

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

Form 10-Q

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

For the quarterly period ended September 30, 2016

OR

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

For the transition period from to

Commission file number: 001-33492

CVR ENERGY, INC.

(Exact name of registrant as specified in its charter)

Delaware

*(State or other jurisdiction of
incorporation or organization)*

2277 Plaza Drive, Suite 500

Sugar Land, Texas

(Address of principal executive offices)

61-1512186

*(I.R.S. Employer
Identification No.)*

77479

(Zip Code)

(281) 207-3200

(Registrant's telephone number, including area code)

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes No

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if smaller reporting company.)

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

There were 86,831,050 shares of the registrant's common stock outstanding at October 25, 2016.

CVR ENERGY, INC. AND SUBSIDIARIES
INDEX TO QUARTERLY REPORT ON FORM 10-Q
For The Quarter Ended September 30, 2016

	<u>Page No.</u>
<u>Part I. Financial Information</u>	
<u>Item 1.</u> <u>Financial Statements</u>	<u>7</u>
<u>Condensed Consolidated Balance Sheets - September 30, 2016 (unaudited) and December 31, 2015</u>	<u>7</u>
<u>Condensed Consolidated Statements of Operations - Three and Nine Months Ended September 30, 2016 and 2015 (unaudited)</u>	<u>8</u>
<u>Condensed Consolidated Statements of Comprehensive Income - Three and Nine Months Ended September 30, 2016 and 2015 (unaudited)</u>	<u>9</u>
<u>Condensed Consolidated Statement of Changes in Equity - Nine Months Ended September 30, 2016 (unaudited)</u>	<u>10</u>
<u>Condensed Consolidated Statements of Cash Flows - Nine Months Ended September 30, 2016 and 2015 (unaudited)</u>	<u>11</u>
<u>Notes to the Condensed Consolidated Financial Statements - September 30, 2016 (unaudited)</u>	<u>13</u>
<u>Item 2.</u> <u>Management’s Discussion and Analysis of Financial Condition and Results of Operations</u>	<u>45</u>
<u>Item 3.</u> <u>Quantitative and Qualitative Disclosures About Market Risk</u>	<u>85</u>
<u>Item 4.</u> <u>Controls and Procedures</u>	<u>86</u>
<u>Part II. Other Information</u>	
<u>Item 1.</u> <u>Legal Proceedings</u>	<u>87</u>
<u>Item 1A.</u> <u>Risk Factors</u>	<u>87</u>
<u>Item 6.</u> <u>Exhibits</u>	<u>88</u>
<u>Signatures</u>	<u>89</u>

GLOSSARY OF SELECTED TERMS

The following are definitions of certain terms used in this Quarterly Report on Form 10-Q for the quarter ended September 30, 2016 (this "Report").

2015 Form 10-K — Our Annual Report on Form 10-K for the year ended December 31, 2015 filed with the SEC on February 19, 2016.

2021 Notes — \$320.0 million aggregate principal amount of 6.5% Senior Notes due 2021, which were issued by CVR Nitrogen and CVR Nitrogen Finance Corporation.

2022 Notes — \$500.0 million aggregate principal amount of 6.5% Senior Notes due 2022, which were issued by Refining, LLC and Coffeyville Finance on October 23, 2012 and fully and unconditionally guaranteed by the Refining Partnership and each of Refining LLC's domestic subsidiaries other than Coffeyville Finance.

2023 Notes — \$645.0 million aggregate principal amount of 9.25% Senior Notes due 2023, which were issued through CVR Partners and CVR Nitrogen Finance Corporation.

2-1-1 crack spread — The approximate gross margin resulting from processing two barrels of crude oil to produce one barrel of gasoline and one barrel of distillate. The 2-1-1 crack spread is expressed in dollars per barrel.

Amended and Restated ABL Credit Facility — The Refining Partnership's senior secured asset based revolving credit facility with a group of lenders and Wells Fargo as administrative agent and collateral agent.

ABL Credit Facility — The Nitrogen Fertilizer Partnership's senior secured asset based revolving credit facility with a group of lenders and UBS AG, Stamford Branch, as administrative agent and collateral agent.

ammonia — Ammonia is a direct application fertilizer and is primarily used as a building block for other nitrogen products for industrial applications and finished fertilizer products.

barrel — Common unit of measure in the oil industry which equates to 42 gallons.

blendstocks — Various compounds that are combined with gasoline or diesel from the crude oil refining process to make finished gasoline and diesel fuel; these may include natural gasoline, fluid catalytic cracking unit or FCCU gasoline, ethanol, reformat or butane, among others.

bpd — Abbreviation for barrels per day.

bpcd — Abbreviation for barrels per calendar day, which refers to the total number of barrels processed in a refinery within a year, divided by 365 days, thus reflecting all operational and logistical limitations.

bulk sales — Volume sales through third-party pipelines, in contrast to tanker truck quantity rack sales.

capacity — Capacity is defined as the throughput a process unit is capable of sustaining, either on a barrel per calendar or stream day basis. The throughput may be expressed in terms of maximum sustainable, nameplate or economic capacity. The maximum sustainable or nameplate capacities may not be the most economical. The economic capacity is the throughput that generally provides the greatest economic benefit based on considerations such as crude oil and other feedstock costs, product values and downstream unit constraints.

catalyst — A substance that alters, accelerates, or instigates chemical changes, but is neither produced, consumed nor altered in the process.

Change of Control Offer — The offer commenced on April 29, 2016 by CVR Nitrogen and CVR Nitrogen Finance Corporation to purchase any and all of the outstanding 2021 Notes at 101% of par value.

Coffeyville Fertilizer Facility — CVR Partners' nitrogen fertilizer manufacturing facility located in Coffeyville, Kansas.

Coffeyville Finance — Coffeyville Finance Inc., a wholly-owned subsidiary of Refining LLC and indirect wholly-owned subsidiary of the Refining Partnership.

corn belt — The primary corn producing region of the United States, which includes Illinois, Indiana, Iowa, Minnesota, Missouri, Nebraska, Ohio and Wisconsin.

crack spread — A simplified calculation that measures the difference between the price for light products and crude oil. For example, the 2-1-1 crack spread is often referenced and represents the approximate gross margin resulting from processing two barrels of crude oil to produce one barrel of gasoline and one barrel of distillate.

Credit Parties — CRLLC and certain subsidiaries party to the Amended and Restated ABL Credit Facility.

CRLLC — Coffeyville Resources, LLC, a wholly-owned subsidiary of the Company.

CRPLLC — Coffeyville Resources Pipeline, LLC.

CRLLC Facility — The Nitrogen Fertilizer Partnership's \$300.0 million senior term loan credit facility with CRLLC, which was repaid in full and terminated on June 10, 2016.

CRNF — Coffeyville Resources Nitrogen Fertilizers, LLC a subsidiary of the Nitrogen Fertilizer Partnership.

CRRM — Coffeyville Resources Refining and Marketing, LLC, a wholly-owned subsidiary of Refining LLC and indirect wholly-owned subsidiary of the Refining Partnership.

CVR Energy or CVR or Company — CVR Energy, Inc.

CVR Nitrogen — CVR Nitrogen, LP (formerly known as East Dubuque Nitrogen Partners, L.P. and also formerly known as Rentech Nitrogen Partners L.P.).

CVR Nitrogen GP — CVR Nitrogen GP, LLC (formerly known as East Dubuque Nitrogen GP, LLC and also formerly known as Rentech Nitrogen GP, LLC).

CVR Partners or the Nitrogen Fertilizer Partnership — CVR Partners, LP.

CVR Refining or the Refining Partnership — CVR Refining, LP.

distillates — Primarily diesel fuel, kerosene and jet fuel.

East Dubuque Facility — CVR Partners' nitrogen fertilizer manufacturing facility located in East Dubuque, Illinois.

East Dubuque Merger — The transactions contemplated by the Merger Agreement, whereby the Nitrogen Fertilizer Partnership acquired CVR Nitrogen and CVR Nitrogen GP on April 1, 2016.

EPA — The United States Environmental Protection Agency.

ethanol — A clear, colorless, flammable oxygenated hydrocarbon. Ethanol is typically produced chemically from ethylene, or biologically from fermentation of various sugars from carbohydrates found in agricultural crops and cellulosic residues from crops or wood. It is used in the United States as a gasoline octane enhancer and oxygenate.

Exchange Act — Securities Exchange Act of 1934, as amended.

farm belt — Refers to the states of Illinois, Indiana, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Oklahoma, South Dakota, Texas and Wisconsin.

feedstocks — Petroleum products, such as crude oil and natural gas liquids, that are processed and blended into refined products, such as gasoline, diesel fuel and jet fuel, during the refining process.

FIFO — First-in, first-out.

GAAP — U.S. generally accepted accounting principles.

Group 3 — A geographic subset of the PADD II region comprising refineries in Oklahoma, Kansas, Missouri, Nebraska and Iowa. Current Group 3 refineries include the Refining Partnership's Coffeyville and Wynnewood refineries; the Valero Ardmore refinery in Ardmore, OK; HollyFrontier's Tulsa refinery in Tulsa, OK and El Dorado refinery in El Dorado, KS; Phillips 66's Ponca City refinery in Ponca City, OK; and CHS Inc.'s refinery in McPherson, KS.

heavy crude oil — A relatively inexpensive crude oil characterized by high relative density and viscosity. Heavy crude oils require greater levels of processing to produce high value products such as gasoline and diesel fuel.

independent petroleum refiner — A refiner that does not have crude oil exploration or production operations. An independent refiner purchases the crude oil throughputs in its refinery operations from third parties.

light crude oil — A relatively expensive crude oil characterized by low relative density and viscosity. Light crude oils require lower levels of processing to produce high value products such as gasoline and diesel fuel.

Magellan — Magellan Midstream Partners L.P., a publicly traded company, whose business is the transportation, storage and distribution of refined petroleum products.

Merger Agreement — The Agreement and Plan of Merger, dated as of August 9, 2015, whereby the Nitrogen Fertilizer Partnership acquired CVR Nitrogen and CVR Nitrogen GP.

MMBtu — One million British thermal units or Btu: a measure of energy. One Btu of heat is required to raise the temperature of one pound of water one degree Fahrenheit.

MSCF — One thousand standard cubic feet, a customary gas measurement unit.

natural gas liquids — Natural gas liquids, often referred to as NGLs, are both feedstocks used in the manufacture of refined fuels, as well as products of the refining process. Common NGLs used include propane, isobutane, normal butane and natural gasoline.

Nitrogen Fertilizer Partnership credit facility — CRNF's \$150.0 million term loan, \$25.0 million revolving and \$50.0 million uncommitted incremental credit facility, guaranteed by the Nitrogen Fertilizer Partnership, entered into with a group of lenders including Goldman Sachs Lending Partners LLC, as administrative and collateral agent, which was repaid in full and terminated on April 1, 2016.

PADD II — Midwest Petroleum Area for Defense District which includes Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Oklahoma, South Dakota, Tennessee and Wisconsin.

petroleum coke (pet coke) — A coal-like substance that is produced during the refining process.

product pricing at gate — Product pricing at gate represents net sales less freight revenue divided by product sales volume in tons. Product pricing at gate is also referred to as netback.

rack sales — Sales which are made at terminals into third-party tanker trucks.

refined products — Petroleum products, such as gasoline, diesel fuel and jet fuel, that are produced by a refinery.

Refining LLC — CVR Refining, LLC, a wholly-owned subsidiary of the Refining Partnership.

Refining Partnership IPO — The initial public offering of 27,600,000 common units representing limited partner interests of the Refining Partnership, which closed on January 23, 2013 (which includes the underwriters' subsequently exercised option to purchase additional common units).

RFS — Renewable Fuel Standard of the EPA.

RINS — Renewable fuel credits, known as renewable identification numbers.

SEC — Securities and Exchange Commission.

Second Underwritten Offering — The second underwritten offering of 7,475,000 common units of the Refining Partnership, which closed on June 30, 2014 (which includes the underwriters' subsequently exercised option to purchase additional common units).

sour crude oil — A crude oil that is relatively high in sulfur content, requiring additional processing to remove the sulfur. Sour crude oil is typically less expensive than sweet crude oil.

spot market — A market in which commodities are bought and sold for cash and delivered immediately.

sweet crude oil — A crude oil that is relatively low in sulfur content, requiring less processing to remove the sulfur. Sweet crude oil is typically more expensive than sour crude oil.

Tender Offer — The cash tender offer commenced on April 29, 2016 by CVR Nitrogen and CVR Nitrogen Finance Corporation to purchase any and all of the outstanding 2021 Notes at 101.5% of par value.

throughput — The volume processed through a unit or a refinery or transported on a pipeline.

turnaround — A periodically required standard procedure to inspect, refurbish, repair and maintain the refinery or nitrogen fertilizer plant assets. This process involves the shutdown and inspection of major processing units and occurs every four to five years for the refineries and every two to three years for the nitrogen fertilizer plant.

UAN — An aqueous solution of urea and ammonium nitrate used as a fertilizer.

Underwritten Offering — The underwritten offering of 13,209,236 common units of the Refining Partnership, which closed on May 20, 2013 (which includes the underwriters' subsequently exercised option to purchase additional common units).

Velocity — Velocity Central Oklahoma Pipeline LLC.

Vitol — Vitol Inc.

Vitol Agreement — The Amended and Restated Crude Oil Supply Agreement between CRRM and Vitol.

VPP — Velocity Pipeline Partners, LLC.

WCS — Western Canadian Select crude oil, a medium to heavy, sour crude oil, characterized by an American Petroleum Institute gravity ("API gravity") of between 20 and 22 degrees and a sulfur content of approximately 3.3 weight percent.

Wells Fargo — Wells Fargo Bank, National Association.

Wells Fargo Credit Agreement — CVR Nitrogen's credit agreement with Wells Fargo, as successor-in-interest by assignment from General Electric Company, as administrative agent, which was repaid in April 2016 and terminated.

WTI — West Texas Intermediate crude oil, a light, sweet crude oil, characterized by an API gravity between 39 and 41 degrees and a sulfur content of approximately 0.4 weight percent that is used as a benchmark for other crude oils.

WTS — West Texas Sour crude oil, a relatively light, sour crude oil, characterized by an API gravity of between 30 and 32 degrees and a sulfur content of approximately 2.0 weight percent.

yield — The percentage of refined products that is produced from crude oil and other feedstocks.

PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

CVR ENERGY, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS

	September 30, 2016	December 31, 2015
	(unaudited)	
	(in millions, except share data)	
ASSETS		
Current assets:		
Cash and cash equivalents (including \$351.2 and \$237.3, respectively, of consolidated variable interest entities ("VIEs"))	\$ 762.6	\$ 765.1
Accounts receivable of VIEs, net of allowance for doubtful accounts of \$0.4 and \$0.3, respectively	139.9	95.8
Inventories of VIEs	323.0	289.9
Prepaid expenses and other current assets (including \$61.1 and \$101.2, respectively, of VIEs)	64.9	104.3
Income tax receivable (including \$0.2 and \$0.0, respectively, of VIEs)	6.4	6.9
Due from parent	2.7	11.6
Total current assets	1,299.5	1,273.6
Property, plant and equipment, net of accumulated depreciation (including \$2,668.4 and \$1,942.6, respectively, of VIEs)	2,694.7	1,967.1
Intangible assets of VIEs, net	0.2	0.2
Goodwill of VIEs	41.0	41.0
Other long-term assets (including \$16.8 and \$13.0, respectively, of VIEs)	19.6	17.5
Total assets	\$ 4,055.0	\$ 3,299.4
LIABILITIES AND EQUITY		
Current liabilities:		
Note payable and capital lease obligations of VIEs	\$ 1.8	\$ 1.6
Current portion of long-term debt of VIEs	—	124.8
Accounts payable (including \$213.1 and \$258.0, respectively, of VIEs)	217.3	261.5
Personnel accruals (including \$19.5 and \$21.7, respectively, of VIEs)	41.1	45.7
Accrued taxes other than income taxes of VIEs	22.9	23.5
Deferred revenue of VIEs	5.3	3.1
Other current liabilities (including \$168.2 and \$23.9, respectively, of VIEs)	168.5	24.4
Total current liabilities	456.9	484.6
Long-term liabilities:		
Long-term debt and capital lease obligations of VIEs, net of current portion	1,164.5	540.7
Deferred income taxes (including \$0.7 and \$0.1, respectively, of VIEs)	642.6	639.7
Other long-term liabilities (including \$6.1 and \$3.1, respectively, of VIEs)	31.9	33.9
Total long-term liabilities	1,839.0	1,214.3
Commitments and contingencies		
Equity:		
CVR stockholders' equity:		
Common stock \$0.01 par value per share, 350,000,000 shares authorized, 86,929,660 shares issued	0.9	0.9
Additional paid-in-capital	1,197.6	1,174.7
Retained deficit	(301.8)	(189.2)
Treasury stock, 98,610 shares at cost	(2.3)	(2.3)
Accumulated other comprehensive income, net of tax	—	—
Total CVR stockholders' equity	894.4	984.1
Noncontrolling interest	864.7	616.4
Total equity	1,759.1	1,600.5
Total liabilities and equity	\$ 4,055.0	\$ 3,299.4

See accompanying notes to the condensed consolidated financial statements.

CVR ENERGY, INC. AND SUBSIDIARIES

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
	(unaudited)			
	(in millions, except per share data)			
Net sales	\$ 1,240.3	\$ 1,408.8	\$ 3,429.0	\$ 4,421.9
Operating costs and expenses:				
Cost of product sold (exclusive of depreciation and amortization)	1,005.7	1,076.7	2,719.3	3,342.5
Direct operating expenses (exclusive of depreciation and amortization)	129.5	145.8	409.2	372.7
Flood insurance recovery	—	—	—	(27.3)
Selling, general and administrative expenses (exclusive of depreciation and amortization)	27.8	26.1	81.7	78.5
Depreciation and amortization	50.1	38.7	140.8	123.2
Total operating costs and expenses	1,213.1	1,287.3	3,351.0	3,889.6
Operating income	27.2	121.5	78.0	532.3
Other income (expense):				
Interest expense and other financing costs	(26.2)	(11.9)	(56.8)	(36.5)
Interest income	0.2	0.3	0.5	0.7
Gain (loss) on derivatives, net	(1.7)	11.8	(4.8)	(52.2)
Loss on extinguishment of debt	—	—	(5.1)	—
Other income, net	5.0	0.3	5.5	36.6
Total other income (expense)	(22.7)	0.5	(60.7)	(51.4)
Income before income tax expense	4.5	122.0	17.3	480.9
Income tax expense	2.5	23.1	2.3	105.2
Net income	2.0	98.9	15.0	375.7
Less: Net income (loss) attributable to noncontrolling interest	(3.4)	41.0	(2.6)	161.1
Net income attributable to CVR Energy stockholders	\$ 5.4	\$ 57.9	\$ 17.6	\$ 214.6
Basic and diluted earnings per share	\$ 0.06	\$ 0.67	\$ 0.20	\$ 2.47
Dividends declared per share	\$ 0.50	\$ 0.50	\$ 1.50	\$ 1.50
Weighted-average common shares outstanding:				
Basic and diluted	86.8	86.8	86.8	86.8

See accompanying notes to the condensed consolidated financial statements.

CVR ENERGY, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
	(unaudited)			
	(in millions)			
Net income	\$ 2.0	\$ 98.9	\$ 15.0	\$ 375.7
Other comprehensive income				
Unrealized gain on available-for-sale securities, net of tax of \$0.0, \$0.0, \$0.2 and \$12.6, respectively	—	—	0.3	19.2
Net gain reclassified into income on sale of available-for-sale securities, net of tax of (\$0.2), \$0.0, (\$0.2) and (\$8.0), respectively (Note 13)	(0.3)	—	(0.3)	(12.1)
Net gain reclassified into income on reclassification of available-for-sale securities to trading securities, net of tax of \$0.0, \$0.0, \$0.0 and (\$4.6), respectively (Note 13)	—	—	—	(7.1)
Change in fair value of interest rate swaps, net of tax of \$0.0, \$0.0, \$0.0 and \$0.0, respectively	—	—	—	(0.1)
Net loss reclassified into income on settlement of interest rate swaps, net of tax of \$0.0, \$0.1, \$0.0 and \$0.2, respectively (Note 14)	—	0.2	0.1	0.6
Total other comprehensive income (loss)	(0.3)	0.2	0.1	0.5
Comprehensive income	1.7	99.1	15.1	376.2
Less: Comprehensive income (loss) attributable to noncontrolling interest	(3.4)	41.1	(2.6)	161.4
Comprehensive income attributable to CVR Energy stockholders	\$ 5.1	\$ 58.0	\$ 17.7	\$ 214.8

See accompanying notes to the condensed consolidated financial statements.

CVR ENERGY, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

	Common Stockholders							Noncontrolling Interest	Total Equity
	Shares Issued	\$0.01 Par Value Common Stock	Additional Paid-In Capital	Retained Deficit	Treasury Stock	Total CVR Stockholders' Equity			
(unaudited)									
(in millions, except share data)									
Balance at December 31, 2015	86,929,660	\$ 0.9	\$ 1,174.7	\$ (189.2)	\$ (2.3)	\$ 984.1	\$ 616.4	\$ 1,600.5	
Dividends paid to CVR Energy stockholders	—	—	—	(130.2)	—	(130.2)	—	(130.2)	
Distributions from CVR Partners to public unitholders	—	—	—	—	—	—	(42.0)	(42.0)	
Impact of CVR Partners' common units issuance for the East Dubuque Merger, net of tax of \$20.0	—	—	22.9	—	—	22.9	292.8	315.7	
Net income	—	—	—	17.6	—	17.6	(2.6)	15.0	
Other comprehensive income, net of tax	—	—	—	—	—	—	0.1	0.1	
Balance at September 30, 2016	86,929,660	\$ 0.9	\$ 1,197.6	\$ (301.8)	\$ (2.3)	\$ 894.4	\$ 864.7	\$ 1,759.1	

See accompanying notes to the condensed consolidated financial statements.

CVR ENERGY, INC. AND SUBSIDIARIES

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

	Nine Months Ended September 30,	
	2016	2015
	(unaudited)	
	(in millions)	
Cash flows from operating activities:		
Net income	\$ 15.0	\$ 375.7
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	140.8	123.2
Allowance for doubtful accounts	0.1	—
Amortization of deferred financing costs and original issue discount	2.4	2.1
Amortization of debt fair value adjustment	1.3	—
Deferred income taxes expense (benefits)	(22.5)	(28.0)
Loss on disposition of assets	0.4	1.7
Loss on extinguishment of debt	5.1	—
Share-based compensation	5.7	9.1
Gain on sale of available-for-sale securities	(4.9)	(20.1)
Unrealized gain on securities	(0.3)	—
Loss on derivatives, net	4.8	52.2
Current period settlements on derivative contracts	35.2	(34.0)
Changes in assets and liabilities:		
Accounts receivable	(35.3)	4.0
Inventories	18.5	44.9
Prepaid expenses and other current assets	6.2	36.9
Due to/from parent	8.9	78.0
Other long-term assets	0.1	(0.3)
Accounts payable	(42.3)	4.0
Accrued income taxes	0.4	7.3
Deferred revenue	(27.7)	(11.2)
Other current liabilities	107.3	(33.3)
Other long-term liabilities	(0.3)	0.1
Net cash provided by operating activities	<u>218.9</u>	<u>612.3</u>
Cash flows from investing activities:		
Capital expenditures	(105.6)	(141.9)
Proceeds from sale of assets	—	0.1
Acquisition of CVR Nitrogen, net of cash acquired	(63.9)	—
Purchase of securities	(4.2)	—
Investment in affiliates	(3.2)	—
Purchase of available-for-sale securities	(14.4)	—
Proceeds from sale of available-for-sale securities	19.3	68.0
Net cash used in investing activities	<u>(172.0)</u>	<u>(73.8)</u>
Cash flows from financing activities:		
Payment of capital lease obligations	(1.2)	(1.1)
Principal and premium payments on 2021 Notes	(320.5)	—
Principal payments on CRNF credit facility	(125.0)	—
Payment of revolving debt	(49.1)	—
Payment of deferred financing costs	(10.2)	—
Proceeds on issuance of 2023 Notes, net of original issue discount	628.8	—
Dividends to CVR Energy's stockholders	(130.2)	(130.2)
Distributions to CVR Refining's noncontrolling interest holders	—	(106.1)
Distributions to CVR Partners' noncontrolling interest holders	(42.0)	(42.8)
Net cash used in financing activities	<u>(49.4)</u>	<u>(280.2)</u>
Net increase (decrease) in cash and cash equivalents	(2.5)	258.3
Cash and cash equivalents, beginning of period	765.1	753.7
Cash and cash equivalents, end of period	<u>\$ 762.6</u>	<u>\$ 1,012.0</u>

Supplemental disclosures:

Cash paid for income taxes, net of refunds	\$	15.2	\$	47.8
Cash paid for interest, net of capitalized interest of \$5.0 and \$2.3 in 2016 and 2015, respectively	\$	26.9	\$	26.1
Non-cash investing and financing activities:				
Construction in process additions included in accounts payable	\$	14.6	\$	36.7
Change in accounts payable related to construction in process additions	\$	7.7	\$	15.1
Fair value of common units issued in a business combination	\$	335.7	\$	—
Fair value of debt assumed in a business combination	\$	367.5	\$	—
Reduction of proceeds from 2023 Notes from underwriting discount	\$	16.1	\$	—

See accompanying notes to the condensed consolidated financial statements.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
September 30, 2016
(unaudited)

(1) Organization and History of the Company and Basis of Presentation

Organization

The "Company," "CVR Energy" or "CVR" are used in this Report to refer to CVR Energy, Inc. and, unless the context otherwise requires, its subsidiaries.

CVR is a diversified holding company primarily engaged in the petroleum refining and nitrogen fertilizer manufacturing industries through its holdings in CVR Refining, LP ("CVR Refining" or the "Refining Partnership") and CVR Partners, LP ("CVR Partners" or the "Nitrogen Fertilizer Partnership"). The Refining Partnership is an independent petroleum refiner and marketer of high value transportation fuels which owns a complex full coking medium-sour crude oil refinery in Coffeyville, Kansas and a complex crude oil refinery in Wynnewood, Oklahoma. The Nitrogen Fertilizer Partnership produces and markets nitrogen fertilizers in the form of UAN and ammonia. The Company reports in two business segments: the petroleum segment (the operations of CVR Refining) and the nitrogen fertilizer segment (the operations of CVR Partners).

CVR's common stock is listed on the NYSE under the symbol "CVI." On May 7, 2012, an affiliate of Icahn Enterprises L.P. ("IEP") announced that they had acquired control of CVR pursuant to a tender offer for all of the Company's common stock (the "IEP Acquisition"). As of September 30, 2016, IEP and its affiliates owned approximately 82% of the Company's outstanding shares.

CVR Partners, LP

On April 13, 2011, the Nitrogen Fertilizer Partnership completed the initial public offering of its common units representing limited partnership interests (the "Nitrogen Fertilizer Partnership IPO"). The common units, which are listed on the NYSE, began trading on April 8, 2011 under the symbol "UAN." In connection with the Nitrogen Fertilizer Partnership IPO and through May 27, 2013, the Company recorded a 30% noncontrolling interest for the common units sold into the public market. On May 28, 2013, Coffeyville Resources, LLC ("CRLLC"), a wholly-owned subsidiary of the Company, completed a registered public offering whereby it sold 12,000,000 Nitrogen Fertilizer Partnership common units to the public (the "Secondary Offering").

Immediately subsequent to the closing of the Secondary Offering and through March 31, 2016, public security holders held approximately 47% of the outstanding Nitrogen Fertilizer Partnership common units, and CRLLC held approximately 53% of the outstanding Nitrogen Fertilizer Partnership common units. As a result of the Nitrogen Fertilizer Partnership's acquisition of CVR Nitrogen, LP and issuance of the unit consideration, the noncontrolling interest related to the Nitrogen Fertilizer Partnership reflected in our Consolidated Financial Statements on April 1, 2016 and from such date and as of September 30, 2016 was approximately 66%. In addition, CRLLC owns 100% of the Nitrogen Fertilizer Partnership's general partner, CVR GP, LLC, which only holds a non-economic general partner interest. The noncontrolling interest reflected on the Condensed Consolidated Balance Sheets of CVR is impacted by the net income of, and distributions from, the Nitrogen Fertilizer Partnership.

The Nitrogen Fertilizer Partnership has adopted a policy pursuant to which the Nitrogen Fertilizer Partnership will distribute all of the available cash it generates each quarter. The available cash for each quarter will be determined by the board of directors of the Nitrogen Fertilizer Partnership's general partner following the end of such quarter. The partnership agreement does not require that the Nitrogen Fertilizer Partnership make cash distributions on a quarterly basis or at all, and the board of directors of the general partner of the Nitrogen Fertilizer Partnership can change the Nitrogen Fertilizer Partnership's distribution policy at any time.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

The Nitrogen Fertilizer Partnership is operated by CVR's senior management (together with other officers of the general partner) pursuant to a services agreement among CVR, the general partner and the Nitrogen Fertilizer Partnership. The Nitrogen Fertilizer Partnership's general partner manages the operations and activities of the Nitrogen Fertilizer Partnership, subject to the terms and conditions specified in the partnership agreement. The operations of the general partner in its capacity as general partner are managed by its board of directors. Actions by the general partner that are made in its individual capacity are made by CRLLC as the sole member of the general partner and not by the board of directors of the general partner. The members of the board of directors of the general partner are not elected by the Nitrogen Fertilizer Partnership's common unitholders and are not subject to re-election on a regular basis. The officers of the general partner manage the day-to-day affairs of the business of the Nitrogen Fertilizer Partnership. CVR, the Nitrogen Fertilizer Partnership, their respective subsidiaries and the general partner are parties to a number of agreements to regulate certain business relations between them. Certain of these agreements were amended in connection with the Nitrogen Fertilizer Partnership IPO.

CVR Refining, LP

On January 23, 2013, the Refining Partnership completed the initial public offering of its common units representing limited partner interests. The common units, which are listed on the NYSE, began trading on January 17, 2013 under the symbol "CVRR." On May 20, 2013, the Refining Partnership completed an underwritten offering (the "Underwritten Offering") by selling additional common units to the public. In connection with the Underwritten Offering, American Entertainment Properties Corporation ("AEPC"), an affiliate of IEP, also purchased common units in a privately negotiated transaction with a subsidiary of CVR, which was completed on May 29, 2013.

On June 30, 2014, the Refining Partnership completed a second underwritten offering (the "Second Underwritten Offering"). Additionally, on July 24, 2014, the Refining Partnership sold additional common units to the public in connection with the underwriters' exercise of their option to purchase additional common units.

As of September 30, 2016, public security holders held approximately 34% of the Refining Partnership's outstanding common units (including common units owned by affiliates of IEP, representing approximately 3.9% of the Refining Partnership's outstanding common units), and CVR Refining Holdings, LLC ("CVR Refining Holdings"), a subsidiary of CRLLC, held approximately 66% of the Refining Partnership's outstanding common units. In addition, CVR Refining Holdings owns 100% of the Refining Partnership's general partner, CVR Refining GP, LLC ("CVR Refining GP"), which only holds a non-economic general partner interest. The noncontrolling interest reflected on the Condensed Consolidated Balance Sheets of CVR is impacted by the net income of, and distributions from the Refining Partnership.

On August 2, 2016, an affiliate of IEP sold 250,000 common units of CVR Refining. As a result of this transaction, CVR Refining GP and its affiliates collectively own 69.99% of the CVR Refining's outstanding common units. Pursuant to CVR Refining's partnership agreement, in certain circumstances, CVR Refining GP has the right to purchase all, but not less than all, of CVR Refining common units held by unaffiliated unit holders at a price not less than their then-current market price, as calculated pursuant to the terms of such partnership agreement (the "Call Right"). Pursuant to the terms of the partnership agreement, because CVR Refining GP and its affiliates' holdings were reduced to less than 70.0% of CVR Refining's outstanding common units, the ownership threshold for the application of such Call Right was permanently reduced from 95% to 80%. Accordingly, if at any time CVR Refining GP and its affiliates own more than 80% of CVR Refining common units, it will have the right, but not the obligation, to exercise such Call Right.

The Refining Partnership is party to a services agreement pursuant to which the Refining Partnership and its general partner obtain certain management and other services from CVR Energy. The Refining Partnership's general partner manages the Refining Partnership's activities subject to the terms and conditions specified in the Refining Partnership's partnership agreement. The operations of its general partner, in its capacity as general partner, are managed by its board of directors. Actions by its general partner that are made in its individual capacity are made by CVR Refining Holdings as the sole member of the Refining Partnership's general partner and not by the board of directors of its general partner. The members of the board of directors of the Refining Partnership's general partner are not elected by the Refining Partnership's common unitholders and are not subject to re-election on a regular basis. The officers of the general partner manage the day-to-day affairs of the business of the Refining Partnership.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

The Refining Partnership has adopted a policy pursuant to which it will distribute all of the available cash it generates each quarter. The available cash for each quarter will be determined by the board of directors of the Refining Partnership's general partner following the end of such quarter. The partnership agreement does not require that the Refining Partnership make cash distributions on a quarterly basis or at all, and the board of directors of the general partner of the Refining Partnership can change the distribution policy at any time.

Basis of Presentation

The accompanying condensed consolidated financial statements were prepared in accordance with U.S. generally accepted accounting principles ("GAAP") and in accordance with the rules and regulations of the Securities and Exchange Commission ("SEC"). The condensed consolidated financial statements include the accounts of CVR and its direct and indirect subsidiaries including the Nitrogen Fertilizer Partnership, the Refining Partnership and their respective subsidiaries, as discussed further below. The ownership interests of noncontrolling investors in CVR's subsidiaries are recorded as a noncontrolling interest included as a separate component of equity for all periods presented. All intercompany account balances and transactions have been eliminated in consolidation. Certain information and footnotes required for complete financial statements under GAAP have been condensed or omitted pursuant to SEC rules and regulations. These condensed consolidated financial statements should be read in conjunction with the December 31, 2015 audited consolidated financial statements and notes thereto included in CVR's Annual Report on Form 10-K for the year ended December 31, 2015, which was filed with the SEC on February 19, 2016 (the "2015 Form 10-K").

The Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2015-02, "*Consolidations (Topic 810) - Amendments to the Consolidation Analysis*" ("ASU 2015-02"), which amended previous consolidation guidance, including introducing a separate consolidation analysis specific to limited partnerships and other similar entities. Under this analysis, limited partnerships and other similar entities are considered a variable interest entity ("VIE") unless the limited partners hold substantive kick-out rights or participating rights. Management has determined that the Refining Partnership and the Nitrogen Fertilizer Partnership are VIEs because the limited partners of CVR Refining and CVR Partners lack both substantive kick-out rights and participating rights. As such, management evaluated the qualitative criteria under FASB ASC Topic 810 - Consolidation in conjunction with ASU 2015-02 to make a determination whether the Refining Partnership and the Nitrogen Fertilizer Partnership should be consolidated on the Company's financial statements. ASC Topic 810-10 requires the primary beneficiary of a variable interest entity's activities to consolidate the VIE. The primary beneficiary is identified as the enterprise that has a) the power to direct the activities of the VIE that most significantly impact the entity's economic performance and b) the obligation to absorb losses of the entity that could potentially be significant to the VIE or the right to receive benefits from the entity that could potentially be significant to the VIE. The standard requires an ongoing analysis to determine whether the variable interest gives rise to a controlling financial interest in the VIE. Based upon the general partner's roles and rights as afforded by the partnership agreements and its exposure to losses and benefits of each of the partnerships through its significant limited partner interests, intercompany credit facilities, and services agreements, CVR determined that it is the primary beneficiary of both the Refining Partnership and the Nitrogen Fertilizer Partnership. Based upon that evaluation, the consolidated financial statements of CVR continue to consolidate both the Refining and Nitrogen Fertilizer Partnerships.

In the opinion of the Company's management, the accompanying condensed consolidated financial statements reflect all adjustments (consisting only of normal recurring adjustments) that are necessary to fairly present the financial position of the Company as of September 30, 2016 and December 31, 2015, the results of operations and comprehensive income for the three and nine month periods ended September 30, 2016 and 2015, changes in equity for the nine month period ended September 30, 2016 and cash flows of the Company for the nine month periods ended September 30, 2016 and 2015.

The preparation of the condensed consolidated financial statements in conformity with GAAP requires management to make certain estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and the disclosure of contingent assets and liabilities. Actual results could differ from those estimates. Results of operations and cash flows for the interim periods presented are not necessarily indicative of the results that will be realized for the year ending December 31, 2016 or any other interim or annual period.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

(2) Recent Accounting Pronouncements

In May 2014, the FASB issued ASU No. 2014-09, "*Revenue from Contracts with Customers*", which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The standard was originally effective for interim and annual periods beginning after December 15, 2016 and permits the use of either the retrospective or cumulative effect transition method. Early adoption is not permitted. On July 9, 2015, the FASB approved a one-year deferral of the effective date making the standard effective for interim and annual periods beginning after December 15, 2017. The FASB will continue to permit entities to adopt the standard on the original effective date if they choose. The Company will adopt this standard as of January 1, 2018 using the modified retrospective application method. Given the complexity of the new guidance, the Company is continuing to evaluate the impact of the standard on its consolidated financial statements and footnote disclosures.

In February 2015, the FASB issued ASU No. 2015-02, "*Consolidations (Topic 810) - Amendments to the Consolidation Analysis*" ("ASU 2015-02"), which amended previous consolidation guidance, including introducing a separate consolidation analysis specific to limited partnerships and other similar entities. Under this analysis, limited partnerships and other similar entities will be considered a VIE unless the limited partners hold substantive kick-out rights or participating rights. The standard is effective for interim and annual periods beginning after December 15, 2015. The Company adopted ASU 2015-02 as of January 1, 2016. Refer to Note 1 ("Organization and History of the Company and Basis of Presentation") for more information.

In April 2015, the FASB issued ASU 2015-03, "*Simplifying the Presentation of Debt Issuance Costs*" ("ASU 2015-03"). The new standard required that all costs incurred to issue debt be presented in the balance sheet as a direct deduction from the carrying value of the debt. The standard was effective for interim and annual periods beginning after December 15, 2015 and is required to be applied on a retrospective basis. Early adoption is permitted. The Company adopted ASU 2015-03 as of January 1, 2016 and applied the standard retrospectively to the Condensed Consolidated Balance Sheet. Refer to Note 10 ("Long-Term Debt") for further details.

In February 2016, the FASB issued ASU 2016-02, "*Leases*" ("ASU 2016-02"). The new standard revises accounting for operating leases by a lessee, among other changes, and requires a lessee to recognize a liability to make lease payments and an asset representing its right to use the underlying asset for the lease term in the balance sheet. The standard is effective for the first interim and annual periods beginning after December 15, 2018, with early adoption permitted. At adoption, ASU 2016-02 will be applied using a modified retrospective application method. The Company is currently evaluating the standard and the impact on its consolidated financial statements and footnotes disclosures.

(3) Acquisition

On April 1, 2016, the Nitrogen Fertilizer Partnership completed the previously announced transactions (the "East Dubuque Merger") contemplated by the Agreement and Plan of Merger, dated as of August 9, 2015 (the "Merger Agreement"), whereby the the Nitrogen Fertilizer Partnership acquired CVR Nitrogen, LP ("CVR Nitrogen") (formerly known as East Dubuque Nitrogen Partners, L.P. and also formerly known as Rentech Nitrogen Partners L.P.) and CVR Nitrogen GP, LLC ("CVR Nitrogen GP") (formerly known as East Dubuque Nitrogen GP, LLC and also formerly known as Rentech Nitrogen GP, LLC), a Delaware limited liability company. Pursuant to the East Dubuque Merger, the Nitrogen Fertilizer Partnership acquired a nitrogen fertilizer manufacturing facility located in East Dubuque, Illinois (the "East Dubuque Facility").

Under the terms of the Merger Agreement, holders of CVR Nitrogen common units eligible to receive consideration received 1.04 common units (the "unit consideration") representing limited partner interests in CVR Partners ("CVR Partners common units") and \$2.57 in cash, without interest (the "cash consideration" and together with the unit consideration, the "merger consideration"), for each CVR Nitrogen common unit. Pursuant to the Merger Agreement, CVR Partners issued approximately 40.2 million CVR Partners common units and paid approximately \$99.2 million in cash consideration to CVR Nitrogen common unitholders and certain holders of CVR Nitrogen phantom units discussed below.

Phantom units granted and outstanding under CVR Nitrogen's equity plans and held by an employee who continued in the employment of a CVR Partners-affiliated entity upon closing of the East Dubuque Merger were canceled and replaced with new incentive awards of substantially equivalent value and on similar terms. See Note 4 ("Share-Based Compensation") for further discussion. Each phantom unit granted and outstanding and held by (i) an employee who did not continue in employment of a CVR Partners-affiliated entity, or (ii) a director of CVR Nitrogen GP, upon closing of the East Dubuque Merger, vested in full and the holders thereof received the merger consideration.

In accordance with the FASB's Accounting Standards Codification ("ASC") Topic 805 — *Business Combinations* ("ASC 805"), the Nitrogen Fertilizer Partnership accounted for the East Dubuque Merger as an acquisition of a business with CVR Partners as the acquirer. ASC 805 requires that the consideration transferred be measured at the current market price at the date of the closing of the East Dubuque Merger. The aggregate merger consideration was approximately \$802.4 million, including the fair value of the unit consideration of \$335.7 million, the cash consideration of \$99.2 million, and \$367.5 million fair value of assumed debt.

Parent Affiliate Units

In March 2016, CVR Energy purchased 400,000 CVR Nitrogen common units, representing approximately 1% of the then outstanding CVR Nitrogen limited partner interests. Pursuant to the Merger Agreement, any CVR Nitrogen common units held of record by an affiliate of CVR Partners and designated in writing as parent affiliate units remained outstanding as CVR Nitrogen common units following the effective time of the East Dubuque Merger and such affiliate did not receive any merger consideration for those units. As such, CVR Energy did not receive merger consideration for these designated CVR Nitrogen common units. As a result of the East Dubuque Merger, on April 1, 2016, the fair value of the CVR Nitrogen common units of \$4.6 million was reclassified as an investment in consolidated subsidiary, which is a non-cash investing activity during the second quarter of 2016. Subsequent to the East Dubuque Merger, the Nitrogen Fertilizer Partnership purchased the 400,000 CVR Nitrogen common units from CVR Energy during the second quarter of 2016 for \$5.0 million. The Nitrogen Fertilizer Partnership owns 100% of the outstanding limited partners interests of CVR Nitrogen as of September 30, 2016.

Purchase Price Consideration

A summary of the total purchase price is as follows:

	Purchase Price
	(in millions)
Fair value of CVR Partners common units issued, as of the close of the East Dubuque Merger	\$ 335.7
Cash payment to CVR Nitrogen common unitholders and certain phantom unit holders	99.2
Fair value of consideration transferred	434.9
Fair value of parent affiliate units (1)	4.6
Total purchase price consideration to be allocated	\$ 439.5

The fair value of the unit consideration was determined as follows:

	Fair Value of Unit Consideration
	(in thousands, except per unit data)
CVR Nitrogen common units outstanding, as of the close of the merger	38,985
Less: Parent affiliate units (1)	400
Net units subject to merger consideration	38,585
Unit consideration per CVR Nitrogen common unit	1.04
Number of CVR Partners common units issued for merger consideration	40,129
Number of CVR Partners common units issued for CVR Nitrogen phantom units issued to noncontinuing employees and CVR Nitrogen board members (2)	26
Total number of CVR Partners units issued	40,155
Fair value per CVR Partners common unit, as of the close of the East Dubuque Merger	\$ 8.36
Fair value of CVR Partners common units issued	\$ 335.7

(1) See above for discussion of parent affiliate units.

(2) As discussed above, each phantom unit granted and outstanding and held by (i) an employee who did not continue in the employment of a CVR Partners-affiliated entity, or (ii) a director of CVR Nitrogen GP, upon closing of the East Dubuque Merger, vested in full and the holders thereof received the merger consideration.

Merger-Related Indebtedness

CVR Nitrogen's debt arrangements that remained in place after the closing date of the East Dubuque Merger included \$320.0 million of its 6.5% notes due 2021 (the "2021 Notes"). A portion of the 2021 Notes were repurchased in June 2016, as discussed further in Note 10 ("Long-Term Debt").

Immediately prior to the East Dubuque Merger, CVR Nitrogen also had outstanding balances under a credit agreement with Wells Fargo Bank, National Association, as successor-in-interest by assignment from General Electric Company, as administrative agent (the "Wells Fargo Credit Agreement"). The Wells Fargo Credit Agreement consisted of a \$50.0 million senior secured revolving credit facility with a \$10.0 million letter of credit sublimit. In connection with the closing of the East Dubuque Merger, the Nitrogen Fertilizer Partnership paid \$49.4 million for the outstanding balance, accrued interest and fees under the Wells Fargo Credit Agreement and the Wells Fargo Credit Agreement was canceled.

Preliminary Purchase Price Allocation

Under the acquisition method of accounting, the purchase price was allocated to CVR Nitrogen's net tangible assets based on their fair values as of April 1, 2016. Determining the fair value of net tangible assets requires judgment and involves the use of significant estimates and assumptions. The Nitrogen Fertilizer Partnership based its fair value estimates on assumptions it believes to be reasonable but are inherently uncertain. Although the Nitrogen Fertilizer Partnership believes its estimates of the fair value of the assets and liabilities acquired are accurate, these estimates are preliminary and are subject to change during the measurement period. This measurement period may extend up to one year from the acquisition date.

The following table, set forth below, displays the estimated purchase price allocated to CVR Nitrogen's net tangible assets based on their fair values as of April 1, 2016. There were no identifiable intangible assets.

	Purchase Price Allocation
	(in millions)
Cash	\$ 35.4
Accounts receivable	8.9
Inventories	49.5
Prepaid expenses and other current assets	5.2
Property, plant and equipment	774.9
Other long-term assets	1.1
Deferred revenue	(29.8)
Other current liabilities	(37.0)
Long-term debt	(367.5)
Other long-term liabilities	(1.2)
Total fair value of net assets acquired	439.5
Less: Cash acquired	35.4
Total consideration transferred, net of cash acquired	<u>\$ 404.1</u>

Pro Forma Financial Information

Pro forma financial information for the three and nine months ended September 30, 2016 would not be materially different from the Company's results of operations presented in the Condensed Consolidated Statement of Operations for the three and nine months ended September 30, 2016.

Expenses Associated with the East Dubuque Merger

During the three months ended September 30, 2016 and 2015, the Nitrogen Fertilizer Partnership incurred approximately \$0.7 million and \$1.5 million, respectively, of legal and other professional fees and other merger related expenses, which were included in selling, general and administrative expenses (exclusive of depreciation and amortization). During the nine months ended September 30, 2016 and 2015, the Nitrogen Fertilizer Partnership incurred approximately \$3.1 million and \$1.5 million, respectively, of legal and other professional fees and other merger related expenses, which were included in selling, general and administrative expenses (exclusive of depreciation and amortization).

Noncontrolling Interest in CVR Partners

A summary of the effect of the change in CVR Energy's ownership interest in CVR Partners on the equity attributable to CVR Energy, as a result of CVR Partners issuance of the unit consideration in connection with the East Dubuque Merger, is as follows:

	Noncontrolling Interest
	(in millions)
Fair value of CVR Partners common units issued, as of the close of the East Dubuque Merger	\$ 335.7
Less: Change in CVR Energy's noncontrolling interest in CVR Partner's equity due to the East Dubuque Merger	292.8
Adjustment to additional paid-in capital, as of the close of the East Dubuque Merger	<u>\$ 42.9</u>

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

(4) Share-Based Compensation

Long-Term Incentive Plan – CVR Energy

CVR has a Long-Term Incentive Plan ("LTIP"), which permits the grant of options, stock appreciation rights, restricted shares, restricted stock units, dividend equivalent rights, share awards and performance awards (including performance share units, performance units and performance-based restricted stock). As of September 30, 2016, only performance units remain outstanding under the LTIP. Individuals who are eligible to receive awards and grants under the LTIP include the Company's or its subsidiaries' employees, officers, consultants, advisors and directors. The LTIP authorized a share pool of 7,500,000 shares of the Company's common stock, 1,000,000 of which may be issued in respect of incentive stock options.

Performance Unit Awards

In December 2015, the Company entered into a performance unit award agreement (the "2015 Performance Unit Award Agreement") with its Chief Executive Officer. Compensation cost for the 2015 Performance Unit Award Agreement will be recognized over the performance cycle from January 1, 2016 to December 31, 2016. The performance unit award of 3,500 performance units under the 2015 Performance Unit Award Agreement represents the right to receive, upon vesting, a cash payment equal to \$1,000 multiplied by the applicable performance factor. The performance factor is determined based on the level of attainment of the applicable performance objective, set forth as a percentage, which may range from 0-110%. The award has a performance cycle beginning on January 1, 2016 and ending on December 31, 2016. Seventy-five percent of the performance units attributable to the award are subject to a performance objective relating to the average barrels per day crude throughput during the performance cycle, and 25% of the performance units attributable to the award are subject to a performance objective relating to the average gathered crude barrels per day during the performance cycle. The performance objectives are set in accordance with approved levels of the business plan for the fiscal year during the performance cycle and therefore are considered reasonably possible of being achieved. The amount paid pursuant to the award, if any, will be paid following the end of the performance cycle for the award, but no later than March 6, 2017. Total compensation expense for the three and nine months ended September 30, 2016 related to the performance unit award was approximately \$0.9 million and \$2.6 million, respectively. As of September 30, 2016, the Company had a liability of \$2.6 million for non-vested performance unit awards, which is recorded in personnel accruals on the Condensed Consolidated Balance Sheet.

Long-Term Incentive Plan – CVR Partners

CVR Partners has a long-term incentive plan ("CVR Partners LTIP") that provides for the grant of options, unit appreciation rights, distribution equivalent rights, restricted units, phantom units and other unit-based awards, each in respect of common units. Individuals eligible to receive awards pursuant to the CVR Partners LTIP include (i) employees of the Nitrogen Fertilizer Partnership and its subsidiaries, (ii) employees of its general partner, (iii) members of its board of directors of the general partner, and (iv) certain employees, consultants and directors of CVR Energy who perform services for the benefit of the Nitrogen Fertilizer Partnership.

Through the CVR Partners LTIP, phantom unit awards outstanding include awards granted to employees of both CVR Partners and its general partner. Phantom unit awards made to employees of its general partner are considered non-employee equity based-awards. The phantom unit awards outstanding vest over a three-year period and are required to be remeasured each reporting period until they vest. The maximum number of common units issuable under the CVR Partners LTIP is 5,000,000. As of September 30, 2016, there were 4,820,215 common units available for issuance under the CVR Partners LTIP. As all phantom unit awards discussed below are cash settled awards, they do not reduce the number of common units available for issuance.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

Certain Units and Phantom Units Awards

Awards of phantom units and distribution equivalent rights have been granted to employees of CVR Partners and its subsidiaries' employees and the employees of its general partner. These awards are generally graded-vesting awards, which are expected to vest over three years with one-third of the award vesting each year. Compensation expense is recognized on a straight-line basis over the vesting period of the respective tranche of the award. Each phantom unit and distribution equivalent right represents the right to receive, upon vesting, a cash payment equal to (i) the average fair market value of one unit of the CVR Partners' common units in accordance with the award agreement, plus (ii) the per unit cash value of all distributions declared and paid by CVR Partners from the grant date to and including the vesting date. The awards, which are liability-classified, are remeasured at each subsequent reporting date until they vest.

In connection with the East Dubuque Merger as described in Note 3 ("Acquisition"), 195,980 phantom units were granted to certain CVR Nitrogen employees. A related liability of \$0.6 million was recorded as part of the opening balance sheet and included in personnel accruals in the purchase price allocation in Note 3 ("Acquisition"). Subsequent to the East Dubuque Merger, 79,654 awards were subject to an accelerated vesting date and were paid in full resulting in the early recognition of \$0.4 million as compensation expense in selling, general and administrative expenses (exclusive of depreciation and amortization) for the nine months ended September 30, 2016.

A summary of the phantom unit activity and changes under the CVR Partners LTIP during the nine months ended September 30, 2016 is presented below:

	Phantom Units	Weighted-Average Grant- Date Fair Value
Non-vested at January 1, 2016	391,903	\$ 8.71
Granted	199,455	8.07
Vested	(79,654)	8.08
Forfeited	(8,299)	8.72
Non-vested at September 30, 2016	503,405	\$ 8.56

As of September 30, 2016, unrecognized compensation expense associated with the unvested phantom units was approximately \$1.4 million and is expected to be recognized over a weighted-average period of 1 year. Compensation expense (benefit) recorded for the three months ended September 30, 2016 and 2015 related to the awards under the CVR Partners LTIP was approximately \$0.2 million of benefit and \$0.1 million of expense, respectively. Compensation expense recorded for the nine months ended September 30, 2016 and 2015 related to the awards under the CVR Partners LTIP was approximately \$1.2 million and \$1.1 million, respectively.

As of September 30, 2016 and December 31, 2015, CVR Partners had a liability of \$1.8 million and \$0.7 million, respectively, for cash settled non-vested phantom unit awards and associated distribution equivalent rights, which is recorded in personnel accruals on the Condensed Consolidated Balance Sheets.

Performance-Based Phantom Units

In May 2014, CVR Partners entered into a Phantom Unit Agreement with the Chief Executive Officer and President of its general partner that included performance-based phantom units and distribution equivalent rights. Compensation cost for these awards is being recognized over the performance cycles of May 1, 2014 to December 31, 2014, January 1, 2015 to December 31, 2015 and January 1, 2016 to December 31, 2016, as the services are provided. Each phantom unit and distribution equivalent right represents the right to receive, upon vesting, a cash payment equal to (i) the average closing price of CVR Partners' common units in accordance with the agreement, multiplied by a performance factor that is based upon the level of CVR Partners' production of UAN, and (ii) the per unit cash value of all distributions declared and paid by CVR Partners from the grant date to and including the vesting date. Compensation expense for the three and nine months ended September 30, 2016 and 2015 related to the awards was nominal. Based on current estimates of performance thresholds for the remaining performance cycles, unrecognized compensation expense and the liability associated with the unvested phantom units as of September 30, 2016 was nominal.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

Long-Term Incentive Plan – CVR Refining

CVR Refining has a long-term incentive plan ("CVR Refining LTIP") that provides for the grant of options, unit appreciation rights, restricted units, phantom units, unit awards, substitute awards, other-unit based awards, cash awards, performance awards, and distribution equivalent rights. The maximum number of common units issuable under the CVR Refining LTIP is 11,070,000. Individuals who are eligible to receive awards under the CVR Refining LTIP include (i) employees of the Refining Partnership and its subsidiaries, (ii) employees of the general partner, (iii) members of the board of directors of the general partner and (iv) certain employees, consultants and directors of CRLLC and CVR Energy who perform services for the benefit of the Refining Partnership.

Awards of phantom units and distribution equivalent rights have been granted to employees of the Refining Partnership and its subsidiaries, its general partner and certain employees of CRLLC and CVR Energy who perform services solely for the benefit of the Refining Partnership. The awards are generally graded-vesting awards, which are expected to vest over three years with one-third of the awards vesting each year. Compensation expense is recognized on a straight-line basis over the vesting period of the respective tranche of the award. Each phantom unit and distribution equivalent right represents the right to receive, upon vesting, a cash payment equal to (i) the average fair-market value of one unit of the Refining Partnership's common units in accordance with the award agreement, plus (ii) the per unit cash value of all distributions declared and paid by the Refining Partnership from the grant date to and including the vesting date. The awards, which are liability-classified, are remeasured at each subsequent reporting date until they vest.

A summary of phantom unit activity and changes under the CVR Refining LTIP during the nine months ended September 30, 2016 is presented below:

	Units	Weighted-Average Grant- Date Fair Value
Non-vested at January 1, 2016	511,591	\$ 19.68
Granted	15,696	10.13
Vested	(873)	19.11
Forfeited	(26,403)	19.10
Non-vested at September 30, 2016	500,011	\$ 19.42

As of September 30, 2016, there was approximately \$2.0 million of total unrecognized compensation cost related to the awards under the CVR Refining LTIP to be recognized over a weighted-average period of one year. Total compensation expense recorded for the three months ended September 30, 2016 and 2015 related to the awards under the CVR Refining LTIP was approximately \$0.9 million and \$1.2 million, respectively. Total compensation expense recorded for the nine months ended September 30, 2016 and 2015 related to the awards under the CVR Refining LTIP was approximately \$0.9 million and \$3.2 million, respectively.

As of September 30, 2016 and December 31, 2015, the Refining Partnership had a liability of approximately \$3.1 million and \$2.3 million, respectively, for non-vested phantom unit awards and associated distribution equivalent rights, which is recorded in personnel accruals on the Condensed Consolidated Balance Sheets.

In December 2014, the Company granted an award of 227,927 incentive units in the form of stock appreciation rights ("SARs") to an executive of CVR Energy. In April 2015, the award granted was canceled and replaced by an award of notional units in the form of SARs by CVR Refining pursuant to the CVR Refining LTIP. The replacement award is structured on the same economic and other terms as the incentive unit award and did not result in a material impact. Each SAR vests over three years and entitles the executive to receive a cash payment in an amount equal to the excess of the fair market value of one unit of the Refining Partnership's common units for the first ten trading days in the month prior to vesting over the grant price of the SAR. The fair value will be adjusted to include all distributions declared and paid by the Refining Partnership during the vesting period. The fair value of each SAR is estimated at the end of each reporting period using the Black-Scholes option-pricing model. Assumptions utilized to value the award have been omitted due to immateriality of the award. Total compensation expense during the three and nine months ended September 30, 2016 and 2015 and the liability as of September 30, 2016 were not material.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

Incentive Unit Awards

The Company has granted awards of incentive units and distribution equivalent rights to certain employees of CRLLC, CVR Energy and CVR GP, LLC. The awards are generally graded vesting awards, which are expected to vest over three years with one-third of the award vesting each year. Compensation expense is recognized on a straight-line basis over the vesting period of the respective tranche of the award. Each incentive unit and distribution equivalent right represents the right to receive, upon vesting, a cash payment equal to (i) the average fair market value of one unit of the Refining Partnership's common units in accordance with the award agreement, plus (ii) the per unit cash value of all distributions declared and paid by the Refining Partnership from the grant date to and including the vesting date. The awards, which are liability-classified, are remeasured at each subsequent reporting date until they vest.

A summary of incentive unit activity and changes during the nine months ended September 30, 2016 is presented below:

	Incentive Units	Weighted-Average Grant- Date Fair Value
Non-vested at January 1, 2016	604,942	\$ 19.64
Granted	20,758	10.92
Vested	(2,451)	19.73
Forfeited	(38,399)	19.48
Non-vested at September 30, 2016	584,850	\$ 19.34

As of September 30, 2016, there was approximately \$2.3 million of total unrecognized compensation cost related to incentive unit awards to be recognized over a weighted-average period of approximately one year. Total compensation expense for the three months ended September 30, 2016 and 2015 related to the awards was approximately \$1.0 million and \$1.5 million, respectively. Total compensation expense for the nine months ended September 30, 2016 and 2015 related to the awards was approximately \$1.1 million and \$3.9 million, respectively.

As of September 30, 2016 and December 31, 2015, the Company had a liability of approximately \$3.7 million and \$2.6 million, respectively, for non-vested incentive units and associated distribution equivalent rights, which is recorded in personnel accruals on the Condensed Consolidated Balance Sheets.

(5) Inventories

Inventories consist primarily of domestic and foreign crude oil, blending stock and components, work-in-progress, fertilizer products, and refined fuels and by-products. For all periods presented, inventories are valued at the lower of the first-in, first-out ("FIFO") cost or market for fertilizer products, refined fuels and by-products. Refinery unfinished and finished products inventory values were determined using the ability-to-bear process, whereby raw materials and production costs are allocated to work-in-process and finished products based on their relative fair values. Other inventories, including other raw materials, spare parts, and supplies, are valued at the lower of moving-average cost, which approximates FIFO, or market. The cost of inventories includes inbound freight costs.

Inventories consisted of the following:

	September 30, 2016	December 31, 2015
	(in millions)	
Finished goods	\$ 140.9	\$ 114.5
Raw materials and precious metals	96.0	81.2
In-process inventories	14.6	35.8
Parts and supplies	71.5	58.4
Total Inventories	\$ 323.0	\$ 289.9

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

(6) Property, Plant and Equipment

Property, plant and equipment consisted of the following:

	September 30, 2016	December 31, 2015
	(in millions)	
Land and improvements	\$ 46.4	\$ 38.6
Buildings	64.8	53.6
Machinery and equipment	3,617.9	2,723.0
Automotive equipment	24.7	24.8
Furniture and fixtures	24.9	21.3
Leasehold improvements	3.6	3.6
Aircraft	3.6	3.6
Railcars	16.7	16.3
Construction in progress	68.3	122.3
	<u>3,870.9</u>	<u>3,007.1</u>
Accumulated depreciation	1,176.2	1,040.0
Total property, plant and equipment, net	<u>\$ 2,694.7</u>	<u>\$ 1,967.1</u>

Capitalized interest recognized as a reduction in interest expense for the three months ended September 30, 2016 and 2015 totaled approximately \$1.6 million and \$1.2 million, respectively. Capitalized interest recognized as a reduction in interest expense for the nine months ended September 30, 2016 and 2015 totaled approximately \$5.0 million and \$2.3 million, respectively. Land, buildings and equipment that are under a capital lease obligation had an original carrying value of approximately \$24.8 million at both September 30, 2016 and December 31, 2015. Amortization of assets held under capital leases is included in depreciation expense.

(7) Goodwill

The Nitrogen Fertilizer Partnership evaluates the carrying value of goodwill annually as of November 1 and between annual evaluations if events occur or circumstances change that would more likely than not reduce the fair value of the reporting unit below its carrying amount. The Nitrogen Fertilizer Partnership's goodwill reporting unit is the Coffeyville Fertilizer Facility.

Based on a significant decline in market capitalization and lower cash flow forecasts resulting from weakened fertilizer pricing trends during the third quarter of 2016, the Nitrogen Fertilizer Partnership identified a triggering event and therefore performed an interim goodwill impairment test as of September 30, 2016. The goodwill impairment quantitative testing involves a two-step process. Step 1 compares the fair value of the reporting unit to its carrying value. The Coffeyville Fertilizer Facility reporting unit fair value is based upon consideration of various valuation methodologies, including guideline public company multiples and projected future cash flows discounted at rates commensurate with the risk involved. The carrying amount of the reporting unit was less than its fair value; therefore, a Step 2 test was not required to be completed and no impairment was recorded.

The fair value of the reporting unit exceeded its carrying value by approximately 17.0% based upon the results of the Step 1 test as of September 30, 2016. Judgments and assumptions are inherent in management's estimates used to determine the fair value of the reporting unit. Assumptions used in the discounted cash flows ("DCF") require the exercise of significant judgment, including judgment about appropriate discount rates and terminal values, growth rates, and the amount and timing of expected future cash flows. The discount rates used in the DCF, which are intended to reflect the risks inherent in future cash flow projections, are based on estimates of the weighted-average cost of capital of a market participant. Such estimates are derived from analysis of peer companies and consider the industry weighted average return on debt and equity from a market participant perspective. The most significant assumption to determining the fair value of the reporting unit was forecasted fertilizer pricing. Changes in assumptions may result in a change in management's estimates and may result in an impairment in future periods, including, but not limited to, further declines in the forecasted fertilizer pricing.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

(8) Cost Classifications

Cost of product sold (exclusive of depreciation and amortization) includes cost of crude oil, other feedstocks, blendstocks, purchased refined products, pet coke expenses, renewable identification numbers ("RINs") expenses and freight and distribution expenses. Cost of product sold excludes depreciation and amortization of approximately \$1.6 million and \$1.5 million for the three months ended September 30, 2016 and 2015, respectively. For the nine months ended September 30, 2016 and 2015, cost of product sold excludes depreciation and amortization of approximately \$5.0 million and \$5.1 million, respectively.

Direct operating expenses (exclusive of depreciation and amortization) include direct costs of labor, maintenance and services, energy and utility costs, property taxes, environmental compliance costs, as well as chemicals and catalysts and other direct operating expenses. Direct operating expenses exclude depreciation and amortization of approximately \$46.5 million and \$35.4 million for the three months ended September 30, 2016 and 2015, respectively. For the nine months ended September 30, 2016 and 2015, direct operating expenses exclude depreciation and amortization of approximately \$129.5 million and \$112.7 million, respectively.

Selling, general and administrative expenses (exclusive of depreciation and amortization) consist primarily of legal expenses, treasury, accounting, marketing, human resources, information technology and maintaining the corporate and administrative offices in Texas and Kansas. Selling, general and administrative expenses exclude depreciation and amortization of approximately \$2.0 million and \$1.8 million for the three months ended September 30, 2016 and 2015, respectively. For the nine months ended September 30, 2016 and 2015, selling, general and administrative expenses exclude depreciation and amortization of approximately \$6.3 million and \$5.4 million, respectively.

(9) Income Taxes

On May 19, 2012, CVR became a member of the consolidated federal tax group of AEPC, a wholly-owned subsidiary of IEP, and subsequently entered into a tax allocation agreement with AEPC (the "Tax Allocation Agreement"). The Tax Allocation Agreement provides that AEPC will pay all consolidated federal income taxes on behalf of the consolidated tax group. CVR is required to make payments to AEPC in an amount equal to the tax liability, if any, that it would have paid if it were to file as a consolidated group separate and apart from AEPC. As of September 30, 2016, the Company's Condensed Consolidated Balance Sheet reflected a receivable of \$2.7 million which will be utilized to offset any future estimated federal tax payments due in accordance with the Tax Allocation Agreement. During the three months ended September 30, 2016 and 2015, the Company paid \$15.0 million and \$20.0 million, respectively, to AEPC under the Tax Allocation Agreement. During the nine months ended September 30, 2016 and 2015, the Company paid \$15.0 million and \$47.5 million, respectively, to AEPC under the Tax Allocation Agreement.

The Company recognizes liabilities, interest and penalties for potential tax issues based on its estimate of whether, and the extent to which, additional taxes may be due as determined under FASB ASC Topic 740 — *Income Taxes*. As of September 30, 2016, the Company had unrecognized tax benefits of approximately \$44.1 million, of which \$28.7 million, if recognized, would impact the Company's effective tax rate. Approximately \$25.9 million of unrecognized tax benefits were netted with deferred tax asset carryforwards. The remaining unrecognized tax benefits are included in other long-term liabilities in the Condensed Consolidated Balance Sheets. The Company has accrued interest of \$7.4 million related to uncertain tax positions. The Company's accounting policy with respect to interest and penalties related to tax uncertainties is to classify these amounts as income taxes.

The Company's effective tax rate for the three and nine months ended September 30, 2016 was 55.6% and 13.3%, respectively, and the Company's effective tax rate for the three and nine months ended September 30, 2015 was 18.9% and 21.9%, respectively, as compared to the Company's combined federal and state expected statutory tax rate of 39.4% and 39.6% for each of the three and nine months ended September 30, 2016 and 2015, respectively. The Company's effective tax rate for the three and nine months ended September 30, 2016 and 2015 varies from the statutory rate primarily due to the reduction of income subject to tax associated with the noncontrolling ownership interests of CVR Refining's and CVR Partners' earnings (loss), as well as benefits for domestic production activities and state income tax credits. The effective tax rate for the three and nine months ended September 30, 2016 varies from the three and nine months ended September 30, 2015 due to the correlation between the amount of credits projected to be generated in each year in relative comparison with the projected pre-tax income (loss) for the respective periods and the expiration of the statute of limitations on previously unrecognized tax benefits in the first quarter of 2016.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

(10) Long-Term Debt

Long-term debt consisted of the following:

	September 30, 2016	December 31, 2015
	(in millions)	
6.5% Senior Notes due 2022	\$ 500.0	\$ 500.0
9.25% Senior Notes due 2023	645.0	—
6.5% Notes due 2021	4.2	—
CRNF credit facility	—	125.0
Capital lease obligations	47.3	48.5
Total debt	1,196.5	673.5
Unamortized debt issuance cost	(14.6)	(6.4)
Unamortized debt discount	(15.6)	—
Current portion of long-term debt and capital lease obligations	(1.8)	(126.4)
Long-term debt, net of current portion	\$ 1,164.5	\$ 540.7

During the first quarter of 2016, the Company adopted ASU 2015-03, which requires that costs incurred to issue debt be presented in the balance sheet as a direct deduction from the carrying value of the debt. Prior to adoption of the ASU, all debt issuance costs were presented as assets. As a result of adoption of the standard, unamortized debt issuances costs of \$14.6 million and \$6.4 million were reclassified as a direct deduction from the carrying value of the related debt balances as of September 30, 2016 and December 31, 2015, respectively, in the Condensed Consolidated Balance Sheets (including \$0.0 million and \$0.2 million as a deduction from current portion of long-term debt and \$14.6 million and \$6.2 million as a deduction from long-term debt, respectively). Debt issuance costs related to the asset-based lending facilities continue to be presented as assets in the Condensed Consolidated Balance Sheets.

2022 Senior Notes

The Refining Partnership has \$500.0 million aggregate principal amount of 6.5% Senior Notes due 2022 (the "2022 Notes") outstanding, which were issued by CVR Refining, LLC ("Refining LLC") and Coffeyville Finance Inc. ("Coffeyville Finance") on October 23, 2012. The 2022 Notes were issued at par and mature on November 1, 2022, unless earlier redeemed or repurchased by the issuers. Interest is payable on the 2022 Notes semi-annually on May 1 and November 1 of each year, commencing on May 1, 2013.

The 2022 Notes contain customary covenants for a financing of this type that limit, subject to certain exceptions, the incurrence of additional indebtedness or guarantees, the creation of liens on assets, the ability to dispose of assets, the ability to make certain payments on contractually subordinated debt, the ability to merge, consolidate with or into another entity and the ability to enter into certain affiliate transactions. The 2022 Notes provide that the Refining Partnership can make distributions to holders of its common units provided, among other things, it has a minimum fixed charge coverage ratio and there is no default or event of default under the 2022 Notes. As of September 30, 2016, the Refining Partnership was in compliance with the covenants contained in the 2022 Notes.

At September 30, 2016, the estimated fair value of the 2022 Notes was approximately \$452.5 million. This estimate of fair value is Level 2 as it was determined by quotations obtained from a broker-dealer who makes a market in these and similar securities.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

Amended and Restated Asset Based (ABL) Credit Facility

The Refining Partnership has a senior secured asset based revolving credit facility (the "Amended and Restated ABL Credit Facility") with a group of lenders and Wells Fargo Bank, National Association ("Wells Fargo"), as administrative agent and collateral agent. The Amended and Restated ABL Credit Facility has an aggregate principal amount of up to \$400.0 million with an incremental facility, which permits an increase in borrowings of up to \$200.0 million subject to receipt of additional lender commitments and certain other conditions. The proceeds of the loans may be used for capital expenditures and working capital and general corporate purposes of the Refining Partnership and its subsidiaries. The Amended and Restated ABL Credit Facility provides for loans and letters of credit in an amount up to the aggregate availability under the facility, subject to meeting certain borrowing base conditions, with sub-limits of 10% of the total facility commitment for swingline loans and 90% of the total facility commitment for letters of credit. The Amended and Restated ABL Credit Facility is scheduled to mature on December 20, 2017.

The Amended and Restated ABL Credit Facility also contains customary covenants for a financing of this type that limit the ability of the Refining Partnership and its subsidiaries to, among other things, incur liens, engage in a consolidation, merger, purchase or sale of assets, pay dividends, incur indebtedness, make advances, investments and loans, enter into affiliate transactions, issue equity interests or create subsidiaries and unrestricted subsidiaries. The Amended and Restated ABL Credit Facility also contains a fixed charge coverage ratio financial covenant, as defined therein. The Refining Partnership was in compliance with the covenants of the Amended and Restated ABL Credit Facility as of September 30, 2016.

As of September 30, 2016, the Refining Partnership and its subsidiaries had availability under the Amended and Restated ABL Credit Facility of \$323.4 million and had letters of credit outstanding of approximately \$28.3 million. There were no borrowings outstanding under the Amended and Restated ABL Credit Facility as of September 30, 2016. Availability under the Amended and Restated ABL Credit Facility was limited by borrowing base conditions as of September 30, 2016.

Nitrogen Fertilizer Partnership Credit Facility

The Nitrogen Fertilizer Partnership's credit facility included a term loan facility of \$125.0 million and a revolving credit facility of \$25.0 million with an uncommitted incremental facility of up to \$50.0 million. The credit facility was scheduled to mature on April 13, 2016. No amounts were outstanding under the revolving credit facility on April 1, 2016. On April 1, 2016, in connection with the completion of the East Dubuque Merger, the Nitrogen Fertilizer Partnership repaid all amounts outstanding under the credit facility and paid \$0.3 million for accrued and unpaid interest. Effective upon such repayment, the credit facility and all related loan documents and security interests were terminated and released. The repayment was funded from amounts drawn on a senior term loan credit facility with CRLLC. The Nitrogen Fertilizer Partnership recognized a nominal amount of loss on debt extinguishment in connection with the termination of the credit facility.

Borrowings under the credit facility bore interest at either a Eurodollar rate or a base rate plus in either case a margin based on a pricing grid determined by the trailing four quarter leverage ratio. The margin for borrowings under the credit facility ranged from 3.50% to 4.25% for Eurodollar loans and 2.50% to 3.25% for base rate loans. During the periods presented, the interest rate was either the Eurodollar rate plus a margin of 3.50% or, for base rate loans, the prime rate plus 2.50%.

2023 Senior Notes

On June 10, 2016, CVR Partners and CVR Nitrogen Finance Corporation, an indirect wholly-owned subsidiary of CVR Partners (together the "2023 Notes Issuers"), certain subsidiary guarantors named therein and Wilmington Trust, National Association, as trustee and as collateral trustee, completed a private offering of \$645.0 million aggregate principal amount of 9.25% Senior Secured Notes due 2023 (the "2023 Notes"). The 2023 Notes mature on June 15, 2023, unless earlier redeemed or repurchased by the issuers. Interest on the 2023 Notes is payable semi-annually in arrears on June 15 and December 15 of each year, beginning on December 15, 2016. The 2023 Notes are guaranteed on a senior secured basis by all of the Nitrogen Fertilizer Partnership's existing subsidiaries.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

The 2023 Notes were issued at a \$16.1 million discount, which is being amortized over the term of the 2023 Notes as interest expense using the effective-interest method. The Nitrogen Fertilizer Partnership received approximately \$622.9 million of cash proceeds, net of the original issue discount and underwriting fees, but before deducting other third-party fees and expenses associated with the offering. The net proceeds from the sale of the 2023 Notes were used to: (i) repay all amounts outstanding under the senior term loan credit facility with CRLLC; (ii) finance the 2021 Notes Tender Offer (defined and discussed below) and (iii) to pay related fees and expenses.

The debt issuance costs of the 2023 Notes totaled approximately \$9.4 million and are being amortized over the term of the 2023 Notes as interest expense using the effective-interest amortization method.

The 2023 Notes contain customary covenants for a financing of this type that, among other things, restrict the Nitrogen Fertilizer Partnership's ability and the ability of certain of its subsidiaries to: (i) sell assets; (ii) pay distributions on, redeem or repurchase the Nitrogen Fertilizer Partnership's units or redeem or repurchase its subordinated debt; (iii) make investments; (iv) incur or guarantee additional indebtedness or issue preferred units; (v) create or incur certain liens; (vi) enter into agreements that restrict distributions or other payments from the Nitrogen Fertilizer Partnership's restricted subsidiaries to the Nitrogen Fertilizer Partnership; (vii) consolidate, merge or transfer all or substantially all of the Nitrogen Fertilizer Partnership's assets; (viii) engage in transactions with affiliates; and (ix) create unrestricted subsidiaries. As of September 30, 2016, the Nitrogen Fertilizer Partnership was in compliance with the covenants contained in the 2023 Notes.

At September 30, 2016, the estimated fair value of the 2023 Notes was approximately \$624.0 million. This estimate of fair value is Level 2 as it was determined by quotations obtained from a broker-dealer who makes a market in these and similar securities.

2021 Notes

Prior to the East Dubuque Merger, CVR Nitrogen and CVR Nitrogen Finance Corporation (the "2021 Note Issuers") issued \$320.0 million of 6.5% senior notes due 2021 (the "2021 Notes"). The 2021 Notes bear interest at a rate of 6.5% per annum, payable semi-annually in arrears on April 15 and October 15 of each year. The 2021 Notes are scheduled to mature on April 15, 2021, unless repurchased or redeemed earlier in accordance with their terms.

On April 29, 2016, the 2021 Notes Issuers commenced a cash tender offer (the "Tender Offer") to purchase any and all of the outstanding 2021 Notes. In connection with the Tender Offer, the 2021 Notes Issuers solicited the consents of holders of the notes to certain proposed amendments to the indenture governing the notes (the "Consent Solicitation"). As a result of the Tender Offer, on June 10, 2016, the 2021 Notes Issuers repurchased approximately \$315.2 million of 2021 Notes, representing approximately 98.5% of the total outstanding principal amount of the notes at a purchase price of \$1,015 per \$1,000 in principal amount. The total amount paid related to the Tender Offer was approximately \$320.0 million, including an approximate \$4.7 million premium. Additionally, the 2021 Notes Issuers paid \$3.1 million for accrued and unpaid interest for the tendered notes up to the settlement date. The Nitrogen Fertilizer Partnership received the requisite consents in respect of the 2021 Notes in connection with the Consent Solicitation to amend the indenture governing the 2021 Notes. As a result, the 2021 Notes Issuers executed a supplemental indenture, dated as of June 10, 2016, which eliminated or modified substantially all of the restrictive covenants relating to CVR Nitrogen and its subsidiaries, eliminated all events of default other than failure to pay principal, premium or interest on the 2021 Notes, eliminated all conditions to satisfaction and discharge, and released the liens on the collateral securing the 2021 Notes. The repurchase of a portion of the 2021 Notes resulted in a loss on extinguishment of debt of approximately \$5.1 million during the second quarter of 2016, which includes the Tender Offer premium of \$4.7 million and the write-off of the unamortized portion of the purchase accounting adjustment of \$0.4 million.

Concurrently with, but separately from the Tender Offer, the 2021 Notes Issuers also commenced an offer to purchase all of the outstanding 2021 Notes at a price equal to 101% of the principal amount thereof, as required as a result of the East Dubuque Merger (the "Change of Control Offer"). The offer expired on June 28, 2016. As a result of the Change of Control Offer, the Nitrogen Fertilizer Partnership repurchased \$0.6 million of 2021 Notes at a purchase price of \$1,010 per \$1,000 in principal amount. The total amount paid related to the Change of Control offer was approximately \$0.6 million, including a nominal amount of premium and accrued and unpaid interest.

The \$4.2 million of principal amount of the 2021 Notes that remained outstanding following the consummation of the Tender Offer and the Change of Control Offer will continue to be obligations of the Nitrogen Fertilizer Partnership.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

At September 30, 2016, the estimated fair value of the 2021 Notes was approximately \$4.2 million. This estimate of fair value is Level 2 as it was determined by quotations obtained from a broker-dealer who makes a market in these and similar securities.

Capital Lease Obligations

The Refining Partnership maintains two leases, accounted for as a capital lease and a finance obligation, related to Magellan Pipeline Terminals, L.P. ("Magellan Pipeline") and Excel Pipeline LLC ("Excel Pipeline"). The underlying assets and related depreciation are included in property, plant and equipment. The capital lease, which relates to a sales-lease back agreement with Sunoco Pipeline, L.P. for its membership interest in the Excel Pipeline, has 157 months remaining of its term and will expire in September 2029. The financing agreement, which relates to the Magellan Pipeline terminals, bulk terminal and loading facility has a lease term with 156 months remaining and will expire in September 2029.

Asset Based (ABL) Credit Facility

On September 30, 2016, the Nitrogen Fertilizer Partnership entered into a senior secured asset based revolving credit facility (the "ABL Credit Facility") with a group of lenders and UBS AG, Stamford Branch ("UBS"), as administrative agent and collateral agent. The ABL Credit Facility has an aggregate principal amount of availability of up to \$50.0 million with an incremental facility, which permits an increase in borrowings of up to \$25.0 million in the aggregate subject to additional lender commitments and certain other conditions. The proceeds of the loans may be used for capital expenditures and working capital and general corporate purposes of the Nitrogen Fertilizer Partnership and its subsidiaries. The ABL Credit Facility provides for loans and standby letters of credit in an amount up to the aggregate availability under the facility, subject to meeting certain borrowing base conditions, with sub-limits of the lesser of 10.0% of the total facility commitment and \$5.0 million for swingline loans and \$10.0 million for letters of credit. The ABL Credit Facility is scheduled to mature on September 30, 2021.

At the option of the borrowers, loans under the ABL Credit Facility initially bear interest at an annual rate equal to (i) 2.0% plus LIBOR or (ii) 1.0% plus a base rate, subject to a 0.5% step-down based on the previous quarter's excess availability. The borrowers must also pay a commitment fee on the unutilized commitments and also pay customary letter of credit fees.

The ABL Credit Facility also contains customary covenants for a financing of this type that limit the ability of the Nitrogen Fertilizer Partnership and its subsidiaries to, among other things, incur liens, engage in a consolidation, merger, purchase or sale of assets, pay dividends, incur indebtedness, make advances, investments and loans, enter into affiliate transactions, issue equity interests or create subsidiaries and unrestricted subsidiaries. The ABL Credit Facility also contains a fixed charge coverage ratio financial covenant, as defined therein. The Nitrogen Fertilizer Partnership was in compliance with the covenants of the ABL Credit Facility as of September 30, 2016.

In connection with the ABL Credit Facility, the Nitrogen Fertilizer Partnership incurred lender and other third-party costs of approximately \$1.1 million, which are being deferred and amortized to interest expense and other financing costs using the straight-line method over the term of the facility.

As of September 30, 2016, the Nitrogen Fertilizer Partnership and its subsidiaries had availability under the ABL Credit Facility of \$48.0 million. There were no borrowings outstanding under the ABL Credit Facility as of September 30, 2016.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

(11) Earnings Per Share

Basic and diluted earnings per share are computed by dividing net income attributable to CVR stockholders by the weighted-average number of shares of common stock outstanding. The components of the basic and diluted earnings per share calculation are as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
	(in millions, except per share data)			
Net income attributable to CVR Energy stockholders	\$ 5.4	\$ 57.9	\$ 17.6	\$ 214.6
Weighted-average shares of common stock outstanding - Basic and diluted	86.8	86.8	86.8	86.8
Basic and diluted earnings per share	\$ 0.06	\$ 0.67	\$ 0.20	\$ 2.47

There were no dilutive awards outstanding during the three and nine months ended September 30, 2016 and 2015, as all unvested awards under the LTIP were liability-classified awards. See Note 4 ("Share-Based Compensation").

(12) Commitments and Contingencies
Leases and Unconditional Purchase Obligations

The minimum required payments for CVR's lease agreements and unconditional purchase obligations are as follows:

	Operating Leases		Unconditional Purchase Obligations ⁽¹⁾	
	(in millions)			
Three Months Ending December 31, 2016	\$	2.0	\$	46.4
Year Ending December 31,				
2017		6.6		137.2
2018		5.5		129.2
2019		4.9		126.4
2020		4.5		109.4
Thereafter		10.7		742.1
	\$	34.2	\$	1,290.7

- (1) This amount includes approximately \$754.5 million payable ratably over fifteen years pursuant to petroleum transportation service agreements between Coffeyville Resources Refining & Marketing, LLC ("CRRM") and each of TransCanada Keystone Pipeline Limited Partnership and TransCanada Keystone Pipeline, LP (together, "TransCanada"). The purchase obligation reflects the exchange rate between the Canadian dollar and the U.S. dollar as of September 30, 2016, where applicable. Under the agreements, CRRM receives transportation of at least 25,000 barrels per day of crude oil with a delivery point at Cushing, Oklahoma for a term of 20 years on TransCanada's Keystone pipeline system.

CVR leases various equipment, including railcars and real properties, under long-term operating leases which expire at various dates. For the three months ended September 30, 2016 and 2015, lease expense totaled approximately \$2.0 million and \$2.2 million, respectively. For the nine months ended September 30, 2016 and 2015, lease expense totaled approximately \$6.2 million and \$6.5 million, respectively. The lease agreements have various remaining terms. Some agreements are renewable, at CVR's option, for additional periods. It is expected, in the ordinary course of business, that leases may be renewed or replaced as they expire.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

Additionally, in the normal course of business, the Company has long-term commitments to purchase oxygen, nitrogen, electricity, storage capacity and pipeline transportation services. For the three months ended September 30, 2016 and 2015, total expense of approximately \$33.4 million and \$36.1 million, respectively, was incurred related to long-term commitments. For the nine months ended September 30, 2016 and 2015, total expense of approximately \$103.3 million and \$102.5 million, respectively, was incurred related to long-term commitments.

Crude Oil Supply Agreement

On August 31, 2012, CRRM, and Vitol Inc. ("Vitol") entered into an Amended and Restated Crude Oil Supply Agreement (as amended, the "Vitol Agreement"). Under the Vitol Agreement, Vitol supplies the petroleum business with crude oil and intermediation logistics, which helps to reduce the Refining Partnership's inventory position and mitigate crude oil pricing risk. The Vitol Agreement will automatically renew for successive one-year terms (each such term, a "Renewal Term") unless either party provides the other with notice of nonrenewal at least 180 days prior to the expiration of any Renewal Term. The Vitol Agreement currently extends through December 31, 2017.

Litigation

From time to time, the Company is involved in various lawsuits arising in the normal course of business, including matters such as those described below under, "Environmental, Health and Safety ("EHS") Matters." Liabilities related to such litigation are recognized when the related costs are probable and can be reasonably estimated. These provisions are reviewed at least quarterly and adjusted to reflect the impacts of negotiations, settlements, rulings, advice of legal counsel, and other information and events pertaining to a particular case. It is possible that management's estimates of the outcomes will change due to uncertainties inherent in litigation and settlement negotiations. Except as described below, there were no new proceedings or material developments in proceedings that CVR previously reported in its 2015 Form 10-K. In the opinion of management, the ultimate resolution of any other litigation matters is not expected to have a material adverse effect on the accompanying condensed consolidated financial statements. There can be no assurance that management's beliefs or opinions with respect to liability for potential litigation matters will prove to be accurate.

Rentech Nitrogen Mergers Litigation

As previously disclosed in the 2015 Form 10-K, two class action lawsuits were filed in connection with the East Dubuque Merger, (i) the "Mustard Lawsuit", which was filed in the Court of Chancery of the State of Delaware, and (ii) the "Sloan Lawsuit" (together with Mustard Lawsuit, the "Merger Lawsuits"), which was filed in the United States District Court for the Central District of California. The Merger Lawsuits alleged (among other things) breach of fiduciary duties and inadequate disclosure, in each case, in connection with the East Dubuque Merger. In February 2016, the parties to the Merger Lawsuits entered into a memorandum of understanding providing for the proposed settlement of the Merger Lawsuits. The parties subsequently entered into a stipulation of settlement, which was subject to customary conditions including court approval following notice to the CVR Nitrogen unitholders. In July 2016, the Mustard Lawsuit was dismissed, and in October 2016, the United States District Court for the Central District of California issued an order and judgment approving the settlement of the Sloan Lawsuit. The settlement resolves and releases all claims by unitholders of CVR Nitrogen challenging the East Dubuque Merger. The plaintiff's counsel in the Sloan Lawsuit has filed a petition for the award of attorneys' fees, which remains pending with the Court. The Nitrogen Fertilizer Partnership does not believe the settlement or the award of attorneys' fees will have a material adverse effect on the Nitrogen Fertilizer Partnership's business, financial condition or results of operation.

Environmental, Health and Safety ("EHS") Matters

The petroleum and nitrogen fertilizer businesses are subject to various stringent federal, state, and local EHS rules and regulations. Liabilities related to EHS matters are recognized when the related costs are probable and can be reasonably estimated. Estimates of these costs are based upon currently available facts, existing technology, site-specific costs and currently enacted laws and regulations. In reporting EHS liabilities, no offset is made for potential recoveries.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

CRRM, CRNF, Coffeyville Resources Crude Transportation, LLC ("CRCT"), Wynnewood Refining Company, LLC ("WRC") and Coffeyville Resources Terminal, LLC ("CRT") own and/or operate manufacturing and ancillary operations at various locations directly related to petroleum refining and distribution and nitrogen fertilizer manufacturing. Therefore, CRRM, CRNF, CRCT, WRC and CRT have exposure to potential EHS liabilities related to past and present EHS conditions at these locations. Under the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), the Resource Conservation and Recovery Act ("RCRA"), and related state laws, certain persons may be liable for the release or threatened release of hazardous substances. These persons can include the current owner or operator of property where a release or threatened release occurred, any persons who owned or operated the property when the release occurred, and any persons who disposed of, or arranged for the transportation or disposal of, hazardous substances at a contaminated property. Liability under CERCLA is strict, and under certain circumstances, joint and several, so that any responsible party may be held liable for the entire cost of investigating and remediating the release of hazardous substances. Similarly, the Oil Pollution Act generally subjects owners and operators of facilities to strict, joint and several liability for all containment and clean-up costs, natural resource damages, and potential governmental oversight costs arising from oil spills into the waters of the United States, which has been broadly interpreted to include most water bodies including intermittent streams.

CRRM, CRNF, CRCT, WRC and CRT are subject to extensive and frequently changing federal, state and local environmental and health and safety laws and regulations governing the emission and release of hazardous substances into the environment, the treatment and discharge of waste water, and the storage, handling, use and transportation of petroleum and nitrogen products, and the characteristics and composition of gasoline and diesel fuels. The ultimate impact of complying with evolving laws and regulations is not always clearly known or determinable due in part to the fact that our operations may change over time and certain implementing regulations for laws, such as the federal Clean Air Act, have not yet been finalized, are under governmental or judicial review or are being revised. These laws and regulations could result in increased capital, operating and compliance costs.

As previously reported, the petroleum and nitrogen fertilizer businesses are party to, or otherwise subject to administrative orders and consent decrees with federal, state and local environmental authorities, as applicable, addressing corrective actions under RCRA, the Clean Air Act and the Clean Water Act. The petroleum business also is subject to (i) the Mobile Source Air Toxic II ("MSAT II") rule which requires reductions of benzene in gasoline; (ii) the Renewable Fuel Standard ("RFS"), which requires refiners to either blend "renewable fuels" in with their transportation fuels or purchase renewable fuel credits, known as RINs, in lieu of blending; and (iii) "Tier 3" gasoline sulfur standards. Except as otherwise described below, there have been no new developments or material changes to the environmental accruals or expected capital expenditures related to compliance with the foregoing environmental matters from those provided in the 2015 Form 10-K. CRRM, CRNF, CRCT, WRC and CRT each believe it is in substantial compliance with existing EHS rules and regulations. There can be no assurance that the EHS matters described or referenced herein or other EHS matters which may develop in the future will not have a material adverse effect on the Company's business, financial condition or results of operations.

On August 1, 2016, CRCT received a Notice of Probable Violation, Proposed Civil Penalty and Proposed Compliance Order (the "NOPV") from the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (the "PHMSA"). The NOPV alleges violations of the Pipeline Safety Regulations, Title 49, Code of Federal Regulations. The alleged violations include alleged failures (during various time periods) to (i) conduct quarterly notification drills, (ii) maintain certain required records, (iii) utilize certain required safety equipment (including line markers), (iv) take certain pipeline integrity management activities, (v) conduct certain cathodic protection testing, and (vi) make certain atmospheric corrosion inspections. The preliminary assessed civil penalty is approximately \$0.5 million and the NOPV contained a compliance order outlining remedial compliance steps to be undertaken by CRCT. CRCT paid approximately \$160,000 of the preliminary assessed civil penalty, is contesting and requesting mitigation of the remainder, and is also requesting reconsideration of the proposed compliance order. Although CVR Refining cannot predict with certainty the ultimate resolution of the claims asserted, CVR Refining does not believe that the claims in the NOPV will have a material adverse effect on CVR Refining's business, financial condition or results of operations.

At September 30, 2016, the Company's Condensed Consolidated Balance Sheet included total environmental accruals of \$5.3 million, as compared to \$3.6 million at December 31, 2015. Management periodically reviews and, as appropriate, revises its environmental accruals. Based on current information and regulatory requirements, management believes that the accruals established for environmental expenditures are adequate.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

September 30, 2016

(unaudited)

Environmental expenditures are capitalized when such expenditures are expected to result in future economic benefits. For the three months ended September 30, 2016 and 2015, capital expenditures were approximately \$6.5 million and \$8.5 million, respectively. For the nine months ended September 30, 2016 and 2015, capital expenditures were approximately \$12.5 million and \$26.7 million, respectively. These expenditures were incurred for environmental compliance and efficiency of the operations.

The cost of RINs for the three months ended September 30, 2016 and 2015 was approximately \$58.3 million and \$19.3 million, respectively. The cost of RINs for the nine months ended September 30, 2016 and 2015 was approximately \$152.4 million and \$93.4 million, respectively. As of September 30, 2016 and December 31, 2015, the petroleum business' biofuel blending obligation was approximately \$126.6 million and \$9.5 million, respectively, which was recorded in other current liabilities on the Condensed Consolidated Balance Sheets.

Flood, Crude Oil Discharge and Insurance

As previously disclosed in the 2015 Form 10-K, CRRM filed a lawsuit against certain of its environmental insurance carriers requesting insurance coverage indemnification for the June/July 2007 flood and crude oil discharge losses at CRRM's Coffeyville refinery. During the second quarter of 2015, CRRM entered into a settlement agreement and release with the insurance carriers involved in the lawsuit, pursuant to which (i) CRRM received settlement proceeds of approximately \$31.3 million, (ii) the parties mutually released each other from all claims relating to the flood and crude oil discharge and (iii) all pending appeals have been dismissed. Of the settlement proceeds received, \$27.3 million were recorded as a flood insurance recovery in the Condensed Consolidated Statements of Operations for the nine months ended September 30, 2015. The remaining \$4.0 million of settlement proceeds reduced CVR Refining's \$4.0 million receivable related to this matter, which was included in other assets on the Condensed Consolidated Balance Sheets.

Affiliate Pension Obligations

Mr. Carl C. Icahn, through certain affiliates, owns approximately 82% of the Company's capital stock. Applicable pension and tax laws make each member of a "controlled group" of entities, generally defined as entities in which there is at least an 80% common ownership interest, jointly and severally liable for certain pension plan obligations of any member of the controlled group. These pension obligations include ongoing contributions to fund the plan, as well as liability for any unfunded liabilities that may exist at the time the plan is terminated. In addition, the failure to pay these pension obligations when due may result in the creation of liens in favor of the pension plan or the Pension Benefit Guaranty Corporation ("PBGC") against the assets of each member of the controlled group.

As a result of the more than 80% ownership interest in CVR Energy by Mr. Icahn's affiliates, the Company is subject to the pension liabilities of all entities in which Mr. Icahn has a direct or indirect ownership interest of at least 80%. Two such entities, ACF Industries LLC ("ACF") and Federal-Mogul, are the sponsors of several pension plans. All the minimum funding requirements of the Code and the Employee Retirement Income Security Act of 1974, as amended by the Pension Protection Act of 2006, for these plans have been met as of September 30, 2016 and December 31, 2015. If the ACF and Federal-Mogul plans were voluntarily terminated, they would be underfunded by approximately \$549.6 million and \$589.2 million as of September 30, 2016 and December 31, 2015, respectively. These results are based on the most recent information provided by Mr. Icahn's affiliates based on information from the plans' actuaries. These liabilities could increase or decrease, depending on a number of factors, including future changes in benefits, investment returns, and the assumptions used to calculate the liability. As members of the controlled group, CVR Energy would be liable for any failure of ACF and Federal-Mogul to make ongoing pension contributions or to pay the unfunded liabilities upon a termination of their respective pension plans. In addition, other entities now or in the future within the controlled group that includes CVR Energy may have pension plan obligations that are, or may become, underfunded, and the Company would be liable for any failure of such entities to make ongoing pension contributions or to pay the unfunded liabilities upon a termination of such plans. The current underfunded status of the ACF and Federal-Mogul pension plans requires such entities to notify the PBGC of certain "reportable events," such as if CVR Energy were to cease to be a member of the controlled group, or if CVR Energy makes certain extraordinary dividends or stock redemptions. The obligation to report could cause the Company to seek to delay or reconsider the occurrence of such reportable events. Based on the contingent nature of potential exposure related to these affiliate pension obligations, no liability has been recorded in the condensed consolidated financial statements.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

Joint Venture Agreement

On September 19, 2016, Coffeyville Resources Pipeline, LLC ("CRPLLC"), an indirect wholly-owned subsidiary of the Refining Partnership, entered into an agreement with Velocity Central Oklahoma Pipeline LLC ("Velocity") related to their joint ownership of Velocity Pipeline Partners, LLC ("VPP"), which will construct, own and operate a crude oil pipeline. CRPLLC holds a 40% interest in VPP. Velocity holds a 60% interest in VPP and serves as the day-to-day operator of VPP. As of September 30, 2016, CRPLLC has contributed \$3.2 million to VPP, which is recorded in other long-term assets on the Condensed Consolidated Balance Sheet, and expects to contribute a total of approximately \$9.3 million during the pipeline construction.

(13) Fair Value Measurements

In accordance with FASB ASC Topic 820 — *Fair Value Measurements and Disclosures* ("ASC 820"), the Company utilizes the market approach to measure fair value for its financial assets and liabilities. The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets, liabilities or a group of assets or liabilities, such as a business.

ASC 820 utilizes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels. The following is a brief description of those three levels:

- Level 1 — Quoted prices in active markets for identical assets and liabilities
- Level 2 — Other significant observable inputs (including quoted prices in active markets for similar assets or liabilities)
- Level 3 — Significant unobservable inputs (including the Company's own assumptions in determining the fair value)

The following table sets forth the assets and liabilities measured at fair value on a recurring basis, by input level, as of September 30, 2016 and December 31, 2015:

<u>Location and Description</u>	September 30, 2016			
	Level 1	Level 2	Level 3	Total
	(in millions)			
Cash equivalents	\$ 15.7	\$ —	\$ —	\$ 15.7
Other current assets (other derivative agreements)	—	6.1	—	6.1
Total Assets	\$ 15.7	\$ 6.1	\$ —	\$ 21.8
Other current liabilities (other derivative agreements)	—	(1.5)	—	(1.5)
Other current liabilities (biofuel blending and benzene obligations)	—	(112.3)	—	(112.3)
Total Liabilities	\$ —	\$ (113.8)	\$ —	\$ (113.8)

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

<u>Location and Description</u>	December 31, 2015			
	Level 1	Level 2	Level 3	Total
	(in millions)			
Cash equivalents	\$ 15.7	\$ —	\$ —	\$ 15.7
Other current assets (investments)	0.1	—	—	0.1
Other current assets (other derivative agreements)	—	44.7	—	44.7
Total Assets	<u>\$ 15.8</u>	<u>\$ 44.7</u>	<u>\$ —</u>	<u>\$ 60.5</u>
Other current liabilities (other derivative agreements)	—	(0.1)	—	(0.1)
Other current liabilities (interest rate swaps)	—	(0.1)	—	(0.1)
Other long-term liabilities (biofuel blending obligation)	—	(2.7)	—	(2.7)
Total Liabilities	<u>\$ —</u>	<u>\$ (2.9)</u>	<u>\$ —</u>	<u>\$ (2.9)</u>

As of September 30, 2016 and December 31, 2015, the only financial assets and liabilities that are measured at fair value on a recurring basis are the Company's cash equivalents, investments, derivative instruments and the uncommitted biofuel blending and benzene obligations. Additionally, the fair value of the Company's debt issuances is disclosed in Note 10 ("Long-Term Debt").

In March 2016, CVR Energy purchased 400,000 CVR Nitrogen common units in the public market. As of March 31, 2016, the fair value of the common units was based on quoted prices for the identical securities (Level 1 inputs). As a result of the East Dubuque Merger, the carrying amount of the investment in the CVR Nitrogen common units was reclassified as an investment in consolidated subsidiary and is eliminated in consolidation. Subsequent to the East Dubuque Merger, the Nitrogen Fertilizer Partnership purchased the 400,000 CVR Nitrogen common units from CVR Energy during the second quarter of 2016.

During the nine months ended September 30, 2016, CVR Energy purchased shares of an unaffiliated public company's common units in the public market at an aggregate cost basis of \$14.4 million. During the three months ended September 30, 2016, the Company received proceeds of \$19.3 million for the sale of this investment in available-for-sale securities. Upon the sale of the available-for-sale securities, the Company reclassified an unrealized gain of \$0.5 million from accumulated other comprehensive income ("AOCI") and recognized a realized gain of \$4.9 million in other income in the Condensed Consolidated Statements of Operations for the three and nine months ended September 30, 2016.

The Refining Partnership's commodity derivative contracts and the uncommitted biofuel blending and benzene obligations, which use fair value measurements and are valued using broker quoted market prices of similar instruments, are considered Level 2 inputs. The Nitrogen Fertilizer Partnership had interest rate swaps that were measured at fair value on a recurring basis using Level 2 inputs. The fair value of these interest rate swap instruments was based on discounted cash flow models that incorporated the cash flows of the derivatives, as well as the current LIBOR rate and a forward LIBOR curve, along with other observable market inputs. The Company had no transfers of assets and liabilities between any of the above levels during the nine months ended September 30, 2016.

During the nine months ended September 30, 2015, the Company received proceeds of \$68.0 million for the sale of a portion of its investment in available-for-sale securities. The aggregate cost basis for the available-for-sale securities sold was approximately \$47.9 million. Upon the sale of the available-for-sale securities, the Company reclassified an unrealized gain of \$20.1 million from AOCI and recognized a realized gain in other income in the Condensed Consolidated Statements of Operations for the nine months ended September 30, 2015. At the end of the first quarter of 2015, the Company's remaining available-for-sale securities with an aggregate cost basis of approximately \$25.7 million were reclassified to trading securities based on management's ability and intent with respect to the securities. In connection with the transfer to trading securities, an unrealized gain previously recorded in AOCI of \$11.7 million was reclassified to other income and is reflected in the Condensed Consolidated Statements of Operations for the nine months ended September 30, 2015. During the second quarter of 2015, the trading securities were sold, and the Company received proceeds of \$37.8 million and recognized an additional realized gain of \$0.4 million in other income for the nine months ended September 30, 2015.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

(14) Derivative Financial Instruments

Loss on derivatives, net and current period settlements on derivative contracts were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
	(in millions)			
Current period settlements on derivative contracts	\$ 6.7	\$ 0.8	\$ 35.2	\$ (34.0)
Loss on derivatives, net	(1.7)	11.8	(4.8)	(52.2)

The Refining Partnership and Nitrogen Fertilizer Partnership are subject to price fluctuations caused by supply conditions, weather, economic conditions, interest rate fluctuations and other factors. To manage price risk on crude oil and other inventories and to fix margins on certain future production, the Refining Partnership from time to time enters into various commodity derivative transactions.

The Refining Partnership has adopted accounting standards which impose extensive record-keeping requirements in order to designate a derivative financial instrument as a hedge. The Refining Partnership holds derivative instruments, such as exchange-traded crude oil futures and certain over-the-counter forward swap agreements, which it believes provide an economic hedge on future transactions, but such instruments are not designated as hedges for GAAP purposes. Gains or losses related to the change in fair value and periodic settlements of these derivative instruments are classified as loss on derivatives, net in the Condensed Consolidated Statements of Operations. There are no premiums paid or received at inception of the derivative contracts and upon settlement, there is no cost recovery associated with these contracts.

The Refining Partnership maintains a margin account to facilitate other commodity derivative activities. A portion of this account may include funds available for withdrawal. These funds are included in cash and cash equivalents within the Condensed Consolidated Balance Sheets. The maintenance margin balance is included within other current assets within the Condensed Consolidated Balance Sheets. Dependent upon the position of the open commodity derivatives, the amounts are accounted for as other current assets or other current liabilities within the Condensed Consolidated Balance Sheets. From time to time, the Refining Partnership may be required to deposit additional funds into this margin account. The activity within the margin account related to other commodity derivative activities was not material for the three and nine months ended September 30, 2016 and 2015. For the three months ended September 30, 2016 and 2015, the Refining Partnership recognized a nominal net gain and a net gain of \$4.4 million, respectively, related to activity within the margin account. For the nine months ended September 30, 2016 and 2015, the Refining Partnership recognized a net loss of \$0.4 million and a net gain of \$3.0 million, respectively. These recognized gains and losses are recorded in gain (loss) on derivatives, net in the Condensed Consolidated Statements of Operations.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

Commodity Swaps

The Refining Partnership enters into commodity swap contracts in order to fix the margin on a portion of future production. Additionally, the Refining Partnership may enter into price and basis swaps in order to fix the price on a portion of its commodity purchases and product sales. The physical volumes are not exchanged and these contracts are net settled with cash. The contract fair value of the commodity swaps is reflected on the Condensed Consolidated Balance Sheets with changes in fair value currently recognized in the Condensed Consolidated Statements of Operations. Quoted prices for similar assets or liabilities in active markets (Level 2) are considered to determine the fair values for the purpose of marking to market the hedging instruments at each period end. At December 31, 2015, the Refining Partnership had open commodity hedging instruments consisting of 2.5 million barrels of crack spreads primarily to fix the margin on a portion of its future gasoline and distillate production. During the first quarter of 2016, the Refining Partnership settled a number of the open crack spread positions and entered into offsetting positions to effectively lock in the gain on the remaining positions to be settled during 2016. During the third quarter of 2016, the Refining Partnership entered into contracts consisting of 2.2 million barrels of crack spreads to fix the margin on a portion of its future production. At September 30, 2016, the Refining Partnership had open commodity hedging instruments consisting of 2.2 million barrels net of 2-1-1 crack spreads, 0.2 million barrels net of heating oil crack spreads and 0.3 million barrels of price and basis swaps. The fair value of the outstanding contracts at September 30, 2016 was a net unrealized gain of \$4.6 million, of which \$6.1 million was included in current assets and \$1.5 million was included in current liabilities. For the three months ended September 30, 2016 and 2015, the Refining Partnership recognized a net loss of \$1.7 million and a net gain of \$2.8 million, respectively. For the nine months ended September 30, 2016 and 2015, the Refining Partnership recognized a net loss of \$4.4 million and a net loss of \$59.8 million, respectively. These recognized gains and losses are recorded in gain (loss) on derivatives, net in the Condensed Consolidated Statements of Operations.

Nitrogen Fertilizer Partnership Interest Rate Swaps

CRNF had two floating-to-fixed interest rate swap agreements for the purpose of hedging the interest rate risk associated with a portion of the nitrogen fertilizer business' \$125.0 million floating rate term debt which matured in April 2016, as further discussed in Note 10 ("Long-Term Debt"). The aggregate notional amount covered under these agreements, which commenced on August 12, 2011 and expired on February 12, 2016, totaled \$62.5 million (split evenly between the two agreements). Under the terms of the interest rate swap agreement entered into on June 30, 2011, CRNF received a floating rate based on three month LIBOR and paid a fixed rate of 1.94%. Under the terms of the interest rate swap agreement entered into on July 1, 2011, CRNF received a floating rate based on three month LIBOR and paid a fixed rate of 1.975%. Both swap agreements settled every 90 days. The effect of these swap agreements was to lock in a fixed rate of interest of approximately 1.96% plus the applicable margin paid to lenders over three month LIBOR as calculated under the CRNF credit facility. The agreements were designated as cash flow hedges at inception and accordingly, the effective portion of the gain or loss on the swap was reported as a component of AOCI and was reclassified into interest expense when the interest rate swap transaction affects earnings. Any ineffective portion of the gain or loss was recognized immediately in current interest expense on the Condensed Consolidated Statements of Operations. The interest rate swaps agreements terminated in February 2016.

The realized loss on the interest rate swaps re-classified from AOCI into interest expense and other financing costs on the Condensed Consolidated Statements of Operations was \$0.0 million and \$0.3 million for the three months ended September 30, 2016 and 2015, respectively. For each of the three and nine months ended September 30, 2016 and 2015, the Nitrogen Fertilizer Partnership recognized a nominal decrease in fair value of the interest rate swap agreements, which was unrealized in AOCI. The realized loss on the interest rate swaps re-classified from AOCI into interest expense and other financing costs on the Condensed Consolidated Statements of Operations was \$0.1 million and \$0.8 million for the nine months ended September 30, 2016 and 2015, respectively.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

Counterparty Credit Risk

The Refining Partnership's exchange-traded crude oil futures and certain over-the-counter forward swap agreements are potentially exposed to concentrations of credit risk as a result of economic conditions and periods of uncertainty and illiquidity in the credit and capital markets. The Refining Partnership manages credit risk on its exchange-traded crude oil futures by completing trades with an exchange clearinghouse, which subjects the trades to mandatory margin requirements until the contract settles. The Refining Partnership also monitors the creditworthiness of its commodity swap counterparties and assesses the risk of nonperformance on a quarterly basis. Counterparty credit risk identified as a result of this assessment is recognized as a valuation adjustment to the fair value of the commodity swaps recorded in the Condensed Consolidated Balance Sheets. As of September 30, 2016, the counterparty credit risk adjustment was not material to the condensed consolidated financial statements. Additionally, the Refining Partnership does not require any collateral to support commodity swaps into which it enters; however, it does have master netting arrangements that allow for the setoff of amounts receivable from and payable to the same party, which mitigates the risk associated with nonperformance.

Offsetting Assets and Liabilities

The commodity swaps and other commodity derivatives agreements discussed above include multiple derivative positions with a number of counterparties for which the Refining Partnership has entered into agreements governing the nature of the derivative transactions. Each of the counterparty agreements provides for the right to setoff each individual derivative position to arrive at the net receivable due from the counterparty or payable owed by the Refining Partnership. As a result of the right to setoff, the Refining Partnership's recognized assets and liabilities associated with the outstanding derivative positions have been presented net in the Condensed Consolidated Balance Sheets. In accordance with guidance issued by the FASB related to "*Disclosures about Offsetting Assets and Liabilities*," the tables below outline the gross amounts of the recognized assets and liabilities and the gross amounts offset in the Condensed Consolidated Balance Sheets for the various types of open derivative positions at the Refining Partnership.

The offsetting assets and liabilities for the Refining Partnership's derivatives as of September 30, 2016 are recorded as current assets and current liabilities in prepaid expenses and other current assets and other current liabilities, respectively, in the Condensed Consolidated Balance Sheets as follows:

<u>Description</u>	As of September 30, 2016				
	Gross Current Assets	Gross Amounts Offset	Net Current Assets Presented	Cash Collateral Not Offset	Net Amount
	(in millions)				
Commodity Swaps	\$ 6.3	\$ (0.2)	\$ 6.1	\$ —	\$ 6.1
Total	\$ 6.3	\$ (0.2)	\$ 6.1	\$ —	\$ 6.1

<u>Description</u>	As of September 30, 2016				
	Gross Current Liabilities	Gross Amounts Offset	Net Current Liabilities Presented	Cash Collateral Not Offset	Net Amount
	(in millions)				
Commodity Swaps	\$ 1.7	\$ (0.2)	\$ 1.5	\$ —	\$ 1.5
Total	\$ 1.7	\$ (0.2)	\$ 1.5	\$ —	\$ 1.5

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

The offsetting assets and liabilities for the Refining Partnership's derivatives as of December 31, 2015 are recorded as current assets and current liabilities in prepaid expenses and other current assets and other current liabilities, respectively, in the Condensed Consolidated Balance Sheets as follows:

<u>Description</u>	As of December 31, 2015				
	Gross Current Assets	Gross Amounts Offset	Net Current Assets Presented	Cash Collateral Not Offset	Net Amount
	(in millions)				
Commodity Swaps	\$ 44.8	\$ (0.1)	\$ 44.7	\$ —	\$ 44.7
Total	\$ 44.8	\$ (0.1)	\$ 44.7	\$ —	\$ 44.7

<u>Description</u>	As of December 31, 2015				
	Gross Current Liabilities	Gross Amounts Offset	Net Current Liabilities Presented	Cash Collateral Not Offset	Net Amount
	(in millions)				
Commodity Swaps	\$ 0.1	\$ —	\$ 0.1	\$ —	\$ 0.1
Total	\$ 0.1	\$ —	\$ 0.1	\$ —	\$ 0.1

(15) Related Party Transactions

Icahn Enterprises

In May 2012, IEP announced that it had acquired control of CVR pursuant to a tender offer to purchase all of the issued and outstanding shares of the Company's common stock. As of September 30, 2016, IEP and its affiliates owned approximately 82% of the Company's outstanding common shares.

The following is a summary of dividends paid to the Company's stockholders, including IEP, for the respective quarters to which the distributions relate:

	December 31, 2015	March 31, 2016	June 30, 2016	Total Dividends Paid in 2016
	(in millions, except per share data)			
Amount paid to IEP	\$ 35.6	\$ 35.6	\$ 35.6	\$ 106.8
Amounts paid to public stockholders	7.8	7.8	7.8	23.4
Total amount paid	\$ 43.4	\$ 43.4	\$ 43.4	\$ 130.2
Per common share	\$ 0.50	\$ 0.50	\$ 0.50	\$ 1.50
Shares outstanding	86.8	86.8	86.8	

Tax Allocation Agreement

CVR is a member of the consolidated federal tax group of AEPC, a wholly-owned subsidiary of IEP, and has entered into a Tax Allocation Agreement. Refer to Note 9 ("Income Taxes") for a discussion of related party transactions under the Tax Allocation Agreement.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

September 30, 2016

(unaudited)

Insight Portfolio Group

Insight Portfolio Group LLC ("Insight Portfolio Group") is an entity formed by Mr. Carl C. Icahn in order to maximize the potential buying power of a group of entities with which Mr. Icahn has a relationship in negotiating with a wide range of suppliers of goods, services and tangible and intangible property at negotiated rates. In January 2013, CVR Energy acquired a minority equity interest in Insight Portfolio Group and agreed to pay a portion of Insight Portfolio Group's operating expenses in 2013 and subsequent periods. The Company paid Insight Portfolio Group approximately \$0.1 million and \$0.0 million, respectively, during the three months ended September 30, 2016 and 2015. The Company paid Insight Portfolio Group approximately \$0.2 million and \$0.1 million, respectively, during the nine months ended September 30, 2016 and 2015. The Company may purchase a variety of goods and services as a member of the buying group at prices and terms that management believes would be more favorable than those which would be achieved on a stand-alone basis.

Commitment Letter

Simultaneously with the execution of the Merger Agreement, the Nitrogen Fertilizer Partnership entered into a commitment letter (the "Commitment Letter") with CRLLC, pursuant to which CRLLC committed to, on the terms and subject to the conditions set forth in the Commitment Letter, make available to the Nitrogen Fertilizer Partnership term loan financing of up to \$150.0 million, which amounts would be available solely to fund the repayment of all of the loans outstanding under the Wells Fargo Credit Agreement, the cash consideration and expenses associated with the East Dubuque Merger. The term loan facility, if drawn, would have a one year term and would bear interest at a rate of three-month LIBOR plus 3.0% per annum. Calculation of interest would be on the basis of the actual number of days elapsed over a 360-day year. In connection with the Nitrogen Fertilizer Partnership's entry into the CRLLC Facility (defined and discussed below), the Commitment Letter was terminated.

CRLLC Guaranty

On February 9, 2016, CRLLC and the Nitrogen Fertilizer Partnership entered into a guaranty pursuant to which CRLLC agreed to guaranty the indebtedness outstanding under the Nitrogen Fertilizer Partnership's credit facility. In connection with the Nitrogen Fertilizer Partnership's entry into the CRLLC Facility (defined and discussed below), the CRLLC guaranty was terminated.

CRLLC Facility with the Nitrogen Fertilizer Partnership

On April 1, 2016, in connection with the closing of the East Dubuque Merger, the Nitrogen Fertilizer Partnership entered into a \$300.0 million senior term loan credit facility (the "CRLLC Facility") with CRLLC as the lender, the proceeds of which were used by the Nitrogen Fertilizer Partnership (i) to fund the repayment of amounts outstanding under the Wells Fargo Credit Agreement discussed in Note 3 ("Acquisition") (ii) to pay the cash consideration and to pay fees and expenses in connection with the East Dubuque Merger and related transactions and (iii) to repay all of the loans outstanding under the Nitrogen Fertilizer Partnership credit facility. The CRLLC Facility had a term of two years and an interest rate of 12.0% per annum. Interest was calculated on the basis of the actual number of days elapsed over a 360-day year and payable quarterly. In April 2016, the Nitrogen Fertilizer Partnership borrowed \$300.0 million under the CRLLC Facility. On June 10, 2016, the Nitrogen Fertilizer Partnership paid off the \$300.0 million outstanding under the CRLLC Facility, paid \$7.0 million in interest and the CRLLC Facility was terminated.

AEPC Facility with Nitrogen Fertilizer Partnership

On April 1, 2016, in connection with the closing of the East Dubuque Merger, the Nitrogen Fertilizer Partnership entered into a \$320.0 million senior term loan facility (the "AEPC Facility") with American Entertainment Properties Corporation ("AEPC"), an affiliate of IEP, as the lender, which was to be used (i) by CVR Partners to provide funds to CVR Nitrogen to make a change of control offer and, if applicable, a "clean-up" redemption in accordance with the indenture governing the 2021 Notes or (ii) by CVR Partners or CVR Nitrogen to make a tender offer for the 2021 Notes and, in each case, pay fees and expenses related thereto. The AEPC Facility had a term of two years and bore interest at a rate of 12.0% per annum. Calculation of interest was on the basis of the actual number of days elapsed over a 360-day year and payable quarterly. The Nitrogen Fertilizer Partnership was permitted to voluntarily prepay in whole or in part the borrowings under the AEPC Facility without premium or penalty. In connection with the repayment of the substantial majority of the 2021 Notes, the AEPC Facility was terminated.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

Railcar Lease Agreements

In the second quarter of 2016, the Nitrogen Fertilizer Partnership entered into agreements to lease a total of 115 UAN railcars from American Railcar Leasing, LLC ("ARL"), a company controlled by Mr. Icahn. The lease agreements have a term of seven years. The Nitrogen Fertilizer Partnership received 80 railcars during the third quarter of 2016 and anticipates physical receipt of the remaining railcars in the fourth quarter of 2016.

XO Communications Services, LLC

XO Communications Services, LLC ("XO") is a privately-owned company that is an affiliate of IEP. During the nine-month period ending September 30, 2016, the Company paid approximately \$0.2 million to XO for various communication services. As of September 30, 2016 there was no outstanding balance due to or from XO.

Joint Venture Agreement

On September 19, 2016, CRPLLC entered into an agreement with Velocity related to their joint ownership of VPP. See Note 12 ("Commitments and Contingencies") for additional discussion of the joint venture.

(16) Business Segments

The Company measures segment profit as operating income for petroleum and nitrogen fertilizer, CVR's two reporting segments, based on the definitions provided in FASB ASC Topic 280 – *Segment Reporting*. All operations of the segments are located within the United States.

Petroleum

Principal products of the petroleum segment are refined fuels, propane, and petroleum refining by-products, including pet coke. The petroleum segment's Coffeyville refinery sells pet coke to CRNF for use in the manufacture of nitrogen fertilizer at the adjacent nitrogen fertilizer plant. For the petroleum segment, a per-ton transfer price is used to record intercompany sales on the part of the petroleum segment and corresponding intercompany cost of product sold (exclusive of depreciation and amortization) for the nitrogen fertilizer segment. The per ton transfer price paid, pursuant to the pet coke supply agreement that became effective October 24, 2007, is based on the lesser of a pet coke price derived from the price received by the nitrogen fertilizer segment for UAN (subject to a UAN based price ceiling and floor) and a pet coke price index for pet coke. Intercompany net sales included in petroleum net sales were approximately \$0.4 million and \$1.7 million for the three months ended September 30, 2016 and 2015, respectively. Intercompany net sales included in petroleum net sales were approximately \$1.3 million and \$5.9 million for the nine months ended September 30, 2016 and 2015, respectively.

The petroleum segment recorded intercompany cost of product sold (exclusive of depreciation and amortization) for the hydrogen purchases described below under "Nitrogen Fertilizer" of approximately \$1.2 million and \$0.5 million for the three months ended September 30, 2016 and 2015, respectively. For the nine months ended September 30, 2016 and 2015, the petroleum segment recorded intercompany cost of product sold (exclusive of depreciation and amortization) of approximately \$2.9 million and \$9.0 million, respectively.

Nitrogen Fertilizer

The principal product of the nitrogen fertilizer segment is nitrogen fertilizer. Intercompany cost of product sold (exclusive of depreciation and amortization) for the pet coke transfer described above was approximately \$0.5 million and \$1.1 million for the three months ended September 30, 2016 and 2015, respectively. Intercompany cost of product sold (exclusive of depreciation and amortization) for the pet coke transfer described above was approximately \$1.7 million and \$5.0 million for the nine months ended September 30, 2016 and 2015, respectively.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

Pursuant to a feedstock agreement, the Company's segments have the right to transfer hydrogen between the Coffeyville refinery and nitrogen fertilizer plant. Sales of hydrogen to the petroleum segment have been reflected as net sales for the nitrogen fertilizer segment. Receipts of hydrogen from the petroleum segment have been reflected in cost of product sold (exclusive of depreciation and amortization) for the nitrogen fertilizer segment, when applicable. For the three months ended September 30, 2016 and 2015, the net sales generated from intercompany hydrogen sales were \$1.2 million and \$0.5 million, respectively. For the nine months ended September 30, 2016 and 2015, the net sales generated from intercompany hydrogen sales were \$2.9 million and \$9.0 million, respectively. As these intercompany sales and cost of product sold are eliminated, there is no financial statement impact on the condensed consolidated financial statements.

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

Other Segment

The other segment reflects intercompany eliminations, corporate cash and cash equivalents, income tax activities and other corporate activities that are not allocated to the operating segments.

The following table summarizes certain operating results and capital expenditures information by segment:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
(in millions)				
Net sales				
Petroleum	\$ 1,163.5	\$ 1,361.6	\$ 3,161.9	\$ 4,213.6
Nitrogen Fertilizer	78.5	49.3	271.4	223.2
Intersegment elimination	(1.7)	(2.1)	(4.3)	(14.9)
Total	<u>\$ 1,240.3</u>	<u>\$ 1,408.8</u>	<u>\$ 3,429.0</u>	<u>\$ 4,421.9</u>
Cost of product sold (exclusive of depreciation and amortization)				
Petroleum	\$ 987.5	\$ 1,063.7	\$ 2,651.7	\$ 3,300.8
Nitrogen Fertilizer	19.9	14.5	72.2	55.7
Intersegment elimination	(1.7)	(1.5)	(4.6)	(14.0)
Total	<u>\$ 1,005.7</u>	<u>\$ 1,076.7</u>	<u>\$ 2,719.3</u>	<u>\$ 3,342.5</u>
Direct operating expenses (exclusive of depreciation and amortization)				
Petroleum	\$ 97.0	\$ 112.6	\$ 298.7	\$ 289.9
Nitrogen Fertilizer	32.5	33.2	110.4	82.7
Other	—	—	0.1	0.1
Total	<u>\$ 129.5</u>	<u>\$ 145.8</u>	<u>\$ 409.2</u>	<u>\$ 372.7</u>
Depreciation and amortization				
Petroleum	\$ 32.5	\$ 29.9	\$ 95.6	\$ 98.1
Nitrogen Fertilizer	16.4	7.4	41.0	21.2
Other	1.2	1.4	4.2	3.9
Total	<u>\$ 50.1</u>	<u>\$ 38.7</u>	<u>\$ 140.8</u>	<u>\$ 123.2</u>
Operating income				
Petroleum	\$ 28.4	\$ 137.2	\$ 62.5	\$ 497.2
Nitrogen Fertilizer	2.4	(11.8)	25.8	48.4
Other	(3.6)	(3.9)	(10.3)	(13.3)
Total	<u>\$ 27.2</u>	<u>\$ 121.5</u>	<u>\$ 78.0</u>	<u>\$ 532.3</u>
Capital expenditures				
Petroleum	\$ 15.4	\$ 45.5	\$ 83.4	\$ 123.6
Nitrogen Fertilizer	6.4	6.4	18.3	12.4
Other	1.0	3.3	3.9	5.9
Total	<u>\$ 22.8</u>	<u>\$ 55.2</u>	<u>\$ 105.6</u>	<u>\$ 141.9</u>

CVR ENERGY, INC. AND SUBSIDIARIES
NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
September 30, 2016
(unaudited)

	<u>As of September 30, 2016</u>	<u>As of December 31, 2015</u>
	(in millions)	
Total assets		
Petroleum	\$ 2,277.3	\$ 2,189.0
Nitrogen Fertilizer	1,326.9	536.3
Other	450.8	574.1
Total	<u>\$ 4,055.0</u>	<u>\$ 3,299.4</u>
Goodwill		
Petroleum	\$ —	\$ —
Nitrogen Fertilizer	41.0	41.0
Other	—	—
Total	<u>\$ 41.0</u>	<u>\$ 41.0</u>

(17) Subsequent Events

Dividend

On October 26, 2016, the board of directors of the Company declared a cash dividend for the third quarter of 2016 to the Company's stockholders of \$0.50 per share, or \$43.4 million in aggregate. The dividend will be paid on November 14, 2016 to stockholders of record at the close of business on November 7, 2016. IEP will receive \$35.6 million in respect of its 82% ownership interest in the Company's shares.

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the unaudited condensed consolidated financial statements and related notes and with the statistical information and financial data appearing in this Report, as well as our 2015 Form 10-K. Results of operations and cash flows for the three and nine months ended September 30, 2016 are not necessarily indicative of results to be attained for any other period.

Forward-Looking Statements

This Report, including this Management's Discussion and Analysis of Financial Condition and Results of Operations, contains "forward-looking statements" as defined by the SEC, including statements concerning contemplated transactions and strategic plans, expectations and objectives for future operations. Forward-looking statements include, without limitation:

- statements, other than statements of historical fact, that address activities, events or developments that we expect, believe or anticipate will or may occur in the future;
- statements relating to future financial or operational performance, future dividends, future capital sources and capital expenditures; and
- any other statements preceded by, followed by or that include the words "anticipates," "believes," "expects," "plans," "intends," "estimates," "projects," "could," "should," "may" or similar expressions.

Although we believe that our plans, intentions and expectations reflected in or suggested by the forward-looking statements we make in this Report, including this Management's Discussion and Analysis of Financial Condition and Results of Operations, are reasonable, we can give no assurance that such plans, intentions or expectations will be achieved. These statements are based on assumptions made by us based on our experience and perception of historical trends, current conditions, expected future developments and other factors that we believe are appropriate in the circumstances. Such statements are subject to a number of risks and uncertainties, many of which are beyond our control. You are cautioned that any such statements are not guarantees of future performance and actual results or developments may differ materially from those projected in the forward-looking statements as a result of various factors, including but not limited to those set forth under "Risk Factors" in the 2015 Form 10-K and the risk factors disclosed under "Risk Factors" in the Company's Quarterly Report on Form 10-Q for the three months ended March 31, 2016, filed with the SEC on May 2, 2016. Such factors include, among others:

- volatile margins in the refining industry and exposure to the risks associated with volatile crude oil prices;
- the availability of adequate cash and other sources of liquidity for the capital needs of our business;
- the ability to forecast our future financial condition or results of operations and future revenues and expenses of our businesses;
- the effects of transactions involving forward and derivative instruments;
- disruption of our petroleum business' ability to obtain an adequate supply of crude oil;
- changes in laws, regulations and policies with respect to the export of crude oil or other hydrocarbons;
- interruption of the pipelines supplying feedstock and in the distribution of the petroleum business' products;
- competition in the petroleum and nitrogen fertilizer businesses;
- capital expenditures and potential liabilities arising from environmental laws and regulations;
- changes in ours or the Refining Partnership's or Nitrogen Fertilizer Partnership's credit profile;
- the cyclical nature of the nitrogen fertilizer business;
- the seasonal nature of the petroleum business;
- the supply and price levels of essential raw materials of our businesses;

- the risk of a material decline in production at our refineries and nitrogen fertilizer plants;
- potential operating hazards from accidents, fire, severe weather, floods or other natural disasters;
- the risk associated with governmental policies affecting the agricultural industry;
- the volatile nature of ammonia, potential liability for accidents involving ammonia that cause interruption to the nitrogen fertilizer business, severe damage to property and/or injury to the environment and human health and potential increased costs relating to the transport of ammonia;
- the dependence of the nitrogen fertilizer operations on a few third-party suppliers, including providers of transportation services and equipment;
- new regulations concerning the transportation of hazardous chemicals, risks of terrorism and the security of chemical manufacturing facilities;
- the risk of security breaches;
- the petroleum business' and the nitrogen fertilizer business' dependence on significant customers;
- the potential loss of the nitrogen fertilizer business' transportation cost advantage over its competitors;
- our nitrogen fertilizer business' partial dependence on customer and distributor transportation of purchased goods;
- the potential inability to successfully implement our business strategies, including the completion of significant capital programs;
- our ability to continue to license the technology used in the petroleum business and nitrogen fertilizer business operations;
- our petroleum business' ability to purchase RINs on a timely and cost effective basis;
- our petroleum business' continued ability to secure environmental and other governmental permits necessary for the operation of its business;
- existing and proposed environmental laws and regulations, including those relating to climate change, alternative energy or fuel sources, and existing and future regulations related to the end-use and application of fertilizers;
- refinery and nitrogen fertilizer facility operating hazards and interruptions, including unscheduled maintenance or downtime, and the availability of adequate insurance coverage;
- the risk of labor disputes and adverse employee relations;
- instability and volatility in the capital and credit markets; and
- potential exposure to underfunded pension obligations of affiliates as a member of the controlled group of Mr. Icahn.

All forward-looking statements contained in this Report speak only as of the date of this Report. We undertake no obligation to publicly update or revise any forward-looking statements to reflect events or circumstances that occur after the date of this Report, or to reflect the occurrence of unanticipated events, except to the extent required by law.

Company Overview

CVR Energy, Inc. ("CVR Energy," "CVR," "we," "us," "our" or the "Company") is a diversified holding company primarily engaged in the petroleum refining and nitrogen fertilizer manufacturing industries through our holdings in the Refining Partnership and the Nitrogen Fertilizer Partnership. The Refining Partnership is an independent petroleum refiner and marketer of high value transportation fuels. The Nitrogen Fertilizer Partnership produces nitrogen fertilizers in the form of UAN and ammonia. We own the general partner and approximately 66% and 34% respectively, of the outstanding common units representing limited partner interests in each of the Refining Partnership and the Nitrogen Fertilizer Partnership. As of September 30, 2016, Icahn Enterprises L.P. and its affiliates owned approximately 82% of our outstanding common stock.

We operate under two business segments: petroleum and nitrogen fertilizer, which are referred to in this document as our "petroleum business" and our "nitrogen fertilizer business," respectively.

Petroleum business. The petroleum business consists of our interest in the Refining Partnership. At September 30, 2016, we owned the general partner and approximately 66% of the common units of the Refining Partnership. The petroleum business consists of a 115,000 bpcd rated capacity complex full coking medium-sour crude oil refinery in Coffeyville, Kansas and a 70,000 bpcd rated capacity complex crude oil refinery in Wynnewood, Oklahoma capable of processing 20,000 bpcd of light sour crude oil (within its rated capacity of 70,000 bpcd). In addition, its supporting businesses include (i) a crude oil gathering system with a gathering capacity of over 65,000 bpd serving Kansas, Nebraska, Oklahoma, Missouri, Colorado and Texas, which serves the two refineries, (ii) a 170,000 bpd pipeline system (supported by approximately 340 miles of active owned and leased pipeline) that transports crude oil to the Coffeyville refinery from the Broome Station facility located near Caney, Kansas, (iii) approximately 6.4 million barrels of owned and leased crude oil storage, (iv) a rack marketing business supplying refined petroleum product through tanker trucks directly to customers located in close geographic proximity to Coffeyville, Kansas and Wynnewood, Oklahoma and at throughput terminals on Magellan and NuStar's refined petroleum products distribution systems and (v) over 4.5 million barrels of combined refined products and feedstocks storage capacity.

The Coffeyville refinery is situated approximately 100 miles northeast of Cushing, Oklahoma, one of the largest crude oil trading and storage hubs in the United States and the Wynnewood refinery is approximately 130 miles southwest of Cushing. Cushing is supplied by numerous pipelines from U.S. domestic locations and Canada. In addition to rack sales (sales which are made at terminals into third-party tanker trucks), Coffeyville makes bulk sales (sales through third-party pipelines) into the mid-continent markets and other destinations utilizing the product pipeline networks owned by Magellan, Enterprise, and NuStar.

Crude oil is supplied to the Coffeyville refinery through the gathering system and by a pipeline owned by Plains that runs from Cushing to its Broome Station facility. The petroleum business maintains capacity on the Spearhead and Keystone pipelines from Canada to Cushing. It also has contracted capacity on the Pony Express and White Cliffs pipelines, which originate in Colorado and extend to Cushing. It also maintains leased and owned storage in Cushing to facilitate optimal crude oil purchasing and blending. Crude oil is supplied to the Wynnewood refinery through three third-party pipelines operated by Sunoco Pipeline, Excel Pipeline and Blueknight Pipeline and historically has mainly been sourced from Texas and Oklahoma. The access to a variety of crude oils coupled with the complexity of the refineries typically allows the petroleum business to purchase crude oil at a discount to WTI. The consumed crude oil cost discount to WTI for the third quarter of 2016 was \$0.37 per barrel compared to a discount of \$0.43 per barrel in the third quarter of 2015.

Nitrogen fertilizer business. The nitrogen fertilizer business consists of our interest in the Nitrogen Fertilizer Partnership. As of September 30, 2016, we owned 100% of the general partner and approximately 34% of the common units of the Nitrogen Fertilizer Partnership. The nitrogen fertilizer business consists of a nitrogen fertilizer manufacturing facility located in Coffeyville, Kansas that utilizes a petroleum coke, or pet coke, gasification process to produce nitrogen fertilizer, and a nitrogen fertilizer manufacturing facility located in East Dubuque, Illinois that uses natural gas to produce nitrogen fertilizer. The Coffeyville Fertilizer Facility includes a 1,300 ton-per-day ammonia unit, a 3,000 ton-per-day UAN unit and a gasifier complex having a capacity of 89 million standard cubic feet per day of hydrogen. The gasifier is a dual-train facility, with each gasifier able to function independently of the other, thereby providing redundancy and improving reliability. With the completion of the UAN expansion in February 2013, the Coffeyville Fertilizer Facility now upgrades substantially all of the ammonia it produces to higher margin UAN fertilizer, an aqueous solution of urea and ammonium nitrate which has historically commanded a premium price over ammonia. Approximately 96% of the Coffeyville Fertilizer Facility's produced ammonia tons and the majority of the purchased ammonia tons were upgraded into UAN in 2015. For the three months ended September 30, 2016 and 2015, approximately 96% and 93%, respectively, of the Coffeyville Fertilizer Facility's produced ammonia tons and the majority of purchased ammonia tons were upgraded into UAN. For the nine months ended September 30, 2016 and 2015, approximately 92% and 96%, respectively, of the Coffeyville Fertilizer Facility produced ammonia tons and the majority of purchased ammonia tons were upgraded into UAN.

The East Dubuque Facility includes a 1,075 ton-per-day ammonia unit and a 1,100 ton-per-day UAN unit. The East Dubuque Facility has the flexibility to vary its product mix, which enables the East Dubuque Facility to upgrade a portion of its ammonia production into varying amounts of UAN, nitric acid and liquid and granulated urea each season, depending on market demand, pricing and storage availability. The East Dubuque Facility's product sales are heavily weighted toward sales of ammonia and UAN, and its products are primarily sold to customers within 200 miles of the facility. For the three and nine months ended September 30, 2016, approximately 41% and 44%, respectively, of East Dubuque Facility produced ammonia tons were upgraded to other products.

The primary raw material feedstock utilized in the nitrogen fertilizer production process at the Coffeyville Fertilizer Facility is pet coke, which is produced during the crude oil refining process. In contrast, substantially all of the nitrogen fertilizer businesses' competitors use natural gas as their primary raw material feedstock. The Coffeyville Fertilizer facility's pet coke gasification process results in a significantly higher percentage of fixed costs than a natural gas-based fertilizer plant. The nitrogen fertilizer business currently purchases most of its pet coke used at the Coffeyville Fertilizer Facility from the Refining Partnership pursuant to a long-term agreement having an initial term that ends in 2027, subject to renewal. On average, during the past five years, over 70% of the pet coke utilized by the Coffeyville Fertilizer Facility was produced and supplied by the Refining Partnership's crude oil refinery in Coffeyville.

The East Dubuque Facility uses low-cost, North American natural gas to produce nitrogen fertilizer, primarily ammonia and UAN. The Nitrogen Fertilizer Partnership is able to purchase natural gas for the East Dubuque Facility at competitive prices due to the plant's connection to the Northern Natural Gas interstate pipeline system, which is within one mile of the facility, and the ANR Pipeline Company pipeline. Over the last five years, U.S. natural gas reserves have increased significantly due to, among other factors, advances in extracting shale gas, which have reduced and stabilized natural gas prices, significantly lowering our production costs.

Recent Developments

On April 1, 2016, the Nitrogen Fertilizer Partnership completed the acquisition of CVR Nitrogen. Refer to Part I, Item 1, Note 3 ("Acquisition") of this Report for further discussion of the East Dubuque Merger.

On June 10, 2016, the Nitrogen Fertilizer Partnership completed a private offering of \$645.0 million aggregate principal amount of 9.250% Senior Secured Notes due 2023. Additionally, during the second quarter of 2016, the Nitrogen Fertilizer Partnership repurchased approximately \$315.8 million of the 2021 Notes pursuant to a Tender Offer and a Change of Control Offer. On September 30, 2016, the Nitrogen Fertilizer Partnership entered into the ABL Credit Facility in an aggregate principle amount of availability of up to \$50.0 million. Refer to Part I, Item 1, Note 10 ("Long-Term Debt") of this Report for further discussion of the debt transactions.

On October 17, 2016, the Nitrogen Fertilizer Partnership and the union representing approximately 60% of the employees at its East Dubuque Facility agreed to a new three-year collective bargaining agreement extending to October 2019.

Major Influences on Results of Operations

Petroleum Business

The earnings and cash flows of the petroleum business are primarily affected by the relationship between refined product prices and the prices for crude oil and other feedstocks that are processed and blended into refined products. The cost to acquire crude oil and other feedstocks and the price for which refined products are ultimately sold depend on factors beyond the petroleum business' control, including the supply of and demand for crude oil, as well as gasoline and other refined products which, in turn, depend on, among other factors, changes in domestic and foreign economies, weather conditions, domestic and foreign political affairs, production levels, the availability of imports, the marketing of competitive fuels and the extent of government regulation. Because the petroleum business applies FIFO accounting to value its inventory, crude oil price movements may impact net income in the short term because of changes in the value of its unhedged on-hand inventory. The effect of changes in crude oil prices on our results of operations is influenced by the rate at which the prices of refined products adjust to reflect these changes.

The prices of crude oil and other feedstocks and refined product prices are also affected by other factors, such as product pipeline capacity, local market conditions and the operating levels of competing refineries. Crude oil costs and the prices of refined products have historically been subject to wide fluctuations. Widespread expansion or upgrades of competitors' facilities, price volatility, international political and economic developments and other factors are likely to continue to play an important role in refining industry economics. These factors can impact, among other things, the level of inventories in the market, resulting in price volatility and a reduction in product margins. Moreover, the refining industry typically experiences seasonal fluctuations in demand for refined products, such as increases in the demand for gasoline during the summer driving season and for home heating oil during the winter, primarily in the Northeast. In addition to current market conditions, there are long-term factors that may impact the demand for refined products. These factors include mandated renewable fuels standards, proposed climate change laws and regulations and increased mileage standards for vehicles. The petroleum business is also subject to the RFS, which requires it to either blend "renewable fuels" in with its transportation fuels or purchase renewable fuel credits, known as RINs, in lieu of blending.

On December 14, 2015, the EPA published in the Federal Register a final rule establishing the renewable fuel volume mandates for 2014, 2015 and 2016, and the biomass-based diesel mandate for 2017. The volumes included in the EPA's final rule increase each year, but are lower, with the exception of the volumes for biomass-based diesel, than the volumes required by the Clean Air Act. The EPA used its waiver authority to lower the volumes, but its decision to do so has been challenged in the U.S. Court of Appeals for the District of Columbia Circuit. In addition, in the final rule establishing the renewable volume obligations for 2014-2016 and bio-mass based diesel for 2017, the EPA articulated a policy to incentivize additional investments in renewable fuel blending and distribution infrastructure by increasing the price of RINs.

On May 31, 2016, EPA published in the Federal Register a proposed rule establishing the renewable fuel volume mandates for 2017, and the biomass-based diesel mandate for 2018. The volumes included in the proposed rule, with the exception of the volume for biomass-based diesel, are lower than the volumes required by the Clean Air Act. EPA is required by the Clean Air Act to publish the final rule in the Federal Register by November 30, 2016.

The cost of RINs for the three months ended September 30, 2016 and 2015 was approximately \$58.3 million and \$19.3 million, respectively. The cost of RINs for the nine months ended September 30, 2016 and 2015 was approximately \$152.4 million and \$93.4 million, respectively. The price of RINs has been extremely volatile and has increased over the last year. The future cost of RINs for the petroleum business is difficult to estimate. Additionally, the cost of RINs is dependent upon a variety of factors, which include EPA regulations, the availability of RINs for purchase, the price at which RINs can be purchased, transportation fuel production levels, the mix of the petroleum business' petroleum products, as well as the fuel blending performed at its refineries and downstream terminals, all of which can vary significantly from period to period. Based upon recent market prices of RINs and current estimates related to the other variable factors, the petroleum business currently estimates that the total cost of RINs will be approximately \$210.0 million to \$250.0 million for the year ending December 31, 2016.

If sufficient RINs are unavailable for purchase at times when the petroleum business seeks to purchase RINs, if the petroleum business has to pay a significantly higher price for RINs or if the petroleum business is otherwise unable to meet the EPA's RFS mandates, its business, financial condition and results of operations could be materially adversely affected.

In order to assess the operating performance of the petroleum business, we compare net sales, less cost of product sold (exclusive of depreciation and amortization), or the refining margin, against an industry refining margin benchmark. The industry refining margin benchmark is calculated by assuming that two barrels of benchmark light sweet crude oil are converted into one barrel of conventional gasoline and one barrel of distillate. This benchmark is referred to as the 2-1-1 crack spread. Because we calculate the benchmark margin using the market value of NYMEX gasoline and heating oil against the market value of NYMEX WTI, we refer to the benchmark as the NYMEX 2-1-1 crack spread, or simply, the 2-1-1 crack spread. The 2-1-1 crack spread is expressed in dollars per barrel and is a proxy for the per barrel margin that a sweet crude oil refinery would earn assuming it produced and sold the benchmark production of gasoline and distillate.

Although the 2-1-1 crack spread is a benchmark for refining margin, because the refineries have certain feedstock costs and logistical advantages as compared to a benchmark refinery and their product yield is less than total refinery throughput, the crack spread does not account for all the factors that affect refining margin. The Coffeyville refinery is able to process a blend of crude oil that includes quantities of heavy and medium sour crude oil that has historically cost less than WTI. The Wynnewood refinery has the capability to process blends of a variety of crude oil ranging from medium sour to light sweet crude oil, although isobutene, gasoline components and normal butane are also typically used. We measure the cost advantage of the crude oil slate by calculating the spread between the price of the delivered crude oil and the price of WTI. The spread is referred to as the consumed crude oil differential. Refining margin can be impacted significantly by the consumed crude oil differential. The consumed crude oil differential will move directionally with changes in the WTS differential to WTI and the WCS differential to WTI as both these differentials indicate the relative price of heavier, more sour, slate to WTI. The correlation between the consumed crude oil differential and published differentials will vary depending on the volume of light medium sour crude oil and heavy sour crude oil the petroleum business purchases as a percent of its total crude oil volume and will correlate more closely with such published differentials the heavier and more sour the crude oil slate.

The petroleum business produces a high volume of high value products, such as gasoline and distillates. The fact that the actual product specifications used to determine the NYMEX 2-1-1 crack spread are different from the actual production in its refineries is because the prices the petroleum business realizes are different than those used to determining the 2-1-1 crack spread. The difference between its price received and the price used to calculate the 2-1-1 crack spread is referred to as gasoline PADD II, Group 3 vs. NYMEX basis, or gasoline basis, and Ultra-Low Sulfur Diesel PADD II, Group 3 vs. NYMEX basis, or Ultra-Low Sulfur Diesel basis. If both gasoline and Ultra-Low Sulfur Diesel basis are greater than zero, this means that prices in its marketing area exceed those used in the 2-1-1 crack spread.

The petroleum business is significantly affected by developments in the markets in which it operates. For example, numerous pipeline projects expanded the connectivity of the Cushing and Permian Basin markets to the gulf coast, resulting in a decrease in the domestic crude advantage. The refining industry is directly impacted by these events and could see a downward movement in refining margins as a result.

The direct operating expense structure is also important to the petroleum business' profitability. Major direct operating expenses include energy, employee labor, maintenance, contract labor and environmental compliance. The predominant variable cost is energy, which is comprised primarily of electrical cost and natural gas. The petroleum business is therefore sensitive to the movements of natural gas prices. Assuming the same rate of consumption of natural gas for the nine months ended September 30, 2016, a \$1.00 change in natural gas prices would have increased or decreased the petroleum business' natural gas costs by approximately \$8.4 million.

Because crude oil and other feedstocks and refined products are commodities, the petroleum business has no control over the changing market. Therefore, the lower target inventory the petroleum business is able to maintain significantly reduces the impact of commodity price volatility on its earnings. Because most of its titled inventory is valued under the FIFO costing method, price fluctuations on its target level of titled inventory may have a major effect on the petroleum business' financial results from period to period.

Safe and reliable operations at our refineries are key to our financial performance and results of operations. Unscheduled downtime at our refineries may result in lost margin opportunity, increased maintenance expense and a temporary increase in working capital investment and related inventory position. We seek to mitigate the financial impact of scheduled downtime, such as major turnaround maintenance, through a diligent planning process that takes into account the margin environment, the availability of resources to perform the needed maintenance, feedstock logistics and other factors. Our refineries generally require a facility turnaround every four to five years. The length of the turnaround is contingent upon the scope of work to be completed. The first phase of the Coffeyville refinery's most recent turnaround was completed in November of 2015. The second phase of the Coffeyville turnaround was completed during the first quarter of 2016. During the first half of 2016, we incurred \$31.5 million of major scheduled turnaround expenses for the Coffeyville refinery turnaround. The next turnaround scheduled for the Wynnewood refinery will be performed as a two-phase turnaround. The first phase is scheduled to begin in the second half of 2017, with the second phase to begin in the second half of 2018. Additionally, we expect to accelerate certain planned turnaround activities in the first quarter of 2017 on the hydrocracker unit for a catalyst change-out.

Nitrogen Fertilizer Business

In the nitrogen fertilizer business, earnings and cash flows from operations are primarily affected by the relationship between nitrogen fertilizer product prices, on-stream factors and direct operating expenses. Natural gas is the most significant raw material required in its competitors' production of nitrogen fertilizer. The East Dubuque Facility uses natural gas as its primary feedstock. The Coffeyville Fertilizer Facility does not use natural gas as a feedstock and uses a minimal amount of natural gas as an energy source in its operations. Instead, the adjacent Coffeyville refinery supplies the Coffeyville Fertilizer Facility with most of the pet coke feedstock it needs pursuant to a 20-year pet coke supply agreement entered into in October 2007. The price at which nitrogen fertilizer products are ultimately sold depends on numerous factors, including the global supply and demand for nitrogen fertilizer products which, in turn, depends on, among other factors, world grain demand and production levels, changes in world population, the cost and availability of fertilizer transportation infrastructure, weather conditions, the availability of imports and the extent of government intervention in agriculture markets.

Nitrogen fertilizer prices are also affected by local factors, including local market conditions and the operating levels of competing facilities. An expansion or upgrade of competitors' facilities, political and economic developments and other factors are likely to continue to play an important role in nitrogen fertilizer industry economics. These factors can impact, among other things, the level of inventories in the market, resulting in price volatility and a reduction in product margins. Moreover, the industry typically experiences seasonal fluctuations in demand for nitrogen fertilizer products.

The nitrogen fertilizer business has the capacity to store approximately 160,000 tons of UAN and 80,000 tons of ammonia in storage tanks located primarily at the two production facilities. Inventories are often allowed to accumulate to allow customers to take delivery to meet the seasonal demand.

In order to assess the operating performance of the nitrogen fertilizer business, the nitrogen fertilizer business calculates the product pricing at gate as an input to determine operating margin. Product pricing at gate represents net sales less freight revenue divided by product sales volume in tons. The nitrogen fertilizer business believes product pricing at gate is a meaningful measure because it sells products at its plant gate and terminal locations' gates ("sold gate") and delivered to the customer's designated delivery site ("sold delivered"). The relative percentage of sold gate versus sold delivered can change period to period. The product pricing at gate provides a measure that is consistently comparable period to period.

The nitrogen fertilizer business and other competitors in the U.S. farm belt share a significant transportation cost advantage when compared to out-of-region competitors in serving the U.S. farm belt agricultural market; therefore, the nitrogen fertilizer business is able to cost-effectively sell substantially all of its products in the higher margin agricultural market. In contrast, a significant portion of its competitors' revenues is derived from the lower margin industrial market.

The nitrogen fertilizer business' products leave the Coffeyville Fertilizer Facility either in railcars for destinations located principally on the Union Pacific Railroad or in trucks for direct shipment to customers. The nitrogen fertilizer business does not currently incur significant intermediate transfer, storage, barge freight or pipeline freight charges; however, it does incur costs to maintain and repair its railcar fleet for the Coffeyville Fertilizer Facility. Selling products to customers within economic rail transportation limits of the Coffeyville Fertilizer Facility and keeping transportation costs low are keys to maintaining profitability.

The East Dubuque Facility, located in northwest Illinois, in the Mid Corn Belt, primarily sells its product to customers located within 200 miles of the facility. In most instances, customers take delivery of nitrogen products at the plant and arrange and pay to transport them to their final destinations by truck. The East Dubuque Facility has direct access to a barge dock on the Mississippi River as well as a nearby rail spur serviced by the Canadian National Railway Company.

The Coffeyville Fertilizer Facility's largest raw material expense used in the production of ammonia is pet coke, which it purchases from the petroleum business and third parties. For the three months ended September 30, 2016 and 2015, the nitrogen fertilizer business incurred approximately \$1.7 million and \$2.1 million, respectively, for the cost of pet coke, which equaled an average cost per ton of \$13 and \$25, respectively. For the nine months ended September 30, 2016 and 2015, the nitrogen fertilizer business incurred approximately \$5.4 million and \$8.8 million, respectively, for the cost of pet coke, which equaled an average cost per ton of \$14 and \$26, respectively.

The largest raw material expense used in the production of ammonia at the East Dubuque Facility is natural gas, which is purchased from third parties. The East Dubuque Facility's natural gas process results in a higher percentage of variable costs as compared to the Coffeyville Fertilizer Facility. For the three and nine months ended September 30, 2016, the East Dubuque Facility incurred approximately \$4.9 million and \$7.4 million for feedstock natural gas, which equaled an average cost per MMBtu of \$2.92 and \$2.68, respectively.

Safe and reliable operations at the nitrogen fertilizer plants are critical to its financial performance and results of operations. Unplanned downtime of the nitrogen fertilizer plants may result in lost margin opportunity, increased maintenance expense and a temporary increase in working capital investment and related inventory position. The financial impact of planned downtime, such as major turnaround maintenance, is mitigated through a diligent planning process that takes into account margin environment, the availability of resources to perform the needed maintenance, feedstock logistics and other factors. Historically, the Coffeyville Fertilizer Facility has undergone a full facility turnaround every two to three years. The Coffeyville Fertilizer Facility underwent a full facility turnaround in the third quarter of 2015, at a cost of approximately \$7.0 million, and is planning to undergo the next scheduled full facility turnaround in the second half of 2017, which is expected to last approximately 15 days. Historically, the East Dubuque Facility has also undergone a full facility turnaround every two to three years. The East Dubuque Facility underwent a full facility turnaround in the second quarter of 2016, at a cost of approximately \$6.6 million, and is planning to undergo the next full facility turnaround in 2018.

Agreements with the Refining Partnership and the Nitrogen Fertilizer Partnership

We are party to several agreements with the Nitrogen Fertilizer Partnership that govern the business relations among the nitrogen fertilizer business and us and our subsidiaries (including the Refining Partnership). In connection with the Refining Partnership IPO in January 2013, some of our subsidiaries party to these agreements became subsidiaries of the Refining Partnership.

These intercompany agreements include (i) the pet coke supply agreement mentioned above, under which the petroleum business sells pet coke to the nitrogen fertilizer business; (ii) a services agreement, pursuant to which our management operates the nitrogen fertilizer business; (iii) a feedstock and shared services agreement, which governs the provision of feedstocks, including hydrogen, high-pressure steam, nitrogen, instrument air, oxygen and natural gas; (iv) a raw water and facilities sharing agreement, which allocates raw water resources between the two businesses; (v) an easement agreement; (vi) an environmental agreement; and (vii) a lease agreement pursuant to which the petroleum business leases office space and laboratory space to the Nitrogen Fertilizer Partnership. These agreements were not the result of arm's-length negotiations and the terms of these agreements are not necessarily at least as favorable to the parties to these agreements as terms which could have been obtained from unaffiliated third parties.

In connection with the Refining Partnership IPO, we entered into a number of agreements with the Refining Partnership, including (i) a \$250.0 million intercompany credit facility between CRLLC and the Refining Partnership and (ii) a services agreement, pursuant to which our management operates the petroleum business.

On April 1, 2016, in connection with the closing of the East Dubuque Merger, we entered into a \$300.0 million senior term loan credit facility with the Nitrogen Fertilizer Partnership, with CRLLC as the lender. On June 10, 2016, the Nitrogen Fertilizer Partnership paid off the outstanding balance under the CRLLC Facility and the CRLLC Facility was terminated. Refer to Part I, Item 1, Note 15 ("Related Party Transactions") for further discussion of the CRLLC Facility.

On September 19, 2016, CRPLLC, an indirect wholly-owned subsidiary of CVR Refining, entered into an agreement with Velocity related to their joint ownership of VPP. VPP will construct, own and operate a 12-inch crude oil pipeline with design capacity of approximately 65,000 barrel per day and with an estimated length of 25 miles with a connection to the Refining Partnership's Wynnewood refinery and a trucking terminal at Lowrance, Oklahoma. CRPLLC holds a 40% interest in VPP and expects to contribute approximately \$9.3 million to VPP during the pipeline construction, which is expected to be completed in the second half of 2017. Velocity holds a 60% interest in VPP, serves as the day-to-day operator of VPP and expects to contribute approximately \$14.0 million to VPP. As of September 30, 2016, CRPLLC has contributed \$3.2 million to VPP. On September 19, 2016, the Refining Partnership also entered into a transportation agreement with VPP for an initial term of 20 years under which VPP will provide the Refining Partnership with crude oil transportation services for crude oil purchased within a defined geographic area, and the Refining Partnership entered into a terminalling services agreement with Velocity under which the Refining Partnership will receive access to Velocity's terminal in Lowrance to unload and pump crude oil into VPP's pipeline for an initial term of 20 years.

Crude Oil Supply Agreement

On August 31, 2012, CRRM and Vitol entered into the Vitol Agreement. Under the agreement, Vitol supplies the petroleum business with crude oil and intermediation logistics, which helps the petroleum business to reduce its inventory position and mitigate crude oil pricing risk. The Vitol Agreement will automatically renew for successive one-year terms (each such term, a "Renewal Term") unless either party provides the other with notice of nonrenewal at least 180 days prior to the expiration of any Renewal Term. The Vitol Agreement currently extends through December 31, 2017.

Factors Affecting Comparability

Our historical results of operations for the periods presented may not be comparable with prior periods or to our results of operations in the future for the reasons presented and discussed below.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
	(in millions)			
Loss on derivatives, net	\$ 1.7	\$ (11.8)	\$ 4.8	\$ 52.2
Major scheduled turnaround expenses(1)	—	22.2	38.1	24.2
Flood insurance recovery(2)	—	—	—	(27.3)

(1) Represents expense associated with major scheduled turnaround activities performed at the Coffeyville refinery.

(2) Represents an insurance recovery from CRRM's environmental insurance carriers as a result of the flood and crude oil discharge at the Coffeyville refinery on June/July 2007.

Noncontrolling Interest

Prior to the Refining Partnership IPO on January 23, 2013, the noncontrolling interest reflected in our consolidated financial statements represented the approximately 30% interest in the Nitrogen Fertilizer Partnership held by public common unitholders, which was adjusted each reporting period for the noncontrolling ownership percentage of the Nitrogen Fertilizer Partnership's net income and related distributions. As a result of the Refining Partnership IPO, CVR Energy recorded an additional noncontrolling interest for the Refining Partnership common units sold to the public, which represented an approximately 19% interest of the Refining Partnership. Effective with the Refining Partnership's IPO, the noncontrolling interest reflected on the Consolidated Balance Sheets was impacted additionally by the noncontrolling ownership percentage of the net income of the Refining Partnership and related distributions for each future reporting period. As a result of the Refining Partnership's closing of the Underwritten Offering, the noncontrolling interest related to the Refining Partnership reflected in our consolidated financial statements subsequent to the completion of the offering in the second quarter of 2013 and prior to June 30, 2014 was approximately 29%. Upon completion of the Second Underwritten Offering on June 30, 2014 and through June 23, 2014, the noncontrolling interest reflected in our condensed consolidated financial statements was approximately 33%. On July 24, 2014, upon exercise of the underwriters' option associated with the Second Underwritten Offering, the noncontrolling interest reflected in our condensed consolidated financial statements from such date and for the three and nine months ended September 30, 2016 was approximately 34%. Additionally, as a result of the Nitrogen Fertilizer Partnership's Secondary Offering, the noncontrolling interest related to the Nitrogen Fertilizer Partnership reflected in our condensed consolidated financial statements subsequent to the completion of the Secondary Offering on May 28, 2013 and through March 31, 2016 was approximately 47%. As a result of the acquisition of CVR Nitrogen and issuance of the unit consideration, the noncontrolling interest related to the Nitrogen Fertilizer Partnership reflected in our Consolidated Financial Statements on April 1, 2016 and from such date and as of September 30, 2016 was approximately 66%.

Distributions to CVR Partners Unitholders

The current policy of the board of directors of the Nitrogen Fertilizer Partnership's general partner is to distribute all of the available cash the Nitrogen Fertilizer Partnership generates each quarter. Available cash for distribution for each quarter will be determined by the board of directors of the Nitrogen Fertilizer Partnership's general partner following the end of such quarter, subject to the limitations discussed below. The board of directors of the Nitrogen Fertilizer Partnership's general partner calculates available cash for distribution starting with Adjusted Nitrogen Fertilizer EBITDA reduced for (i) cash needed for net cash interest expense (excluding capitalized interest) and debt service and other contractual obligations, (ii) maintenance capital expenditures, (iii) to the extent applicable, major scheduled turnaround expenses and reserves for future operating or capital needs that the board of directors of the Nitrogen Fertilizer Partnership's general partner deems necessary or appropriate, and (iv) expenses associated with the East Dubuque Merger, if any. Available cash for distribution may be increased by the release of previously established cash reserves, if any, at the discretion of the board of directors of the Nitrogen Fertilizer Partnership's general partner. Actual distributions are set by the board of directors of the Nitrogen Fertilizer Partnership's general partner. The board of directors of the Nitrogen Fertilizer Partnership's general partner may modify the cash distribution policy at any time, and the partnership agreement does not require the Nitrogen Fertilizer Partnership to make distributions at all.

The following is a summary of cash distributions paid to the Nitrogen Fertilizer Partnership unitholders during 2016 for the respective quarters to which the distributions relate:

	December 31, 2015	March 31, 2016	June 30, 2016	Total Dividends Paid in 2016
	(in millions, except per share data)			
Amount paid to CRLLC	\$ 10.5	\$ 10.5	\$ 6.6	\$ 27.6
Amounts paid to public unitholders	9.2	20.1	12.7	42.0
Total amount paid	\$ 19.7	\$ 30.6	\$ 19.3	\$ 69.6
Per common unit	\$ 0.27	\$ 0.27	\$ 0.17	\$ 0.71
Common units outstanding	73.1	113.3	113.3	

Distributions to CVR Refining Unitholders

The current policy of the board of directors of the Refining Partnership's general partner is to distribute all of the available cash the Refining Partnership generates each quarter. Available cash for distribution for each quarter will be determined by the board of directors of the Refining Partnership's general partner following the end of such quarter and will generally equal Adjusted Petroleum EBITDA reduced for (i) cash needed for debt service, (ii) reserves for environmental and maintenance capital expenditures, (iii) reserves for major scheduled turnaround expenses and, (iv) to the extent applicable, reserves for future operating or capital needs that the board of directors of the Refining Partnership's general partner deems necessary or appropriate, if any. Available cash for distribution may be increased by the release of previously established cash reserves, if any, and other excess cash, at the discretion of the board of directors of the Refining Partnership's general partner. Actual distributions are set by the board of directors of the Refining Partnership's general partner. The board of directors of the Refining Partnership's general partner may modify the cash distribution policy at any time, and the partnership agreement does not require the Refining Partnership to make distributions at all.

CVR Energy Dividends

On October 26, 2016, our board of directors declared a dividend for the third quarter of 2016 of \$0.50 per share, or \$43.4 million in aggregate. The dividend will be paid on November 14, 2016 to stockholders of record at the close of business on November 7, 2016.

East Dubuque Merger

On April 1, 2016, the Nitrogen Fertilizer Partnership completed the East Dubuque Merger, whereby it acquired the East Dubuque Facility. The consolidated financial statements and key operating metrics of the nitrogen fertilizer business include the results of the East Dubuque Facility beginning on April 1, 2016, the date of the closing of the acquisition. During the three months ended September 30, 2016 and 2015, the Nitrogen Fertilizer Partnership incurred \$0.7 million and \$1.5 million, respectively, of legal and other professional fees and other merger-related expenses, which were included in selling, general and administrative expenses (exclusive of depreciation and amortization). During the nine months ended September 30, 2016 and 2015, the Nitrogen Fertilizer Partnership incurred \$3.1 million and \$1.5 million, respectively, of legal and other professional fees and other merger related expenses, which were included in selling, general and administrative expenses (exclusive of depreciation and amortization). See Note 3 ("Acquisition") for further discussion.

Results of Operations

The following tables summarize the financial data and key operating statistics for CVR and our two operating segments for the three and nine months ended September 30, 2016 and 2015. The results of operations for the East Dubuque Facility are included for the post acquisition period beginning April 1, 2016. The following data should be read in conjunction with our condensed consolidated financial statements and the notes thereto included elsewhere in this Report. All information in "Management's Discussion and Analysis of Financial Condition and Results of Operations," except for the balance sheet data as of December 31, 2015, is unaudited.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
(in millions, except per share data)				
Consolidated Statement of Operations Data				
Net sales	\$ 1,240.3	\$ 1,408.8	\$ 3,429.0	\$ 4,421.9
Cost of product sold(1)	1,005.7	1,076.7	2,719.3	3,342.5
Direct operating expenses(1)	129.5	145.8	409.2	372.7
Flood insurance recovery	—	—	—	(27.3)
Selling, general and administrative expenses(1)	27.8	26.1	81.7	78.5
Depreciation and amortization	50.1	38.7	140.8	123.2
Operating income (loss)	27.2	121.5	78.0	532.3
Interest expense and other financing costs	(26.2)	(11.9)	(56.8)	(36.5)
Interest income	0.2	0.3	0.5	0.7
Gain (loss) on derivatives, net	(1.7)	11.8	(4.8)	(52.2)
Loss on extinguishment of debt	—	—	(5.1)	—
Other income, net	5.0	0.3	5.5	36.6
Income (loss) before income tax expense	4.5	122.0	17.3	480.9
Income tax expense	2.5	23.1	2.3	105.2
Net income (loss)	2.0	98.9	15.0	375.7
Less: Net income (loss) attributable to noncontrolling interest	(3.4)	41.0	(2.6)	161.1
Net income (loss) attributable to CVR Energy stockholders	\$ 5.4	\$ 57.9	\$ 17.6	\$ 214.6
Basic and diluted earnings (loss) per share	\$ 0.06	\$ 0.67	\$ 0.20	\$ 2.47
Dividends declared per share	\$ 0.50	\$ 0.50	\$ 1.50	\$ 1.50
Adjusted EBITDA(2)	\$ 58.2	\$ 153.8	\$ 158.8	\$ 463.2
Weighted-average common shares outstanding:				
Basic and diluted	86.8	86.8	86.8	86.8

	As of September 30, 2016		As of December 31, 2015	
	(audited)			
(in millions)				
Balance Sheet Data				
Cash and cash equivalents	\$	762.6	\$	765.1
Working capital (3)		842.6		789.0
Total assets (3)		4,055.0		3,299.4
Total debt, including current portion (3)		1,166.3		667.1
Total CVR Energy stockholders' equity		894.4		984.1

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
(in millions)				
Cash Flow Data				
Net cash flow provided by (used in):				
Operating activities	\$ 149.0	\$ 235.9	\$ 218.9	\$ 612.3
Investing activities	(16.9)	(55.1)	(172.0)	(73.8)
Financing activities	(60.1)	(106.5)	(49.4)	(280.2)
Net cash flow	\$ 72.0	\$ 74.3	\$ (2.5)	\$ 258.3
Capital expenditures for property, plant and equipment	\$ 22.8	\$ 55.2	\$ 105.6	\$ 141.9

(1) Amounts are shown exclusive of depreciation and amortization.

Depreciation and amortization is comprised of the following components as excluded from cost of product sold, direct operating expenses and selling, general and administrative expenses:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
(in millions)				
Depreciation and amortization excluded from cost of product sold	\$ 1.6	\$ 1.5	\$ 5.0	\$ 5.1
Depreciation and amortization excluded from direct operating expenses	46.5	35.4	129.5	112.7
Depreciation and amortization excluded from selling, general and administrative expenses	2.0	1.8	6.3	5.4
Total depreciation and amortization	\$ 50.1	\$ 38.7	\$ 140.8	\$ 123.2

(2) **EBITDA and Adjusted EBITDA.** EBITDA represents net income attributable to CVR Energy stockholders before consolidated (i) interest expense and other financing costs, net of interest income, (ii) income tax expense and (iii) depreciation and amortization, less the portion of these adjustments attributable to noncontrolling interest. Adjusted EBITDA represents EBITDA adjusted for consolidated (i) FIFO impact, favorable, (ii) loss on extinguishment of debt, (iii) major scheduled turnaround expenses (that many of our competitors capitalize and thereby exclude from their measures of EBITDA and adjusted EBITDA), (iv) loss on derivatives, net, (v) current period settlements on derivative contracts, (vi) flood insurance recovery, (vii) business interruption insurance recovery and (viii) expenses associated with the East Dubuque Merger, less the portion of these adjustments attributable to noncontrolling interest. EBITDA and Adjusted EBITDA are not recognized terms under GAAP and should not be substituted for net income or cash flow from operations. Management believes that EBITDA and Adjusted EBITDA enable investors to better understand and evaluate our ongoing operating results and allow for greater transparency in reviewing our overall financial, operational and economic performance. EBITDA and Adjusted EBITDA presented by other companies may not be comparable to our presentation, since each company may define these terms differently. EBITDA and Adjusted EBITDA represent EBITDA and Adjusted EBITDA that is attributable to CVR Energy stockholders.

EBITDA for the three and nine months ended September 30, 2015 was also adjusted for share-based compensation expense in calculating Adjusted EBITDA. Beginning in 2016, share-based compensation expense is no longer utilized as an adjustment to derive Adjusted EBITDA as no equity-settled awards remain outstanding for CVR Energy or any of its subsidiaries, and CVR Partners and CVR Refining are responsible for reimbursing CVR Energy for their allocated portion of all outstanding awards. Management believes, based on the nature, classification and cash settlement feature of the currently outstanding awards, that it is no longer necessary to adjust EBITDA for share-based compensation expense to derive Adjusted EBITDA. For comparison purposes we have also provided Adjusted EBITDA for the three and nine months ended September 30, 2015 without adjusting for share-based compensation expense in order to provide a comparison to Adjusted EBITDA for the three and nine months ended September 30, 2016.

(3) Prior period amounts have been retrospectively adjusted for Accounting Standard Update No. 2015-03, which requires that costs incurred to issue debt be presented in the balance sheet as a direct reduction from the carrying value of the debt.

Below is a reconciliation of net income attributable to CVR Energy stockholders to EBITDA and EBITDA to Adjusted EBITDA for the three and nine months ended September 30, 2016 and 2015:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
	(in millions)			
Net income attributable to CVR Energy stockholders	\$ 5.4	\$ 57.9	\$ 17.6	\$ 214.6
Add:				
Interest expense and other financing costs, net of interest income	26.0	11.6	56.3	35.8
Income tax expense	2.5	23.1	2.3	105.2
Depreciation and amortization	50.1	38.7	140.8	123.2
Adjustments attributable to noncontrolling interest	(35.9)	(18.0)	(90.3)	(56.6)
EBITDA	48.1	113.3	126.7	422.2
Add:				
FIFO impact, (favorable) unfavorable	7.7	45.6	(29.7)	33.7
Share-based compensation(a)	—	3.2	—	9.1
Major scheduled turnaround expenses	—	22.2	38.1	24.2
(Gain) loss on derivatives, net	1.7	(11.8)	4.8	52.2
Current period settlement on derivative contracts(b)	6.7	0.8	35.2	(34.0)
Flood insurance recovery	—	—	—	(27.3)
Loss on extinguishment of debt	—	—	5.1	—
Expenses associated with the East Dubuque Merger(c)	0.7	1.5	3.1	1.5
Insurance recovery - business interruption	(2.1)	—	(2.1)	—
Adjustments attributable to noncontrolling interest	(4.6)	(21.0)	(22.4)	(18.4)
Adjusted EBITDA	\$ 58.2	\$ 153.8	\$ 158.8	\$ 463.2

(a) Adjusted EBITDA for the three and nine months ended September 30, 2015 would have been \$150.6 million and \$454.1 million, respectively, without adjusting for share-based compensation expense of \$3.2 million and \$9.1 million, respectively.

(b) Represents the portion of gain (loss) on derivatives, net related to contracts that matured during the respective periods and settled with counterparties. There are no premiums paid or received at inception of the derivative contracts and upon settlement, there is no cost recovery associated with these contracts.

(c) Represents legal and other professional fees and other merger related expenses incurred by the Nitrogen Fertilizer Partnership in regards to the East Dubuque Merger. Refer to Part I, Item 1, Note 3 ("Acquisition") for further details.

Consolidated Results of Operations

Three Months Ended September 30, 2016 Compared to the Three Months Ended September 30, 2015 (Consolidated)

Net Sales. Consolidated net sales were \$1,240.3 million for the three months ended September 30, 2016 compared to \$1,408.8 million for the three months ended September 30, 2015. The reduction of in sales of \$168.5 million year over year was primarily attributable to a decrease of \$198.1 million in sales by the petroleum business, offset by an increase of \$29.2 million in sales by the nitrogen fertilizer business. The petroleum segment's net sales decrease of \$198.1 million or 15%, was largely the result of lower sales prices for transportation fuels and by-products, combined with a slight decrease in sales volumes. Overall sales volumes decreased approximately 2.3% for the three months ended September 30, 2016, compared to the prior year comparable period. The average sales price per gallon for gasoline of \$1.45 decreased by approximately 15.7%, as compared to \$1.72 of the three months ended September 30, 2015. The average sales price per gallon for distillates of \$1.45 decreased by approximately 9.4%, as compared to \$1.60 for the three months ended September 30, 2015. The nitrogen fertilizer segment's net sales increased by approximately \$29.2 million mainly as a result of the inclusion of the East Dubuque Facility for the full three months ended September 30, 2016.

Cost of Product Sold (Exclusive of Depreciation and Amortization). Consolidated cost of product sold (exclusive of depreciation and amortization) was \$1,005.7 million for the three months ended September 30, 2016, as compared to \$1,076.7 million for the three months ended September 30, 2015. The decrease of \$71.0 million or 6.6% related to a decrease of \$76.2 million from the petroleum segment primarily in the cost of consumed crude and purchased products for resale, partially offset by an increase in net RINs costs and an increase of \$5.4 million from the nitrogen fertilizer segment, primarily as a result of the inclusion of the East Dubuque Facility for the three months ended September 30, 2016. Cost of consumed crude and purchased products for resale decreased due to a 3.4% decrease in crude oil prices combined with a 1.1% decrease in crude oil consumed. The average cost per barrel of crude oil consumed was \$44.58 for the three months ended September 30, 2016 compared to \$46.64 for the quarter ended September 30, 2015, a decrease of approximately 4.4%. The cost of RINs for the three months ended September 30, 2016 was approximately \$58.3 million, a significant increase of \$39.0 million, or 202%, as compared to \$19.3 million for the three months ended September 30, 2015.

Direct Operating Expenses (Exclusive of Depreciation and Amortization). Consolidated direct operating expenses (exclusive of depreciation and amortization) were \$129.5 million for the three months ended September 30, 2016, as compared to \$145.8 million for the three months ended September 30, 2015. The decrease of \$16.3 million was primarily the result of a decrease in expenses associated with the Coffeyville refinery's major schedule turnaround which began at the end of the third quarter of 2015. Direct operating expenses per barrel of crude oil throughput for the three months ended September 30, 2016 decreased to \$5.33 per barrel, as compared to \$6.11 per barrel for the three months ended September 30, 2015. The decrease in the direct operating expenses per barrel of crude oil throughput is primarily a function of lower overall costs.

Selling, General and Administrative Expenses (Exclusive of Depreciation and Amortization). Consolidated selling, general and administrative expenses (exclusive of depreciation and amortization) were \$27.8 million for the three months ended September 30, 2016, as compared to \$26.1 million for the three months ended September 30, 2015. The decrease of \$1.7 million was primarily attributable to employee-related expenses.

Operating Income. Consolidated operating income was \$27.2 million for the three months ended September 30, 2016, as compared to operating income of \$121.5 million for the three months ended September 30, 2015, a decrease of \$94.3 million. The decrease in operating income was primarily due to a decrease of \$108.8 million in the petroleum segment, associated with a decrease in the refining margin of \$121.9 million, an increase in depreciation and amortization of \$2.6 million, partially offset by a decrease in direct operating expenses related to the turnaround at the Coffeyville refinery which began at the end of the third quarter of 2015. The decrease in operating income in the petroleum segment was partially offset by an increase of \$14.2 million in the nitrogen fertilizer segment's operating income primarily attributable to the inclusion of the East Dubuque Facility for the full quarter ended September 30, 2016.

Interest Expense. Consolidated interest expense for the three months ended September 30, 2016 was \$26.2 million, as compared to \$11.9 million for the three months ended September 30, 2015. The increase of \$14.3 million was primarily related to debt assumed in the East Dubuque Merger and interest on the 2023 Notes.

Gain (Loss) on Derivatives, net. For the three months ended September 30, 2016, the petroleum segment recorded a \$1.7 million net loss on derivatives. This compares to a \$11.8 million net gain on derivatives for the three months ended September 30, 2015. This change was primarily due to a significant decrease in the volume of derivatives positions during 2016 and changes in crack spreads during the periods. We enter into over-the-counter commodity swap contracts to fix the margin on a portion of our future gasoline and distillate production.

Income Tax Expense. Income tax expense for the three months ended September 30, 2016 was \$2.5 million or 55.6% of income before income taxes, as compared to income tax expense for the three months ended September 30, 2015 of \$23.1 million or 18.9% of income before income taxes. Our 2016 effective tax rate varies from the expected statutory rate primarily due to the reduction of income subject to tax associated with the noncontrolling ownership interests in CVR Refining's and CVR Partners' earnings (loss) and the benefits related to the domestic production activities deduction and state income tax credits.

Nine Months Ended September 30, 2016 Compared to the Nine Months Ended September 30, 2015 (Consolidated)

Net Sales. Consolidated net sales were \$3,429.0 million for the nine months ended September 30, 2016 compared to \$4,421.9 million for the nine months ended September 30, 2015. The reduction of \$992.9 million year over year was primarily attributable to a decrease in sales in the petroleum business of \$1,051.7 million, partially offset by an increase in sales of \$48.2 million in the nitrogen fertilizer business. The decrease of \$1,051.7 million in the petroleum segment was largely the result of significantly lower sales prices for transportation fuels and by-products, as well as a decrease in sales volumes. For the nine months ended September 30, 2016, the average sales price per gallon for gasoline of \$1.31 decreased by approximately 22.5%, as compared to \$1.69 for the nine months ended September 30, 2015, and the average sales price per gallon for distillates of \$1.30 for the nine months ended September 30, 2016 decreased by 23.5%, as compared to \$1.70 for the nine months ended September 30, 2015. Overall sales volumes decreased by 2.8% for the nine months ended September 30, 2016 as compared to the prior year comparable period. Sales volumes for the nine months ended September 30, 2016 were impacted by decreased production as a result of the second phase of the major scheduled turnaround completed at the Coffeyville refinery during the first quarter of 2016. The increase of \$48.2 million in the nitrogen fertilizer segment was primarily attributable to increased sales volume due to the inclusion of the East Dubuque Facility (\$92.4 million).

Cost of Product Sold (Exclusive of Depreciation and Amortization). Consolidated cost of product sold (exclusive of depreciation and amortization) was \$2,719.3 million for the nine months ended September 30, 2016, as compared to \$3,342.5 million for the nine months ended September 30, 2015. The decrease of \$623.2 million or 18.6% was primarily due to a decrease of \$649.1 million in the petroleum segment, primarily due to decreases in the cost of consumed crude, which was partially offset by an increase in net RINs costs. The decrease in consumed crude oil costs was due to a combined decrease in crude oil throughput volume and crude prices. The WTI benchmark crude price decreased approximately 18.6% from the nine months ended September 30, 2015. The average cost per barrel of crude oil consumed for the nine months ended September 30, 2016 was \$39.81 compared to \$49.66 for the nine month period ended September 30, 2015, a decrease of approximately 20.0%. The cost of RINs for the nine months ended September 30, 2016 was approximately \$152.4 million, an increase of \$59.0 million, or 63.2%, as compared to \$93.4 million for the prior year comparable period.

Direct Operating Expenses (Exclusive of Depreciation and Amortization). Consolidated direct operating expenses (exclusive of depreciation and amortization) were \$409.2 million for the nine months ended September 30, 2016, as compared to \$372.7 million for the nine months ended September 30, 2015. The increase of \$36.5 million was primarily due to a \$27.7 million increase associated with the nitrogen fertilizer business, which was attributable to the addition of the East Dubuque Facility, and an increase of \$8.8 million from the petroleum segment, primarily due to increased expenses associated with the Coffeyville refinery turnaround.

Selling, General and Administrative Expenses (Exclusive of Depreciation and Amortization). Consolidated selling, general and administrative expenses (exclusive of depreciation and amortization) were \$81.7 million for the nine months ended September 30, 2016, as compared to \$78.5 million for the nine months ended September 30, 2015. The increase of \$3.2 million was primarily attributable to the addition of the East Dubuque Facility.

Operating Income. Consolidated operating income was \$78.0 million for the nine months ended September 30, 2016, as compared to operating income of \$532.3 million for the nine months ended September 30, 2015, a decrease of \$454.3 million. The decrease in operating income was primarily due to a decrease of \$434.7 million in the petroleum segment, which was the result of a decrease in refining margin of \$402.6 million due to significantly lower sales prices for the transportation fuels and by-products, an increase in direct operating expenses of \$8.8 million primarily due to the second phase of the Coffeyville refinery turnaround during the first quarter of 2016 and last year's flood insurance recovery of \$27.3 million.

Interest Expense. Consolidated interest expense for the nine months ended September 30, 2016 was \$56.8 million, as compared to \$36.5 million for the nine months ended September 30, 2015. The increase of \$20.3 million primarily resulted from the debt assumed in the East Dubuque Merger and interest on the 2023 Notes.

Loss on Derivatives, net. For the nine months ended September 30, 2016, the petroleum segment recorded a \$4.8 million net loss on derivatives. This compares to a \$52.2 million net loss on derivatives for the nine months ended September 30, 2015. This change was primarily due to a significant decrease in the volume of derivatives positions during 2016 and changes in crack spreads during the periods. We enter into commodity hedging instruments in order to fix the price on a portion of our future crude oil purchases and to fix the margin on a portion of future production.

Income Tax Expense. Income tax expense for the nine months ended September 30, 2016 was \$2.3 million or 13.3% of income before income taxes, as compared to income tax expense for the nine months ended September 30, 2015 of \$105.2 million or 21.9% of income before income taxes. Our 2016 effective tax rate varies from the expected statutory rate primarily due to the reduction of income subject to tax associated with the noncontrolling ownership interests in CVR Refining's and CVR Partners' earnings (loss) and the benefits related to the domestic production activities deduction and state income tax credits.

Petroleum Business Results of Operations

The petroleum business includes the operations of both the Coffeyville and Wynnewood refineries. The following tables below provide an overview of the petroleum business' results of operations, relevant market indicators and its key operating statistics for the three and nine months ended September 30, 2016 and 2015:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
	(in millions)			
Petroleum Segment Summary Financial Results				
Net sales	\$ 1,163.5	\$ 1,361.6	\$ 3,161.9	\$ 4,213.6
Cost of product sold(1)	987.5	1,063.7	2,651.7	3,300.8
Direct operating expenses(1)(2)	97.0	97.0	267.2	272.7
Major scheduled turnaround expenses	—	15.6	31.5	17.2
Flood insurance recovery	—	—	—	(27.3)
Selling, general and administrative expenses(1)	18.1	18.2	53.4	54.9
Depreciation and amortization	32.5	29.9	95.6	98.1
Operating income	28.4	137.2	62.5	497.2
Interest expense and other financing costs	(10.8)	(10.4)	(31.7)	(32.2)
Interest income	—	0.1	—	0.3
Gain (loss) on derivatives, net	(1.7)	11.8	(4.8)	(52.2)
Other income, net	—	0.2	—	0.3
Income before income tax expense	15.9	138.9	26.0	413.4
Income tax expense	—	—	—	—
Net income	\$ 15.9	\$ 138.9	\$ 26.0	\$ 413.4
Gross profit(3)	\$ 46.5	\$ 155.4	\$ 115.9	\$ 552.1
Refining margin(4)	\$ 176.0	\$ 297.9	\$ 510.2	\$ 912.8
Adjusted Petroleum EBITDA(5)	\$ 75.3	\$ 229.6	\$ 195.1	\$ 585.6

Three Months Ended September 30,		Nine Months Ended September 30,	
2016	2015	2016	2015

(dollars per barrel)

Key Operating Statistics

Per crude oil throughput barrel:

Gross profit(3)	\$ 2.55	\$ 8.44	\$ 2.17	\$ 9.91
Refining margin(4)	\$ 9.66	\$ 16.17	\$ 9.55	\$ 16.38
Direct operating expenses and major scheduled turnaround expenses(1)(2)	\$ 5.33	\$ 6.11	\$ 5.59	\$ 5.20
Direct operating expenses and major scheduled turnaround expenses per barrel sold(1)(6)	\$ 5.04	\$ 5.79	\$ 5.24	\$ 4.88
Barrels sold (barrels per day)(6)	209,228	211,440	208,192	217,696

Three Months Ended September 30,		Nine Months Ended September 30,	
2016	2015	2016	2015
%	%	%	%

Refining Throughput and Production Data (bpd)

Throughput:

Sweet	176,404	85.3	185,228	87.8	174,594	85.4	184,481	85.5
Medium	1,983	1.0	2,037	1.0	2,321	1.1	3,220	1.5
Heavy sour	19,568	9.5	12,891	6.1	17,978	8.9	16,476	7.7
Total crude oil throughput	197,955	95.8	200,156	94.9	194,893	95.4	204,177	94.7
All other feedstocks and blendstocks	8,778	4.2	10,761	5.1	9,476	4.6	11,487	5.3
Total throughput	206,733	100.0	210,917	100.0	204,369	100.0	215,664	100.0

Production:

Gasoline	106,120	51.2	103,479	48.9	106,774	52.2	106,650	49.1
Distillate	84,669	40.9	88,479	41.8	83,101	40.6	91,262	42.0
Other (excluding internally produced fuel)	16,390	7.9	19,608	9.3	14,738	7.2	19,210	8.9
Total refining production (excluding internally produced fuel)	207,179	100.0	211,566	100.0	204,613	100.0	217,122	100.0

Product price (dollars per gallon):

Gasoline	\$ 1.45	\$ 1.72	\$ 1.31	\$ 1.69
Distillate	1.45	1.60	1.30	1.70

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
Market Indicators (dollars per barrel)				
West Texas Intermediate (WTI) NYMEX	\$ 44.94	\$ 46.50	\$ 41.53	\$ 51.01
Crude Oil Differentials:				
WTI less WTS (light/medium sour)	1.47	(1.62)	0.82	(0.47)
WTI less WCS (heavy sour)	14.23	15.14	13.59	12.79
NYMEX Crack Spreads:				
Gasoline	13.73	22.23	16.24	22.30
Heating Oil	14.34	20.05	13.04	22.87
NYMEX 2-1-1 Crack Spread	14.03	21.14	14.64	22.59
PADD II Group 3 Basis:				
Gasoline	0.48	0.63	(3.59)	(2.99)
Ultra Low Sulfur Diesel	1.01	0.27	(0.38)	(2.61)
PADD II Group 3 Product Crack Spread:				
Gasoline	14.21	22.87	12.65	19.31
Ultra Low Sulfur Diesel	15.35	20.31	12.65	20.26
PADD II Group 3 2-1-1	14.78	21.59	12.65	19.78

(1) Amounts are shown exclusive of depreciation and amortization.

(2) Direct operating expense is presented on a per crude oil throughput barrel basis. In order to derive the direct operating expenses per crude oil throughput barrel, we utilize total direct operating expenses, which do not include depreciation or amortization expense, and divide by the applicable number of crude oil throughput barrels for the period.

(3) Gross profit, a GAAP measure, is calculated as the difference between net sales and cost of product sold (exclusive of depreciation and amortization), direct operating expenses (exclusive of depreciation and amortization), major scheduled turnaround expenses, flood insurance recovery and depreciation and amortization. Each of the components used in this calculation are taken directly from the petroleum business' financial results. In order to derive the gross profit per crude oil throughput barrel, we utilize the total dollar figures for gross profit as derived above and divide by the applicable number of crude oil throughput barrels for the period.

(4) Refining margin per crude oil throughput barrel is a measurement calculated as the difference between net sales and cost of product sold (exclusive of depreciation and amortization). Refining margin is a non-GAAP measure that we believe is important to investors in evaluating the refineries' performance as a general indication of the amount above the cost of product sold at which it is able to sell refined products. Each of the components used in this calculation (net sales and cost of product sold (exclusive of depreciation and amortization)) are taken directly from the petroleum business' financial results. Our calculation of refining margin may differ from similar calculations of other companies in the industry, thereby limiting its usefulness as a comparative measure. In order to derive the refining margin per crude oil throughput barrel, we utilize the total dollar figures for refining margin as derived above and divide by the applicable number of crude oil throughput barrels for the period. We believe that refining margin and refining margin per crude oil throughput barrel are important to enable investors to better understand and evaluate the petroleum business' ongoing operating results and for greater transparency in the review of our overall financial, operational and economic performance.

(5) Petroleum EBITDA represents net income for the petroleum segment before (i) interest expense and other financing costs, net of interest income, (ii) income tax expense and (iii) depreciation and amortization. Adjusted Petroleum EBITDA represents Petroleum EBITDA adjusted for (i) FIFO impact (favorable) unfavorable, (ii) share-based compensation, non-cash, (iii) loss on extinguishment of debt, (iv) major scheduled turnaround expenses (that many of our competitors capitalize and thereby exclude from their measures of EBITDA and Adjusted EBITDA), (v) (gain) loss on derivatives, net, (vi) flood insurance recovery and (vii) current period settlements on derivative contracts.

We present Adjusted Petroleum EBITDA because it is the starting point for calculating the Refining Partnership's available cash for distribution. Petroleum EBITDA and Adjusted Petroleum EBITDA are not recognized terms under GAAP and should not be substituted for net income as a measure of performance. Management believes that Petroleum EBITDA and Adjusted Petroleum EBITDA enable investors to better understand the Refining Partnership's ability to make distributions to its common unitholders, help investors evaluate the petroleum segment's ongoing operating results and allow for greater transparency in reviewing our overall financial, operational and economic performance. Petroleum EBITDA and Adjusted Petroleum EBITDA presented by other companies may not be comparable to our presentation, since each company may define these terms differently. Below is a reconciliation of net income for the petroleum segment to Petroleum EBITDA and Petroleum EBITDA to Adjusted Petroleum EBITDA for the three and nine months ended September 30, 2016 and 2015:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
	(in millions)			
Petroleum:				
Petroleum net income	\$ 15.9	\$ 138.9	\$ 26.0	\$ 413.4
Add:				
Interest expense and other financing costs, net of interest income	10.8	10.3	31.7	31.9
Income tax expense	—	—	—	—
Depreciation and amortization	32.5	29.9	95.6	98.1
Petroleum EBITDA	59.2	179.1	153.3	543.4
Add:				
FIFO impacts, (favorable) unfavorable(a)	7.7	45.6	(29.7)	33.7
Share-based compensation, non-cash	—	0.3	—	0.4
Major scheduled turnaround expenses(b)	—	15.6	31.5	17.2
Gain (loss) on derivatives, net	1.7	(11.8)	4.8	52.2
Current period settlements on derivative contracts(c)	6.7	0.8	35.2	(34.0)
Flood insurance recovery	—	—	—	(27.3)
Adjusted Petroleum EBITDA	<u>\$ 75.3</u>	<u>\$ 229.6</u>	<u>\$ 195.1</u>	<u>\$ 585.6</u>

- (a) FIFO is the petroleum business' basis for determining inventory value on a GAAP basis. Changes in crude oil prices can cause fluctuations in the inventory valuation of crude oil, work in process and finished goods thereby resulting in a favorable FIFO impact when crude oil prices increase and an unfavorable FIFO impact when crude oil prices decrease. The FIFO impact is calculated based upon inventory values at the beginning of the accounting period and at the end of the accounting period. In order to derive the FIFO impact per crude oil throughput barrel, we utilize the total dollar figures for the FIFO impact and divide by the number of crude oil throughput barrels for the period.
- (b) Represents expense associated with major scheduled turnaround activities performed at the Coffeyville refinery.
- (c) Represents the portion of loss on derivatives, net related to contracts that matured during the respective periods and settled with counterparties. There are no premiums paid or received at inception of the derivative contracts and upon settlement, there is no cost recovery associated with these contracts.
- (6) Direct operating expense is presented on a per barrel sold basis. Barrels sold are derived from the barrels produced and shipped from the refineries. We utilize total direct operating expenses, which does not include depreciation or amortization expense, and divide by the applicable number of barrels sold for the period to derive the metric.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
(in millions)				
Coffeyville Refinery Financial Results				
Net sales	\$ 788.1	\$ 840.0	\$ 2,094.1	\$ 2,698.0
Cost of product sold (exclusive of depreciation and amortization)	669.9	669.9	1,763.3	2,135.6
Direct operating expenses (exclusive of depreciation and amortization)	50.7	54.0	144.5	155.6
Major scheduled turnaround expenses	—	15.6	31.5	17.2
Flood insurance recovery	—	—	—	(27.3)
Depreciation and amortization	17.7	15.7	51.4	54.7
Gross profit	\$ 49.8	\$ 84.8	\$ 103.4	\$ 362.2
Plus:				
Direct operating expenses and major scheduled turnaround expenses (exclusive of depreciation and amortization)	50.7	69.6	176.0	172.8
Flood insurance recovery	—	—	—	(27.3)
Depreciation and amortization	17.7	15.7	51.4	54.7
Refining margin	\$ 118.2	\$ 170.1	\$ 330.8	\$ 562.4

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
(dollars per barrel)				
Coffeyville Refinery Key Operating Statistics				
Per crude oil throughput barrel:				
Gross profit	\$ 4.15	\$ 7.76	\$ 3.11	\$ 10.58
Refining margin	\$ 9.86	\$ 15.57	\$ 9.94	\$ 16.42
Direct operating expenses and major scheduled turnaround expenses (exclusive of depreciation and amortization)	\$ 4.23	\$ 6.37	\$ 5.29	\$ 5.05
Direct operating expenses and major scheduled turnaround expenses (exclusive of depreciation and amortization) per barrel sold	\$ 3.93	\$ 5.95	\$ 4.80	\$ 4.61
Barrels sold (barrels per day)	140,256	127,089	133,729	137,365

	Three Months Ended September 30,				Nine Months Ended September 30,			
	2016		2015		2016		2015	
		%		%		%		%
Coffeyville Refinery Throughput and Production Data (bpd)								
Throughput:								
Sweet	110,825	81.0	105,314	83.3	101,803	79.2	106,256	79.2
Medium	—	—	552	0.4	1,641	1.3	2,732	2.0
Heavy sour	19,568	14.3	12,891	10.2	17,978	13.9	16,476	12.3
Total crude oil throughput	130,393	95.3	118,757	93.9	121,422	94.4	125,464	93.5
All other feedstocks and blendstocks	6,399	4.7	7,753	6.1	7,193	5.6	8,691	6.5
Total throughput	136,792	100.0	126,510	100.0	128,615	100.0	134,155	100.0
Production:								
Gasoline	70,013	50.3	60,849	47.3	67,298	51.5	65,000	47.4
Distillate	57,839	41.6	55,521	43.1	54,192	41.5	59,050	43.0
Other (excluding internally produced fuel)	11,286	8.1	12,407	9.6	9,191	7.0	13,115	9.6
Total refining production (excluding internally produced fuel)	139,138	100.0	128,777	100.0	130,681	100.0	137,165	100.0

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
	(in millions)			
Wynnewood Refinery Financial Results				
Net sales	\$ 374.3	\$ 520.5	\$ 1,064.4	\$ 1,512.3
Cost of product sold (exclusive of depreciation and amortization)	317.7	393.1	888.5	1,164.5
Direct operating expenses (exclusive of depreciation and amortization)	46.3	42.9	122.7	117.0
Major scheduled turnaround expenses	—	—	—	—
Depreciation and amortization	12.7	12.5	38.0	37.6
Gross profit (loss)	\$ (2.4)	\$ 72.0	\$ 15.2	\$ 193.2
Plus:				
Direct operating expenses and major scheduled turnaround expenses (exclusive of depreciation and amortization)	46.3	42.9	122.7	117.0
Depreciation and amortization	12.7	12.5	38.0	37.6
Refining margin	\$ 56.6	\$ 127.4	\$ 175.9	\$ 347.8

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
(dollars per barrel)				
Wynnewood Refinery Key Operating Statistics				
Per crude oil throughput barrel:				
Gross profit (loss)	\$ (0.39)	\$ 9.61	\$ 0.76	\$ 8.99
Refining margin	\$ 9.10	\$ 17.01	\$ 8.74	\$ 16.18
Direct operating expenses and major scheduled turnaround expenses (exclusive of depreciation and amortization)	\$ 7.45	\$ 5.73	\$ 6.10	\$ 5.44
Direct operating expenses and major scheduled turnaround expenses (exclusive of depreciation and amortization) per barrel sold	\$ 7.29	\$ 5.53	\$ 6.01	\$ 5.33
Barrels sold (barrels per day)	68,971	84,351	74,463	80,332

	Three Months Ended September 30,		Nine Months Ended September 30,					
	2016	2015	2016	2015				
	%	%	%	%				
Wynnewood Refinery Throughput and Production Data (bpd)								
Throughput:								
Sweet	65,579	93.8	79,914	94.6	72,791	96.1	78,225	96.0
Medium	1,983	2.8	1,485	1.8	680	0.9	488	0.6
Heavy sour	—	—	—	—	—	—	—	—
Total crude oil throughput	67,562	96.6	81,399	96.4	73,471	97.0	78,713	96.6
All other feedstocks and blendstocks	2,379	3.4	3,008	3.6	2,283	3.0	2,796	3.4
Total throughput	69,941	100.0	84,407	100.0	75,754	100.0	81,509	100.0
Production:								
Gasoline	36,107	53.1	42,630	51.5	39,476	53.4	41,650	52.1
Distillate	26,830	39.4	32,958	39.8	28,909	39.1	32,212	40.3
Other (excluding internally produced fuel)	5,104	7.5	7,201	8.7	5,547	7.5	6,095	7.6
Total refining production (excluding internally produced fuel)	68,041	100.0	82,789	100.0	73,932	100.0	79,957	100.0

Three Months Ended September 30, 2016 Compared to the Three Months Ended September 30, 2015 (Petroleum Business)

Net Sales. Petroleum net sales were \$1,163.5 million for the three months ended September 30, 2016 compared to 1,361.6 million for the three months ended September 30, 2015. The decrease of \$198.1 million or 15%, was largely the result of lower sales prices for transportation fuels and by-products, combined with a slight decrease in sales volumes. Overall sales volumes decreased approximately 2.3% for the three months ended September 30, 2016, as compared to the three months ended September 30, 2015. For the three months ended September 30, 2016, the average sales price per gallon for gasoline of \$1.45 decreased by approximately 15.7%, as compared to \$1.72 for the three months ended September 30, 2015, and the average sales price per gallon for distillates of \$1.45 for the three months ended September 30, 2016 decreased by approximately 9.4%, as compared to \$1.60 for the three months ended September 30, 2015.

The following table demonstrates the impact of changes in sales volumes and sales prices for gasoline and distillates for the three months ended September 30, 2016 compared to the three months ended September 30, 2015:

	Three Months Ended September 30, 2016			Three Months Ended September 30, 2015			Total Variance		Price Variance	Volume Variance
	Volume(1)	\$ per barrel	Sales \$(2)	Volume(1)	\$ per barrel	Sales \$(2)	Volume(1)	Sales \$(2)		
	(in millions)									
Gasoline	10.2	\$ 61.00	\$ 624.7	10.3	\$ 72.09	\$ 744.9	(0.1)	\$ (120.2)	\$ (113.6)	\$ (6.6)
Distillate	8.0	\$ 60.79	\$ 489.2	8.2	\$ 67.34	\$ 558.6	(0.2)	\$ (69.4)	\$ (52.7)	\$ (16.7)

(1) Barrels in millions

(2) Sales dollars in millions

Cost of Product Sold (Exclusive of Depreciation and Amortization). Cost of product sold (exclusive of depreciation and amortization) includes cost of crude oil, other feedstocks and blendstocks, purchased products for resale, RINs and transportation and distribution costs. Petroleum cost of product sold (exclusive of depreciation and amortization) was \$987.5 million for the three months ended September 30, 2016 compared to \$1,063.7 million for the three months ended September 30, 2015. The decrease of \$76.2 million, or 7%, was primarily the result of decreases in the cost of consumed crude and purchased products for resale, which were partially offset by an increase in net RINs costs. The decrease in consumed crude oil costs was due to a 3.4% decrease in crude oil prices combined with a 1.1% decrease in crude oil consumed. The average cost per barrel of crude oil consumed for the three months ended September 30, 2016 was \$44.58 compared to \$46.64 for the comparable period of 2015, a decrease of approximately 4.4%. The cost of RINs for the three months ended September 30, 2016 was approximately \$58.3 million, a significant increase of \$39.0 million, or 202%, as compared to \$19.3 million for the three months ended September 30, 2015. Under the FIFO method of accounting, changes in crude oil prices can also cause fluctuations in the inventory valuation of crude oil, work in process and finished goods, thereby resulting in a favorable or unfavorable FIFO inventory impact when crude oil prices increase or decrease. For the three months ended September 30, 2016, the petroleum business had an unfavorable FIFO inventory impact of \$7.7 million compared to an unfavorable FIFO inventory impact of \$45.6 million for the comparable period of 2015.

Refining margin per barrel of crude oil throughput decreased to \$9.66 for the three months ended September 30, 2016 from \$16.17 for the three months ended September 30, 2015. Refining margin adjusted for FIFO impact was \$10.09 per crude oil throughput barrel for the three months ended September 30, 2016, as compared to \$18.65 per crude oil throughput barrel for the three months ended September 30, 2015. Gross profit per barrel decreased to \$2.55 for the three months ended September 30, 2016, as compared to gross profit per barrel of \$8.44 in the equivalent period in 2015. The decrease in refining margin and gross profit per barrel was primarily due to a weaker spread between crude oil and transportation fuel prices, higher costs of RINs and an unfavorable change in the gasoline basis over the prior year period, which were partially offset by a favorable change in the distillate basis over the prior year period. The NYMEX 2-1-1 crack spread for the three months ended September 30, 2016 was \$14.03 per barrel, a decrease of approximately 34.0% over the NYMEX 2-1-1 crack spread of \$21.14 per barrel for the three months ended September 30, 2015. The increase in RINs cost for the three months ended September 30, 2016 was primarily due to higher market prices for RINs as compared to the three months ended September 30, 2015. The Group 3 gasoline basis was \$0.48 per barrel for the three months ended September 30, 2016 as compared to \$0.63 per barrel for the three months ended September 30, 2015. The Group 3 distillate basis was \$1.01 per barrel for the three months ended September 30, 2016 as compared to \$0.27 per barrel for the three months ended September 30, 2015.

Direct Operating Expenses (Exclusive of Depreciation and Amortization). Direct operating expenses (exclusive of depreciation and amortization) for the petroleum business include costs associated with the actual operations of the refineries, such as energy and utility costs, property taxes, catalyst and chemical costs, repairs and maintenance, labor and environmental compliance costs. Petroleum direct operating expenses and major scheduled turnaround expenses (exclusive of depreciation and amortization) were \$97.0 million for the three months ended September 30, 2016 compared to direct operating expenses of \$112.6 million for the three months ended September 30, 2015. The decrease of \$15.6 million was primarily the result of a decrease in expenses associated with the Coffeyville refinery's major schedule turnaround which began at the end of the third quarter of 2015. Direct operating expenses per barrel of crude oil throughput for the three months ended September 30, 2016 decreased to \$5.33 per barrel, as compared to \$6.11 per barrel for the three months ended September 30, 2015. The decrease in the direct operating expenses per barrel of crude oil throughput is primarily a function of lower overall costs.

Operating Income. Petroleum operating income was \$28.4 million for the three months ended September 30, 2016, as compared to operating income of \$137.2 million for the three months ended September 30, 2015. The decrease of \$108.8 million was primarily the result of a decrease in the refining margin of \$121.9 million and an increase in depreciation and amortization of \$2.6 million, partially offset by a decrease in direct operating expenses associated with the turnaround at the Coffeyville refinery which began at the end of the third quarter of 2015.

Nine Months Ended September 30, 2016 Compared to the Nine Months Ended September 30, 2015 (Petroleum Business)

Net Sales. Petroleum net sales were \$3,161.9 million for the nine months ended September 30, 2016 compared to \$4,213.6 million for the nine months ended September 30, 2015. The decrease of \$1,051.7 million was largely the result of significantly lower sales prices for transportation fuels and by-products, as well as a decrease in sales volumes. For the nine months ended September 30, 2016, the average sales price per gallon for gasoline of \$1.31 decreased by approximately 22.5%, as compared to \$1.69 for the nine months ended September 30, 2015, and the average sales price per gallon for distillates of \$1.30 for the nine months ended September 30, 2016 decreased by approximately 23.5%, as compared to \$1.70 for the nine months ended September 30, 2015. Overall sales volumes decreased approximately 2.8% for the nine months ended September 30, 2016, as compared to the nine months ended September 30, 2015. Sales volumes for the nine months ended September 30, 2016 were impacted by decreased production as a result of the second phase of the major scheduled turnaround completed at the Coffeyville refinery during the first quarter of 2016.

The following table demonstrates the impact of changes in sales volumes and sales prices for gasoline and distillates for the nine months ended September 30, 2016 compared to the nine months ended September 30, 2015.

	Nine Months Ended September 30, 2016			Nine Months Ended September 30, 2015			Total Variance		Price Variance	Volume Variance
	Volume(1)	\$ per barrel	Sales \$(2)	Volume(1)	\$ per barrel	Sales \$(2)	Volume(1)	Sales \$(2)		
	(in millions)									
Gasoline	31.5	\$ 54.94	\$ 1,731.5	31.4	\$ 70.91	2,225.0	0.1	\$ (493.5)	\$ (503.4)	\$ 9.9
Distillate	23.8	\$ 54.50	\$ 1,294.5	25.5	\$ 71.54	1,822.2	(1.7)	\$ (527.7)	\$ (404.9)	\$ (122.8)

(1) Barrels in millions

(2) Sales dollars in millions

Cost of Product Sold (Exclusive of Depreciation and Amortization). Cost of product sold (exclusive of depreciation and amortization) includes cost of crude oil, other feedstocks and blendstocks, purchased products for resale, RINs, transportation and distribution costs. Petroleum cost of product sold (exclusive of depreciation and amortization) was \$2,651.7 million for nine months ended September 30, 2016 compared to \$3,300.8 million for the nine months ended September 30, 2015. The decrease of \$649.1 million, or 20%, was primarily the result of decreases in the cost of consumed crude, which was partially offset by an increase in net RINs costs. The decrease in consumed crude oil costs was due to a combined decrease in crude oil throughput volume and crude prices. The WTI benchmark crude price decreased approximately 18.6% from the nine months ended September 30, 2015. The average cost per barrel of crude oil consumed for the nine months ended September 30, 2016 was \$39.81 compared to \$49.66 for the comparable period of 2015, a decrease of approximately 20.0%. Crude oil throughput volume also decreased by approximately 4.5% for the nine months ended September 30, 2016 as compared to the nine months ended September 30, 2015 due primarily to the completion of the second phase of the major scheduled turnaround at the Coffeyville refinery in the first quarter of 2016. Under the FIFO method of accounting, changes in crude oil prices can also cause fluctuations in the inventory valuation of our crude oil, work in process and finished goods, thereby resulting in a favorable or unfavorable FIFO inventory impact when crude oil prices increase or decrease. For the nine months ended September 30, 2016, the petroleum segment had a favorable FIFO inventory impact of \$29.7 million compared to an unfavorable FIFO inventory impact of \$33.7 million for the comparable period of 2015.

Refining margin per barrel of crude oil throughput decreased to \$9.55 for the nine months ended September 30, 2016 from \$16.38 for the nine months ended September 30, 2015. Refining margin adjusted for FIFO impact was \$8.99 per crude oil throughput barrel for the nine months ended September 30, 2016, as compared to \$16.98 per crude oil throughput barrel for the nine months ended September 30, 2015. Gross profit per barrel decreased to \$2.17 for the nine months ended September 30, 2016, as compared to gross profit per barrel of \$9.91 in the equivalent period in 2015. The decrease in refining margin and gross profit per barrel was primarily due to a weaker spread between crude oil and transportation fuels pricing, an increase in net RINs costs and an unfavorable change in gasoline basis, which was partially offset by a favorable change in the distillate basis. The NYMEX 2-1-1 crack spread for the nine months ended September 30, 2016 was \$14.64 per barrel, a decrease of approximately 35.2% over the NYMEX 2-1-1 crack spread of \$22.59 per barrel for the nine months ended September 30, 2015. The cost of RINs for the nine months ended September 30, 2016 was approximately \$152.4 million, an increase of \$59.0 million, or 63.2%, as compared to \$93.4 million for the nine months ended September 30, 2015. The increase in RINs cost for the nine months ended September 30, 2016 was primarily due to higher market prices for RINs as compared to the nine months ended September 30, 2015. The Group 3 gasoline basis was \$(3.59) per barrel for the nine months ended September 30, 2016 as compared to \$(2.99) per barrel for the nine months ended September 30, 2015. The Group 3 distillate basis was \$(0.38) per barrel for the nine months ended September 30, 2016 as compared to \$(2.61) per barrel for the nine months ended September 30, 2015.

Direct Operating Expenses (Exclusive of Depreciation and Amortization). Direct operating expenses (exclusive of depreciation and amortization) for the petroleum business include costs associated with the actual operations of the refineries, such as energy and utility costs, property taxes, catalyst and chemical costs, repairs and maintenance, labor and environmental compliance costs. Petroleum direct operating expenses and major scheduled turnaround expenses (exclusive of depreciation and amortization) were \$298.7 million for the nine months ended September 30, 2016 compared to direct operating expenses of \$289.9 million for the nine months ended September 30, 2015. The increase of \$8.8 million was primarily the result of increases in turnaround expenses at the Coffeyville refinery of \$14.3 million. Direct operating expenses per barrel of crude oil throughput for the nine months ended September 30, 2016 increased to \$5.59 per barrel, as compared to \$5.20 per barrel for the nine months ended September 30, 2015. The increase in the direct operating expenses per barrel of crude oil throughput is primarily a function of higher overall expenses and lower throughput rates.

Flood Insurance Recovery. During the nine months ended September 30, 2015, the petroleum business received settlement proceeds from its environmental insurance carriers related to the June/July 2007 flood and crude oil discharge losses at the Coffeyville refinery, of which \$27.3 million was recorded as a flood insurance recovery.

Operating Income. Petroleum operating income was \$62.5 million for the nine months ended September 30, 2016, as compared to operating income of \$497.2 million for the nine months ended September 30, 2015. The decrease of \$434.7 million was primarily the result of a decrease in refining margin of \$402.6 million due to significantly lower sales prices for transportation fuels and by-products, an increase in direct operating expenses of \$8.8 million primarily due to the second phase of the Coffeyville refinery turnaround during the first quarter of 2016 and last year's flood insurance recovery of \$27.3 million.

Nitrogen Fertilizer Business Results of Operations

The tables below provide an overview of the nitrogen fertilizer business' results of operations, relevant market indicators and key operating statistics for the three and nine months ended September 30, 2016 and 2015. The results of operations for the East Dubuque Facility are included for the post acquisition period beginning April 1, 2016.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
	(in millions)			
<u>Nitrogen Fertilizer Business Financial Results</u>				
Net sales	\$ 78.5	\$ 49.3	\$ 271.4	\$ 223.2
Cost of product sold(1)	19.9	14.5	72.2	55.7
Direct operating expenses(1)	32.5	26.6	103.8	75.7
Major scheduled turnaround expenses	—	6.6	6.6	7.0
Selling, general and administrative(1)	7.3	6.0	22.0	15.2
Depreciation and amortization	16.4	7.4	41.0	21.2
Operating income (loss)	2.4	(11.8)	25.8	48.4
Interest expense and other financing costs	(15.6)	(1.8)	(32.8)	(5.2)
Loss on extinguishment of debt	—	—	(5.1)	—
Other income (expense)	—	0.1		0.1
Income (loss) before income tax expense	(13.2)	(13.5)	(12.1)	43.3
Income tax expense	0.2	—	0.3	—
Net income (loss)	\$ (13.4)	\$ (13.5)	\$ (12.4)	\$ 43.3
Adjusted Nitrogen Fertilizer EBITDA(2)	\$ 17.4	\$ 3.8	\$ 74.4	\$ 78.3

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
Nitrogen Fertilizer Segment Key Operating Statistics:				
Consolidated sales (thousand tons):				
Ammonia	47.7	7.8	145.7	26.9
UAN	296.0	174.5	902.4	698.8
Consolidated product pricing at gate (dollars per ton)(3):				
Ammonia	\$ 345	\$ 478	\$ 385	\$ 529
UAN	\$ 154	\$ 227	\$ 187	\$ 256
Consolidated production volume (thousand tons):				
Ammonia (gross produced)(4)	200.8	66.3	485.9	269.4
Ammonia (net available for sale)(4)(5)	60.3	12.1	121.0	31.2
UAN	317.2	152.4	861.9	658.1
Feedstock:				
Pet coke used in production (thousand tons)(6)	126.8	82.7	384.4	335.8
Pet coke used in production (dollars per ton)(6)	\$ 13	\$ 25	\$ 14	\$ 26
Natural gas used in production (thousands of MMBtu)(7)	2,075.5	—	3,471.6	—
Natural gas used in production (dollars per MMBtu)(7)	\$ 2.97	\$ —	\$ 2.75	\$ —
Natural gas in cost of product sold (thousands of MMBtu)(7)	1,679.5	—	2,742.5	—
Natural gas in cost of product sold (dollars per MMBtu)(7)	\$ 2.92	\$ —	\$ 2.68	\$ —
Coffeyville Fertilizer Facility on-stream factors(8):				
Gasification	95.9%	62.2%	97.2%	87.1%
Ammonia	94.7%	57.8%	96.2%	83.7%
UAN	94.1%	56.7%	93.1%	83.6%
East Dubuque Facility on-stream factors(8):				
Ammonia	94.4%	—%	81.7%	—%
UAN	92.9%	—%	81.1%	—%
Market Indicators:				
Ammonia — Southern Plains (dollars per ton)	\$ 315	\$ 478	\$ 368	\$ 526
Ammonia — Corn belt (dollars per ton)	\$ 372	\$ 533	\$ 432	\$ 580
UAN — Corn belt (dollars per ton)	\$ 188	\$ 264	\$ 218	\$ 294
Natural gas NYMEX (dollars per MMBtu)	\$ 2.79	\$ 2.74	\$ 2.35	\$ 2.76

(1) Amounts are shown exclusive of depreciation and amortization.

- (2) Nitrogen Fertilizer EBITDA represents nitrogen fertilizer net income (loss) adjusted for (i) interest expense and other financing costs, net of interest income, (ii) income tax expense and (iii) depreciation and amortization. Adjusted Nitrogen Fertilizer EBITDA represents Nitrogen Fertilizer EBITDA adjusted for (i) share-based compensation, non-cash, (ii) major scheduled turnaround expenses, (iii) loss on extinguishment of debt, (iv) business interruption insurance recovery and (v) expenses associated with the East Dubuque Merger, as applicable. We present Adjusted Nitrogen Fertilizer EBITDA because we have found it helpful to consider an operating measure that excludes amounts relating to transactions not reflective of the Nitrogen Fertilizer Partnership's core operations, such as major scheduled turnaround expense, loss on extinguishment of debt, expenses associated with the East Dubuque Merger and business interruption insurance recovery. In addition, we believe that it is useful to exclude from Adjusted Nitrogen Fertilizer EBITDA share-based compensation, non-cash, although it is a recurring cost incurred in the ordinary course of business. We believe share-based compensation, non-cash, reflects a non-cash cost which may obscure, for a given period, trends in the underlying business, due to the timing and nature of the equity awards.

We also present Adjusted Nitrogen Fertilizer EBITDA because it is the starting point for calculating the Nitrogen Fertilizer Partnership's available cash for distribution. Adjusted Nitrogen Fertilizer EBITDA is not a recognized term under GAAP and should not be substituted for net income (loss) as a measure of performance. Management believes that Nitrogen Fertilizer EBITDA and Adjusted Nitrogen Fertilizer EBITDA enable investors and analysts to better understand the Nitrogen Fertilizer Partnership's ability to make distributions to its common unitholders, help investors and analysts evaluate its ongoing operating results and allow for greater transparency in reviewing our overall financial, operational and economic performance by allowing investors to evaluate the same information used by management. Nitrogen Fertilizer EBITDA and Adjusted Nitrogen Fertilizer EBITDA presented by other companies may not be comparable to our presentation, since each company may define those terms differently. Below is a reconciliation of net income for the nitrogen fertilizer segment to Nitrogen Fertilizer EBITDA and Adjusted Nitrogen Fertilizer EBITDA for the three and nine months ended September 30, 2016 and 2015:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
	(in millions)			
Nitrogen Fertilizer:				
Nitrogen fertilizer net income (loss)	\$ (13.4)	\$ (13.5)	\$ (12.4)	\$ 43.3
Add:				
Interest expense and other financing costs, net	15.6	1.8	32.8	5.2
Income tax expense	0.2	—	0.3	—
Depreciation and amortization	16.4	7.4	41.0	21.2
Nitrogen Fertilizer EBITDA	18.8	(4.3)	61.7	69.7
Add:				
Share-based compensation, non-cash	—	—	—	0.1
Major scheduled turnaround expenses	—	6.6	6.6	7.0
Loss on extinguishment of debt	—	—	5.1	—
Expenses associated with the East Dubuque Merger	0.7	1.5	3.1	1.5
Less:				
Insurance recovery - business interruption	(2.1)	—	(2.1)	—
Adjusted Nitrogen Fertilizer EBITDA	\$ 17.4	\$ 3.8	\$ 74.4	\$ 78.3

- (3) Product pricing at gate represents net sales less freight revenue divided by product sales volume in tons and is shown in order to provide a pricing measure that is comparable across the fertilizer industry.
- (4) Gross tons produced for ammonia represent total ammonia produced, including ammonia produced that was upgraded into other fertilizer products. Net tons available for sale represent ammonia available for sale that was not upgraded into other fertilizer products.

- (5) In addition to the produced ammonia, the Nitrogen Fertilizer Partnership acquired approximately 7,500 tons of ammonia during the three months ended September 30, 2015. The Nitrogen Fertilizer Partnership did not acquire any ammonia during the three months ended September 30, 2016. The Nitrogen Fertilizer Partnership acquired approximately 8,000 tons and 29,300 tons of ammonia during the nine months ended September 30, 2016 and 2015, respectively.
- (6) The Nitrogen Fertilizer Partnership's pet coke cost per ton purchased from the Refining Partnership average \$5 and \$19 for the three months ended September 30, 2016 and 2015 respectively. Third-party pet coke prices averaged \$34 and \$39 for the three months ended September 30, 2016 and 2015, respectively. For the nine months ended September 30, 2016 and 2015, the Nitrogen Fertilizer Partnership pet coke cost per ton purchased from the Refining Partnership average \$6 and \$21, respectively. For the nine months ended September 30, 2016 and 2015, third-party pet coke prices averaged \$33 and \$41, respectively.
- (7) The cost per MMBtu excludes derivative activity, when applicable. The impact of natural gas derivative activity during the three and nine months ended September 30, 2016 and 2015 was not material.
- (8) On-stream factor is the total number of hours operated divided by the total number of hours in the reporting period and is a measure of operating efficiency.

Excluding the impact of the full facility turnaround and the Linde air separation unit outages at the Coffeyville Fertilizer Facility, the on-stream factors at the Coffeyville Fertilizer Facility would have been 100.0% for gasifier, 97.3% for ammonia and 96.2% for UAN for the three months ended September 30, 2015.

Excluding the impact of the full facility turnaround and the Linde air separation unit outages at the Coffeyville Fertilizer Facility, the on-stream factors at the Coffeyville Fertilizer Facility would have been 99.8% for gasifier, 97.0% for ammonia and 96.9% for UAN for the nine months ended September 30, 2015.

Excluding the impact of the full facility turnaround at the East Dubuque Facility, the on-stream factors at the East Dubuque Facility would have been 97.2% for ammonia and 96.2% for UAN for the six months ended September 30, 2016.

Three Months Ended September 30, 2016 Compared to the Three Months Ended September 30, 2015 (Nitrogen Fertilizer Business)

Net Sales. Nitrogen fertilizer net sales were \$78.5 million for the three months ended September 30, 2016 compared to \$49.3 million for the three months ended September 30, 2015. The increase of \$29.2 million was primarily attributable to increased sales volumes due to the inclusion of the full quarter of the East Dubuque Facility (\$32.3 million). For the three months ended September 30, 2016, UAN and ammonia made up \$53.9 million and \$17.1 million of our consolidated net sales, respectively. This compared to UAN and ammonia consolidated net sales of \$44.8 million and \$3.8 million, respectively, for the three months ended September 30, 2015.

Excluding the East Dubuque acquisition, net sales would have decreased by \$3.1 million. The following table demonstrates the impact of changes in sales volumes and pricing for the primary components of net sales at the Coffeyville Fertilizer Facility for the three months ended September 30, 2016 as compared to the three months ended September 30, 2015:

	Price Variance	Volume Variance
(in millions)		
UAN	\$ (16.1)	\$ 14.2
Ammonia	\$ (0.7)	\$ (1.7)
Hydrogen	\$ (0.4)	\$ 1.1

The decrease in UAN and ammonia sales prices at the Coffeyville Fertilizer Facility for the three months ended September 30, 2016 compared to the three months ended September 30, 2015 was primarily attributable to pricing fluctuation in the market. The increase in UAN product sales at the Coffeyville Fertilizer Facility for the three months ended September 30, 2016 compared to the three months ended September 30, 2015 was primarily attributable to higher production volumes following the Coffeyville Fertilizer Facility major scheduled turnaround during the third quarter of 2015.

Cost of Product Sold (Exclusive of Depreciation and Amortization). Nitrogen fertilizer cost of product sold (exclusive of depreciation and amortization) includes cost of freight and distribution expenses, feedstock expense, purchased ammonia and hydrogen costs. Cost of product sold (exclusive of depreciation and amortization) for the three months ended September 30, 2016 was \$19.9 million compared to \$14.5 million for the three months ended September 30, 2015. The \$5.4 million increase was primarily attributable to the inclusion of the full quarter of the East Dubuque Facility (\$6.9 million).

Excluding the East Dubuque acquisition, cost of product sold decreased \$1.5 million, primarily due to lower costs from transactions with third parties of \$0.9 million and affiliates of \$0.6 million. The lower affiliate costs incurred were primarily the result of lower CVR Refining pet coke pricing. The decrease in third-party costs incurred was primarily the result of less purchased ammonia, partially offset by increased shipments associated with higher production and increased railcar repairs and inspections.

Direct Operating Expenses (Exclusive of Depreciation and Amortization). Nitrogen fertilizer direct operating expenses (exclusive of depreciation and amortization) consist primarily of energy and utility costs, direct costs of labor, property taxes, plant-related maintenance services, including turnaround, and environmental and safety compliance costs as well as catalyst and chemical costs. Direct operating expenses (exclusive of depreciation and amortization) for the three months ended September 30, 2016 were \$32.5 million as compared to \$33.2 million for the three months ended September 30, 2015. The \$0.7 million decrease is primarily attributable to lower expenses at the Coffeyville Fertilizer Facility (\$10.8 million), which are due to the lower turnaround expenses (\$6.6 million), lower repairs and maintenance (\$2.2 million) and other less significant changes, partially offset by the inclusion of the full quarter of the East Dubuque Facility (\$10.1 million). The decrease in turnaround expenses are related to the turnaround at the Coffeyville Fertilizer Facility during the third quarter of 2015.

Operating Income (loss). Nitrogen fertilizer operating income was \$2.4 million for the three months ended September 30, 2016, as compared to operating loss of \$11.8 million for the three months ended September 30, 2015. The increase of \$14.2 million for the three months ended September 30, 2016, as compared to the three months ended September 30, 2015 was the result of increases in net sales (\$29.2 million) and decreases in direct operating expenses (\$0.7 million), partially offset by increases in depreciation and amortization (\$9.0 million), cost of product sold (\$5.4 million) and selling general and administrative expenses (\$1.3 million), primarily attributable to the inclusion of the East Dubuque Facility for the full quarter.

Interest Expense. Interest expense was \$15.6 million for the three months ended September 30, 2016, as compared to \$1.8 million for the three months ended September 30, 2015. The increase of \$13.8 million was primarily due to the increased borrowings and higher interest rate on the 2023 Notes.

Nine Months Ended September 30, 2016 Compared to the Nine Months Ended September 30, 2015 (Nitrogen Fertilizer Business)

Net Sales. Nitrogen fertilizer net sales were \$271.4 million for the nine months ended September 30, 2016 compared to \$223.2 million for the nine months ended September 30, 2015. The increase of \$48.2 million is primarily attributable to increased sales volume due to the inclusion of the six months of the East Dubuque Facility (\$92.4 million). For the nine months ended September 30, 2016, UAN and ammonia made up \$192.0 million and \$57.6 million of our consolidated net sales, respectively. This compared to UAN and ammonia net sales of \$198.5 million and \$14.6 million, respectively, for the nine months ended September 30, 2015.

Excluding the East Dubuque acquisition, net sales would have decreased by \$44.2 million. The following table demonstrates the impact of changes in sales volumes and pricing for the primary components of net sales at the Coffeyville Fertilizer Facility for the nine months ended September 30, 2016 as compared to the nine months ended September 30, 2015:

	Price Variance	Volume Variance
(in millions)		
UAN	\$ (49.7)	\$ 11.6
Ammonia	\$ (6.0)	\$ 5.0
Hydrogen	\$ (1.7)	\$ (4.4)

The decrease in UAN and ammonia sales prices at the Coffeyville Fertilizer Facility for the nine months ended September 30, 2016 compared to the nine months ended September 30, 2015 was primarily attributable to pricing fluctuation in the market. The increase of UAN and ammonia sales volume at the Coffeyville Fertilizer Facility for the nine months ended September 30, 2016 compared to the nine months ended September 30, 2015 was primarily attributable to higher production volumes in connection with the Coffeyville Fertilizer Facility major scheduled turnaround during the third quarter of 2015.

Cost of Product Sold (Exclusive of Depreciation and Amortization). Nitrogen fertilizer cost of product sold (exclusive of depreciation and amortization) includes cost of freight and distribution expenses, feedstock expense and purchased ammonia costs. Cost of product sold (exclusive of depreciation and amortization) for the nine months ended September 30, 2016 was \$72.2 million compared to \$55.7 million for the nine months ended September 30, 2015. The \$16.5 million increase was primarily attributable to the inclusion of the six months of the East Dubuque Facility (\$29.9 million).

Excluding the East Dubuque acquisition, cost of product sold decreased \$13.4 million, due to lower costs from transactions with third parties of \$10.2 million and affiliates of \$3.2 million. The lower third-party costs incurred was primarily the result of less purchased ammonia (\$13.2 million), partially offset by higher regulatory railcar repairs. The lower affiliate costs incurred were primarily the result of lower expense of CVR Refining pet coke due to lower affiliate pet coke prices.

Direct Operating Expenses (Exclusive of Depreciation and Amortization). Nitrogen fertilizer direct operating expenses (exclusive of depreciation and amortization) consist primarily of energy and utility costs, direct costs of labor, property taxes, plant-related maintenance services, including turnaround, and environmental and safety compliance costs as well as catalyst and chemical costs. Direct operating expenses (exclusive of depreciation and amortization) for the nine months ended September 30, 2016 were \$110.4 million as compared to \$82.7 million for the nine months ended September 30, 2015. The \$27.7 million increase is primarily attributable to the inclusion of the six months of the East Dubuque Facility (\$41.8 million), partially offset by lower expenses at the Coffeyville Fertilizer Facility (\$14.1 million). The lower expenses at the Coffeyville Fertilizer Facility were primarily due to lower turnaround expenses (\$7.0 million), lower utilities (\$2.9 million), and lower repairs and maintenance (\$2.2 million). The decrease in turnaround expenses were related to the turnaround during the third quarter of 2015 and the decrease in utilities, net is primarily the result of lower electrical rates.

Operating Income. Nitrogen fertilizer operating income was \$25.8 million for the nine months ended September 30, 2016, as compared to operating income of \$48.4 million for the nine months ended September 30, 2015. The decrease of \$22.6 million was the result of the increases in direct operating expenses (\$27.7 million), depreciation and amortization (\$19.8 million), cost of product sold (\$16.5 million) and selling general and administrative expenses (\$6.8 million), partially offset by increases in net sales (\$48.2 million).

Interest Expense. Interest expense was \$32.8 million for the nine months ended September 30, 2016, as compared to \$5.2 million for the nine months ended September 30, 2015. The increase of \$27.6 million was primarily due to the debt assumed in the East Dubuque Merger and the increased borrowings and higher interest rate on the 2023 Notes.

Liquidity and Capital Resources

Although results are consolidated for financial reporting, CVR Energy, CVR Refining and CVR Partners are independent business entities and operate with independent capital structures. With the exception of cash distributions paid to us by the Refining Partnership and Nitrogen Fertilizer Partnership, the cash needs of both the Refining Partnership and the Nitrogen Fertilizer Partnership have historically been met independently from the cash needs of CVR Energy and each other with a combination of existing cash and cash equivalent balances, cash generated from operating activities, credit facility borrowings and other debt. The Refining Partnership's and the Nitrogen Fertilizer Partnership's ability to generate sufficient cash flows from their respective operating activities and to then make distributions on their common units, including to us (which we will need to pay salaries, reporting expenses and other expenses as well as dividends on our common stock) will continue to be primarily dependent on producing or purchasing, and selling, sufficient quantities of refined and nitrogen fertilizer products at margins sufficient to cover fixed and variable expenses.

We believe that the petroleum business and the nitrogen fertilizer business' cash flows from operations and existing cash and cash equivalents, along with borrowings under their respective credit facilities, as necessary, will be sufficient to satisfy the anticipated cash requirements associated with their existing operations for at least the next 12 months, including commitments and expenditures associated with the consummation of the East Dubuque Merger for the nitrogen fertilizer business. Additionally, we believe that we have sufficient cash resources to fund our operations for at least the next twelve months. However, future capital expenditures and other cash requirements could be higher than we currently expect as a result of various factors. Additionally, the ability to generate sufficient cash from operating activities depends on future performance, which is subject to general economic, political, financial, competitive and other factors outside of our control.

Cash Balance and Other Liquidity

As of September 30, 2016, we had consolidated cash and cash equivalents of \$762.6 million. Of that amount, \$411.4 million was cash and cash equivalents of CVR Energy, \$285.9 million was cash and cash equivalents of the Refining Partnership and \$65.3 million was cash and cash equivalents of the Nitrogen Fertilizer Partnership. As of October 25, 2016, we had consolidated cash and cash equivalents of approximately \$814.6 million.

The Refining Partnership's Amended and Restated ABL Credit Facility provides the Refining Partnership with borrowing availability of up to \$400.0 million with an incremental facility, subject to compliance with a borrowing base. The Amended and Restated ABL Credit Facility is scheduled to mature on December 20, 2017. The proceeds of the loans may be used for capital expenditures and working capital and general corporate purposes of the Refining Partnership and the credit facility provides for loans and letters of credit in an amount up to the aggregate availability under the facility, subject to meeting certain borrowing base conditions, with sub-limits of 10% of the total facility commitment for swingline loans and 90% of the total facility commitment for letters of credit. As of September 30, 2016, the Refining Partnership had \$323.4 million available under the Amended and Restated ABL Credit Facility. Availability under the Amended and Restated ABL Credit Facility was limited by borrowing base conditions.

The Refining Partnership and the Nitrogen Fertilizer Partnership have distribution policies pursuant to which they will generally distribute all of their available cash each quarter, within 60 days after the end of each quarter. The distributions will be made to all common unitholders. At September 30, 2016, we held approximately 66% and 34% of the Refining Partnership's and the Nitrogen Fertilizer Partnership's common units outstanding, respectively. The amount of each distribution will be determined pursuant to each general partner's calculation of available cash for the applicable quarter. The general partner of each partnership, as a non-economic interest holder, is not entitled to receive cash distributions. As a result of each general partner's distribution policy, funds held by the Refining Partnership and the Nitrogen Fertilizer Partnership will not be available for our use, and we as a unitholder expect to receive our applicable percentage of the distribution of funds within 60 days following each quarter. The Refining Partnership and the Nitrogen Fertilizer Partnership do not have a legal obligation to pay distributions and there is no guarantee that they will pay any distributions on the units in any quarter.

Borrowing Activities

2023 Notes. On June 10, 2016, the Nitrogen Fertilizer Partnership and CVR Nitrogen Finance Corporation issued \$645.0 million aggregate principal amount of 9.250%. The 2023 Notes were issued at a \$16.1 million discount, which is being amortized over the term of the 2023 Notes as interest expense using the effective-interest method. As a result of the issuance, approximately \$9.4 million of debt issuance costs were incurred, which are being amortized over the term of the 2023 Notes as interest expense using the effective-interest method.

The 2023 Notes are guaranteed on a senior secured basis by all of the Partnership's existing subsidiaries.

At any time prior to June 15, 2019, the Nitrogen Fertilizer Partnership may on any of one or more occasions redeem up to 35% of the aggregate principal amount of the 2023 Notes issued under the indenture governing the 2023 Notes in an amount not greater than the net proceeds of one or more public equity offerings at a redemption price of 109.250% of the principal amount of the 2023 Notes, plus any accrued and unpaid interest to the date of redemption. Prior to June 15, 2019, the Nitrogen Fertilizer Partnership may on any one or more occasions redeem all or part of the 2023 Notes at a redemption price equal to the sum of: (i) the principal amount thereof, plus (ii) the Make Whole Premium, as defined in the indenture governing the 2023 Notes, at the redemption date, plus any accrued and unpaid interest to the applicable redemption date.

On and after June 15, 2019, the Nitrogen Fertilizer Partnership may on any one or more occasions redeem all or a part of the 2023 Notes at the redemption prices (expressed as percentages of principal amount) set forth below, plus any accrued and unpaid interest to the applicable redemption date on such Notes, if redeemed during the 12-month period beginning on June 15 of the years indicated below:

Year	Percentage
2019	104.625%
2020	102.313%
2021 and thereafter	100.000%

Upon the occurrence of certain change of control events as defined in the indenture (including the sale of all or substantially all of the properties or assets of the Nitrogen Fertilizer Partnership and its subsidiaries taken as a whole), each holder of the 2023 Notes will have the right to require that the Nitrogen Fertilizer Partnership repurchase all or a portion of such holder's 2023 Notes in cash at a purchase price equal to 101% of the aggregate principal amount thereof plus any accrued and unpaid interest to the date of repurchase.

The 2023 Notes contain customary covenants for a financing of this type that, among other things, restrict the Nitrogen Fertilizer Partnership's ability and the ability of certain of its subsidiaries to: (i) sell assets; (ii) pay distributions on, redeem or repurchase the Nitrogen Fertilizer Partnership's units or redeem or repurchase its subordinated debt; (iii) make investments; (iv) incur or guarantee additional indebtedness or issue preferred units; (v) create or incur certain liens; (vi) enter into agreements that restrict distributions or other payments from the Nitrogen Fertilizer Partnership's restricted subsidiaries to the Nitrogen Fertilizer Partnership; (vii) consolidate, merge or transfer all or substantially all of the Nitrogen Fertilizer Partnership's assets; (viii) engage in transactions with affiliates; and (ix) create unrestricted subsidiaries. Most of the foregoing covenants would cease to apply at such time that the 2023 Notes are rated investment grade by both Standard & Poor's Ratings Services and Moody's Investors Service, Inc. However, such covenants would be reinstated if the 2023 Notes subsequently lost their investment grade rating. In addition, the indenture contains customary events of default, the occurrence of which would result in, or permit the trustee or the holders of at least 25% of the 2023 Notes to cause, the acceleration of the 2023 Notes, in addition to the pursuit of other available remedies.

The indenture governing the 2023 Notes prohibits the Nitrogen Fertilizer Partnership from making distributions to unitholders if any default or event of default (as defined in the indenture) exists. In addition, the indenture limits the Nitrogen Fertilizer Partnership's ability to pay distributions to unitholders. The covenants will apply differently depending on the Nitrogen Fertilizer Partnership's fixed charge coverage ratio (as defined in the indenture). If the fixed charge coverage ratio is not less than 1.75 to 1.0, the Nitrogen Fertilizer Partnership will generally be permitted to make restricted payments, including distributions to unitholders, without substantive restriction. If the fixed charge coverage ratio is less than 1.75 to 1.0, the Nitrogen Fertilizer Partnership will generally be permitted to make restricted payments, including distributions to unitholders, up to an aggregate \$75.0 million basket plus certain other amounts referred to as "incremental funds" under the indenture. As of September 30, 2016, the Nitrogen Fertilizer Partnership was in compliance with the covenants, and the ratio was satisfied (not less than 1.75 to 1.0).

2022 Notes. On October 23, 2012, Refining LLC and its wholly-owned subsidiary Coffeyville Finance issued \$500.0 million aggregate principal amount of the 2022 Notes. As a result of the issuance, approximately \$8.7 million of debt issuance costs were incurred, which are being amortized over the term of the 2022 Notes as interest expense using the effective-interest amortization method. As of September 30, 2016, the 2022 Notes had an aggregate principal balance and a net carrying value of \$500.0 million.

The 2022 Notes are fully and unconditionally guaranteed by CVR Refining and each of Refining LLC's existing domestic subsidiaries (other than the co-issuer, Coffeyville Finance) on a joint and several basis. After January 23, 2013, the 2022 Notes were no longer secured. CVR Refining has no independent assets or operations and Refining LLC is a 100% owned finance subsidiary of CVR Refining. CVR Partners and CRNF (a subsidiary of the Nitrogen Fertilizer Partnership) are not guarantors.

On September 17, 2013, Refining LLC and Coffeyville Finance consummated a registered exchange offer, whereby all \$500.0 million of the outstanding 2022 Notes were exchanged for an equal principal amount of notes with identical terms that were registered under the Securities Act of 1933, as amended. The exchange offer fulfilled the Refining Partnership's obligations contained in the registration rights agreement entered into in connection with the issuance of the 2022 Notes.

The 2022 Notes bear interest at a rate of 6.5% per annum and mature on November 1, 2022, unless earlier redeemed or repurchased by the issuers. Interest is payable on the 2022 Notes semi-annually on May 1 and November 1 of each year, to holders of record at the close of business on April 15 and October 15, as the case may be, immediately preceding each such interest payment date.

The issuers have the right to redeem the 2022 Notes at a redemption price of (i) 103.250% of the principal amount thereof, if redeemed during the 12-month period beginning on November 1, 2017; (ii) 102.167% of the principal amount thereof, if redeemed during the 12-month period beginning on November 1, 2018; (iii) 101.083% of the principal amount thereof, if redeemed during the 12-month period beginning on November 1, 2019 and (iv) 100% of the principal amount, if redeemed on or after November 1, 2020, plus in each case, any accrued and unpaid interest. Prior to November 1, 2017, some or all of the 2022 Notes may be redeemed at a price equal to 100% of the principal amount thereof, plus a make-whole premium and any accrued and unpaid interest.

In the event of a "change of control," the issuers are required to offer to buy back all of the 2022 Notes at 101% of their principal amount. A change of control is generally defined as (i) the direct or indirect sale or transfer (other than by a merger) of all or substantially all of the assets of Refining LLC to any person other than qualifying owners (as defined in the indenture), (ii) liquidation or dissolution of Refining LLC, or (iii) any person, other than a qualifying owner, directly or indirectly acquiring 50% of the membership interest of Refining LLC.

The indenture governing the 2022 Notes imposes covenants that restrict the ability of the issuers and guarantors to (i) issue debt, (ii) incur or otherwise cause liens to exist on any of their property or assets, (iii) declare or pay dividends, repurchase equity, or make payments on contractually subordinated debt, (iv) make certain investments, (v) sell certain assets, (vi) merge or consolidate with or into another entity, or sell all or substantially all of their assets, and (vii) enter into certain transactions with affiliates. Most of the foregoing covenants would cease to apply at such time that the 2022 Notes are rated investment grade by both Standard & Poor's Rating Services and Moody's Investors Services, Inc. However, such covenants would be reinstated if the 2022 Notes subsequently lost their investment grade rating. In addition, the indenture contains customary events of default, the occurrence of which would result in, or permit the trustee or the holders of at least 25% of the 2022 Notes to cause, the acceleration of the 2022 Notes, in addition to the pursuit of other available remedies.

The indenture governing the 2022 Notes prohibits the Refining Partnership from making distributions to its unitholders if any default or event of default (as defined in the indenture) exists. In addition, the indenture limits the Refining Partnership's ability to pay distributions to unitholders. The covenants will apply differently depending on the Refining Partnership's fixed charge coverage ratio (as defined in the indenture). If the fixed charge coverage ratio is not less than 2.5 to 1.0, the Refining Partnership will generally be permitted to make restricted payments, including distributions to its unitholders, without substantive restriction. If the fixed charge coverage ratio is less than 2.5 to 1.0, the Refining Partnership will generally be permitted to make restricted payments, including distributions to its unitholders, up to an aggregate \$100.0 million basket plus certain other amounts referred to as "incremental funds" under the indenture. The Refining Partnership was in compliance with the covenants as of September 30, 2016, and the ratio was satisfied (not less than 2.5 to 1.0).

Amended and Restated Asset Based (ABL) Credit Facility. On December 20, 2012, the Credit Parties entered into the Amended and Restated ABL Credit Facility with Wells Fargo Bank, National Association, as administrative agent and collateral agent for a syndicate of lenders. The Amended and Restated ABL Credit Facility replaced our prior ABL credit facility. Under the Amended and Restated ABL Credit Facility, the Refining Partnership assumed our position as borrower and our obligations under the Amended and Restated ABL Credit Facility upon the closing of the Refining Partnership IPO on January 23, 2013. The Amended and Restated ABL Credit Facility is a \$400.0 million asset-based revolving credit facility, with sub-limits for letters of credit and swingline loans of \$360.0 million and \$40.0 million, respectively. The Amended and Restated ABL Credit Facility also includes a \$200.0 million uncommitted incremental facility. The Amended and Restated ABL Credit Facility permits the payment of distributions, subject to the following conditions: (i) no default or event of default exists, (ii) excess availability and projected excess availability at all times during the three-month period following the distribution exceeds 20% of the lesser of the borrowing base and the total commitments; provided, that, if excess availability and projected excess availability for the six-month period following the distribution is greater than 25% at all times, then the following condition in clause (iii) will not apply, and (iii) the fixed charge coverage ratio for the immediately preceding 12-month period shall be equal to or greater than 1.10 to 1.00. The Amended and Restated ABL Credit Facility has a five-year maturity and will be used for working capital and other general corporate purposes (including permitted acquisitions).

Borrowings under the Amended and Restated ABL Credit Facility bear interest at either a base rate or LIBOR plus an applicable margin. The applicable margin is (i) (a) 1.75% for LIBOR borrowings and (b) 0.75% for prime rate borrowings, in each case if quarterly average excess availability exceeds 50% of the lesser of the borrowing base and the total commitments and (ii) (a) 2.00% for LIBOR borrowings and (b) 1.00% for prime rate borrowings, in each case if quarterly average excess availability is less than or equal to 50% of the lesser of the borrowing base and the total commitments. The Amended and Restated ABL Credit Facility also requires the payment of customary fees, including an unused line fee of (i) 0.40% if the daily average amount of loans and letters of credit outstanding is less than 50% of the lesser of the borrowing base and the total commitments and (ii) 0.30% if the daily average amount of loans and letters of credit outstanding is equal to or greater than 50% of the lesser of the borrowing base and the total commitments. The Refining Partnership is also required to pay customary letter of credit fees equal to, for standby letters of credit, the applicable margin on LIBOR loans on the maximum amount available to be drawn under and, for commercial letters of credit, the applicable margin on LIBOR loans less 0.50% on the maximum amount available to be drawn under, and customary facing fees equal to 0.125% of the face amount of, each letter of credit.

The Amended and Restated ABL Credit Facility also contains customary covenants for a financing of this type that limit the ability of the Credit Parties and their subsidiaries to, among other things, incur liens, engage in a consolidation, merger, purchase or sale of assets, pay dividends, incur indebtedness, make advances, investments and loans, enter into affiliate transactions, issue equity interests, or create subsidiaries and unrestricted subsidiaries. The Amended and Restated ABL Credit Facility also contains a fixed charge coverage ratio financial covenant, as defined therein. The Refining Partnership was in compliance with the covenants of the Amended and Restated ABL Credit Facility as of September 30, 2016.

Nitrogen Fertilizer Partnership Credit Facility. On April 13, 2011, CRNF, as borrower, and the Nitrogen Fertilizer Partnership, as guarantor, entered into the Nitrogen Fertilizer Partnership credit facility with a group of lenders including Goldman Sachs Lending Partners LLC, as administrative and collateral agent. The Nitrogen Fertilizer Partnership credit facility included a term loan facility of \$125.0 million and a revolving credit facility of \$25.0 million with an uncommitted incremental facility of up to \$50.0 million. There was no scheduled amortization and the Nitrogen Fertilizer Partnership credit facility was scheduled to mature in April 2016, but was repaid and terminated on April 1, 2016 as discussed below.

Borrowings under the Nitrogen Fertilizer Partnership credit facility bore interest based on a pricing grid determined by the trailing four quarter leverage ratio. As of March 31, 2016, the initial pricing for Eurodollar rate loans under the Nitrogen Fertilizer Partnership credit facility was based on the Eurodollar rate plus a margin of 3.50%, or for base rate loans, the prime rate plus 2.50%. Under its terms, the lenders under the Nitrogen Fertilizer Partnership credit facility were granted a perfected, first priority security interest (subject to certain customary exceptions) in substantially all of the assets of CRNF and the Nitrogen Fertilizer Partnership and all of the capital stock of CRNF and each domestic subsidiary owned by the Nitrogen Fertilizer Partnership or CRNF. CRNF was the borrower under the Nitrogen Fertilizer Partnership credit facility. All obligations under the Nitrogen Fertilizer Partnership credit facility were unconditionally guaranteed by the Nitrogen Fertilizer Partnership and substantially all of its future, direct and indirect, domestic subsidiaries. Borrowings under the credit facility were non-recourse to the Company and its direct subsidiaries.

Merger-Related Financing Arrangements

On April 1, 2016, the Nitrogen Fertilizer Partnership incurred additional indebtedness in connection with consummating the East Dubuque Merger. The additional indebtedness included the 2021 Notes and also included outstanding advances under the Wells Fargo Credit Agreement. The outstanding balance under the Wells Fargo Credit Agreement was repaid in full and the Wells Fargo Credit Agreement was terminated on April 1, 2016. The repayment of the Wells Fargo Credit Agreement was funded from amounts drawn on the CRLLC Facility.

In June 2016, the Nitrogen Fertilizer Partnership issued \$645.0 million aggregate principal amount of the 2023 Notes. The Nitrogen Fertilizer Partnership received approximately \$622.9 million of cash proceeds, net of the original issue discount and underwriting fees, but before deducting other third-party fees and expenses associated with the offering. The net proceeds from the sale of the 2023 Notes were used to: (i) repay all amounts outstanding under the CRLLC Facility; (ii) finance the 2021 Notes Tender Offer and (iii) pay related fees and expenses.

On June 10, 2016, the Nitrogen Fertilizer Partnership paid off the \$300.0 million outstanding under the CRLLC Facility and paid \$7.0 million in interest, and the CRLLC Facility was terminated.

Also in June 2016, the Nitrogen Fertilizer Partnership repaid the substantial majority of the aggregate principal amount outstanding under the 2021 Notes in connection with the Tender Offer and the Change of Control Offer. The total amount paid related to the Tender Offer and Change of Control Offer was approximately \$320.6 million, including an approximate \$4.7 million premium. As of September 30, 2016, \$4.2 million of aggregate principal amount of the 2021 Notes was outstanding. As of September 30, 2016, the 2021 Notes contain substantially no restrictive covenants and are not secured.

Nitrogen Fertilizer Partnership Interest Rate Swaps

Prior to the termination of the Nitrogen Fertilizer Partnership credit facility on April 1, 2016, the Nitrogen Fertilizer Partnership's profitability and cash flows were affected by changes in interest rates on credit facility borrowings, specifically LIBOR and prime rates. The primary purpose of the Nitrogen Fertilizer Partnership's interest rate risk management activities is to hedge the exposure to changes in interest rates by using interest rate derivatives to convert some or all of the interest rates on borrowings from a floating rate to a fixed interest rate.

The Nitrogen Fertilizer Partnership has determined that the two interest rate swaps agreements entered into in 2011 qualified for hedge accounting treatment. The impact recorded for each of the three months ended September 30, 2016 and 2015 was \$0.0 million and \$0.3 million in interest expense. The impact recorded for each of the nine months ended September 30, 2016 and 2015 was \$0.1 million and \$0.8 million, respectively, in interest expense. For the nine months ended September 30, 2016 and 2015, the Nitrogen Fertilizer Partnership recognized a decrease in fair value of the interest rate swap agreements of a nominal amount, which was unrealized in accumulated other comprehensive income. The interest rate swap agreements terminated in February 2016.

Asset Based (ABL) Credit Facility.

On September 30, 2016, the Nitrogen Fertilizer Partnership entered into the ABL Credit Facility with a group of lenders and UBS AG, Stamford Branch, as administrative agent and collateral agent. The ABL Credit Facility is a senior secured asset based revolving credit facility in an aggregate principal amount of availability of up to \$50.0 million with an incremental facility, which permits an increase in borrowings of up to \$25.0 million in the aggregate subject to additional lender commitments and certain other conditions. The proceeds of the loans may be used for capital expenditures and working capital and general corporate purposes of the Nitrogen Fertilizer Partnership and its subsidiaries. The ABL Credit Facility provides for loans and standby letters of credit in an amount up to the aggregate availability under the facility, subject to meeting certain borrowing base conditions, with sub-limits of the lesser of 10% of the total facility commitment and \$5.0 million for swingline loans and \$10.0 million for letters of credit. The ABL Credit Facility has a five-year maturity and will be used for working capital and other general corporate purposes.

At the option of the borrowers, loans under the ABL Credit Facility initially bear interest at an annual rate equal to (i) 2.00% plus LIBOR or (ii) 1.00% plus a base rate, subject to a 0.50% step-down based on the previous quarter's excess availability.

The Nitrogen Fertilizer Partnership must also pay a commitment fee on the unutilized commitments to the lenders under the ABL Credit Facility equal to (a) 0.375% per annum for the first full calendar quarter after the closing date and (b) thereafter, (i) 0.375% per annum if utilization under the facility is less than 50% of the total commitments and (ii) 0.25% per annum if utilization under the facility is equal to or greater than 50% of the total commitments. The borrowers must also pay customary letter of credit fees equal to 2.00%, subject to a 0.50% step-down based on the previous quarter's excess availability, on the maximum amount available to be drawn under, and customary facing fees equal to 0.125% of the face amount of, each letter of credit.

The ABL Credit Facility also contains customary covenants for a financing of this type that limit the ability of the Credit Parties and their subsidiaries to, among other things, incur liens, engage in a consolidation, merger, purchase or sale of assets, pay dividends, incur indebtedness, make advances, investments and loans, enter into affiliate transactions, issue equity interests, or create subsidiaries and unrestricted subsidiaries. The ABL Credit Facility also contains a fixed charge coverage ratio financial covenant, as defined therein. The Nitrogen Fertilizer Partnership was in compliance with the covenants of the ABL Credit Facility as of September 30, 2016.

As of September 30, 2016, the Nitrogen Fertilizer Partnership and its subsidiaries had availability under the ABL Credit Facility of \$48.0 million. There were no borrowings outstanding under the ABL Credit Facility as of September 30, 2016.

Capital Spending

We divide the petroleum business and the nitrogen fertilizer business' capital spending needs into two categories: maintenance and growth. Maintenance capital spending includes only non-discretionary maintenance projects and projects required to comply with environmental, health and safety regulations. We undertake discretionary capital spending based on the expected return on incremental capital employed. Discretionary capital projects generally involve an expansion of existing capacity, improvement in product yields and/or a reduction in direct operating expenses. Major scheduled turnaround expenses are expensed when incurred.

The following table summarizes our total actual capital expenditures for the nine months ended September 30, 2016 and current estimated capital expenditures for 2016 by operating segment and major category. These estimates may change as a result of unforeseen circumstances or a change in our plans, and amounts may not be spent in the manner allocated below:

	Nine Months Ended September 30, 2016	2016 Estimate ⁽¹⁾
(in millions)		
Petroleum Business (the Refining Partnership):		
<i>Coffeyville refinery:</i>		
Maintenance	\$ 31.0	\$ 48.0
Growth	31.9	39.0
Coffeyville refinery total capital spending	62.9	87.0
<i>Wynnewood refinery:</i>		
Maintenance	14.5	24.0
Growth	0.4	1.0
Wynnewood refinery total capital spending	14.9	25.0
<i>Other Petroleum:</i>		
Maintenance	4.6	7.0
Growth	1.0	1.0
Other petroleum total capital spending	5.6	8.0
Petroleum business total capital spending	83.4	120.0
Nitrogen Fertilizer Business (the Nitrogen Fertilizer Partnership):		
Maintenance	8.3	14.7
Growth	10.0	10.6
Nitrogen fertilizer business total capital spending	18.3	25.3
Corporate	3.9	8.0
Total capital spending	\$ 105.6	\$ 153.3

(1) Includes amounts already spent during the nine months ended September 30, 2016.

The petroleum business' and the nitrogen fertilizer business' estimated capital expenditures are subject to change due to unanticipated increases in the cost, scope and completion time for capital projects. For example, they may experience increases in labor or equipment costs necessary to comply with government regulations or to complete projects that sustain or improve the profitability of the refineries or nitrogen fertilizer plants. Capital spending for the Nitrogen Fertilizer Partnership's nitrogen fertilizer business and the Refining Partnership's petroleum business is determined by each partnership's respective board of directors of its general partner.

In October 2014, the board of directors of the general partner of the Refining Partnership approved the construction of a hydrogen plant at our Coffeyville refinery. The hydrogen plant will increase the overall plant liquid volume recovery and provide additional hydrogen that is needed for environmental compliance. As of September 30, 2016, we had incurred costs of approximately \$96.2 million, excluding capitalized interest, for the hydrogen plant. The total estimated cost of this project, excluding capitalized interest, is approximately \$108.0 million, including the remaining estimated costs to fully complete the project and for pipeline tie in work.

The East Dubuque Facility acquired in the East Dubuque Merger has started an ammonia synthesis converter project, the cost of which is categorized as growth capital spending. Replacement of an ammonia synthesis converter at the East Dubuque Facility is expected to increase reliability, production and plant efficiency. Growth capital expenditures for the ammonia synthesis converter were \$7.4 million during the nine months ended September 30, 2016.

Our estimated capital expenditures are subject to change due to unanticipated increases/decreases in the cost, scope and completion time for our capital projects. For example, we may experience increases/decreases in labor or equipment costs necessary to comply with government regulations or to complete projects that sustain or improve the profitability of our refineries. The Refining Partnership's and the Nitrogen Fertilizer Partnership's ability to make payments on and to refinance their indebtedness, to fund budgeted capital expenditures and to satisfy their other capital and commercial commitments will depend on their respective independent abilities to generate cash flow in the future. Their ability to refinance their respective indebtedness is also subject to the availability of the credit markets. This, to a certain extent, is subject to refining spreads (for the Refining Partnership), fertilizer margins (for the Nitrogen Fertilizer Partnership) and general economic, financial, competitive, legislative, regulatory and other factors they are unable to control. Our businesses may not generate sufficient cash flow from operations, and future borrowings may not be available to the Nitrogen Fertilizer Partnership under its credit facilities, or the Refining Partnership under the Amended and Restated ABL Credit Facility (or other credit facilities our businesses may enter into in the future) in an amount sufficient to enable them to pay indebtedness or to fund other liquidity needs. They may seek to sell assets to fund liquidity needs but may not be able to do so. They may also need or seek to refinance all or a portion of their indebtedness on or before maturity depending on market conditions, and may not be able to refinance such indebtedness on commercially reasonable terms or at all. In addition, CVR Energy, the Refining Partnership and/or the Nitrogen Fertilizer Partnership may from time to time seek to issue debt or equity securities in the public or private capital markets, but there can be no assurance they will be able to do so at prices they deem reasonable or at all.

Cash Flows

The following table sets forth our consolidated cash flows for the periods indicated below:

	Nine Months Ended September 30,	
	2016	2015
	(unaudited)	
	(in millions)	
Net cash provided by (used in):		
Operating activities	\$ 218.9	\$ 612.3
Investing activities	(172.0)	(73.8)
Financing activities	(49.4)	(280.2)
Net increase (decrease) in cash and cash equivalents	<u>\$ (2.5)</u>	<u>\$ 258.3</u>

Cash Flows Provided by Operating Activities

For purposes of this cash flow discussion, we define trade working capital as accounts receivable, inventory and accounts payable. Other working capital is defined as all other current assets and liabilities except trade working capital.

Net cash flows provided by operating activities for the nine months ended September 30, 2016 were \$218.9 million. The positive cash flow from operating activities generated over this period was primarily driven by current period settlements on derivative contracts of \$35.2 million, net income before noncontrolling interest of \$15.0 million, non-cash depreciation and amortization of \$140.8 million and net cash provided of \$36.0 million comprised of net cash outflows for trade working capital of \$59.1 million and cash inflows from other working capital of \$95.1 million. The net cash outflow for trade working capital was primarily attributable to an increase in accounts receivable of \$35.3 million, an increase in inventory of \$18.5 million and a decrease in accounts payable of \$42.3 million. The increase in accounts receivable was primarily due to increased pricing for both gasoline and distillates. The decrease in accounts payable was primarily attributable to the turnaround at the Coffeyville refinery which was completed during the first quarter of 2016. The increase in inventories was primarily attributable to increased pricing for both gasoline and distillates, as well as higher crude oil pricing. The net cash inflows from other working capital was primarily due to a decrease in deferred revenue of \$27.7 million, primarily associated with deferred revenue of the East Dubuque Facility, offset by an increase in other current liabilities of \$107.3 million. The increase in other current liabilities was primarily due to an increase in our biofuel blending obligation as a direct result of the increase in pricing for RINs credits under the RFS, partially offset by a reduction in personnel accruals.

Net cash flows provided by operating activities for the nine months ended September 30, 2015 were \$612.3 million. The positive cash flow from operating activities generated over the period was primarily driven by \$375.7 million of net income before noncontrolling interest and favorable impacts to trade working capital and other working capital. Trade working capital for the nine months ended September 30, 2015 resulted in a net cash inflow of \$52.9 million, which was primarily attributable to a decrease in inventory (\$44.9 million). The decrease in inventory was primarily due to decreases in pricing at the petroleum segment for crude oil and other feedstocks, distillates and asphalt. Other working capital activities resulted in a net cash inflow of \$77.7 million, which was primarily related to an increase in due to parent (\$78.0 million) and a decrease in prepaid expenses and other current assets (\$36.9 million), partially offset by a decrease in other current liabilities (\$33.3 million). The increase in due to parent is a result of the timing of tax payments to American Entertainment Properties Corporation ("AEP"), which shifted from a due from position at December 31, 2014 to a due to position as of September 30, 2015. The decrease in prepaid expenses and other current assets was primarily due to the sale of trading securities, a reduction in prepaid insurance and the timing of payments related to certain other prepaid items. The decrease in other current liabilities was primarily due to decreases in the biofuel blending obligation and personnel accruals.

Cash Flows Used in Investing Activities

Net cash used in investing activities for the nine months ended September 30, 2016 was \$172.0 million compared to \$73.8 million for the nine months ended September 30, 2015, representing an increase of \$98.2 million. Net cash used in investing activities for the nine months ended September 30, 2016 was attributable to capital spending of \$105.6 million, the acquisition of CVR Nitrogen in April 2016 for a net impact of approximately \$63.9 million, the purchase of trading securities of \$4.2 million in first half of the year, the purchase and sale of available-for-sale securities within the third quarter of 2016 and the investment in the joint venture with Velocity. Net cash used in investing activities for the nine months ended September 30, 2015 was comprised of \$141.9 million of capital spending offset by \$68.0 million of proceeds from sale of available-for-sale securities.

Cash Flows Used In Financing Activities

Net cash used in financing activities for the nine months ended September 30, 2016 was approximately \$49.4 million, as compared to net cash used in financing activities of \$280.2 million for the nine months ended September 30, 2015. The net cash used in financing activities for the nine months ended September 30, 2016 was primarily attributable to cash provided by the issuance of the 2023 Notes for net proceeds of \$628.8 million, offset by the repurchase of the 2021 Notes totaling \$320.5 million, the repayment of the Nitrogen Fertilizer Partnerships credit facility totaling \$125.0 million, dividend payments to common stockholders of \$130.2 million and distributions from the Nitrogen Fertilizer Partnership to common unitholders of \$42.0 million. The net cash used in financing activities for the nine months ended September 30, 2015 was primarily attributable to dividend payments to common stockholders of \$130.2 million and distributions to the Refining Partnership and Nitrogen Fertilizer Partnership common unitholders of \$148.9 million.

As of and for the nine months ended September 30, 2016, there were no borrowings or repayments under the Amended and Restated ABL credit facility or the Nitrogen Fertilizer Partnership credit facility.

Contractual Obligations

As of September 30, 2016, our contractual obligations included long-term debt, operating leases, capital lease obligations, unconditional purchase obligations, environmental liabilities and interest payments. There were no material changes outside the ordinary course of our business with respect to our contractual obligations during the nine months ended September 30, 2016 from those disclosed in our 2015 Form 10-K, except for the obligations relating to the East Dubuque Merger disclosed in Note 1 ("Organization and History of the Company and Basis of Presentation") and the obligations relating to the 2023 Notes disclosed in Note 10 ("Long-Term Debt") to Part I, Item 1 of this Report.

Off-Balance Sheet Arrangements

We had no off-balance sheet arrangements as of September 30, 2016, as defined within the rules and regulations of the SEC.

Recent Accounting Pronouncements

Refer to Part I, Item 1, Note 2 ("Recent Accounting Pronouncements") of this Report for a discussion of recent accounting pronouncements applicable to the Company.

Critical Accounting Policies

We prepare our consolidated financial statements in accordance with GAAP. In order to apply these principles, management must make judgments, assumptions and estimates based on the best available information at the time. Actual results may differ based on the accuracy of the information utilized and subsequent events. Our critical accounting policies are disclosed in the "Critical Accounting Policies" section of our 2015 Form 10-K. No modifications have been made to our critical accounting policies other than the goodwill discussion below.

To comply with ASC 350, *Intangibles — Goodwill and Other* ("ASC 350"), we perform an impairment test for the Nitrogen Fertilizer Partnership's goodwill annually, or more frequently in the event we determine that a triggering event has occurred. The Nitrogen Fertilizer Partnership's annual testing is performed as of November 1 each year. Based on a significant decline in market capitalization and lower cash flow forecasts resulting from weakened fertilizer pricing trends during the third quarter of 2016, the Nitrogen Fertilizer Partnership identified a triggering event and therefore performed an interim goodwill impairment test as of September 30, 2016.

The Nitrogen Fertilizer Partnership's goodwill is entirely allocated to the Coffeyville Fertilizer Facility reporting unit. The goodwill impairment quantitative testing involves a two-step process. Step 1 compares the fair value of the reporting unit to its carrying value. The carrying amount of the reporting unit was less than its fair value; therefore, a Step 2 was not required to be completed and no impairment was recorded.

The reporting unit fair value is based upon consideration of various valuation methodologies, one of which is projecting future cash flows discounted at rates commensurate with the risks involved ("Discounted Cash Flow" or "DCF"). Assumptions used in a DCF require the exercise of significant judgment, including judgment about appropriate discount rates and terminal values, growth rates, and the amount and timing of expected future cash flows. The forecasted cash flows are based on current plans and for years beyond that plan, the estimates are based on assumed growth rates. Forecasted cash flows require management to make judgments and assumptions, including estimates of future fertilizer pricing. Further decline in the fertilizer pricing market or other changes in assumptions may result in a change in management's estimate and result in an impairment.

We believe that our assumptions are consistent with the plans and estimates used to manage the underlying businesses. The discount rates, which are intended to reflect the risks inherent in future cash flow projections, used in a DCF are based on estimates of the weighted-average cost of capital ("WACC") of a market participant. Such estimates are derived from our analysis of peer companies and consider the industry weighted average return on debt and equity from a market participant perspective. We also utilized fair value estimates derived from the market approach utilizing the public company market multiple method, which required us to make assumptions about the applicability of those multiples to the Coffeyville Fertilizer Facility reporting unit.

The fair value of the reporting unit exceeded its carrying value by approximately 15 percent. Judgments and assumptions are inherent in management's estimates used to determine the fair value of the reporting unit and are consistent with what management believes would be utilized by the primary market participant. The use of alternate judgments and assumptions could result in the requirement to complete Step 2 and, pending those results, potential recognition of an impairment charge.

Item 3. *Quantitative and Qualitative Disclosures About Market Risk*

The risk inherent in our market risk sensitive instruments and positions is the potential loss from adverse changes in commodity prices, RINs prices and interest rates. Except as discussed below, information about market risks for the nine months ended September 30, 2016 does not differ materially from that discussed under Part II — Item 7A of our 2015 Form 10-K. We are exposed to market pricing for all of the products sold in the future both at our petroleum business and the nitrogen fertilizer business, as all of the products manufactured in both businesses are commodities.

Our earnings and cash flows and estimates of future cash flows are sensitive to changes in energy prices. The prices of crude oil and refined products have fluctuated substantially in recent years. These prices depend on many factors, including the overall demand for crude oil and refined products, which in turn depends, among other factors, on general economic conditions, the level of foreign and domestic production of crude oil and refined products, the availability of imports of crude oil and refined products, the marketing of alternative and competing fuels, the extent of government regulations and global market dynamics. The prices we receive for refined products are also affected by factors such as local market conditions and the level of operations of other refineries in our markets. The prices at which we can sell gasoline and other refined products are strongly influenced by the price of crude oil. Generally, an increase or decrease in the price of crude oil results in a corresponding increase or decrease in the price of gasoline and other refined products. The timing of the relative movement of the prices, however, can impact profit margins, which could significantly affect our earnings and cash flows.

Commodity Price Risk

At September 30, 2016, the Refining Partnership had open commodity hedging instruments consisting of 2.2 million barrels net of 2-1-1 crack spreads, 0.2 million barrels net of heating oil crack spreads and 0.3 million barrels of price and basis swaps. A change of \$1.00 per barrel in the fair value of the benchmark crude or product basis would result in an increase or decrease in the related fair value of the commodity hedging instruments of \$2.7 million.

Compliance Program Price Risk

As a producer of transportation fuels from petroleum, the Refining Partnership is required to blend biofuels into the products it produces or to purchase RINs in the open market in lieu of blending to meet the mandates established by the EPA. The Refining Partnership is exposed to market risk related to the volatility in the price of RINs needed to comply with the RFS. To mitigate the impact of this risk on the results of operations and cash flows, the Refining Partnership purchases RINs when prices are deemed favorable. See Note 12 ("Commitments and Contingencies") to Part I, Item 1 of this Report and "Major Influences on Results of Operations" in Part I, Item 2 of this Report for further discussion about compliance with the RFS.

Interest Rate Risk

The interest rate swaps agreements expired February 12, 2016, and subsequently, the Nitrogen Fertilizer Partnership had exposure to interest rate risk on 100% of its \$125.0 million floating rate debt under the Nitrogen Fertilizer Partnership credit facility. A 1.0% increase over the Eurodollar floor spread of 3.5%, as specified in the credit agreement, would increase interest cost to the Nitrogen Fertilizer Partnership by approximately \$1.25 million, on an annualized basis, thus decreasing net income by the same amount. On April 1, 2016, the Nitrogen Fertilizer Partnership repaid all amounts outstanding under the Nitrogen Fertilizer Partnership credit facility and the credit facility was terminated.

Foreign Currency Exchange

Given that our business is currently based entirely in the United States, we are not significantly exposed to foreign currency exchange rate risk. A portion of the petroleum business' pipeline transportation costs are transacted in Canadian dollars. Commitments for future periods under this agreement reflect the exchange rate between the Canadian Dollar and the U.S. Dollar as of the end of the reporting period. Based on the short period of time between the billing and settlement of these transportation costs in Canadian dollars, the exposure to foreign currency exchange rate risk and the resulting foreign currency gain (loss) is not material.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

As of September 30, 2016, we have evaluated, under the direction of our Chief Executive Officer and Chief Financial Officer, the effectiveness of our disclosure controls and procedures, as defined in Rule 13a-15(e) under the Exchange Act. There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective disclosure controls and procedures can only provide reasonable assurance of achieving their control objectives. Based upon and as of the date of that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and our Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. It should be noted that any system of disclosure controls and procedures, however well designed and operated, can provide only reasonable, and not absolute, assurance that the objectives of the system are met. In addition, the design of any system of disclosure controls and procedures is based in part upon assumptions about the likelihood of future events. Due to these and other inherent limitations of any such system, there can be no assurance that any design will always succeed in achieving its stated goals under all potential future conditions.

Changes in Internal Control Over Financial Reporting

There has been no change in our internal control over financial reporting required by Rule 13a-15 of the Exchange Act that occurred during the fiscal quarter ended September 30, 2016 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

On April 1, 2016, we completed the East Dubuque Merger, as discussed in Note 3 ("Acquisition") of Part I, Item 1 of this Report. Management has not completed an assessment of the effectiveness of internal control over financial reporting of the acquired business as of September 30, 2016. The revenues attributable to the East Dubuque Facility represent approximately 3% of our consolidated revenues for each of the three and nine months ended September 30, 2016, respectively. The assets of the East Dubuque Facility represent 20% of our consolidated assets as of September 30, 2016.

Part II. Other Information

Item 1. *Legal Proceedings*

See Note 12 ("Commitments and Contingencies") to Part I, Item 1 of this Report, which is incorporated by reference into this Part II, Item 1, for a description of certain litigation, legal and administrative proceedings and environmental matters.

Item 1A. *Risk Factors*

There have been no material changes to the risk factors previously disclosed under Item 1A. "Risk Factors" in our 2015 Form 10-K except as set forth under Item 1A. "Risk Factors" in our Quarterly Report on Form 10-Q for the three months ended March 31, 2016 filed with the SEC as of May 2, 2016. We may disclose changes to such risk factors or disclose additional risk factors from time to time in our future filings with the SEC. Additional risks and uncertainties not presently known to us or that we currently believe not to be material may also materially adversely affect our business, financial condition, cash flows or results of operations.

Item 6. Exhibits

See the accompanying Exhibit Index and related note following the signature page to this Report for a list of exhibits filed or furnished with this Report, which Exhibit Index and note are incorporated herein by reference.

SIGNATURES

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

CVR Energy, Inc.

October 28, 2016

By:

/s/ JOHN J. LIPINSKI

*Chief Executive Officer and President
(Principal Executive Officer)*

October 28, 2016

By:

/s/ SUSAN M. BALL

*Chief Financial Officer and Treasurer
(Principal Financial and Accounting Officer)*

EXHIBIT INDEX

Exhibit Number	Exhibit Title
10.1**	ABL Credit Agreement, dated as of September 30, 2016, among CVR Partners, LP, CVR Nitrogen, LP, East Dubuque Nitrogen Fertilizers, LLC, Coffeyville Resources Nitrogen Fertilizers, LLC, CVR Nitrogen Holdings, LLC, CVR Nitrogen Finance Corporation, CVR Nitrogen GP, LLC, certain of their affiliates from time to time party thereto, the lenders from time to time party thereto, UBS AG, Stamford Branch, as administrative agent and collateral agent (incorporated by reference to Exhibit 10.1 of the Form 8-K filed by CVR Partners, LP on October 6, 2016 (Commission File No. 001-35120)).
10.2**	Security Agreement, dated as of September 30, 2016, among CVR Partners, LP, CVR Nitrogen, LP, East Dubuque Nitrogen Fertilizers, LLC, Coffeyville Resources Nitrogen Fertilizers, LLC, CVR Nitrogen Holdings, LLC, CVR Nitrogen Finance Corporation, CVR Nitrogen GP, LLC, certain of their affiliates from time to time party thereto, and UBS AG, Stamford Branch, as administrative agent and collateral agent (incorporated by reference to Exhibit 10.2 of the Form 8-K filed by CVR Partners, LP on October 6, 2016 (Commission File No. 001-35120)).
10.3**	Intercreditor Agreement, dated as of September 30, 2016, among CVR Partners, LP, CVR Nitrogen, LP, East Dubuque Nitrogen Fertilizers, LLC, Coffeyville Resources Nitrogen Fertilizers, LLC, CVR Nitrogen Holdings, LLC, CVR Nitrogen Finance Corporation, CVR Nitrogen GP, LLC, certain of their affiliates from time to time party thereto, UBS AG, Stamford Branch, as administrative agent and collateral agent for the secured parties, Wilmington Trust, National Association, as trustee and collateral trustee for the secured parties in respect of the outstanding senior secured notes and other parity lien obligations and other parity lien representative from time to time party thereto (incorporated by reference to Exhibit 10.3 of the Form 8-K filed by CVR Partners, LP on October 6, 2016 (Commission File No. 001-35120)).
31.1*	Rule 13a-14(a)/15(d)-14(a) Certification of Chief Executive Officer and President.
31.2*	Rule 13a-14(a)/15(d)-14(a) Certification of Chief Financial Officer and Treasurer.
32.1†	Section 1350 Certification of Chief Executive Officer and President.
32.2†	Section 1350 Certification of Chief Financial Officer and Treasurer.
101*	The following financial information for CVR Energy, Inc.'s Quarterly Report on Form 10-Q for the quarter ended September 30, 2016 formatted in XBRL ("Extensible Business Reporting Language") includes: (i) Condensed Consolidated Balance Sheets (unaudited), (ii) Condensed Consolidated Statements of Operations (unaudited), (iii) Condensed Consolidated Statements of Comprehensive Income (unaudited), (iv) Condensed Consolidated Statement of Changes in Equity (unaudited), (v) Condensed Consolidated Statements of Cash Flows (unaudited) and (vi) the Notes to Condensed Consolidated Financial Statements (unaudited), tagged in detail.

* Filed herewith.

** Previously filed.

† Furnished herewith.

PLEASE NOTE: Pursuant to the rules and regulations of the SEC, we may file or incorporate by reference agreements as exhibits to the reports that we file with or furnish to the SEC. The agreements are filed to provide investors with information regarding their respective terms. The agreements are not intended to provide any other factual information about the Company, its business or operations. In particular, the assertions embodied in any representations, warranties and covenants contained in the agreements may be subject to qualifications with respect to knowledge and materiality different from those applicable to investors and may be qualified by information in confidential disclosure schedules not included with the exhibits. These disclosure schedules may contain information that modifies, qualifies and creates exceptions to the representations, warranties and covenants set forth in the agreements. Moreover, certain representations, warranties and covenants in the agreements may have been used for the purpose of allocating risk between the parties, rather than establishing matters as facts. In addition, information concerning the subject matter of the representations, warranties and covenants may have changed after the date of the respective agreement, which subsequent information may or may not be fully reflected in the Company's public disclosures. Accordingly, investors should not rely on the representations, warranties and covenants in the agreements as characterizations of the actual state of facts about the Company, its business or operations on the date hereof.

**Certification of Chief Executive Officer and President Pursuant to
Rule 13a-14(a) or 15d-14(a) under the Securities Exchange Act of 1934,
As Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, John J. Lipinski, certify that:

1. I have reviewed this report on Form 10-Q of CVR Energy, Inc.;
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.

/s/ JOHN J.
By: LIPINSKI

John J. Lipinski
*Chief Executive
Officer and
President
(Principal
Executive Officer)*

Date: October 28, 2016

**Certification of Chief Financial Officer and Treasurer Pursuant to
Rule 13a-14(a) or 15d-14(a) under the Securities Exchange Act of 1934,
As Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, Susan M. Ball, certify that:

1. I have reviewed this report on Form 10-Q of CVR Energy, Inc.;
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.

By: /s/ SUSAN M. BALL

Susan M. Ball
*Chief Financial Officer
and Treasurer
(Principal Financial
and Accounting
Officer)*

Date: October 28, 2016

**Certification of Chief Executive Officer and President
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 filing of the Quarterly Report of CVR Energy, Inc., a Delaware corporation (the "Company"), on Form 10-Q for the fiscal quarter ended September 30, 2016, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, John J. Lipinski, Chief Executive Officer and President 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, that, to the best of my knowledge and belief:

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 as of the dates and for the periods expressed in the Report.

By: /s/ JOHN J. LIPINSKI

John J. Lipinski

Chief Executive Officer and President

(Principal Executive Officer)

Dated: October 28, 2016

**Certification of Chief Financial Officer and Treasurer
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 filing of the Quarterly Report of CVR Energy, Inc., a Delaware corporation (the "Company"), on Form 10-Q for the fiscal quarter ended September 30, 2016, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Susan M. Ball, 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, that, to the best of my knowledge and belief:

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 as of the dates and for the periods expressed in the Report.

By: /s/ SUSAN M. BALL
Susan M. Ball
Chief Financial Officer and Treasurer
(Principal Financial and Accounting Officer)

Dated: October 28, 2016