

**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 March 31, 2020
OR

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

For the transition period from _____ to _____
Commission File Number 1-3876

HOLLYFRONTIER CORPORATION

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

2828 N. Harwood, Suite 1300

Dallas

Texas

(Address of principal executive offices)

75-1056913

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

75201

(Zip Code)

(214) 871-3555

(Registrant's telephone number, including area code)

(Former name, former address and former fiscal year, if changed since last report)

Securities registered pursuant to 12(b) of the Securities Exchange Act of 1934:

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

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

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

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

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company
Emerging growth company

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

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

161,886,097 shares of Common Stock, par value \$.01 per share, were outstanding on May 1, 2020.

HOLLYFRONTIER CORPORATION
INDEX

	Page
Forward-Looking Statements	3
Definitions	5
PART I. FINANCIAL INFORMATION	
Item 1. Financial Statements	
Consolidated Balance Sheets March 31, 2020 (Unaudited) and December 31, 2019	6
Consolidated Statements of Income (Unaudited) Three Months Ended March 31, 2020 and 2019	7
Consolidated Statements of Comprehensive Income (Unaudited) Three Months Ended March 31, 2020 and 2019	8
Consolidated Statements of Cash Flows (Unaudited) Three Months Ended March 31, 2020 and 2019	9
Consolidated Statements of Equity (Unaudited) Three Months Ended March 31, 2020 and 2019	10
Notes to Consolidated Financial Statements (Unaudited)	11
Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations	32
Item 3. Quantitative and Qualitative Disclosures About Market Risk	46
Reconciliations to Amounts Reported Under Generally Accepted Accounting Principles	46
Item 4. Controls and Procedures	48
PART II. OTHER INFORMATION	
Item 1. Legal Proceedings	49
Item 1A. Risk Factors	50
Item 2. Unregistered Sales of Equity Securities and Use of Proceeds	52
Item 6. Exhibits	52
Index to Exhibits	53
Signatures	54

FORWARD-LOOKING STATEMENTS

References herein to HollyFrontier Corporation (“HollyFrontier”) include HollyFrontier and its consolidated subsidiaries. In accordance with the Securities and Exchange Commission’s (“SEC”) “Plain English” guidelines, this Quarterly Report on Form 10-Q has been written in the first person. In this document, the words “we,” “our,” “ours” and “us” refer only to HollyFrontier and its consolidated subsidiaries or to HollyFrontier or an individual subsidiary and not to any other person with certain exceptions. Generally, the words “we,” “our,” “ours” and “us” include Holly Energy Partners, L.P. (“HEP”) and its subsidiaries as consolidated subsidiaries of HollyFrontier, unless when used in disclosures of transactions or obligations between HEP and HollyFrontier or its other subsidiaries. This document contains certain disclosures of agreements that are specific to HEP and its consolidated subsidiaries and do not necessarily represent obligations of HollyFrontier. When used in descriptions of agreements and transactions, “HEP” refers to HEP and its consolidated subsidiaries.

This Quarterly Report on Form 10-Q contains certain “forward-looking statements” within the meaning of the federal securities laws. All statements, other than statements of historical fact included in this Form 10-Q, including, but not limited to, those under “Results of Operations,” “Liquidity and Capital Resources” and “Risk Management” in Part I, Item 2 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and those in Part II, Item 1 “Legal Proceedings” are forward-looking statements. Forward-looking statements use words such as “anticipate,” “project,” “expect,” “plan,” “goal,” “forecast,” “intend,” “should,” “would,” “could,” “believe,” “may,” and similar expressions and statements regarding our plans and objectives for future operations. These statements are based on management’s beliefs and assumptions using currently available information and expectations as of the date hereof, are not guarantees of future performance and involve certain risks and uncertainties. All statements concerning our expectations for future results of operations are based on forecasts for our existing operations and do not include the potential impact of any future acquisitions. Although we believe that the expectations reflected in these forward-looking statements are reasonable, we cannot assure you that our expectations will prove to be correct. Therefore, actual outcomes and results could materially differ from what is expressed, implied or forecast in these statements. Any differences could be caused by a number of factors including, but not limited to:

- the extraordinary market environment and effects of the COVID-19 pandemic, including the continuation of a material decline in demand for refined petroleum products in markets we serve;
- risks and uncertainties with respect to the actions of actual or potential competitive suppliers and transporters of refined petroleum products or lubricant and specialty products in our markets;
- the spread between market prices for refined products and market prices for crude oil;
- the possibility of constraints on the transportation of refined products or lubricant and specialty products;
- the possibility of inefficiencies, curtailments or shutdowns in refinery operations or pipelines, whether due to infection in the workforce or in response to reductions in demand;
- effects of governmental and environmental regulations and policies, including the effects of current restrictions on various commercial and economic activities in response to the COVID-19 pandemic;
- the availability and cost of our financing;
- the effectiveness of our capital investments and marketing strategies;
- our efficiency in carrying out and consummating construction projects;
- our ability to acquire refined or lubricant product operations or pipeline and terminal operations on acceptable terms and to integrate any existing or future acquired operations;
- the possibility of terrorist or cyberattacks and the consequences of any such attacks;
- general economic conditions, including uncertainty regarding the timing, pace and extent of an economic recovery in the United States;
- further deterioration in gross margins or a prolonged economic slowdown due to the COVID-19 pandemic which could result in an impairment of goodwill; and
- other financial, operational and legal risks and uncertainties detailed from time to time in our SEC filings.

Cautionary statements identifying important factors that could cause actual results to differ materially from our expectations are set forth in this Form 10-Q, including without limitation the forward-looking statements that are referred to above. When considering forward-looking statements, you should keep in mind the risk factors and other cautionary statements set forth in our Annual Report on Form 10-K for the year ended December 31, 2019 under “Risk Factors” in Item 1A and in conjunction with the discussion in this Form 10-Q in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” under the heading “Liquidity and Capital Resources” and Part II, Item 1A, “Risk Factors.” All forward-looking statements included in this Form 10-Q and all subsequent written or oral forward-looking statements attributable to us or persons acting on our behalf are expressly

qualified in their entirety by these cautionary statements. The forward-looking statements speak only as of the date made and, other than as required by law, we undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

DEFINITIONS

Within this report, the following terms have these specific meanings:

“**BPD**” means the number of barrels per calendar day of crude oil or petroleum products.

“**BPSD**” means the number of barrels per stream day (barrels of capacity in a 24 hour period) of crude oil or petroleum products.

“**Base oil**” is a lubricant grade oil initially produced from refining crude oil or through chemical synthesis that is used in producing lubricant products such as lubricating greases, motor oil and metal processing fluids.

“**Black wax crude oil**” is a low sulfur, low gravity crude oil produced in the Uintah Basin in Eastern Utah that has certain characteristics that require specific facilities to transport, store and refine into transportation fuels.

“**Cracking**” means the process of breaking down larger, heavier and more complex hydrocarbon molecules into simpler and lighter molecules.

“**Crude oil distillation**” means the process of distilling vapor from liquid crudes, usually by heating, and condensing the vapor slightly above atmospheric pressure turning it back to liquid in order to purify, fractionate or form the desired products.

“**FCC,**” or fluid catalytic cracking, means a refinery process that breaks down large complex hydrocarbon molecules into smaller more useful ones using a circulating bed of catalyst at relatively high temperatures.

“**LPG**” means liquid petroleum gases.

“**Lubricant**” or “**lube**” means a solvent neutral paraffinic product used in commercial heavy duty engine oils, passenger car oils and specialty products for industrial applications such as heat transfer, metalworking, rubber and other general process oil.

“**MMBTU**” means one million British thermal units.

“**Rack back**” represents the portion of our Lubricants and Specialty Products business operations that entails the processing of feedstocks into base oils.

“**Rack forward**” represents the portion of our Lubricants and Specialty Products business operations that entails the processing of base oils into finished lubricants and the packaging, distribution and sale to customers.

“**Refinery gross margin**” means the difference between average net sales price and average cost per barrel sold. This does not include the associated depreciation and amortization costs.

“**RINs**” means renewable identification numbers and refers to serial numbers assigned to credits generated from renewable fuel production under the Environmental Protection Agency’s Renewable Fuel Standard (“RFS”) regulations, which require blending renewable fuels into the nation’s fuel supply. In lieu of blending, refiners may purchase these transferable credits in order to comply with the regulations.

“**Sour crude oil**” means crude oil containing quantities of sulfur greater than 0.4 percent by weight, while “**sweet crude oil**” means crude oil containing quantities of sulfur equal to or less than 0.4 percent by weight.

“**Vacuum distillation**” means the process of distilling vapor from liquid crudes, usually by heating, and condensing the vapor below atmospheric pressure turning it back to a liquid in order to purify, fractionate or form the desired products.

“**White oil**” is an extremely pure, highly-refined petroleum product that has a wide variety of applications ranging from pharmaceutical to cosmetic products.

“**WTI**” means West Texas Intermediate and is a grade of crude oil used as a common benchmark in oil pricing. WTI is a sweet crude oil and has a relatively low density.

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

**HOLLYFRONTIER CORPORATION
CONSOLIDATED BALANCE SHEETS**

(In thousands, except share data)

	March 31, 2020	December 31, 2019
	(Unaudited)	
ASSETS		
Current assets:		
Cash and cash equivalents <i>(HEP: \$19,282 and \$13,287, respectively)</i>	\$ 909,126	\$ 885,162
Accounts receivable: Product and transportation <i>(HEP: \$15,638 and \$18,732, respectively)</i>	518,931	834,771
Crude oil resales	50,251	44,914
	569,182	879,685
Inventories: Crude oil and refined products	762,654	1,282,789
Materials, supplies and other <i>(HEP: \$937 and \$833, respectively)</i>	180,981	191,413
	943,635	1,474,202
Income taxes receivable	6,213	5,478
Prepayments and other <i>(HEP: \$6,610 and \$6,795, respectively)</i>	80,982	61,662
Total current assets	2,509,138	3,306,189
Properties, plants and equipment, at cost <i>(HEP: \$2,054,740 and \$2,047,674, respectively)</i>	7,256,717	7,237,297
Less accumulated depreciation <i>(HEP: \$(562,596) and \$(552,786), respectively)</i>	(2,487,350)	(2,414,585)
	4,769,367	4,822,712
Operating lease right-of-use assets <i>(HEP: \$3,587 and \$2,652, respectively)</i>	435,435	467,109
Other assets: Turnaround costs	491,146	521,278
Goodwill <i>(HEP: \$312,873 and \$312,873, respectively)</i>	2,373,400	2,373,907
Intangibles and other <i>(HEP: \$319,143 and \$319,569, respectively)</i>	643,308	673,646
	3,507,854	3,568,831
Total assets	\$ 11,221,794	\$ 12,164,841
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable <i>(HEP: \$20,092 and \$18,050, respectively)</i>	\$ 841,383	\$ 1,215,555
Income taxes payable	17,054	27,965
Operating lease liabilities <i>(HEP: \$3,753 and \$3,608, respectively)</i>	102,600	104,415
Accrued liabilities <i>(HEP: \$24,940 and \$30,418, respectively)</i>	347,843	337,993
Total current liabilities	1,308,880	1,685,928
Long-term debt <i>(HEP: \$1,502,154 and \$1,462,031, respectively)</i>	2,496,006	2,455,640
Noncurrent operating lease liabilities <i>(HEP: \$72,163 and \$72,000, respectively)</i>	334,588	364,420
Deferred income taxes <i>(HEP: \$428 and \$424, respectively)</i>	723,581	889,270
Other long-term liabilities <i>(HEP: \$41,842 and \$59,021, respectively)</i>	248,261	260,157
Equity:		
HollyFrontier stockholders' equity:		
Preferred stock, \$1.00 par value – 5,000,000 shares authorized; none issued	—	—
Common stock \$.01 par value – 320,000,000 shares authorized; 256,042,554 shares issued as of March 31, 2020 and December 31, 2019	2,560	2,560
Additional capital	4,208,334	4,204,547
Retained earnings	4,382,249	4,744,120
Accumulated other comprehensive income (loss)	(12,149)	14,774
Common stock held in treasury, at cost – 94,158,259 and 94,196,029 shares as of March 31, 2020 and December 31, 2019, respectively	(2,986,833)	(2,987,808)
Total HollyFrontier stockholders' equity	5,594,161	5,978,193
Noncontrolling interest	516,317	531,233
Total equity	6,110,478	6,509,426
Total liabilities and equity	\$ 11,221,794	\$ 12,164,841

Parentetical amounts represent asset and liability balances attributable to Holly Energy Partners, L.P. ("HEP") as of March 31, 2020 and December 31, 2019. HEP is a variable interest entity.

See accompanying notes.

HOLLYFRONTIER CORPORATION
CONSOLIDATED STATEMENTS OF INCOME

(Unaudited)
(In thousands, except per share data)

	Three Months Ended March 31,	
	2020	2019
Sales and other revenues	\$ 3,400,545	\$ 3,897,247
Operating costs and expenses:		
Cost of products sold (exclusive of depreciation and amortization):		
Cost of products sold (exclusive of lower of cost or market inventory valuation adjustment)	2,693,726	3,199,205
Lower of cost or market inventory valuation adjustment	560,464	(232,346)
	3,254,190	2,966,859
Operating expenses (exclusive of depreciation and amortization)	328,345	331,592
Selling, general and administrative expenses (exclusive of depreciation and amortization)	87,737	88,034
Depreciation and amortization	140,575	121,421
Total operating costs and expenses	3,810,847	3,507,906
Income (loss) from operations	(410,302)	389,341
Other income (expense):		
Earnings of equity method investments	1,714	2,100
Interest income	4,073	6,375
Interest expense	(22,639)	(36,647)
Loss on early extinguishment of debt	(25,915)	—
Gain (loss) on foreign currency transactions	(4,233)	2,265
Other, net	1,850	557
	(45,150)	(25,350)
Income (loss) before income taxes	(455,452)	363,991
Income tax expense (benefit):		
Current	(11,440)	55,284
Deferred	(150,726)	32,221
	(162,166)	87,505
Net income (loss)	(293,286)	276,486
Less net income attributable to noncontrolling interest	11,337	23,431
Net income (loss) attributable to HollyFrontier stockholders	\$ (304,623)	\$ 253,055
Earnings (loss) per share attributable to HollyFrontier stockholders:		
Basic	\$ (1.88)	\$ 1.48
Diluted	\$ (1.88)	\$ 1.47
Average number of common shares outstanding:		
Basic	161,873	170,851
Diluted	161,873	172,239

See accompanying notes.

HOLLYFRONTIER CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Unaudited)
(In thousands)

	Three Months Ended	
	March 31,	
	2020	2019
Net income (loss)	\$ (293,286)	\$ 276,486
Other comprehensive income (loss):		
Foreign currency translation adjustment	(21,586)	4,363
Hedging instruments:		
Change in fair value of cash flow hedging instruments	(6,748)	15,590
Reclassification adjustments to net income on settlement of cash flow hedging instruments	(6,576)	(1,642)
Net unrealized gain (loss) on hedging instruments	(13,324)	13,948
Pension and other post-retirement benefit obligations:		
Actuarial loss on pension plans	(45)	(72)
Actuarial gain (loss) on post-retirement healthcare plans	3	(2)
Net change in pension and other post-retirement benefit obligations	(42)	(74)
Other comprehensive income (loss) before income taxes	(34,952)	18,237
Income tax expense (benefit)	(8,029)	4,462
Other comprehensive income (loss)	(26,923)	13,775
Total comprehensive income (loss)	(320,209)	290,261
Less noncontrolling interest in comprehensive income	11,337	23,431
Comprehensive income (loss) attributable to HollyFrontier stockholders	\$ (331,546)	\$ 266,830

See accompanying notes.

HOLLYFRONTIER CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS

(Unaudited)
(In thousands)

	Three Months Ended March 31,	
	2020	2019
Cash flows from operating activities:		
Net income (loss)	\$ (293,286)	\$ 276,486
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	140,575	121,421
Lower of cost or market inventory valuation adjustment	560,464	(232,346)
Earnings of equity method investments, inclusive of distributions	(1,164)	(111)
Loss on early extinguishment of debt	25,915	—
Gain on sale of assets	(312)	(9)
Deferred income taxes	(150,726)	32,221
Equity-based compensation expense	6,330	9,374
Change in fair value – derivative instruments	(41,641)	20,909
(Increase) decrease in current assets:		
Accounts receivable	301,535	(315,106)
Inventories	(50,468)	3,967
Income taxes receivable	(816)	(1,292)
Prepayments and other	6,741	6,543
Increase (decrease) in current liabilities:		
Accounts payable	(328,222)	270,802
Income taxes payable	(11,056)	55,555
Accrued liabilities	16,892	43,480
Turnaround expenditures	(38,653)	(78,597)
Other, net	47,990	3,519
Net cash provided by operating activities	190,098	216,816
Cash flows from investing activities:		
Additions to properties, plants and equipment	(64,807)	(53,017)
Additions to properties, plants and equipment – HEP	(18,942)	(10,718)
Purchase of Sonneborn, net of cash acquired	—	(663,385)
Investment in equity company - HEP	(2,345)	—
Other, net	—	395
Net cash used for investing activities	(86,094)	(726,725)
Cash flows from financing activities:		
Borrowings under credit agreements	112,000	104,000
Repayments under credit agreements	(67,000)	(85,000)
Proceeds from issuance of senior notes - HEP	500,000	—
Redemption of senior notes - HEP	(522,500)	—
Purchase of treasury stock	(1,062)	(77,825)
Dividends	(57,248)	(56,849)
Distributions to noncontrolling interests	(33,918)	(33,673)
Contributions from noncontrolling interests	7,304	—
Payments on finance leases	(410)	(408)
Deferred financing costs	(8,478)	—
Other, net	(145)	(373)
Net cash used for financing activities	(71,457)	(150,128)
Effect of exchange rate on cash flow	(8,583)	1,424
Cash and cash equivalents:		
Increase (decrease) for the period	23,964	(658,613)
Beginning of period	885,162	1,154,752
End of period	\$ 909,126	\$ 496,139
Supplemental disclosure of cash flow information:		
Cash paid during the period for:		
Interest	\$ (26,707)	\$ (26,743)

See accompanying notes.

HOLLYFRONTIER CORPORATION
CONSOLIDATED STATEMENTS OF EQUITY

(Unaudited)

(In thousands except per share data)

	HollyFrontier Stockholders' Equity					Non- controlling Interest	Total Equity
	Common Stock	Additional Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock		
Balance at December 31, 2019	\$ 2,560	\$ 4,204,547	\$ 4,744,120	\$ 14,774	\$ (2,987,808)	\$ 531,233	\$ 6,509,426
Net income (loss)	—	—	(304,623)	—	—	11,337	(293,286)
Dividends (\$0.35 declared per common share)	—	—	(57,248)	—	—	—	(57,248)
Distributions to noncontrolling interest holders	—	—	—	—	—	(33,918)	(33,918)
Other comprehensive loss, net of tax	—	—	—	(26,923)	—	—	(26,923)
Issuance of common stock under incentive compensation plans, net of forfeitures	—	(2,037)	—	—	2,037	—	—
Equity-based compensation	—	5,824	—	—	—	506	6,330
Purchase of treasury stock	—	—	—	—	(1,062)	—	(1,062)
Purchase of HEP units for restricted grants	—	—	—	—	—	(145)	(145)
Contributions from joint venture partner	—	—	—	—	—	7,304	7,304
Balance at March 31, 2020	<u>\$ 2,560</u>	<u>\$ 4,208,334</u>	<u>\$ 4,382,249</u>	<u>\$ (12,149)</u>	<u>\$ (2,986,833)</u>	<u>\$ 516,317</u>	<u>\$ 6,110,478</u>

	HollyFrontier Stockholders' Equity					Non- controlling Interest	Total Equity
	Common Stock	Additional Capital	Retained Earnings	Accumulated Other Comprehensive Income	Treasury Stock		
Balance at December 31, 2018	\$ 2,560	\$ 4,196,125	\$ 4,196,902	\$ 13,623	\$ (2,490,639)	\$ 540,488	\$ 6,459,059
Net income	—	—	253,055	—	—	23,431	276,486
Dividends (\$0.33 declared per common share)	—	—	(56,849)	—	—	—	(56,849)
Distributions to noncontrolling interest holders	—	—	—	—	—	(33,673)	(33,673)
Other comprehensive income, net of tax	—	—	—	13,775	—	—	13,775
Issuance of common stock under incentive compensation plans, net of forfeitures	—	3	—	—	(3)	—	—
Equity-based compensation	—	8,713	—	—	—	661	9,374
Purchase of treasury stock	—	—	—	—	(73,225)	—	(73,225)
Purchase of HEP units for restricted grants	—	—	—	—	—	(373)	(373)
Balance at March 31, 2019	<u>\$ 2,560</u>	<u>\$ 4,204,841</u>	<u>\$ 4,393,108</u>	<u>\$ 27,398</u>	<u>\$ (2,563,867)</u>	<u>\$ 530,534</u>	<u>\$ 6,594,574</u>

See accompanying notes.

HOLLYFRONTIER CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

NOTE 1: Description of Business and Presentation of Financial Statements

References herein to HollyFrontier Corporation (“HollyFrontier”) include HollyFrontier and its consolidated subsidiaries. In accordance with the Securities and Exchange Commission’s (“SEC”) “Plain English” guidelines, this Quarterly Report on Form 10-Q has been written in the first person. In these financial statements, the words “we,” “our,” “ours” and “us” refer only to HollyFrontier and its consolidated subsidiaries or to HollyFrontier or an individual subsidiary and not to any other person, with certain exceptions. Generally, the words “we,” “our,” “ours” and “us” include Holly Energy Partners, L.P. (“HEP”) and its subsidiaries as consolidated subsidiaries of HollyFrontier, unless when used in disclosures of transactions or obligations between HEP and HollyFrontier or its other subsidiaries. These financial statements contain certain disclosures of agreements that are specific to HEP and its consolidated subsidiaries and do not necessarily represent obligations of HollyFrontier. When used in descriptions of agreements and transactions, “HEP” refers to HEP and its consolidated subsidiaries.

We are an independent petroleum refiner and marketer that produces high-value light products such as gasoline, diesel fuel, jet fuel and other specialty products. We own and operate petroleum refineries that serve markets throughout the Mid-Continent, Southwest and Rocky Mountain regions of the United States. In addition, we produce base oils and other specialized lubricants in the United States, Canada and the Netherlands, with retail and wholesale marketing of our products through a global sales network with locations in Canada, the United States, Europe, China and Latin America.

As of March 31, 2020, we:

- owned and operated a petroleum refinery in El Dorado, Kansas (the “El Dorado Refinery”), two refinery facilities located in Tulsa, Oklahoma (collectively, the “Tulsa Refineries”), a refinery in Artesia, New Mexico that is operated in conjunction with crude oil distillation and vacuum distillation and other facilities situated 65 miles away in Lovington, New Mexico (collectively, the “Navajo Refinery”), a refinery located in Cheyenne, Wyoming (the “Cheyenne Refinery”) and a refinery in Woods Cross, Utah (the “Woods Cross Refinery”);
- owned and operated Petro-Canada Lubricants Inc. (“PCLI”) located in Mississauga, Ontario, which produces base oils and other specialized lubricant products;
- owned and operated Sonneborn (as defined below) with manufacturing facilities in Petrolia, Pennsylvania and the Netherlands, which produce specialty lubricant products, such as white oils, petrolatums and waxes;
- owned and operated Red Giant Oil Company LLC (“Red Giant Oil”), which supplies locomotive engine oil and has storage and distribution facilities in Iowa, Kansas, Utah and Wyoming, along with a blending and packaging facility in Texas;
- owned and operated HollyFrontier Asphalt Company LLC (“HFC Asphalt”), which operates various asphalt terminals in Arizona, New Mexico and Oklahoma; and
- owned a 57% limited partner interest and a non-economic general partner interest in HEP, a variable interest entity (“VIE”). HEP owns and operates logistic assets consisting of petroleum product and crude oil pipelines, terminals, tankage, loading rack facilities and refinery processing units that principally support our refining and marketing operations in the Mid-Continent, Southwest and Rocky Mountain regions of the United States.

On November 12, 2018, we entered into an equity purchase agreement to acquire 100% of the issued and outstanding capital stock of Sonneborn US Holdings Inc. and 100% of the membership rights in Sonneborn Coöperatief U.A. (collectively, “Sonneborn”). The acquisition closed on February 1, 2019. Aggregate consideration totaled \$701.6 million and consisted of \$662.7 million in cash paid at acquisition, net of cash acquired. Sonneborn is a producer of specialty hydrocarbon chemicals such as white oils, petrolatums and waxes with manufacturing facilities in the United States and Europe.

This transaction was accounted for as a business combination using the acquisition method of accounting, with the purchase price allocated to the fair value of the acquired Sonneborn assets and liabilities as of the February 1, 2019 acquisition date, with the excess purchase price recorded as goodwill assigned to our Lubricants and Specialty Products segment. This goodwill is not deductible for income tax purposes. Fair values are as follows: cash and cash equivalents \$38.9 million, current assets \$139.4 million, properties, plants and equipment \$168.2 million, goodwill \$282.3 million, intangibles and other noncurrent assets \$231.5 million, current liabilities \$47.9 million and deferred income tax and other long-term liabilities \$110.8 million.

We incurred \$1.3 million and \$12.6 million for the three months ended March 31, 2020 and 2019, respectively, in incremental direct integration and regulatory costs that principally relate to legal, advisory and other professional fees and are presented as selling, general and administrative expenses.

We have prepared these consolidated financial statements without audit. In management's opinion, these consolidated financial statements include all normal recurring adjustments necessary for a fair presentation of our consolidated financial position as of March 31, 2020, the consolidated results of operations, comprehensive income and statements of equity for the three months ended March 31, 2020 and 2019 and consolidated cash flows for the three months ended March 31, 2020 and 2019 in accordance with the rules and regulations of the SEC. Although certain notes and other information required by generally accepted accounting principles in the United States ("GAAP") have been condensed or omitted, we believe that the disclosures in these consolidated financial statements are adequate to make the information presented not misleading. These consolidated financial statements should be read in conjunction with our Annual Report on Form 10-K for the year ended December 31, 2019 that has been filed with the SEC.

Our results of operations for the three months ended March 31, 2020 are not necessarily indicative of the results of operations to be realized for the year ending December 31, 2020.

Accounts Receivable: Our accounts receivable consist of amounts due from customers that are primarily companies in the petroleum industry. Credit is extended based on our evaluation of the customer's financial condition, and in certain circumstances collateral, such as letters of credit or guarantees, is required. We reserve for doubtful accounts based on our historical loss experience as well as expected credit losses from current economic conditions and management's expectations of future economic conditions. Credit losses are charged to the allowance for doubtful accounts when an account is deemed uncollectible. Our allowance for doubtful accounts was \$3.4 million at March 31, 2020 and \$4.5 million at December 31, 2019.

Inventories: Inventories related to our refining operations are stated at the lower of cost, using the last-in, first-out ("LIFO") method for crude oil and unfinished and finished refined products, or market. In periods of rapidly declining prices, LIFO inventories may have to be written down to market value due to the higher costs assigned to LIFO layers in prior periods. In addition, the use of the LIFO inventory method may result in increases or decreases to cost of sales in years that inventory volumes decline as the result of charging cost of sales with LIFO inventory costs generated in prior periods. An actual valuation of inventory under the LIFO method is made at the end of each year based on the inventory levels at that time. Accordingly, interim LIFO calculations are based on management's estimates of expected year-end inventory levels and are subject to the final year-end LIFO inventory valuation.

Inventories of our Petro-Canada Lubricants and Sonneborn businesses are stated at the lower of cost, using the first-in, first-out ("FIFO") method, or net realizable value.

Inventories consisting of process chemicals, materials and maintenance supplies and renewable identification numbers ("RINs") are stated at the lower of weighted-average cost or net realizable value.

Leases: At inception, we determine if an arrangement is or contains a lease. Right-of-use ("ROU") assets represent our right to use an underlying asset for the lease term and lease liabilities represent our payment obligation under the leasing arrangement. ROU assets and lease liabilities are recognized at the commencement date based on the present value of lease payments over the lease term. We use our estimated incremental borrowing rate ("IBR") to determine the present value of lease payments as most of our leases do not contain an implicit rate. Our IBR represents the interest rate which we would pay to borrow, on a collateralized basis, an amount equal to the lease payments over a similar term in a similar economic environment. We use the implicit rate when readily determinable.

Operating leases are recorded in operating lease right-of-use assets and current and noncurrent operating lease liabilities on our consolidated balance sheet. Finance leases are included in properties, plants and equipment and accrued liabilities and other long-term liabilities on our consolidated balance sheet.

Our lease term includes an option to extend the lease when it is reasonably certain that we will exercise that option. Leases with a term of 12 months or less are not recorded on our balance sheet. For certain equipment leases, we apply a portfolio approach for the operating lease ROU assets and liabilities. Also, as a lessee, we separate non-lease components that are identifiable and exclude them from the determination of net present value of lease payment obligations. In addition, HEP, as a lessor, does not separate the non-lease (service) component in contracts in which the lease component is the dominant component. HEP treats these combined components as an operating lease.

Goodwill and Long-lived Assets: As of March 31, 2020, our goodwill balance was \$2.4 billion, with goodwill assigned to our Refining, Lubricants and Specialty Products and HEP segments of \$1,733.5 million, \$327.1 million and \$312.9 million, respectively. See Note 15 for additional information on our segments. The carrying amount of our goodwill may fluctuate from period to period due to the effects of foreign currency translation adjustments on goodwill assigned to our Lubricants and Specialty Products segment. Goodwill represents the excess of the cost of an acquired entity over the fair value of the assets acquired and liabilities assumed. Goodwill is not subject to amortization and is tested annually or more frequently if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. Our goodwill impairment testing first entails either a quantitative assessment or an optional qualitative assessment to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If we determine that based on the qualitative factors that it is more likely than not that the fair value of the reporting unit is greater than its carrying amount, a quantitative test is performed in which we estimate the fair value of the related reporting unit. If the carrying amount of a reporting unit exceeds its fair value, the goodwill of that reporting unit is impaired, and we measure goodwill impairment as the excess of the carrying amount of the reporting unit over the related fair value.

Our long-lived assets principally consist of our refining assets that are organized as refining asset groups and the assets of our Lubricants and Specialty Products asset groups. The refinery asset groups also constitute our individual refinery reporting units that are used for testing and measuring goodwill impairments. Our long-lived assets are evaluated for impairment by identifying whether indicators of impairment exist and if so, assessing whether the long-lived assets are recoverable from estimated future undiscounted cash flows. The actual amount of impairment loss measured, if any, is equal to the amount by which the asset group's carrying value exceeds its fair value.

Due to the recent economic slowdown caused by the COVID-19 pandemic, we performed a qualitative analysis of whether it is more likely than not that the fair value of our reporting units that include goodwill balances is less than their carrying amounts as of March 31, 2020. These effects of this recent economic slowdown on our operating results and financial position include reductions in the prices of our finished goods, raw materials and the related decrease in our gross margins. As of March 31, 2020, we have concluded that it is more likely than not that the carrying amounts of our reporting units that include goodwill are less than their fair value. A reasonable expectation exists that further deterioration in gross margins or a prolonged economic slowdown due to COVID-19 could result in an impairment of goodwill at some point in the future. Such impairment charges could be material. Our annual goodwill impairment testing is performed on July 1.

Revenue Recognition: Revenue on refined product and excess crude oil sales are recognized when delivered (via pipeline, in-tank or rack) and the customer obtains control of such inventory, which is typically when title passes and the customer is billed. All revenues are reported inclusive of shipping and handling costs billed and exclusive of any taxes billed to customers. Shipping and handling costs incurred are reported as cost of products sold.

Our lubricants and specialty products business has sales agreements with marketers and distributors that provide certain rights of return or provisions for the repurchase of products previously sold to them. Under these agreements, revenues and cost of revenues are deferred until the products have been sold to end customers. Our lubricants and specialty products business also has agreements that create an obligation to deliver products at a future date for which consideration has already been received and recorded as deferred revenue. This revenue is recognized when the products are delivered to the customer.

HEP recognizes revenues as products are shipped through its pipelines and terminals and as other services are rendered. Additionally, HEP has certain throughput agreements that specify minimum volume requirements, whereby HEP bills a customer for a minimum level of shipments in the event a customer ships below their contractual requirements. If there are no future performance obligations, HEP recognizes these deficiency payments as revenue. In certain of these throughput agreements, a customer may later utilize such shortfall billings as credit towards future volume shipments in excess of its minimum levels within its respective contractual shortfall make-up period. Such amounts represent an obligation to perform future services, which may be initially deferred and later recognized as revenue based on estimated future shipping levels, including the likelihood of a customer's ability to utilize such amounts prior to the end of the contractual shortfall make-up period. HEP recognizes the service portion of these deficiency payments as revenue when HEP does not expect it will be required to satisfy these performance obligations in the future based on the pattern of rights exercised by the customer. Payment terms under our contracts with customers are consistent with industry norms and are typically payable within 30 days of the date of invoice.

Foreign Currency Translation: Assets and liabilities recorded in foreign currencies are translated into U.S. dollars using exchange rates in effect as of the balance sheet date. Revenue and expense accounts are translated using the weighted-average exchange rates during the period presented. Foreign currency translation adjustments are recorded as a component of accumulated other comprehensive income.

In connection with our PCLI acquisition, we issued intercompany notes to initially fund certain of our foreign businesses. Remeasurement adjustments resulting from the conversion of such intercompany financing amounts to functional currencies are recorded as gains and losses as a component of other income (expense) in the income statement. Such adjustments are not recorded to the Lubricants and Specialty Products segment operations, but to Corporate and Other. See Note 15 for additional information on our segments.

Income Taxes: Provisions for income taxes include deferred taxes resulting from temporary differences in income for financial and tax purposes, using the liability method of accounting for income taxes. The liability method requires the effect of tax rate changes on deferred income taxes to be reflected in the period in which the rate change was enacted. The liability method also requires that deferred tax assets be reduced by a valuation allowance unless it is more likely than not that the assets will be realized.

Potential interest and penalties related to income tax matters are recognized in income tax expense. We believe we have appropriate support for the income tax positions taken and to be taken on our income tax returns and that our accruals for tax liabilities are adequate for all open years based on an assessment of many factors, including past experience and interpretations of tax law applied to the facts of each matter.

For the three months ended March 31, 2020, we recorded an income tax benefit of \$162.2 million compared to income tax expense of \$87.5 million for the three months ended March 31, 2019. This decrease was due principally to a pre-tax loss during the three months ended March 31, 2020 compared to pre-tax earnings in the same period of 2019. Our effective tax rates were 35.6% and 24.0% for the three months ended March 31, 2020 and 2019, respectively. The year-over-year increase in the effective tax rate is due principally to the relationship between the pre-tax loss and the earnings attributable to the noncontrolling interest that is not included in income for tax purposes.

Inventory Repurchase Obligations: We periodically enter into same-party sell / buy transactions, whereby we sell certain refined product inventory and subsequently repurchase the inventory in order to facilitate delivery to certain locations. Such sell / buy transactions are accounted for as inventory repurchase obligations under which proceeds received under the initial sell is recognized as an inventory repurchase obligation that is subsequently reversed when the inventory is repurchased. For the three months ended March 31, 2020 and 2019, we received proceeds of \$14.4 million and \$13.2 million, respectively, and subsequently repaid \$11.8 million and \$13.1 million, respectively, under these sell / buy transactions.

Accounting Pronouncements - Recently Adopted

Income Tax Accounting

In December 2019, Accounting Standards Update ("ASU") 2019-12, "Simplifying the Accounting for Income Taxes," was issued which eliminates some exceptions to the general approach in ASC Topic 740 "Income Taxes" and also provides clarification of other aspects of ASC 740. We adopted this standard effective January 1, 2020 on a prospective basis, and recognized an income tax benefit for the three months ended March 31, 2020 based upon the application of our estimated annual effective tax rate to our pre-tax loss.

Credit Losses Measurement

In June 2016, ASU 2016-13, "Measurement of Credit Losses on Financial Instruments," was issued requiring measurement of all expected credit losses for certain types of financial instruments, including trade receivables, held at the reporting date based on historical experience, current conditions and reasonable and supportable forecasts. We adopted this standard effective January 1, 2020, at which time our review of historic and expected credit losses resulted in a decrease of \$3.2 million in our reserve for doubtful accounts, however; our reserve was subsequently increased \$2.1 million at March 31, 2020 upon our assessment of the potential impact of current economic conditions.

NOTE 2: Holly Energy Partners

HEP is a publicly held master limited partnership that owns and operates logistic assets consisting of petroleum product and crude oil pipelines, terminals, tankage, loading rack facilities and refinery processing units that principally support our refining and marketing operations in the Mid-Continent, Southwest and Rocky Mountain regions of the United States and Delek US Holdings, Inc.'s ("Delek") refinery in Big Spring, Texas. Additionally, as of March 31, 2020, HEP owned a 75% interest in UNEV Pipeline, LLC ("UNEV"), the owner of a pipeline running from Woods Cross, Utah to Las Vegas, Nevada (the "UNEV Pipeline") and associated product terminals, and a 50% ownership interest in each of Osage Pipe Line Company, LLC, the owner of a pipeline running from Cushing, Oklahoma to El Dorado, Kansas (the "Osage Pipeline"); Cheyenne Pipeline, LLC, the owner of a pipeline running from Fort Laramie, Wyoming to Cheyenne, Wyoming (the "Cheyenne Pipeline") and Cushing Connect Pipeline & Terminal LLC ("Cushing Connect"), the owner of a crude oil storage terminal in Cushing, Oklahoma and a to-be-constructed pipeline that will run from Cushing, Oklahoma to our Tulsa Refineries.

At March 31, 2020, we owned a 57% limited partner interest and a non-economic general partner interest in HEP. As the general partner of HEP, we have the sole ability to direct the activities that most significantly impact HEP's financial performance, and therefore as HEP's primary beneficiary, we consolidate HEP.

HEP has two primary customers (including us) and generates revenues by charging tariffs for transporting petroleum products and crude oil through its pipelines, by charging fees for terminalling refined products and other hydrocarbons, and by storing and providing other services at its storage tanks and terminals. Under our long-term transportation agreements with HEP (discussed further below), we accounted for 79% of HEP's total revenues for the three months ended March 31, 2020. We do not provide financial or equity support through any liquidity arrangements and / or debt guarantees to HEP.

HEP has outstanding debt under a senior secured revolving credit agreement and its senior notes. HEP's creditors have no recourse to our assets. Furthermore, our creditors have no recourse to the assets of HEP and its consolidated subsidiaries. See Note 9 for a description of HEP's debt obligations.

HEP has risk associated with its operations. If a major customer of HEP were to terminate its contracts or fail to meet desired shipping or throughput levels for an extended period of time, revenue would be reduced and HEP could suffer substantial losses to the extent that a new customer is not found. In the event that HEP incurs a loss, our operating results will reflect HEP's loss, net of intercompany eliminations, to the extent of our ownership interest in HEP at that point in time.

Cushing Connect Joint Venture

In October 2019, HEP Cushing LLC ("HEP Cushing"), a wholly-owned subsidiary of HEP, and Plains Marketing, L.P. ("PMLP"), a wholly-owned subsidiary of Plains All American Pipeline, L.P. ("Plains"), formed a 50/50 joint venture, Cushing Connect, for (i) the development and construction of a new 160,000 barrel per day common carrier crude oil pipeline (the "Cushing Connect Pipeline") that will connect the Cushing, Oklahoma crude oil hub to our Tulsa Refineries and (ii) the ownership and operation of 1.5 million barrels of crude oil storage in Cushing, Oklahoma (the "Cushing Connect Terminal"). The Cushing Connect Terminal is expected to be placed in service during the second quarter of 2020, and the Cushing Connect Pipeline is expected to be placed in service during the first quarter of 2021. Long-term commercial agreements have been entered into to support the Cushing Connect assets.

Cushing Connect will contract with an affiliate of HEP to manage the construction and operation of the Cushing Connect Pipeline and with an affiliate of Plains to manage the operation of the Cushing Connect Terminal. The total investment in Cushing Connect will be shared proportionately among the partners, and HEP estimates its share of the cost of the Cushing Connect Terminal contributed by Plains and Cushing Connect Pipeline construction costs are approximately \$65.0 million.

Cushing Connect and its two subsidiaries, Cushing Connect Pipeline and Cushing Connect Terminal, are each VIE's because they do not have sufficient equity at risk to finance their activities without additional financial support. HEP is the primary beneficiary of two of these entities as HEP is constructing and will operate the Cushing Connect Pipeline, and HEP has more ability to direct the activities that most significantly impact the financial performance of Cushing Connect and Cushing Connect Pipeline. Therefore, HEP consolidates these two entities. HEP is not the primary beneficiary of Cushing Connect Terminal, which HEP accounts for using the equity method of accounting.

Transportation Agreements

HEP serves our refineries under long-term pipeline, terminal and tankage throughput agreements and refinery processing tolling agreements expiring from 2021 through 2036. Under these agreements, we pay HEP fees to transport, store and process throughput volumes of refined products, crude oil and feedstocks on HEP's pipeline, terminals, tankage, loading rack facilities and refinery processing units that result in minimum annual payments to HEP including UNEV (a consolidated subsidiary of HEP). Under these agreements, the agreed upon tariff rates are subject to annual tariff rate adjustments on July 1 at a rate based upon the percentage change in Producer Price Index or Federal Energy Regulatory Commission index. As of March 31, 2020, these agreements result in minimum annualized payments to HEP of \$348.2 million.

Our transactions with HEP and fees paid under our transportation agreements with HEP and UNEV are eliminated and have no impact on our consolidated financial statements.

HEP Common Unit Continuous Offering Program

In May 2016, HEP established a continuous offering program under which HEP may issue and sell common units from time to time, representing limited partner interests, up to an aggregate gross sales amount of \$200 million. During the three months ended March 31, 2020, HEP did not issue any common units under this program. As of March 31, 2020, HEP has issued 2,413,153 common units under this program, providing \$82.3 million in gross proceeds.

NOTE 3: Revenues

Substantially all revenue-generating activities relate to sales of refined product and excess crude oil inventories sold at market prices (variable consideration) under contracts with customers. Additionally, we have revenues attributable to HEP logistics services provided under petroleum product and crude oil pipeline transportation, processing, storage and terminalling agreements with third parties.

Disaggregated revenues were as follows:

	Three Months Ended March 31,	
	2020	2019
	(In thousands)	
Revenues by type		
Refined product revenues		
Transportation fuels ⁽¹⁾	\$ 2,478,347	\$ 2,807,440
Specialty lubricant products ⁽²⁾	470,953	444,342
Asphalt, fuel oil and other products ⁽³⁾	201,343	218,858
Total refined product revenues	3,150,643	3,470,640
Excess crude oil revenues ⁽⁴⁾	199,779	382,630
Transportation and logistic services	26,426	31,138
Other revenues ⁽⁵⁾	23,697	12,839
Total sales and other revenues	<u>\$ 3,400,545</u>	<u>\$ 3,897,247</u>

	Three Months Ended March 31,	
	2020	2019
(In thousands)		
Refined product revenues by market		
United States		
Mid-Continent	\$ 1,532,924	\$ 1,730,505
Southwest	734,175	850,149
Rocky Mountains	468,779	515,335
Northeast	159,824	127,891
Canada	182,653	177,355
Europe, Asia and Latin America	72,288	69,405
Total refined product revenues	\$ 3,150,643	\$ 3,470,640

- (1) Transportation fuels consist of gasoline, diesel and jet fuel.
- (2) Specialty lubricant products consist of base oil, waxes, finished lubricants and other specialty fluids.
- (3) Asphalt, fuel oil and other products revenue include revenues attributable to our Refining and Lubricants and Specialty Products segments of \$148,797 and \$52,546, respectively, for the three months ended March 31, 2020, and \$169,866 and \$48,992, respectively, for the three months ended March 31, 2019.
- (4) Excess crude oil revenues represent sales of purchased crude oil inventory that at times exceeds the supply needs of our refineries.
- (5) Other revenues are principally attributable to our Refining segment.

Our consolidated balance sheet reflects contract liabilities related to unearned revenues attributable to future service obligations under HEP's third-party transportation agreements and production agreements from the acquisition of Sonneborn on February 1, 2019. The following table presents changes to our contract liabilities during the three months ended March 31, 2020 and 2019.

	Three Months Ended March 31,	
	2020	2019
(In thousands)		
Balance at January 1	\$ 4,652	\$ 132
Sonneborn acquisition	—	6,463
Increase	10,419	3,968
Recognized as revenue	(9,712)	(3,966)
Balance at March 31	\$ 5,359	\$ 6,597

As of March 31, 2020, we have long-term contracts with customers that specify minimum volumes of gasoline, diesel, lubricants and specialty products to be sold ratably at market prices through 2024. Such volumes are typically nominated in the month preceding delivery and delivered ratably throughout the following month. Future prices are subject to market fluctuations and therefore, we have elected the exemption to exclude variable consideration under these contracts under Accounting Standards Codification 606-10-50-14A. Aggregate minimum volumes expected to be sold (future performance obligations) under our long-term product sales contracts with customers are as follows:

	Remainder of	2021	2022	Thereafter	Total
	2020				
(In thousands)					
Refined product sales volumes (barrels)	15,653	14,851	12,775	24,465	67,744

Additionally, HEP has long-term contracts with third-party customers that specify minimum volumes of product to be transported through its pipelines and terminals that result in fixed-minimum annual revenues through 2025. Annual minimum revenues attributable to HEP's third-party contracts as of March 31, 2020 are presented below:

	Remainder of 2020	2021	2022	Thereafter	Total
	(In thousands)				
HEP contractual minimum revenues	\$ 22,289	\$ 23,871	\$ 13,267	\$ 25,307	\$ 84,734

NOTE 4: Fair Value Measurements

Our financial instruments measured at fair value on a recurring basis consist of derivative instruments and RINs credit obligations.

Fair value measurements are derived using inputs (assumptions that market participants would use in pricing an asset or liability, including assumptions about risk). GAAP categorizes inputs used in fair value measurements into three broad levels as follows:

- (Level 1) Quoted prices in active markets for identical assets or liabilities.
- (Level 2) Observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets, similar assets and liabilities in markets that are not active or can be corroborated by observable market data.
- (Level 3) Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. This includes valuation techniques that involve significant unobservable inputs.

The carrying amounts of derivative instruments and RINs credit obligations at March 31, 2020 and December 31, 2019 were as follows:

	Carrying Amount	Fair Value by Input Level		
		Level 1	Level 2	Level 3
	(In thousands)			
March 31, 2020				
Assets:				
NYMEX futures contracts	\$ 7,412	\$ 7,412	\$ —	\$ —
Commodity forward contracts	4,564	—	4,564	—
Foreign currency forward contracts	25,668	—	25,668	—
Total assets	\$ 37,644	\$ 7,412	\$ 30,232	\$ —
Liabilities:				
Commodity price swaps	\$ 12,009	\$ —	\$ 12,009	\$ —
Commodity forward contracts	3,757	—	3,757	—
RINs credit obligations ⁽¹⁾	17,166	—	17,166	—
Total liabilities	\$ 32,932	\$ —	\$ 32,932	\$ —

	Carrying Amount	Fair Value by Input Level		
		Level 1	Level 2	Level 3
(In thousands)				
December 31, 2019				
Assets:				
Commodity price swaps	\$ 13,455	\$ —	\$ 13,455	\$ —
Commodity forward contracts	4,133	—	4,133	—
Total assets	\$ 17,588	\$ —	\$ 17,588	\$ —
Liabilities:				
NYMEX futures contracts	\$ 2,578	\$ 2,578	\$ —	\$ —
Commodity price swaps	1,230	—	1,230	—
Commodity forward contracts	3,685	—	3,685	—
Foreign currency forward contracts	6,722	—	6,722	—
Total liabilities	\$ 14,215	\$ 2,578	\$ 11,637	\$ —

(1) Represent obligations for RINs credits for which we did not have sufficient quantities at March 31, 2020 to satisfy our Environmental Protection Agency (“EPA”) regulatory blending requirements.

Level 1 Instruments

Our NYMEX futures contracts are exchange traded and are measured and recorded at fair value using quoted market prices, a Level 1 input.

Level 2 Instruments

Derivative instruments consisting of foreign currency forward contracts, commodity price swaps and forward sales and purchase contracts are measured and recorded at fair value using Level 2 inputs. The fair value of the commodity price swap contracts is based on the net present value of expected future cash flows related to both variable and fixed rate legs of the respective swap agreements. The measurements are computed using market-based observable input and quoted forward commodity prices with respect to our commodity price swaps. RINs credit obligations are valued based on current market RINs prices. The fair value of foreign currency forward contracts are based on values provided by a third party, which were derived using market quotes for similar type instruments, a Level 2 input.

NOTE 5: Earnings Per Share

Basic earnings per share is calculated as net income (loss) attributable to HollyFrontier stockholders divided by the average number of shares of common stock outstanding. Diluted earnings per share assumes, when dilutive, the issuance of the net incremental shares from restricted stock units and performance share units. The following is a reconciliation of the denominators of the basic and diluted per share computations for net income (loss) attributable to HollyFrontier stockholders:

	Three Months Ended March 31,	
	2020	2019
(In thousands, except per share data)		
Net income (loss) attributable to HollyFrontier stockholders	\$ (304,623)	\$ 253,055
Participating securities’ (restricted stock) share in earnings	—	364
Net income (loss) attributable to common shares	\$ (304,623)	\$ 252,691
Average number of shares of common stock outstanding	161,873	170,851
Effect of dilutive variable restricted stock units and performance share units ⁽¹⁾	—	1,388
Average number of shares of common stock outstanding assuming dilution	161,873	172,239
Basic earnings (loss) per share	\$ (1.88)	\$ 1.48
Diluted earnings (loss) per share	\$ (1.88)	\$ 1.47
⁽¹⁾ Excludes anti-dilutive restricted and performance share units of:	—	—

NOTE 6: Stock-Based Compensation

We have a principal share-based compensation plan (the “Long-Term Incentive Compensation Plan”). The compensation cost charged against income for the plan was \$4.8 million and \$8.7 million for the three months ended March 31, 2020 and 2019, respectively. Our accounting policy for the recognition of compensation expense for awards with pro-rata vesting is to expense the costs ratably over the vesting periods. The Long-Term Incentive Compensation Plan expires pursuant to its terms on December 31, 2020. We have adopted, subject to the approval of our stockholders, the HollyFrontier Corporation 2020 Long Term Incentive Plan, which will allow us to grant new equity compensation awards until February 12, 2030. Upon the adoption of the new plan, the Long-Term Incentive Compensation Plan will continue to govern outstanding equity awards granted thereunder, but it will no longer be used to grant new awards.

Additionally, HEP maintains a share-based compensation plan for Holly Logistic Services, L.L.C.’s non-employee directors and certain executives and employees. Compensation cost attributable to HEP’s share-based compensation plan was \$0.5 million and \$0.7 million for the three months ended March 31, 2020 and 2019, respectively.

Restricted Stock Units

Under our Long-Term Incentive Compensation Plan, we grant certain officers and other key employees restricted stock unit awards, which are payable in stock or cash and generally vest over a period of three years. Certain restricted stock unit award recipients have the right to receive dividends, however, restricted stock units do not have any other rights of absolute ownership. Upon vesting, restrictions on the restricted stock units lapse at which time they convert to common shares or cash. In addition, we grant non-employee directors restricted stock unit awards, which typically vest over a period of one year and are payable in stock. The fair value of each restricted stock unit award is measured based on the grant date market price of our common shares and is amortized over the respective vesting period. We account for forfeitures on an estimated basis.

A summary of restricted stock unit activity during the three months ended March 31, 2020 is presented below:

Restricted Stock Units	Grants	Weighted Average Grant Date Fair Value	Aggregate Intrinsic Value (\$000)
Outstanding at January 1, 2020	1,101,781	\$ 53.30	
Granted	2,853	52.59	
Vested	(62,617)	41.38	
Forfeited	(18,329)	52.43	
Outstanding at March 31, 2020	1,023,688	54.04	\$ 25,091

For the three months ended March 31, 2020, restricted stock units vested having a grant date fair value of \$2.6 million. As of March 31, 2020, there was \$27.4 million of total unrecognized compensation cost related to non-vested restricted stock unit grants. That cost is expected to be recognized over a weighted-average period of 1.4 years.

Performance Share Units

Under our Long-Term Incentive Compensation Plan, we grant certain officers and other key employees performance share units, which are payable in stock or cash upon meeting certain criteria over the service period, and generally vest over a period of three years. Under the terms of our performance share unit grants, awards are subject to “financial performance” and “market performance” criteria. Financial performance is based on our financial performance compared to a peer group of independent refining companies, while market performance is based on the relative standing of total shareholder return achieved by HollyFrontier compared to peer group companies. The number of shares ultimately issued or cash paid under these awards can range from zero to 200% of target award amounts. Holders of performance share units have the right to receive dividend equivalents and other distributions with respect to such performance share units based on the target level of payout.

A summary of performance share unit activity and changes during the three months ended March 31, 2020 is presented below:

Performance Share Units	Grants
Outstanding at January 1, 2020	375,588
Forfeited	(13,597)
Outstanding at March 31, 2020	<u>361,991</u>

As of March 31, 2020, there was \$9.8 million of total unrecognized compensation cost related to non-vested performance share units having a grant date fair value of \$58.72 per unit. That cost is expected to be recognized over a weighted-average period of 1.8 years.

NOTE 7: Inventories

Inventories consist of the following components:

	March 31, 2020	December 31, 2019
	(In thousands)	
Crude oil	\$ 522,994	\$ 489,169
Other raw materials and unfinished products ⁽¹⁾	343,495	394,045
Finished products ⁽²⁾	696,992	639,938
Lower of cost or market reserve	(800,827)	(240,363)
Process chemicals ⁽³⁾	39,117	36,786
Repair and maintenance supplies and other ⁽⁴⁾	141,864	154,627
Total inventory	<u>\$ 943,635</u>	<u>\$ 1,474,202</u>

- (1) Other raw materials and unfinished products include feedstocks and blendstocks, other than crude.
- (2) Finished products include gasolines, jet fuels, diesels, lubricants, asphalts, LPG's and residual fuels.
- (3) Process chemicals include additives and other chemicals.
- (4) Includes RINs.

Our inventories that are valued at the lower of LIFO cost or market reflect a valuation reserve of \$800.8 million and \$240.4 million at March 31, 2020 and December 31, 2019, respectively. The December 31, 2019 market reserve of \$240.4 million was reversed due to the sale of inventory quantities that gave rise to the 2019 reserve. A new market reserve of \$800.8 million was established as of March 31, 2020 based on market conditions and prices at that time. The effect of the change in lower of cost or market reserve was an increase to cost of products sold totaling \$560.5 million for the three months ended March 31, 2020 and a decrease to cost of products sold totaling \$232.3 million for the three months ended March 31, 2019.

At March 31, 2020, the LIFO value of inventory, net of the lower of cost or market reserve, was equal to current costs.

NOTE 8: Environmental

Environmental costs are charged to operating expenses if they relate to an existing condition caused by past operations and do not contribute to current or future revenue generation. We have ongoing investigations of environmental matters at various locations and routinely assess our recorded environmental obligations, if any, with respect to such matters. Liabilities are recorded when site restoration and environmental remediation, cleanup and other obligations are either known or considered probable and can be reasonably estimated. Such estimates are undiscounted and require judgment with respect to costs, time frame and extent of required remedial and cleanup activities and are subject to periodic adjustments based on currently available information. Recoveries of environmental costs through insurance, indemnification arrangements or other sources are included in other assets to the extent such recoveries are considered probable.

We incurred expense of \$1.6 million and \$0.3 million for the three months ended March 31, 2020 and 2019, respectively, for environmental remediation obligations. The accrued environmental liability reflected in our consolidated balance sheets was \$116.6 million and \$117.7 million at March 31, 2020 and December 31, 2019, respectively, of which \$94.5 million and \$95.6 million, respectively, were classified as other long-term liabilities. These accruals include remediation and monitoring costs expected to be incurred over an extended period of time (up to 30 years for certain projects). Estimated liabilities could increase in the future when the results of ongoing investigations become known, are considered probable and can be reasonably estimated.

NOTE 9: Debt***HollyFrontier Credit Agreement***

We have a \$1.35 billion senior unsecured revolving credit facility maturing in February 2022 (the “HollyFrontier Credit Agreement”). The HollyFrontier Credit Agreement may be used for revolving credit loans and letters of credit from time to time and is available to fund general corporate purposes. At March 31, 2020, we were in compliance with all covenants, had no outstanding borrowings and had outstanding letters of credit totaling \$4.9 million under the HollyFrontier Credit Agreement.

HEP Credit Agreement

HEP has a \$1.4 billion senior secured revolving credit facility maturing in July 2022 (the “HEP Credit Agreement”) and is available to fund capital expenditures, investments, acquisitions, distribution payments, working capital and for general partnership purposes. It is also available to fund letters of credit up to a \$50 million sub-limit and has a \$300 million accordion. During the three months ended March 31, 2020, HEP received advances totaling \$112.0 million and repaid \$67.0 million under the HEP Credit Agreement. At March 31, 2020, HEP was in compliance with all of its covenants, had outstanding borrowings of \$1,010.5 million and no outstanding letters of credit under the HEP Credit Agreement.

HEP’s obligations under the HEP Credit Agreement are collateralized by substantially all of HEP’s assets and are guaranteed by HEP’s material wholly-owned subsidiaries. Any recourse to the general partner would be limited to the extent of HEP Logistics Holdings, L.P.’s assets, which other than its investment in HEP are not significant. HEP’s creditors have no recourse to our other assets. Furthermore, our creditors have no recourse to the assets of HEP and its consolidated subsidiaries.

HollyFrontier Senior Notes

Our 5.875% senior notes (\$1 billion aggregate principal amount maturing April 2026) (the “HollyFrontier Senior Notes”) are unsecured and unsubordinated obligations of ours and rank equally with all our other existing and future unsecured and unsubordinated indebtedness.

HollyFrontier Financing Arrangements

In December 2018, certain of our wholly-owned subsidiaries entered into financing arrangements whereby such subsidiaries sold a portion of their precious metals catalyst to a financial institution and then leased back the precious metals catalyst in exchange for total cash received of \$32.5 million. The volume of the precious metals catalyst and the lease rate are fixed over the term of each lease, and the lease payments are recorded as interest expense. The leases mature on February 1, 2021. Upon maturity, we must either satisfy the obligation at fair market value or refinance to extend the maturity. These financing arrangements are recorded at a Level 2 fair value totaling \$29.9 million and \$40.0 million at March 31, 2020 and December 31, 2019, respectively, and are included in “Accrued liabilities” in our consolidated balance sheets. See Note 4 for additional information on Level 2 inputs.

HEP Senior Notes

On February 4, 2020, HEP closed a private placement of \$500 million in aggregate principal amount of 5.0% HEP senior unsecured notes maturing February 2028 (the "HEP Senior Notes"). On February 5, 2020, HEP redeemed its existing \$500 million aggregate principal amount of 6.0% senior notes maturing August 2024 at a redemption cost of \$522.5 million. HEP recognized a \$25.9 million early extinguishment loss consisting of a \$22.5 million debt redemption premium and unamortized discount and financing costs of \$3.4 million. HEP funded the \$522.5 million redemption with proceeds from the issuance of its 5.0% senior notes and borrowings under the HEP Credit Agreement.

The HEP Senior Notes are unsecured and impose certain restrictive covenants, including limitations on HEP's ability to incur additional indebtedness, make investments, sell assets, incur certain liens, pay distributions, enter into transactions with affiliates, and enter into mergers. HEP was in compliance with the restrictive covenants for the HEP Senior Notes as of March 31, 2020. At any time when the HEP Senior Notes are rated investment grade by either Moody's or Standard & Poor's and no default or event of default exists, HEP will not be subject to many of the foregoing covenants. Additionally, HEP has certain redemption rights at varying premiums over face value under the HEP Senior Notes.

Indebtedness under the HEP Senior Notes is guaranteed by HEP's wholly-owned subsidiaries. HEP's creditors have no recourse to our assets. Furthermore, our creditors have no recourse to the assets of HEP and its consolidated subsidiaries.

The carrying amounts of long-term debt are as follows:

	March 31, 2020	December 31, 2019
(In thousands)		
HollyFrontier 5.875% Senior Notes		
Principal	\$ 1,000,000	\$ 1,000,000
Unamortized discount and debt issuance costs	(6,148)	(6,391)
	<u>993,852</u>	<u>993,609</u>
HEP Credit Agreement	1,010,500	965,500
HEP 5.0% Senior Notes		
Principal	500,000	—
Unamortized discount and debt issuance costs	(8,346)	—
	<u>491,654</u>	<u>—</u>
HEP 6.0% Senior Notes		
Principal	—	500,000
Unamortized discount and debt issuance costs	—	(3,469)
	<u>—</u>	<u>496,531</u>
Total HEP long-term debt	<u>1,502,154</u>	<u>1,462,031</u>
Total long-term debt	<u>\$ 2,496,006</u>	<u>\$ 2,455,640</u>

The fair values of the senior notes are as follows:

	March 31, 2020	December 31, 2019
(In thousands)		
HollyFrontier senior notes	\$ 880,540	\$ 1,127,610
HEP senior notes	\$ 416,795	\$ 522,045

These fair values are based on a Level 2 input. See Note 4 for additional information on Level 2 inputs.

We capitalized interest attributable to construction projects of \$0.6 million and \$0.7 million for the three months ended March 31, 2020 and 2019, respectively.

NOTE 10: Derivative Instruments and Hedging Activities

Commodity Price Risk Management

Our primary market risk is commodity price risk. We are exposed to market risks related to the volatility in crude oil and refined products, as well as volatility in the price of natural gas used in our refining operations. We periodically enter into derivative contracts in the form of commodity price swaps, forward purchase and sales and futures contracts to mitigate price exposure with respect to our inventory positions, natural gas purchases, sales prices of refined products and crude oil costs.

Foreign Currency Risk Management

We are exposed to market risk related to the volatility in foreign currency exchange rates. We periodically enter into derivative contracts in the form of foreign exchange forward and foreign exchange swap contracts to mitigate the exposure associated with fluctuations on intercompany notes with our foreign subsidiaries that are not denominated in the U.S. dollar.

Accounting Hedges

We have swap contracts serving as cash flow hedges against price risk on forecasted purchases of natural gas and to lock in basis spread differentials on forecasted purchases of crude oil. We also periodically have forward sales contracts that lock in the prices of future sales of crude oil and refined product. These contracts have been designated as accounting hedges and are measured at fair value with offsetting adjustments (gains/losses) recorded directly to other comprehensive income. These fair value adjustments are later reclassified to earnings as the hedging instruments mature.

The following table presents the pre-tax effect on other comprehensive income ("OCI") and earnings due to fair value adjustments and maturities of hedging instruments under hedge accounting:

Derivatives Designated as Cash Flow Hedging Instruments	Net Unrealized Gain (Loss) Recognized in OCI		Gain (Loss) Reclassified into Earnings		
	Three Months Ended March 31,		Income Statement Location	Three Months Ended March 31,	
	2020	2019		2020	2019
			(In thousands)		
Commodity contracts	\$ (13,324)	\$ 13,948	Sales and other revenues	\$ 5,452	\$ (1,799)
			Cost of products sold	1,830	3,622
			Operating expenses	(706)	(181)
Total	\$ (13,324)	\$ 13,948		\$ 6,576	\$ 1,642

Economic Hedges

We have commodity contracts including contracts to lock in basis spread differentials on forecasted purchases of crude oil, NYMEX futures contracts to lock in prices on forecasted purchases and sales of inventory and forward purchase and sell contracts that serve as economic hedges (derivatives used for risk management, but not designated as accounting hedges). We also have forward currency contracts to fix the rate of foreign currency. In addition, our catalyst financing arrangements discussed in Note 9 could require repayment under certain conditions based on the future pricing of platinum, which is an embedded derivative. These contracts are measured at fair value with offsetting adjustments (gains/losses) recorded directly to income.

The following table presents the pre-tax effect on income due to maturities and fair value adjustments of our economic hedges:

Derivatives Not Designated as Hedging Instruments	Income Statement Location	Gain (Loss) Recognized in Earnings	
		Three Months Ended March 31,	
		2020	2019
		(In thousands)	
Commodity contracts	Cost of products sold	\$ 25,089	\$ (7,417)
	Interest expense	9,812	(2,016)
Foreign currency contracts	Gain (loss) on foreign currency transactions	33,475	(7,606)
	Total	\$ 68,376	\$ (17,039)

As of March 31, 2020, we have the following notional contract volumes related to outstanding derivative instruments:

	Total Outstanding Notional	Notional Contract Volumes by Year of Maturity		Unit of Measure
		2020	2021	
Derivatives Designated as Hedging Instruments				
Natural gas price swaps - long	3,150,000	1,350,000	1,800,000	MMBTU
Crude oil price swaps (basis spread) - long	3,575,000	3,575,000	—	Barrels
Derivatives Not Designated as Hedging Instruments				
NYMEX futures (WTI) - short	455,000	455,000	—	Barrels
Crude oil price swaps (basis spread) - long	1,100,000	1,100,000	—	Barrels
Forward gasoline contracts - long	1,450,000	1,450,000	—	Barrels
Foreign currency forward contracts	426,037,417	319,732,567	106,304,850	U.S. dollar
Forward commodity contracts (platinum)	40,867	—	40,867	Troy ounces

The following table presents the fair value and balance sheet locations of our outstanding derivative instruments. These amounts are presented on a gross basis with offsetting balances that reconcile to a net asset or liability position in our consolidated balance sheets. We present on a net basis to reflect the net settlement of these positions in accordance with provisions of our master netting arrangements.

	Derivatives in Net Asset Position			Derivatives in Net Liability Position		
	Gross Assets	Gross Liabilities Offset in Balance Sheet	Net Assets Recognized in Balance Sheet	Gross Liabilities	Gross Assets Offset in Balance Sheet	Net Liabilities Recognized in Balance Sheet
(In thousands)						
March 31, 2020						
<i>Derivatives designated as cash flow hedging instruments:</i>						
Commodity price swap contracts	\$ —	\$ —	\$ —	\$ 8,812	\$ —	\$ 8,812
	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 8,812</u>	<u>\$ —</u>	<u>\$ 8,812</u>
<i>Derivatives not designated as cash flow hedging instruments:</i>						
NYMEX futures contracts	\$ 7,412	\$ —	\$ 7,412	\$ —	\$ —	\$ —
Commodity price swap contracts	—	—	—	3,197	—	3,197
Commodity forward contracts	4,564	—	4,564	3,757	—	3,757
Foreign currency forward contracts	25,668	—	25,668	—	—	—
	<u>\$ 37,644</u>	<u>\$ —</u>	<u>\$ 37,644</u>	<u>\$ 6,954</u>	<u>\$ —</u>	<u>\$ 6,954</u>
Total net balance			<u>\$ 37,644</u>			<u>\$ 15,766</u>
Balance sheet classification:	Prepayment and other		\$ 37,644	Accrued liabilities		\$ 15,069
				Other long-term liabilities		697
			<u>\$ 37,644</u>			<u>\$ 15,766</u>

	Derivatives in Net Asset Position			Derivatives in Net Liability Position		
	Gross Assets	Gross Liabilities Offset in Balance Sheet	Net Assets Recognized in Balance Sheet	Gross Liabilities	Gross Assets Offset in Balance Sheet	Net Liabilities Recognized in Balance Sheet
(In thousands)						
December 31, 2019						
<i>Derivatives designated as cash flow hedging instruments:</i>						
Commodity price swap contracts	\$ 7,526	\$ (1,784)	\$ 5,742	\$ 1,230	\$ —	\$ 1,230
	<u>\$ 7,526</u>	<u>\$ (1,784)</u>	<u>\$ 5,742</u>	<u>\$ 1,230</u>	<u>\$ —</u>	<u>\$ 1,230</u>
<i>Derivatives not designated as cash flow hedging instruments:</i>						
NYMEX futures contracts	\$ —	\$ —	\$ —	\$ 2,578	\$ —	\$ 2,578
Commodity price swap contracts	7,713	—	7,713	—	—	—
Commodity forward contracts	4,133	—	4,133	3,685	—	3,685
Foreign currency forward contracts	—	—	—	6,722	—	6,722
	<u>\$ 11,846</u>	<u>\$ —</u>	<u>\$ 11,846</u>	<u>\$ 12,985</u>	<u>\$ —</u>	<u>\$ 12,985</u>
Total net balance			<u>\$ 17,588</u>			<u>\$ 14,215</u>
Balance sheet classification:	Prepayment and other		\$ 17,588	Accrued liabilities		\$ 12,985
				Other long-term liabilities		1,230
			<u>\$ 17,588</u>			<u>\$ 14,215</u>

At March 31, 2020, we had a pre-tax net unrealized loss of \$8.8 million classified in accumulated other comprehensive loss that relates to all accounting hedges having contractual maturities through 2021. Assuming commodity prices remain unchanged, an unrealized loss of \$8.1 million will be effectively transferred from accumulated other comprehensive loss into the statement of income as the hedging instruments contractually mature over the next twelve-month period.

NOTE 11: Equity

In November 2019, our Board of Directors approved a \$1.0 billion share repurchase program, which replaced all existing share repurchase programs, authorizing us to repurchase common stock in the open market or through privately negotiated transactions. The timing and amount of stock repurchases will depend on market conditions and corporate, regulatory and other relevant considerations. This program may be discontinued at any time by the Board of Directors. As of March 31, 2020, we had not repurchased common stock under this stock repurchase program. In addition, we are authorized by our Board of Directors to repurchase shares in an amount sufficient to offset shares issued under our compensation programs.

During the three months ended March 31, 2020 and 2019, we withheld 24,914 and 345, respectively, shares of our common stock from certain employees. These withholdings were made under the terms of restricted stock unit and performance share unit agreements upon vesting, at which time, we concurrently made cash payments to fund payroll and income taxes on behalf of officers and employees who elected to have shares withheld from vested amounts to pay such taxes.

NOTE 12: Other Comprehensive Income

The components and allocated tax effects of other comprehensive income are as follows:

	Before-Tax	Tax Expense (Benefit)	After-Tax
	(In thousands)		
Three Months Ended March 31, 2020			
Net change in foreign currency translation adjustment	\$ (21,586)	\$ (4,627)	\$ (16,959)
Net unrealized loss on hedging instruments	(13,324)	(3,398)	(9,926)
Net change in pension and other post-retirement benefit obligations	(42)	(4)	(38)
Other comprehensive loss attributable to HollyFrontier stockholders	<u>\$ (34,952)</u>	<u>\$ (8,029)</u>	<u>\$ (26,923)</u>
Three Months Ended March 31, 2019			
Net change in foreign currency translation adjustment	\$ 4,363	\$ 905	\$ 3,458
Net unrealized gain on hedging instruments	13,948	3,557	10,391
Net change in pension and other post-retirement benefit obligations	(74)	—	(74)
Other comprehensive income attributable to HollyFrontier stockholders	<u>\$ 18,237</u>	<u>\$ 4,462</u>	<u>\$ 13,775</u>

The following table presents the income statement line item effects for reclassifications out of accumulated other comprehensive income ("AOCI"):

AOCI Component	Gain (Loss) Reclassified From AOCI		Income Statement Line Item
	Three Months Ended March 31,		
	2020	2019	
	(In thousands)		
Hedging instruments:			
Commodity price swaps	\$ 5,452	\$ (1,799)	Sales and other revenues
	1,830	3,622	Cost of products sold
	(706)	(181)	Operating expenses
	6,576	1,642	
	1,677	419	Income tax expense
Total reclassifications for the period	<u>\$ 4,899</u>	<u>\$ 1,223</u>	Net of tax

Accumulated other comprehensive income (loss) in the equity section of our consolidated balance sheets includes:

	March 31, 2020	December 31, 2019
	(In thousands)	
Foreign currency translation adjustment	\$ (19,146)	\$ (2,187)
Unrealized loss on pension obligation	(1,798)	(1,733)
Unrealized gain on post-retirement benefit obligations	15,360	15,333
Unrealized gain (loss) on hedging instruments	(6,565)	3,361
Accumulated other comprehensive income (loss)	<u>\$ (12,149)</u>	<u>\$ 14,774</u>

NOTE 13: Post-retirement Plans

PCLI has union and non-union pension plans which are closed to new entrants. In addition, Sonneborn employees in the Netherlands have a defined benefit pension plan which was frozen and all plan participants became inactive in 2016. Our net periodic pension expense consisted of the following components:

	Three Months Ended March 31,	
	2020	2019
	(In thousands)	
Service cost - benefit earned during the period	\$ 1,117	\$ 1,027
Interest cost on projected benefit obligations	437	598
Expected return on plan assets	(1,021)	(811)
Net periodic pension expense	<u>\$ 533</u>	<u>\$ 814</u>

The expected long-term annual rates of return on plan assets are 5.75% and 1.50% for the PCLI and Sonneborn plans, respectively. These rates were used in measuring 2020 net periodic benefit costs.

We have post-retirement healthcare and other benefits that are available to certain of our employees who satisfy certain age and service requirements. The net periodic benefit credit of our post-retirement healthcare and other benefits plans consisted of the following components

	Three Months Ended March 31,	
	2020	2019
	(In thousands)	
Service cost – benefit earned during the period	\$ 451	\$ 367
Interest cost on projected benefit obligations	237	258
Amortization of prior service credit	(870)	(870)
Amortization of (gain) loss	13	(20)
Net periodic post-retirement credit	<u>\$ (169)</u>	<u>\$ (265)</u>

The components, other than service cost, of our net periodic pension expense and net periodic post-retirement credit are recorded in Other, net in our consolidated statements of income.

NOTE 14: Contingencies

We are a party to various litigation and legal proceedings which we believe, based on advice of counsel, will not either individually or in the aggregate have a materially adverse effect on our financial condition, results of operations or cash flows.

We filed a business interruption claim with our insurance carriers related to a fire at our Woods Cross Refinery that occurred in the first quarter 2018. As of March 31, 2020, we have collected interim payments totaling \$56.0 million, but have not reached a final agreement regarding the amounts owed to us pursuant to our business interruption coverage. We have accounted for this claim as a gain contingency and accordingly, we have deferred revenue recognition for the interim payments received until such time that uncertainties regarding the amounts owed to us have been resolved.

During 2017, 2018 and 2019, the EPA granted the Cheyenne Refinery and Woods Cross Refinery each a one-year small refinery exemption from the Renewable Fuel Standard (“RFS”) program requirements for the 2016, 2017 and 2018, respectively, calendar years. As a result, the Cheyenne Refinery’s and Woods Cross Refinery’s gasoline and diesel production are not subject to the Renewable Volume Obligation for the respective years. Upon each exemption granted, we increased our inventory of RINs and reduced our cost of products sold.

In 2019, various subsidiaries of HollyFrontier moved to intervene in four lawsuits brought by renewable fuel interest groups against the EPA in federal courts alleging violations of the RFS under the Clean Air Act and challenging the EPA’s handling of small refinery exemptions. We intervened to vigorously defend the EPA’s position on small refinery exemptions because we believe the EPA correctly applied applicable law to the matters at issue. The U.S. Court of Appeals for the DC Circuit dismissed one of these four lawsuits on November 12, 2019 for lack of jurisdiction. On January 24, 2020, the U.S. Court of Appeals for the Tenth Circuit vacated the small refinery exemptions granted to two of our refineries for 2016 and remanded the case to the EPA for further proceedings. On March 24, 2020, various subsidiaries of HollyFrontier filed a Petition for Rehearing with the U.S. Court of Appeals for the Tenth Circuit. On April 7, 2020, the Tenth Circuit denied our request to reconsider its decision, and on April 15, 2020, the Tenth Circuit entered its mandate, remanding the matter back to the EPA. It is not clear at this time what steps the EPA will take with respect to our 2016 small refinery exemptions, and we are unable to estimate the costs we may incur, if any, at this time. It is also not clear how the case will impact future small refinery exemptions. It is too early to assess whether the remaining two cases are expected to have any impact on us.

NOTE 15: Segment Information

Our operations are organized into three reportable segments, Refining, Lubricants and Specialty Products and HEP. Our operations that are not included in the Refining, Lubricants and Specialty Products and HEP segments are included in Corporate and Other. Intersegment transactions are eliminated in our consolidated financial statements and are included in Eliminations. Corporate and Other and Eliminations are aggregated and presented under the Corporate, Other and Eliminations column.

The Refining segment represents the operations of the El Dorado, Tulsa, Navajo, Cheyenne and Woods Cross Refineries and HFC Asphalt (aggregated as a reportable segment). Refining activities involve the purchase and refining of crude oil and wholesale and branded marketing of refined products, such as gasoline, diesel fuel and jet fuel. These petroleum products are primarily marketed in the Mid-Continent, Southwest and Rocky Mountain regions of the United States. HFC Asphalt operates various asphalt terminals in Arizona, New Mexico and Oklahoma.

The Lubricants and Specialty Products segment involves PCLI’s production operations, located in Mississauga, Ontario, that includes lubricant products such as base oils, white oils, specialty products and finished lubricants, and the operations of our Petro- Canada Lubricants business that includes the marketing of products to both retail and wholesale outlets through a global sales network with locations in Canada, the United States, Europe and China. Additionally, the Lubricants and Specialty Products segment includes specialty lubricant products produced at our Tulsa Refineries that are marketed throughout North America and are distributed in Central and South America and Red Giant Oil, one of the largest suppliers of locomotive engine oil in North America. Also, effective with our acquisition that closed February 1, 2019, the Lubricants and Specialty Products segment includes Sonneborn, a producer of specialty hydrocarbon chemicals such as white oils, petrolatums and waxes with manufacturing facilities in the United States and Europe.

The HEP segment includes all of the operations of HEP, which owns and operates logistics and refinery assets consisting of petroleum product and crude oil pipelines, terminals, tankage, loading rack facilities and refinery processing units in the Mid-Continent, Southwest and Rocky Mountain regions of the United States. As of March 31, 2020, the HEP segment also includes a 75% ownership interest in UNEV (a consolidated subsidiary of HEP) and 50% ownership interests in each of the Osage Pipeline, the Cheyenne Pipeline and Cushing Connect. Revenues from the HEP segment are earned through transactions with unaffiliated parties for pipeline transportation, rental and terminalling operations as well as revenues relating to pipeline transportation services provided for our refining operations. Due to certain basis differences, our reported amounts for the HEP segment may not agree to amounts reported in HEP's periodic public filings.

The accounting policies for our segments are the same as those described in the summary of significant accounting policies in our Annual Report on Form 10-K for the year ended December 31, 2019.

	Refining	Lubricants and Specialty Products	HEP	Corporate, Other and Eliminations	Consolidated Total
(In thousands)					
Three Months Ended March 31, 2020					
Sales and other revenues:					
Revenues from external customers	\$ 2,850,620	\$ 523,499	\$ 26,426	\$ —	\$ 3,400,545
Intersegment revenues	84,246	3,104	101,428	(188,778)	—
	<u>\$ 2,934,866</u>	<u>\$ 526,603</u>	<u>\$ 127,854</u>	<u>\$ (188,778)</u>	<u>\$ 3,400,545</u>
Cost of products sold (exclusive of lower of cost or market inventory)	\$ 2,468,751	\$ 391,380	\$ —	\$ (166,405)	\$ 2,693,726
Lower of cost or market inventory valuation adjustment	\$ 560,464	\$ —	\$ —	\$ —	\$ 560,464
Operating expenses	\$ 259,174	\$ 54,131	\$ 34,981	\$ (19,941)	\$ 328,345
Selling, general and administrative expenses	\$ 31,000	\$ 48,962	\$ 2,702	\$ 5,073	\$ 87,737
Depreciation and amortization	\$ 90,179	\$ 22,049	\$ 23,978	\$ 4,369	\$ 140,575
Income (loss) from operations	\$ (474,702)	\$ 10,081	\$ 66,193	\$ (11,874)	\$ (410,302)
Earnings of equity method investments	\$ —	\$ —	\$ 1,714	\$ —	\$ 1,714
Capital expenditures	\$ 53,014	\$ 9,081	\$ 18,942	\$ 2,712	\$ 83,749
Three Months Ended March 31, 2019					
Sales and other revenues:					
Revenues from external customers	\$ 3,372,666	\$ 493,334	\$ 31,138	\$ 109	\$ 3,897,247
Intersegment revenues	74,744	—	103,359	(178,103)	—
	<u>\$ 3,447,410</u>	<u>\$ 493,334</u>	<u>\$ 134,497</u>	<u>\$ (177,994)</u>	<u>\$ 3,897,247</u>
Cost of products sold (exclusive of lower of cost or market inventory)	\$ 2,962,540	\$ 389,017	\$ —	\$ (152,352)	\$ 3,199,205
Lower of cost or market inventory valuation adjustment	\$ (232,346)	\$ —	\$ —	\$ —	\$ (232,346)
Operating expenses	\$ 264,497	\$ 53,559	\$ 37,513	\$ (23,977)	\$ 331,592
Selling, general and administrative expenses	\$ 26,977	\$ 39,719	\$ 2,620	\$ 18,718	\$ 88,034
Depreciation and amortization	\$ 74,415	\$ 20,171	\$ 23,830	\$ 3,005	\$ 121,421
Income (loss) from operations	\$ 351,327	\$ (9,132)	\$ 70,534	\$ (23,388)	\$ 389,341
Earnings of equity method investments	\$ —	\$ —	\$ 2,100	\$ —	\$ 2,100
Capital expenditures	\$ 41,762	\$ 7,860	\$ 10,718	\$ 3,395	\$ 63,735

	Refining	Lubricants and Specialty Products	HEP	Corporate, Other and Eliminations	Consolidated Total
(In thousands)					
March 31, 2020					
Cash and cash equivalents	\$ —	\$ 164,317	\$ 19,282	\$ 725,527	\$ 909,126
Total assets	\$ 6,326,831	\$ 2,123,451	\$ 2,195,442	\$ 576,070	\$ 11,221,794
Long-term debt	\$ —	\$ —	\$ 1,502,154	\$ 993,852	\$ 2,496,006
December 31, 2019					
Cash and cash equivalents	\$ 9,755	\$ 169,277	\$ 13,287	\$ 692,843	\$ 885,162
Total assets	\$ 7,189,094	\$ 2,223,418	\$ 2,205,437	\$ 546,892	\$ 12,164,841
Long-term debt	\$ —	\$ —	\$ 1,462,031	\$ 993,609	\$ 2,455,640

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

This Item 2 contains "forward-looking" statements. See "Forward-Looking Statements" at the beginning of Part I of this Quarterly Report on Form 10-Q. In this document, the words "we," "our," "ours" and "us" refer only to HollyFrontier Corporation ("HollyFrontier") and its consolidated subsidiaries or to HollyFrontier or an individual subsidiary and not to any other person with certain exceptions. Generally, the words "we," "our," "ours" and "us" include Holly Energy Partners, L.P. ("HEP") and its subsidiaries as consolidated subsidiaries of HollyFrontier, unless when used in disclosures of transactions or obligations between HEP and HollyFrontier or its other subsidiaries. This document contains certain disclosures of agreements that are specific to HEP and its consolidated subsidiaries and do not necessarily represent obligations of HollyFrontier. When used in descriptions of agreements and transactions, "HEP" refers to HEP and its consolidated subsidiaries.

OVERVIEW

We are principally an independent petroleum refiner that produces high-value light products such as gasoline, diesel fuel, jet fuel, specialty lubricant products and specialty and modified asphalt. We own and operate refineries located in El Dorado, Kansas (the "El Dorado Refinery"), Tulsa, Oklahoma (the "Tulsa Refineries"), which comprise two production facilities, the Tulsa West and East facilities, Artesia, New Mexico, which operates in conjunction with crude, vacuum distillation and other facilities situated 65 miles away in Lovington, New Mexico (collectively, the "Navajo Refinery"), Cheyenne, Wyoming (the "Cheyenne Refinery") and Woods Cross, Utah (the "Woods Cross Refinery"). We market our refined products principally in the Southwest United States, the Rocky Mountains extending into the Pacific Northwest and in other neighboring Plains states. In addition, we produce base oils and other specialized lubricants in the United States, Canada and the Netherlands, and export products to more than 80 countries. We also own a 57% limited partner interest and a non-economic general partner interest in HEP, a master limited partnership that provides petroleum product and crude oil transportation, terminalling, storage and throughput services to the petroleum industry, including HollyFrontier Corporation subsidiaries.

On November 12, 2018, we entered into an equity purchase agreement to acquire 100% of the issued and outstanding capital stock of Sonneborn US Holdings Inc. and 100% of the membership rights in Sonneborn Coöperatief U.A. (collectively, "Sonneborn"). The acquisition closed on February 1, 2019. Cash consideration paid was \$662.7 million. Sonneborn is a producer of specialty hydrocarbon chemicals such as white oils, petrolatums and waxes with manufacturing facilities in the United States and Europe.

For the three months ended March 31, 2020, net loss attributable to HollyFrontier stockholders was \$(304.6) million compared to net income of \$253.1 million for the three months ended March 31, 2019. Overall gross refining margins per produced barrel sold for the three months ended March 31, 2020 decreased 11% over the same period of 2019 due to a decrease in the average per barrel sold sales price during the current year quarter, partially offset by decreased crude oil and feedstock prices. Included in our financial results for the first quarter was an inventory lower of cost or market adjustment that decreased pre-tax earnings by \$560.5 million.

Pursuant to the 2007 Energy Independence and Security Act, the Environmental Protection Agency ("EPA") promulgated the Renewable Fuel Standard ("RFS") regulations, which increased the volume of renewable fuels mandated to be blended into the nation's fuel supply. The regulations, in part, require refiners to add annually increasing amounts of "renewable fuels" to their petroleum products or purchase credits, known as renewable identification numbers ("RINs"), in lieu of such blending. Compliance with RFS regulations significantly increases our cost of products sold, with RINs costs totaling \$41.1 million for the three months ended March 31, 2020.

Impact of COVID-19 on Our Business

The COVID-19 pandemic caused a decline in U.S. and global economic activities during the first quarter of 2020. The demand for, and the resulting price we receive for, the sale of our products, including gasoline, jet fuel, lubricants and other products, has decreased during the last weeks of the first quarter of 2020. We expect the lower product prices to continue into the second quarter of 2020. Likewise, the price we pay for crude oil decreased in the first quarter of 2020. We expect these lower crude oil prices to continue into the second quarter of 2020. These decreases had the effect of reducing our gross margins during the latter part of the first quarter of 2020, which in certain markets resulted in negative gross margins for some of our products. During the first quarter of 2020, we operated our Refining segment refineries at an average crude charge of 436,360 BPD.

These lower prices caused the market value of our inventories held at March 31, 2020 to decrease below the costs of these inventories using the last-in, first-out ("LIFO") method resulting in a first quarter lower of cost or market valuation charge of \$560.5 million.

The lower product and crude prices also caused use of cash from our operating activities because of a larger decrease in accounts payable for crude oil than the decrease in accounts receivable for the sale of our products at March 31, 2020.

As a result of these conditions, we have reduced our 2020 expected total consolidated capital expenditures by approximately 15%, to a range of \$525 million to \$625 million.

HollyFrontier's standalone (excluding HEP) liquidity was over \$2.2 billion at March 31, 2020, consisting of a cash balance of \$889.8 million and an undrawn \$1.35 billion credit facility maturing in 2022. HollyFrontier's earliest standalone (excluding HEP) debt maturity is \$1.0 billion of senior notes due in 2026.

OUTLOOK

The impact of COVID-19 on the global macroeconomy has created unprecedented reduction in demand, as well as lack of forward visibility, for many of the transportation fuels, lubricants and specialty products and the associated transportation and terminal services we provide. Other factors expected to impact crude oil supply include production levels implemented by OPEC members, other large oil producers such as Russia and domestic and Canadian oil producers. While we expect a strong recovery of demand for all of these essential products in the long-run, there is little visibility on the timing for or extent of this recovery in the near-term.

In response to the COVID-19 pandemic, and with the health and safety of our employees as a top priority, we took several actions, including limiting onsite staff at all of our facilities to essential operational personnel only, implementing a work from home policy for certain employees and restricting travel unless approved by senior leadership. We will continue to monitor COVID-19 developments and the dynamic environment to properly address these policies going forward.

Within our Refining segment, for the second quarter 2020, we expect to run between 300,000-340,000 barrels per day of crude oil based on market demand for transportation fuels. Currently the primary determinants of demand are the various government orders and guidance restricting and discouraging most forms of travel. We expect to adjust refinery production levels commensurate with market demand. In the second quarter, we expect to consume \$100 million to \$300 million of working capital based primarily on the impact of falling crude and product prices, as well as reducing refinery throughput to match demand. We expect to recover this working capital as commodity prices and demand for product normalize.

In our Lubricants and Specialty Products segment, we have withdrawn 2020 guidance for the Rack Forward business. Within our industrial and passenger car-related end markets, demand has dropped substantially, while in our personal care end markets, demand is running slightly below normal. We expect industrial demand to rebound with the broader economy. Within the Rack Back portion, we expect base oil demand to rebound with the reopening of its primary transportation-related end markets. Similar to our Refining segment, we intend to match production to market demand.

At HEP, we expect a reduction in demand for transportation and terminal services in line with the ultimate demand for transportation fuels. HEP has reduced its quarterly distribution to \$0.35 per unit, representative of a new distribution policy focused on funding all capital expenditures and distributions within cash flow, improving distributable cash flow coverage to 1.3x or greater and reducing leverage to 3.0-3.5x.

Given the risks and lack of visibility, we have reduced the range of our 2020 consolidated capital budget to \$525 million to \$625 million from \$623 million to \$729 million, and we are evaluating additional ways to reduce cash costs including operating, sales, general and administrative spending reductions as well as incremental capital spending reductions. In order to preserve liquidity, we do not intend to repurchase common stock under our \$1.0 billion share repurchase program until commodity prices and demand for products normalize.

On March 27, 2020, the U.S. government passed the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act"), an approximately \$2 trillion stimulus package that includes various provisions intended to provide relief to individuals and businesses in the form of tax changes, loans and grants, among others. At this time, we have not sought relief in the form of loans or grants from the CARES Act; however, we have benefited from certain tax deferrals in the CARES Act and may benefit from other tax provisions if we meet the requirements to do so.

The extent to which HFC's future results are affected by COVID-19 will depend on various factors and consequences beyond our control, such as the duration and scope of the pandemic; additional actions by businesses and governments in response to the pandemic, and the speed and effectiveness of responses to combat the virus. COVID-19, and the volatile regional and global economic conditions stemming from the pandemic, could also exacerbate the risk factors identified in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019 and in this Form 10-Q. COVID-19 may also materially adversely affect our results in a manner that is either not currently known or that we do not currently consider to be a significant risk to our business.

See "Item 1A - Risk Factors" for other potential impacts of COVID-19 on our business.

A more detailed discussion of our financial and operating results for the three months ended March 31, 2020 and 2019 is presented in the following sections.

RESULTS OF OPERATIONS

Financial Data

	Three Months Ended March 31,		Change from 2019	
	2020	2019	Change	Percent
	(In thousands, except per share data)			
Sales and other revenues	\$ 3,400,545	\$ 3,897,247	\$ (496,702)	(13)%
Operating costs and expenses:				
Cost of products sold (exclusive of depreciation and amortization):				
Cost of products sold (exclusive of lower of cost or market inventory valuation adjustment)	2,693,726	3,199,205	(505,479)	(16)
Lower of cost or market inventory valuation adjustment	560,464	(232,346)	792,810	(341)
	3,254,190	2,966,859	287,331	10
Operating expenses (exclusive of depreciation and amortization)	328,345	331,592	(3,247)	(1)
Selling, general and administrative expenses (exclusive of depreciation and amortization)	87,737	88,034	(297)	—
Depreciation and amortization	140,575	121,421	19,154	16
Total operating costs and expenses	3,810,847	3,507,906	302,941	9
Income (loss) from operations	(410,302)	389,341	(799,643)	(205)
Other income (expense):				
Earnings of equity method investments	1,714	2,100	(386)	(18)
Interest income	4,073	6,375	(2,302)	(36)
Interest expense	(22,639)	(36,647)	14,008	(38)
Loss on early extinguishment of debt	(25,915)	—	(25,915)	—
Gain (loss) on foreign currency transactions	(4,233)	2,265	(6,498)	(287)
Other, net	1,850	557	1,293	232
	(45,150)	(25,350)	(19,800)	78
Income (loss) before income taxes	(455,452)	363,991	(819,443)	(225)
Income tax expense (benefit)	(162,166)	87,505	(249,671)	(285)
Net income (loss)	(293,286)	276,486	(569,772)	(206)
Less net income attributable to noncontrolling interest	11,337	23,431	(12,094)	(52)
Net income (loss) attributable to HollyFrontier stockholders	\$ (304,623)	\$ 253,055	\$ (557,678)	(220)%
Earnings (loss) per share attributable to HollyFrontier stockholders:				
Basic	\$ (1.88)	\$ 1.48	\$ (3.36)	(227)%
Diluted	\$ (1.88)	\$ 1.47	\$ (3.35)	(228)%
Cash dividends declared per common share	\$ 0.35	\$ 0.33	\$ 0.02	6 %
Average number of common shares outstanding:				
Basic	161,873	170,851	(8,978)	(5)%
Diluted	161,873	172,239	(10,366)	(6)%

Balance Sheet Data

	March 31, 2020	December 31, 2019
	(Unaudited)	
	(In thousands)	
Cash and cash equivalents	\$ 909,126	\$ 885,162
Working capital	\$ 1,200,258	\$ 1,620,261
Total assets	\$ 11,221,794	\$ 12,164,841
Long-term debt	\$ 2,496,006	\$ 2,455,640
Total equity	\$ 6,110,478	\$ 6,509,426

Other Financial Data

	Three Months Ended March 31,	
	2020	2019
	(In thousands)	
Net cash provided by operating activities	\$ 190,098	\$ 216,816
Net cash used for investing activities	\$ (86,094)	\$ (726,725)
Net cash used for financing activities	\$ (71,457)	\$ (150,128)
Capital expenditures	\$ 83,749	\$ 63,735
EBITDA ⁽¹⁾	\$ (307,648)	\$ 492,253

(1) Earnings before interest, taxes, depreciation and amortization, which we refer to as “EBITDA,” is calculated as net income (loss) attributable to HollyFrontier stockholders plus (i) interest expense, net of interest income, (ii) income tax provision, and (iii) depreciation and amortization. EBITDA is not a calculation provided for under GAAP; however, the amounts included in the EBITDA calculation are derived from amounts included in our consolidated financial statements. EBITDA should not be considered as an alternative to net income or operating income as an indication of our operating performance or as an alternative to operating cash flow as a measure of liquidity. EBITDA is not necessarily comparable to similarly titled measures of other companies. EBITDA is presented here because it is a widely used financial indicator used by investors and analysts to measure performance. EBITDA is also used by our management for internal analysis and as a basis for financial covenants. EBITDA presented above is reconciled to net income under “Reconciliations to Amounts Reported Under Generally Accepted Accounting Principles” following Item 3 of Part I of this Form 10-Q.

Segment Operating Data

Our operations are organized into three reportable segments, Refining, Lubricants and Specialty Products and HEP. See Note 15 “Segment Information” in the Notes to Consolidated Financial Statements for additional information on our reportable segments.

Refining Segment Operating Data

Our refinery operations include the El Dorado, Tulsa, Navajo, Cheyenne and Woods Cross Refineries. The following tables set forth information, including non-GAAP performance measures, about our consolidated refinery operations. The cost of products and refinery gross and net operating margins do not include the non-cash effects of lower of cost or market inventory valuation adjustments and depreciation and amortization. Reconciliations to amounts reported under GAAP are provided under “Reconciliations to Amounts Reported Under Generally Accepted Accounting Principles” following Item 3 of Part I of this Form 10-Q.

	Three Months Ended March 31,	
	2020	2019
Mid-Continent Region (El Dorado and Tulsa Refineries)		
Crude charge (BPD) ⁽¹⁾	252,380	213,180
Refinery throughput (BPD) ⁽²⁾	270,920	230,050
Sales of produced refined products (BPD) ⁽³⁾	259,240	217,600
Refinery utilization ⁽⁴⁾	97.1%	82.0%
Average per produced barrel ⁽⁵⁾		
Refinery gross margin	\$ 9.54	\$ 11.14
Refinery operating expenses ⁽⁶⁾	5.30	6.66
Net operating margin	\$ 4.24	\$ 4.48
Refinery operating expenses per throughput barrel ⁽⁷⁾	\$ 5.07	\$ 6.30
Feedstocks:		
Sweet crude oil	52%	50%
Sour crude oil	22%	26%
Heavy sour crude oil	19%	17%
Other feedstocks and blends	7%	7%
Total	100%	100%

	Three Months Ended March 31,	
	2020	2019
Mid-Continent Region (El Dorado and Tulsa Refineries)		
Sales of produced refined products:		
Gasolines	51%	53%
Diesel fuels	32%	28%
Jet fuels	7%	9%
Fuel oil	1%	1%
Asphalt	3%	3%
Base oils	4%	4%
LPG and other	2%	2%
Total	100%	100%
Southwest Region (Navajo Refinery)		
Crude charge (BPD) ⁽¹⁾	106,810	106,030
Refinery throughput (BPD) ⁽²⁾	117,440	116,220
Sales of produced refined products (BPD) ⁽³⁾	113,590	123,390
Refinery utilization ⁽⁴⁾	106.8%	106.0%
Average per produced barrel ⁽⁵⁾		
Refinery gross margin	\$ 12.63	\$ 15.95
Refinery operating expenses ⁽⁶⁾	5.28	4.94
Net operating margin	\$ 7.35	\$ 11.01
Refinery operating expenses per throughput barrel ⁽⁷⁾	\$ 5.10	\$ 5.24
Feedstocks:		
Sweet crude oil	23%	16%
Sour crude oil	68%	75%
Other feedstocks and blends	9%	9%
Total	100%	100%
Sales of produced refined products:		
Gasolines	54%	54%
Diesel fuels	38%	37%
Fuel oil	2%	3%
Asphalt	3%	3%
LPG and other	3%	3%
Total	100%	100%
Rocky Mountain Region (Cheyenne and Woods Cross Refineries)		
Crude charge (BPD) ⁽¹⁾	77,170	81,220
Refinery throughput (BPD) ⁽²⁾	83,200	87,450
Sales of produced refined products (BPD) ⁽³⁾	79,460	82,040
Refinery utilization ⁽⁴⁾	79.6%	83.7%
Average per produced barrel ⁽⁵⁾		
Refinery gross margin	\$ 15.27	\$ 12.14
Refinery operating expenses ⁽⁶⁾	11.01	10.73
Net operating margin	\$ 4.26	\$ 1.41
Refinery operating expenses per throughput barrel ⁽⁷⁾	\$ 10.52	\$ 10.07

	Three Months Ended March 31,	
	2020	2019
Rocky Mountain Region (Cheyenne and Woods Cross Refineries)		
Feedstocks:		
Sweet crude oil	34%	36%
Heavy sour crude oil	36%	35%
Black wax crude oil	23%	22%
Other feedstocks and blends	7%	7%
Total	100%	100%
Sales of produced refined products:		
Gasolines	56%	54%
Diesel fuels	33%	34%
Fuel oil	3%	3%
Asphalt	5%	5%
LPG and other	3%	4%
Total	100%	100%
Consolidated		
Crude charge (BPD) ⁽¹⁾	436,360	400,430
Refinery throughput (BPD) ⁽²⁾	471,560	433,720
Sales of produced refined products (BPD) ⁽³⁾	452,290	423,030
Refinery utilization ⁽⁴⁾	95.5%	87.6%
Average per produced barrel ⁽⁵⁾		
Refinery gross margin	\$ 11.32	\$ 12.74
Refinery operating expenses ⁽⁶⁾	6.30	6.95
Net operating margin	\$ 5.02	\$ 5.79
Refinery operating expenses per throughput barrel ⁽⁷⁾	\$ 6.04	\$ 6.78
Feedstocks:		
Sweet crude oil	42%	38%
Sour crude oil	29%	34%
Heavy sour crude oil	18%	16%
Black wax crude oil	4%	4%
Other feedstocks and blends	7%	8%
Total	100%	100%
Sales of produced refined products:		
Gasolines	53%	53%
Diesel fuels	33%	32%
Jet fuels	4%	5%
Fuel oil	1%	2%
Asphalt	4%	3%
Base oils	2%	2%
LPG and other	3%	3%
Total	100%	100%

(1) Crude charge represents the barrels per day of crude oil processed at our refineries.

(2) Refinery throughput represents the barrels per day of crude and other refinery feedstocks input to the crude units and other conversion units at our refineries.

(3) Represents barrels sold of refined products produced at our refineries (including HFC Asphalt) and does not include volumes of refined products purchased for resale or volumes of excess crude oil sold.

(4) Represents crude charge divided by total crude capacity (BPSD). Our consolidated crude capacity is 457,000 BPSD.

(5) Represents average amount per produced barrel sold, which is a non-GAAP measure. Reconciliations to amounts reported under GAAP are provided under "Reconciliations to Amounts Reported Under Generally Accepted Accounting Principles" following Item 3 of Part I of this Form 10-Q.

- (6) Represents total refining segment operating expenses, exclusive of depreciation and amortization, divided by sales volumes of refined products produced at our refineries.
- (7) Represents total refining segment operating expenses, exclusive of depreciation and amortization, divided by refinery throughput.

Lubricants and Specialty Products Operating Data

The following table sets forth information about our lubricants and specialty products operations. Sonneborn is included for the period February 1, 2019 (date of acquisition) through March 31, 2019.

	Three Months Ended March 31,	
	2020	2019
Lubricants and Specialty Products		
Throughput (BPD)	21,750	19,800
Sales of produced refined products (BPD)	36,800	34,770
Sales of produced refined products:		
Finished products	47%	49%
Base oils	26%	26%
Other	27%	25%
Total	100%	100%

Supplemental financial data attributable to our Lubricants and Specialty Products segment is presented below.

	Rack Back ⁽¹⁾	Rack Forward ⁽²⁾	Eliminations ⁽³⁾	Total Lubricants and Specialty Products
	(In thousands)			
Three months ended March 31, 2020				
Sales and other revenues	\$ 164,829	\$ 474,057	\$ (112,283)	\$ 526,603
Cost of products sold	\$ 180,600	\$ 323,063	\$ (112,283)	\$ 391,380
Operating expenses	\$ 23,269	\$ 30,862	\$ —	\$ 54,131
Selling, general and administrative expenses	\$ 5,363	\$ 43,599	\$ —	\$ 48,962
Depreciation and amortization	\$ 10,867	\$ 11,182	\$ —	\$ 22,049
Income (loss) from operations	\$ (55,270)	\$ 65,351	\$ —	\$ 10,081
Three months ended March 31, 2019				
Sales and other revenues	\$ 156,455	\$ 444,342	\$ (107,463)	\$ 493,334
Cost of products sold	\$ 145,818	\$ 350,662	\$ (107,463)	\$ 389,017
Operating expenses	\$ 29,560	\$ 23,999	\$ —	\$ 53,559
Selling, general and administrative expenses	\$ 13,479	\$ 26,240	\$ —	\$ 39,719
Depreciation and amortization	\$ 10,526	\$ 9,645	\$ —	\$ 20,171
Income (loss) from operations	\$ (42,928)	\$ 33,796	\$ —	\$ (9,132)

- (1) Rack back consists of our PCLI base oil production activities, by-product sales to third parties and intra-segment base oil sales to rack forward.
- (2) Rack forward activities include the purchase of base oils from rack back and the blending, packaging, marketing and distribution and sales of finished lubricants and specialty products to third parties.
- (3) Intra-segment sales of rack back produced base oils to rack forward are eliminated under the "Eliminations" column.

Results of Operations – Three Months Ended March 31, 2020 Compared to Three Months Ended March 31, 2019

Summary

Net loss attributable to HollyFrontier stockholders for the three months ended March 31, 2020 was \$(304.6) million (\$(1.88) per basic and diluted share), a \$557.7 million decrease compared to net income of \$253.1 million (\$1.48 per basic and \$1.47 per diluted share) for the three months ended March 31, 2019. Net income decreased due principally to lower gross refining margins, partially offset by higher refining segment sales volumes. For the three months ended March 31, 2020, lower of cost or market inventory reserve adjustments decreased pre-tax earnings by \$560.5 million compared to an increase of \$232.3 million for the three months ended March 31, 2019. Refinery gross margins for the three months ended March 31, 2020 decreased to \$11.32 per barrel sold from \$12.74 for the three months ended March 31, 2019.

Sales and Other Revenues

Sales and other revenues decreased 13% from \$3,897.2 million for the three months ended March 31, 2019 to \$3,400.5 million for the three months ended March 31, 2020 due to a year-over-year decrease in first quarter sales prices, partially offset by higher refined product sales volumes. A trend began in late first quarter 2020 of reduced refined product sales prices, and we expect this trend to continue into the second quarter 2020. Sales and other revenues for the three months ended March 31, 2020 and 2019 included \$26.4 million and \$31.1 million, respectively, in HEP revenues attributable to pipeline and transportation services provided to unaffiliated parties. Additionally, sales and other revenues included \$523.5 million and \$493.3 million in unaffiliated revenues related to our Lubricants and Specialty Products segment for the three months ended March 31, 2020 and 2019, respectively.

Cost of Products Sold

Total cost of products sold increased 10% from \$2,966.9 million for the three months ended March 31, 2019 to \$3,254.2 million for the three months ended March 31, 2020 due principally to a lower of cost or market inventory valuation adjustment charge of \$560.5 million recognized during the first quarter of 2020 compared to a benefit of \$232.3 million for the same period of 2019, resulting in a new \$800.8 million inventory lower of cost or market reserve at March 31, 2020. The lower of cost or market reserve at March 31, 2020 is based on market conditions and prices at that time. Cost of products sold exclusive of lower of cost or market inventory valuation adjustment decreased \$505.5 million due primarily to lower crude oil costs, partially offset by higher refined product sales volumes. A trend began in late first quarter 2020 of lower crude oil costs, and we expect this trend to continue into the second quarter.

Gross Refinery Margins

Gross refinery margin per barrel sold decreased 11% from \$12.74 for the three months ended March 31, 2019 to \$11.32 for the three months ended March 31, 2020. This was due to the effects of a decrease in the average per barrel sold sales price during the current year quarter, partially offset by decreased crude oil and feedstock prices. A trend began in late first quarter 2020 of reduced gross refinery margin per barrel sold primarily due to lower average per barrel sold sales prices. Gross refinery margin per barrel does not include the non-cash effects of lower of cost or market inventory valuation adjustments or depreciation and amortization. See “Reconciliations to Amounts Reported Under Generally Accepted Accounting Principles” following Item 3 of Part I of this Form 10-Q for a reconciliation to the income statement of sale prices of products sold and cost of products purchased.

Operating Expenses

Operating expenses, exclusive of depreciation and amortization, decreased 1% from \$331.6 million for the three months ended March 31, 2019 to \$328.3 million for the three months ended March 31, 2020 due principally to lower repair and maintenance costs for the three months ended March 31, 2020 compared to prior period. Prior year period operating expenses included higher repair and maintenance costs related to a February 2019 fire in an FCC unit at our El Dorado Refinery.

Selling, General and Administrative Expenses

Selling, general and administrative expenses were \$87.7 million for the three months ended March 31, 2020 compared to \$88.0 million for the three months ended March 31, 2019. We incurred \$1.3 million and \$12.6 million in direct acquisition and integration costs of our Sonneborn business during the three months ended March 31, 2020 and 2019, respectively.

Depreciation and Amortization Expenses

Depreciation and amortization increased 16% from \$121.4 million for the three months ended March 31, 2019 to \$140.6 million for the three months ended March 31, 2020. This increase was due principally to depreciation and amortization attributable to capitalized improvement projects and capitalized refinery turnaround costs.

Interest Income

Interest income for the three months ended March 31, 2020 was \$4.1 million compared to \$6.4 million for the three months ended March 31, 2019. This decrease was primarily due to lower cash balances on hand and lower interest rates on cash investments during the current year quarter.

Interest Expense

Interest expense was \$22.6 million for the three months ended March 31, 2020 compared to \$36.6 million for the three months ended March 31, 2019. This decrease was primarily due to an unrealized gain on the mark-to-market change of the fair value of the embedded derivative in our catalyst financing arrangements during the current year quarter. For the three months ended March 31, 2020 and 2019, interest expense included \$16.1 million and \$19.0 million, respectively, in interest costs attributable to HEP operations. This decrease in interest expense attributable to HEP operations is due to lower market interest rates on HEP's credit facility and HEP's refinancing of its 6.0% senior notes due 2024.

Loss on Early Extinguishment of Debt

For the three months ended March 31, 2020, HEP recorded a \$25.9 million loss on the redemption of its \$500 million aggregate principal amount of 6% senior notes maturing August 2024 for \$522.5 million.

Gain (Loss) on Foreign Currency Transactions

Remeasurement adjustments resulting from the foreign currency conversion of the intercompany financing notes payable by PCLI net of gains on foreign exchange forward contracts with banks which hedge the foreign currency exposure on these intercompany notes were a loss of \$4.2 million for the three months ended March 31, 2020 compared to a net gain of \$2.3 million for the three months ended March 31, 2019. For the three months ended March 31, 2020 and 2019, gain / loss on foreign currency transactions included a gain of \$33.5 million and a loss of \$7.6 million, respectively, on foreign exchange forward contracts (utilized as an economic hedge).

Income Taxes

For the three months ended March 31, 2020, we recorded an income tax benefit of \$162.2 million compared to income tax expense of \$87.5 million for the three months ended March 31, 2019. This decrease was due principally to a pre-tax loss during the three months ended March 31, 2020 compared to pre-tax earnings in the same period of 2019. Our effective tax rates were 35.6% and 24.0% for the three months ended March 31, 2020 and 2019, respectively. The year-over-year increase in the effective tax rate is due principally to the relationship between the pre-tax loss and the earnings attributable to the noncontrolling interest that is not included in income for tax purposes.

LIQUIDITY AND CAPITAL RESOURCES**HollyFrontier Credit Agreement**

We have a \$1.35 billion senior unsecured revolving credit facility maturing in February 2022 (the "HollyFrontier Credit Agreement"). The HollyFrontier Credit Agreement may be used for revolving credit loans and letters of credit from time to time and is available to fund general corporate purposes. At March 31, 2020, we were in compliance with all covenants, had no outstanding borrowings and had outstanding letters of credit totaling \$4.9 million under the HollyFrontier Credit Agreement.

HollyFrontier Financing Arrangements

In December 2018, certain of our wholly-owned subsidiaries entered into financing arrangements whereby such subsidiaries sold a portion of their precious metals catalyst to a financial institution and then leased back the precious metals catalyst in exchange for total cash received of \$32.5 million. The volume of the precious metals catalyst and the lease rate are fixed over the term of each lease, and the lease payments are recorded as interest expense. The leases mature on February 1, 2021. Upon maturity, we must either satisfy the obligation at fair market value or refinance to extend the maturity.

HEP Credit Agreement

HEP has a \$1.4 billion senior secured revolving credit facility maturing in July 2022 (the "HEP Credit Agreement") and is available to fund capital expenditures, investments, acquisitions, distribution payments, working capital and for general partnership purposes. It is also available to fund letters of credit up to a \$50 million sub-limit and has a \$300 million accordion. During the three months ended March 31, 2020, HEP received advances totaling \$112.0 million and repaid \$67.0 million under the HEP Credit Agreement. At March 31, 2020, HEP was in compliance with all of its covenants, had outstanding borrowings of \$1,010.5 million and no outstanding letters of credit under the HEP Credit Agreement.

HEP Senior Notes

On February 4, 2020, HEP closed a private placement of \$500 million in aggregate principal amount of 5.0% HEP senior unsecured notes maturing February 2028. On February 5, 2020, HEP redeemed its existing \$500 million aggregate principal amount of 6.0% senior notes maturing August 2024 at a redemption cost of \$522.5 million. HEP recognized a \$25.9 million early extinguishment loss consisting of a \$22.5 million debt redemption premium and unamortized discount and financing costs of \$3.4 million. HEP funded the \$522.5 million redemption with proceeds from the issuance of its 5.0% senior notes and borrowings under the HEP Credit Agreement.

See Note 9 “Debt” in the Notes to Consolidated Financial Statements for additional information on our debt instruments.

HEP Common Unit Continuous Offering Program

In May 2016, HEP established a continuous offering program under which HEP may issue and sell common units from time to time, representing limited partner interests, up to an aggregate gross sales amount of \$200 million. During the three months ended March 31, 2020, HEP did not issue any common units under this program. As of March 31, 2020, HEP has issued 2,413,153 units under this program, providing \$82.3 million in gross proceeds.

Liquidity

We believe our current cash and cash equivalents, along with future internally generated cash flow and funds available under our credit facilities, will provide sufficient resources to fund currently planned capital projects and our liquidity needs for the foreseeable future. In addition, subject to our current cash conservation strategies as discussed above in “Outlook,” components of our growth strategy include the expansion of existing units at our facilities and selective acquisition of complementary assets for our refining operations intended to increase earnings and cash flow. We also expect to use cash for payment of cash dividends, which are at the discretion of our Board of Directors, and, once commodity prices and demand for products normalize, for the repurchases of our common stock under our share repurchase program.

Our standalone (excluding HEP) liquidity was over \$2.2 billion at March 31, 2020, consisting of cash and cash equivalents totaling \$889.8 million and an undrawn \$1.35 billion credit facility maturing in 2022. Our earliest standalone (excluding HEP) debt maturity is \$1.0 billion of senior notes in 2026.

We consider all highly-liquid instruments with a maturity of three months or less at the time of purchase to be cash equivalents. Cash equivalents are stated at cost, which approximates market value. These primarily consist of investments in conservative, highly-rated instruments issued by financial institutions, government and corporate entities with strong credit standings and money market funds.

In November 2019, our Board of Directors approved a \$1.0 billion share repurchase program, which replaced all existing share repurchase programs, authorizing us to repurchase common stock in the open market or through privately negotiated transactions. The timing and amount of stock repurchases will depend on market conditions and corporate, regulatory and other relevant considerations. This program may be discontinued at any time by the Board of Directors. As of March 31, 2020, we had not repurchased common stock under this stock repurchase program. In addition, we are authorized by our Board of Directors to repurchase shares in an amount sufficient to offset shares issued under our compensation programs. In order to preserve liquidity, we do not intend to repurchase common stock under our \$1.0 billion share repurchase program until commodity prices and demand for products normalize.

Cash and cash equivalents increased \$24.0 million for the three months ended March 31, 2020. Net cash provided by operating activities of \$190.1 million exceeded net cash used by investing and financing activities of \$86.1 million, and \$71.5 million, respectively.

Cash Flows – Operating Activities

Three Months Ended March 31, 2020 Compared to Three Months Ended March 31, 2019

Net cash flows provided by operating activities were \$190.1 million for the three months ended March 31, 2020 compared to \$216.8 million for the three months ended March 31, 2019, a decrease of \$26.7 million. Net loss for the three months ended March 31, 2020 of \$(293.3) million, was a decrease of \$569.8 million compared to net income of \$276.5 million for the three months ended March 31, 2019. Non-cash adjustments to net income consisting of depreciation and amortization, lower of cost or market inventory valuation adjustment, earnings of equity method investments, inclusive of distributions, loss on early extinguishment of debt, gain on sale of assets, deferred income taxes, equity-based compensation expense and fair value changes to derivative instruments totaled \$539.4 million for the three months ended March 31, 2020 compared to \$(48.5) million for the same period in 2019. Adjusted for non-cash items, changes in working capital decreased operating cash flows by \$65.4 million and increased operating cash flows by \$63.9 million, for the three months ended March 31, 2020 and 2019, respectively. Additionally, for the three months ended March 31, 2020, turnaround expenditures decreased to \$38.7 million from \$78.6 million from the same period of 2019.

Cash Flows – Investing Activities and Planned Capital Expenditures

Three Months Ended March 31, 2020 Compared to Three Months Ended March 31, 2019

Net cash flows used for investing activities were \$86.1 million for the three months ended March 31, 2020 compared to \$726.7 million for the three months ended March 31, 2019, a decrease of \$640.6 million. Cash expenditures for properties, plants and equipment for the first three months of 2020 increased to \$83.7 million from \$63.7 million for the same period in 2019. These include HEP capital expenditures of \$18.9 million and \$10.7 million for the three months ended March 31, 2020 and 2019, respectively. Prior year investing activities reflected a net cash outflow of \$663.4 million upon the acquisition of Sonneborn.

Planned Capital Expenditures

HollyFrontier Corporation

Each year our Board of Directors approves our annual capital budget, which includes specific projects that management is authorized to undertake. Additionally, when conditions warrant or as new opportunities arise, additional projects may be approved. The funds appropriated for a particular capital project may be expended over a period of several years, depending on the time required to complete the project. Therefore, our planned capital expenditures for a given year consist of expenditures appropriated in that year's capital budget plus expenditures for projects appropriated in prior years which have not yet been completed. Refinery turnaround spending is amortized over the useful life of the turnaround.

The refining industry is capital intensive and requires on-going investments to sustain our refining operations. This includes replacement of, or rebuilding, refinery units and components that extend the useful life. We also invest in projects that improve operational reliability and profitability via enhancements that improve refinery processing capabilities as well as production yield and flexibility. Our capital expenditures also include projects related to environmental, health and safety compliance and include initiatives as a result of federal and state mandates.

Our refinery operations and related emissions are highly regulated at both federal and state levels, and we invest in our facilities as needed to remain in compliance with these standards. Additionally, when faced with new emissions or fuels standards, we seek to execute projects that facilitate compliance and also improve the operating costs and / or yields of associated refining processes.

HEP

Each year the Holly Logistic Services, L.L.C. board of directors approves HEP's annual capital budget, which specifies capital projects that HEP management is authorized to undertake. Additionally, at times when conditions warrant or as new opportunities arise, special projects may be approved. The funds allocated for a particular capital project may be expended over a period in excess of a year, depending on the time required to complete the project. Therefore, HEP's planned capital expenditures for a given year consist of expenditures approved for capital projects included in its current year capital budget as well as, in certain cases, expenditures approved for capital projects in capital budgets for prior years. HEP expects the majority of the expansion capital budget in 2020 to be invested in the Cushing Connect joint venture. In addition, HEP may spend funds periodically to perform capital upgrades or additions to its assets where a customer reimburses HEP for such costs. The upgrades or additions would generally benefit the customer over the remaining life of the related service agreements.

Due to the COVID-19 pandemic and resulting decline in U.S. and global economic activities, we have reduced our 2020 expected total consolidated capital expenditures by approximately 15% from our approved annual capital budget. Expected capital and turnaround cash spending for 2020 is as follows:

	Expected Cash Spending Range	
	(In millions)	
HollyFrontier Capital Expenditures		
Refining	\$ 222.0	\$ 251.0
Renewable Diesel Unit	130.0	150.0
Lubricants and Specialty Products	30.0	45.0
Turnarounds and catalyst	85.0	110.0
Total HollyFrontier	467.0	556.0
HEP		
Maintenance	8.0	12.0
Expansion and joint venture investment	45.0	50.0
Refining unit turnarounds	5.0	7.0
Total HEP	58.0	69.0
Total	\$ 525.0	\$ 625.0

Cash Flows – Financing Activities

Three Months Ended March 31, 2020 Compared to Three Months Ended March 31, 2019

Net cash flows used for financing activities were \$71.5 million for the three months ended March 31, 2020 compared to \$150.1 million for the three months ended March 31, 2019, a decrease of \$78.7 million. During the three months ended March 31, 2020, we purchased \$1.1 million of treasury stock and paid \$57.2 million in dividends. Also during this period, HEP received \$112.0 million and repaid \$67.0 million under the HEP Credit Agreement, paid \$522.5 million upon the redemption of HEP's 6.0% senior notes and received \$491.5 million in net proceeds from issuance of HEP 5.0% senior notes, paid distributions of \$33.9 million to noncontrolling interests and received contributions from noncontrolling interests of \$7.3 million. During the three months ended March 31, 2019, we purchased \$77.8 million of treasury stock and paid \$56.8 million in dividends. Also during this period, HEP received \$104.0 million and repaid \$85.0 million under the HEP Credit Agreement and paid distributions of \$33.7 million to noncontrolling interests.

Contractual Obligations and Commitments

HollyFrontier Corporation

There were no significant changes to our long-term contractual obligations during the three months ended March 31, 2020.

HEP

In February 2020, HEP issued \$500 million in aggregate principal amount of 5.0% HEP senior notes maturing February 2028 and redeemed its existing \$500 million 6.0% senior notes maturing August 2024.

During the three months ended March 31, 2020, HEP had net borrowings of \$45.0 million resulting in \$1,010.5 million of outstanding borrowings under the HEP Credit Agreement at March 31, 2020.

There were no other significant changes to HEP's long-term contractual obligations during this period.

CRITICAL ACCOUNTING POLICIES

Our discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities as of the date of the financial statements. Actual results may differ from these estimates under different assumptions or conditions.

Our significant accounting policies are described in “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations – Critical Accounting Policies” in our Annual Report on Form 10-K for the year ended December 31, 2019. Certain critical accounting policies that materially affect the amounts recorded in our consolidated financial statements include the use of the last-in, first-out (“LIFO”) method of valuing certain inventories, assessing the possible impairment of certain long-lived assets and goodwill, and assessing contingent liabilities for probable losses.

Inventory Valuation: Inventories related to our refining operations are stated at the lower of cost, using the LIFO method for crude oil and unfinished and finished refined products, or market. In periods of rapidly declining prices, LIFO inventories may have to be written down to market value due to the higher costs assigned to LIFO layers in prior periods. In addition, the use of the LIFO inventory method may result in increases or decreases to cost of sales in years that inventory volumes decline as the result of charging cost of sales with LIFO inventory costs generated in prior periods. An actual valuation of inventory under the LIFO method is made at the end of each year based on the inventory levels at that time. Accordingly, interim LIFO calculations are based on management’s estimates of expected year-end inventory levels and are subject to the final year-end LIFO inventory valuation.

At March 31, 2020, our lower of cost or market inventory valuation reserve was \$800.8 million. This amount, or a portion thereof, is subject to reversal as a reduction to cost of products sold in subsequent periods as inventories giving rise to the reserve are sold, and a new reserve is established.

Inventories consisting of process chemicals, materials and maintenance supplies and RINs are stated at the lower of weighted-average cost or net realizable value. Inventories of our Petro-Canada Lubricants and Sonneborn businesses are stated at the lower of cost, using the FIFO method, or net realizable value.

Goodwill and Long-lived Assets: As of March 31, 2020, our goodwill balance was \$2.4 billion, with goodwill assigned to our Refining, Lubricants and Specialty Products and HEP segments of \$1,733.5 million, \$327.1 million and \$312.9 million, respectively. Goodwill represents the excess of the cost of an acquired entity over the fair value of the assets acquired and liabilities assumed. Goodwill is not subject to amortization and is tested annually or more frequently if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. Our goodwill impairment testing first entails either a quantitative assessment or an optional qualitative assessment to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If we determine that based on the qualitative factors that it is more likely than not that the fair value of the reporting unit is greater than its carrying amount, a quantitative test is performed in which we estimate the fair value of the related reporting unit. If the carrying amount of a reporting unit exceeds its fair value, the goodwill of that reporting unit is impaired, and we measure goodwill impairment as the excess of the carrying amount of reporting unit over the related fair value.

Our long-lived assets principally consist of our refining assets that are organized as refining asset groups and the assets of our Lubricants and Specialty Products business. The refinery asset groups also constitute our individual refinery reporting units that are used for testing and measuring goodwill impairments. Our long-lived assets are evaluated for impairment by identifying whether indicators of impairment exist and if so, assessing whether the long-lived assets are recoverable from estimated future undiscounted cash flows. The actual amount of impairment loss measured, if any, is equal to the amount by which the asset group’s carrying value exceeds its fair value.

Due to the recent economic slowdown caused by the COVID-19 pandemic, we performed a qualitative analysis of whether it is more likely than not that the fair value of our reporting units that include goodwill balances is less than their carrying amounts as of March 31, 2020. These effects of this recent economic slowdown on our operating results and financial position include reductions in the prices of our finished goods, raw materials and the related decrease in our gross margins. As of March 31, 2020, we have concluded that it is more likely than not that the carrying amounts of our reporting units that include goodwill are less than their fair value. A reasonable expectation exists that further deterioration in gross margins or a prolonged economic slowdown due to COVID-19 could result in an impairment of goodwill at some point in the future. Such impairment charges could be material. Our annual goodwill impairment testing is performed on July 1.

Contingencies

We are subject to proceedings, lawsuits and other claims related to environmental, labor, product and other matters. We are required to assess the likelihood of any adverse judgments or outcomes to these matters as well as potential ranges of probable losses. A determination of the amount of reserves required, if any, for these contingencies is made after careful analysis of each individual issue. The required reserves may change in the future due to new developments in each matter or changes in approach such as a change in settlement strategy in dealing with these matters.

RISK MANAGEMENT

We use certain strategies to reduce some commodity price and operational risks. We do not attempt to eliminate all market risk exposures when we believe that the exposure relating to such risk would not be significant to our future earnings, financial position, capital resources or liquidity or that the cost of eliminating the exposure would outweigh the benefit.

Commodity Price Risk Management

Our primary market risk is commodity price risk. We are exposed to market risks related to the volatility in crude oil and refined products, as well as volatility in the price of natural gas used in our refining operations. We periodically enter into derivative contracts in the form of commodity price swaps, forward purchase and sales and futures contracts to mitigate price exposure with respect to our inventory positions, natural gas purchases, sales prices of refined products and crude oil costs.

Foreign Currency Risk Management

We are exposed to market risk related to the volatility in foreign currency exchange rates. We periodically enter into derivative contracts in the form of foreign exchange forward and foreign exchange swap contracts to mitigate the exposure associated with fluctuations on intercompany notes with our foreign subsidiaries that are not denominated in the U.S. dollar.

As of March 31, 2020, we have the following notional contract volumes related to all outstanding derivative instruments used to mitigate commodity price and foreign currency risk:

Derivative Instrument	Total Outstanding Notional	Notional Contract Volumes by Year of Maturity		Unit of Measure
		2020	2021	
Natural gas price swaps - long	3,150,000	1,350,000	1,800,000	MMBTU

Crude oil price swaps (basis spread) - long	4,675,000	4,675,000	—	Barrels
NYMEX futures (WTI) - short	455,000	455,000	—	Barrels
Forward gasoline contracts - long	1,450,000	1,450,000	—	Barrels
Foreign currency forward contracts	426,037,417	319,732,567	106,304,850	U.S. dollar
Forward commodity contracts (platinum) ⁽¹⁾	40,867	—	40,867	Troy ounces

(1) Represents an embedded derivative within our catalyst financing arrangements, which may be refinanced or require repayment under certain conditions. See Note 9 “Debt” in the Notes to Consolidated Financial Statements for additional information on these financing arrangements.

The following sensitivity analysis provides the hypothetical effects of market price fluctuations to the commodity positions hedged under our derivative contracts:

Commodity-based Derivative Contracts	Estimated Change in Fair Value at March 31,	
	2020	2019
	(In thousands)	
Hypothetical 10% change in underlying commodity prices	\$ 319	\$ 2,670

Interest Rate Risk Management

The market risk inherent in our fixed-rate debt is the potential change arising from increases or decreases in interest rates as discussed below.

For the fixed rate HollyFrontier Senior Notes and HEP Senior Notes, changes in interest rates will generally affect fair value of the debt, but not earnings or cash flows. The outstanding principal, estimated fair value and estimated change in fair value (assuming a hypothetical 10% change in the yield-to-maturity rates) for this debt as of March 31, 2020 is presented below:

	Outstanding Principal	Estimated Fair Value	Estimated Change in Fair Value
	(In thousands)		
HollyFrontier Senior Notes	\$ 1,000,000	\$ 880,540	\$ 37,308
HEP Senior Notes	\$ 500,000	\$ 416,795	\$ 20,967

For the variable rate HEP Credit Agreement, changes in interest rates would affect cash flows, but not the fair value. At March 31, 2020, outstanding borrowings under the HEP Credit Agreement were \$1,010.5 million. A hypothetical 10% change in interest rates applicable to the HEP Credit Agreement would not materially affect cash flows.

Our operations are subject to hazards of petroleum processing operations, including fire, explosion and weather-related perils. We maintain various insurance coverages, including business interruption insurance, subject to certain deductibles. We are not fully insured against certain risks because such risks are not fully insurable, coverage is unavailable, or premium costs, in our judgment, do not justify such expenditures.

Financial information is reviewed on the counterparties in order to review and monitor their financial stability and assess their ongoing ability to honor their commitments under the derivative contracts. We have not experienced, nor do we expect to experience, any difficulty in the counterparties honoring their commitments.

We have a risk management oversight committee consisting of members from our senior management. This committee oversees our risk enterprise program, monitors our risk environment and provides direction for activities to mitigate identified risks that may adversely affect the achievement of our goals.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

See “Risk Management” under “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

Reconciliations to Amounts Reported Under Generally Accepted Accounting Principles

Reconciliations of earnings before interest, taxes, depreciation and amortization (“EBITDA”) to amounts reported under generally accepted accounting principles in financial statements.

Earnings before interest, taxes, depreciation and amortization, which we refer to as EBITDA, is calculated as net income (loss) attributable to HollyFrontier stockholders plus (i) interest expense, net of interest income, (ii) income tax provision, and (iii) depreciation and amortization. EBITDA is not a calculation provided for under GAAP; however, the amounts included in the EBITDA calculation are derived from amounts included in our consolidated financial statements. EBITDA should not be considered as an alternative to net income or operating income as an indication of our operating performance or as an alternative to operating cash flow as a measure of liquidity. EBITDA is not necessarily comparable to similarly titled measures of other companies. EBITDA is presented here because it is a widely used financial indicator used by investors and analysts to measure performance. EBITDA is also used by our management for internal analysis and as a basis for financial covenants.

Set forth below is our calculation of EBITDA.

	Three Months Ended March 31,	
	2020	2019
	(In thousands)	
Net income (loss) attributable to HollyFrontier stockholders	\$ (304,623)	\$ 253,055
Add interest expense	22,639	36,647
Subtract interest income	(4,073)	(6,375)
Add income tax expense	(162,166)	87,505
Add depreciation and amortization	140,575	121,421
EBITDA	<u>\$ (307,648)</u>	<u>\$ 492,253</u>

Reconciliations of refinery operating information (non-GAAP performance measures) to amounts reported under generally accepted accounting principles in financial statements.

Refinery gross margin and net operating margin are non-GAAP performance measures that are used by our management and others to compare our refining performance to that of other companies in our industry. We believe these margin measures are helpful to investors in evaluating our refining performance on a relative and absolute basis. Refinery gross margin per produced barrel sold is total refining segment revenues less total refining segment cost of products sold, exclusive of lower of cost or market inventory valuation adjustments, divided by sales volumes of produced refined products sold. Net operating margin per barrel sold is the difference between refinery gross margin and refinery operating expenses per produced barrel sold. These two margins do not include the non-cash effects of lower of cost or market inventory valuation adjustments or depreciation and amortization. Each of these component performance measures can be reconciled directly to our consolidated statements of income. Other companies in our industry may not calculate these performance measures in the same manner.

Below are reconciliations to our consolidated statements of income for refinery net operating and gross margin and operating expenses, in each case averaged per produced barrel sold. Due to rounding of reported numbers, some amounts may not calculate exactly.

Reconciliation of average refining segment net operating margin per produced barrel sold to refinery gross margin to total sales and other revenues

	Three Months Ended March 31,	
	2020	2019
	(Dollars in thousands, except per barrel amounts)	
Consolidated		
Net operating margin per produced barrel sold	\$ 5.02	\$ 5.79
Add average refinery operating expenses per produced barrel sold	6.30	6.95
Refinery gross margin per produced barrel sold	11.32	12.74
Times produced barrels sold (BPD)	452,290	423,030
Times number of days in period	91	90
Refining segment gross margin	465,913	485,046
Add (subtract) rounding	202	(176)
Total refining segment gross margin	466,115	484,870
Add refining segment cost of products sold	2,468,751	2,962,540
Refining segment sales and other revenues	2,934,866	3,447,410
Add lubricants and specialty products segment sales and other revenues	526,603	493,334
Add HEP segment sales and other revenues	127,854	134,497
Subtract corporate, other and eliminations	(188,778)	(177,994)
Sales and other revenues	\$ 3,400,545	\$ 3,897,247

Reconciliation of average refining segment operating expenses per produced barrel sold to total operating expenses

	Three Months Ended March 31,	
	2020	2019
	(Dollars in thousands, except per barrel amounts)	
Consolidated		
Average refinery operating expenses per produced barrel sold	\$ 6.30	\$ 6.95
Times produced barrels sold (BPD)	452,290	423,030
Times number of days in period	91	90
Refinery operating expenses	259,298	264,605
Add (subtract) rounding	(124)	(108)
Total refining segment operating expenses	259,174	264,497
Add lubricants and specialty products segment operating expenses	54,131	53,559
Add HEP segment operating expenses	34,981	37,513
Subtract corporate, other and eliminations	(19,941)	(23,977)
Operating expenses (exclusive of depreciation and amortization)	\$ 328,345	\$ 331,592

Item 4. Controls and Procedures

Evaluation of disclosure controls and procedures. Our principal executive officer and principal financial officer have evaluated, as required by Rule 13a-15(b) under the Securities Exchange Act of 1934 (the “Exchange Act”), our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e)) under the Exchange Act as of the end of the period covered by this Quarterly Report on Form 10-Q. Our disclosure controls and procedures are designed to provide reasonable assurance that the information we are required to disclose in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure and is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission’s rules and forms. Based upon the evaluation, our principal executive officer and principal financial officer have concluded that our disclosure controls and procedures were effective at the reasonable assurance level as of March 31, 2020.

Changes in internal control over financial reporting. There have been no changes in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) that occurred during our last fiscal quarter that have materially affected or are reasonably likely to materially affect our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

In the ordinary course of business, we may become party to legal, regulatory or administrative proceedings or governmental investigations, including environmental and other matters. Damages or penalties may be sought from us in some matters and certain matters may require years to resolve. While the outcome and impact of these proceedings and investigations on us cannot be predicted with certainty, based on advice of counsel and information currently available to us, management believes that the resolution of these proceedings and investigations through settlement or adverse judgment will not either individually or in the aggregate have a material adverse effect on our financial condition, results of operations or cash flows.

The environmental proceedings are reported to comply with SEC regulations which require us to disclose proceedings arising under provisions regulating the discharge of materials into the environment or protecting the environment if we reasonably believe that such proceedings may result in monetary sanctions of \$100,000 or more.

Environmental Matters

Cheyenne

HollyFrontier Cheyenne Refining LLC (“HFCR”) has been in discussions with the Wyoming Department of Environmental Quality (“WDEQ”) and the EPA relating to alleged violations of air quality emission limitations and requirements related to operation of certain refinery units at the Cheyenne Refinery. Notices of Violations were issued by the WDEQ in late 2016 and 2018. On July 18, 2019, HFCR and WDEQ entered into a consent decree, and on August 9, 2019, HFCR paid penalties in the amount of \$117,000 related to alleged violations of air quality limits that occurred during the second quarter of 2016 through the second quarter of 2017. Separately, on October 23, 2019, HFCR received a Notice of Violation from the WDEQ for possible violations of air quality standards during the first and second quarters of 2019. No penalty demand has yet been made by the WDEQ relating to such possible violations. HFCR and WDEQ are in discussions to resolve WDEQ's alleged violations of air quality limits that occurred during the third quarter of 2017 through calendar year 2019.

On August 19, 2019 and October 30, 2019, HFCR received letters from the EPA providing a preliminary estimate of stipulated penalties related to the alleged violations that occurred during the third quarter of 2017 through the second quarter of 2019 pursuant to HFCR's federal consent decree. HFCR responded to the EPA preliminary estimate of stipulated penalties related to the alleged violations that occurred during the third quarter of 2017 through calendar year 2018 in a letter dated September 18, 2019, followed by meetings with the EPA and the WDEQ on November 14, 2019 and December 4, 2019, to discuss an appropriate resolution of all alleged violations. HFCR settled the allegations in the EPA's August 19, 2019 and October 30, 2019 letters, and pursuant to a demand letter dated January 9, 2020, HFCR was assessed stipulated penalties totaling \$700,000 pursuant to HFCR's federal consent decree. HFCR remitted payment of this amount to resolve the alleged violations.

El Dorado

HollyFrontier El Dorado Refining LLC (“HFEDR”) is engaged in discussions with, and has responded to document requests from, the EPA and the U.S. Department of Justice (“DOJ”) and the State of Kansas regarding potential Clean Air Act civil violations relating to flaring devices and other equipment at the refinery. Topics of the discussions include (a) three information requests for activities beginning in January 2009, (b) Risk Management Program compliance issues relating to a November 2014 inspection and subsequent events, (c) a Notice of Violation issued by the EPA in August 2017 and (d) possible late reporting under the Emergency Planning and Community Right-to-Know Act for the release of sulfur dioxide and visible emissions from October 2018. Some of the foregoing civil investigations resulted from fires that occurred at the El Dorado Refinery in September 2017, October 2018 and March 2019. An employee fatality occurred during the September 2017 event. HFEDR is currently in a dialogue with the EPA, DOJ and State of Kansas about a possible settlement of alleged civil violations for the foregoing items.

The Occupational Safety and Health Administration (“OSHA”) conducted investigations into both the September 2017 and March 2019 events identified above, and HFEDR settled the OSHA claims related to those investigations in 2018 and 2019, respectively. In April 2019, HFEDR became aware that the EPA also initiated a criminal investigation into one or more of the foregoing events. HFEDR has received a grand jury subpoena requesting certain documents be provided to the EPA with respect to the September 2017 event. We are cooperating with this investigation.

Tulsa

HollyFrontier Tulsa Refining LLC (“HFTR”) operates under two Consent Decrees with the EPA and the Oklahoma Department of Environmental Quality (“ODEQ”) for the East and West Refineries. On December 13, 2017, during a meeting between the parties, ODEQ proposed stipulated penalties related to violations of the two Consent Decrees. The violations concern Clean Air Act regulated fuel gas and flare operations. On July 1, 2019, ODEQ issued a demand letter for stipulated penalties under the East Refinery Consent Decree as proposed in the 2017 meeting. In August 2019, HFTR paid the penalties set forth in the demand letter to ODEQ and the EPA satisfying the requirements of the East Refinery Consent Decree. On September 16, 2019, ODEQ issued a demand letter for stipulated penalties under the West Refinery Consent Decree. Following discussions with ODEQ, in a subsequent letter dated April 17, 2020, ODEQ reduced its September 2019 demand for stipulated penalties. The penalty is due by June 20, 2020. Separately, on April 3, 2019, during a meeting between the parties, the EPA notified HFTR of potential monitoring violations of the Consent Decrees. HFTR is working with the ODEQ and the EPA to document a settlement agreement for the additional actions.

Federal Trade Commission

On July 23, 2019, the Federal Trade Commission (“FTC”) issued a Civil Investigative Demand and a related Subpoena Duces Tecum requesting we provide specified information relating to the Sonneborn acquisition that closed on February 1, 2019. We are in the process of responding to the FTC request. Based on the limited information that we have at this time, we are unable to predict the outcome of this request. On December 14, 2018, we received early termination of the applicable waiting period under the Hart-Scott-Rodino Antitrust Improvements Act from the FTC and Department of Justice with respect to the Sonneborn acquisition. On January 17, 2019, we received early termination of the applicable waiting period under the German antitrust laws with respect to the Sonneborn acquisition. Early termination is granted to transactions that the antitrust agencies determine raise no substantive competition concerns.

Renewable Fuel Standard

Various subsidiaries of HollyFrontier moved to intervene in four lawsuits brought by renewable fuel interest groups against the EPA in federal courts alleging violations of the Renewable Fuel Standard under the Clean Air Act and challenging the EPA’s handling of small refinery exemptions. We intervened to vigorously defend the EPA’s position on small refinery exemptions because we believe the EPA correctly applied applicable law to the matters at issue. The U.S. Court of Appeals for the DC Circuit dismissed one of these four lawsuits on November 12, 2019 for lack of jurisdiction. On January 24, 2020, the U.S. Court of Appeals for the Tenth Circuit vacated the small refinery exemptions granted to two of our refineries for 2016 and remanded the case to the EPA for further proceedings. On March 24, 2020, various subsidiaries of HollyFrontier filed a Petition for Rehearing with the U.S. Court of Appeals for the Tenth Circuit. On April 7, 2020, the 10th Circuit denied our request to reconsider its decision, and on April 15, 2020, the Tenth Circuit entered its mandate, remanding the matter back to the EPA. It is not clear at this time what steps the EPA will take with respect to our 2016 small refinery exemptions, or how the case will impact future small refinery exemptions.

Other

We are a party to various other litigation and proceedings that we believe, based on advice of counsel, will not either individually or in the aggregate have a materially adverse impact on our financial condition, results of operations or cash flows.

Item 1A. Risk Factors

Except for the additional risk factor below, there have been no material changes in our risk factors as previously disclosed in Part 1, “Item 1A. Risk Factors” of our Annual Report on Form 10-K for the fiscal year ended December 31, 2019. You should carefully consider the risk factors discussed below and in our 2019 Form 10-K, which could materially affect our business, financial condition or future results. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition or future results.

Our business depends on hydrocarbon supply and demand fundamentals, which can be adversely affected by numerous factors outside of our control, including the widespread outbreak of an illness, pandemic (like COVID-19) or any other public health crisis as well as actions taken by oil producers.

Our success depends on the demand for petroleum products such as transportation fuels and finished lubricant products, which is largely driven by the conditions of local and worldwide economies, and the supply of crude oil and other feedstocks. COVID-19’s spread across the globe and government regulations in response thereto have negatively affected worldwide economic and commercial activity, reduced global demand for oil, gas and refined products, and created significant volatility and disruption of

financial and commodity markets. Other factors expected to impact crude oil supply include production levels implemented by OPEC members, other large oil producers such as Russia and domestic and Canadian oil producers. For example, during the first quarter of 2020, OPEC and Russia failed to agree on a plan to cut production of oil and related commodities. Subsequently, Saudi Arabia announced plans to increase production and reduce the prices at which they sell oil. The oversupply of crude oil in the market could cause domestic and Canadian oil producers from whom we source crude oil to shut-in their production, which could impact our ability to readily source crude oil once the stored crude oil is depleted. This combination of events has contributed to a sharp drop in prices for crude oil and refined products in the first quarter of 2020. In addition, the supply and demand for refined and finished lubricant products will depend on many other factors outside of our control, some of which include:

- changes in domestic and international demand for, and the marketability of, our refined and finished lubricant products due to governmental regulations, including travel bans and restrictions, quarantines, shelter in place orders, and shutdowns, which could result in a full or partial shutdown of our facilities;
- increased price volatility, including the price we receive for refined and finished lubricant products;
- the health of our workforce, including contractors and subcontractors, and their access to our facilities, which could result in a full or partial shutdown of our facilities if a significant portion of the workforce at a facility is impacted;
- the ability or willingness of our vendors and suppliers to provide the equipment, parts, crude oil or other raw materials for our operations or otherwise fulfill their contractual obligations, which could reduce our production levels or otherwise cause our delay or failure to deliver refined or other finished lubricant products timely or at all or cause delay or failure to complete projects at our facilities;
- the ability or willingness of our customers to fulfill their contractual obligations or any material reduction in, or loss of, revenue from our customers;
- increased potential for the occurrence of operational hazards, including terrorism, cyberattacks or domestic vandalism, as well as information system failures or communication network disruptions;
- increased cost and reduced availability of capital for growth or capital expenditures;
- availability and operability of terminals, tankage and pipelines that store and transport crude oil and refined and finished lubricant products;
- delay by government authorities in issuing permits necessary for our business or our capital projects;
- shareholder activism and activities by non-governmental organizations to limit sources of funding for the energy sector;
- increased costs of operation in relation to the COVID-19 outbreak, which costs may be fully recoverable or adequately covered by insurance; and
- the impact of any economic downturn, recession or other disruption of the U.S. and global economies and financial and commodity markets.

The spread of COVID-19 has caused us to significantly modify our business practices (including limiting employee and contractor presence at our work locations and reducing utilization at our refineries), and we may take further actions as may be required by government authorities or that we determine are in the best interests of our employees, contractors, customers, suppliers and communities. There is no certainty that such measures will be sufficient to mitigate the risks posed by the virus, and our ability to perform critical functions could be adversely impacted. In addition, a reasonable expectation exists that further deterioration in gross margins or a prolonged economic slowdown due to the COVID-19 pandemic could result in an impairment of goodwill at some point in the future. Such impairment charges could be material.

As the potential effects of COVID-19 are difficult to predict, the duration of any potential business disruption or the extent to which it may negatively affect our operating results is uncertain. Any potential impact will depend on future developments and new information that may emerge regarding the spread, severity and duration of the COVID-19 pandemic and the actions taken by authorities to contain it or treat its impact, all of which are beyond our control. In addition, if the volatility and seasonality in the oil and gas industry were to increase the demand for our products and the prices that we will be able to charge for those products may decline. We are monitoring the situation to assess further possible implications to our business and to take actions in an effort to mitigate adverse consequences. These potential effects, while uncertain, could adversely affect our business, financial condition, results of operations and/or cash flows, as well as our ability to pay dividends to our shareholders.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds**(c) Common Stock Repurchases Made in the Quarter**

Under our common stock repurchase programs, repurchases are being made from time to time in the open market or privately negotiated transactions based on market conditions, securities law limitations and other factors. The following table includes repurchases made under these programs during the first quarter of 2020.

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs
January 2020	—	\$ —	—	\$ 1,000,000,000
February 2020	—	\$ —	—	\$ 1,000,000,000
March 2020	—	\$ —	—	\$ 1,000,000,000
Total for January to March 2020	—	—	—	—

Item 6. Exhibits

The Exhibit Index on page 56 of this Quarterly Report on Form 10-Q lists the exhibits that are filed or furnished, as applicable, as part of the Quarterly Report on Form 10-Q.

Exhibit Index

Exhibit Number	Description
3.1	Amended and Restated Certificate of Incorporation of HollyFrontier Corporation (incorporated by reference to Exhibit 3.1 of Registrant's Current Report on Form 8-K filed July 8, 2011, File No. 1-03876).
3.2	Amended and Restated By-Laws of HollyFrontier Corporation (incorporated by reference to Exhibit 3.1 of Registrant's Current Report on Form 8-K filed February 20, 2014, File No. 1-03876).
4.1	Indenture, dated February 4, 2020, by and among Holly Energy Partners, L.P., Holly Energy Finance Corp., each of the Guarantors party thereto and U.S. Bank National Association (incorporated by reference to Exhibit 4.1 of Holly Energy Partners, L.P.'s Current Report on Form 8-K filed February 4, 2020, File No. 1-32225).
4.2	Form of 5.000% Senior Notes due 2028 (included in Exhibit 4.1).
10.1*+	Consulting Agreement and Release, dated February 27, 2020, by and between HollyFrontier Corporation, HollyFrontier Payroll Services, Inc. and James Stump.
10.2*+	Form of Restricted Stock Unit Agreement (for employees).
10.3*+	Form of Performance Share Unit Agreement.
31.1*	Certification of Chief Executive Officer under Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Chief Financial Officer under Section 302 of the Sarbanes-Oxley Act of 2002.
32.1**	Certification of Chief Executive Officer under Section 906 of the Sarbanes-Oxley Act of 2002.
32.2**	Certification of Chief Financial Officer under Section 906 of the Sarbanes-Oxley Act of 2002.
101++	The following financial information from HollyFrontier Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2020, formatted as inline XBRL (Inline Extensible Business Reporting Language): (i) Consolidated Balance Sheets, (ii) Consolidated Statements of Income, (iii) Consolidated Statements of Comprehensive Income, (iv) Consolidated Statements of Cash Flows, and (v) Notes to the Consolidated Financial Statements. The instance document does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL document.
104	Cover page Interactive Data File (formatted as inline XBRL and contained in exhibit 101).

* Filed herewith.

** Furnished herewith.

+ Constitutes management contracts or compensatory plans or arrangements.

++Filed electronically herewith.

SIGNATURES

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

HOLLYFRONTIER CORPORATION

(Registrant)

Date: May 7, 2020

/s/ Richard L. Voliva III

Richard L. Voliva III

Executive Vice President and
Chief Financial Officer
(Principal Financial Officer)

Date: May 7, 2020

/s/ J. W. Gann, Jr.

J. W. Gann, Jr.

Vice President, Controller and
Chief Accounting Officer
(Principal Accounting Officer)

CONSULTING AGREEMENT AND RELEASE

This Consulting Agreement and Release (“Agreement”) is between HollyFrontier Corporation and HollyFrontier Payroll Services, Inc., on behalf of themselves and their respective parents, subsidiaries, and affiliates (collectively, the “Company”), and me, James Stump. By signing this Agreement, I am agreeing to release all claims against the Company, and promising not to sue the Company in the future, all as described in more detail below. In exchange for my agreements and promises and the timely execution (and non-revocation) of the release of claims in the form set forth as Attachment B (the “Release”) which attachment is part of this Agreement, the Company has agreed to pay me Benefits (set forth on Attachment A) which I understand I would not receive unless I sign this Agreement. I acknowledge and agree to the following:

1. **Retirement.** I understand that my final day of active employment with the Company will be on my Retirement Date set forth on Attachment A, which attachment is part of this Agreement. All salary and other benefits will cease at that time, except as otherwise provided in this Agreement.
2. **Benefits.** I understand that I am being separated from the payroll and that I have been offered Benefits (set forth on Attachment A) in exchange for signing and complying with the terms of this Agreement. This payment is subject to taxes and customary withholdings and will be paid within the time period set forth on Attachment A. I understand that payment will cease upon my breach of any part of this Agreement.
3. **Release of Claims.** I understand and agree that this Agreement is conditioned upon my timely execution and non-revocation of the Release. If I do not execute and return the Release to the HR Contact identified on Attachment A prior to July 3, 2020 (but no earlier than my Retirement Date), or if I revoke the Release within the revocation period set forth in the Release, this Agreement will be null and void, the Company will have no obligations hereunder, and my employment will end on my Retirement Date.
4. **Legal Action and Legal Fees.** I understand that I must pay the Company’s legal fees if I sue the Company for any claims waived and/or released in the Release or otherwise break my promises in this Agreement. I understand that I do not have to pay the Company’s legal fees under this paragraph, and that I will not be penalized in any way, if I challenge only my waiver and/or release of age discrimination claims under the Age Discrimination in Employment Act (ADEA).
5. **Cooperation.** I agree, upon the Company’s request, to reasonably cooperate in any Company or government investigation, arbitration and/or litigation regarding events that occurred during my employment with the Company. I understand that the Company will compensate me for any reasonable expenses I incur as a result of such cooperation, as long as I request such compensation in advance and in writing.
6. **Certain Obligations.** I understand that after my Retirement Date, I continue to be bound by my other obligations and promises to the Company, including, but not limited to, the obligations contained in the Company’s Code of Business Conduct and Ethics (the “Code”), and any intellectual

Consulting Agreement and Release – Stump

property agreements signed by me, except as specifically modified by this Agreement. I also understand that this Agreement does not, however, limit me from providing information to the U.S. Securities and Exchange Commission and/or the Occupational Safety and Health Administration as part of a whistleblower action and/or a report of possible violation(s) of any federal securities law.

I affirm my obligation to the Company not to disclose to any third party non-public Company information. I understand that this paragraph shall not apply to information that is required to be disclosed by law or to information provided to a government agency or entity acting in its official capacity.

7. Return of Property. In accordance with my existing and continuing obligations to the Company (including those obligations arising under the Code and any confidentiality, intellectual property and/or other agreements that I have previously signed), except as otherwise agreed to with the Company in writing, I agree that I have returned or will immediately return to the Company, within five (5) days of my execution of this Agreement or on my Retirement Date (whichever is later), all Company property, including building passes, credit cards, keys, telephones, company files, documents, records, computer access codes, computer programs, instruction manuals, business plans, and other property that I received, prepared, or helped to prepare in connection with my employment with the Company. I also agree that I will not keep and have not kept any copies, duplicates, reproductions, computer disks, or excerpts of any confidential or proprietary Company materials, documents or trade secrets.

8. Confidential Information. I will hold in strictest confidence and will not disclose, use, lecture upon or publish any of the Company's Proprietary Information (defined below), unless an officer of the Company authorizes me to do so in writing. I will obtain the Company's written approval before publishing or submitting for publication any material (written, verbal, or otherwise) that relates to my work while at the Company and/or that incorporates any Proprietary Information. I reaffirm that all Proprietary Information that I may have prepared or acquired during my employment is the sole property of the Company. The term "Proprietary Information" means and includes all confidential and/or proprietary knowledge, data or information of the Company, including trade secrets, inventions, ideas, processes, formulas, data, programs, know-how, improvements, discoveries, developments and designs and techniques. It also includes business information regarding plans for research, development, new products, marketing and selling, business plans, budgets and unpublished financial statements, prices and costs, suppliers and customers as well as information regarding the identity, skills and compensation of other employees of the Company.

9. Statements Concerning the Company. I agree to refrain from publishing any oral or written statements about the Company or its directors, officers, employees, consultants, agents or representatives that (a) are slanderous, libelous or defamatory, or (b) place the Company or any of its directors, officers, employees, consultants, agents or representatives in a false light before the public. Similarly, the Company shall refrain from publishing any oral or written statements about me that (a) are slanderous, libelous or defamatory, or (b) place me in a false light before the public. The foregoing shall not be violated by truthful statements in response to legal process, required

governmental testimony or filings, or administrative or arbitral proceedings (including, without limitation, depositions in connection with such proceedings). A violation or threatened violation of this prohibition may be enjoined by the courts. The rights afforded to me and to the Company under this provision are in addition to any and all rights and remedies otherwise afforded by law.

10. Update Social Media Sites. Within five (5) days following my Retirement Date, I will update any social networking sites, including, but not limited to, Twitter, Facebook, and LinkedIn, to indicate that I am no longer employed by the Company. In addition, within five (5) days following the Consulting Period (as defined below), I will update any social networking sites, including, but not limited to, Twitter, Facebook, and LinkedIn, to indicate that I am no longer affiliated the Company.

11. Non-solicitation. I agree that from and after the date I receive this Agreement and for two (2) years after my Retirement Date, I will not, either directly or through others, (a) solicit or attempt to solicit, or assist any other person in soliciting, any employee of the Company to end his or her relationship with the Company; (b) recruit, hire or attempt to recruit or hire, or assist any other person in recruiting or hiring, any employee of the Company for a competing business; or (c) solicit, or assist any other person in soliciting, any consultant, vendor, contractor or customer of the Company, with whom I had contact or whose identity I learned as a result of my employment with the Company, to diminish or materially alter its relationship with the Company. I also will not provide the names or any other information about any employees of the Company to any person, recruiter or competing business. I understand and agree that for purposes of this Agreement, a customer is any person or entity to which the Company has provided goods or services at any time during the two (2) year period before my Retirement Date.

12. Consulting.

- a. For the nine (9) month period beginning on July 1, 2020 and ending on March 31, 2021 (the "Consulting Period"), the Company will pay me a retainer of \$49,000 per month in accordance with the standard payroll practice of the Company to provide up to 80 hours of services per month to the Company or its subsidiaries as requested by the Company from time to time. I will submit an invoice to the Company within five (5) business days following the end of each month that contains a description of the services provided during the calendar month to which the invoice relates. At the request of the Company, I will also submit reasonable documentation evidencing the work performed during a prior calendar month. Subject to reasonable prior approval of the Company, the Company shall pay or reimburse me for all reasonable (in type and amount) and necessary business expenses incurred by me in the course of providing consulting services for the Company. I will furnish the Company with the documentation required by the Internal Revenue Code of 1986, as amended (or by any successor revenue statute) and the regulations thereunder in connection with all such expenses, including, without limitation, all approved business travel and entertainment expenses.

- b. Notwithstanding the foregoing, the retainer arrangements set forth in this Agreement may be terminated at any time by the Company or me, with or without cause; provided, however, that if the Company terminates the retainer arrangements set forth in this Paragraph 12 without “cause” (as defined below) or I terminate this Agreement due to an act of cause by the Company, the Company shall pay me the unpaid retainer payment, at \$49,000 per month, for the remainder of the nine (9) month term; in accordance with the standard payroll practice of the Company; provided, however, any retainer that remains unpaid as of March 1, 2021 will be paid no later than March, 15, 2021; provided, further, that if I terminate this Agreement other than due to an act of cause by the Company or the Company terminates this Agreement for cause, I will forfeit any unpaid and unearned retainer payment and any unvested equity awards held at such time. For purposes of this Paragraph 12, “cause” is defined as: (i) a party’s material breach of this Agreement to the extent such breach remains uncured after the other party has given such party notice in writing thereof and such party has failed to cure such breach within ten (10) business days; or (ii) a party’s fraud, forgery, misrepresentation, dishonesty, errors or omissions that materially and adversely affects the other party. For purposes of section 409A of the Internal Revenue Code of 1986, as amended, (the “Code”) each installment payment payable pursuant to this Paragraph 12.b. will be treated as a separate payment.
- c. In performing my obligations, I will comply with all applicable laws and with all applicable orders, rules and regulations of all duly constituted authorities.
- d. For purposes of providing the services to the Company and its subsidiaries, I shall at all times be an independent contractor during the Consulting Period. Nothing in this Agreement shall be construed as creating the relationship of principal and agent, or employer and employee, between the Company and me. I shall have no authority to hire any persons on behalf of the Company, and any person whom I may employ shall be deemed to be solely my employee. I shall have control and management of the work under this Agreement, and no right is reserved to the Company to direct or control the manner in which the work is performed, as distinguished from the result to be accomplished. Nothing herein contained shall be construed to authorize me to incur any debt, liability or obligation of any nature for or on behalf of the Company. I agree, however, that any services I perform for the Company shall be completed and delivered reasonably in accordance with instructions delivered to me by the Company from time to time and consistent with the policies and practices of the Company. Neither I nor my agents or employees, if any, shall be eligible to participate in any benefits or privileges given or extended by the Company to its employees, including, but not limited to, pension, profit sharing, workers’ compensation insurance, unemployment insurance, other insurance, health, medical, life or disability benefits or coverage, or paid time off. I agree to be solely responsible for my acts or omissions and the acts and omissions of my employees, if any, including acts or omissions during the performance of services pursuant to this Agreement.

- e. All proprietary technology and all financial, operating, and training ideas, processes, and materials, including works of expression and all copyrights in such works, relating to the Company's current or potential business, that are developed, written, conceived of, or improved upon by me, singly or jointly, in connection with, as a result of, or otherwise incident to the performance of this Agreement, shall be the sole property of the Company. Accordingly, I will disclose, deliver, and assign to the Company all of my right, title and interest in and to such patentable inventions, discoveries, and improvements, trade secrets, and all works subject to copyright. I agree to execute all documents and patent applications, to make all arrangements necessary to further document such ownership and/or assignment, and to take whatever other steps may be needed to give the Company the full benefit of them, both during the term of this Agreement and thereafter. I specifically agree that all copyrighted materials generated or developed as a result of my services under this Agreement, including, but not limited to, computer programs and documentation, shall be considered works made for hire under the copyright laws of the United States and that they shall, upon creation, be owned exclusively by the Company.
- f. Unless approved by the Company, all services under this Agreement shall be provided by me and by no other person.

13. Non-Competition. The Company has provided me with access to Company Proprietary Information and will continue to provide me with access to new Company Proprietary Information during the period of my consulting duties described in Paragraph 12. I acknowledge and agree that I will have access to and know the Company's Competitors as of the Retirement Date. Further, I acknowledge and agree that I have voluntarily agreed to the covenants set forth in this Paragraph 13. I further agree and acknowledge that the limitations and restrictions set forth herein, including geographical and temporal restrictions on certain competitive activities, are reasonable in all respects and not oppressive, shall not cause me undue hardship, and are material and substantial parts of this Agreement intended and necessary to prevent unfair competition and to protect the Company's Proprietary Information, goodwill and substantial and legitimate business interests.

- a. I agree that, following my Retirement Date and prior to and including March 31, 2021, I will not, without the prior written approval of the Chief Executive Officer of the Company, directly or indirectly, for me or on behalf of or in conjunction with any other person or entity of any nature:
 - i. Directly or indirectly own, manage, operate, join, become an officer, director, employee or consultant of, or otherwise be affiliated with any Competitor; or
 - ii. Appropriate any Business Opportunity of, or relating to, the Company located in the Market Area.
- b. The covenants in this Paragraph 13, and each provision and portion hereof, are severable and separate, and the unenforceability of any specific covenant (or portion

thereof) shall not affect the provisions of any other covenant (or portion thereof). Moreover, in the event any arbitrator or court of competent jurisdiction shall determine that the scope, time or territorial restrictions set forth are unreasonable, then it is the intention of the parties that such restrictions be enforced to the fullest extent which such arbitrator or court deems reasonable, and this Agreement shall thereby be reformed.

- c. For purposes of this Paragraph 13, the following terms shall have the following meanings:
- i. “Business Opportunity” shall mean any commercial, investment or other business opportunity relating to a Competitor.
 - ii. “Competitor” shall mean any direct competitor to the Company’s refinery business, which shall include the refining of petroleum regardless of the end product (whether gasoline, diesel fuel, jet fuel, specialty lubricant products, specialty and modified asphalt or other refined products) or the manufacturing of renewable hydrocarbon biofuels (whether renewable diesel, renewable gasoline or other product), as of the Retirement Date.
 - iii. “Market Area” shall mean the United States.

14. Applicable Law. The laws of the State of Texas apply to this Agreement.

15. Enforceability. This Agreement is valid, even if any section or term is not enforceable. In the event that any one or more of the provisions contained in this Agreement shall for any reason be held to be unenforceable under the governing law, the rest of the Agreement shall continue to apply.

16. **Waiver of Right to a Trial by Jury; Injunctive Relief**. I understand that pursuant to this Agreement, I am giving up my right to a trial by jury. The Company also waives its right to a trial by jury. However, I recognize and agree that because of the difficulty of measuring economic losses to the Company as a result of a breach or threatened breach of the covenants set forth Paragraphs 8, 9, 11 and 13, and because of the immediate and irreparable damage that would be caused to the Company for which it would have no other adequate remedy, the Company shall be entitled to enforce such covenants, in the event of a breach or threatened breach, by injunctions and restraining orders from any court of competent jurisdiction, without the necessity of showing any actual damages or that money damages would not afford an adequate remedy, and without the necessity of posting any bond or other security. The aforementioned equitable relief shall not be the Company’s exclusive remedy for a breach or threatened breach of the covenants set forth Paragraphs 8, 9, 11 and 13, but instead shall be in addition to all other rights and remedies available to the Company at law and equity.

17. Successors and Assigns. This Agreement is binding upon my heirs, executors, administrators and other legal representatives and will be for the benefit of the Company and their successors and assigns. In the event of the material breach of this Agreement by the Company or any successor to

the Company upon or following a “Change in Control” (as such term is defined in the Equity Awards described in Attachment A), the amounts payable upon a termination by the Company without cause contemplated in Section 12.b., and the benefits specified in Attached A (specifically, the pro-rated annual incentive bonus and vesting of the Equity Awards), to the extent such benefits were not previously paid or provided, will be paid within 60 days of such breach; *provided, that*, I must provide written notice to the Company or such successor of such breach within 15 days of its occurrence and the breach must remain uncured by the Company or such successor for 30 days.

18. **Entire Agreement.** This Agreement and its attachments contain the entire agreement between the Company and me concerning the separation of my employment, except as set forth in Paragraph 6 above. In deciding to sign this Agreement, I am not relying on any statements or promises except those found in this Agreement. Except as set forth in Paragraph 6 above, this Agreement replaces any prior agreements between the Company and me dealing with the same subjects.

19. **Consultation with an Attorney.** The Company has advised me to consult with an attorney, at my own expense, before signing this Agreement, and I have had the opportunity to do so.

20. **Reaffirmation.** If asked by the Company to re-execute and reaffirm my obligations under this Agreement (including the Release) on or after my Retirement Date, I agree to do so as one of my obligations under this Agreement and as a condition of receiving the Benefits set forth on Attachment A.

21. **MMSEA.** I have not, as of today, incurred any medical expenses as a Medicare beneficiary, and am not aware of any medical expenses that Medicare has paid on my behalf and for which the Company may be liable.

22. **Mediation and Arbitration.** **With the exception of any alleged violation of Paragraphs 8, 9, 11 or 13 of this Agreement, any other controversy, dispute or claim arising out of or relating to this Agreement or its breach will first be settled through good faith negotiation. If the dispute cannot be settled through negotiation, the Company and I agree to attempt in good faith to settle the dispute by mediation administered by JAMS. If the Company and I are unsuccessful at resolving the dispute through mediation, we agree to binding arbitration administered by JAMS pursuant to its Employment Arbitration Rules & Procedures and subject to JAMS Policy on Employment Arbitration Minimum Standards of Procedural Fairness. Judgment on the award may be entered in any court having jurisdiction.**

23. **Counterparts.** This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same instrument. Electronic copies of signatures shall be deemed to be original.

[REST OF PAGE INTENTIONALLY LEFT BLANK]

BY SIGNING THIS AGREEMENT, I STATE THAT: (A) THE COMPANY ADVISED ME TO CONSULT AN ATTORNEY, AT MY OWN EXPENSE, AND THAT I HAVE HAD AN OPPORTUNITY TO DO SO BEFORE SIGNING THIS AGREEMENT; AND (B) THIS AGREEMENT IS WRITTEN IN A CLEAR AND STRAIGHT-FORWARD MANNER, THAT I UNDERSTAND ITS TERMS, AND THAT I HAVE MADE A VOLUNTARY DECISION TO SIGN IT.

Agreed to and accepted by, on this 25th day of February, 2020.

EMPLOYEE:

/s/ James M. Stump
James M. Stump

Agreed to and accepted by, on this 27th day of February, 2020.

HollyFrontier Corporation
HollyFrontier Payroll Services, Inc.

/s/ Michael C. Jennings
Michael C. Jennings
CEO and President

ATTACHMENT A

Employee Name: James Stump
Job Title: SVP, Refining
Retirement Date: June 30, 2020
Local HR Contact: Dale Kunneman

Benefits

The benefits noted in this section are conditioned upon your execution of the Agreement, your execution and non-revocation of the Release, and your continued employment through the Retirement Date. In addition, to be eligible for benefits noted on this Attachment A, you must satisfactorily perform your duties and remain in good standing with the Company through your Retirement Date.

Annual Incentive Bonus:

You will receive a pro-rated bonus based on nine months of service during the current performance period. Payment will be based on your actual performance and that of the Company, in each case as certified by the Compensation Committee of the Board of Directors in the fourth quarter of 2020. The pro-rated bonus will be paid within 45 days after such certification. The pro-rated bonus will be payable to you and reported on a Form W-2 and is subject to taxes and other withholdings.

Vesting of Long-Term Incentive Awards:

If you continuously comply with the restrictions set forth in Paragraphs 8, 9, 11 and 13 and continue to perform the consulting services set forth in Paragraph 12 (and such consulting arrangement is not terminated by the Company for cause) until March 31, 2021, then, on March 31, 2021, you will become fully vested in, and the restrictions will lapse on, the following awards (the "Equity Awards") granted to you by HollyFrontier Corporation (and such awards will not be forfeited on your Retirement Date):

Restricted Stock Units

<u>Grant Date</u>	<u>Restricted Stock Units That Vest</u>
November 7, 2017	3,939 (third tranche)
November 6, 2018	5,090 shares (second and third tranche)

Performance Share Units

<u>Grant Date</u>	<u>Performance Stock Units That Vest</u>
November 7, 2017	11,815 (at target)
November 6, 2018	7,635 (at target)

You acknowledge that the performance share units are being settled at target (in the amounts set forth above), and you will not be entitled to any additional shares based on certification of the performance goals set forth in the applicable award agreement by the Compensation Committee at a later date. Notwithstanding anything to the contrary in the award agreements evidencing the equity awards set forth above, you will not be entitled to the vesting or settlement of any awards during the Consulting Period. Any awards that would vest pursuant to their terms during the Consulting Period will instead vest on March 31, 2021 subject to your continued performance of the consulting services set forth in Paragraph 12 (and provided such consulting arrangement is not terminated by the Company for cause). In the event such consulting arrangement is terminated by the Company for cause such awards will be immediately forfeited to the Company and become null and void.

Settlement of these restricted stock units and performance units will be subject to tax withholdings and reported as income on a Form W-2.

Any other long-term incentive awards you hold as of your Retirement Date will become null and void on your Retirement Date.

COBRA Premiums:

The Company will provide to you a lump sum payment of \$23,757.36 on your Retirement Date to cover 12 months of COBRA premiums. The amount will be payable to you and reported on a Form W-2, subject to taxes and other withholdings. The amount will be paid within thirty days after the latter of the date you sign this Agreement and the date you sign the Release (assuming you do not subsequently revoke the Release during the revocation period). You may use that payment to continue coverage under COBRA, to purchase other health care coverage, or for any other purpose. The regular COBRA procedures and rules will apply, and full COBRA premiums will be charged for continuation coverage for yourself and eligible dependents.

Unconditional Benefits

COBRA Coverage:

If you wish to participate in COBRA, you have 60 days from the termination of your current health benefits to make your election. You will be solely responsible for making a timely COBRA election and for paying all COBRA premiums in a timely manner. Please note that COBRA rates may change, and that the Company reserves the right to modify or replace benefit plans.

You will receive in the mail from TaxSaver after your Retirement Date, documents describing the COBRA health benefits available to you. You will need to review the documents and elect COBRA during your eligible enrollment period if desired. If you elect to continue health benefits through COBRA, it will be your responsibility to pay the required premiums in a timely manner.

Life Insurance and Accidental Death and Dismemberment Coverage:

The Cigna Life and AD&D products/coverage may be converted from group to individual coverage. To do so, you must apply directly to the insurance provider within thirty days after you lose coverage. Forms to convert to an individual policy will be mailed to you by Cigna.

Accrued and Unused Vacation Time:

You will receive the cash value of any accrued and remaining unused vacation as of your Retirement Date, which will be payable to you and reported on a Form W-2, subject to taxes and other withholding, within thirty days after the latter of the date you sign this Agreement and the date you sign the Release (assuming you do not subsequently revoke the Release during the revocation period).

401(k) Plan:

If you are a participant in the 401(k) Retirement Plan, the applicable plan rules will govern your options with respect to managing your account balance and/or receiving distributions, as applicable, under the plan. You may also contact Principal at 1-800-547-7754 if you have any general questions concerning options after retirement.

Non-Qualified Deferred Compensation Plan:

As a participant in the Non-Qualified Deferred Compensation Plan, the irrevocable election you have previously made regarding the treatment of your account balance at the time of retirement will govern the treatment of your account balance. You may also

contact Principal at 1-800-999-4031 if you have any general questions concerning options after retirement.

Taxes:

All amounts payable will be subject to all applicable tax withholdings.

ATTACHMENT B

RELEASE OF CLAIMS

This Release of Claims (“Release”) is between HollyFrontier Corporation and HollyFrontier Payroll Services, Inc., on behalf of themselves and their respective parents, subsidiaries, and affiliates (collectively the “Company”), and me, James Stump. By signing this Release, I am agreeing to waive and release all claims against the Company and promising not to sue the Company in the future, all as described in more detail below. In exchange for my agreements and promises, the Company has agreed to pay the Benefits set forth on Attachment A which I understand I would not receive unless I sign and do not revoke this Release as described in Paragraph 3 below. I acknowledge and agree to the following:

1. Waiver of Claims. I realize that there are various local, state, and federal laws, both statutory and common law, that may apply and/or relate to my employment with the Company. Such laws include, but are not limited to, Title VII of the Civil Rights Act of 1964, Sections 1981 through 1988 of Title 42 of the United States Code, the Employee Retirement Income Security Act of 1974, the Immigration Reform and Control Act, the Americans with Disabilities Act of 1990, the Age Discrimination in Employment Act of 1967, the Worker Adjustment and Retraining Notification Act, the Fair Credit Reporting Act, the Family and Medical Leave Act, the Equal Pay Act, the Fair Labor Standards Act, the Genetic Information Nondiscrimination Act of 2008, and the Texas Commission on Human Rights Act (a/k/a Chapter 21 of the Texas Labor Code).

By signing this Release, I, on behalf of myself and anyone who may have the legal right to make claims on my behalf, release the Company, and its respective directors, officers, representatives, agents and employees, and any of the Company’s successors or predecessors, affiliates, or parent, subsidiary and related companies (collectively referred to as “Releasees”) from any and all claims, known or unknown, including claims for attorneys’ fees and costs, which relate to, or arise out of, my employment or separation from the Company, including any alleged violations of the laws listed above in this Paragraph 1. I understand that, subject to the limitations set forth in Paragraph 2 below, I am giving up all statutory, common law or contract claims and rights, including those that I am not currently aware of and those not mentioned in this Release, up to and through the date that I sign and deliver this Release to the Company. If any claim is not subject to release, I waive, to the extent permitted by law, any right or ability to be a class or collective action representative or to opt-in and/or otherwise participate in any putative or certified class, collective or multi-party action or proceeding based on such a claim in which the Company or any other Releasee identified in this Release is a party.

2. Certain Actions Not Prohibited. I understand that this Release does not prohibit or prevent me from filing a charge or participating, testifying, or assisting in investigations, hearings, or other proceedings conducted by the EEOC or the NLRB, or a similar agency enforcing federal, state or local anti-discrimination laws. However, to the maximum extent provided by law, I agree that if such an administrative claim is made to an anti-discrimination agency, I shall not be entitled to any individual damages, money, or other personal benefits as a result of such charge, investigation or proceeding. In addition, I understand that nothing in this Release prohibits me from (a) reporting possible violations of law (including securities laws) to any government agency or entity, including to the U.S. Congress, the U.S. Department of Justice, the U.S. Securities and Exchange Commission or any agency Inspector General; (b) making disclosures protected under federal whistleblower laws; or (c) otherwise fully participating in any federal whistleblower programs, including any such programs managed by the U.S. Securities and Exchange Commission and/or the Occupational Safety and Health Administration. This Release does not prohibit or prevent me from receiving individual monetary awards or other individual relief by virtue of participating in such whistleblower programs. Furthermore, I understand, and the Company hereby acknowledges and agrees that this Release does not prevent me from exercising my rights, if any, to (a) vested benefits under any pension or savings plan or deferred compensation plan; (b) COBRA benefits under Section 601-608 of ERISA; (c) receive pay for accrued but unused vacation; and/or (d) any right to my base salary through my Retirement Date.

3. Revocation of This Release. I understand that, pursuant to the Older Workers Benefit Protection Act of 1990 (OWBPA), I have the right to consult an attorney at my own expense before signing this Release, and the Company has advised me to consult an attorney; I have at least twenty-one calendar days from the date I receive this Release to consider the Release before signing it; I may change my mind and revoke the Release within seven calendar days after signing it; and that the Release shall not go into effect until then. If I decide to revoke this Release, I understand that the Company must receive written notice of my decision before the seven calendar day period expires. I must provide that notice to the HR Contact identified on Attachment A before the time period expires.

4. Applicable Law. The laws of the State of Texas apply to this Release.

BY SIGNING THIS RELEASE, I STATE THAT: (A) THE COMPANY ADVISED ME TO CONSULT AN ATTORNEY, AT MY OWN EXPENSE, AND THAT I HAVE HAD AN OPPORTUNITY TO DO SO, BEFORE SIGNING THIS

RELEASE; (B) I UNDERSTAND THAT IN ORDER TO RECEIVE THE BENEFITS SET FORTH ON ATTACHMENT A TO THE AGREEMENT, I MUST SIGN AND RETURN THIS RELEASE TO THE COMPANY PRIOR TO JULY 3, 2020 BUT NO EARLIER THAN JUNE 30, 2020; (C) I UNDERSTAND THAT I HAVE SEVEN CALENDAR DAYS TO REVOKE THIS RELEASE AFTER SIGNING IT; AND (D) I ACKNOWLEDGE THAT THIS RELEASE IS WRITTEN IN A CLEAR AND STRAIGHT-FORWARD MANNER, THAT I UNDERSTAND ALL OF ITS TERMS, AND THAT I HAVE MADE A VOLUNTARY DECISION TO SIGN IT.

Agreed to and accepted by, on this _____ day of _____, 2020.

EMPLOYEE:

/s/ _____
James M. Stump

Agreed to and accepted by, on this _____ day of _____, 2020.

HollyFrontier Corporation
HollyFrontier Payroll Services, Inc.

/s/ _____
Michael C. Jennings
CEO and President

HOLLYFRONTIER CORPORATION
RESTRICTED STOCK UNIT AGREEMENT
(Time-Based Vesting)

This Agreement is made and entered into as of the Date of Grant set forth in the Notice of Grant of Restricted Stock Units (“**Notice of Grant**”) by and between HollyFrontier Corporation, a Delaware corporation (the “**Company**”), and you;

WHEREAS, the Company, as part of your compensation for services to the Company and its Subsidiaries and in order to induce you to materially contribute to the success of the Company, agrees to grant you this restricted stock unit award;

WHEREAS, the Company adopted the Plan (as defined in the Notice of Grant) under which the Company is authorized to grant stock units and phantom stock awards, as applicable (in each case, herein referred to as restricted stock units) to certain employees, directors and other service providers of the Company and its Subsidiaries;

WHEREAS, a copy of the Plan has been furnished to you and shall be deemed a part of this Restricted Stock Unit Agreement (Time-Based Vesting) (“**Agreement**”) as if fully set forth herein and the terms capitalized but not defined herein shall have the meanings set forth in the Plan; and

WHEREAS, you desire to accept the restricted stock unit award made pursuant to this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants set forth herein and for other valuable consideration hereinafter set forth, the parties hereto agree as follows:

1. **The Grant.** Subject to the conditions set forth below, the Company hereby grants you effective as of the Date of Grant set forth in the Notice of Grant, as a matter of separate inducement but not in lieu of any cash or other compensation for your services for the Company (or any Subsidiary), an award (the “**Award**”) covering the aggregate number of Shares set forth in the Notice of Grant in accordance with the terms and conditions set forth herein, in the Notice of Grant and in the Plan, plus the additional rights to receive possible dividend equivalents, in accordance with the terms and conditions set forth herein. The period of time beginning on the Date of Grant and ending on December 1, 20___ is referred to herein as the “**Service Period**.”

2. **No Shareholder Rights.** The Restricted Stock Units (“**RSUs**”) granted pursuant to this Agreement do not and shall not entitle you to any rights of a holder of Shares prior to the date Shares are issued to you in settlement of the Award.

3. **Dividend Equivalents.** In the event that the Company declares and pays a dividend in respect of its outstanding Shares on or after the Date of Grant and, on the record date for such dividend, you hold RSUs granted pursuant to this Agreement that have not been settled, the Company shall pay to you an amount in cash equal to the cash dividends you would have received if you were

the holder of record as of such record date, of the number of Shares related to the portion of your RSUs that have not been settled as of such record date, such payment (“**Dividend Equivalents**”) to be made on or promptly following the date that the Company pays such dividend (however, in no event shall the Dividend Equivalents be paid later than 30 days following the date on which the Company pays such dividend to its shareholders generally).

4. Restrictions; Forfeiture. The RSUs are restricted in that they cannot be sold, transferred or otherwise alienated or hypothecated until Shares related to such RSUs are issued pursuant to Section 8 following the removal or expiration of the restrictions as contemplated in Section 5 (and Section 6, if applicable) of this Agreement and as described in the Notice of Grant. In the event you cease to be an employee of the Company and any Subsidiary, other than as provided in Section 6 below, or in the event that you violate the covenants set forth in Section 22 of this Agreement, the RSUs that are not vested on the date of such cessation of employment shall be immediately forfeited.

5. Expiration of Restrictions and Risk of Forfeiture. The restrictions on the RSUs granted pursuant to this Agreement will expire and the RSUs will become nonforfeitable as set forth in the Notice of Grant, provided that you remain an employee of the Company and its Subsidiaries until the applicable dates and times set forth therein. RSUs that have become vested and non-forfeitable as provided in this Agreement are referred to herein as “**Vested.**”

6. Termination of Employment.

(a) Termination Generally. Subject to subsections (b), (c), and (d) below, if your employment relationship with the Company and its Subsidiaries is terminated for any reason (including if you voluntarily separate from employment (other than due to your Retirement) or are terminated by action of the Company (including termination for Cause but other than a Special Involuntary Termination)), then those RSUs that have not become Vested as of the date of termination shall become null and void and those RSUs shall be forfeited to the Company. The RSUs that are Vested as of the date of such termination shall not be forfeited to the Company and will be settled in accordance with Section 8.

(b) Death, Disability or Retirement. In the event of termination of your employment due to your (i) death, (ii) total and permanent disability, as determined by the Committee in its sole discretion, or (iii) Retirement, in either case, before all of the RSUs granted pursuant to this Agreement have become Vested, you will forfeit a number of RSUs equal to the number of RSUs specified in the Notice of Grant times the percentage that (A) the number of days beginning on the day on which the termination due to death, disability or Retirement occurs and ending on the last day of the Service Period, (B) bears to the total number of days in the Service Period, and any remaining RSUs that are not vested will become Vested upon such termination; provided, however, that any fractional RSUs will become null and void and automatically forfeited.

(c) Special Involuntary Termination. In the event of a Special Involuntary Termination, all of the RSUs granted pursuant to this Agreement will become Vested.

(d) Effect of Employment Agreement. Notwithstanding any provision herein to the contrary, in the event of any inconsistency between this Section 6 and any employment, change in control, or similar agreement entered into by and between you and the Company (or any Subsidiary), the terms of the employment, change in control or similar agreement shall control, subject to compliance with Section 409A of the Code.

7. Leave of Absence. With respect to the Award, the Company may, in its sole discretion, determine that if you are on leave of absence for any reason you will be considered to still be in the employ of the Company (or a Subsidiary), provided that rights to the RSUs during a leave of absence will be limited to the extent to which those rights were earned or vested when the leave of absence began.

8. Issuance of Stock. Shares shall be issued to you in settlement of your Vested RSUs within 30 days following the date upon which such RSUs become Vested in accordance with the Agreement (or such longer period of days, not more than 65, specified in a release described in Section 16). At the time of settlement, the Company shall cause to be issued Shares registered in your name in payment of the Award. The Company shall evidence the Shares to be issued in payment of the RSUs in the manner it deems appropriate. The value of any fractional RSU shall be rounded down at the time Shares are issued to you. No fractional Shares, nor the cash value of any fractional Shares, will be issuable or payable to you pursuant to this Agreement. The value of Shares shall not bear any interest owing to the passage of time. Neither this Section 8 nor any action taken pursuant to or in accordance with this Section 8 shall be construed to create a trust or a funded or secured obligation of any kind.

9. Payment of Taxes. The Company may require you to pay to the Company (or the Company's Subsidiary if you are an employee of a Subsidiary of the Company), an amount the Company deems necessary to satisfy its (or its Subsidiary's) current or future withholding with respect to federal, state or local income or other taxes that you incur as a result of the Award. With respect to any tax withholding (and to the extent permissible pursuant to Rule 16b-3 under the Exchange Act, if applicable), you may (a) direct the Company to withhold from the Shares to be issued to you under this Agreement the number of Shares necessary to satisfy the Company's withholding of such taxes, which determination will be based on the Shares' Fair Market Value at the time such determination is made; (b) deliver to the Company Shares sufficient to satisfy the Company's tax withholding, based on the Shares' Fair Market Value at the time such determination is made; or (c) deliver cash to the Company sufficient to satisfy its tax withholding obligations. If you desire to elect to use the stock withholding option described in subparagraph (a), you must make the election at the time and in the manner the Company prescribes and the maximum number of Shares that may be so withheld or surrendered shall be a number of Shares that have an aggregate Fair Market Value on the date of withholding or repurchase of up to the aggregate amount of such tax liabilities determined based on the greatest withholding rates for you in your relevant federal, state, foreign and/or local tax jurisdiction, including payroll taxes, that may be utilized without creating adverse accounting treatment with respect to the Award. The Company, in its discretion, may deny your request to satisfy its tax withholding using a method described under subparagraph (a), (b) or (c) and require an alternative method of withholding. In the event the Company determines that the aggregate Fair Market Value of the Shares withheld as payment of any tax withholding

obligation is insufficient to discharge that tax withholding obligation, then you must pay to the Company, in cash, the amount of that deficiency immediately upon the Company's request.

10. Compliance with Securities and Other Applicable Laws. Notwithstanding any provision of this Agreement to the contrary, the issuance of Shares will be subject to compliance with all applicable requirements of federal, state, or foreign law with respect to such securities and with the requirements of any stock exchange or market system upon which the Shares may then be listed. No Shares will be issued hereunder if such issuance would constitute a violation of any applicable federal, state, or foreign securities laws or other law or regulations or the requirements of any stock exchange or market system upon which the Shares may then be listed. In addition, Shares will not be issued hereunder unless (a) a registration statement under the Securities Act is, at the time of issuance, in effect with respect to the Shares issued or (b) in the opinion of legal counsel to the Company, the Shares issued may be issued in accordance with the terms of an applicable exemption from the registration requirements of the Securities Act. The inability of the Company to obtain from any regulatory body having jurisdiction the authority, if any, deemed by the Company's legal counsel to be necessary to the lawful issuance and sale of any Shares subject to the Award will relieve the Company of any liability in respect of the failure to issue such Shares as to which such requisite authority has not been obtained. As a condition to any issuance hereunder, the Company may require you to satisfy any qualifications that may be necessary or appropriate to evidence compliance with any applicable law or regulation and to make any representation or warranty with respect to such compliance as may be requested by the Company. From time to time, the Board and appropriate officers of the Company are authorized to take the actions necessary and appropriate to file required documents with governmental authorities, stock exchanges, and other appropriate Persons to make Shares available for issuance.

11. Legends. The Company may at any time place legends referencing any restrictions imposed on the Shares pursuant to Sections 4 and 10 of this Agreement on all certificates representing Shares issued with respect to this Award.

12. Right of the Company and Subsidiaries to Terminate Services. Nothing in this Agreement confers upon you the right to continue in the employ of or performing services for the Company or any Subsidiary, or interfere in any way with the rights of the Company or any Subsidiary to terminate your employment or service relationship at any time.

13. Furnish Information. You agree to furnish to the Company all information requested by the Company to enable it to comply with any reporting or other requirements imposed upon the Company by or under any applicable statute or regulation.

14. Remedies. The Company shall be entitled to recover from you reasonable attorneys' fees incurred in connection with the successful enforcement of the terms and provisions of this Agreement whether by an action to enforce specific performance or for damages for its breach or otherwise to the extent allowed by applicable law.

15. No Liability for Good Faith Determinations. The Company and the members of the Board shall not be liable for any act, omission or determination taken or made in good faith with respect to this Agreement or the RSUs granted hereunder.

16. Execution of Receipts and Releases. Any payment of cash or any issuance or transfer of RSUs or other property to you, or to your legal representative, heir, legatee or distributee, in accordance with the provisions hereof, will, to the extent thereof, be in full satisfaction of all claims of such Persons hereunder. In addition, the Company may require you or your legal representative, heir, legatee or distributee, as a condition precedent to such payment or issuance, to execute a general release of all claims in favor of the Company, any Affiliate and the employees, officers, stockholders or board members of the foregoing in such form as the Company may determine. In the event the period you are given to review, execute and revoke a release provided pursuant to this Section 16 spans two calendar years, any payment to you pursuant to this Agreement will be made in the second calendar year.

17. Clawback. This Agreement is subject to any written clawback policies that the Company, with the approval of the Board or the Committee, may adopt to the extent allowed by applicable law. Any such policy may subject your RSUs and amounts paid or realized with respect to the RSUs under this Agreement to reduction, cancelation, forfeiture or recoupment if certain specified events or wrongful conduct occur, including but not limited to an accounting restatement due to the Company's material noncompliance with financial reporting regulations or other events or wrongful conduct specified in any such clawback policy adopted by the Company, including any policy to conform to the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 and rules promulgated thereunder by the Securities and Exchange Commission and that the Company determines should apply to this Agreement.

18. No Guarantee of Interests. Neither the Board nor the Company guarantee the Shares from loss or depreciation.

19. Company Records. Records of the Company or its Subsidiaries regarding your period of employment or service, termination of service and/or employment and the reason(s) therefor, leaves of absence, re-employment, and other matters shall be conclusive for all purposes hereunder, unless determined by the Company to be incorrect.

20. Notice. All notices required or permitted under this Agreement must be in writing and personally delivered or sent by mail and shall be deemed to be delivered on the date on which it is actually received by the person to whom it is properly addressed or, if earlier, the date it is sent via certified United States mail.

21. Waiver of Notice. Any person entitled to notice hereunder may waive such notice in writing.

22. Certain Covenants.

(a) Protection of Confidential Information. You acknowledge that in the course of your employment with the Company, you have obtained and will continue to obtain confidential, proprietary and/or trade secret information of the Company, relating to, among other things, (i) programs, strategies, information or materials related to the business, services, manner of operation and activities of the Company, (ii) customers or prospects of the Company, (iii) computer hardware or software used in the course of the Company business, and (iv) marketing strategies or other

activities of the Company from or on behalf of any of its clients, (hereinafter collectively referred to as “**Confidential Information**”); provided, however, that, for purposes of this Agreement, the term Confidential Information shall not include any information that is known generally to the public or accessible to a third party on an unrestricted basis. You recognize that such Confidential Information has been developed by the Company at great expense; is a valuable, special and unique asset of the Company which it uses in its business to obtain competitive advantage over its competitors; is and shall be proprietary to the Company; is and shall remain the exclusive property of the Company; and, is not to be transmitted to any other person, entity or thing. Accordingly, as a material inducement to the Company to enter into this Agreement with you and in partial consideration for the granting of the Award, you hereby:

(i) warrant and represent that you have not disclosed, copied, disseminated, shared or transmitted any Confidential Information to any person, firm, corporation or entity for any reason or purpose whatsoever, except in the course of carrying out your duties and responsibilities of employment with the Company;

(ii) agree not to so disclose, copy, disseminate, share or transmit any Confidential Information in the future;

(iii) agree not to make use of any Confidential Information for your own purposes or for the benefit of any person, firm, corporation or other entity, except that, in the course of carrying out the duties and responsibilities of your employment, you may use Confidential Information for the benefit of any Affiliate of the Company;

(iv) warrant and represent that all Confidential Information in your possession, custody or control that is or was a property of the Company has been or shall be returned to the Company by or on the date of the your termination; and

(v) agree that you will not reveal, or cause to be revealed, this Agreement or its terms to any third party (other than your attorney, tax advisor, or spouse on the condition that they also not reveal this Agreement or its terms to any other person), except as required by law.

Your covenants in this Section 22(a) are in addition to, and do not supercede, your obligations under any confidentiality, invention or trade secret agreements executed by you, or any laws protecting the Confidential Information.

(b) Non-Solicitation. You agree that during the term of your employment with the Company or its Affiliates and for a period of one year following your termination of employment with the Company and its Affiliates, you will not, directly or indirectly, for your benefit or for the benefit of others, solicit any employee or service provider of the Company or its Affiliates to terminate his or her employment or his, her or its service relationship with the Company or its Affiliates; provided, however, that (y) after the termination of your employment for any reason, such employees and service providers shall only include such employees and service providers that you directly worked with in the twelve months preceding the date of termination of your employment, and (z) it will not constitute a violation of this Section 22(b) if an employee or service provider of the Company or its Affiliates accepts employment or a service relationship with a Person

not affiliated with the Company or its Affiliates (i) pursuant to a general solicitation advertising the position, (ii) as a result of communications initiated by the employee or service provider of the Company or its Affiliates (and not in response to any solicitation by you) or (iii) where the employment or service relationship with the Company or its Affiliates with respect to such person was terminated more than six months prior to any action by you that would otherwise be a violation of this Section 22(b).

(c) Extent of Restrictions. You acknowledge that the restrictions contained in this Section 22 correctly set forth the understanding of the parties at the time this Agreement is entered into, are reasonable and necessary to protect the legitimate interests of the Company, and that any violation will cause substantial injury to the Company. In the event of any such violation, the Company shall be entitled, in addition to any other remedy, to preliminary or permanent injunctive relief. You waive, to the maximum extent permissible by law, any defenses or other objections to such remedies or the enforceability of this Section 22. To the maximum extent permissible by law, if any court having jurisdiction shall find that any part of the restrictions set forth this Section 22 are unreasonable in any respect, it is the intent of the parties that the restrictions set forth herein shall not be terminated, but that the restrictions set forth in this Section 22 shall remain in full force and effect to the extent (as to time periods and other relevant factors) that the court shall find reasonable.

(d) Limitations. In the event any breach of the covenants set forth in this Section 22 comes to the attention of the Company, this Award and the RSUs granted hereunder that have not at such time been settled shall be immediately forfeited to the Company and the Company it shall take into consideration such breach in determining whether to recommend the grant of any future similar award to you, as a factor weighing against the advisability of granting any such future award to you. However, nothing in this Agreement will prevent you from: (i) making a good faith report of possible violations of applicable law to any governmental agency or entity or (ii) making disclosures that are protected under the whistleblower provisions of applicable law. For the avoidance of doubt, nothing herein shall prevent you from making a disclosure that: (A) is made (1) in confidence to a federal, state or local government official, either directly or indirectly, or to an attorney; and (2) solely for the purpose of reporting or investigating a suspected violation of law; or (B) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. Further, an individual who files a lawsuit for retaliation by an employer of reporting a suspected violation of law may make disclosures without violating this Section 22 to the attorney of the individual and use such information in the court proceeding.

23. Section 409A. It is intended that the RSUs awarded hereunder shall comply with the requirements of Section 409A of the Code (and any regulations and guidelines issued thereunder), and this Agreement shall be interpreted on a basis consistent with such intent. Payments shall only be made on an event and in a manner permitted by Section 409A of the Code. Each payment under this Agreement is considered a separate payment for purposes of Section 409A of the Code. This Agreement may be amended without your consent in any respect deemed by the Committee to be necessary in order to preserve compliance with Section 409A of the Code. All payments to be made upon a termination of employment under this Agreement may only be made upon a "separation from service" under Section 409A of the Code. In no event may you, directly or indirectly, designate

the calendar year of a payment. Notwithstanding anything in this Agreement to the contrary, if you are a “specified employee” under Section 409A of the Code at the time of separation from service and if payment of any amount under this Agreement is required to be delayed for a period of six months after the separation from service pursuant to Section 409A of the Code, payment of such amount shall be delayed as required by Section 409A of the Code, and the accumulated postponed amount shall be paid in a lump sum payment within 10 days after the end of the six-month period. If you die during the postponement period prior to the payment of postponed amount, the accumulated postponed amount shall be paid to the personal representative of your estate within 60 days after the date of your death.

24. Successors. This Agreement shall be binding upon you, your legal representatives, heirs, legatees and distributees, and upon the Company, its successors and assigns.

25. Severability. If any provision of this Agreement is held to be illegal or invalid for any reason, the illegality or invalidity shall not affect the remaining provisions hereof, but such provision shall be fully severable and this Agreement shall be construed and enforced as if the illegal or invalid provision had never been included herein.

26. Company Action. Any action required of the Company shall be by resolution of the Board or by a person or entity authorized to act by resolution of the Board.

27. Headings. The titles and headings of Sections are included for convenience of reference only and are not to be considered in construction of the provisions hereof.

28. Governing Law. All questions arising with respect to the provisions of this Agreement shall be determined by application of the laws of the State of Texas, without giving any effect to any conflict of law provisions thereof, except to the extent Texas state law is preempted by federal law. The obligation of the Company to sell and deliver Shares hereunder is subject to applicable laws and to the approval of any governmental authority required in connection with the authorization, issuance, sale, or delivery of such Shares.

29. Consent to Texas Jurisdiction and Venue. You hereby consent and agree that state courts located in Dallas, Texas and the United States District Court for the Northern District of Texas each shall have personal jurisdiction and proper venue with respect to any dispute between you and the Company arising in connection with the RSUs or this Agreement. In any dispute with the Company, you will not raise, and you hereby expressly waive, any objection or defense to any such jurisdiction as an inconvenient forum.

30. Amendment. This Agreement may be amended the Board or by the Committee at any time (a) if the Board or the Committee determines, in its sole discretion, that amendment is necessary or advisable in light of any addition to or change in any federal or state, tax or securities law or other law or regulation, which change occurs after the Date of Grant and by its terms applies to the Award; or (b) other than in the circumstances described in clause (a) or provided in the Plan, with your consent.

31. The Plan. This Agreement is subject to all the terms, conditions, limitations and restrictions contained in the Plan.

32. Defined Terms.

(a) “**Adverse Change**” means (i) a change in the city in which you are required to work regularly, (ii) a substantial increase in travel requirements of employment, (iii) a substantial reduction in duties of the type previously performed by you, or (iv) a significant reduction in your compensation or benefits (other than bonuses and other discretionary items of compensation) that does not apply generally to employees of the Company or its successor.

(b) “**Affiliate**” has the meaning provided in Rule 12b-2 under the Exchange Act.

(c) “**Beneficial Owner**” has the meaning provided in Rule 13d-3 under the Exchange Act.

(d) “**Cause**” means:

(i) An act or acts of dishonesty on your part constituting a felony or serious misdemeanor and resulting or intended to result directly in gain or personal enrichment at the expense of the Company or any Subsidiary;

(ii) Gross or willful and wanton negligence in the performance of your material and substantial duties of employment with the Company and its Subsidiaries; or

(iii) Your conviction of a felony involving moral turpitude.

The existence of Cause shall be determined by the Committee, in its sole and absolute discretion.

(e) “**Change in Control**” means the occurrence of any of the following after the Date of Grant:

(i) Any Person, other than (A) the Company or any of its Subsidiaries, (B) a trustee or other fiduciary holding securities under an employee benefit plan of the Company or any of its Affiliates, (C) an underwriter temporarily holding securities pursuant to an offering of such securities, or (D) a corporation owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their ownership of stock of the Company, is or becomes the Beneficial Owner, directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such Person any securities acquired directly from the Company or its Affiliates) representing more than 40% of the combined voting power of the Company’s then outstanding securities, or more than 40% of the then outstanding common stock of the Company, excluding any Person who becomes such a Beneficial Owner in connection with a transaction described in Section 32(e)(iii)(1) below.

(ii) The individuals who as of the Date of Grant constitute the Board and any New Director cease for any reason to constitute a majority of the Board.

(iii) There is consummated a merger or consolidation of the Company or any direct or indirect Subsidiary of the Company with any other corporation, except if:

(1) the merger or consolidation results in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or any parent thereof) at least 60% of the combined voting power of the voting securities of the Company or such surviving entity or any parent thereof outstanding immediately after such merger or consolidation; or

(2) the merger or consolidation is effected to implement a recapitalization of the Company (or similar transaction) in which no Person is or becomes the Beneficial Owner, directly, or indirectly, of securities of the Company (not including in the securities beneficially owned by such Person any securities acquired directly from the Company or its Affiliates other than in connection with the acquisition by the Company or its Affiliates of a business) representing more than 40% of the combined voting power of the Company's then outstanding securities.

(iv) The stockholders of the Company approve a plan of complete liquidation or dissolution of the Company or an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets, other than a sale or disposition by the Company of all or substantially all of the Company's assets to an entity at least 60% of the combined voting power of the voting securities of which is owned by the stockholders of the Company in substantially the same proportions as their ownership of the Company immediately prior to such sale.

(f) "**Division**" means each of the refining, midstream or lubricants & specialties segments of the Company, or any other segment or significant line of business identified by the Committee as a "**Division**."

(g) "**New Director**" means an individual whose election by the Board or nomination for election by the Company's stockholders was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the Date of Grant or whose election or nomination for election was previously so approved or recommended. However, "New Director" shall not include a director whose initial assumption of office is in connection with an actual or threatened election contest, including but not limited to a consent solicitation relating to the election of directors of the Company.

(h) "**Person**" has the meaning given in section 3(a)(9) of the Exchange Act as modified and used in sections 13(d) and 14(d) of the Exchange Act.

(i) "**Retirement**" means your termination of employment other than for Cause on or after the date on which you: (i) have achieved ten years of continuous service with the Company, and (ii) are age sixty (60).

(j) “**Sale of a Division**” means a sale or disposition of a substantial portion of a Division (other than a sale or disposition to the Company or any of its Subsidiaries) or any other transaction resulting in the loss of control by the Company and its Subsidiaries over a substantial portion of a Division (including a public offering of a Division where the Company does not control the Division following such offering), in each case, as determined by the Committee in its sole discretion.

(k) “**Service Period**” means the period of time beginning on the Date of Grant specified in the Notice of Grant and ending on the final vesting date specified in the Notice of Grant.

(l) “**Special Involuntary Termination**” means (i) the occurrence of (A) or (B) below within 60 days prior to, or at any time after, a Change in Control, where (A) is termination of your employment with the Company (including Subsidiaries of the Company) by the Company (or any Subsidiary) for any reason other than Cause and (B) is your resignation from employment with the Company (including Subsidiaries of the Company) within 90 days after an Adverse Change by the Company (including Subsidiaries of the Company) in the terms of your employment or (ii) the occurrence of (A) or (B) below within 60 days prior to, or within 90 days after, a Sale of a Division, where more than 50% of your full-time service to the Company is attributable to services to the Division being sold, as determined by the Company in its sole discretion, and provided that the purchaser in any Sale of a Division has not agreed to assume this Award or to substitute a similar award under the purchaser’s equity compensation plan for your Award and where (A) is termination of your employment with the Company (including Subsidiaries of the Company) by the Company (or any Subsidiary) for any reason other than Cause and (B) is your resignation from employment with the Company (including Subsidiaries of the Company) within 90 days after an Adverse Change by the Company (including Subsidiaries of the Company) in the terms of your employment.

[Remainder of page intentionally left blank]

HOLLYFRONTIER CORPORATION

PERFORMANCE SHARE UNIT AGREEMENT

This Performance Share Unit Agreement (the “*Agreement*”) is made and entered into by and between HollyFrontier Corporation, a Delaware corporation (the “*Company*”), and you. This Agreement is entered into as of the ____ day of _____, 20__ (the “*Date of Grant*”).

WITNESSETH:

WHEREAS, the Company has adopted the Plan (as defined below) to attract, retain and motivate employees, directors and consultants;

WHEREAS, the Compensation Committee (the “*Committee*”) believes that entering into this Agreement with you is consistent with the stated purposes for which the Plan was adopted; and

WHEREAS, a copy of the Plan has been furnished to you and shall be deemed a part of this Agreement (“*Agreement*”) as if fully set forth herein and the terms capitalized but not defined herein or on Appendix A attached hereto shall have the meanings set forth in the Plan.

NOW, THEREFORE, in consideration of the services rendered by you, the parties agree as follows:

1. **Grant.** The Company hereby grants to you as of the Date of Grant a Performance Award of ____ shares of Phantom Stock consisting of performance share units (the “*Performance Share Units*”), subject to the terms and conditions set forth in this Agreement. Depending on the Company’s performance, you may earn from zero percent (0%) to two hundred percent (200%) of the Performance Share Units, based on the Company’s performance on two measures set forth in Section 3 over a designated performance period compared to the performance of a group of peer companies selected by the Committee.

2. **The Plan.** The Performance Share Units granted to you by this Agreement shall be granted under HollyFrontier Corporation Long-Term Incentive Compensation Plan (the “*Plan*”).

3. **Performance Period and Measures.** This Section 3 sets forth the details of the Performance Award for the “*Performance Period*,” which begins on October 1 of the calendar year of the Date of Grant (“*Year One*”) and ends on September 30 of the third calendar year following Year One (“*Year Three*”). If you are employed by the Company or its Subsidiaries on December 1 of Year Three you will be entitled to a payment in Shares in the amount determined under Section 3(b) or pursuant to Section 4(a) or (b), as applicable, and payable at the time indicated in Section 5. The period of time beginning on the Date of Grant and ending on December 1 of Year Three is referred to herein as the “*Service Period*.”

(a) **Performance Measures.** The number of Performance Share Units earned for the Performance Period is determined by comparing the Company’s performance on the two measures listed below over the Performance Period to the performance of the Peer Group over the Performance

Period on the same two measures. The two performance measures are Return on Capital Employed and Total Shareholder Return.

(b) Shares Payable. The number of Shares payable is equal to the result of multiplying the total number of Performance Share Units awarded by the Performance Unit Payout Percentage. The number of Shares of Common Stock payable will be rounded down to the nearest Share. No fractional Shares of Common Stock will be issued pursuant to this Agreement.

4. Termination of Employment.

(a) In the event that your employment with the Company or its Subsidiaries terminates prior to December 1 of Year Three (i) due to your death, (ii) on account of your total and permanent disability, as determined by the Committee in its sole discretion or (iii) as a result of a Special Involuntary Termination, the Performance Share Units will become immediately vested and nonforfeitable assuming a Performance Unit Payout Percentage of one hundred percent (100%) instead of the Performance Unit Payout Percentage that would otherwise be determined at the end of the Performance Period in accordance with Section 3.

(b) If prior to December 1 of Year Three you separate from employment due to Retirement, then you shall forfeit a number of the Performance Share Units equal to the number of Performance Share Units specified in Section 1 hereof times the percentage that (A) the number of days beginning on the day on which the date of such termination occurs and ending on the last day of the Service Period, (B) bears to the total number of days in the Service Period. In the event of such forfeiture, the number of Shares payable hereunder shall be equal to a Performance Unit Payout Percentage of one hundred percent (100%) instead of the Performance Unit Payout Percentage that would otherwise be determined at the end of the Performance Period in accordance with Section 3, and such Performance Share Units will immediately become earned Performance Share Units and paid to you as provided in Section 5.

(c) If, prior to December 1 of Year Three you voluntarily separate from employment (other than due to your Retirement) or are terminated by action of the Company (other than a Special Involuntary Termination), including if you are terminated by the Company for Cause, all Performance Share Units awarded hereunder will be forfeited.

(d) With respect to the Performance Share Units, the Company may, in its sole discretion, determine that if you are on leave of absence for any reason you will be considered to still be in the employ of, or providing services to, the Company, provided that your rights to the Performance Share Units, if any, during a Performance Period in which such a leave of absence occurs will be prorated to reflect the period of time during the Performance Period that you provided actual services to the Company.

5. Payment of Performance Share Units. The number of Shares payable hereunder shall be paid as soon as reasonably practicable after December 1 of Year Three but in no event later than two and one-half months following the end of Year Three, in the amount determined in accordance with Section 3; provided, however, in the event of your termination of employment with the Company or its Subsidiaries pursuant to Section 4(a) or (b) the Shares shall be paid within thirty

(30) days following such termination of employment. Such payment will be subject to withholding for taxes and other applicable payroll adjustments. The Committee's determination of the amount payable shall be binding upon you and your beneficiary or estate. The value of such Shares shall not bear any interest owing to the passage of time. The number of Shares of Common Stock payable will be rounded down to the nearest Share. No fractional Shares of Common Stock will be issued pursuant to this Agreement.

6. Limited Stockholder Rights. The Performance Share Units granted pursuant to this Agreement do not and shall not entitle you to any rights of a holder of Shares, including the right to vote, prior to the date Shares are issued to you in settlement of the Performance Share Units pursuant to Section 5; provided, however, that in the event the Company declares and pays a dividend in respect of its outstanding Shares and, on the record date of that dividend, you hold Performance Share Units granted pursuant to this Agreement that have not been paid, the Company shall pay to you an amount in cash equal to the cash dividends you would have received if you were the holder of record as of such record date, of the number of Shares equal to the number of Performance Share Units specified in Section 1 hereof, such payment shall be made promptly following the date that the Company pays such dividend to its shareholders generally (however, in no event shall the payment be paid later than thirty (30) days following the date on which the Company pays such dividend to its shareholders generally). Your rights with respect to the Performance Share Units shall remain forfeitable at all times prior to the date on which the rights become vested and earned as set forth in Section 3, as adjusted by Section 4(a), as applicable.

7. Adjustment in Number of Performance Share Units. The number of Performance Share Units subject to this Agreement shall be adjusted to reflect stock splits or other changes in the capital structure of the Company, all in accordance with the Plan. In the event that the outstanding Shares of the Company are exchanged for a different number or kind of shares or other securities, or if additional, new or different shares are distributed with respect to the Shares through merger, consolidation, or sale of all or substantially all of the assets of the Company, there shall be substituted for the Shares under the Performance Share Units subject to this Agreement the appropriate number and kind of shares of new or replacement securities as determined in the sole discretion of the Committee, subject to the terms and provisions of the Plan.

8. Compliance with Securities Law. Notwithstanding any provision of this Agreement to the contrary, the issuance of Shares will be subject to compliance with all applicable requirements of federal, state, or foreign law with respect to such securities and with the requirements of any stock exchange or market system upon which the Shares may then be listed. No Shares will be issued hereunder if such issuance would constitute a violation of any applicable federal, state, or foreign securities laws or other law or regulations or the requirements of any stock exchange or market system upon which the Shares may then be listed. In addition, Shares will not be issued hereunder unless (2) a registration statement under the Securities Act, is at the time of issuance in effect with respect to the Shares issued or (2) in the opinion of legal counsel to the Company, the Shares issued may be issued in accordance with the terms of an applicable exemption from the registration requirements of the Securities Act. The inability of the Company to obtain from any regulatory body having jurisdiction the authority, if any, deemed by the Company's legal counsel to be necessary to the lawful issuance and sale of any Shares subject to the Award will relieve the

Company of any liability in respect of the failure to issue such Shares as to which such requisite authority has not been obtained. As a condition to any issuance hereunder, the Company may require you to satisfy any qualifications that may be necessary or appropriate to evidence compliance with any applicable law or regulation and to make any representation or warranty with respect to such compliance as may be requested by the Company. From time to time, the Board and appropriate officers of the Company are authorized to take the actions necessary and appropriate to file required documents with governmental authorities, stock exchanges, and other appropriate Persons to make Shares available for issuance.

9. Payment of Taxes. The Company may require you to pay to the Company (or the Company's Subsidiary if you are an employee of a Subsidiary of the Company), an amount the Company deems necessary to satisfy its (or its Subsidiary's) current or future withholding with respect to federal, state or local income or other taxes that you incur as a result of the Award. With respect to any tax withholding and to the extent permissible pursuant to Rule 16b-3 under the Exchange Act, you may (a) direct the Company to withhold from the Shares to be issued to you under this Agreement the number of Shares necessary to satisfy the Company's withholding of such taxes, which determination will be based on the Shares' Fair Market Value at the time such determination is made; (b) deliver to the Company Shares sufficient to satisfy the Company's tax withholding, based on the Shares' Fair Market Value at the time such determination is made; or (c) deliver cash to the Company sufficient to satisfy its tax withholding obligations. If you desire to elect to use the stock withholding option described in subparagraph (a), you must make the election at the time and in the manner the Company prescribes and the maximum number of Shares that may be so withheld or surrendered shall be a number of Shares that have an aggregate Fair Market Value on the date of withholding or repurchase of up to the aggregate amount of such tax liabilities determined based on the greatest withholding rates for federal, state, foreign and/or local tax purposes, including payroll taxes, that may be utilized without creating adverse accounting treatment with respect to the Award. The Company, in its discretion, may deny your request to satisfy its tax withholding obligations using a method described under subparagraph (a) or (b). In the event the Company determines that the aggregate Fair Market Value of the Shares withheld as payment of any tax withholding obligation is insufficient to discharge that tax withholding obligation, then you must pay to the Company, in cash, the amount of that deficiency immediately upon the Company's request.

10. Right of the Company and Subsidiaries to Terminate Services. Nothing in this Agreement confers upon you the right to continue in the employ of or performing services for the Company or any Subsidiary, or interfere in any way with the rights of the Company or any Subsidiary to terminate your employment or service relationship at any time.

11. Furnish Information. You agree to furnish to the Company all information requested by the Company to enable it to comply with any reporting or other requirements imposed upon the Company by or under any applicable statute or regulation.

12. Remedies. The Company shall be entitled to recover from you reasonable attorneys' fees incurred in connection with the successful enforcement of the terms and provisions of this

Agreement whether by an action to enforce specific performance or for damages for its breach or otherwise.

13. No Liability for Good Faith Determinations. The Company and the members of the Board shall not be liable for any act, omission or determination taken or made in good faith with respect to this Agreement or the Performance Share Units granted hereunder.

14. Execution of Receipts and Releases. Any payment of cash or any issuance or transfer of Shares or other property to you, or to your legal representative, heir, legatee or distributee, in accordance with the provisions hereof, will, to the extent thereof, be in full satisfaction of all claims of such Persons hereunder. In addition, the Company may require you or your legal representative, heir, legatee or distributee, as a condition precedent to such payment or issuance, to execute a general release of all claims in favor of the Company, any Affiliate and the employees, officers, stockholders or board members of the foregoing in such form as the Company may determine. In the event the period you are given to review, execute and revoke a release provided pursuant to this Section 14 spans two calendar years, any payment to you pursuant to this Agreement will be made in the second calendar year.

15. Clawback. This Agreement is subject to any written clawback policies that the Company, with the approval of the Board or the Committee, may adopt. Any such policy may subject your Performance Share Units and amounts paid or realized with respect to the Performance Share Units under this Agreement to reduction, cancelation, forfeiture or recoupment if certain specified events or wrongful conduct occur, including but not limited to an accounting restatement due to the Company's material noncompliance with financial reporting regulations or other events or wrongful conduct specified in any such clawback policy adopted to conform to the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 and rules promulgated thereunder by the Securities and Exchange Commission and that the Company determines should apply to this Agreement.

16. No Guarantee of Interests. The Board and the Company do not guarantee the Shares from loss or depreciation.

17. Company Records. Records of the Company or its Subsidiaries regarding your period of service, termination of service and the reason(s) therefor, leaves of absence, re-employment, and other matters shall be conclusive for all purposes hereunder, unless determined by the Company to be incorrect.

18. Notice. All notices required or permitted under this Agreement must be in writing and personally delivered or sent by mail and shall be deemed to be delivered on the date on which it is actually received by the person to whom it is properly addressed or if earlier the date it is sent via certified United States mail.

19. Waiver of Notice. Any person entitled to notice hereunder may waive such notice in writing.

20. Certain Covenants.

(a) Protection of Confidential Information. You acknowledge that in the course of your employment with the Company, you have obtained and will continue to obtain confidential, proprietary and/or trade secret information of the Company, relating to, among other things, (i) programs, strategies, information or materials related to the business, services, manner of operation and activities of the Company, (ii) customers or prospects of the Company, (iii) computer hardware or software used in the course of the Company business, and (iv) marketing strategies or other activities of the Company from or on behalf of any of its clients, (hereinafter collectively referred to as “**Confidential Information**”); provided, however, that, for purposes of this Agreement, the term Confidential Information shall not include any information that is known generally to the public or accessible to a third party on an unrestricted basis. You recognize that such Confidential Information has been developed by the Company at great expense; is a valuable, special and unique asset of the Company which it uses in its business to obtain competitive advantage over its competitors; is and shall be proprietary to the Company; is and shall remain the exclusive property of the Company; and, is not to be transmitted to any other person, entity or thing. Accordingly, as a material inducement to the Company to enter into this Agreement with you and in partial consideration for the granting of the Award, you hereby:

(i) warrant and represent that you have not disclosed, copied, disseminated, shared or transmitted any Confidential Information to any person, firm, corporation or entity for any reason or purpose whatsoever, except in the course of carrying out your duties and responsibilities of employment with the Company;

(ii) agree not to so disclose, copy, disseminate, share or transmit any Confidential Information in the future;

(iii) agree not to make use of any Confidential Information for your own purposes or for the benefit of any person, firm, corporation or other entity, except that, in the course of carrying out the duties and responsibilities of your employment, you may use Confidential Information for the benefit of any Affiliate of the Company;

(iv) warrant and represent that all Confidential Information in your possession, custody or control that is or was a property of the Company has been or shall be returned to the Company by or on the date of the your termination; and

(v) agree that you will not reveal, or cause to be revealed, this Agreement or its terms to any third party (other than your attorney, tax advisor, or spouse on the condition that they also not reveal this Agreement or its terms to any other person), except as required by law.

Your covenants in this Section 20(a) are in addition to, and do not supercede, your obligations under any confidentiality, invention or trade secret agreements executed by you, or any laws protecting the Confidential Information.

(b) Non-Solicitation. You agree that during the term of your employment with the Company or its Affiliates and for a period of one year following your termination of employment with the Company and its Affiliates, you will not, directly or indirectly, for your benefit or for the benefit of others, solicit any employee or service provider of the Company or its Affiliates to

terminate his or her employment or his, her or its service relationship with the Company or its Affiliates; provided, however, that (y) after the termination of your employment for any reason, such employees and service providers shall only include such employees and service providers that you directly worked with in the twelve months preceding the date of termination or your employment, and (z) it will not constitute a violation of this Section 20(b) if an employee or service provider of the Company or its Affiliates accepts employment or a service relationship with a Person not affiliated with the Company or its Affiliates (i) pursuant to a general solicitation advertising the position, (ii) as a result of communications initiated by the employee or service provider of the Company or its Affiliates (and not in response to any solicitation by you) or (iii) where the employment or service relationship with the Company or its Affiliates with respect to such person was terminated more than six months prior to any action by you that would otherwise be a violation of this Section 20(b).

(c) Extent of Restrictions. You acknowledge that the restrictions contained in this Section 20 correctly set forth the understanding of the parties at the time this Agreement is entered into, are reasonable and necessary to protect the legitimate interests of the Company, and that any violation will cause substantial injury to the Company. In the event of any such violation, the Company shall be entitled, in addition to any other remedy, to preliminary or permanent injunctive relief. You waive, to the maximum extent permissible by law, any defenses or other objections to such remedies or the enforceability of this Section 20. To the maximum extent permissible by law, if any court having jurisdiction shall find that any part of the restrictions set forth this Section 20 are unreasonable in any respect, it is the intent of the parties that the restrictions set forth herein shall not be terminated, but that the restrictions set forth in this Section 20 shall remain in full force and effect to the extent (as to time periods and other relevant factors) that the court shall find reasonable.

(d) Limitations. In the event any breach of the covenants set forth in this Section 20 comes to the attention of the Company, this Award and the Performance Share Units granted hereunder that have not at such time been settled shall be immediately forfeited to the Company and the Company it shall take into consideration such breach in determining whether to recommend the grant of any future similar award to you, as a factor weighing against the advisability of granting any such future award to you. However, nothing in this Agreement will prevent you from: (i) making a good faith report of possible violations of applicable law to any governmental agency or entity or (ii) making disclosures that are protected under the whistleblower provisions of applicable law. For the avoidance of doubt, nothing herein shall prevent you from making a disclosure that: (A) is made (1) in confidence to a federal, state or local government official, either directly or indirectly, or to an attorney; and (2) solely for the purpose of reporting or investigating a suspected violation of law; or (B) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. Further, an individual who files a lawsuit for retaliation by an employer of reporting a suspected violation of law may make disclosures without violating this Section 20 to the attorney of the individual and use such information in the court proceeding.

21. Successors. This Agreement shall be binding upon you, your legal representatives, heirs, legatees and distributees, and upon the Company, its successors and assigns.

22. Severability. If any provision of this Agreement is held to be illegal or invalid for any reason, the illegality or invalidity shall not affect the remaining provisions hereof, but such provision shall be fully severable and this Agreement shall be construed and enforced as if the illegal or invalid provision had never been included herein.

23. Company Action. Any action required of the Company shall be by resolution of the Board or by a person or entity authorized to act by resolution of the Board.

24. Headings. The titles and headings of Sections are included for convenience of reference only and are not to be considered in construction of the provisions hereof.

25. Governing Law. All questions arising with respect to the provisions of this Agreement shall be determined by application of the laws of Texas, without giving any effect to any conflict of law provisions thereof, except to the extent Texas state law is preempted by federal law. The obligation of the Company to sell and deliver Shares hereunder is subject to applicable laws and to the approval of any governmental authority required in connection with the authorization, issuance, sale, or delivery of such Shares.

26. Consent to Texas Jurisdiction and Venue. You hereby consent and agree that state courts located in Dallas, Texas and the United States District Court for the Northern District of Texas each shall have personal jurisdiction and proper venue with respect to any dispute between you and the Company arising in connection with the Performance Share Units or this Agreement. In any dispute with the Company, you will not raise, and you hereby expressly waive, any objection or defense to any such jurisdiction as an inconvenient forum.

27. Amendment. This Agreement may be amended the Board or by the Committee at any time (a) if the Board or the Committee determines, in its sole discretion, that amendment is necessary or advisable in light of any addition to or change in any federal or state, tax or securities law or other law or regulation, which change occurs after the Date of Grant and by its terms applies to the Award; or (b) other than in the circumstances described in clause (a) or provided in the Plan, with your consent.

28. The Plan. This Agreement is subject to all the terms, conditions, limitations and restrictions contained in the Plan.

29. Conflict. In the event the terms of this Agreement contradict the terms of any change in control agreement between you and the Company, the terms of this Agreement shall govern, subject to compliance with Section 409A of the Code.

30. Section 409A. It is intended that the Performance Share Units awarded hereunder shall comply with the requirements of Section 409A of the Code (and any regulations and guidelines issued thereunder), and this Agreement shall be interpreted on a basis consistent with such intent. Payments shall only be made on an event and in a manner permitted by Section 409A of the Code. Each payment under this Agreement is considered a separate payment for purposes of Section 409A of the Code. This Agreement may be amended without your consent in any respect deemed by the Committee to be necessary in order to preserve compliance with Section 409A of the Code. All

payments to be made upon a termination of employment under this Agreement may only be made upon a “separation from service” under Section 409A of the Code. In no event may you, directly or indirectly, designate the calendar year of a payment. Notwithstanding anything in this Agreement to the contrary, if you are a “specified employee” under Section 409A of the Code at the time of separation from service and if payment of any amount under this Agreement is required to be delayed for a period of six months after the separation from service pursuant to Section 409A of the Code, payment of such amount shall be delayed as required by Section 409A of the Code, and the accumulated postponed amount shall be paid in a lump sum payment within 10 days after the end of the six-month period. If you die during the postponement period prior to the payment of postponed amount, the accumulated postponed amount shall be paid to the personal representative of your estate within 60 days after the date of your death.

31. Nontransferability of Agreement. This Agreement and all rights under this Agreement shall not be transferable by you during your life other than by will or pursuant to applicable laws of descent and distribution. Any of your rights and privileges in connection herewith shall not be transferred, assigned, pledged or hypothecated by you or by any other person or persons, in any way, whether by operation of law, or otherwise, and shall not be subject to execution, attachment, garnishment or similar process. In the event of any such occurrence, this Agreement shall automatically be terminated and shall thereafter be null and void. Notwithstanding the foregoing, all or some of the Performance Share Units or rights under this Agreement may be transferred to a spouse pursuant to a domestic relations order issued by a court of competent jurisdiction.

HollyFrontier Corporation

Richard L. Voliva III, Executive Vice President and Chief Financial Officer

Appendix A

Defined Terms

For purposes of the Agreement, the following terms shall have the meanings assigned below:

“**Adverse Change**” means (i) a change in the city in which you are required to work regularly, (ii) a substantial increase in travel requirements of employment, (iii) a substantial reduction in duties of the type previously performed by you, or (iv) a significant reduction in your compensation or benefits (other than bonuses and other discretionary items of compensation) that does not apply generally to employees of the Company or its successor.

“**Affiliate**” has the meaning provided in Rule 12b-2 under the Exchange Act.

“**Beneficial Owner**” has the meaning provided in Rule 13d-3 under the Exchange Act.

“**Cause**” means:

(i) An act or acts of dishonesty on your part constituting a felony or serious misdemeanor and resulting or intended to result directly in gain or personal enrichment at the expense of the Company;

(ii) Gross or willful and wanton negligence in the performance of your material and substantial duties of employment with the Company; or

(iii) Your conviction of a felony involving moral turpitude.

The existence of Cause shall be determined by the Committee, in its sole and absolute discretion.

“**Change in Control**” means the occurrence of any of the following after the Date of Grant:

(i) Any Person, other than (A) the Company or any of its Subsidiaries, (B) a trustee or other fiduciary holding securities under an employee benefit plan of the Company or any of its Affiliates, (C) an underwriter temporarily holding securities pursuant to an offering of such securities, or (D) a corporation owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their ownership of stock of the Company, is or becomes the Beneficial Owner, directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such Person any securities acquired directly from the Company or its Affiliates) representing more than 40% of the combined voting power of the Company’s then outstanding securities, or more than 40% of the then outstanding common stock of the Company, excluding any Person who becomes such a Beneficial Owner in connection with a transaction described in clause (iii)(A) below.

(ii) The individuals who as of the Date of Grant constitute the Board and any New Director cease for any reason to constitute a majority of the Board.

(iii) There is consummated a merger or consolidation of the Company or any direct or indirect Subsidiary of the Company with any other corporation, except if:

(A) the merger or consolidation results in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or any parent thereof) at least 60% of the combined voting power of the voting securities of the Company or such surviving entity or any parent thereof outstanding immediately after such merger or consolidation; or

(B) the merger or consolidation is effected to implement a recapitalization of the Company (or similar transaction) in which no Person is or becomes the Beneficial Owner, directly, or indirectly, of securities of the Company (not including in the securities beneficially owned by such Person any securities acquired directly from the Company or its Affiliates other than in connection with the acquisition by the Company or its Affiliates of a business) representing more than 40% of the combined voting power of the Company's then outstanding securities.

(iv) The stockholders of the Company approve a plan of complete liquidation or dissolution of the Company or an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets, other than a sale or disposition by the Company of all or substantially all of the Company's assets to an entity at least 60% of the combined voting power of the voting securities of which is owned by the stockholders of the Company in substantially the same proportions as their ownership of the Company immediately prior to such sale.

"Division" means each of the refining, midstream or lubricants & specialties segments of the Company, or any other segment or significant line of business identified by the Committee as a **"Division."**

"New Director" means an individual whose election by the Board or nomination for election by the Company's stockholders was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the Date of Grant or whose election or nomination for election was previously so approved or recommended. However, "New Director" shall not include a director whose initial assumption of office is in connection with an actual or threatened election contest, including but not limited to a consent solicitation relating to the election of directors of the Company.

"Peer Group" means CVR Energy Inc., Delek U.S. Holdings, Inc., Marathon Petroleum Corporation, PBF Energy Corporation, Phillips 66 and Valero Energy Corporation. If a member of the Peer Group ceases to be a public company during the Performance Period (whether by merger, consolidation, liquidation or otherwise) or it fails to file financial statements with the SEC in a timely manner, it shall be treated as if it had not been a Peer Group member for the entire Performance Period.

“Performance Unit Payout Percentage” means the percentile obtained by dividing the sum of (1) the ROCE Performance Percentage and (2) the TSR Performance Percentage, by two.

“Person” has the meaning given in section 3(a)(9) of the Exchange Act as modified and used in sections 13(d) and 14(d) of the Exchange Act.

“Retirement” means your termination of employment other than for Cause on or after the date on which you: (i) have achieved ten years of continuous service with the Company, and (ii) are age sixty (60).

“Return on Capital Employed,” or ROCE, is defined as (i) operating income before depreciation and amortization divided by (ii) the sum of shareholders’ equity, plus minority interest, plus debt, less goodwill and intangible assets, less cash and marketable securities at the beginning of the Performance Period; provided, that such metric will be calculated to exclude (a) any gains or losses attributable to FIFO inventory valuation (including lower of cost or market adjustments), (b) the effects of impairment expense related to intangible assets, including goodwill, and (c) non-cash asset writedowns; provided, further, the Committee may exclude the impact of any of the following events or occurrences (with respect to the Company or any member of the Peer Group) which the Committee determines should appropriately be excluded: (A) asset write-downs; (B) litigation, claims, judgments or settlements; (C) the effect of changes in tax law or other such laws or regulations affecting reported results; (D) accruals for reorganization and restructuring programs; (E) any extraordinary, unusual or nonrecurring items as described in the Accounting Standards Codification Topic 225, as the same may be amended or superseded from time to time; (F) any change in accounting principles as defined in the Accounting Standards Codification Topic 250, as the same may be amended or superseded from time to time; (G) any loss from a discontinued operation as described in the Accounting Standards Codification Topic 360, as the same may be amended or superseded from time to time; (H) adjustments to ROCE of the Company or any member (or multiple members) of the Peer Group to reflect mergers, acquisitions, purchases or similar transactions as necessary to prevent the increase or decrease of the ROCE of the Company or member of the Peer Group related to the merger, acquisition, purchase or similar transaction; (I) third party expenses associated with acquisitions; and (J) to the extent set forth with reasonable particularity in connection with the establishment of performance goals, any other extraordinary events or occurrences identified by the Committee.

“ROCE Performance Percentage” means the percentage set forth in the table below determined in accordance with the percentile ranking of the Return on Capital Employed of the Company compared to the ROCE of each entity in the Peer Group achieved during the Performance Period:

Ranking of the Company within Peer Group	ROCE Performance Percentage
90 th Percentile or Better	Maximum (200% of Target)
<90 th Percentile But Better than 50 th Percentile	Interpolate between 100% and 200%
50 th Percentile	Target (100%)
<50 th Percentile But Better than 25 th Percentile	Interpolate between 25% and 100%
25 th Percentile	25% of Target (Minimum)
<25 th Percentile	Zero

“**SEC**” means the Securities and Exchange Commission.

“**Sale of a Division**” means a sale or disposition of a substantial portion of a Division (other than a sale or disposition to the Company or any of its Subsidiaries) or any other transaction resulting in the loss of control by the Company and its Subsidiaries over a substantial portion of a Division (including a public offering of a Division where the Company does not control the Division following such offering), in each case, as determined by the Committee in its sole discretion.

“**Special Involuntary Termination**” means (i) the occurrence of (A) or (B) below within 60 days prior to, or at any time after, a Change in Control, where (A) is termination of your employment with the Company (including Subsidiaries of the Company) by the Company for any reason other than Cause and (B) is your resignation from employment with the Company (including Subsidiaries of the Company) within 90 days after an Adverse Change by the Company (including Subsidiaries of the Company) in the terms of your employment or (ii) the occurrence of (A) or (B) below within 60 days prior to, or within 90 days after, a Sale of a Division, where more than 50% of your full-time service to the Company is attributable to services to the Division being sold, as determined by the Company in its sole discretion, and provided that the purchaser in any Sale of a Division has not agreed to assume this Award or to substitute a similar award under the purchaser’s equity compensation plan for your Award and where (A) is termination of your employment with the Company (including Subsidiaries of the Company) by the Company (or any Subsidiary) for any reason other than Cause and (B) is your resignation from employment with the Company (including Subsidiaries of the Company) within 90 days after an Adverse Change by the Company (including Subsidiaries of the Company) in the terms of your employment.

“**Total Shareholder Return**” or TSR, means (A) the sum of (1) share price appreciation (calculated as the closing share price of the Common Stock for the last business day of the Performance Period less the closing share price of the Common Stock for the first business day of the Performance Period), plus (2) cumulative dividends during the Performance Period, plus (3) any additional value or compensation received by shareholders such as stock received from spinoffs, divided by (B) the closing share price of the Common Stock on the first business day of the Performance Period, adjusted to take into account any stock splits, changes in capitalization or other similar events. Such determinations and adjustments shall be made by the Committee in its discretion.

“**TSR Performance Percentage**” means the percentage set forth in the table below determined in accordance with the percentile ranking of the Total Shareholder Return of the

Company compared to the TSR of each entity in the Peer Group achieved during the Performance Period:

Ranking of the Company within Peer Group	TSR Performance Percentage
90 th Percentile or Better	Maximum (200% of Target)
<90 th Percentile But Better than 50 th Percentile	Interpolate between 100% and 200%
50 th Percentile	Target (100%)
<50 th Percentile But Better than 25 th Percentile	Interpolate between 25% and 100%
25 th Percentile	25% of Target (Minimum)
<25 th Percentile	Zero

CERTIFICATION

I, Michael C. Jennings, certify that:

1. I have reviewed this quarterly report on Form 10-Q of HollyFrontier Corporation;
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 officers 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 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 officers 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 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

May 7, 2020

/s/ Michael C. Jennings

Michael C. Jennings

Chief Executive Officer and President

CERTIFICATION

I, Richard L. Voliva III, certify that:

1. I have reviewed this quarterly report on Form 10-Q of HollyFrontier Corporation;
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 officers 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 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 officers 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 registrant's board of directors (or persons performing the equivalent functions):
 - a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 7, 2020

/s/ Richard L. Voliva III

Richard L. Voliva III

Executive Vice President and Chief Financial Officer

**CERTIFICATION OF CHIEF EXECUTIVE
OFFICER UNDER SECTION 906 OF THE
SARBANES OXLEY ACT OF 2002, 18 U.S.C. § 1350**

In connection with the accompanying report on Form 10-Q for the quarterly period ended March 31, 2020 and filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Michael C. Jennings, Chief Executive Officer of HollyFrontier Corporation (the "Company") hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 7, 2020

/s/ Michael C. Jennings

Michael C. Jennings

Chief Executive Officer and President

**CERTIFICATION OF CHIEF FINANCIAL
OFFICER UNDER SECTION 906 OF THE
SARBANES OXLEY ACT OF 2002, 18 U.S.C. § 1350**

In connection with the accompanying report on Form 10-Q for the quarterly period ended March 31, 2020 and filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Richard L. Voliva III, Chief Financial Officer of HollyFrontier Corporation (the "Company") hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 7, 2020

/s/ Richard L. Voliva III

Richard L. Voliva III

Executive Vice President and Chief Financial Officer