in letters of credit outstanding as of September 30, 2020 and December 31, 2019.

The Credit Facility is scheduled to mature in May 2024; provided that on June 30, 2022, unless we have either extended the maturity date of the Second Lien Facility described below to a date that is at least 91 days after May 7, 2024 or have repaid our Second Lien Facility in full, the maturity date of the Credit Facility will be June 30, 2022.

The outstanding borrowings under the Credit Facility bear interest at a rate equal to, at our option, either (a) a customary reference rate plus an applicable margin ranging from 1.50% to 2.50%, determined based on the utilization level under the Credit Facility or (b) a Eurodollar rate, including LIBOR through 2021, plus an applicable margin ranging from 2.50% to 3.50%, determined based on the utilization level under the Credit Facility. Interest on reference rate borrowings is payable quarterly in arrears and is computed on the basis of a year of 365/366 days, and interest on Eurodollar borrowings is payable every one, three or six months, at the election of the borrower, and is computed on the basis of a year of 360 days. As of September 30, 2020, the actual weighted-average interest rate on the outstanding borrowings under the Credit Facility was 3.41%. Unused commitment fees are charged at a rate of 0.50%.

The Credit Facility is guaranteed by us and all of our subsidiaries (the “Guarantor Subsidiaries”). The guarantees under the Credit Facility are full and unconditional and joint and several. Substantially all of our consolidated assets are held by the Guarantor Subsidiaries. There are no significant restrictions on our ability or any of the Guarantor Subsidiaries to obtain funds through dividends, advances or loans. The obligations under the Credit Facility are secured by a first priority lien on substantially all of our assets.

The Credit Facility requires us to maintain (1) a minimum current ratio (as defined in the Credit Facility, which considers the unused portion of the total commitment as a current asset), measured as of the last day of each fiscal quarter of 1.00 to 1.00 and (2) a maximum leverage ratio (consolidated indebtedness to adjusted earnings before interest, taxes, depreciation, depletion, amortization and exploration expenses, both as defined in the Credit Facility), measured as of the last day of each fiscal quarter of 3.50 to 1.00.

The Credit Facility also contains customary affirmative and negative covenants, including as to compliance with laws (including environmental laws, ERISA and anti-corruption laws), maintenance of required insurance, delivery of quarterly and annual financial statements, oil and gas engineering reports and budgets, weekly cash balance reports, maintenance and operation of property (including oil and gas properties), restrictions on the incurrence of liens and indebtedness, merger, consolidation or sale of assets, payment of dividends, and transactions with affiliates and other customary covenants. In addition, the Credit Facility contains certain anti-cash hoarding provisions, including the requirement to repay outstanding loans and cash collateralize outstanding letters of credit on a weekly basis in the amount of any cash on the balance sheet (subject to certain exceptions) in excess of \$25 million.

The Credit Facility contains events of default and remedies. If we do not comply with the financial and other covenants in the Credit Facility, the lenders may, subject to customary cure rights, require immediate payment of all amounts outstanding under the Credit Facility.

As of September 30, 2020, and through the date upon which the Condensed Consolidated Financial Statements were issued, we were in compliance with all of the covenants under the Credit Facility.

Second Lien Facility

On September 29, 2017, we entered into the Second Lien Facility. We received net proceeds of \$87.8 million from the Second Lien Facility net of an original issue discount (“OID”) of \$4.0 million and issue costs of \$8.2 million. The proceeds from the Second Lien Facility were used to fund a significant acquisition and related fees and expenses. The maturity date under the Second Lien Facility is currently September 29, 2022. In connection with the anticipated closing of the Transactions, the maturity of the Second Lien Facility will be extended to September 2024 (see the discussion in Note 2 for further detail with respect to the amendment to the Second Lien Facility dated November 2, 2020).

The outstanding borrowings under the Second Lien Facility bear interest at a rate equal to, at our option, either (a) a customary reference rate based on the prime rate plus an applicable margin of 6.00% or (b) a customary LIBOR rate, with a floor of 1.00%, plus an applicable margin of 7.00%. As of September 30, 2020, the actual interest rate of outstanding borrowings under the Second Lien Facility was 8.00%. Amounts under the Second Lien Facility were borrowed at a price of 98% with an initial interest rate of 8.34%, resulting in an effective interest rate of 9.89%. Interest on reference rate borrowings is payable quarterly in arrears and is computed on the basis of a year of 365/366 days, and interest on eurocurrency borrowings is payable every one or three months (including in three-month intervals if we select a six-month interest period), at our election and is computed on the basis of a 360-day year. We have the right, to the extent permitted under the Credit Facility and an intercreditor agreement between the lenders under the Credit Facility and the lenders under the Second Lien Facility, to prepay loans under the Second Lien Facility at any time, subject to customary “breakage” costs with respect to eurocurrency loans.

The Second Lien Facility is collateralized by substantially all of the Company’s and its subsidiaries’ assets with lien priority subordinated to the liens securing the Credit Facility. The obligations under the Second Lien Facility are guaranteed by us and the Guarantor Subsidiaries.

The Second Lien Facility has no financial covenants, but contains customary affirmative and negative covenants, including as to compliance with laws (including environmental laws, ERISA and anti-corruption laws), maintenance of required insurance, delivery of quarterly and annual financial statements, oil and gas engineering reports and budgets, maintenance and operation of property (including oil and gas properties), restrictions on the incurrence of liens and indebtedness, merger, consolidation or sale of assets, payment of dividends and transactions with affiliates and other customary covenants.

As illustrated in the table above, the OID and issue costs of the Second Lien Facility are presented as reductions to the outstanding term loans. These costs are subject to amortization using the interest method over the five-year term of the Second Lien Facility.

As of September 30, 2020, and through the date upon which the Consolidated Financial Statements were issued, we were in compliance with all of the covenants under the Second Lien Facility.

8. Income Taxes

We recognized a federal and state income tax expense for the nine months ended September 30, 2020 at the blended rate of 21.6%. The federal and state tax expense was offset by an adjustment to the valuation allowance against our net deferred tax assets resulting in an effective tax rate of 0.6%, which is fully attributable to the State of Texas. The provision also reflects a reclassification of \$1.2 million from deferred tax assets for our remaining refundable AMT credit carryforwards which were accelerated due to certain income tax provisions provided in the CARES Act. In June 2020, we received a refund of \$2.5 million for the aforementioned AMT credit carryforwards. Our net deferred income tax liability balance of \$1.4 million as of September 30, 2020 is fully attributable to the State of Texas and primarily related to property and equipment.

We recognized a federal and state income tax benefit for the nine months ended September 30, 2019 at the blended rate of 21.6%; however, the federal and state tax expense was offset by an adjustment to the valuation allowance against our net deferred tax assets resulting in an effective tax rate of 2.5% which related to Texas deferred tax expense.

We had no liability for unrecognized tax benefits as of September 30, 2020. There were no interest and penalty charges recognized during the periods ended September 30, 2020 and 2019. Tax years from 2015 forward remain open to examination by the major taxing jurisdictions to which the Company is subject; however, net operating losses originating in prior years are subject to examination when utilized.

9. Leases

Lease Arrangements and Supplemental Disclosures

We generally have lease arrangements for office facilities and certain office equipment, certain field equipment including compressors, drilling rigs, crude oil storage tank capacity, land easements and similar arrangements for rights-of-way and certain gas gathering and gas lift assets. Our short-term leases included in the disclosures below are primarily comprised of our contractual arrangements with certain vendors for operated drilling rigs, crude oil storage tank capacity and our field compressors. Our primary variable lease was represented by our field gas gathering and gas lift agreement with a midstream service provider and the lease payments are charged on a volumetric basis at a contractual fixed rate.

The following table summarizes the components of our total lease cost for the periods presented:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Operating lease cost	\$ 215	\$ 208	\$ 645	\$ 565
Short-term lease cost	2,675	9,969	18,566	33,024
Variable lease cost	5,754	6,777	16,401	17,420
Less: Amounts charged as drilling costs ¹	(1,978)	(9,224)	(16,309)	(30,865)
Total lease cost recognized in the Condensed Consolidated Statement of Operations ²	\$ 6,666	\$ 7,730	\$ 19,303	\$ 20,144

¹ Represents the combined gross amounts incurred and (i) capitalized as drilling costs for our working interest share and (ii) billed to joint interest partners for their working interest share for short-term leases of operated drilling rigs.

² Includes \$3.0 million and \$3.9 million and \$8.6 million and \$8.9 million recognized in Gathering, processing and transportation expense ("GPT"), \$ 3.5 million and \$3.6 million and \$10.1 million and \$10.7 million recognized in Lease operating expense ("LOE") for the three and nine months ended September 30, 2020 and 2019, respectively, and \$ 0.2 million and \$0.6 million recognized in G&A for each of the three and nine months ended September 30, 2020 and 2019, respectively.

The following table summarizes supplemental cash flow information related to leases for the periods presented:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Cash paid for amounts included in the measurement of lease liabilities:				
Operating cash flows from operating leases	\$ 236	\$ 221	\$ 707	\$ 442
ROU assets obtained in exchange for lease obligations:				
Operating leases ¹	\$ 82	\$ —	\$ 388	\$ 3,325

¹ Includes \$2.5 million recognized upon the adoption of Accounting Standards Codification Topic 842 ("ASC842") in 2019.

The following table summarizes supplemental balance sheet information related to leases as of the dates presented:

	September 30,	December 31,
	2020	2019
ROU assets – operating leases	\$ 2,625	\$ 2,740
Current operating lease obligations	\$ 953	\$ 847
Noncurrent operating lease obligations	1,948	2,232
Total operating lease obligations	\$ 2,901	\$ 3,079
Weighted-average remaining lease term – operating leases	3.3 years	4.1 years
Weighted-average discount rate – operating leases	3.25 %	5.97 %
Remaining maturities of operating lease obligations as of September 30, 2020:		
2020	\$ 236	
2021	936	
2022	874	
2023	872	
2024 and thereafter	145	
Total undiscounted lease payments	3,063	
Less: imputed interest	(162)	
Total operating lease obligations	\$ 2,901	

10. Supplemental Balance Sheet Detail

The following table summarizes components of selected balance sheet accounts as of the dates presented:

	September 30, 2020	December 31, 2019
Other current assets:		
Tubular inventory and well materials ¹	\$ 6,430	\$ 2,989
Prepaid expenses ¹	6,406	1,469
	<u>\$ 12,836</u>	<u>\$ 4,458</u>
Other assets:		
Deferred issuance costs of the Credit Facility, net of amortization	\$ 2,524	\$ 3,952
Right-of-use assets – operating leases	2,625	2,740
Other	110	32
	<u>\$ 5,259</u>	<u>\$ 6,724</u>
Accounts payable and accrued liabilities:		
Trade accounts payable	\$ 3,522	\$ 30,098
Drilling costs	4,651	18,832
Royalties	27,936	44,537
Production, ad valorem and other taxes	5,352	3,244
Compensation	3,877	5,272
Interest	647	730
Current operating lease obligations	953	847
Other	1,407	2,264
	<u>\$ 48,345</u>	<u>\$ 105,824</u>
Other liabilities:		
Asset retirement obligations	\$ 5,321	\$ 4,934
Noncurrent operating lease obligations	1,948	2,232
Defined benefit pension obligations	785	873
Postretirement health care benefit obligations	389	343
	<u>\$ 8,443</u>	<u>\$ 8,382</u>

¹ The balances as of September 30, 2020 include \$ 3.9 million for the purchase of certain tubular and well materials and \$ 3.6 million for the prepayment of drilling and completion services in advance of the restart of drilling projects beginning in October 2020 as well as \$0.8 million of capitalized costs associated with crude oil in storage.

11. Fair Value Measurements

We apply the authoritative accounting provisions included in GAAP for measuring the fair value of both our financial and nonfinancial assets and liabilities. Fair value is an exit price representing the expected amount we would receive upon the sale of an asset or that we would expect to pay to transfer a liability in an orderly transaction with market participants at the measurement date.

Our financial instruments that are subject to fair value disclosure consist of cash and cash equivalents, accounts receivable, accounts payable, derivatives and our Credit Facility and Second Lien Facility borrowings. As of September 30, 2020, the carrying values of all of these financial instruments approximated fair value.

Recurring Fair Value Measurements

Certain financial assets and liabilities are measured at fair value on a recurring basis on our Condensed Consolidated Balance Sheets. The following tables summarize the valuation of those assets and (liabilities) as of the dates presented:

Description	As of September 30, 2020			
	Fair Value	Fair Value Measurement Classification		
	Measurement	Level 1	Level 2	Level 3
Assets:				
Interest rate swap assets – current	\$ —	\$ —	\$ —	\$ —
Interest rate swap assets – noncurrent	\$ —	\$ —	\$ —	\$ —
Commodity derivative assets – current	\$ 50,414	\$ —	\$ 50,414	\$ —
Commodity derivative assets – noncurrent	\$ 2,619	\$ —	\$ 2,619	\$ —
Liabilities:				
Interest rate swap liabilities – current	\$ (3,601)	\$ —	\$ (3,601)	\$ —
Interest rate swap liabilities – noncurrent	\$ (2,639)	\$ —	\$ (2,639)	\$ —
Commodity derivative liabilities – current	\$ (19,260)	\$ —	\$ (19,260)	\$ —
Commodity derivative liabilities – noncurrent	\$ (2,903)	\$ —	\$ (2,903)	\$ —

Description	As of December 31, 2019			
	Fair Value	Fair Value Measurement Classification		
	Measurement	Level 1	Level 2	Level 3
Assets:				
Commodity derivative assets – current	\$ 4,131	\$ —	\$ 4,131	\$ —
Commodity derivative assets – noncurrent	\$ 2,750	\$ —	\$ 2,750	\$ —
Liabilities:				
Commodity derivative liabilities – current	\$ (23,450)	\$ —	\$ (23,450)	\$ —
Commodity derivative liabilities – noncurrent	\$ (3,385)	\$ —	\$ (3,385)	\$ —

Changes in economic conditions or model-based valuation techniques may require the transfer of financial instruments from one level of the fair value hierarchy to another level. In such instances, the transfer is deemed to have occurred at the beginning of the quarterly period in which the event or change in circumstances that caused the transfer occurred. There were no transfers during the nine months ended September 30, 2020 and 2019.

We used the following methods and assumptions to estimate fair values for the financial assets and liabilities described below:

- *Commodity derivatives:* We determine the fair values of our commodity derivative instruments using industry-standard models that consider various assumptions including current market and contractual prices for the underlying instruments, implied volatilities, time value and non-performance risk. For the current market prices, we use third-party quoted forward prices, as applicable, for NYMEX WTI, MEH crude oil and NYMEX HH natural gas closing prices as of the end of the reporting periods. Each of these is a Level 2 input.
- *Interest rate swaps:* We determine the fair values of our interest rate swaps using an income approach valuation technique that connects future cash flows to a single discounted value. We estimate the fair value of the swaps based on published interest rate yield curves as of the date of the estimate. Each of these is a Level 2 input.

Non-Recurring Fair Value Measurements

The most significant non-recurring fair value measurements utilized in the preparation of our Condensed Consolidated Financial Statements are those attributable to the initial determination of AROs associated with the ongoing development of new oil and gas properties. The determination of the fair value of AROs is based upon regional market and facility specific information. The amount of an ARO and the costs capitalized represent the estimated future cost to satisfy the abandonment obligation using current prices that are escalated by an assumed inflation factor after discounting the future cost back to the date that the abandonment obligation was incurred using a rate commensurate with the risk, which approximates our cost of funds. Because these significant fair value inputs are typically not observable, we have categorized the initial estimates as Level 3 inputs.

12. Commitments and Contingencies

Drilling and Completion Commitments

In the first half of 2020, we released our contracted drilling rigs in connection with the suspension of our drilling program. Costs of \$3.0 million associated with temporary stand-by status and the demobilization of the rigs in connection with their release were capitalized to our full cost pool. Beginning in September 2020, we entered into drilling contracts on pad-to-pad bases pursuant to which we intend to drill at least two pads in the fourth quarter 2020. We prepaid \$1.0 million in costs in connection with such agreements.

In August 2020, we terminated an agreement for certain frac services and related materials that was in effect for calendar year 2020. In September 2020, we prepaid \$2.0 million to an alternative frac service provider in connection with the restart of our limited drilling and completion program beginning in October 2020.

Crude Oil Storage

In the first half of 2020, we secured crude oil storage capacity with Nuevo Dos Gathering and Transportation, LLC (“Nuevo G&T”) for up to 70,000 barrels through October 2020 as a supplement (“Nuevo supplemental capacity”) to our current dedicated capacity of approximately 180,000 barrels of tank shell capacity at Nuevo G&T’s central delivery point facility in Lavaca County, Texas. The total remaining obligation under the Nuevo supplemental capacity was less than \$0.1 million as of September 30, 2020. In April 2020, we secured additional crude oil storage capacity for up to approximately 90,000 barrels with a downstream interstate pipeline at their facility in DeWitt County, Texas, for an initial term of up to six months beginning in May 2020. The total remaining obligation under this agreement is less than \$0.1 million as of September 30, 2020. As amended or otherwise extended prior to September 2020, this agreement and the Nuevo supplemental capacity agreement will continue on a month-to-month basis thereafter, for less than \$0.1 million per month, and can be terminated by either party with 45 days’ notice. Costs associated with these agreements are in the form of monthly fixed rate short-term leases and are charged as incurred on a monthly basis to GPT.

Gathering and Intermediate Transportation Commitments

We have long-term agreements with Nuevo G&T and Nuevo Dos Marketing, LLC (“Nuevo Marketing” and together with Nuevo G&T, collectively “Nuevo”) to provide gathering and intermediate pipeline transportation services for a substantial portion of our crude oil and condensate production in as well as volume capacity support for certain downstream interstate pipeline transportation.

Nuevo is obligated to gather and transport our crude oil and condensate from within a dedicated area in the Eagle Ford via a gathering system and intermediate takeaway pipeline connecting to a downstream interstate pipeline operated by a third party through 2041. We have a minimum volume commitment (“MVC”) of 8,000 gross barrels of oil per day to Nuevo through 2031 under the gathering agreement. We are obligated to deliver the first 20,000 gross barrels of oil per day produced from Gonzales, Lavaca, Fayette and DeWitt Counties, Texas.

Under a marketing agreement, we have a commitment to sell 8,000 barrels per day of crude oil (gross) to Nuevo, or to any third party, utilizing Nuevo Marketing’s capacity on a downstream interstate pipeline through 2026.

Under each of the agreements with Nuevo, credits for deliveries of volumes in excess of the volume commitment may be applied to any deficiency arising in the succeeding 12-month period.

Excluding the application of existing credits that we have earned during the preceding 12-month period ended September 30, 2020 for deliveries of volumes in excess of the volume commitment, and the potential impact of the effects of price escalation from commodity price changes, if any, the minimum fee requirements attributable to the MVC under the gathering and transportation agreement are as follows: \$3.2 million for the remainder of 2020, \$13.0 million per year for 2021 through 2025, \$7.4 million for 2026, \$3.8 million per year for 2027 through 2030 and \$2.2 million for 2031.

Legal, Environmental Compliance and Other Claims

We are involved, from time to time, in various legal proceedings arising in the ordinary course of business. While the ultimate results of these proceedings cannot be predicted with certainty, our management believes that these claims will not have a material effect on our financial position, results of operations or cash flows. As of September 30, 2020, we had AROs of approximately \$5.3 million attributable to the plugging of abandoned wells. As of September 30, 2020, we had an estimated reserve of approximately \$0.1 million for certain claims made against us regarding previously divested operations included in “Accounts payable and accrued liabilities.”

13. Shareholders' Equity

The following tables summarize the components of our shareholders' equity and the changes therein as of and for the quarterly periods in 2020 and 2019.

	Common Stock	Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Total Shareholders' Equity
Balance as of December 31, 2019	\$ 151	\$ 200,666	\$ 319,987	\$ (59)	\$ 520,745
Net income	—	—	163,094	—	163,094
Cumulative effect of change in accounting principle ¹	—	—	(76)	—	(76)
All other changes ²	1	556	—	(1)	556
Balance as of March 31, 2020	\$ 152	\$ 201,222	\$ 483,005	\$ (60)	\$ 684,319
Net loss	—	—	(94,715)	—	(94,715)
All other changes ²	—	936	—	(1)	935
Balance as of June 30, 2020	\$ 152	\$ 202,158	\$ 388,290	\$ (61)	\$ 590,539
Net loss	—	—	(243,413)	—	(243,413)
All other changes ²	—	608	—	(2)	606
Balance as of September 30, 2020	\$ 152	\$ 202,766	\$ 144,877	\$ (63)	\$ 347,732

¹ Attributable to the adoption of ASU 2016-13 as of January 1, 2020 (see Note 4).

² Includes equity-classified share-based compensation of \$2.6 million during the nine months ended September 30, 2020. During the nine months ended September 30, 2020, 45,435 and 19,402 shares of common stock were issued in connection with the vesting of certain time-vested restricted stock units ("RSUs") and performance restricted stock units ("PRSUs"), net of shares withheld for income taxes.

	Common Stock	Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income	Total Shareholders' Equity
Balance as of December 31, 2018	\$ 151	\$ 197,630	\$ 249,492	\$ 82	\$ 447,355
Net loss	—	—	(38,697)	—	(38,697)
Cumulative effect of change in accounting principle ¹	—	—	(94)	—	(94)
All other changes ²	—	381	—	(1)	380
Balance as of March 31, 2019	\$ 151	\$ 198,011	\$ 210,701	\$ 81	\$ 408,944
Net income	—	—	51,625	—	51,625
All other changes ²	—	986	—	(1)	985
Balance as of June 30, 2019	\$ 151	\$ 198,997	\$ 262,326	\$ 80	\$ 461,554
Net income	—	—	54,362	—	54,362
All other changes ²	—	742	—	—	742
Balance as of September 30, 2019	\$ 151	\$ 199,739	\$ 316,688	\$ 80	\$ 516,658

¹ Attributable to the adoption of ASC Topic 842 as of January 1, 2019 (see Note 9).

² Includes equity-classified share-based compensation of \$3.1 million during the nine months ended September 30, 2019. During the nine months ended September 30, 2019, 42,534 shares of common stock were issued in connection with the vesting of certain RSUs, net of shares withheld for income taxes.

14. Share-Based Compensation and Other Benefit Plans

Share-Based Compensation

We recognize share-based compensation expense related to our share-based compensation plans as a component of G&A expenses in our Condensed Consolidated Statements of Operations.

We reserved a total of 1,424,600 shares of common stock for issuance under the Penn Virginia Corporation Management Incentive Plan (the "Plan") for share-based compensation awards. A total of 584,497 RSUs and 201,491 PRSUs have been granted to employees and directors under the Plan through September 30, 2020. Additionally, in the third quarter of 2020, 57,500 RSUs and 57,500 PRSUs were issued outside the Plan to Mr. Henke as an inducement award upon his appointment as our President and CEO. As of September 30, 2020, a total of 319,280 RSUs and 186,595 PRSUs are unvested and outstanding.

We recognized \$0.8 million and \$2.6 million of expense attributable to the RSUs and PRSUs for the three and nine months ended September 30, 2020, respectively and \$1.0 million and \$3.1 million for the three and nine months ended September 30, 2019, respectively.

A total of 281,382 RSUs were granted during the nine months ended September 30, 2020 with an average grant-date fair value of \$49. A total of 9,707 RSUs were granted during the nine months ended September 30, 2019 with an average grant-date fair value of \$30.65. The RSUs are being charged to expense on a straight-line basis over a range of less than one to five years. In the nine months ended September 30, 2020 and 2019, 45,435 and 42,534 shares were issued upon vesting/settlement of RSUs, net of shares withheld for income taxes, respectively.

During the nine months ended September 30, 2020, 145,399 PRSUs were granted. No PRSUs were granted during the nine months ended September 30, 2019. PRSUs were granted collectively in two to three separate tranches with individual three-year performance periods beginning in January 2017, 2018 and 2019, respectively for the pre-2019 grants. For the 2019 and March 2020 grants, the performance period is 2020 through 2022. The performance period for Mr. Henke's August 2021 PRSU inducement grant is 2021 through 2023. Vesting of the PRSUs can range from zero to 200 percent of the original grant based on the performance of our common stock relative to an industry index or, for the 2019 and 2020 grants, a defined peer group. Due to their market condition, the PRSUs are being charged to expense using graded vesting over a maximum of five years. The fair value of each PRSU award was estimated on their applicable grant date using a Monte Carlo simulation with a range of \$7.70 to \$65.28 per PRSU for the 2017 grants, \$34.02 per PRSU for the 2019 grants and \$2.40 to \$16.02 per PRSU for the 2020 grants. In the nine months ended September 30, 2020, 19,402 shares were issued upon settlement of PRSUs, net of shares withheld for income taxes.

The ranges for the assumptions used in the Monte Carlo model for the PRSUs granted during 2020, 2019 and 2017 are presented as follows:

	2020	2019	2017
Expected volatility	101.32% to 117.71%	49.9 %	59.63% to 62.18%
Dividend yield	0.0 %	0.0 %	0.0 %
Risk-free interest rate	0.18% to 0.51%	1.66 %	1.44% to 1.51%

Other Benefit Plans

We maintain the Penn Virginia Corporation and Affiliated Companies Employees 401(k) Plan (the "401(k) Plan"), a defined contribution plan, which covers substantially all of our employees. We recognized \$0.1 million and \$0.5 million of expense attributable to the 401(k) Plan for the three and nine months ended September 30, 2020, respectively, and \$0.2 million and \$0.5 million for the three and nine months ended September 30, 2019, respectively. The charges for the 401(k) Plan are recorded as a component of G&A expenses in our Condensed Consolidated Statements of Operation.

We maintain unqualified legacy defined benefit pension and defined benefit postretirement plans that cover a limited number of former employees, all of whom retired prior to 2000. The combined expense recognized with respect to these plans was less than \$0.1 million for each of the three and nine months ended September 30, 2020 and 2019. The charges for these plans are recorded as a component of "Other income (expense)" in our Condensed Consolidated Statements of Operation.

15. Interest Expense

The following table summarizes the components of interest expense for the periods presented:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Interest on borrowings and related fees	\$ 7,375	\$ 8,945	\$ 22,944	\$ 27,960
Accretion of original issue discount ¹	205	188	602	551
Amortization of debt issuance costs ²	594	608	2,734	1,993
Capitalized interest	(677)	(1,005)	(2,067)	(3,234)
	<u>\$ 7,497</u>	<u>\$ 8,736</u>	<u>\$ 24,213</u>	<u>\$ 27,270</u>

¹ Attributable to the Second Lien Facility (see Note 7).

² Includes \$0.9 million of accelerated amortization in the nine months ended September 30, 2020 attributable to the reduction in the borrowing base associated with the Seventh Amendment.

16. Earnings per Share

The following table provides a reconciliation of the components used in the calculation of basic and diluted earnings per share for the periods presented:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Net income (loss) – basic and diluted	\$ (243,413)	\$ 54,362	\$ (175,034)	\$ 67,290
Weighted-average shares – basic	15,183	15,110	15,168	15,105
Effect of dilutive securities	—	50	—	60
Weighted-average shares – diluted ¹	<u>15,183</u>	<u>15,160</u>	<u>15,168</u>	<u>15,165</u>

¹ For the three and nine months ended September 30, 2020, approximately 0.2 million and 0.1 million potentially dilutive securities, respectively, represented by RSUs and PRSUs, had the effect of being anti-dilutive and were excluded from the calculation of diluted earnings per share.

Forward-Looking Statements

Certain statements contained herein that are not descriptions of historical facts are “forward-looking” statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. We use words such as “anticipate,” “guidance,” “assumptions,” “projects,” “estimates,” “expects,” “continues,” “intends,” “plans,” “believes,” “forecasts,” “future,” “potential,” “may,” “possible,” “could” and variations of such words or similar expressions to identify forward-looking statements. Because such statements include risks, uncertainties and contingencies, actual results may differ materially from those expressed or implied by such forward-looking statements. These risks, uncertainties and contingencies include, but are not limited to, the following:

- risks related to the recently announced transactions with Juniper and its affiliates, including the risk that the transactions will not be completed on the timeline or terms currently contemplated, that the benefits of the transactions may not be fully realized or may take longer to realize than expected, and that management attention will be diverted to transaction-related issues;
- the effect of the pending transactions on our stock price;
- the decline in, sustained market uncertainty of, and volatility of commodity prices for crude oil, natural gas liquids, or NGLs, and natural gas, including the recent dramatic decline of such prices
- the impact of the COVID-19 pandemic, including reduced demand for oil and natural gas, economic slowdown, governmental actions, stay-at-home orders, interruptions to our operations or our customer’s operations;
- risks related to and the impact of actual or anticipated other world health events;
- risks related to acquisitions and dispositions, including our ability to realize their expected benefits;
- our ability to satisfy our short-term and long-term liquidity needs, including our inability to generate sufficient cash flows from operations or to obtain adequate financing, including access to the capital markets, to fund our capital expenditures and meet working capital needs;
- negative events or publicity adversely affecting our ability to maintain our relationships with our suppliers, service providers, customers, employees, and other third parties;
- plans, objectives, expectations and intentions contained in this report that are not historical;
- our ability to execute our business plan in volatile and depressed commodity price environments;
- our ability to develop, explore for, acquire and replace oil and gas reserves and sustain production;
- changes to our drilling and development program;
- our ability to generate profits or achieve targeted reserves in our development and exploratory drilling and well operations;
- our ability to meet guidance, market expectations and internal projections, including type curves;
- any impairments, write-downs or write-offs of our reserves or assets;
- the projected demand for and supply of oil, NGLs and natural gas;
- our ability to contract for drilling rigs, frac crews, materials, supplies and services at reasonable costs;
- our ability to renew or replace expiring contracts on acceptable terms;
- our ability to obtain adequate pipeline transportation capacity or other transportation for our oil and gas production at reasonable cost and to sell our production at, or at reasonable discounts to, market prices;
- the uncertainties inherent in projecting future rates of production for our wells and the extent to which actual production differs from that estimated in our proved oil and gas reserves;
- use of new techniques in our development, including choke management and longer laterals;
- drilling, completion and operating risks, including adverse impacts associated with well spacing and a high concentration of activity;
- our ability to compete effectively against other oil and gas companies;
- leasehold terms expiring before production can be established and our ability to replace expired leases;
- environmental obligations, costs and liabilities that are not covered by an effective indemnity or insurance;
- the timing of receipt of necessary regulatory permits;
- the effect of commodity and financial derivative arrangements with other parties and counterparty risk related to the ability of these parties to meet their future obligations;
- the occurrence of unusual weather or operating conditions, including force majeure events;
- our ability to retain or attract senior management and key employees;
- our reliance on a limited number of customers and a particular region for substantially all of our revenues and production;
- compliance with and changes in governmental regulations or enforcement practices, especially with respect to environmental, health and safety matters;
- physical, electronic and cybersecurity breaches;
- uncertainties relating to general domestic and international economic and political conditions;
- the impact and costs associated with litigation or other legal matters;
- sustainability initiatives; and
- other factors set forth in our filings with the Securities and Exchange Commission, or SEC, including the risks set forth in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2019 and in Part II, Item 1A of the Quarterly Report on Form 10-Q for the quarter ended March 31, 2020.

The effects of the COVID-19 pandemic may give rise to risks that are currently unknown or amplify the risks associated with many of these factors.

Additional information concerning these and other factors can be found in our press releases and public filings with the SEC. Many of the factors that will determine our future results are beyond the ability of management to control or predict. Readers should not place undue reliance on forward-looking statements, which reflect management’s views only as of the date hereof. All subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by these cautionary statements. We undertake no obligation to revise or update any forward-looking statements, or to make any other forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required by applicable law.

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

The following discussion and analysis of the financial condition and results of operations of Penn Virginia Corporation and its consolidated subsidiaries ("Penn Virginia," the "Company," "we," "us" or "our") should be read in conjunction with our Condensed Consolidated Financial Statements and Notes thereto included in Part I, Item 1, "Financial Statements." All dollar amounts presented in the tables that follow are in thousands unless otherwise indicated. Also, due to the combination of different units of volumetric measure, the number of decimal places presented and rounding, certain results may not calculate explicitly from the values presented in the tables. Certain statistics for the periods ended September 30, 2019 have been reclassified to conform to the 2020 presentation. References to "quarters" represent the three months ended September 30, 2020 or 2019, as applicable.

Overview and Executive Summary

We are an independent oil and gas company focused on the onshore exploration, development and production of crude oil, natural gas liquids, or NGLs, and natural gas. Our current operations consist of drilling unconventional horizontal development wells and operating our producing wells in the Eagle Ford Shale, or the Eagle Ford, in Gonzales, Lavaca, Fayette and DeWitt Counties in South Texas.

Industry Environment and Recent Operating and Financial Highlights

Commodity Price and Other Economic Conditions

As an oil and gas exploration and development company, we are exposed to a number of risks and uncertainties that are inherent to our industry. In addition to such industry-specific risks, the global public health crisis associated with the novel coronavirus, or COVID-19, has, and is anticipated to continue to have, an adverse effect on global economic activity for the immediate future and has resulted in travel restrictions, business closures, limitations to person-to-person contact and the institution of quarantining and other restrictions on movement in many communities. The slowdown in global economic activity attributable to COVID-19 has resulted in a dramatic decline in the demand for energy, which directly impacts our industry and the Company. In addition, global crude oil prices experienced a collapse starting in early March 2020 as a direct result of disagreements between the Organization of the Petroleum Exporting Countries, or OPEC, and Russia, together with OPEC, collectively OPEC+, with respect to production curtailments. Production curtailment allocations were ultimately agreed to by OPEC+ in the second quarter of 2020 and while these curtailment efforts have generally held through the third quarter of 2020 leading to a modest recovery in prices from their historic lows at the height of the COVID-19 pandemic, the group is scheduled to formally meet again at the end of November 2020 to assess the circumstances heading into 2021.

Despite a significant decline in drilling by U.S. producers that began in mid-March 2020, domestic supply and demand imbalances continue to create operational stress with respect to capacity limitations associated with storage, pipeline and refining infrastructure, particularly within the Gulf Coast region. Limited progress in containing the COVID-19 pandemic domestically, including the effects of recent spikes in many regions of the United States, including Texas, has hampered economic recovery. Furthermore, government stimulus and economic relief efforts are uncertain and additional economic support may be required in order to stabilize and enhance current domestic economic activity levels. These efforts are further impacted by election year uncertainties and related political conflicts. The combined effect of these global and domestic factors is anticipated to have a continuing adverse impact on the industry in general and our operations specifically.

The combined effect of COVID-19 and the continuing energy industry instability has led to a decline in NYMEX West Texas Intermediate, or NYMEX WTI, crude oil prices of approximately 40 percent from the beginning of January 2020, when prices were approximately \$62 per barrel, through the end of October 2020, when they were below \$40 per barrel. Prices began to increase and modestly stabilized following the implementation of the aforementioned OPEC+ production curtailments and proactive economic relief efforts in many countries, including the United States. Despite modest improvements in prices, overall crude oil pricing remains subject to significant volatility as broader economic recovery, particularly in the United States, has not progressed to a level to substantially increase energy demand as well as the likelihood of a fall season spike in COVID-19.

During 2020, we initiated several actions to mitigate the anticipated adverse economic conditions for the immediate future and to support our financial position and liquidity. The more significant actions that we took during that time included: (i) temporarily suspending our drilling program from April through September 30, 2020 (ii) curtailing production through selected well shut-ins for a period of several weeks in April and May, (iii) securing crude oil storage capacity in order to maintain a reasonable level of production to (a) allow for the continued marketing of NGLs and natural gas rather than delaying revenues through additional shut-ins and (b) capitalize on potential increases in commodity prices, (iv) substantially expanding the scope and range of our commodity derivatives portfolio, (v) utilizing certain provisions of the Coronavirus Aid, Relief and Economic Security Act, or CARES Act, and related regulations, the most significant of which resulted in the receipt in June 2020 of an accelerated refund of our remaining refundable alternative minimum tax, or AMT, credit carryforwards in the amount of \$2.5 million and (vi) elimination of annual cost-of-living and similar adjustments to our salaries and wages for 2020, and in July 2020, a limited reduction-in-force, or RIF.

These actions are described in greater detail in the discussions for *Key Developments* that follow as well as Notes 2, 5, 8 and 12 to the Condensed Consolidated Financial Statements included in Part I, Item 1, “Financial Statements.”

Capital Expenditures and Development Progress

We formally suspended our drilling program in April through September 30, 2020. During that period, we selectively completed and turned eight gross (7.6 net) wells to sales that were drilled prior to the program suspension. As a result of a modest improvement in commodity prices relative to the first half of 2020, we have resumed a limited drilling program in October 2020. We entered into drilling contracts on pad-to-pad bases, pursuant to which we intend to drill at least two pads in the fourth quarter 2020. This provides us with the flexibility to manage capital expenditures as we navigate changes in commodity prices.

During the nine months ended September 30, 2020, we incurred capital expenditures of approximately \$98 million with 95 percent directed to drilling and completion projects through which a total of 21 gross (18.6 net) wells were turned to sales.

Sequential Quarterly Analysis

The following summarizes our key operating and financial highlights for the three months ended September 30, 2020, with comparison to the three months ended June 30, 2020 as presented in the table that follows. The year-over-year highlights for the quarterly periods ended September 30, 2020 and 2019 are addressed in further detail in the discussions for *Financial Condition and Results of Operations* that follow.

- Daily sales volume declined marginally to 24,295 barrels of oil equivalent per day, or BOEPD, from 24,617 BOEPD due primarily to the continued suspension of drilling activities and the effect of natural well declines through the end of the third quarter. This was partially offset by the completion of five gross (4.8 net) wells during the third quarter that were drilled prior to the program suspension. Total sales volume decreased less than one percent to 2,235 thousand barrels of oil equivalent, or MBOE, from 2,240 MBOE due primarily to the impact of the aforementioned drilling suspension and natural well declines.
- Product revenues increased 53 percent to \$68.6 million from \$44.8 million due primarily to 56 percent higher crude oil prices, or \$22.7 million, partially offset by two percent lower crude oil sales volume, or \$0.7 million. NGL revenues were 79 percent higher due to 77 percent higher prices, or \$1.2 million. Natural gas revenues increased 27 percent due to 17 percent higher prices, or \$0.4 million, and nine percent higher sales volume, or \$0.1 million.
- Production and lifting costs (consisting of Lease operating expenses, or LOE, and Gathering, processing and transportation expenses, or GPT) decreased on an absolute basis to \$14.0 million from \$14.7 million and declined on a per unit basis to \$6.28 per BOE from \$6.56 per BOE due primarily to the effects of lower sales volume. Lower chemicals, water disposal, repairs and maintenance and contract labor costs primarily associated with the lower crude oil sales volume were partially offset by higher gas lift and natural gas gathering costs.
- Production and ad valorem taxes increased on an absolute and per unit basis to \$4.4 million and \$1.95 per BOE from \$2.6 million and \$1.17 per BOE, respectively, due to the overall effects of 53 percent higher product pricing partially offset by lower than anticipated ad valorem tax assessments.
- General and administrative, or G&A, expenses increased on an absolute and per unit basis to \$8.6 million and \$3.84 per BOE from \$8.0 million and \$3.56 per BOE, respectively, due primarily to the effects of an organizational restructuring, including employee termination and severance costs as well as higher consulting costs incurred in the third quarter of 2020.
- Depreciation, depletion and amortization, or DD&A, was relatively unchanged at \$37.0 million and \$16.57 per BOE during the third quarter as compared to \$37.1 million and \$16.58 per BOE during the second quarter.
- We recorded an impairment of our oil and gas properties of \$236.0 million as the unamortized cost of our oil and gas properties, net of deferred income taxes, exceeded the sum of discounted future net revenues from proved properties adjusted for costs excluded from amortization and related income taxes, or the Ceiling Test. The impairment is primarily attributable to a decline in the trailing twelve-month average prices of crude oil, NGLs and natural gas. We recorded an impairment of \$35.5 million as a result of similar conditions in the second quarter of 2020.
- Due to the combined impact of the matters noted in the bullets above, we incurred an operating loss of \$230.6 million in the third quarter of 2020 compared to an operating loss of \$52.5 million in second quarter of 2020.

The following table sets forth certain historical summary operating and financial statistics for the periods presented:

	Three Months Ended			Nine Months Ended	
	September 30,	June 30,	September 30,	September 30,	
	2020	2020	2019	2020	2019
Total sales volume (MBOE) ¹	2,235	2,240	2,668	6,909	7,425
Average daily sales volume BOEPD) ¹	24,295	24,617	29,003	25,214	27,196
Crude oil sales volume (MBbl) ¹	1,691	1,719	1,937	5,291	5,409
Crude oil sold as a percent of total ¹	76 %	77 %	73 %	77 %	73 %
Product revenues	\$ 68,614	\$ 44,795	\$ 118,379	\$ 204,300	\$ 345,839
Crude oil revenues	\$ 63,227	\$ 41,197	\$ 110,618	\$ 190,732	\$ 319,461
Crude oil revenues as a percent of total	92 %	92 %	93 %	93 %	92 %
Realized prices:					
Crude oil (\$ per Bbl)	\$ 37.39	\$ 23.97	\$ 57.12	\$ 36.05	\$ 59.06
NGLs (\$ per Bbl)	\$ 9.20	\$ 5.21	\$ 8.54	\$ 6.86	\$ 11.25
Natural gas (\$ per Mcf)	\$ 1.80	\$ 1.54	\$ 2.22	\$ 1.73	\$ 2.56
Aggregate (\$ per BOE)	\$ 30.70	\$ 20.00	\$ 44.37	\$ 29.57	\$ 46.58
Prices adjusted for derivatives:					
Crude oil (\$ per Bbl)	\$ 48.28	\$ 50.37	\$ 56.71	\$ 51.05	\$ 57.38
Natural gas (\$ per Mcf)	\$ 1.88	\$ 1.79	\$ 2.22	\$ 1.86	\$ 2.56
Aggregate (\$ per BOE)	\$ 38.99	\$ 40.41	\$ 44.07	\$ 41.14	\$ 45.36
Production and lifting costs:					
Lease operating (\$ per BOE)	\$ 3.70	\$ 4.06	\$ 4.45	\$ 4.04	\$ 4.48
Gathering, processing and transportation (\$ per BOE)	\$ 2.58	\$ 2.50	\$ 2.47	\$ 2.43	\$ 2.28
Production and ad valorem taxes (\$ per BOE)	\$ 1.95	\$ 1.17	\$ 2.77	\$ 1.90	\$ 2.78
General and administrative (\$ per BOE) ²	\$ 3.84	\$ 3.56	\$ 2.58	\$ 3.45	\$ 2.72
Depreciation, depletion and amortization (\$ per BOE)	\$ 16.57	\$ 16.58	\$ 17.43	\$ 16.63	\$ 17.47
Capital expenditure program costs ³	\$ 8,042	\$ 10,719	\$ 99,068	\$ 97,981	\$ 291,228
Cash provided by operating activities ⁴	\$ 60,828	\$ 56,422	\$ 89,851	\$ 189,723	\$ 244,213
Cash paid for capital expenditures ⁵	\$ 26,183	\$ 50,812	\$ 115,792	\$ 139,010	\$ 291,733
Cash and cash equivalents at end of period	\$ 20,516	\$ 21,945	\$ 11,387	\$ 20,516	\$ 11,387
Debt outstanding at end of period, net ⁶	\$ 518,858	\$ 553,234	\$ 562,445	\$ 518,858	\$ 562,445
Credit available under credit facility at end of period ⁷	\$ 50,200	\$ 40,200	\$ 129,200	\$ 50,200	\$ 129,200
Net development wells drilled and completed	4.8	2.8	18.3	18.6	33.4

¹ All volumetric statistics presented above represent volumes of commodity production that were actually sold during the periods in 2020 as presented. Actual physical production volume was 2,297 MBOE (24,967 BOEPD) and 6,961 MBOE (25,405 BOEPD) during the three and nine months ended September 30, 2020, respectively. Volumes of crude oil physically produced in excess of volumes sold were placed in temporary storage in September 2020 to be sold in the fourth quarter of 2020.

² Includes combined amounts of \$1.20, \$0.42 and \$0.39 per BOE for the three months ended September 30, 2020, June 30, 2020 and September 30, 2019, respectively, and \$0.65 and \$0.53 per BOE for the nine months ended September 30, 2020 and 2019, respectively, attributable to equity-classified share-based compensation and significant special charges, including organizational restructuring and acquisition, divestiture and strategic transaction costs, as described in the discussion of "Results of Operations – General and Administrative" that follows.

³ Includes amounts accrued and excludes capitalized interest and capitalized labor.

⁴ Includes net cash received (paid) for derivative settlements and premiums received (paid) of \$6.4 million, \$59.1 million and \$(0.4) million for the three months ended September 30, 2020, June 30, 2020 and September 30, 2019, respectively, and \$65.3 million and \$(4.3) million for the nine months ended September 30, 2020 and 2019, respectively. Reflects changes in operating assets and liabilities of \$17.8 million, \$(16.9) million and \$10.9 million for the three months ended September 30, 2020, June 30, 2020 and September 30, 2019, respectively, and \$17.1 million and \$12.9 million for the nine months ended September 30, 2020 and 2019, respectively.

⁵ Represents actual cash paid for capital expenditures including capitalized interest and capitalized labor.

⁶ Represents amounts net of unamortized discount and deferred issue costs of \$5.5 million, \$6.2 million and \$8.0 million as of September 30, 2020, June 30, 2020 and September 30, 2019, respectively.

⁷ The borrowing base under the credit agreement, or Credit Facility, was reduced to \$400 million effective April 30, 2020 through June 30, 2020 at which time it was further decreased to \$375 million. Effective October 1, 2020, availability under the Credit Facility is limited to a maximum of \$350 million.

Key Developments

The following general business developments had or may have a significant impact on our results of operations, financial position and cash flows:

Strategic Investment by Juniper

On November 2, 2020, we entered into agreements with certain affiliates of Juniper Capital Advisors, L.P., or Juniper whereby Juniper would, subject to the terms and conditions therein, acquire 59% of the equity in Penn Virginia's new structure in exchange for (1) a cash investment of \$150 million and (2) the contribution of \$38.4 million of complementary oil and gas assets (see Note 2 to the Condensed Consolidated Financial Statements included in Part I, Item 1, "Financial Statements." for further detail).

Development Plans and Production

In October 2020, we resumed a limited drilling and completion program on a pad-to-pad basis beginning with a drilling site in the central eastern portion of our acreage holdings. During September 2020, we purchased certain tubular and well materials and made prepayments for drilling and completion services in advance of the program resumption.

Total sales volume for the third quarter of 2020 was 2,235 MBOE, or 24,295 BOEPD, with approximately 76 percent, or 1,691 MBbls, of sales volume from crude oil, 14 percent from NGLs and 10 percent from natural gas. We completed and turned five gross (4.8 net) wells to sales during the third quarter of 2020. As of September 30, 2020, we had approximately 98,300 gross (86,200 net) acres in the Eagle Ford, net of expirations. Approximately 93 percent of our acreage is held by production and substantially all is operated by us.

Executive Transition

In August 2020, we appointed Darrin Henke our new president and chief executive officer, or CEO, and director following the retirement of John Brooks. We incurred incremental G&A costs, in connection with Mr. Henke's appointment and Mr. Brooks' separation as described in the discussion for *Results of Operations* that follow.

Actions to Address the Economic Impact of COVID-19 and Decline in Commodity Prices

We have initiated and pursued several actions to mitigate the anticipated adverse economic conditions for the immediate future and to support our financial position, liquidity and the efficient continuity of our operations as follows:

Drilling and Completion Program. We suspended our drilling program beginning in April 2020 through September 2020 with the exception of the completion early in the third quarter of certain wells that were drilled prior to the suspension. All of our contracted operated rigs at the time of the suspension were released from drilling activities in early April 2020. See Note 12 to our Condensed Consolidated Financial Statements included in Part I, Item 1, "Financial Statements" for additional information.

Production Curtailment. In April 2020, we shut-in production on selected wells for a period of several weeks extending through mid-May 2020. As of September 30, 2020, all but seven gross wells were back online and producing.

Crude Oil Storage. We secured supplemental storage capacity for our crude oil production through October 2020 and month-to-month thereafter. See Note 12 to our Condensed Consolidated Financial Statements included in Part I, Item 1, "Financial Statements" for additional information.

Derivatives. We substantially expanded the scope and range of our commodity derivatives portfolio and restructured certain oil hedge positions to move hedge positions from the second half of 2021 into 2020. In the second and third quarters of 2020, we received approximately \$67 million in net cash proceeds from settlements, net of premiums, of our commodity derivatives.

Federal Relief. We utilized a number of liquidity and income tax measures made available under the CARES Act and related regulations, the most significant of which was the application for an accelerated refund of our remaining alternative minimum tax, or AMT, credits of \$2.5 million, which was received in June 2020, that would have otherwise been payable to us over the next two years.

Working Capital. We are continuing to increase our diligence in collecting and managing our portfolio of joint venture receivables.

Cost Containment. We eliminated annual cost-of-living and similar adjustments to our salaries and wages for 2020, and in July 2020, initiated a limited RIF. We incurred and paid employee termination and severance benefits in connection with the limited RIF and those costs have been included in G&A. In addition, we have implemented protocols and systems designed to keep our employees safe and our operations at desired capacity during the COVID-19 pandemic.

Commodity Hedging Program

As of October 31, 2020, we have hedged a portion of our estimated future crude oil and natural gas production from November 1, 2020 through the first half of 2023. We are currently unhedged with respect to NGL production. The following table summarizes our net hedge positions for the periods presented:

	<u>4Q2020</u>	<u>1Q2021</u>	<u>2Q2021</u>	<u>3Q2021</u>	<u>4Q2021</u>	<u>1H2022</u>	<u>2H2022</u>	<u>1H2023</u>
NYMEX WTI Crude Swaps								
Average Volume Per Day (barrels)	11,261	3,333	3,297	815	815			
Weighted Average Swap Price (\$/barrel)	\$ 55.92	\$ 55.89	\$ 55.89	\$ 45.54	\$ 45.54			
NYMEX WTI Collars								
Average Volume Per Day (barrels)	2,543	8,889	6,593	4,891	4,891	414	408	414
Weighted Average Purchased Put Price (\$/barrel)	\$ 46.29	\$ 43.38	\$ 44.50	\$ 40.67	\$ 40.67	\$ 40.00	\$ 40.00	\$ 40.00
Weighted Average Sold Call (\$/barrel)	\$ 54.08	\$ 50.93	\$ 53.53	\$ 53.50	\$ 53.50	\$ 50.00	\$ 50.00	\$ 50.00
NYMEX WTI Purchased Puts								
Average Volume Per Day (barrels)	1,087							
Weighted Average Purchased Put (\$/barrel)	\$ 40.50							
Average Volume Per Day (barrels)	1,630							
Weighted Average Purchased Put (\$/barrel)	\$ 40.00							
NYMEX WTI Sold Puts								
Average Volume Per Day (barrels)	3,783	7,222	11,538	5,707	5,707			
Weighted Average Sold Put (\$/barrel)	\$ 43.55	\$ 38.42	\$ 36.93	\$ 35.14	\$ 35.14			
MEH-NYMEX WTI Crude Basis Swaps								
Average Volume Per Day (barrels)	7,435							
Weighted Average Swap Price (\$/barrel)	\$ 1.20							
NYMEX WTI Crude CMA Roll Basis Swaps								
Average Volume Per Day (barrels)	6,522							
Weighted Average Swap Price (\$/barrel)	\$ (0.49)							
NYMEX HH Collars								
Average Volume Per Day (MMBtus)	12,804	10,000	9,890	9,783	9,783			
Weighted Average Purchased Put (\$/MMBtu)	\$ 2.000	\$ 2.607	\$ 2.607	\$ 2.607	\$ 2.607			
Weighted Average Sold Call (\$/MMBtu)	\$ 2.207	\$ 3.117	\$ 3.117	\$ 3.117	\$ 3.117			
NYMEX HH Sold Puts								
Average Volume Per Day (MMBtus)		6,667	6,593	6,522	6,522			
Weighted Average Sold Put Strike (\$/MMBtu)		\$ 2.000	\$ 2.000	\$ 2.000	\$ 2.000			

Financial Condition

Liquidity

Our primary sources of liquidity include our cash on hand, cash provided by operating activities and borrowings under the Credit Facility. The Credit Facility provides us with up to \$1.0 billion in borrowing commitments. Through September 30, 2020, the borrowing base under the Credit Facility was \$375 million; however, effective October 1, 2020, availability under the Credit Facility is limited to a maximum of \$350 million. As of October 30, 2020, we had \$35.2 million available under the Credit Facility.

Our cash flows from operating activities are subject to significant volatility due to changes in commodity prices for crude oil, NGL and natural gas products, as well as variations in our production. The prices for these commodities are driven by a number of factors beyond our control, including global and regional product supply and demand, weather, product distribution, refining and processing capacity and other supply chain dynamics, among other factors. All of these factors have been negatively impacted by the continuing COVID-19 pandemic and the related instability in the global energy markets. In order to mitigate this volatility, we are extensively utilizing derivative contracts with a number of financial institutions, all of which are participants in the Credit Facility, hedging a portion of our estimated future crude oil and natural gas production through the end of 2023. The level of our hedging activity and duration of the financial instruments employed depends on our desired cash flow protection, available hedge prices, the magnitude of our capital program and our operating strategy.

Capital Resources

We plan to fund our operations for the next twelve months primarily with cash on hand, cash from operating activities, including net receipts from derivative settlements and borrowings under the Credit Facility. Based upon current price and production expectations for the remainder of the year and 2021, we believe that our cash on hand, cash from operating activities and borrowings under our Credit Facility will be sufficient to fund our operations for the next twelve months; however, future cash flows are subject to a number of variables including the length and magnitude of the current global economic slowdown associated with the COVID-19 pandemic and related instability in the global energy markets.

Cash on Hand and Cash From Operating Activities. As of October 30, 2020, we had approximately \$16 million of cash on hand. For additional information and an analysis of our historical cash from operating activities, see the “Cash Flows” discussion that follows.

Credit Facility Borrowings. During the nine months ended September 30, 2020, we repaid \$38 million, net of borrowings, under the Credit Facility. We also repaid \$10 million during the month of October 2020. For additional information regarding the terms and covenants under the Credit Facility, see the “Capitalization” discussion that follows.

The following table summarizes our borrowing activity under the Credit Facility for the periods presented:

	Borrowings Outstanding			
	End of Period	Weighted-Average	Maximum	Weighted-Average Rate
Three months ended September 30, 2020	\$ 324,400	\$ 343,096	\$ 359,400	3.57 %
Nine months ended September 30, 2020	\$ 324,400	\$ 366,557	\$ 399,400	3.60 %

Proceeds from Sales of Assets. For additional information and an analysis of our historical proceeds from sales of assets, see the “Cash Flows” discussion that follows.

Capital Markets Transactions. From time-to-time and under market conditions that we believe are favorable to us, we may consider capital market transactions, including the offering of debt and equity securities. We maintain an effective shelf registration statement to allow for optionality.

Cash Flows

The following table summarizes our cash flows for the periods presented:

	Nine Months Ended	
	September 30,	September 30,
	2020	2019
Cash flows from operating activities		
Operating cash flows, net of working capital changes	\$ 144,288	\$ 275,328
Crude oil derivative settlements and premiums received (paid), net	66,034	(4,330)
Natural gas derivative settlements received, net	548	—
Interest rate swap settlements paid, net	(1,287)	—
Interest payments, net of amounts capitalized	(20,959)	(24,721)
Income tax refunds	2,471	—
Organizational restructuring costs, including severance benefits, paid	(1,372)	—
Acquisition, divestiture and strategic transaction costs paid	—	(1,985)
Reorganization-related administration fees and costs paid	—	(79)
Net cash provided by operating activities	<u>189,723</u>	<u>244,213</u>
Cash flows from investing activities		
Acquisitions, net	—	(5,956)
Capital expenditures	(139,010)	(291,733)
Proceeds from sales of assets, net	83	215
Net cash used in investing activities	<u>(138,927)</u>	<u>(297,474)</u>
Cash flows from financing activities		
Proceeds from (repayment of) credit facility borrowings, net	(38,000)	49,400
Debt issuance costs paid	(78)	(2,616)
Net cash provided by (used in) financing activities	<u>(38,078)</u>	<u>46,784</u>
Net increase (decrease) in cash and cash equivalents	<u>\$ 12,718</u>	<u>\$ (6,477)</u>

Cash Flows from Operating Activities. The decrease of \$54.5 million in net cash provided by operating activities for the nine months ended September 30, 2020 compared to the corresponding period in 2019 was primarily attributable to the substantial decline in commodity prices resulting from the adverse impact of COVID-19 on the global economy and general instability in the global energy markets as well as the effect of seven percent lower total sales volume, each of which substantially decreased our realized product revenues. The adverse impact on cash received from realized revenues was partially offset by: (i) substantially higher receipts from commodity derivatives settlements and premiums in the 2020 period, (ii) lower interest payments, net of interest rate swap payments, due to substantially lower weighted-average variable rates despite higher outstanding borrowings in the 2020 period, (iii) the receipt of an alternative minimum tax credit carryforward refund that was accelerated as a result of the CARES Act, (iv) costs paid in the 2020 period for organizational restructuring activities, including severance benefits that were lower than the combined amounts paid in the 2019 period for acquisition, divestiture and strategic transaction and reorganization-related administration fees and costs, (v) the beneficial impact in the 2020 period of cost containment efforts in both our operations and administrative functions including lower discretionary maintenance, lower contract labor and cost deferrals consistent with lower levels of business activity, the elimination of cost-of-living and similar adjustments to our salaries and wages and reduced employee headcount and (vi) improved working capital management.

Cash Flows from Investing Activities. As illustrated in the tables below, our cash payments for capital expenditures were significantly lower during the 2020 period as compared to the 2019 period, due primarily to the suspension of the drilling program for a substantial portion of the 2020 period, partially offset by prepayments of approximately \$7.5 million in September 2020 for certain tubular and well materials and drilling and completion services in advance of the restart of drilling projects in October 2020. In the 2019 period, we paid approximately \$6 million for the acquisition of working interests in certain properties for which we are the operator from our joint working interest partners. In addition, we received lower proceeds from the sale of scrap tubular and well materials in the 2020 period compared to the 2019 period.

The following table sets forth costs related to our capital expenditures program for the periods presented:

	Nine Months Ended	
	September 30,	September 30,
	2020	2019
Drilling and completion	\$ 93,443	\$ 282,421
Lease acquisitions and other land-related costs	2,981	2,352
Pipeline, gathering facilities and other equipment, net	1,221	6,137
Geological and geophysical (seismic) costs	336	318
	<u>\$ 97,981</u>	<u>\$ 291,228</u>

The following table reconciles the total costs of our capital expenditures program with the net cash paid for capital expenditures as reported in our Condensed Consolidated Statements of Cash Flows for the periods presented:

	Nine Months Ended	
	September 30,	September 30,
	2020	2019
Total capital expenditures program costs (from above)	\$ 97,981	\$ 291,228
Decrease (increase) in accounts payable for capital items and accrued capitalized costs	30,579	(2,672)
Less:		
Transfers from tubular inventory and well materials	(4,759)	(7,068)
Sales and use tax refunds received and applied to property accounts	—	(2,855)
Other, net	—	(78)
Add:		
Prepayments for drilling and completion services	3,613	—
Tubular inventory and well materials purchased in advance of drilling	8,200	6,767
Capitalized internal labor	1,329	3,177
Capitalized interest	2,067	3,234
Total cash paid for capital expenditures	<u>\$ 139,010</u>	<u>\$ 291,733</u>

Cash Flows from Financing Activities. The 2020 period includes repayments of \$89 million and borrowings of \$51 million under the Credit Facility. Borrowings during the 2020 period were used to fund our capital program costs at the beginning of the 2020 period and we were ultimately able to reduce outstanding borrowings due to the suspension of the drilling program and our ability to generate positive cash flows from operating activities. The 2019 period includes borrowings of \$62.4 million and repayments of \$13 million under the Credit Facility which were used to fund a portion of the capital program during that period. We also paid less than \$0.1 million and \$2.6 million of debt issue costs in the 2020 and 2019 periods, respectively, in connection with amendments to the Credit Facility.

Capitalization

The following table summarizes our total capitalization as of the dates presented:

	September 30,	December 31,
	2020	2019
Credit facility	\$ 324,400	\$ 362,400
Second lien term loan, net	194,458	192,628
Total debt, net	518,858	555,028
Shareholders' equity	347,732	520,745
	<u>\$ 866,590</u>	<u>\$ 1,075,773</u>
Debt as a % of total capitalization	60 %	52 %

Credit Facility. The Credit Facility provides a \$1.0 billion revolving commitment and through September 30, 2020, a borrowing base of \$375 million, including a \$25 million sublimit for the issuance of letters of credit. Effective October 1, 2020, availability under the Credit Facility is limited to a maximum of \$350 million until the next redetermination of the borrowing base. The borrowing base under the Credit Facility is redetermined semi-annually, generally in the Spring and Fall of each year. The Fall 2020 borrowing base redetermination is in process. Additionally, we and the Credit Facility lenders may, upon request, initiate a redetermination at any time during the six-month period between scheduled redeterminations. The Credit Facility is available to us for general corporate purposes including working capital. We had \$0.4 million in letters of credit outstanding as of September 30, 2020 and December 31, 2019.

The Credit Facility is scheduled to mature in May 2024; provided that in June 2022, unless we have either extended the maturity date of our \$200 million Second Lien Credit Agreement dated as of September 29, 2017, or the Second Lien Facility, to a date that is at least 91 days after May 7, 2024 or have repaid our Second Lien Facility in full, the maturity date of the Credit Facility will be June 30, 2022.

The outstanding borrowings under the Credit Facility bear interest at a rate equal to, at our option, either (a) a customary reference rate plus an applicable margin ranging from 1.50% to 2.50%, determined based on the utilization level under the Credit Facility or (b) a Eurodollar rate, including the London interbank offered rate, or LIBOR, through 2021, plus an applicable margin ranging from 2.50% to 3.50%, determined based on the utilization level under the Credit Facility. Interest on reference rate borrowings is payable quarterly in arrears and is computed on the basis of a year of 365/366 days, and interest on Eurodollar, including LIBOR, borrowings is payable every one, three or six months, at our election, and is computed on the basis of a year of 360 days. As of September 30, 2020, the actual weighted-average interest rate on the outstanding borrowings under the Credit Facility was 3.41%. Unused commitment fees are charged at a rate of 0.50%.

The Credit Facility is guaranteed by us and all of our subsidiaries, or the Guarantor Subsidiaries. The guarantees under the Credit Facility are full and unconditional and joint and several. Substantially all of our consolidated assets are held by the Guarantor Subsidiaries. There are no significant restrictions on our ability or any of the Guarantor Subsidiaries to obtain funds through dividends, advances or loans. The obligations under the Credit Facility are secured by a first priority lien on substantially all of our assets.

Second Lien Facility. On September 29, 2017, we entered into the Second Lien Facility. The maturity date under the Second Lien Facility is September 29, 2022. In connection with the anticipated closing of the Transactions, the maturity of the Second Lien Facility will be extended to September 2024 (see the discussion in Note 2 to the Condensed Consolidated Financial Statements included in Part I, Item 1, "Financial Statements." for further detail with respect to the amendment to the Second Lien Facility dated November 2, 2020).

The outstanding borrowings under the Second Lien Facility bear interest at a rate equal to, at our option, either (a) a customary reference rate based on the prime rate plus an applicable margin of 6.00% or (b) a customary LIBOR rate, with a floor of 1.00%, plus an applicable margin of 7.00%. Amounts under the Second Lien Facility were borrowed at a price of 98% with an initial interest rate of 8.34% resulting in an effective interest rate of 9.89%. As of September 30, 2020, the actual interest rate on outstanding borrowings under the Second Lien Facility was 8.00%. Interest on reference rate borrowings is payable quarterly in arrears and is computed on the basis of a year of 365/366 days, and interest on eurocurrency borrowings is payable every one or three months (including in three month intervals if we select a six month interest period), at our election and is computed on the basis of a year of 360 days. We have the right, to the extent permitted under the Credit Facility and an intercreditor agreement between the lenders under the Credit Facility and the lenders under the Second Lien Facility, to prepay loans under the Second Lien Facility at any time, subject to customary "breakage" costs with respect to eurocurrency loans.

The Second Lien Facility is collateralized by substantially all of the Company's and its subsidiaries' assets with lien priority subordinated to the liens securing the Credit Facility. The obligations under the Second Lien Facility are guaranteed by us and the Guarantor Subsidiaries.

Covenant Compliance. The Credit Facility requires us to maintain (1) a minimum current ratio of 1.00 to 1.00 and (2) a maximum leverage ratio of 3.50 to 1.00, both as defined in the Credit Facility. The Credit Facility and Second Lien Facility also contain affirmative and negative covenants, including as to compliance with laws (including environmental laws, ERISA and anti-corruption laws), maintenance of required insurance, delivery of quarterly and annual financial statements, oil and gas engineering reports and budgets, maintenance and operation of property (including oil and gas properties), restrictions on the incurrence of liens and indebtedness, merger, consolidation or sale of assets, payment of dividends, transactions with affiliates, and other customary covenants. In addition, the Credit Facility contains certain anti-cash hoarding provisions, including the requirement to repay outstanding loans and cash collateralize outstanding letters of credit on a weekly basis in the amount of any cash on the balance sheet (subject to certain exceptions) in excess of \$25 million.

The Credit Facility and Second Lien Facility contain events of default and remedies. If we do not comply with the financial and other covenants in the Credit Facility and Second Lien Facility, as applicable, the lenders thereto may, subject to customary cure rights, require immediate payment of all amounts outstanding under the Credit Facility and Second Lien Facility.

As of September 30, 2020, we were in compliance with all of the covenants under the Credit Facility and the Second Lien Facility.

Reference Rate Reform. In July 2017, the U.K.'s Financial Conduct Authority, which regulates LIBOR, announced that it intends to phase out LIBOR by the end of 2021. At the present time, the Credit Facility and Second Lien Facility are contractually subject to LIBOR rates and both have terms that extend beyond 2021. The Credit Facility anticipates the phase out of LIBOR and provides for the consideration of other internationally recognized alternative rates at that time. We have not yet pursued any technical amendment or other contractual alternative to address this matter with respect to the Second Lien Facility as well as certain LIBOR-based interest rate swaps that we entered into in 2020. We are continuing to evaluate the potential impact of the eventual replacement of the LIBOR interest rate.

Results of Operations

Presentation of Financial Information and Changes in Accounting Principles

Adoption of New Accounting Standards

As discussed in further detail in Notes 2 and 4 to the Condensed Consolidated Financial Statements included in Part I, Item 1, "Financial Statements," we have adopted the Financial Accounting Standards Board's, or FASB, Accounting Standards Update, or ASU, *Measurement of Credit Losses on Financial Instruments*, or ASU 2016-13, effective January 1, 2020. We adopted ASU 2016-13 utilizing the optional cumulative effect transition approach. As a result of the adoption of 2016-13, certain amounts included in the caption *Other revenues, net* are not comparable between the 2020 and 2019 periods; however, we do not believe that such differences are material.

Year over Year Analysis of Operating and Financial Results

Sales Volume

The following tables set forth a summary of our total and average daily sales volumes by product for the periods presented:

	Total Sales Volume ¹			Average Daily Sales Volume ¹		
	Three Months Ended September 30,		2020 vs. 2019	Three Months Ended September 30,		2020 vs. 2019
	2020	2019	Favorable (Unfavorable)	2020	2019	Favorable (Unfavorable)
Crude oil (MBbl and BOPD)	1,691	1,937	(246)	18,383	21,050	(2,667)
NGLs (MBbl and BOPD)	307	415	(108)	3,338	4,513	(1,175)
Natural gas (MMcf and MMcfpd)	1,421	1,899	(478)	15	21	(6)
Total (MBOE and BOEPD)	2,235	2,668	(433)	24,295	29,003	(4,708)

	Total Sales Volume ¹			Average Daily Sales Volume ¹		
	Nine Months Ended September 30,		2020 vs. 2019	Nine Months Ended September 30,		2020 vs. 2019
	2020	2019	Favorable (Unfavorable)	2020	2019	Favorable (Unfavorable)
Crude oil (MBbl and BOPD)	5,291	5,409	(118)	19,309	19,814	(505)
NGLs (MBbl and BOPD)	917	1,119	(202)	3,347	4,100	(753)
Natural gas (MMcf and MMcfpd)	4,206	5,377	(1,171)	15	20	(5)
Total (MBOE and BOEPD)	6,909	7,425	(516)	25,214	27,196	(1,982)

¹ All volumetric statistics presented represent volumes of commodity production that were actually sold during the periods in 2020 as presented. Actual physical production volume was 2,297 MBOE (24,967 BOEPD) and 6,961 MBOE (25,405 BOEPD) during the three and nine months ended September 30, 2020, respectively. Volumes of crude oil physically produced in excess of volumes sold were placed in temporary storage in September 2020 to be sold in the fourth quarter of 2020.

Total sales volume decreased 16 percent and seven percent during the three and nine month periods in 2020, respectively, due primarily to fewer wells turned to sales in the 2020 periods when compared to the corresponding periods in 2019 primarily as a result of the temporary suspension of our 2020 drilling program shortly after the magnitude of the global economic downturn associated with COVID-19 pandemic became inevitable. Crude oil sales volume decreased 13 percent during the three month period in 2020 when compared to the corresponding period in 2019 due primarily to the suspension of the drilling program. While overall sales volume was lower in the nine-month period in 2020, crude oil sales volume decreased by only two percent compared to the corresponding period in 2019 due to a shift in development focus that began in the second half of 2019 to the oilier north and eastern portions of our acreage holdings. Both the three and nine-month periods in 2020 also experienced natural production declines.

Approximately 76 percent and 77 percent of total sales volume during the three and nine-month month periods in 2020 was attributable to crude oil when compared to approximately 73 percent during each of the corresponding periods in 2019. The increase in the crude oil composition of total sales volume was due primarily to the aforementioned shift in development plans that began in the second half of 2019 with less emphasis in the southeastern portion of our acreage holdings which have historically higher gas content.

Product Revenues and Prices

The following tables set forth a summary of our revenues and prices per unit of volume by product for the periods presented:

	Total Product Revenues			Product Revenues per Unit of Volume		
	Three Months Ended September 30,		2020 vs. 2019	Three Months Ended September 30,		2020 vs. 2019
	2020	2019	Favorable (Unfavorable)	2020	2019	Favorable (Unfavorable)
				(\$ per unit of volume)		
Crude oil	\$ 63,227	\$ 110,618	\$ (47,391)	\$ 37.39	\$ 57.12	\$ (19.73)
NGLs	2,824	3,546	(722)	9.20	8.54	0.66
Natural gas	2,563	4,215	(1,652)	1.80	2.22	(0.42)
Total	\$ 68,614	\$ 118,379	\$ (49,765)	\$ 30.70	\$ 44.37	\$ (13.67)

	Total Product Revenues			Product Revenues per Unit of Volume		
	Nine Months Ended September 30,		2020 vs. 2019	Nine Months Ended September 30,		2020 vs. 2019
	2020	2019	Favorable (Unfavorable)	2020	2019	Favorable (Unfavorable)
				(\$ per unit of volume)		
Crude oil	\$ 190,732	\$ 319,461	\$ (128,729)	\$ 36.05	\$ 59.06	\$ (23.01)
NGLs	6,295	12,596	(6,301)	6.86	11.25	(4.39)
Natural gas	7,273	13,782	(6,509)	1.73	2.56	(0.83)
Total	\$ 204,300	\$ 345,839	\$ (141,539)	\$ 29.57	\$ 46.58	\$ (17.01)

The following table provides an analysis of the changes in our revenues for the periods presented:

	Three Months Ended September 30, 2020 vs. 2019			Nine Months Ended September 30, 2020 vs. 2019		
	Revenue Variance Due to			Revenue Variance Due to		
	Volume	Price	Total	Volume	Price	Total
Crude oil	\$ (14,017)	\$ (33,374)	\$ (47,391)	\$ (7,004)	\$ (121,725)	\$ (128,729)
NGLs	(924)	202	(722)	(2,274)	(4,027)	(6,301)
Natural gas	(1,060)	(592)	(1,652)	(3,002)	(3,507)	(6,509)
	\$ (16,001)	\$ (33,764)	\$ (49,765)	\$ (12,280)	\$ (129,259)	\$ (141,539)

Our product revenues during the three and nine month periods in 2020 decreased compared to the corresponding periods in 2019 due primarily to 35 percent and 13 percent lower crude oil prices and volume, respectively, in the three month period in 2020 and 39 percent and two percent lower crude oil prices and volume, respectively, in the nine month period in 2020. NGL revenues declined in the three and nine month periods in 2020 due to lower volume (26 percent and 18 percent, respectively). While the NGL revenue decrease during the three month period in 2020 was tempered by eight percent higher prices, revenues for the nine month period were adversely impacted by 39 percent lower prices. Lower natural gas revenues were attributable to 19 percent and 32 percent lower pricing and 25 percent and 22 percent lower volume, respectively, during the three month and nine month periods in 2020. Total crude oil revenues were approximately 92 percent and 93 percent of our total product revenues during the three and nine month periods in 2020 as compared to 93 percent and 92 percent during the three and nine month periods in 2019.

Realized Differentials

The following table reconciles our realized price differentials from weighted-average NYMEX-quoted prices for WTI crude oil for the periods presented:

	Three Months Ended September 30,			Nine Months Ended September 30,		
	2020 vs. 2019		Favorable (Unfavorable)	2020 vs. 2019		Favorable (Unfavorable)
	2020	2019		2020	2019	
Realized crude oil prices per barrel	\$ 37.39	\$ 57.12	\$ (19.73)	\$ 36.05	\$ 59.06	\$ (23.01)
Weighted-average WTI prices	41.40	56.44	(15.04)	38.37	57.10	(18.73)
Realized differential to WTI	\$ (4.01)	\$ 0.68	\$ (4.69)	\$ (2.32)	\$ 1.96	\$ (4.28)

The adverse impact of COVID-19 and instability in the global energy markets exacerbated a declining trend in realized prices that effectively eliminated a premium margin to the NYMEX WTI index price for crude oil in the three and nine month periods in 2020 compared to the corresponding periods in 2019. Historically, we had realized premiums to NYMEX WTI index pricing as a substantial portion of our crude oil volume was sold based on Light Louisiana Sweet, or LLS, or Magellan East Houston, or MEH, pricing. During the 2020 periods, we no longer have any crude oil sales based on the LLS index.

Effects of Derivatives

The following table reconciles crude oil and natural gas revenues to realized prices, as adjusted for realized derivative settlements, for the periods presented:

	Three Months Ended September 30,		2020 vs. 2019		Nine Months Ended September 30,		2020 vs. 2019	
			Favorable				Favorable	
	2020	2019	(Unfavorable)		2020	2019	(Unfavorable)	
Crude oil revenues, as reported	\$ 63,227	\$ 110,618	\$ (47,391)		\$ 190,732	\$ 319,461	\$ (128,729)	
Derivative settlements, net	18,430	(788)	19,218		79,347	(9,061)	88,408	
	<u>\$ 81,657</u>	<u>\$ 109,830</u>	<u>\$ (28,173)</u>		<u>\$ 270,079</u>	<u>\$ 310,400</u>	<u>\$ (40,321)</u>	
Crude oil prices per Bbl	\$ 37.39	\$ 57.12	\$ (19.73)		\$ 36.05	\$ 59.06	\$ (23.01)	
Derivative settlements per Bbl	10.89	(0.41)	11.30		15.00	(1.68)	16.68	
	<u>\$ 48.28</u>	<u>\$ 56.71</u>	<u>\$ (8.43)</u>		<u>\$ 51.05</u>	<u>\$ 57.38</u>	<u>\$ (6.33)</u>	
Natural gas revenues, as reported	\$ 2,563	\$ 4,215	\$ (1,652)		\$ 7,273	\$ 13,782	\$ (6,509)	
Derivative settlements, net	111	—	111		547	—	547	
	<u>\$ 2,674</u>	<u>\$ 4,215</u>	<u>\$ (1,541)</u>		<u>\$ 7,820</u>	<u>\$ 13,782</u>	<u>\$ (5,962)</u>	
Natural gas prices per Mcf	\$ 1.80	\$ 2.22	\$ (0.42)		\$ 1.73	\$ 2.56	\$ (0.83)	
Derivative settlements per Mcf	0.08	—	0.08		0.13	—	0.13	
	<u>\$ 1.88</u>	<u>\$ 2.22</u>	<u>\$ (0.34)</u>		<u>\$ 1.86</u>	<u>\$ 2.56</u>	<u>\$ (0.70)</u>	

Gain on Sales of Assets

We recognize gains and losses on the sale or disposition of assets other than our oil and gas properties upon the completion of the underlying transactions. The following table sets forth the total net gains and losses recognized for the periods presented:

	Three Months Ended September 30,		2020 vs. 2019		Nine Months Ended September 30,		2020 vs. 2019	
			Favorable				Favorable	
	2020	2019	(Unfavorable)		2020	2019	(Unfavorable)	
Gain on sales of assets, net	\$ —	\$ 77	\$ (77)		\$ 14	\$ 118	\$ (104)	

There were insignificant net gains and losses recognized during the three and nine month periods in 2020 and 2019 primarily attributable to the disposition of certain support equipment, tubular inventory and well materials.

Other Revenues, net

Other revenues, net, includes fees for marketing and water disposal services that we charge to third parties, net of related expenses, as well as other miscellaneous revenues and credits attributable to our current operations. In addition, charges attributable to credit losses associated with our trade and joint venture partner receivables are included in this caption as a contra-revenue item.

The following table sets forth the total other revenues, net recognized for the periods presented:

	Three Months Ended September 30,		2020 vs. 2019		Nine Months Ended September 30,		2020 vs. 2019	
			Favorable				Favorable	
	2020	2019	(Unfavorable)		2020	2019	(Unfavorable)	
Other revenues, net	\$ 797	\$ 848	\$ (51)		\$ 1,958	\$ 1,342	\$ 616	

Our marketing fees declined in the 2020 periods due primarily to lower overall sales volume and related marketing activities. In addition, water disposal fees, net of operating costs, were \$0.7 million and \$1.7 million for the three and nine month periods in 2020, respectively, and \$0.7 million and \$0.9 million for the three and nine month periods in 2019. The higher water disposal-related net revenues during the nine month period in 2020 is due primarily to \$0.8 million of workover maintenance costs incurred during the second quarter of 2019 at our water disposal facilities. Finally, the 2020 periods include credit loss charges that were not incurred in the comparable periods in 2019.

Lease Operating Expenses

LOE includes costs that we incur to operate our producing wells and field operations. The most significant costs include compression and gas-lift, chemicals, water disposal, repairs and maintenance, including down-hole repairs, field labor, pumping and well-tending, equipment rentals, utilities and supplies, among others.

The following table sets forth our LOE for the periods presented:

	Three Months Ended September 30,		2020 vs. 2019		Nine Months Ended September 30,		2020 vs. 2019	
			Favorable				Favorable	
	2020	2019	(Unfavorable)		2020	2019	(Unfavorable)	
Lease operating	\$ 8,275	\$ 11,868	\$ 3,593		\$ 27,901	\$ 33,234	\$ 5,333	
Per unit (\$ per BOE)	\$ 3.70	\$ 4.45	\$ 0.75		\$ 4.04	\$ 4.48	\$ 0.44	
% change per unit			16.9 %				9.8 %	

LOE decreased on an absolute and per unit basis during the three and nine month periods in 2020 when compared to the corresponding periods in 2019. The absolute decrease was due primarily to lower sales volume in the 2020 periods primarily resulting in lower overall compression, chemical, contract labor, environmental, utilities and repairs and maintenance costs. In addition, we experienced an overall higher level of efficiency attributable to a combination of cost-containment efforts and the application of operational improvements. These broad reductions were partially offset by higher water disposal costs associated with protective measures from offset stimulation activities in the three and nine month periods in 2020.

Gathering, Processing and Transportation

GPT expense includes costs that we incur to gather and aggregate our crude oil, NGL and natural gas production from our wells and deliver them via pipeline or truck to a central delivery point, downstream pipelines or processing plants, and blend or process, as necessary, depending upon the type of production and the specific contractual arrangements that we have with the applicable midstream operators. In addition, GPT expense includes short-term rental charges for crude oil storage tanks.

The following table sets forth our GPT expense for the periods presented:

	Three Months Ended September 30,		2020 vs. 2019		Nine Months Ended September 30,		2020 vs. 2019	
			Favorable				Favorable	
	2020	2019	(Unfavorable)		2020	2019	(Unfavorable)	
Gathering, processing and transportation	\$ 5,760	\$ 6,600	\$ 840		\$ 16,797	\$ 16,937	\$ 140	
Per unit (\$ per BOE)	\$ 2.58	\$ 2.47	\$ (0.11)		\$ 2.43	\$ 2.28	\$ (0.15)	
% change per unit			(4.5) %				(6.6) %	

While GPT expense declined on an absolute basis during the three and nine month periods in 2020 as compared to the corresponding periods in 2019 due primarily to lower sales volumes, we did experience an increase on a per unit basis during the 2020 periods due primarily to a scheduled rate increase that became effective August 1, 2019, for crude oil gathering services. In addition to higher rates for gathering services for the entirety of the 2020 periods, the absolute decline in GPT expense was partially offset by short-term rental charges that we incurred in the 2020 periods to temporarily store a portion of our crude oil production and a shift in the mix of crude oil production sold at a central delivery point and pipeline from that sold at the wellhead which incurs no corresponding GPT expense subsequent to the achievement of required minimum crude oil volumes transported by pipeline.

Production and Ad Valorem Taxes

Production or severance taxes represent taxes imposed by the states in which we operate for the removal of resources including crude oil, NGLs and natural gas. Ad valorem taxes represent taxes imposed by certain jurisdictions, primarily counties, in which we operate, based on the assessed value of our operating properties. The assessments for ad valorem taxes are generally based on a published index prices.

The following table sets forth our production and ad valorem taxes for the periods presented:

	Three Months Ended September 30,		2020 vs. 2019		Nine Months Ended September 30,		2020 vs. 2019	
	2020	2019	Favorable	(Unfavorable)	2020	2019	Favorable	(Unfavorable)
Production and ad valorem taxes								
Production/severance taxes	\$ 3,074	\$ 5,511	\$ 2,437		\$ 8,692	\$ 16,067	\$ 7,375	
Ad valorem taxes	1,294	1,890	596		4,460	4,605	145	
	\$ 4,368	\$ 7,401	\$ 3,033		\$ 13,152	\$ 20,672	\$ 7,520	
Per unit (\$ per BOE)	\$ 1.95	\$ 2.77	\$ 0.82		\$ 1.90	\$ 2.78	\$ 0.88	
Production/severance tax rate as a percent of product revenues	4.5 %	4.7 %			4.3 %	4.6 %		

Production taxes decreased on an absolute basis and per unit basis during the three and nine month periods in 2020 when compared to the corresponding periods in 2019 due primarily to decreases in aggregate commodity sales prices of 31 percent and 37 percent in the 2020 periods. In addition, we were able to reclassify certain wells with regulatory certification from crude oil to high cost gas which has resulted in severance tax savings being realized in each of the three and nine month periods in 2020. Beginning in the second quarter of 2020, we decreased the accruals for ad valorem taxes based on our most recent estimates for assessments which reflects the recent substantial decline in commodity prices. During the second half of 2019, we increased our ad valorem accruals due to higher commodity-price based valuation assessments experienced in the 2018 and 2019 annual assessment periods, which were reflective of indicative prices published for 2019, and the effects of growing our assessable property base and increased working interests from acquisition activity.

General and Administrative

Our G&A expenses include employee compensation, benefits and other related costs for our corporate management and governance functions, rent and occupancy costs for our corporate facilities, insurance, and professional fees and consulting costs supporting various corporate-level functions, among others. In order to facilitate a meaningful discussion and analysis of our results of operations with respect to G&A expenses, we have disaggregated certain costs into three components as presented in the table below. Primary G&A encompasses all G&A costs except share-based compensation and certain significant special charges that are generally attributable to material stand-alone transactions or corporate actions that are not otherwise in the normal course.

The following table sets forth the components of our G&A for the periods presented:

	Three Months Ended September 30,		2020 vs. 2019		Nine Months Ended September 30,		2020 vs. 2019	
	2020	2019	Favorable	(Unfavorable)	2020	2019	Favorable	(Unfavorable)
Primary G&A	\$ 5,913	\$ 5,830	\$ (83)		\$ 19,322	\$ 16,272	\$ (3,050)	
Share-based compensation	775	1,046	271		2,582	3,101	519	
Significant special charges:								
Organizational restructuring, including severance	1,372	—	(1,372)		1,372	—	(1,372)	
Acquisition, divestiture and strategic transaction costs	525	—	(525)		525	800	275	
Total G&A	\$ 8,585	\$ 6,876	\$ (1,709)		\$ 23,801	\$ 20,173	\$ (3,628)	
Per unit (\$ per BOE)	\$ 3.84	\$ 2.58	\$ (1.26)		\$ 3.45	\$ 2.72	\$ (0.73)	
Per unit of excluding share-based compensation and other significant special charges identified above (\$ per BOE)	\$ 2.65	\$ 2.18	\$ (0.47)		\$ 2.80	\$ 2.19	\$ (0.61)	

Our primary G&A expenses increased on an absolute and per unit basis during the three and nine month periods in 2020 compared to the corresponding periods in 2019. The absolute increases are due primarily to a lower level of capitalized labor attributable to the suspension of our drilling program in the 2020 periods. In addition, we incurred higher information technology support, occupancy and consulting costs and professional fees in the 2020 periods. These increases were partially offset by lower incentive compensation accruals and the absence of cost-of-living and similar adjustments to salaries and wages in the 2020 periods. The increase in per unit costs was exacerbated by the effect of lower overall production volume in the 2020 periods.

Share-based compensation charges during the periods presented are attributable to the amortization of compensation cost, net of forfeitures, associated with the grants of time-vested restricted stock units, or RSUs, and performance-based restricted stock units, or PRSUs. The grants of RSUs and PRSUs are described in greater detail in Note 14 to the Condensed Consolidated Financial Statements included in Part I, Item 1, "Financial Statements." A substantial portion of the share-based compensation expense is attributable to the RSU and PRSU grants made in the normal course in March of 2020 and January of 2017. The remainder is attributable to grants of RSUs and PRSUs to certain employees upon their hiring or as a result of promotion in 2018 and 2019. All of our share-based compensation represents non-cash expenses.

In connection with the appointment of our new CEO and the related executive transition, we incurred certain incremental G&A costs. In July 2020, we also initiated a limited reduction-in-force, or RIF, action resulting in the payment of employee termination and severance benefits. Collectively, we have characterized these costs broadly as an organizational restructuring for which we incurred approximately \$1.4 million of costs. During the third quarter of 2020, we incurred certain professional fees and consulting costs of approximately \$0.5 million in connection with our previously announced strategic transaction with Juniper. During the first half of 2019, we incurred consulting and other costs, including legal and other professional fees, primarily associated with a merger transaction which was mutually terminated by us and the counterparty in March 2019.

Depreciation, Depletion and Amortization

DD&A expense includes charges for the allocation of property costs based on the volume of production, depreciation of fixed assets other than oil and gas assets as well as the accretion of our asset retirement obligations.

The following table sets forth total and per unit costs for DD&A for the periods presented:

	Three Months Ended September 30,		2020 vs. 2019		Nine Months Ended September 30,		2020 vs. 2019	
			Favorable				Favorable	
	2020	2019	(Unfavorable)		2020	2019	(Unfavorable)	
DD&A expense	\$ 37,038	\$ 46,519	\$ 9,481		\$ 114,891	\$ 129,687	\$ 14,796	
DD&A rate (\$ per BOE)	\$ 16.57	\$ 17.43	\$ 0.86		\$ 16.63	\$ 17.47	\$ 0.84	

DD&A decreased on an absolute and a per unit basis during the three and nine month periods in 2020 when compared to the corresponding periods in 2019. Lower production volume provided for decreases of \$7.5 million and \$9.0 million and lower DD&A rates resulted in decreases of \$1.9 million and \$5.8 million in the 2020 periods, respectively. The lower DD&A rates in the 2020 periods are primarily attributable to the effect of adding additional reserves in the fourth quarter of 2019 and the impairment recorded in the second quarter of 2020 referenced below.

Impairment of Oil and Gas Properties

We assess our oil and gas properties on a quarterly basis based on the results of a Ceiling Test in accordance with the full cost method of accounting for oil and gas properties.

	Three Months Ended September 30,		2020 vs. 2019		Nine Months Ended September 30,		2020 vs. 2019	
			Favorable				Favorable	
	2020	2019	(Unfavorable)		2020	2019	(Unfavorable)	
Impairment of oil and gas properties	\$ 235,989	\$ —	\$ (235,989)		\$ 271,498	\$ —	\$ (271,498)	

The three and nine months ended September 30, 2020 reflect impairments of our oil and gas properties of \$236.0 million and \$35.5 million recorded during the third and second quarters, respectively, a result of a decline in the twelve-month average prices of crude oil, NGLs and natural gas as indicated by our Ceiling Test under the full cost method of accounting for oil and gas properties.

Interest Expense

Interest expense includes charges for outstanding borrowings under the Credit Facility and the Second Lien Facility, derived from internationally-recognized interest rates with a premium based on our credit profile and the level of credit outstanding. In addition, we are assessed certain fees for the overall credit commitments provided to us as well as fees for credit utilization and letters of credit. Also included is the accretion of original issue discount on the Second Lien Facility and the amortization of issuance costs capitalized attributable to the Credit Facility and the Second Lien Facility. These costs are partially offset by interest amounts that we capitalize on unproved property costs while we are engaged in the evaluation of projects for the underlying acreage.

The following table summarizes the components of our interest expense for the periods presented:

	Three Months Ended September 30,		2020 vs. 2019		Nine Months Ended September 30,		2020 vs. 2019	
			Favorable				Favorable	
	2020	2019	(Unfavorable)		2020	2019	(Unfavorable)	
Interest on borrowings and related fees	\$ 7,375	\$ 8,945	\$ 1,570		\$ 22,944	\$ 27,960	\$ 5,016	
Accretion of original issue discount	205	188	(17)		602	551	(51)	
Amortization of debt issuance costs	594	608	14		2,734	1,993	(741)	
Capitalized interest	(677)	(1,005)	(328)		(2,067)	(3,234)	(1,167)	
	\$ 7,497	\$ 8,736	\$ 1,239		\$ 24,213	\$ 27,270	\$ 3,057	

Interest expense decreased during the three and nine month periods in 2020 as compared to the corresponding periods in 2019 due primarily to the effect of lower interest rates partially offset by higher outstanding balances under the Credit Facility during the nine month period in 2020. The weighted-average balances under the Credit Facility were lower in the three month period in 2020 compared to the 2019 period by approximately \$14 million and higher in the nine month period in 2020 compared to the 2019 period by approximately \$28 million. The weighted-average interest rates were lower during the same periods by 68 basis points and 146 basis points, respectively. The accretion of original issue discount is entirely attributable to the Second Lien Facility and the amortization of debt issuance costs includes amounts attributable to both the Credit Facility and Second Lien Facility. We wrote off approximately \$1 million of debt issuance costs associated with the Credit Facility in the second quarter of 2020 commensurate with the reduction in the borrowing base. We capitalized a smaller portion of interest during the 2020 periods as we maintained a smaller portion of unproved property as compared to the corresponding periods in 2019.

Derivatives

The gains and losses for our derivatives portfolio reflect changes in the fair value attributable to changes in market values relative to our hedged commodity prices and interest rate swaps.

The following table summarizes the gains and (losses) attributable to our commodity derivatives portfolio and interest rate swaps for the periods presented:

	Three Months Ended September 30,		2020 vs. 2019		Nine Months Ended September 30,		2020 vs. 2019	
			Favorable				Favorable	
	2020	2019	(Unfavorable)		2020	2019	(Unfavorable)	
Commodity derivative gains (losses)	\$ (6,923)	\$ 24,248	\$ (31,171)		\$ 117,406	\$ (30,166)	\$ 147,572	
Interest rate swap gains (losses)	32	—	32		(7,527)	—	(7,527)	
	\$ (6,891)	\$ 24,248	\$ (31,139)		\$ 109,879	\$ (30,166)	\$ 140,045	

In the nine month period in 2020, commodity prices collapsed dramatically compared to the prior year due primarily to the economic slowdown associated with the COVID-19 pandemic and the disruptions in the global energy markets. Accordingly, we substantially expanded our commodity hedging program and actively added put hedge contracts that allowed us to benefit from falling prices primarily in the earlier portion of the second quarter of 2020. Realized settlement receipts for crude oil and natural gas derivatives were \$18.5 million and \$79.9 million during the three and nine month periods in 2020 as compared to the realized settlement payments for crude oil of \$0.8 million and \$9.1 million in the three and nine month periods in 2019.

In 2020, we began hedging a portion of our exposure to variable interest rates associated with our Credit Facility and Second Lien Facility. For the three and nine month periods in 2020, we paid \$0.9 million and \$1.3 million of net settlements from our interest rate swaps as the benchmark rate declined relative to our weighted-average hedged rate and we recognized mark-to-market losses as well.

Other, net

Other, net includes interest income, non-service costs associated with our retiree benefit plans and miscellaneous items of income and expense that are not directly associated with our current operations, including certain recoveries and write-offs attributable to prior years and properties that have been divested.

The following table sets forth the other income (expense), net recognized for the periods presented:

	Three Months Ended September 30,		2020 vs. 2019		Nine Months Ended September 30,		2020 vs. 2019	
			Favorable				Favorable	
	2020	2019	(Unfavorable)		2020	2019	(Unfavorable)	
Other, net	\$ 21	\$ (248)	\$ 269		\$ (42)	\$ (134)	\$ 92	

Other, net income (expense) increased during the three and nine month periods in 2020 as compared to the corresponding periods in 2019 due primarily to the write-off in the 2019 three month period of \$0.2 million attributable to acquisition transactions in prior years that were no longer deemed recoverable. This charge was partially offset in three and nine month periods in 2019 by recovery of sales and use taxes attributable to previously divested properties. Each of the periods in 2020 and 2019 includes comparable charges of less than \$0.1 million associated with our retiree benefit plans.

Income Taxes

Income taxes represent our income tax provision as determined in accordance with generally accepted accounting principles. It considers taxes attributable to our obligations for federal taxes under the Internal Revenue Code as well as to the various states in which we operate, primarily Texas, or otherwise have continuing involvement.

The following table summarizes our income tax expense for the periods presented:

	Three Months Ended September 30,		2020 vs. 2019		Nine Months Ended September 30,		2020 vs. 2019	
			Favorable				Favorable	
	2020	2019	(Unfavorable)		2020	2019	(Unfavorable)	
Income tax (expense) benefit	\$ 1,558	\$ (942)	\$ 2,500		\$ 1,110	\$ (1,736)	\$ 2,846	
Effective tax rate	0.6 %		1.7 %		0.6 %		2.5 %	

We recognized a federal and state income tax expense for the nine months ended September 30, 2020 at the blended rate of 21.6%. The federal and state tax expense was offset by an adjustment to the valuation allowance against our net deferred tax assets resulting in an effective tax rate of 0.6%, which is fully attributable to the State of Texas. The provision also reflects a reclassification of \$1.2 million from deferred tax assets for our remaining refundable alternative minimum tax, or AMT, credit carryforwards, which were accelerated due to certain income tax provisions provided in the CARES Act. In June 2020, we received a refund of \$2.5 million for the aforementioned AMT credit carryforwards. Our net deferred income tax liability balance of \$1.4 million as of September 30, 2020 is fully attributable to the State of Texas and primarily related to property and equipment.

We recognized a federal and state income tax benefit for the nine months ended September 30, 2019 at the blended rate of 21.6%; however, the federal and state tax expense was offset by an adjustment to the valuation allowance against our net deferred tax assets resulting in an effective tax rate of 2.5%.

Off Balance Sheet Arrangements

As of September 30, 2020, we had no off-balance sheet arrangements other than information technology licensing, service agreements, in-kind commodity recovery arrangements for imbalances and letters of credit, all of which are customary in our business.

Critical Accounting Estimates

The process of preparing financial statements in accordance with accounting principles generally accepted in the United States of America, or GAAP, requires our management to make estimates and judgments regarding certain items and transactions. It is possible that materially different amounts could be recorded if these estimates and judgments change or if the actual results differ from these estimates and judgments. Disclosure of our most critical accounting estimates that involve the judgment of our management can be found in our Annual Report on Form 10-K for the year ended December 31, 2019.

As described in this Quarterly Report on Form 10-Q as well as the Critical Accounting Estimates disclosures in the Annual Report on Form 10-K, we apply the full cost method to account for our oil and gas properties. At the end of each quarterly reporting period, we perform a Ceiling Test in order to determine if our oil and gas properties have been impaired. For purposes of the Ceiling Test, estimated discounted future net revenues are determined using the prior 12-month's average price based on closing prices on the first day of each month, adjusted for differentials, discounted at 10%. The calculation of the Ceiling Test and provision for DD&A are based on estimates of proved reserves. There are significant uncertainties inherent in estimating quantities of proved reserves and projecting future rates of production, timing and plan of development.

As of September 30, 2020, the carrying value of our proved oil and gas properties exceeded the limit determined by the Ceiling Test by \$236 million which resulted in our recording an impairment charge for the period then ended. Because the Ceiling Test utilizes commodity prices based on a trailing twelve month average, it does not fully reflect the substantial decline in commodity prices due to the economic impact of the COVID-19 pandemic and the ongoing disruption in global energy markets. If current commodity prices continue at these levels or decline further, it is likely that we will experience an additional impairment in the carrying value of our oil and gas properties during the fourth quarter of 2020 and into the first quarter of 2021.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

Market risk is the risk of loss arising from adverse changes in market rates and prices. The principal market risks to which we are exposed are interest rate risk and commodity price risk.

Interest Rate Risk

All of our long-term debt instruments are subject to variable interest rates. As of September 30, 2020, we had borrowings of \$324.4 million under the Credit Facility and \$200 million under the Second Lien Facility at interest rates of 3.41% and 8.00%, respectively. Assuming a constant borrowing level under the Credit Facility and Second Lien Facility, an increase (decrease) in the interest rate of one percent would result in an increase (decrease) in aggregate interest payments of approximately \$5.2 million on an annual basis, excluding the offsetting impact of our interest rate swap derivatives.

Commodity Price Risk

We produce and sell crude oil, NGLs and natural gas. As a result, our financial results are affected when prices for these commodities fluctuate. Our price risk management programs permit the utilization of derivative financial instruments (such as swaps) to seek to mitigate the price risks associated with fluctuations in commodity prices as they relate to a portion of our anticipated production. The derivative instruments are placed with major financial institutions that we believe to be of acceptable credit risk. The fair values of our derivative instruments are significantly affected by fluctuations in the prices of crude oil. We have not typically entered into derivative instruments with respect to NGLs, although we may do so in the future.

As of September 30, 2020, our commodity derivative portfolio was in a net assets position. The contracts associated with this position are with seven counterparties, all of which are investment grade financial institutions. This concentration may impact our overall credit risk, either positively or negatively, in that these counterparties may be similarly affected by changes in economic or other conditions. We neither paid nor received collateral with respect to our derivative positions.

During the nine months ended September 30, 2020, we reported net commodity derivative gains of \$117.4 million. We have experienced and could continue to experience significant changes in the estimate of derivative gains or losses recognized due to fluctuations in the value of our derivative instruments. Our results of operations are affected by the volatility of unrealized gains and losses and changes in fair value, which fluctuate with changes in crude oil, NGL and natural gas prices. These fluctuations could be significant in a volatile pricing environment. See Note 5 to the Condensed Consolidated Financial Statements for a further description of our price risk management activities.

The following table sets forth our commodity derivative positions as of September 30, 2020:

	4Q2020	1Q2021	2Q2021	3Q2021	4Q2021
NYMEX WTI Crude Swaps					
Average Volume Per Day (barrels)	10,174	3,333	3,297		
Weighted Average Swap Price (\$/barrel)	\$ 57.59	\$ 55.89	\$ 55.89		
NYMEX WTI Purchased Puts/Sold Calls					
Average Volume Per Day (barrels)	2,000	6,667	6,593	4,891	4,891
Weighted Average Purchased Put Price (\$/barrel)	\$ 48.00	\$ 44.50	\$ 44.50	\$ 40.67	\$ 40.67
Weighted Average Sold Call (\$/barrel)	\$ 57.10	\$ 53.53	\$ 53.53	\$ 53.50	\$ 53.50
NYMEX WTI Sold Puts					
Average Volume Per Day (barrels)	3,783	11,667	11,538	4,891	4,891
Weighted Average Sold Put Price (\$/barrel)	\$ 43.55	\$ 36.93	\$ 36.93	\$ 35.00	\$ 35.00
MEH-WTI Basis Swaps					
Average Volume Per Day (barrels)	6,348				
Weighted Average Fixed Basis Price (\$/barrel)	\$ 1.31				
NYMEX WTI Crude CMA Roll Basis Swaps					
Average Volume Per Day (barrels)	2,174				
Weighted Average Swap Price (\$/barrel)	\$ (0.42)				
NYMEX HH Purchased Puts/Sold Calls					
Average Volume Per Day (MMBtus)	12,804	10,000	9,890	9,783	9,783
Weighted Average Purchased Put (\$/MMBtu)	\$ 2.00	\$ 2.61	\$ 2.61	\$ 2.61	\$ 2.61
Weighted Average Sold Call (\$/MMBtu)	\$ 2.21	\$ 3.12	\$ 3.12	\$ 3.12	\$ 3.12
NYMEX HH Sold Puts					
Average Volume Per Day (MMBtus)		\$ 6,667	\$ 6,593	\$ 6,522	\$ 6,522
Weighted Average Sold Put Price (\$/MMBtus)		\$ 2.00	\$ 2.00	\$ 2.00	\$ 2.00

The following table illustrates the estimated impact on the fair values of our derivative financial instruments and operating income attributable to hypothetical changes in the underlying commodity prices. This illustration assumes that crude oil and natural gas prices and production volumes remain constant at anticipated levels. The estimated changes in operating income exclude potential cash receipts or payments in settling these derivative positions.

	Change of 10% per Bbl of Crude Oil (\$ in millions)	
	Increase	Decrease
Effect on the fair value of crude oil derivatives ¹	\$ (9.8)	\$ 7.8
Effect of crude oil price changes for the remainder of 2020 on operating income, excluding derivatives ²	\$ 5.0	\$ (4.0)

¹ Based on derivatives outstanding as of September 30, 2020.

² These sensitivities are subject to significant change.

Item 4. Controls and Procedures.

(a) Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, performed an evaluation of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) of the Exchange Act) as of September 30, 2020. Our disclosure controls and procedures are designed to ensure that information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported on a timely basis and that such information is accumulated and communicated to management, including our Chief Executive Officer and our Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. Based on that evaluation, our Chief Executive Officer and our Chief Financial Officer concluded that, as of September 30, 2020, such disclosure controls and procedures were effective.

(b) Changes in Internal Control Over Financial Reporting

During the quarter ended September 30, 2020, there were no changes to our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Part II. OTHER INFORMATION

Item 1. *Legal Proceedings.*

We are not aware of any material pending legal or governmental proceedings against us, any material proceedings by governmental officials against us that are pending or contemplated to be brought against us and no such proceedings have been terminated during the period covered by this quarterly report on Form 10-Q. See Note 12 to our Condensed Consolidated Financial Statements included in Part I, Item 1, "Financial Statements" for additional information regarding our legal and regulatory matters.

Item 1A. *Risk Factors.*

There have been no material changes to the risk factors disclosed in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2019 and Part II, Item 1A of our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2020, except as follows:

We will be subject to certain uncertainties while the Transactions are pending, which could adversely affect our business.

Uncertainty about the effect of the Transactions on employees and those that do business with us or invest in our securities may have an adverse effect on the Company or the trading price of our common stock. These uncertainties may impair our ability to attract, retain and motivate key personnel until the Transactions are completed and for a period of time thereafter, and could cause those that transact with us to seek to change their existing business relationships with us. During the pendency of the Transactions, management and other personnel will be required to dedicate time and attention to execution of the Transactions, which may partially divert their attention from the Company's business. The Company will also incur significant transaction expenses, currently estimated at \$17-19 million, regardless of whether the Transactions are consummated or beneficial, and such expenses may be more than anticipated, particularly if the Transactions are not completed on the expected timeline.

In addition, the agreements entered into in connection with the Transactions restrict us from entering into certain corporate transactions, entering into certain material contracts, making certain changes to our capital budget, incurring certain indebtedness and taking other specified actions without the consent of Juniper, and generally require us to continue our operations in the ordinary course of business during the pendency of the Transactions. These restrictions may prevent us from pursuing attractive business opportunities or adjusting our capital plan prior to the completion of the Transactions.

We may be subject to lawsuits relating to the Transactions, which could adversely affect our business, financial condition and operating results.

Lawsuits may be filed challenging the Transactions, which could prevent the Transactions from being completed, or could result in a material delay in, or the abandonment of, the Transactions. Even if the lawsuits are without merit, defending against these claims can result in substantial costs and divert management time and resources. An adverse judgment could result in monetary damages, which could have a negative impact on our liquidity and financial condition. Additionally, if a plaintiff is successful in obtaining an injunction prohibiting completion of the Transactions, then that injunction may delay or prevent the Transactions from being completed, which may adversely affect our business, financial position and results of operations.

The termination of the agreements entered into in connection with the Transactions could negatively impact our business or result in our having to pay a termination fee.

The Transactions are subject to a number of conditions that must be satisfied, including the approval by the Company's stockholders relating to the issuance of equity securities in connection with the Transactions, or waived, in each case prior to the completion of the Transactions. These conditions to the completion of the Transactions, some of which are beyond the control of the Company, may not be satisfied or waived in a timely manner or at all, and, accordingly, the Transactions may be delayed or may not be completed. The agreements entered into in connection with the Transactions may also be terminated under certain circumstances. If the Transactions are not completed for any reason, the Company's ongoing businesses and financial results may be adversely affected.

Additionally, if the agreements entered into in connection with the Transactions are terminated under certain circumstances, we may be required to pay termination fees of approximately \$9.4 million in the aggregate or reimburse certain expenses in an amount up to \$2.8 million in the aggregate, which would have a negative impact on our liquidity and financial condition.

Following the Transactions, Juniper and its affiliates will control the Company and their interests may conflict with the Company's and its stockholders' interests in the future.

Following the completion of the Transactions, Juniper and its affiliates are expected to own approximately 59% of our voting securities. As a result, Juniper will be able to control the election and removal of our directors and thereby control our policies and operations, including the appointment of management, future issuances of our common stock or other securities, payment of dividends, if any, on our common stock, the incurrence or modification of indebtedness by us, amendment of our organizational documents and the entering into of extraordinary transactions, and their interests may not in all cases be aligned

with other stockholders' interests. In addition, Juniper and its affiliates may have an interest in pursuing acquisitions, divestitures and other transactions that, in their judgment, could enhance their investment, even though such transactions might involve risks to other stockholders. For example, Juniper could cause us to make acquisitions that increase our indebtedness or cause us to sell revenue-generating assets.

In addition, Juniper and its affiliates will be able to determine the outcome of all matters requiring stockholder approval and will be able to cause or prevent a change of control of the Company or a change in the composition of our Board of Directors and could preclude any acquisition of the Company. This concentration of voting control could deprive stockholders of an opportunity to receive a premium for their shares of common stock as part of a sale of the Company and ultimately might affect the market price of our common stock.

Moreover, upon the closing of the Transactions, Juniper will have certain director designation rights and, at the time of the closing of the Transactions, Juniper will be entitled to appoint five directors for so long as it and its affiliates beneficially own at least 50% of the Total Shares (as defined below). For so long as Juniper and its affiliates own at least 10% of the Total Shares, Juniper will have the right to designate for nomination one director to our Board. "Total Shares" means (i) the number of shares of Penn Virginia common stock issuable upon redemption or exchange of common units of the Partnership for common stock plus (ii) the number of shares of Penn Virginia common stock then-outstanding.

The market value of our common stock could decline if large amounts of our equity securities are sold following the Transactions.

If the Transactions are consummated, the Company will issue shares of preferred stock to Juniper and its affiliates and Juniper and its affiliates will also receive common units of the Partnership, which are exchangeable for shares of our common stock at the election of the holder for no additional consideration. Although Juniper and its affiliates will be restricted from selling any of its equity securities in Penn Virginia for six months following the closing of the Transactions, Juniper and its affiliates may decide to reduce its investment in the Company after such time. Any such sales of Penn Virginia equity securities, or expectations thereof, could have the effect of depressing the market price for our common stock.

We may not achieve the anticipated benefits of the Transactions.

The success of the Transactions will depend, in part, on our ability to realize the anticipated benefits of the Transactions. The anticipated benefits of the Transactions may not be fully realized or may take longer to realize for various reasons, including difficulties integrating operations, higher than expected integration and operating costs or other difficulties and fluctuations in market prices. Additionally, there are numerous uncertainties inherent in estimating quantities of proved oil and gas reserves, actual future production rates and associated costs and the assumption of potential liabilities with respect to the assets contributed by Rocky Creek. Actual results may vary substantially from those assumed in our estimates. A customary review of such properties will not necessarily reveal all existing or potential problems. An inability to realize the full extent of the anticipated benefits of the Transactions could have an adverse effect upon our revenues, level of expenses and results of operations.

The Transactions may be completed even though material adverse changes subsequent to the announcement of the Transactions, such as industry-wide changes or other events, may occur.

In general, the parties to the Transactions can refuse to complete the Transactions if there is a material adverse change affecting the other party. However, some types of changes do not permit the Company to refuse to complete the Transactions, even if such changes would have a material adverse effect on any of the parties involved in the Transactions. For example, if the assets to be contributed by Rocky Creek are adversely impacted as a result of a decrease in commodity prices or general economic conditions, the Company would not have the right to refuse to complete the Transactions. If adverse changes occur that affect the assets to be contributed by Rocky Creek but the parties are still required to complete the Transactions, the Company's share price, business and financial results after the completion of the Transactions may suffer.

The COVID-19 outbreak may adversely affect the Company's ability to timely consummate the Transactions.

COVID-19 and the various precautionary measures attempting to limit its spread taken by many governmental authorities worldwide has had a severe effect on global markets and the global economy. The extent to which the COVID-19 pandemic impacts the Company's business operations will depend on future developments, which are highly uncertain and cannot be predicted, including new information which may emerge concerning the severity of COVID-19 and the nature and extent of governmental actions taken to contain it or treat its impact, among others. COVID-19 and official actions in response to it have made it more challenging for the Company and relevant third parties to adequately staff its and their respective businesses and operations, and may cause delay in the Company's ability to obtain the relevant approvals required for the completion of the Transactions.

Item 5. Other Information.

None.

Item 6. Exhibits.

- (10.1) Separation Agreement, dated as of August 17, 2020, by and between Penn Virginia Corporation and John A. Brooks (incorporated by reference to Exhibit 10.1 to Registrant's Current Report on Form 8-K filed on August 21, 2020).
- (10.2) Penn Virginia 2017 Special Severance Plan, Amended and Restated Effective August 17, 2020 (incorporated by reference to Exhibit 10.2 to Registrant's Current Report on Form 8-K filed on August 21, 2020).
- (10.3) Form of Officer Indemnification Agreement (incorporated by reference to Exhibit 10.3 to Registrant's Current Report on Form 8-K filed on August 21, 2020).
- (10.4)* Agreement and Amendment No.8 to Credit Agreement, dated as of July 8, 2020, among Penn Virginia Holding Corp., as borrower, Penn Virginia Corporation, as parent, the subsidiaries of the borrower thereto, the lenders party thereto and Wells Fargo Bank, National Association, as administrative agent.
- (31.1)* Certification Pursuant to Rule 13a-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- (31.2)* Certification Pursuant to Rule 13a-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- (32.1)† Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- (32.2)† Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- (101.INS)* Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
- (101.SCH)* Inline XBRL Taxonomy Extension Schema Document
- (101.CAL)* Inline XBRL Taxonomy Extension Calculation Linkbase Document
- (101.DEF)* Inline XBRL Taxonomy Extension Definition Linkbase Document
- (101.LAB)* Inline XBRL Taxonomy Extension Label Linkbase Document
- (101.PRE)* Inline XBRL Taxonomy Extension Presentation Linkbase Document
- (104)* The cover page of Penn Virginia Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2020, formatted in Inline XBRL (included within the Exhibit 101 attachments).

* Filed herewith.

† Furnished herewith.

**AGREEMENT AND AMENDMENT NO. 8
TO CREDIT AGREEMENT**

This AGREEMENT AND AMENDMENT NO. 8 TO CREDIT AGREEMENT (“Agreement”) dated as of July 8, 2020 (the “Effective Date”), is among Penn Virginia Holding Corp., a Delaware corporation (the “Borrower”), Penn Virginia Corporation, a Virginia corporation (the “Parent”), the subsidiaries of the Borrower party hereto (together with the Parent, each a “Guarantor” and collectively, the “Guarantors”), the Lenders (as defined below) party hereto, and Wells Fargo Bank, National Association, as administrative agent (in such capacity, the “Administrative Agent”) for the Lenders and as issuing lender (in such capacity, the “Issuing Lender”).

RECITALS

A. The Parent, the Borrower, the Administrative Agent, the Issuing Lender, and the financial institutions party thereto from time to time, as lenders (the “Lenders”) are parties to that certain Credit Agreement dated as of September 12, 2016, as amended by that certain Amendment No. 1 to Credit Agreement dated as of March 13, 2017, that certain Master Assignment, Agreement and Amendment No. 2 to Credit Agreement dated as of June 27, 2017, that certain Master Assignment, Agreement and Amendment No. 3 to Credit Agreement dated as of September 29, 2017, that certain Master Assignment, Agreement and Amendment No. 4 to Credit Agreement dated as of March 1, 2018, that certain Borrowing Base Increase Agreement and Amendment No. 5 to Credit Agreement dated as of October 26, 2018, that certain Master Assignment, Borrowing Base Increase Agreement, and Amendment No. 6 to Credit Agreement dated as of May 7, 2019, and that certain Borrowing Base Redetermination Agreement and Amendment No. 7 to Credit Agreement dated as of April 30, 2020 (as so amended, the “Credit Agreement”).

B. The parties hereto wish to, subject to the terms and conditions set forth herein, amend the Credit Agreement as provided herein.

NOW THEREFORE, in consideration of the premises and the mutual covenants, representations and warranties contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

Section 1. **Defined Terms.** As used in this Agreement, each of the terms defined in the opening paragraph and the Recitals above shall have the meanings assigned to such terms therein. Each term defined in the Credit Agreement and used herein without definition shall have the meaning assigned to such term in the Credit Agreement, unless expressly provided to the contrary.

Section 2. **Other Definitional Provisions.** The definitions of terms herein shall apply equally to the singular and plural forms of the terms defined. Whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms. The words “include,” “includes” and “including” shall be deemed to be followed by the phrase “without limitation.” The word “will” shall be construed to have the same meaning and effect as the word “shall.” Unless the context requires otherwise (a) any definition of or reference to any agreement, instrument or other document herein shall be construed as referring to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein), (b) any reference herein to any Person shall be construed to include such Person’s successors and assigns, (c) the words “herein,” “hereof” and “hereunder,” and words of similar import, shall be construed to refer to this Agreement in its entirety and not to any

particular provision hereof, (d) all references herein to Articles, Sections, Exhibits and Schedules shall be construed to refer to Articles and Sections of, and Exhibits and Schedules to, this Agreement, (e) any reference to any law or regulation herein shall, unless otherwise specified, refer to such law or regulation as amended, modified or supplemented from time to time, and (f) the words “asset” and “property” shall be construed to have the same meaning and effect and to refer to any and all tangible and intangible assets and properties, including cash, securities, accounts and contract rights. Titles and captions of Articles, Sections and subsections in this Agreement are for convenience only, and neither limit nor amplify the provisions of this Agreement.

Section 3. **Amendments to Credit Agreement.**

(a) Section 1.01 (*Certain Defined Terms*) of the Credit Agreement is hereby amended by adding the following new definition in alphabetical order therein:

“Non-Commercial Bank” means any Person other than a commercial bank engaged in oil and gas reserve-based lending as part of its business.

(b) Section 9.07(b) (*Assignment by Lenders*) of the Credit Agreement is hereby amended by replacing clause (iii) therein in its entirety with the following:

(iii) Required Consents. No consent shall be required for any assignment except to the extent required by paragraph (b)(i) of this Section and, in addition:

(A) the consent of the Borrower (such consent not to be unreasonably withheld or delayed) shall be required unless (x) an Event of Default has occurred and is continuing at the time of such assignment or (y) such assignment is to a Lender, an Affiliate of a Lender or an Approved Fund; provided that (1) the Borrower shall be deemed to have consented to any such assignment unless it shall object thereto by written notice to the Administrative Agent within 5 Business Days after having received notice thereof, and (2) notwithstanding the foregoing but subject to the foregoing clause (1), unless an Event of Default has occurred and is continuing, the consent of the Borrower is required if such assignment is to a Non-Commercial Bank regardless of whether such Non-Commercial Bank is a Lender, an Affiliate of a Lender or an Approved Fund;

(B) the consent of the Administrative Agent (such consent not to be unreasonably withheld or delayed) shall be required for assignments to a Person that is not a Lender and for assignments to any Lender that is a Non-Commercial Bank; and

(C) the consent of the Issuing Lender shall be required for any such assignment to a Person that is not a Lender and for assignments to any Lender that is a Non-Commercial Bank.

Section 4. **Representations and Warranties.** Each Loan Party hereby represents and warrants that:

(a) before and after giving effect hereto, the representations and warranties contained in Article IV of the Credit Agreement and the representations and warranties contained in the Security Instruments, the Guaranty, and each of the other Loan Documents are true and correct in all material respects (unless already qualified by materiality or Material Adverse Change in the text thereof, in which

case, such representations and warranties shall be true and correct in all respects) on and as of the date hereof, as though made on and as of such date, except to the extent that any such representation or warranty expressly relates solely to an earlier date, in which case it shall have been true and correct in all material respects (unless already qualified by materiality or Material Adverse Change in the text thereof, in which case, such representations and warranties shall be true and correct in all respects) as of such earlier date;

(b) all conditions required under Section 6 of this Agreement have been met other than such conditions which have been waived by the Lenders; *provided* that (1) for items which require the satisfaction of the Administrative Agent or Lenders, the Borrower may assume such satisfaction and (2) any Responsible Officer of the Borrower may assume that any signatures of any party other than a Loan Party have been received by the Administrative Agent and are genuine and authorized by all requisite actions;

(c) before and after giving effect hereto, no Default or Event of Default has occurred and is continuing;

(d) the execution, delivery and performance of this Agreement by such Loan Party are within its corporate, partnership, or limited liability company power and authority, as applicable, and have been duly authorized by all necessary corporate, partnership, or limited liability company action, as applicable;

(e) this Agreement constitutes the legal, valid and binding obligation of such Loan Party enforceable in accordance with its terms, except as limited by applicable Debtor Relief Laws affecting the rights of creditors generally and general principles of equity whether applied by a court of law or equity;

(f) there are no governmental or other third party consents, licenses and approvals required in connection with the execution, delivery, performance, validity and enforceability of this Agreement;

(g) the Collateral is unimpaired by this Agreement and the Loan Parties have granted to the Administrative Agent an Acceptable Security Interest in the Collateral covered by the Security Instruments and such Liens are not subject to avoidance, subordination, recharacterization, recovery, attack, offset, counterclaim, or defense of any kind; and

(h) as of the Effective Date, no action, suit, investigation or other proceeding by or before any arbitrator or any Governmental Authority is threatened or pending and no preliminary or permanent injunction or order by a state or federal court has been entered in connection with this Agreement or any other Loan Document.

Section 5. **Conditions to Effectiveness.** This Agreement shall become effective on the Effective Date and enforceable against the parties hereto upon the occurrence of the following conditions which may occur prior to or concurrently with the closing of this Agreement:

(a) the Administrative Agent shall have received this Agreement executed by duly authorized officers of the Parent, the Borrower, each Guarantor, the Administrative Agent, and the Majority Lenders; and

(b) the Borrower shall have paid all fees and expenses of the Administrative Agent's outside legal counsel pursuant to all invoices presented for payment prior to the Effective Date (unless the Administrative Agent consents to the payment of such fees post-closing).

Section 6. **Acknowledgments and Agreements.**

(a) Each Loan Party acknowledges that on the date hereof all outstanding Obligations are payable in accordance with their terms and each Loan Party waives any defense, offset, counterclaim or recoupment (other than a defense of payment or performance) with respect thereto.

(b) The Parent, Borrower, each Guarantor, the Administrative Agent, the Issuing Lender, and each Lender party hereto does hereby adopt, ratify, and confirm the Credit Agreement, as amended hereby, and acknowledges and agrees that the Credit Agreement, as amended hereby, is and remains in full force and effect, and acknowledge and agree that their respective liabilities and obligations under the Credit Agreement, as amended hereby, the Guaranty, and the other Loan Documents, are not impaired in any respect by this Agreement.

(c) Nothing herein shall constitute a waiver or relinquishment of (i) any Default or Event of Default under any of the Loan Documents, (ii) any of the agreements, terms or conditions contained in any of the Loan Documents, (iii) any rights or remedies of the Administrative Agent or any Lender with respect to the Loan Documents, or (iv) the rights of the Administrative Agent, the Issuing Lender, or any Lender to collect the full amounts owing to them under the Loan Documents.

(d) From and after the Effective Date, all references to the Credit Agreement and the Loan Documents shall mean the Credit Agreement and such Loan Documents, as amended by this Agreement. This Agreement is a Loan Document for the purposes of the provisions of the other Loan Documents.

Section 7. **Reaffirmation of Security Instruments.** Each Loan Party (a) reaffirms the terms of and its obligations (and the security interests granted by it) under each Security Instrument to which it is a party, and agrees that each such Security Instrument will continue in full force and effect to secure the Secured Obligations as the same may be amended, supplemented, or otherwise modified from time to time, and (b) acknowledges, represents, warrants and agrees that the Liens and security interests granted by it pursuant to the Security Instruments are valid, enforceable and subsisting and create a security interest to secure the Secured Obligations.

Section 8. **Reaffirmation of the Guaranty.** Each Guarantor hereby ratifies, confirms, acknowledges and agrees that its obligations under the Guaranty are in full force and effect and that such Guarantor continues to unconditionally and irrevocably guarantee the full and punctual payment, when due, whether at stated maturity or earlier by acceleration or otherwise, all of the Guaranteed Obligations (as defined in the Guaranty), as such Guaranteed Obligations may have been amended by this Agreement, and its execution and delivery of this Agreement does not indicate or establish an approval or consent requirement by such Guarantor under the Guaranty, in connection with the execution and delivery of amendments, consents or waivers to the Credit Agreement or any of the other Loan Documents.

Section 9. **Counterparts.** This Agreement may be signed in any number of counterparts and by different parties hereto in separate counterparts, each of which when so executed shall be deemed to be an original and all of which, taken together, constitute one and the same agreement. Delivery of an executed counterpart of a signature page of this Agreement by facsimile or by e-mail "PDF" copy shall be effective as delivery of a manually executed counterpart of this Agreement.

Section 10. **Successors and Assigns.** This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns permitted pursuant to the Credit Agreement.

Section 11. **Invalidity.** In the event that any one or more of the provisions contained in this Agreement shall be held invalid, illegal or unenforceable in any respect under any applicable Legal Requirement, the validity, legality, and enforceability of the remaining provisions contained herein or therein shall not be affected or impaired thereby.

Section 12. **Governing Law.** This Agreement and any claim, controversy, dispute or cause of action (whether in contract or tort or otherwise) based upon, arising out of or relating to this Agreement or any other Loan Document (except, as to any other Loan Document, as expressly set forth therein) and the transactions contemplated hereby and thereby shall be governed by, and construed in accordance with, the law of the State of New York (including Section 5-1401 and Section 5-1402 of the General Obligations Law of the State of New York), without reference to any other conflicts or choice of law principles thereof.

Section 13. **Entire Agreement.** **THIS WRITTEN AGREEMENT AND THE OTHER LOAN DOCUMENTS REPRESENT THE FINAL AGREEMENT AMONG THE PARTIES AND MAY NOT BE CONTRADICTED BY EVIDENCE OF PRIOR, CONTEMPORANEOUS, OR SUBSEQUENT ORAL AGREEMENTS OF THE PARTIES.**

THERE ARE NO UNWRITTEN ORAL AGREEMENTS AMONG THE PARTIES.

[SIGNATURES BEGIN ON NEXT PAGE]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective officers thereunto duly authorized as of the day and year first above written.

BORROWER:

PENN VIRGINIA HOLDING CORP.

By: /s/ RUSSELL T. KELLEY, JR.
Name: Russell T. Kelley, Jr.
Title: Senior Vice President, Chief Financial Officer and Treasurer

PARENT:

PENN VIRGINIA CORPORATION

By: /s/ RUSSELL T. KELLEY, JR.
Name: Russell T. Kelley, Jr.
Title: Senior Vice President, Chief Financial Officer and Treasurer

GUARANTORS:

PENN VIRGINIA OIL & GAS CORPORATION
PENN VIRGINIA OIL & GAS GP LLC
PENN VIRGINIA OIL & GAS LP LLC
PENN VIRGINIA MC CORPORATION
PENN VIRGINIA MC ENERGY L.L.C.
PENN VIRGINIA MC GATHERING COMPANY L.L.C.
PENN VIRGINIA MC OPERATING COMPANY L.L.C.
PENN VIRGINIA RESOURCE HOLDINGS CORP.

Each By: /s/ RUSSELL T. KELLEY, JR.
Name: Russell T. Kelley, Jr.
Title: Senior Vice President, Chief Financial Officer and
Treasurer

PENN VIRGINIA OIL & GAS, L.P.

By: Penn Virginia Oil & Gas GP LLC, its general partner

By: /s/ RUSSELL T. KELLEY, JR.
Name: Russell T. Kelley, Jr.
Title: Senior Vice President, Chief Financial Officer and Treasurer

Signature Page to Agreement and Amendment No. 8 to Credit Agreement
(Penn Virginia Holdng Corp.)

ADMINISTRATIVE AGENT:

WELLS FARGO BANK, NATIONAL ASSOCIATION, as Administrative Agent, Issuing Lender, and a Lender

By: /s/ DAVID DODD
Name: David Dodd
Title: Managing Director

Signature Page to Agreement and Amendment No. 8 to Credit Agreement
(Penn Virginia Holdng Corp.)

#6194178

LENDER:

CITIBANK, N.A., as a Lender

By: /s/ WILLIAM MCNEELY
Name: William McNeely
Title: Senior Vice President

#6194178

LENDER:

ROYAL BANK OF CANADA, as a Lender

By: /s/ GRACE GARCIA
Name: Grace Garcia
Title: Authorized Signatory

Signature Page to Agreement and Amendment No. 8 to Credit Agreement
(Penn Virginia Holdng Corp.)

#6194178

LENDER:

TRUIST BANK, as successor by merger to SUNTRUST BANK, as a Lender

By: /s/ GREG KRABLIN
Name: Greg Krablin
Title: Senior Vice President

Signature Page to Agreement and Amendment No. 8 to Credit Agreement
(Penn Virginia Holding Corp.)

#6194178

LENDER:

CAPITAL ONE, NATIONAL ASSOCIATION, as a Lender

By: /s/ CHRISTOPHER KUNA

Name: Christopher Kuna

Title: Senior Director

Signature Page to Agreement and Amendment No. 8 to Credit Agreement
(Penn Virginia Holding Corp.)

#6194178

LENDER:

TRUIST BANK, formerly known as BRANCH BANKING AND TRUST COMPANY, as a Lender

By: /s/ GREG KRABLIN
Name: Greg Krablin
Title: Senior Vice President

Signature Page to Agreement and Amendment No. 8 to Credit Agreement
(Penn Virginia Holding Corp.)

#6194178

LENDER:

BANK OF AMERICA, N.A., as a Lender

By: /s/ KIMBERLY MILLER

Name: Kimberly Miller

Title: Vice President

Signature Page to Agreement and Amendment No. 8 to Credit Agreement
(Penn Virginia Holding Corp.)

#6194178

LENDER:

CANADIAN IMPERIAL BANK OF COMMERCE, NEW YORK BRANCH, as a Lender

By: /s/ TRUDY NELSON
Name: Trudy Nelson
Title: Authorized Signatory

By: /s/ SCOTT W. DANVERS
Name: Scott W. Danvers
Title: Authorized Signatory

Signature Page to Agreement and Amendment No. 8 to Credit Agreement
(Penn Virginia Holding Corp.)

#6194178

LENDER:

Comerica BANK, as a Lender

By: __

Name:

Title:

#6194178

LENDER:

EAST WEST BANK, as a Lender

By: __

Name:

Title:

i. Signature Page to Agreement and Amendment No. 8 to Credit Agreement
ii. (Penn Virginia Holdng Corp.)

i.#6194178

LENDER:

THE HUNTINGTON NATIONAL BANK, as a Lender

By:___

Name:

Title:

Signature Page to Agreement and Amendment No. 8 to Credit Agreement
(Penn Virginia Holding Corp.)

#6194178

LENDER:

SOCIÉTÉ GÉNÉRALE, as a Lender

By:___

Name:

Title:

Signature Page to Agreement and Amendment No. 8 to Credit Agreement
(Penn Virginia Holdng Corp.)

#6194178

LENDER:

WEST TEXAS NATIONAL BANK, as a Lender

By: /s/ THOMAS E STELMAR, JR.

Name: Thomas E. Stelmar, Jr.

Title: Senior Vice President

Signature Page to Agreement and Amendment No. 8 to Credit Agreement
(Penn Virginia Holding Corp.)

#6194178

**CERTIFICATION PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Darrin Henke, President and Chief Executive Officer of Penn Virginia Corporation (the "Registrant"), certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of the Registrant (this "Report");
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: November 6, 2020

/s/ DARRIN HENKE

Darrin Henke
President and Chief Executive Officer

**CERTIFICATION PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Russell T Kelley, Jr., Senior Vice President, Chief Financial Officer and Treasurer of Penn Virginia Corporation (the "Registrant"), certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of the Registrant (this "Report");
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: November 6, 2020

/s/ RUSSELL T KELLEY, JR.

Russell T Kelley, Jr.
Senior Vice President, Chief Financial Officer and Treasurer

**CERTIFICATION 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 of Penn Virginia Corporation (the "Company") on Form 10-Q for the quarter ended September 30, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Darrin Henke, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to the best of my knowledge, that:

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.

Date: November 6, 2020

/s/ DARRIN HENKE

Darrin Henke
President and Chief Executive Officer

This written statement is being furnished to the Securities and Exchange Commission as an exhibit to the Report. 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.

**CERTIFICATION 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 of Penn Virginia Corporation (the "Company") on Form 10-Q for the quarter ended September 30, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Russell T Kelley, Jr., Senior Vice President, Chief Financial Officer and Treasurer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to the best of my knowledge, that:

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.

Date: November 6, 2020

/s/ RUSSELL T KELLEY, JR.

Russell T Kelley, Jr.
Senior Vice President, Chief Financial Officer and Treasurer

This written statement is being furnished to the Securities and Exchange Commission as an exhibit to the Report. 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.